



**NORTH SLOPE SUBSISTENCE
REGIONAL ADVISORY COUNCIL
Meeting Materials**

*February 22 - 23, 2023
Kaktovik*



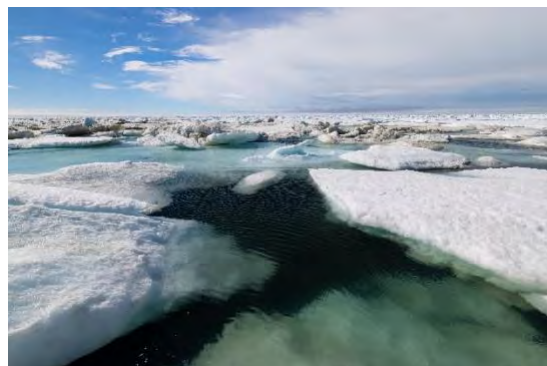
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On the cover...

Slabs of sea ice in the Chukchi Sea near Utqiagvik.



Cover photo by Lisa Hupp, USFWS

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NORTH SLOPE SUBSISTENCE REGIONAL ADVISORY COUNCIL

Kaktovik City Hall
Kaktovik, Alaska
February 22-23, 2023
Convening at 9:00 a.m. daily

TELECONFERENCE: call the toll free number: 1-866-801-9605, then when prompted enter the passcode: 29886091

PUBLIC COMMENTS: Public comments are welcome for each agenda item and for regional concerns not included on the agenda. The Council appreciates hearing your concerns and knowledge. The Chair will identify the opportunities to provide public comments. Please fill out a comment form to be recognized by the Council chair. Time limits may be set to provide opportunity for all to testify and keep the meeting on schedule.

PLEASE NOTE: These are estimated times and the agenda is subject to change. Contact staff for the current schedule. Evening sessions are at the call of the chair.

AGENDA

*Asterisk identifies action item.

- 1. **Invocation**
- 2. **Call to Order** (*Chair*)
- 3. **Roll Call and Establish Quorum** (*Secretary or DFO*) 4
- 4. **Meeting Announcements** (*DFO*)
- 5. **Welcome and Introductions** (*Chair*) 1
- 6. **Review and Adopt Agenda*** (*Chair*)
- 7. **Election of Officers***
 - Chair (*Council Coordinator*)
 - Vice-Chair (*New Chair*)
 - Secretary (*New Chair*)
- 8. **Review and Approve Previous Meeting Minutes*** (*Chair*) 5
- 9. **Reports**
 - Council Member Reports
 - Chair’s Report
- 10. **Public and Tribal Comment on Non-Agenda Items** (available each morning)

11. Old Business (Chair)

- a. Western Arctic Caribou Herd update
- b. Follow up on North American Caribou Workshop and Arctic Ungulate Conference
May 2023 (OSM) 13

12. New Business (Chair)

- a. Wildlife Closure Reviews

Regional Review

- WCR24-31** Unit 26B, remainder and Unit 26C closed to moose hunting except by Kaktovik residents (OSM Wildlife)..... 15

Crossover Review

- WCR24-21** Unit 25A, Arctic Village Sheep Management Area closed to sheep hunting by Non-Federally Qualified Users (OSM Anthropology)..... 30
- b. Call for Federal Wildlife Proposals*
- c. 2021 Council Charter Review* 59
- d. Review and approve FY2022 Annual Report* 61
- e. Federal Subsistence Board Updated Draft Council Correspondence Policy* (OSM)..... 64
- f. Fisheries Resource Monitoring Program Update (OSM, Fisheries Division)
 - FRMP Presentations (TBD)
- g. Partners for Fisheries Monitoring Program Update (OSM, Fisheries Division)
- h. Regulatory Cycle Update (OSM, Fisheries Division)
- i. NPS seeks input on proposed changes to 2020 Hunting and Trapping regulations on National Preserves in Alaska (NPS) 66

13. Agency Reports

(Time limit of 15 minutes unless approved in advance)

- a. Tribal Governments
- b. Native Organizations
- c. Wildlife Conservation Society
- d. US Fish and Wildlife Service
 - Arctic National Wildlife Refuge 74
- e. National Park Service
 - Gates of the Arctic National Park and Preserve..... 90
- f. Bureau of Land Management
- g. Alaska Department of Fish and Game..... 130
- h. Office of Subsistence Management

14. Future Meeting Dates*

Confirm Fall 2023 meeting date and location

Select Winter 2024 meeting date

Select Fall 2024 meeting date and location

15. Closing Comments

16. Adjourn (*Chair*)

To call into the meeting, dial the toll-free number: 1-866-801-9605, then when prompted enter the passcode: 29886091

Reasonable Accommodations

The Federal Subsistence Board is committed to providing access to this meeting for all participants. Please direct all requests for special accommodation needs to Jessica Gill, 907-310-6129, jessica_gill@fws.gov or 800-877-8339 (TTY), by close of business on February 13, 2023.

DRAFT

REGION 10
North Slope Regional Advisory Council

Seat	Yr Apptd Term Expires	Member Name & Address
1	1998 2023	Gordon R. Brower, Chair <i>Utqiagvik</i>
2	2025	VACANT
3	2016 2025	Wanda T. Kippi <i>Atqasuk</i>
4	2016 2025	Steve Oomittuk, Secretary <i>Point Hope</i>
5	2025	VACANT
6	2020 2023	Edward J. Rexford, Sr. <i>Kaktovik</i>
7	2020 2023	Martha A. R. Itta <i>Nuiqsut</i>
8	2021 2024	Esther S. Hugo, Vice Chair <i>Anaktuvuk Pass</i>
9	2021 2024	Brower A. Frantz <i>Utqiagvik</i>
10	2019 2024	Peter E. Williams <i>Anaktuvuk Pass</i>

NORTH SLOPE SUBSISTENCE REGIONAL ADVISORY COUNCIL

Meeting Minutes

Inupiat Heritage Center, Utqiagvik, Alaska
October 13–14, 2022

Invocation

Mr. Peter Williams gave an invocation.

Call to Order, Roll Call and Quorum Establishment

Chair Gordon Brower called the meeting to order on Thursday, October 13 at 9:02 a.m. Chair Gordon Brower and Council members Brower Frantz, Peter Williams, Esther Hugo, and Martha Itta were present in person on Thursday and Steve Oomittuk was present via telephone. On Friday, Chair Gordon Brower and Council members Brower Frantz, Peter Williams, and Esther Hugo were present in person and Eddie Rexford was present via telephone. Council member Billy Patkotak, Jr. and Wanda Kippi were absent both days. With five of nine seated Council members present (Council has one vacant seat) quorum was established.

Attendees participating:

Office of Subsistence Management (OSM): **Leigh Honig, Cory Graham***, **Katerina Wessels, Karen Hyer, Brent Vickers, Hannah Voorhees, Kendra Holman**

Arctic National Wildlife Refuge (NWR), U.S. Fish and Wildlife Service (USFWS): **Nathan Hawkaluk**

U.S. Fish & Wildlife Service: **Jill Klein***

Bureau of Land Management (BLM): **Katie Drew***, **Beth Mikow**

Bureau of Indian Affairs (BIA): **Glenn Chen**

U.S. Geological Survey (USGS): **Vanessa Von Biela***

National Park Service (NPS), Anchorage: **Eva Patton***, **Kim Jochum***, **Casey Aldrich***

Gates of the Arctic National Park and Preserve, NPS: **Marcy Okada***, **Mark Dowdle***, **Kyle Joly***

Alaska Department of Fish and Game (ADF&G): **Alex Hansen***, **Helen Cold***, **Mark Burch***, **Carmen Daggett, Brendan Scanlon, Lisa Stuby*, Brandy Baker***

The Wilderness Society: **Andrew Tooyak***

University of Montana: **Tom Glass***

*Indicates participation via teleconference.

Review and Adopt Agenda

Motion by Member Itta, seconded by Member Hugo, to adopt the agenda. The motion passed unanimously.

Review and Approve Previous Meeting Minutes

Motion by Member Itta, seconded by Member Oomittuk, to approve the winter 2022 meeting minutes as presented. Member Itta noted that her Council report was missing; however, after reviewing the transcripts it was determined that Member Itta did not provide a report at the winter 2022 meeting. Member Frantz motioned to approve the winter minutes as written and Member Hugo seconded. The motion passed unanimously.

Council Member Reports

Steve Oomittuk of Point Hope reported that the community has had a good year for caribou, and they have been around all year. Muskox with porcupine quills came into town but they were chased out. It was a good year for seals and whale. The weather has been unpredictable, winds have not been normal. Changing winds bring different species like ducks and geese, very little north winds were seen this year. Unfortunately, there have been many deaths in the community. Everything has been a month late except ice, which left early.

Brower Frantz of Utqiagvik reported that subsistence hunts were good this year, with a lot of normal-sized whitefish. Beluga have been plentiful, and whaling has been good, with whales being caught close to town and shared, despite being less than 30 feet in length. Caribou has been plentiful around Barrow, some with a few issues, but mostly healthy and fatty, despite declining population sizes. Gray whales have seemed closer to town. It was a good year for walrus and bearded seal hunts. Moose has been increasing in numbers in and around Barrow. Muskox have been abundant along the Ikpikpuk River with a stable population. Abundant foxes and owl populations in and around Barrow could indicate a good lemming year. During walrus and seal hunts, he has been seeing more porpoises around. He did not do any waterfowl hunting but overall, it was a good hunting season despite the late thaw. He noted later the abundance of shorebirds has been declining.

Peter Williams of Anaktuvuk Pass reported that the community has been struggling for Native foods. He reported a few people got sheep. People have not been able to get muskox, which is hard when there are no caribou. An elder told him about caribou changing their migration routes every few years and staying in the mountains where there is snow and not icy. Caribou can also sense weather so maybe they knew the typhoon was going to happen. Due to climate change, a lot of animals are popping up in the Anaktuvuk Pass area such as lynx and wolves. He hasn't hunted for geese but is interested. He noted that it is important to get young folks out hunting and sharing the harvest with elders.

Ms. Carmen Daggett asked about the current conditions of the Colville River because radio collars on the Teshekpuk herd show they are lined up along the river. Member Williams noted that the river is running and not yet frozen and the lake is frozen, but with very thin ice. Ms. Daggett noted she would be interested understanding the drivers behind fall migration.

Member Williams noted later that it would be good if there was a way to use Facebook to track the caribou herd, especially coming into Anaktuvuk Pass. Chairman Brower noted it could be an issue with

management. He questioned if there are videos about the migration patterns for the different herds. Ms. Daggett shared similar concerns about putting the herd migration on public forums like Facebook.

Martha Itta of Nuiqsut reported that the community has been having an abundance of caribou and they have been helping Anaktuvuk Pass with their caribou. She noted the caribou are not following their normal migration routes, instead coming from the south to the east. Some harvesters have been seeing sick caribou and turned them in to the Fish and Wildlife to get tested. There haven't been as many fish in the rivers as normal, and sheefish have been slow. Upriver, the fishing has been better, but it is far to travel. Some fish are missing livers and other organs and have been sent to the USFWS for testing. Walrus and seal hunting has been good. More hunters have been getting moose. There were a few geese caught that seemed sick, but she was unsure if someone sent them in for testing. More muskoxen have been coming into the village than normal, and younger hunters have been taking some, which is new for that generation. Squirrels have not been seen in the village for a few years, but she saw one this year and is concerned that lack of squirrels are due to seismic work being done in and around the village. She has not been seeing berries in the same places as usual and has to travel up and downriver to find them and believes that the seismic work that damaged the tundra is the reason. Grizzly bears have been coming into town and causing issues in town. The bears get scared off but keep coming back. The weather has changed a lot and has been a factor in subsistence issues. The weather has been unpredictable. She expressed concerns over the Willow Project and the community consultation process.

Ms. Daggett noted that samples of sick fish and wildlife can be sent to the ADF&G veterinarian as well and she can share that information with the North Slope Borough Wildlife Department. Ms. Daggett noted that there will be Tier II hunt application available at the career fair in Nuiqsut and she will be available to help. Ms. Daggett informed the Council about shooting bears in Defense of Life and Property and a permit option from Public Safety. If a bear without cubs is killed, it is legal to keep the bear because there is a year-round hunting season in Unit 26A, but if the bear does have cubs, it can only be shot legally under defense of life and property regulations, but the bear cannot be kept.

Esther Hugo of Anaktuvuk Pass reported that the community is still waiting for caribou, and she is hoping they come around in December. There have been a lot of bears in town, and one had to be put down because it kept coming around. She missed blueberry picking this year but heard they were good. Weasels and snowshoe hares have been around town and look hungry. She shared concerns about the caribou harvest; only 21 caribou were harvested, which was not enough to share with the community of 98 households. Some households didn't even get caribou. There have been many sightings of wolves lately. Some people have recently harvested sheep and moose, but they are not substitutes for caribou. Caribou decline has been discussed for many years and nothing has been resolved – caribou is a way of life and it hurts to not have them around. She has tried to submit proposals to the Alaska Board of Game, and they do not listen to the concerns.

Member Frantz asked if there had been studies on migration patterns and sport hunter locations, especially along the haul road. Chair Brower echoes concerns about State management conflicting with local Borough and Federal laws. Member Itta noted various entities studying caribou and suggested a way

to work through one contractor to try and resolve issues and conflicts. Ms. Daggett noted that research proposals are being submitted for ADF&G currently and she will work with the Council to submit a research proposal.

Eddie Rexford of Kaktovik reported on the second day of the meeting. He reported that the community of Kaktovik has had success in harvesting caribou and whales this season and is hopeful for an upcoming moose quota. He noted the Kaktovik Inupiat Corporation and the Native Village of Kaktovik were continuing to meet with the USFWS on an environmental impacts statement as cooperating agencies.

Gordon Brower of Utqiagvik thanked Council members for their reports. He reported that his son got caribou for him in Utqiagvik and is glad to see other younger folks doing harvesting activities. Muskox were seen by the Chip River and noted the only hunt right now is 155 West.

Ms. Daggett confirmed that hunt and noted there will be another State hunt opening on the eastern side (east of 153 longitude). The state Tier II hunt will be opening soon, and the application period starts November 1. The hunt will be east of 156 boundary.

Chairman Brower reported on changing conditions of the permafrost causing issues for food storage and thawing his catch. There are only certain periods where the river is safe to fish in now. He noted how important sharing is in Inuit culture and encourages all the Federal and State agencies to look at the culture and its sharing network. Sharing is a way to take care of each other.

Service Award

Member Wanda Kippi was not present to receive her five-year service award. Member Oomittuk was recognized for five years of service on the Council.

Old Business

The Council received presentations on the following topics:

- The Federal Subsistence Board (Board) 805(c) Report summary from Council Coordinator Leigh Honig
- Board FY2021 Annual Report Replies summary from Ms. Honig
- Special Actions update from Anthropologist Dr. Hannah Voorhees (WSA21-01) and Wildlife Biologist Ms. Kendra Holman (WSA22-01 and WSA22-02)

New Business

Fisheries Proposals and Closure Reviews

The Council received all relevant fisheries updates from regional Federal biologists prior to taking action on proposals and closure reviews.

Crossover:

FP23-01: Rescind the Jim River nonsalmon closure, institute Arctic Grayling harvest limit

Dr. Voorhees presented the analysis. Motion by Member Oomittuk, seconded by Member Frantz, to **support** FP23-01. North Slope communities have a long history of customary and traditional use at these fisheries, particularly residents of Nuiqsut. Rescinding this closure would benefit subsistence users, especially those of Nuiqsut who are close to the fisheries.

The motion **passed** on a unanimous vote.

FCR23-02: Reviews closure to subsistence harvest of all fish in the Kanuti River

Dr. Voorhees presented the analysis for this closure review. Motion by Member Frantz, seconded by Ms. Martha Itta, to **rescind** FCR23-02. The Council took up and voted on FCR23-02 and FCR23-03 together. The Council believes rescinding the closure would benefit subsistence uses and provide a Title VIII of ANILCA mandated Federal subsistence priority, as there is already sport fishing in this area.

The motion **passed** on a unanimous vote.

FCR23-03: Reviews closure to subsistence harvest of all fish in the Bonanza Creek

Dr. Voorhees presented the analysis for this closure review. Motion by Member Frantz, seconded by Member Itta, to **rescind** FCR23-03. The Council took up and voted on FCR23-02 and FCR23-03 together. The Council believes that rescinding the closure would benefit subsistence uses and provide a Title VIII of ANILCA mandated Federal subsistence priority, as there is already sport fishing in this area.

The motion **passed** on a unanimous vote.

FCR23-05: Reviews closure to subsistence harvest of all fish in the Delta River

Dr. Voorhees presented the analysis for this closure review. Motion by Member Itta, seconded by Member Frantz, to **take no action** on FCR23-05. The Council deferred to the Eastern Interior Alaska Subsistence Regional Advisory Council, who is most affected by this closure.

The motion **passed** on a unanimous vote.

2024 Fisheries Resource Monitoring Program Priority Information Needs

Mr. Brendan Scanlon, ADF&G Fisheries Biologist, gave a presentation on a 2018 FRMP project on Colville River grayling. Ms. Vanessa Von Biela, U.S. Geological Survey Fisheries Biologist, and Mr. Tom Glass, University of Montana, presented on winter fish habitat studies. Ms. Karen Hyer, OSM Fisheries Biologist, and Dr. Voorhees presented the Fisheries Resource Monitoring Program (FRMP) Priority Information Needs. The Council developed the following Priority Information Needs: 1) Using Traditional Ecological Knowledge and harvest monitoring, document new fish species and changes in

abundance, size, timing, and distribution of existing fish species, as well as impacts of new or expanding species on other fish that are important to subsistence in the North Slope Region; 2) Document and investigate the possible causes of mold, disease, and discoloration on Broad Whitefish in the Colville River in the vicinity of Nuiqsut. Compare environmental conditions in the Colville River—including temperature—with those in the Ikpikpuk River, where whitefish are healthy, and mold has not been observed to date. Investigators are encouraged to draw on both stock status and trends and Traditional Ecological Knowledge research methods; 3) Document the effects of climate change, including late freeze-up, on subsistence fishing access, harvests, and preservation and the impact of these changes on community-wide harvest levels and food security on the North Slope. Research could investigate adaptations for continuing community-wide harvest levels where traditional preservation methods are impacted. Studies including Ikpikpuk River are of particular interest; 4) Baseline fish habitat and water quality monitoring (especially temperature, dissolved oxygen, and silt) on the rivers and tributaries important to subsistence fishing for communities of the North Slope Region. Investigators are encouraged to include overwintering area; 5) Distribution, abundance, and health of stocks of Broad Whitefish on the Sagavanirktok River; 6) Seasonal movement and overwintering habitat of fish on the Colville Delta; 7) Document population structure and health of lake trout in Peters, Schrader, Chandler, and Shainin lakes; 8) Health and abundance of Arctic Grayling populations in Anaktuvuk Pass area.

Call for the Partners for Fisheries Monitoring Program proposals

Ms. Hyer provided an update on the Partners for Fisheries Monitoring Program. The call for proposals will come out by November and can fund a biologist, anthropologist, or outreach specialist for an Alaska Native of rural organization for four years. OSM can help prepare proposals for organizations that are unfamiliar with the proposal process.

Identifying Issues for FY2022 Annual Report

The Council identified the following topics for inclusion into the FY-2022 Annual Report:

- Food security and preservation methods, particularly the freezing and thawing of ice throughout the season.
- Request to improve management and research of sport hunting and effects on caribou migration near Anaktuvuk Pass.
- Effects of contaminants on fish health and food safety in Anaktuvuk Pass.
- Update on Ahtna Intertribal Resource Commission cooperative management agreement with U.S Department of the Interior.

Fall 2022 Council application/nomination open season

Ms. Honig provided information on the Regional Advisory Council application period, which closes on February 21, 2023. The Council has five seats that will become open for appointment or reappointment.

Joint meeting: North American Caribou Workshop and Arctic Ungulate Conference in May 2023

Ms. Holman presented details about the North American Caribou Workshop and Arctic Ungulate Conference. The conference is open for anyone to attend, though there is a registration fee, and OSM will be able to support travel for one Council member to attend. The Council discussed community centric approaches to harvest management that put village needs first, challenges to food security that have made reliance on ungulates even more important and the issues surrounding sport hunters and enforcement and how caribou migrations have not aligned with needs. The Council suggested extending an invitation to the North Slope Borough Wildlife Department to attend the meeting as well. The Council nominated Member Hugo to attend the conference, with Member Williams as her alternate, and requested that Member Rexford and Chair Brower be granted funding to attend with Member Hugo.

Harvest of Wildlife for Sport Purposes on National Preserves

Ms. Eva Patton, NPS Subsistence Program Manager, updated the Council on the intent of the NPS to enter regulations into the Federal Register on this subject.

Telephonic/internet expenses related to the Council teleconference meetings

Ms. Honig informed the Council on how to get reimbursed for telephonic/internet expenses incurred during previous Council meetings held via teleconference.

Public Testimony (for complete testimony, please review transcripts for October 13-14, 2022)

Andrew Tooyak, the Wilderness Society, asked about corroborating Western Arctic Caribou Herd population trends with residents' observations.

No public members testified during the fisheries proposals and closure reviews.

Agency Reports:

- Western Arctic Caribou Herd Working Group update presented by Mr. Alex Hansen, Wildlife Biologist, Alaska Department of Fish and Game
- Arctic National Wildlife Refuge update presented by Mr. Nathan Hawkaluk, Deputy Refuge Manager, U.S. Fish and Wildlife Service
- Gates of the Arctic National Park and Preserve update provided by Ms. Marcy Okada, Subsistence Coordinator, Mr. Mark Dowdle, Superintendent, Mr. Kyle Joly, Wildlife Biologist, and Mr. Will Deacy, Wildlife Biologist, National Park Service
- Bureau of Land Management update presented by Ms. Beth Mikow, Anthropologist, and Ms. Katie Drew, Fisheries Biologist
- Alaska Department of Fish and Game Division of Subsistence update presented by Ms. Helen Cold, Subsistence Resource Specialist
- Alaska Department of Fish and Game update Unit 26A caribou, moose, and musk ox presented by Ms. Carmen Daggett, Wildlife Biologist

- Office of Subsistence Management update presented by Dr. Brent Vickers, OSM Anthropology Division Supervisor

Future Meeting Dates:

Winter 2023 meeting to be held February 22-23, 2023, in Kaktovik.

Fall 2023 meeting to be held November 1-2, 2023, in Utqiagvik.

Jessica Gill, Council Coordinator for Leigh Honig Designated Federal Officer
U.S. Fish and Wildlife Service Office of Subsistence Management

Gordon Brower, Chair
North Slope Subsistence Regional Advisory Council

These minutes will be formally considered by the North Slope Subsistence Regional Advisory Council at its winter 2023 meeting, and any corrections or notations will be incorporated in the minutes at that meeting.

A more detailed report of this meeting, copies of the transcript, and meeting handouts are available upon request. Contact Jessica Gill , Council Coordinator, at 1-800-478-1456 (toll free) or 907-310-6129, or by email at jessica_gill@fws.gov.



2023 NORTH AMERICAN CARIBOU WORKSHOP & ARCTIC UNGULATE CONFERENCE

Anchorage, Alaska ■ May 8-12, 2023

Come to the conference to share your knowledge and learn from others! Join an international group of managers, biologists, Indigenous and Local Knowledge holders, and others to share knowledge of caribou, muskoxen, Dall's sheep, moose, and reindeer. The meeting will provide opportunities for exchanging viewpoints, concerns, and recommendations regarding the health, stewardship, use, and study of these important species.

The theme for the joint meeting is *Crossing Boundaries*. Arctic ungulates regularly cross landscape boundaries, connecting ecosystems and peoples, necessitating partnerships and collaboration across management and political boundaries. A critical component of such partnerships involves crossing the boundaries of Western science and Indigenous knowledges to identify creative opportunities to sustain Arctic ungulate populations in a changing world. We will explore these themes across four days of research talks, storytelling, workshops and panel discussions. Join us!

For more information visit www.nacw-auc-2023.org or e-mail info@nacw-auc-2023.org.





Feedback from Regional Advisory Councils on the State and Federal Ungulate Management in Alaska Symposium

At the North American Caribou Workshop and
Arctic Ungulate Conference www.nacw-auc-2023.org

Description: This session is intended as a neutral forum for Federal Regional Advisory Council (Council) members, State Fish and Game Advisory Committee members, Federal and State agency staff, and any other interested parties to discuss ungulate management in Alaska, specifically regarding harvest regulations. The format will be facilitated discussion where participation by all attendees is encouraged. Specific topics will be determined after the Councils provide input during their fall 2022 and winter 2023 meetings.

Potential Topics

1. The effectiveness and impact of antler restrictions in moose harvest management (i.e. do spike-fork and brow-tine restrictions actually provide more subsistence harvest opportunity or is it just an easy way to manage moose populations).
2. How to manage young growth forests for moose
3. Regulations that conflict with each other and across user groups (e.g. State community hunts)
4. How biological data is collected (e.g. population surveys)
5. Habitat changes (natural, manmade, and from climate change) and their effects on ungulates
6. Predator Control
7. Identification, viability, and utilization of resident caribou herds (vs. migratory)
8. Effects of climate change, disease and overgrazing on ungulate populations
9. Summer vs. winter diet of caribou (e.g. protein intake)
10. Bull caribou harvest during the rut
11. Effects of hunting pressure on caribou movements and migration routes
12. Effects of roads/development on caribou distribution and movements
13. Population thresholds for caribou herd recovery
14. Wanton waste of meat
15. The importance of funding wildlife surveys and receiving timely reports
16. Muskox harvest management
17. Honoring and incorporating Traditional Ecological Knowledge into harvest management (i.e. letting the leaders pass and ensuring uninterrupted caribou migrations)
18. Harvest management strategies when caribou populations are too high (e.g. showing signs of nutritional stress).
19. Unsafe and disrespectful hunting practices; need for better hunter education
20. Food security
21. Climate change impacts on ungulates, particularly caribou migration routes
22. Caribou distribution patterns in relation to village harvest needs; and exploring new ways to address the needs of villages (e.g. village quota systems)
23. Sport hunter disturbance to caribou and law enforcement
24. Harvest reporting: how to improve

**FEDERAL WILDLIFE CLOSURE REVIEW
WCR24-31**

Issue: Wildlife Closure Review WCR24-31 reviews the closure to moose hunting in Units 26B, remainder and 26C, except by residents of Kaktovik.

Closure Location and Species: Unit 26B remainder and 26C—Moose (**Map 1**)

Current Federal Regulation

Unit 26B remainder and 26C—Moose

1 moose by Federal registration permit (FM2606) by residents of Kaktovik only. *May be announced*

Federal public lands are closed to the taking of moose except by a Kaktovik resident holding a Federal registration permit and hunting under these regulations.

Closure Dates: Year-round

Current State Regulation

Units 26B and 26C—Moose

Residents and Nonresidents *No open season*

Regulatory Year Initiated: 2004, closed except by residents of Kaktovik, 2007, closure area modified

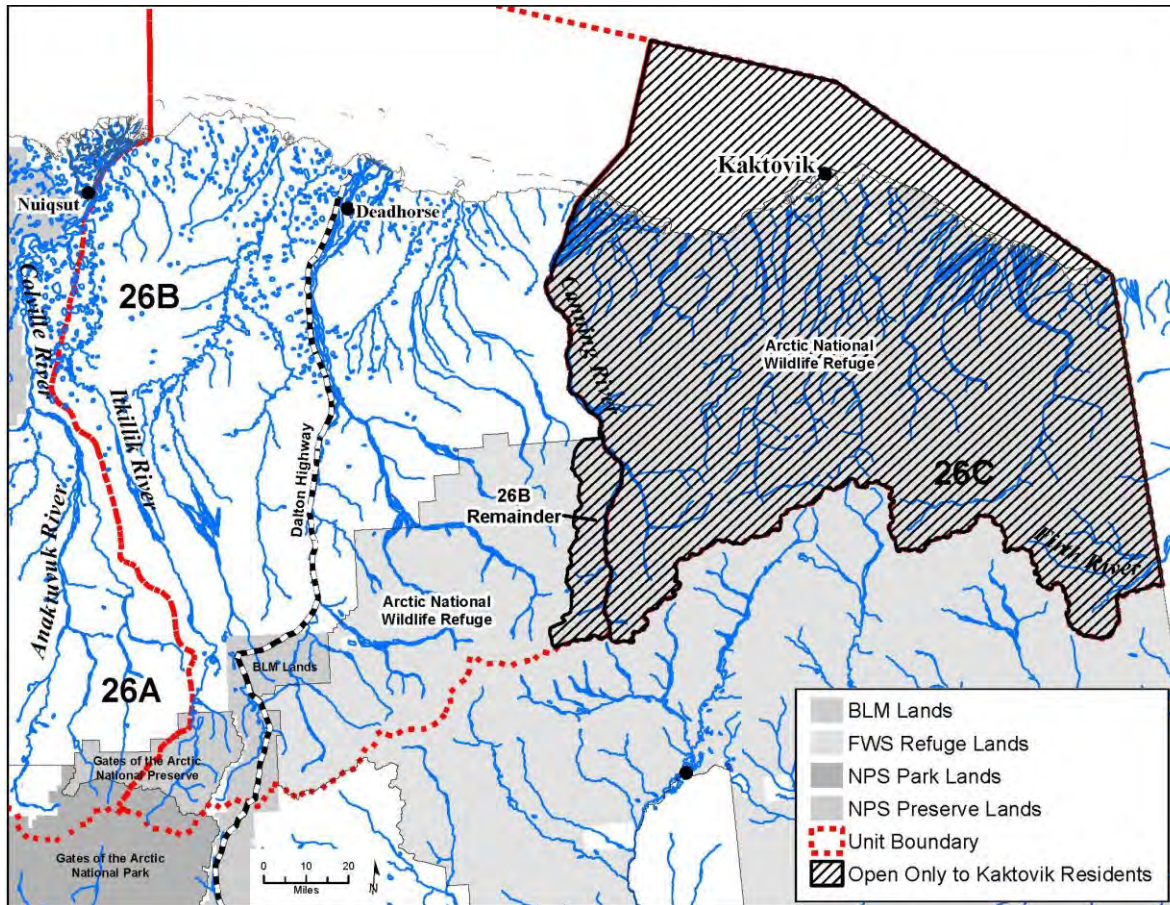
Extent of Federal Public Lands

Federal public lands comprise approximately 29% of the lands in Unit 26B and consist of 78% U.S. Fish and Wildlife (FWS) managed lands, 12% Bureau of Land Management (BLM) managed lands, and 10% National Park Service (NPS) managed lands (**Map 1**).

Federal public lands comprise approximately 98% of the lands in Unit 26C and consist of 100% FWS managed lands (**Map 1**).

Customary and Traditional Use Determination

Residents of Unit 26 (excluding the Prudhoe Bay-Deadhorse Industrial Complex), Point Hope, and Anaktuvuk Pass have a customary and traditional use determination for moose in Unit 26.



Map 1. Location of Federal public lands in Units 26B and 26C and lands open to Kaktovik residents.

Regulatory History

Prior to 1996, Federal and State seasons allowed for the harvest of moose in Units 26B and 26C.

In 1996, Wildlife Proposal WP96-66, requested changes to the moose season in Unit 26A (OSM 1996). The Interagency Staff Committee modified the proposed regulation separating Unit 26 into Unit 26A - except that portion of the Colville River drainage downstream from the mouth of the Anaktuvuk River and Unit 26 remainder, which also included Units 26B and 26C. Unit 26, remainder moose regulations were modified to no open season. This modification was adopted by the Federal Subsistence Board (Board) at the April 1996 meeting (FSB 1996). While the modification closed the Federal moose hunt in Unit 26B, remainder, it did not close Federal public lands, meaning moose hunting could still occur under State regulations. However, during this time the State also had closed moose hunts in all of Unit 26, except that portion of the Colville River drainage downstream from the mouth of the Anaktuvuk River.

The Federal closure was temporarily lifted in 2003, when the Board approved a modification of Special Action WSA03-04 to allow residents of Kaktovik to harvest one moose in Units 26B and 26C for their

Thanksgiving feast and one moose for their Christmas feast; however, only one moose was harvested in Unit 26C (OSM 2003).

In 2004, Proposal WP04-86b, submitted by the City of Kaktovik, requested that a moose season with a community harvest quota of 5 moose be established for the residents of Kaktovik only in Unit 26C. The Board adopted Proposal WP04-86b with modification to allow a total harvest quota of 3 moose in Units 26B and 26C with the restrictions that no more than 2 bulls and no cows could be harvested in Unit 26C by residents of Kaktovik (OSM 2004a). The modification also included closure of Federal public lands to the taking of moose except by Kaktovik residents holding a Federal registration permit, resulting in the current closure. Proposal WP04-86a requested modification of the existing Customary and Traditional Use determination to give priority to residents of Kaktovik to harvest moose in Units 26B and 26C, but the proposal was withdrawn so a more thorough ANILCA § 804 analysis could be completed at a later date (WP04-86a) (OSM 2004b).

Proposals WP06-67a and WP06-67b requested that residents of Unit 25A be added to the customary and traditional use determination for the Firth and Kongakut river drainages of Unit 26C (WP06-67a) and that a harvest quota be set of two moose per drainage (WP06-67b). Proposal WP06-67a was rejected by the Board because the residents of Arctic Village and the surrounding area did not have a demonstrated pattern of moose harvest in Unit 26C. Proposal WP06-67b was rejected by the Board (FSB 2006) based on conservation concerns (OSM 2006).

In 2007, the Board adopted Proposal WP07-63 with modification to lift the closure of Federal public lands to non-Federally qualified users in the portion of Unit 26B outside of the Canning River drainage (establishing a new hunt area) based on increasing moose numbers (FSB 2007). Therefore, the closure now applied to Federal public lands in Unit 26C and areas within the Canning River drainage in Unit 26B (now called Unit 26B remainder), except for residents of Kaktovik (OSM 2007). The Board rejected Proposal WP07-58, requesting that Federal qualified subsistence users could use a bow and arrow within the Dalton Highway Corridor Management Area (DHCMA). This proposal was opposed by the Western Interior Alaska, Eastern Interior Alaska, and the North Slope Subsistence Regional Advisory Councils (Council), which all stated that it is not an effective method of harvesting the moose needed for subsistence (FSB 2007).

Proposal WP08-54 requested an increase of the moose harvest quota in Unit 26C to 5 moose (4 bulls and 1 of either sex) and a shorter harvest season of Jul. 1 - Dec. 31 versus Jul. 1 - Mar. 31 for Kaktovik residents in Unit 26C. The proposal also requested lifting the closure of Federal public lands in Unit 26B remainder (OSM 2008). The Board adopted the proposal with modification to keep the closure in place in Unit 26B remainder; but changed the harvest quota for the entire hunt area from 3 moose (2 bulls and 1 of either sex) to 3 moose (2 antlered bulls and 1 of either sex) (FSB 2008). Changing the harvest limit to antlered bulls was done to protect cows from being harvested later in the season when bulls have typically shed their antlers. The restriction of harvesting a cow accompanied by a calf was retained for Units 26B remainder and 26C, and no more than two antlered bulls could be taken from Unit 26C.

In 2010 (WCR10-31) and 2012 (WCR12-31), the closure of moose hunting in Units 26B remainder and 26C, except residents of Kaktovik was reviewed. The North Slope RAC voted to maintain the closure, continuing to limit the moose hunt. For both reviews, there was a conservation concern for the moose population, and the closure was found to be in alignment with ANILCA Section 815(3) (OSM 2010 and 2012).

In March 2012, the Alaska Board of Game (BOG) adopted Proposal 174A to establish a moose season in a portion of Unit 26C, which includes the Firth River, Mancha Creek and Upper Kongakut river drainages due to an increase in the moose population large enough to have a harvestable surplus (Lenhart 2018). While the hunt remains in regulation, no State hunt has occurred because the area consists of Federal public lands that are closed to the harvest of moose, except by residents of Kaktovik.

In 2013, Emergency Special Action (WSA12-12) requested that the moose season in Unit 26B, remainder and 26C be extended two weeks from July 1 – March 31 to July 1 to April 14, and that the harvest limit be increased from three moose to five moose. The Board approved WSA12-12 with modification to allow Kaktovik residents to harvest one additional moose in Unit 26B remainder and to extend the season through April 14, 2013 (OSM 2013). The one additional moose increased the harvest quota to four: two moose in Unit 26B remainder and two bulls in Unit 26C.

In March 2013, the BOG, by Emergency Order 03-03-13, authorized a general moose season with a limit of four moose in Unit 26B, excluding the Canning River drainage, when hunting conditions were favorable for up to 14 days during a may-be-announced season from Feb.15–Apr. 15. It was thought that the moose population of approximately 500 moose in Unit 26B could sustain a harvest of 15 bull moose (ADF&G 2013). In Unit 26B, State lands are closer to the village of Kaktovik than Federal public lands in Unit 26B remainder, thus making it easier for Kaktovik residents to harvest additional moose close to the village without having to travel long distances to access Federal land.

In 2013, ADF&G submitted Proposal WP14-55, which requested the closure to moose hunting by non-Federally qualified users be lifted in the Firth, Mancha, and Upper Kongakut river drainages (upstream from and including Drain Creek) in Unit 26C (OSM 2014a). The remaining Federal public lands in Unit 26C and Unit 26B remainder would remain closed to the harvest of moose, except by residents of Kaktovik. At its April 2014 meeting, the Board rejected Proposal WP14-55 to allow for additional information to be collected on the moose population (OSM 2014a; FSB 2014).

Also, in April 2014 the Board adopted Proposal WP14-54 to increase to the harvest quota from 3 to 5 moose, to allow for the harvest of cows, and cows with calves in Unit 26C, and to lengthen the season in Units 26B remainder and 26C from Jul. 1–Mar. 31 to a year-round season (Jul.1 – June 30) (OSM 2014b).

In May 2014, the BOG reduced harvest limits and season dates for resident moose hunts in Units 26A and 26B, excluding the Canning River drainage, in response to low moose population numbers and poor recruitment. An Emergency Order (05-05-14) closed the general season hunt in Unit 26B and closed drawing permits for moose by residents and nonresidents in Unit 26A and 26B, excluding the

Canning River drainage, for the 2014/15 regulatory year (ADF&G 2014a). The seasons were closed to allow for moose population recovery.

In 2014/15, due to the population decline on the North Slope, the Board closed the Federal moose season on Federal public lands in Units 26B remainder and 26C by adopting Temporary Special Action WSA14-02 (OSM 2014c).

In 2015, the Board approved Temporary Special Action WSA15-08 to close the moose season in Units 26B remainder and 26C for 2015/16 regulatory year. This request, submitted by the Arctic National Wildlife Refuge (NWR), was in response to the continued low moose numbers along the coastal plain of Unit 26C and 26B remainder (OSM 2015). Surveys conducted in April 2014 by the Arctic NWR and ADF&G indicated that the North Slope moose populations in the affected area had declined by approximately 50% since 2011 (Wald 2014).

In 2016, the Board adopted Proposal WP16-65 with modification to create a may-be-announced moose season in Units 26B remainder and 26C; remove regulatory language referencing harvest quotas and delegate authority to the Arctic NWR manager to determine annual quotas, set opening and closing season dates, and the number of Federal permits to be issued via a delegation of authority letter only (OSM 2016). The delegation of authority allows for better management of the moose population without submitting special action requests every year.

In August 2020, the Board approved a revised closure policy, which stipulated all closures will be reviewed every four years. The policy also specified that closures, similar to regulatory proposals, will be presented to the Councils for a recommendation and then to the Board for a final decision. Previously, closure reviews were only presented to Councils who then decided whether to maintain the closure or to submit a regulatory proposal to modify or eliminate the closure.

In 2020, the Board voted to maintain status quo on Closure Review WCR20-31, continuing to limit the Units 26B, remainder and 26C moose hunt to Federally qualified subsistence users in Kaktovik (FSB 2020). The Arctic NWR manager has delegated authority to manage the hunt, allowing them to determine sustainable harvest levels based on the status and health of the moose population north of the Brooks Range in Units 26B remainder and 26C.

Closure last reviewed: 2020 – WCR20-31

Justification for Original Closure:

§815(3) of ANILCA states:

Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law...

The combination of low moose numbers and low recruitment were direct indicators of a continuing conservation concern. While it was withdrawn, the analysis for Proposal WP04-86 (OSM 2004a, b) also included an ANILCA §804 analysis (prioritizing amongst Federally qualified subsistence users for a limited subsistence resource such as moose) to limit the moose season, with a small quota, to only the residents of Kaktovik.

Council Recommendation for Original Closure:

The North Slope Subsistence Regional Advisory Council supported Proposal WP04-86b as submitted by the City of Kaktovik to allow only residents of Kaktovik to harvest moose because of the limited availability of moose within Unit 26C.

State Recommendation for Original Closure:

The State did not support Proposal WP04-86b as submitted due to conservation concerns regarding the Unit 26C moose population and the requested harvest quota of 5 moose (OSM 2004b). However, they did support a harvest of up to two moose in Unit 26C.

Biological Background

State management goals for moose in Units 26B and 26C are to maintain viable populations throughout their historic range in the region, to provide sustained moose harvest opportunity, and provide an opportunity for moose photography and viewing (Lenart 2010). Specific State management objectives for Unit 26B and Unit 26C are as follows (Lenart 2018):

- Unit 26B – maintain a population of at least 300 moose with a 3-year mean proportion of at least 15% short yearlings (10 to 11 month old calves) in the population.
- Unit 26C – maintain a population of at least 150 moose with a 3-year mean proportion of at least 15% short yearlings (10 to 11 month old calves) in the population.

Unit 26C contains at least two distinct moose populations. The first population occurs on the coastal plain and foothills in the North Slope portion of Unit 26C (North Slope population), and the other population occurs in the Firth, Mancha, and Upper Kongakut river drainages (Old Crow Flats population) (Mauer 1998). A portion of the moose population in the eastern portion of Unit 26C calves and spends the summer in Old Crow Flats in the Yukon and migrates to the Firth, Mancha, and Upper Kongakut river drainages in Unit 26C, and the Sheenjek and Coleen rivers drainages in Unit 25A during the fall and winter. Some moose in the Old Crow Flats population move between drainages during the fall or spring migration (Mauer 1998; Cooley 2013, pers. comm.). The focus of this analysis is on the North Slope population in Unit 26C.

Moose in Unit 26B remainder and Unit 26C are at the northern limits of their range in Alaska. The lack of quality habitat severely limits the potential size of moose populations. Moose are generally associated with narrow strips of shrub communities along drainages, except during calving and summer when some seasonal movement occurs away from riparian habitat (Lenart 2010). In winter, moose are limited almost entirely to the riparian shrub habitat. During surveys in the 1970s and 1980s,

small numbers of moose were observed in the Sadlerochit, Hulahula, Okpilak, Okerokovik, Jago, Aichilik and Egaksrak river drainages. Larger concentrations of moose were found on the Canning River and between the Sagavanirktok and Kavik rivers, west of the Canning River. The moose population in Units 26B and 26C peaked during the late 1980s at approximately 1,400 moose (Mauer and Akaran 1991; Lenart 2004, 2008), then declined in the early 1990s, and remained at approximately 700 animals throughout the remainder of the decade (Mauer 1998; Lenart 2008). This decline is thought to be due to a combination of factors, including limited habitat at the northern limits of their range, weather, predation by wolves and brown bears, disease, and possibly insect harassment (Lenart 2008).

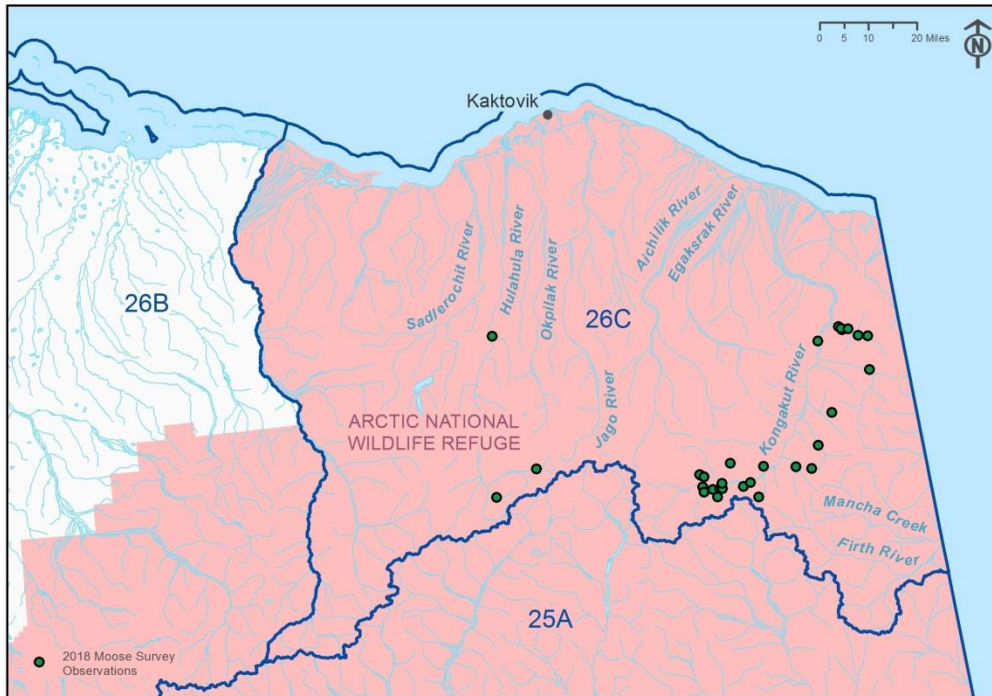
The migratory behavior of the North Slope moose population makes it difficult to estimate the total population size. Data from surveys conducted by ADF&G and USFWS suggested that a significant decline in moose populations north of the Brooks Range occurred between 2012 and 2014. Survey results indicated that there had been approximately a 50% reduction of moose since 2011 in Units 26A and 26B. The number of moose counted declined from approximately 400 moose in 2013 to 104 in 2015 in Unit 26A (ADF&G 2014b; Lenart 2015, pers. comm). Although Unit 26A is west of the area affected by this wildlife closure review, it documents widespread declines in moose populations across the North Slope. In Unit 26B remainder, the number of moose counted declined from 176 in 2013 to 57 in 2014, including no short yearlings (10-11 month old calves) (Lenart 2012b). From 2014 to 2018 the moose population in Unit 26C increased to 94 moose, which is the largest population estimate since 1984 (Churchwell 2018).

A comprehensive moose survey has not been conducted for Units 26B and 26C; however, smaller scale minimum counts have been conducted in areas where moose concentrate to assess population trends. These trend counts account for a large percentage of the moose in these units as habitat is limited in the region (Lenart 2012a).

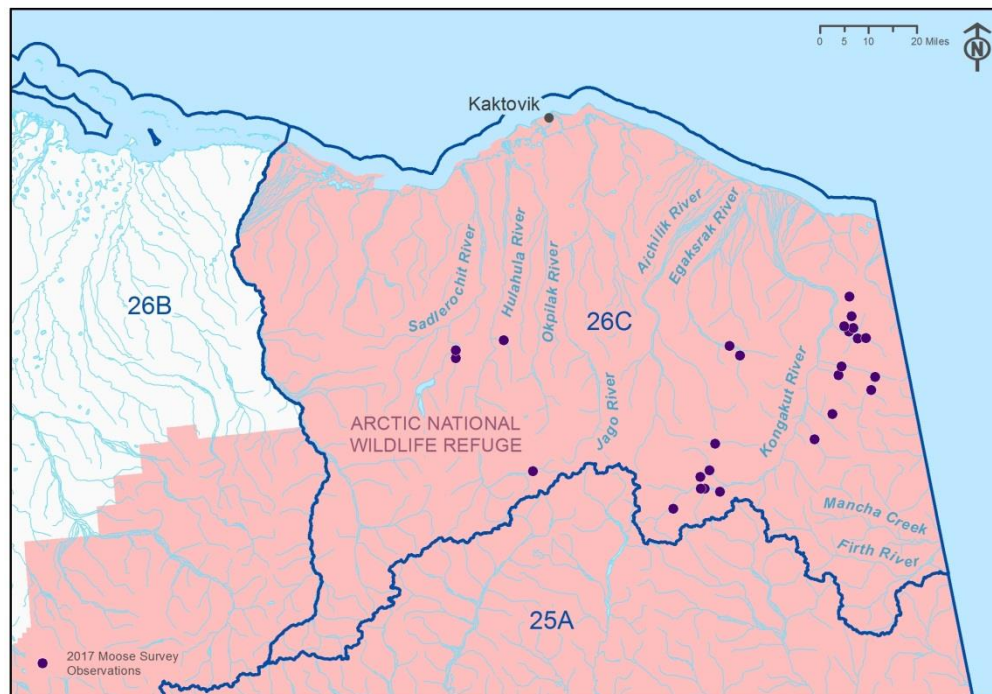
The moose population in the eastern portion of Unit 26B, including the Canning River, rebounded from low levels of approximately 150 from 1998–2000 to 339 moose in 2008 (**Figure 1**). During that period, harvest was limited in Unit 26B due to State and Federal harvest closures enacted in 1996. A limited season for Kaktovik residents in Unit 26B remainder and 26C was opened under Federal regulations in 2004. The hunting closure on Federal public lands in Unit 26B was lifted in 2007, except for the Canning River drainage (Unit 26B remainder), which remained open only to Kaktovik residents. The moose population in eastern Unit 26B subsequently declined to 104 moose in 2015 following peak counts in 2005–2008, but then increased to 212 Moose in 2017 (**Figure 1**).

The North Slope population in Unit 26C was surveyed every two years between 2003 and 2018 by Arctic NWR staff (Wald 2014, ANWR 2017a, b). This population occurs on the Coastal Plain from the Canadian border to the Canning River and from the Beaufort Sea coast to the foothills of the Brooks Range. Moose survey observations from 2017 and 2018 show most of the moose in the Kongakut River drainage (**Map 2 and 3**).

The calf or short-yearling survival increased from 0 in 2014 to 9 in 2017. Based on trend counts between 2003 and 2017, the Unit 26C North Slope moose population reached a low of 23 in 2014 and has since increased to 94 in 2018 (**Figure 2**), which is the largest number since 1984 (Lenart 2012a).



Map 2. Moose survey observations Unit 26C, April 2017 (Arthur 2018, pers. comm.).



Map 3. Moose survey observations Unit 26C, April 2018 (Arthur 2018, pers. comm.).

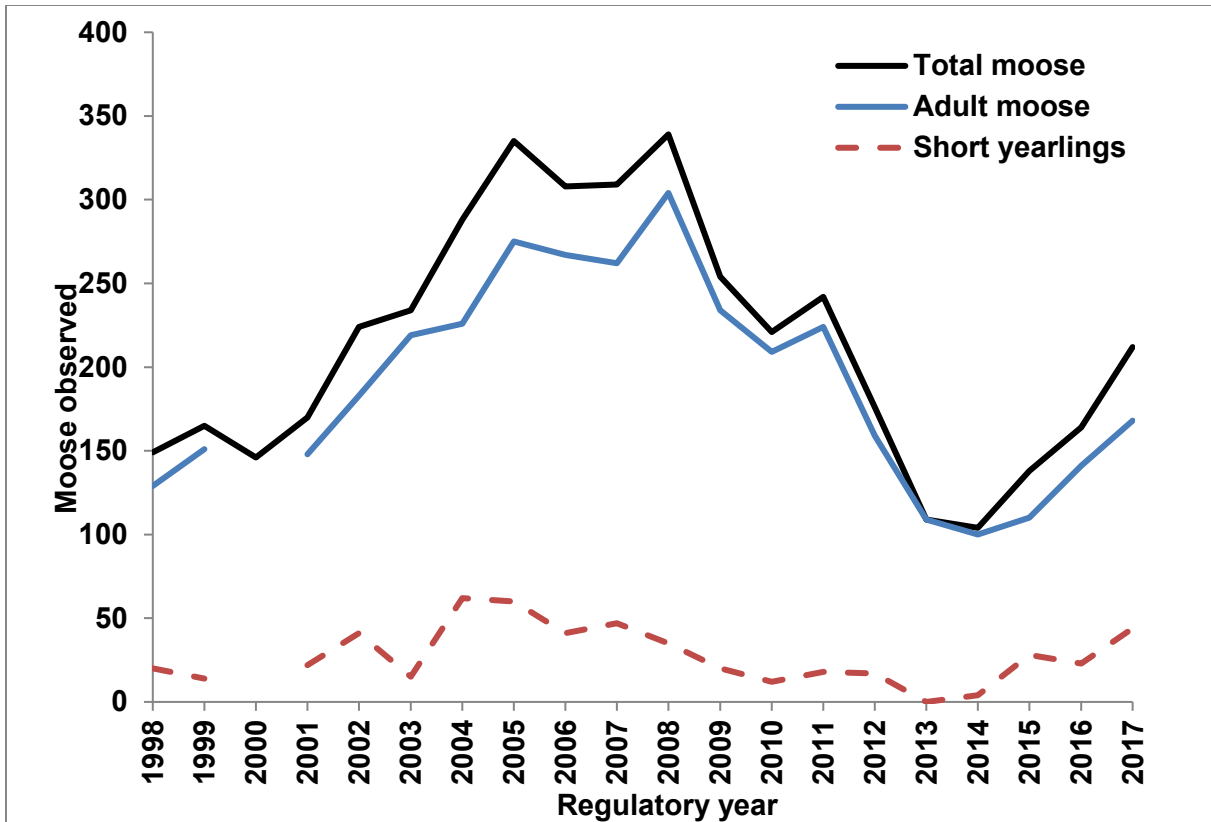


Figure 1. Aerial composition survey counts of moose in Unit 26B, east of the Sagavanirktok River and including the Canning River. Surveys were conducted in regulatory years 1998/1999 to 2016/2017 and moose presented as adults or short yearlings (11-month olds) (Lenart 2012a; 2015, pers. comm.; 2018, pers. Comm).

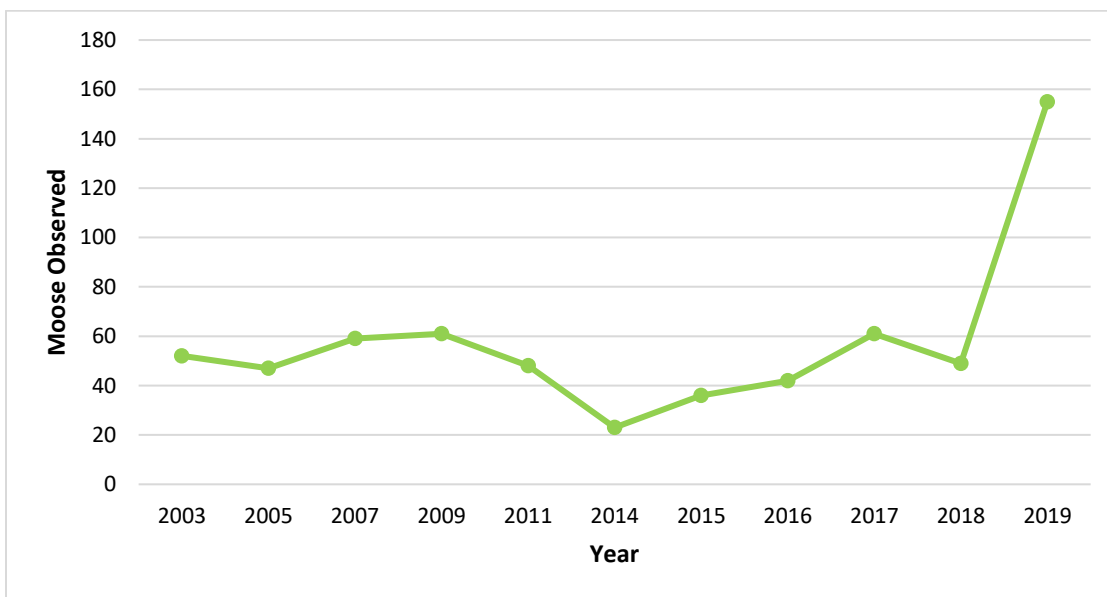


Figure 2. Moose observed during aerial surveys of trend count areas, conducted every other year by the U.S. Fish and Wildlife Service, for the North Slope Population in Unit 26C, 2003–2018 (Wald 2011, 2014, ANWR 2017a, b, 2022).

Cultural Knowledge and Traditional Practices

In 2019, the estimated population of Kaktovik was 229 (ADLWD 2022). Residents of Kaktovik hunt moose at a relatively low level compared to other subsistence resources. They are hunted in the areas around the Sadlerochit, Hulahula and Okpilak rivers during winter and spring, with April and September being the months of highest moose harvest activity (NSB 2015). Based on subsistence household surveys conducted between 1985 and 2010, the average estimated annual number of moose harvested by Kaktovik is 2.8, for an average estimated 6.6 pounds of edible meat per person (Table 1, ADF&G 2022).

Table 1. Three measures of moose harvest and use by residents of Kaktovik for survey years 1985 to 2010. (ADF&G 2022). Values for estimated number of moose harvested are rounded to whole numbers.

Survey year	Estimated number of moose harvested	Estimated pounds per person harvested	Percent using
1985	4	10.1	45%
1986	1	3.1	17%
1992	4	10.4	36%
1994	1	2.6	no data
2010	4	6.8	16%
Average	2.8	6.6	29%

Harvest History

Harvest quotas for North Slope moose populations are currently determined using a 3% harvest rate (Lenart 2017, pers. comm.; Wald 2013, pers. comm.). Moose harvest on Federal public lands within the closure area occurs only under Federal regulations by residents of Kaktovik. Since 2016, the Arctic NWR manager announces the harvest quota and the number of permits to issue each year via delegated authority.

Since 2004, 10 bull moose have been reported harvested (Table 2). No additional moose were taken by Kaktovik residents in Unit 26B remainder during the two-week extension under Emergency Special Action WSA12-12. Only one moose has been taken between regulatory years 2013/14 and to 2019/20.

In April 2017, in response to the recent increase in moose abundance, the Arctic NWR manager authorized two Federal Registration permits for the harvest of two bull moose in the Kongakut River drainage. Permits were issued to Kaktovik residents only and one moose was harvested (ANWR 2017a).

Table 2. Federal moose registration permits (FM2606) issued to Kaktovik residents and harvest for Units 26B and 26C from 2004 to 2017(Twitchell 2013, pers. comm.; Wald 2015; ANWR 2017a, b; ANWR 2019; OSM 2022).

Regulatory Year	Permits issued	Permits used	Harvest
2004/2005	4	1	1
2005/2006	3	2	2
2006/2007	3	2	2
2007/2008	3	- ^a	- ^a
2008/2009	3	2	1
2009/2010	3	2	- ^a
2010/2011	2	1	1
2011/2012	3	2	0
2012/2013	2	2	2
2013/2014	2	0	0
2014/2015	- ^a	- ^a	- ^a
2015/2016	0	0	0
2016/2017	2	1	1
2017-2018	2	- ^a	0
2018-2019	2	1	0
2019-2020	4	4	0
2020-2021	- ^a	- ^a	- ^a

^a Data not available for the report.

Effects

Retaining the status quo would continue to limit this moose hunt to Kaktovik residents only. Conservation concerns remain for this low moose population, which is on the fringe of its range. The harvest quota determined annually by the Arctic NWR manager helps ensure sustainable harvests, while providing opportunity for the Federally qualified subsistence users determined to be most dependent on this moose resource.

Modifying the closure to allow hunting by all Federally qualified subsistence users but retaining the closure to non-Federally qualified users would allow for additional subsistence opportunity. However, due to the extremely low harvest quotas, it would reduce opportunity for Kaktovik residents. Due to the

harvest quota, no impact to moose population would be expected. Modifying the closure to close to all users would preclude all subsistence opportunity.

Rescinding the closure would allow moose hunting by both residents and non—residents under State regulations, although State hunts are currently closed. If a State hunt were opened, the moose population could not sustain the additional harvest pressure, increasing conservation concerns. Increased hunting pressure may result in unsustainable harvest levels given the small North Slope populations in limited area of Units 26B, remainder and 26C.

OSM PRELIMINARY CONCLUSION:

- Retain the Status Quo**
- Rescind the Closure**
- Modify the closure to . . .**
- Defer Decision on the Closure or Take No Action**

Justification

Most of the North Slope moose population occurs in the Kongakut River drainage and remains low elsewhere in the Arctic coastal plain. Current regulations allow management flexibility for the Arctic NWR to determine sustainable harvest quotas each year based on the status and health of the small moose populations north of the Brooks Range in Units 26B remainder and 26C. Recent annual quotas and the number of permits issued has been very low, indicating a very low harvestable surplus and that this moose population cannot withstand additional harvest. Continuing to limit the moose hunt to Kaktovik residents only is recommended given the small North Slope moose population and to provide a subsistence priority.

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FEDERAL WILDLIFE CLOSURE REVIEW
WCR24-21

Issue: Wildlife Closure Review WCR24-21 reviews the closure to sheep hunting in the Arctic Village Sheep Management Area (AVSMA) in Unit 25A, except by rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik, and Chalkyitsik.

Closure Location and Species: Unit 25A, Arctic Village Sheep Management Area—Sheep (**Figure 1**)

Current Federal Regulation

Unit 25A—Sheep

Unit 25A, Arctic Village Sheep Management Area – 2 rams by Federal registration permit only. Aug. 10–Apr. 30

Federal public lands are closed to the taking of sheep except by rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik, and Chalkyitsik hunting under these regulations.

Closure Dates: Year-round

Current State Regulation

Unit 25A—Sheep

Residents: Unit 25A, Eastern Brooks Range Management Area –1 ram with full-curl horn or larger, by youth hunt only. HT Aug. 1–5

OR

Residents: Unit 25A, Eastern Brooks Range Management Area –1 ram with $\frac{3}{4}$ curl horn or less every four regulatory years by permit available online at <http://hunt.alaska.gov> or in person in Fairbanks and Kaktovik beginning Sept. 8. RS595 Oct. 1–Apr. 30

The use of aircraft for access to hunt and to transport harvested sheep is prohibited in this hunt area except into and out of the Arctic Village and Kaktovik airports. No motorized access from Dalton Highway.

Regulatory Year Initiated:

1991: AVSMA established by Board, closed to non-federally qualified subsistence users. AVSMA does not initially include Cane and Red Sheep Creek drainages.

1995: AVSMA expanded to include Cane and Red Sheep Creek drainages, closed to non-federally qualified subsistence users.

2007: AVSMA closure partially rescinded, Cane and Red Sheep Creek drainages open to harvest by non-federally qualified subsistence users Aug. 10-Sept. 20.

2012: Closure of Cane and Red Sheep Creek drainages to non-federally qualified subsistence users reestablished.

Extent of Federal Public Lands

Federal public lands comprise approximately 99% of the Arctic Village Sheep Management Area in Unit 25A and consist 100% of U.S. Fish and Wildlife Service (USFWS) managed lands that are within the Arctic National Wildlife Refuge (**Figure 1**).

Customary and Traditional Use Determination

Rural residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie have a customary and traditional use determination for sheep in Unit 25A.

Regulatory History

Regulatory history for Closure Review WCR24-21 is extensive and is described in **Appendix 1**.

Closure last reviewed: 2020 – WP20-49

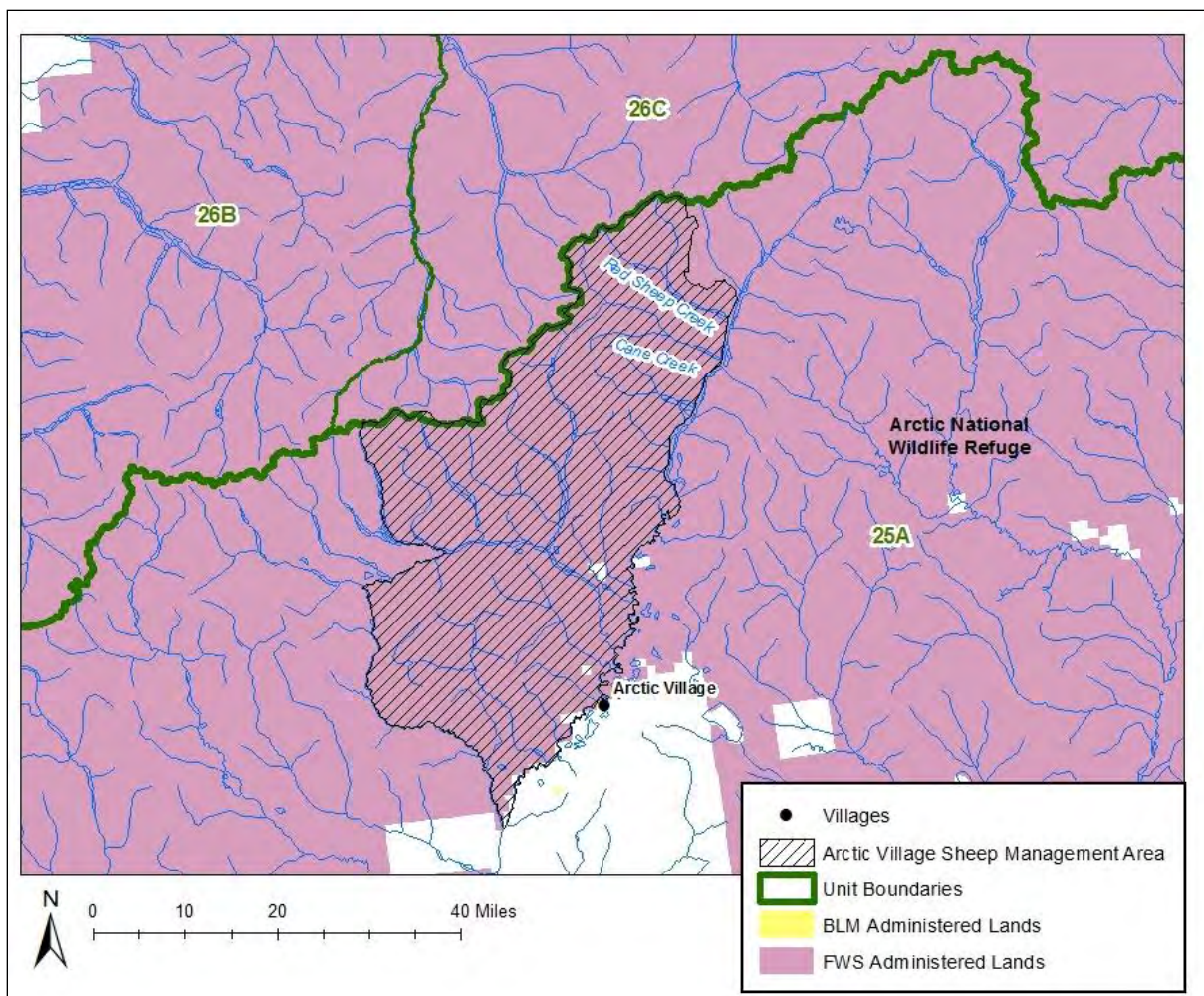


Figure 1. The Arctic Village Sheep Management Area in Unit 25A.

Justification for Original Closure:

§815(3) of ANILCA states:

Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law...

The Board established the AVSMA in 1991 (56 Fed. Reg. 73 15433 [April 16, 1991]; 56 Fed. Reg. 123 29344 [June 26, 1991]) in response to concerns raised by residents of Arctic Village, who felt that non-federally qualified hunters interfered with sheep hunting by local residents and to address concerns about sheep population health (FSB 1991a: 302; FSB 1991b: 161).

In 1995, the Board extended the original boundary of the AVSMA to include the Cane and Red Sheep Creek drainages to protect the opportunity for subsistence harvest of Dall sheep (60 Fed. Reg. 115 31545 [June 15, 1995]; 60 Fed. Reg. 157 42127 [August 15, 1995]).

In 2007, the Board rescinded the closure of Cane and Red Sheep Creek drainages from Aug. 10-Sept. 20 because it concluded that maintaining the closure to non-subsistence hunting of sheep was no longer necessary for conservation of a healthy sheep population, to provide for continued subsistence use of sheep, for public safety, or for administration (72 Fed. Reg. 247 73248 [December 27, 2007]).

In 2012, the Board re-established the closure to sheep hunting by non-federally qualified users in the Cane and Red Sheep Creek drainages because while the Board said there was no conservation concern, the closure was needed to ensure the continuation of traditional subsistence uses of sheep by Arctic Village hunters (OSM 2012b:7; 77 Fed. Reg. 114 35485 [June 13, 2012]).

Council Recommendation for Original Closure:

Federal Subsistence Regional Subsistence Advisory Councils had not yet been established in March 1991 when the AVSMA was created and closed to non-federally qualified users. Therefore, there was no recommendation from a Regional Council during the December 1990 or June 1991 Board meetings.

In 1995, the Eastern Interior and North Slope Regional Advisory Council recommendations on Proposal P95-54 were in support of the Arctic Village position to maintain the closure to non-federally qualified users and to expand the closure to the Cane and Red Sheep Creek drainages within the AVSMA.

In 2007, when the closure was partially rescinded, the Eastern Interior Council recommended deferral of Proposal WP07-56 for one year because they wanted to form a working group to negotiate the terms of harvest opportunity for non-federally qualified subsistence users, including a cultural awareness briefing requirement. The North Slope Council opposed Proposal WP07-56; the Council stated there was no evidence that adoption of the proposal would not impact villages.

In 2012, when the closure was re-established for the fall season within the Cane and Red Sheep Creek drainages, the Eastern Interior Council supported Proposal WP12-76 because of public testimony about non-subsistence users interfering with subsistence users. The North Slope Council supported Proposal WP12-57 because the closure was needed to ensure the continuation of the traditional subsistence uses of sheep by Arctic Village hunters (OSM 2012b:7).

State Recommendation for Original Closure:

In 1991, after the Board adopted Proposal 100A to create the AVSMA, the representative from the State said, “The State does not support the exclusion of other hunters in this area, particularly in view of the very low level of harvest that occurs there” (FSB 1991b:20). The State subsequently submitted a Request for Reconsideration of the Board decision to adopt the AVSMA closure and a proposal to rescind it. Since then, the State has continued to demonstrate support for opening the AVSMA to non-federally qualified hunters (please refer to Appendix I for detailed regulatory history).

Biological Background

Sheep populations across the eastern Brooks Range of Alaska have appeared relatively stable at low densities since the late 1990s (Caikoski 2014). However, geographic barriers such as large valleys and rivers naturally limit sheep movements and distribution, resulting in discrete subpopulations (Arthur 2013, Caikoski 2014). Therefore, repeated, fine-scale surveys are necessary to understand sheep population status and trends in a specific area such as the AVSMA.

State management goals and objectives for sheep in Unit 25A (Caikoski 2014) include:

- Protect, maintain, and enhance the sheep population and its habitat in concert with other components of the ecosystem.
- Provide for continued general sheep harvest and subsistence use of sheep.
- Provide an opportunity to hunt sheep under aesthetically pleasing conditions.
- Maximize hunter opportunity using a full-curl harvest strategy.
- Maintain an average harvest of rams ≥ 8 years old.

The State manages sheep using a full-curl harvest strategy, a conservative approach (ADF&G 2017a). Once sheep are eight years old, their chances of surviving each additional year is much lower. Harvesting older, full-curl rams (8+ years old) allows younger rams in their prime to continue breeding, assuming consistent recruitment (ADF&G 2017a; Heimer and Watson 1986).

The Arctic NWR conducts periodic aerial sheep surveys of the AVSMA and surrounding areas. Due to differences in survey areas, comparisons across years are difficult. Sheep densities within the AVSMA have generally been low compared to some other areas in the Brooks Range (Payer 2006 *in* OSM 2014a). Within the AVSMA, sheep densities north of Cane Creek have been much higher than sheep densities south of Cane Creek, presumably because of habitat quality (Mauer 1990 *in* OSM 2014a; Wald 2012). This is probably related to shale formations supporting more vegetation and therefore more sheep forage north (versus south) of Cane Creek, (Smith 1979 *in* OSM 2014a). The presence of mineral licks south of Cane Creek also influences sheep densities as most sheep observed by Mauer (1996) and Payer (2006) south of Cane Creek were clustered around such licks (OSM 2014a).

In 1991, sheep densities in the AVSMA north and south of Cane Creek averaged 2.25 sheep/mi² and 0.2 sheep/mi², respectively (Mauer 1996 *in* OSM 2014a). In 2006, sheep density north of Cane Creek averaged 1.7 sheep/mi² (Wald 2012). The observed decline in density is thought to be weather related (OSM 2014).

The sheep population in the AVSMA likely declined between 2012 and 2015 due to several years of poor lamb production and severe winters (particularly the winters of 2012-2013 and 2013-2014). In 2012, surveys within and near the AVSMA indicated an average sheep density of 0.79 sheep/mi² and 27 lambs:100 ewes (Arthur 2017, pers. comm.). Density north and south of Cane Creek ranged from 1.5–1.8 sheep/mi² and 0.25–0.7 sheep/mi², respectively (Wald 2012). In 2015, estimated sheep density for the same areas averaged 0.67 sheep/mi² and the lamb:ewe ratio was 34 lambs:100 ewes. The 2015 survey also indicated a decline in rams of all age classes (Arthur 2017, pers. comm.).

In 2016, a larger area was surveyed, including the Hulahula River drainage in Unit 26C, which contains higher sheep densities than the AVSMA. While the 2016 overall sheep density averaged 0.86 sheep/mi², density within the AVSMA was likely 0.70-0.75 sheep/mi² (Arthur 2017, pers. comm.). The ram:ewe ratio for the entire survey area averaged 28 rams:100 ewes, and the density of full-curl rams was 0.005/mi². Due to improved lamb production in 2015 and 2016 (>30 lambs:100 ewes), the sheep population in the AVSMA likely did not decline below 2015 levels, although mature (8+ year old) ram abundance was depressed for at least 3-5 years (Arthur 2017, pers. comm.; 2019 pers. comm.).

Dan Shelden (Pilot) and William Leacock (Biologist) conducted a minimum count sheep survey in the AVSMA from August 8 through August 13, 2020. Operations were based out of the Arctic National Wildlife Refuge Visitor Station at Arctic Village. The AVSMA was broken down into 5 survey areas, roughly Red Sheep Creek to Cane Creek, Cane Creek to Flatrock Creek, Chandalar River to Water Creek, Water creek to Spring Creek, and the Junjik River to Crow Nest Creek. A total of 279 sheep were documented within the AVSMA: 129 ewe, 66 lambs, 59 rams, and 25 unclassified sheep. The lamb:ewe ratio was 51 lambs:100 ewe (Hawkaluk 2022, pers. comm.).

Cultural Knowledge and Traditional Practices

The communities of Arctic Village and Venetie are unique in Alaska because they opted out of the Alaska Native Claims Settlement Act and chose to obtain title to their reserve lands. Steven Dinero, Professor of Human Geography, argues that this is an outgrowth of Nets'ain Gwich'in's cultural heritage of nomadism and independence (2005). This is important context for the history of this closure and the Arctic Village Council's request for government-to-government consultation regarding the AVSMA. There are many pages of testimony in Board and RAC transcripts from the Arctic Village Council regarding the AVSMA. Most pointed, however, is the repeated emphasis by members of Arctic Village Council, Venetie Village Council, Native Village of Venetie Tribal Government and Tanana Chiefs Conference (TCC) and some Council members that the issue of the AVSMA should be addressed through formal government-to-government consultation (EIRAC 2019: 50, 64, 66, 117). Evon Peter, former Chief of Arctic Village stated:

...I think it is really important for us to recognize that we have three sovereigns at work in Alaska and those are the Federal government, the State government and Tribal governments. As I began looking at the letter that was sent out to Arctic Village, I think it was addressed to our council or our chief, and it refers to just Arctic Village residents, but that doesn't really adhere to the frameworks of those three government-to-government relationships between our Tribe, the State and the Federal government (EIRAC 2019: 47).

Tribal consultation between members of the Arctic Village Council and some Board members occurred in November 2019 (FSB 2020:608-609). At the 2020 Board meeting, Charlene Sterne, then Vice-President of Tanana Chiefs Conference, stated, "...any proposed changed to the management of sheep [in AVSMA] must be discussed in advance consultation with the Arctic Village Council and Venetie Village Council and Native Village of Venetie Tribal Government" (FSB 2020: 580-583).

The statement above serves as “current” context to the cultural history of the AVSMA which was traditionally occupied by the Neets’ aii Gwich’in. Their traditional territory included the northern reaches of the East Fork Chandalar, Kones, and Sheenjek rivers. Neets’ aii Gwich’in continued their nomadic way of life into the 1950s when they established more permanent settlements at Arctic Village and Venetie, taking extended trips to seasonal harvesting sites (McKenna 1965).

Neets’ aii Gwich’in follow(ed) routes to the arctic coast that were situated within the AVSMA. Gwich’in regularly visited the arctic coast for the purposes of trade (Burch 1979). Ethnographer, Frederick Hadleigh-West, visiting in the late 1950s, spoke with people who had made the trip over the Brooks Range to the arctic coast. They said that families went into the mountains to hunt sheep and caribou. This travel varied from year to year depending on the migration routes of caribou and the availability of other resources. Traders traveled to the Barter Island area to exchange hides for Western goods from whalers. Hadleigh-West reported people preferred the Phillip Smith Mountains for sheep hunting, where many East Fork Chandalar tributaries originate, including Cane and Red Sheep Creek drainages and other drainages situated within the AVSMA. This trade continued irregularly until 1928 (Hadleigh-West 1963).

Red Sheep Creek was a recognized favorite sheep hunting area of the Neets’ aii Gwich’in, on one of their routes to the Arctic Coast (Hadleigh-West 1963: 257). At the Eastern Interior Council meeting in 2017, the Arctic National Wildlife Refuge (ANWR) deputy manager recalled a 2005 conversation with Trimble Gilbert, long-term First Chief of Arctic Village Council, Episcopalian village priest and Gwich’in Athabascan Elder (Dinero 2005: 141). Mr. Gilbert said that food and tools were cached in the mountains in the Red Sheep Creek drainage for traders returning from the Arctic Coast and for future trips, indicating the cultural importance of the area (EIRAC 2017: 286)

While located approximately 45 miles north of Arctic Village, Red Sheep Creek is situated well within the historical territory of Neets’ aii Gwich’in. Native allotments cover the confluence of Cane and Red Sheep Creeks with the East Fork Chandalar River; a Native allotment is situated further up Red Sheep Creek, and a native allotment is situated upriver at the confluence of an unnamed creek and the East Fork Chandalar River. The Red Sheep Creek allotments were not conveyed until 1996 (FWS 2019). Prior to this time, the confluence was the site of a large guiding camp; however, currently ANWR does not assign guides to this area because it is closed to non-federally qualified users (EIRAC 2017). The allotment contains a large airstrip identifiable from the air. Another, smaller airstrip is situated between the two Red Sheep Creek Native allotments (Arthur 2019, pers. comm.). A source of community concerns is that guides and hunters create air and foot traffic in areas with prehistoric cultural and scientific value.

Neets’ aii Gwich’in possessed specialized skills for traveling in mountainous areas, as described below by Hadleigh-West (1963):

The extent to which the Neets’ aii Kutchin are adapted to their mountainous environment is evidenced by the willingness and agility with which they attack it. Hiking trails usually take the shortest route between two points. This always entails

some climbing. Another evidence is inherent in their knowledge of the country; it is “impossible” to become lost in *Netsai*ⁿ. Hunting mountain sheep, nowadays viewed as a kind of family outing, often demands of the hunter an agility approaching that of the quarry. In this connection, too, the former use of a special climbing staff, surely is indicative of a mountaineering people (Hadleigh-West 1963:270).

Traditionally, after caribou, Dall sheep were the most important large land mammal for food. Moose were scarce (Hadleigh-West 1963: 172). Neets’ aii Gwich’in relied upon sheep as a food source primarily in late summer or whenever caribou were scarce. Hadleigh-West (1963: 138) identified four very specific sheep hunting areas used by Arctic Village residents along the Junjik River, East Fork Chandalar River, Cane Creek, and Red Sheep Creek. All are within the AVSMA.

The customary and traditional use determination (C&T) for sheep in Unit 25A, including the AVSMA, consists of five communities: Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik and Venetie. The approximate combined population of these five communities is 1,100 people according to the 2020 U.S. Census. Of the five communities with C&T for sheep in Unit 25A, the residents of Arctic Village have the strongest ties to and are the primary users of the AVSMA (Reed et al. 2008; Gustafson 2004; Dinero 2003; OSM 1993). Sheep hunting is a longstanding tradition of Arctic Village residents (EIRAC 2006:110–137, 2007, 2011; Gustafson 2004; Dinero 2003; Caulfield 1983:68), and the Cane and Red Sheep Creek drainages have been a longstanding focus of this activity. Sheep are a prestigious subsistence resource and providing sheep meat to the community is highly respected (Dinero 2003; Caulfield 1983). Sheep are also known as an important “hunger food;” that is, a food source that is critical when caribou are unavailable (Dinero 2011, pers. comm.; Gilbert 2011, pers. comm.; Caulfield 1983). Local people report increasing uncertainty of caribou migrations in recent years (recent years is not clearly defined but some people refer to the construction of the Trans-Alaska crude oil pipeline as a turning point), declining quality of caribou meat, and increasing difficulty and travel distances to obtain moose. In light of this, local residents say that sheep are an increasingly important resource (Gilbert 2011, pers. comm.; Swaney 2011, pers. comm.). As noted by one prominent elder, “When we have no caribou, that’s the time we have to go up [to get sheep]” (Gilbert 2011, pers. comm.).

The public record demonstrates that Arctic Village residents have a long history of using the Cane and Red Sheep Creek drainages which continue to be culturally significant areas. Extensive discussion included in previous proposal analyses (OSM 2020; 2018; 2014a; 1995a; 1993) and testimony received during Council and Board meetings (FSB 2020; EIRAC 2019, 2017, 2011, 2007, 2006) demonstrate regular use of these drainages by residents of Arctic Village. Gustafson (2004), in a study of traditional ecological knowledge, discusses the importance and continued use of the Red Sheep Creek drainage for sheep hunting. Discussions with Refuge Information Technicians from Arctic Village, other ANWR staff, researchers working in the area, and subsistence hunters from Arctic Village all confirm continued sheep hunting in the Cane and Red Sheep Creek drainages (Bryant 2011, pers. comm.; Dinero 2011 pers. comm.; Mathews 2011, pers. comm.; John 2011, pers. comm.).

The trip from Arctic Village to Red Sheep Creek and back is about 90 miles, requiring great effort both physically and economically, to hunt sheep in this area (Bryant 2011, pers. comm.; John 2011, pers.

comm.; Gilbert 2011, pers. comm.; Swaney 2011, pers. comm.). Residents of Arctic Village have repeatedly expressed concerns about non-federally qualified users hunting sheep in Cane and Red Sheep Creek drainages. These residents have provided testimony and public comment at numerous Council and Board meetings to attest to the importance of Red Sheep Creek, to describe their use of the area, and to explain that the presence of non-federally qualified users has affected their access and reduced their harvest opportunities (OSM 2020, 2014a, 2007a, 2006b, 1996, 1995a; EIRAC 2019, 2017, 2011, 2007, 2006; Swaney 2011, pers. comm.; Gilbert 2011, pers. comm.; John 2011, pers. comm.; FSB 1991a: 291-311, 1995, 2006a, 2007:292–306, 2012, 2020).

Among the Gwich'in, there is a story about how Red Sheep Creek was named, which illustrates the link between subsistence and religious practices and beliefs. It also underscores the importance of this area to the residents of Arctic Village. The story relates Red Sheep Creek to the Episcopalian Church, an influential factor in establishing Arctic Village in the late 19th century and sheds some light on why Arctic Village residents consider Red Sheep Creek a revered, sacred place (Dinero 2011, pers. comm.; Dinero 2007). The story begins with people who were hungry. One day at the church, someone spotted caribou moving in the brush. Upon closer inspection people realized they were looking at unusual sheep with red markings, or what many say were crosses on their coats. The next day, people followed these red sheep far into the mountains where they were finally able to harvest them. The hides of these sheep were kept and passed down because of their distinctive markings (Dinero 2011, pers. comm.). The story of the red sheep links a prestigious subsistence resource (sheep) to traditional and modern beliefs and practices, and demonstrates the complementary nature of subsistence to place, tradition, culture, and modern beliefs.

Traditionally, Arctic Village residents harvested sheep in early fall (late August or early September) or in early winter (November) (FSB 2007:292–306; Caulfield 1983). “Sheep taste best in the fall,” as documented in earlier research (OSM 1995a:353). Residents generally travel to hunt sheep by boat, then by foot from hunting camps in the fall or by snowmachine in late fall, but not in winter given the dangerous terrain and winter weather (OSM 1993).

In his 1963 dissertation, ethnographer Hadleigh-West described Neets'aiti Kutchin sheep hunting:

Sheep hunting methods, both in the past when the bow was the weapon used, and at present with the rifle, are essentially the same. Men hunted singly by stalking sheep; the technique was to get above the sheep because that animal when frightened will seek higher ground. Since sheep are skittish, usually one shot at a time was possible and hence only one animal was down at one time (141-142).

Hadleigh-West's account provides context for the AVSMA closure and sheds light on the descriptions of user conflict provided in Council and Board testimony. Arctic Village residents have commented that allowing non-federally qualified users to harvest sheep in the Cane and Red Sheep Creek drainages at the same time that Arctic Village residents customarily and traditionally harvest sheep affects their ability to continue their subsistence harvest in this important sheep hunting area. Since 1993, Arctic Village residents have told the Board that airplanes used by non-federally qualified users

has interfered with their ability to successfully hunt sheep in the Cane and Red Sheep Creek drainages. Residents reported that plane fly-overs “spooked” sheep and that “older rams can climb to higher elevations, making them more difficult to hunt” (OSM 1993, see also OSM 1995a for additional discussion). Gideon James from Arctic Village explained that the Cane and Red Sheep Creek drainages are both very narrow valleys, and consequently, flights through the area disturb sheep (FSB 2012:201). These disturbances have also been described by ANWR staff (Mathews 2011, pers. comm.), and local residents (Swaney 2011, pers. comm., John 2011 pers. comm.; Gilbert 2011, pers. comm.). This phenomenon was documented by Alejandro Frid (2003), Ecology Professor at University of Victoria, who found that fixed-wing aircraft disrupted resting or caused fleeing behavior in Dall sheep in the Yukon Territory during overflights.

Harvest History

A Federal closure to the harvest of sheep by non-federally qualified users in the AVSMA has been in effect since 1991. In 1995, the AVSMA was expanded north to include the Cane and Red Sheep Creek drainages. The closure to non-federally qualified users was rescinded in these drainages from Aug. 10-Sept. 30 in 2007 (and by special action in 2006) and re-established in 2012. Therefore, the only sheep hunting that has occurred within the AVSMA under State regulations since 1995 was between 2006 and 2011 in the Cane and Red Sheep Creek drainages.

From the 1983 to 1990 regulatory years, before most of this area was closed to the harvest of sheep by non-federally qualified users in 1991, approximately 61 sheep harvests (about 8 sheep annually) were reported on State harvest tickets and permits in an area approximating the AVSMA (OSM 2019).

From 1983 to 1994 regulatory years, approximately 27 sheep harvests (about 2 sheep per year) were reported on State harvest tickets and permits in the area north of Cane Creek and in the Red Sheep Creek drainage, before it closed to the harvest of sheep by non-federally qualified users in 1995 (OSM 2019, none was reported by federally qualified subsistence users).

From 2006 to 2010 regulatory years, approximately 22 sheep harvests (about 4 sheep annually) were reported on State harvest tickets and permits in the area north of Cane Creek and within the Red Sheep Creek drainage, while it was open to the harvest of sheep from Aug. 10-Sept. 30 by non-federally qualified users (OSM 2019, harvest site information is not readily available after the 2010 regulatory year).

Data on the reported harvest of the AVSMA by federally qualified subsistence users is sparse, and the number of sheep harvested by federally qualified subsistence users in the AVSMA is unknown. It is likely that many Gwich'in hunters have not reported their harvest efforts. There are multiple reasons that may account for low and non-reporting in rural communities. Most of these reasons are cultural and include lack of information as to who uses harvest data and how, group hunts that result in shared harvests, and “super households” who specialize in a type of harvest, providing food to multiple households in addition to their own (Van Lanen et al. 2012: 5; Andersen and Alexander 1992).

Since 1995, federally qualified subsistence users have been required to get a Federal registration permit (FS2502) to hunt for sheep in the AVSMA. **Table 1** shows Federal permit data from 1995 through 2020. During this time period, a total of 40 permits were issued to residents of Arctic Village and Fort Yukon, and nine sheep were reported harvested. Only some hunters submitted harvest reports, so these data are incomplete. Hunters did not always report areas they used to hunt for sheep within the AVSMA. Of these incomplete data, three hunters reported using the Red Sheep Creek drainage to hunt for sheep, and the harvest of one sheep was reported. Sixteen hunters reported the type of transportation they used to reach hunt areas: one by boat, 14 by airplane, and one reported using no transportation, perhaps walking or hiking. Of those reporting, hunting trips lasted an average of 5 days (OSM 2019).

ADF&G maintains a harvest reporting database where hunting efforts by users hunting under State regulations are recorded (ADF&G 2019a). Complete records were not kept until the mid-1980s, and it is likely that some Gwich'in hunters have not reported their harvest efforts or have reported their harvest efforts on Federal permits (see above). ADF&G data includes all of Unit 25A, not just the AVSMA. From the 1983 to 2017 regulatory years, a total of 3,310 harvest tickets/permits were issued and the harvest of 1,726 Dall sheep was reported, approximately 50 sheep annually. Of the 3,310 harvest tickets/permits issued, 14 were issued to federally qualified subsistence users and 11 reported sheep harvest. Alaska residents received 1,934 harvest tickets/permits and 786 of these reported sheep harvest. Non-residents received 1,362 harvest tickets/permits and 1,746 reported sheep harvest (ADF&G 2019a).

Table 1. Federal permit FS2502 data for the Arctic Village Sheep Management Area from 1995 through 2020 regulatory years, cumulative (OSM 2022).

Community	Issued	Hunted	Harvest
Arctic Village	36	14	8
Fort Yukon	7	6	4
Total	43	20	12

Effects

Continuation of this closure will allow for the continuation of culturally important subsistence uses of sheep by federally qualified subsistence users without competition or disturbance from non-federally qualified users, preventing user conflicts. It will also help protect the AVSMA sheep population whose current status is unknown. In 2020, in response to proposal WP20-49, the Board stated that there is still a significant conservation concern, and that user group conflicts have not yet been resolved (FSB 2020: 615-620).

If the closure were rescinded, non-federally qualified users would be able to hunt sheep in the AVSMA, potentially resulting in conservation concerns. This could result in increased user conflicts and interfere with sheep harvest by federally qualified subsistence users.

If the closure were extended to all users, it would disconnect federally qualified subsistence users from an important and culturally significant subsistence resource, sheep. It would interrupt intergenerational transmission of knowledge and the reciprocal spiritual/cultural relationship that federally qualified subsistence users have with all of the resources upon which they depend, particularly sheep within the AVSMA.

OSM CONCLUSION:

- Retain the Status Quo**
- Rescind the Closure**
- Modify the closure to . . .**
- Defer Decision on the Closure or Take No Action**

Justification

The current closure is still necessary to continue subsistence uses of the AVSMA for federally qualified subsistence users, especially the residents of Arctic Village and Venetie. Additionally, the current status of the AVSMA sheep population is uncertain due to lack of recent surveys, suggesting possible conservation concerns. Rationale for the closure has consistently included user conflict, concerns about the health of the AVSMA Dall sheep population, and the importance of the area for the continuation of subsistence uses.

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APPENDIX 1 REGULATORY HISTORY

At the beginning of the Federal Subsistence Management Program in Alaska in 1990, existing State regulations were adopted into Temporary Subsistence Management Regulations (55 Fed. Reg. 126. 27117 [June 29, 1990]). The customary and traditional use determination for sheep in Unit 25A was and continues to be residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie. In 1990, the Board was operating under the assumption that the State would soon resume fish and wildlife management on Federal public lands in Alaska (FSB 1991c: 164-168).

The Board established the Arctic Village Sheep Management Area (AVSMA) in March 1991 (56 Fed. Reg. 73 15433 [April 16, 1991]; 56 Fed. Reg. 123 29344 [June 26, 1991]) in response to concerns raised by residents of Arctic Village who felt that non-federally qualified users interfered with sheep hunting by local residents and to address concerns about the health of sheep populations (FSB 1991a: 302; FSB 1991b: 161). In 1991, Proposal 75 was submitted by the Yukon Flats Fish and Game Advisory Committee and Proposal 100A by the ANWR. Proposal 100A requested that the Board create the AVSMA in Unit 25A and that it be closed to non-federally qualified subsistence users. This proposal also requested modification of sheep harvest regulations from 3 sheep, Oct. 1-Apr. 30 and 1 ram with 7/8 curl horn or larger, Aug. 20-Sept. 20, to 2 rams, Aug. 10-Apr. 20, by registration permit. The northern boundary of the area was the mainstem of Cane Creek. The area did not include areas north of Cane Creek, including Red Sheep Creek. Regional Subsistence Advisory Councils (Councils) did not meet until fall 1993, so there were no Council recommendations for the Board to consider. The Board adopted the Interagency Staff Committee recommendation and adopted the proposal with modification. The modification was to close the area to the harvest of sheep except by federally qualified subsistence users and extend the hunting season to April 30. The justification was that portions of the area did not appear to have the habitat necessary to support higher sheep populations than were currently present. The population of sheep in the Red Sheep Creek drainage was of much higher density and could continue to support existing seasons and harvest limits; the Red Sheep Creek drainage received quite a bit more effort than other areas of Unit 25A, and the remainder of Unit 25A supported a substantial opportunity for all hunters (FSB 1991b:150–164; 56 Fed. Reg. 123. 29344 [June 26, 1991]).

Proposal 75 (1991) requested the Board close an area of Unit 25A encompassing most of the contemporary AVSMA to the harvest of sheep, except by federally qualified subsistence users. The northern boundary of the area was the Red Sheep Creek drainage. The Board adopted the Interagency Staff Committee recommendation and rejected the proposal because of its earlier action taken on Proposal 100A, described above (FSB 1991b:164–168).

In June 1991, the Board met and considered proposals received during the public comment period on wildlife regulations that included actions taken by the Board at its March 1991 meeting, described above (56 Fed. Reg. 73 15433 [April 16, 1991]). Proposals 09, 10, and 11 (1991) were submitted by the Arctic Village Council and Proposal 21 (1991) was submitted by Brooks Range Arctic Hunts. In Proposal 09, the Arctic Village Council requested the Board to include Cane and Red Sheep Creek

drainages in the AVSMA. The proponent said that the area set aside (the AVSMA) did not include all of the areas that must be included to accommodate customary and traditional uses of sheep by residents of Arctic Village (OSM 1991). The Board adopted the Interagency Staff Committee recommendation and rejected the proposal. The Board said Arctic Village residents used Cane Red Sheep Creek drainages only for a short time when air taxi service was available and concluded that these two areas could support both subsistence and sport harvest (FSB 1991a:297–299). Proposal 10 requested that the Board eliminate harvest limits in the AVSMA, and Proposal 11 requested an increase in the harvest limit to 3 sheep. The Board adopted the Interagency Staff Committee recommendations and rejected both proposals. The Board said the sheep population in the AVSMA was extremely low and the proposed regulations would jeopardize the continuation of healthy populations of sheep (FSB 1991a:299–301). The Board adopted the Interagency Staff Committee recommendation and also rejected Proposal 21, which requested the Board to open the AVSMA to the harvest of sheep by non-federally qualified users. The Interagency Staff Committee said that the sheep population was extremely low, and subsistence users must be afforded a priority (OSM 1991).

In 1992, Request for Reconsideration (RFR) 23 was submitted by the Arctic Village Council requesting that the Board reconsider its decision on Proposal 9, that would have added the Cane and Red Sheep Creek drainages to the AVSMA. The Office of Subsistence Management incorporated the request into Proposal 58 of the 1993 regulatory cycle, described below (OSM 1993). The Arctic Village Council made the same request during the 1992 regulatory cycle in Proposals 118A and 118B, seeking to eliminate harvest limits in the AVSMA or alternatively to increase the harvest limit from 2 rams to 3 sheep. In Proposal 118B, the Arctic Village Council requested the Board to include Cane and Red Sheep Creek drainages to the AVSMA. The Board adopted Proposal 118A with modification, in the remainder of Unit 25A, outside of the AVSMA, to lengthen the season from Aug. 10 – Sept. 20 and Oct. 1 – Apr. 30 to Aug. 10 – Apr. 30 and to modify the harvest limit from 1 ram with 7/8 curl horn during the fall season to 3 sheep throughout the season (57 FR 103, 22557 [May 28, 1992]). Furthermore, the Board directed the staff to seek alternatives to a Federal registration permit before the opening of the 1992 season for implementation at that time. The Board followed the Interagency Staff Committee recommendation and rejected Proposal 118B because biological data indicated that the sheep population in the Cane and Red Sheep Creek drainages could support both sport and subsistence use. The Board stated that the Council had not provided adequate justification that subsistence sheep hunting opportunities were being limited. (FSB 1992:59–99).

In 1993, Proposal 58 (OSM 1993:1) was received from the Arctic Village Council, requesting that the Board add the Cane and Red Sheep Creek drainages to the AVSMA; replace individual harvest limits with a community harvest limit for Arctic Village to be established in consultation with the village; and to establish, in consultation with Arctic Village, an appropriate harvest reporting method that would avoid the need for registration permits and harvest tickets, relying instead on a community harvest report of an appropriate nature. At its meeting in April 1993, the Board adopted the Interagency Staff Committee recommendation and rejected the proposal. The Board said that Cane and Red Sheep Creek drainages supported adequate sheep to support harvest by non-federally qualified users and that not enough data was available on harvest levels to support community harvest or reporting systems (FSB 1993:140–512).

In 1995, the Board extended the original boundary of the AVSMA to include the Cane and Red Sheep Creek drainages to protect the opportunity for subsistence harvest (60 Fed. Reg. 115 31545 [June 15, 1995]; 60 Fed. Reg. 157 42127 [August 15, 1995]). Proposal 54, submitted by the Arctic Village Council requested that the Board add the Cane Red Sheep Creek drainages to the AVSMA. The Eastern Interior Council took no action on the proposal (EIRAC 1995:88–97, OSM 1995a:359). The North Slope Council recommended that the Board adopt the proposal (NSSRAC 1995:206, OSM 1995a:359). After Board discussion of Proposal 54, the Board Chair stated, “If the Board votes to adopt this we are voting to accept the recommendations of the Eastern Interior and North Slope Regional Councils... with only exception that we will revisit this issue again in another year” (FSB 1995:693-694). The Board adopted the proposal as stated by the Chair. The Board said that although there was no biological reason for closing Cane and Red Sheep Creek drainages to the harvest of sheep except by federally qualified subsistence users, it had heard substantial testimony regarding the fact that due to the customary and traditional hunting practices of the residents of Arctic Village, not adopting the proposal would deny a subsistence opportunity to the residents of Arctic Village (FSB 1995:611–634, 686–694; 60 Fed. Reg. 115, 31545 [June 15, 1995]).

In 1995, Request for Reconsideration RFR95-06 was submitted by the Alaska Department of Fish and Game (ADF&G) requesting that the Board reconsider its decision on Proposal 54. The Board rejected the request in July 1995 (OSM 1995b). The Board determined that the request did not meet the threshold criteria for accepting an RFR (i.e. based on information that was not previously considered by the Board, the existing information used by the Board was incorrect, or the Board’s interpretation of information, applicable law, or regulation was in error or contrary to existing law) (50 CFR 100.20).

In 1996, ADF&G submitted Proposal 55, requesting that the Board open Cane and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users. The Eastern Interior Council recommended opposing the proposal because it had heard no compelling evidence to overturn recent Board action closing these drainages. Opposition to the proposal came before the Council from an Arctic Village resident’s testimony, a letter from the Arctic Village Council, and from the Eastern Interior Council’s representative from Arctic Village. The Eastern Interior Council affirmed its support for the existing AVSMA. The North Slope Council recommended deferring action for one year until more information concerning Kaktovik residents’ use of AVSMA was available; however, the Council expressed desire to “defer to wishes of their neighbors to the south” (OSM 1996:12). The Board rejected the proposal referring to its action on Proposal 54 in 1995 and because there had been no dialogue between the State and Arctic Village (FSB 1996:20).

This Regulatory History contains more information on each regulatory proposal below than above. This is because official records of Council and Board justifications were kept after 1995. Justification for Board actions that were provided in letters to the Councils, as mandated in ANILCA Section 805(c), were reviewed and compared to transcripts and provide an accurate description of the Board’s justifications.

In 2005, Proposal WP06-57 was submitted by ADF&G. It requested that the Board open the AVSMA to the harvest of sheep by non-federally qualified users. The Eastern Interior Council recommended

opposing the proposal and said that it needed to see results from sheep population surveys before considering reopening to non-federally qualified users. The Council said that people of Arctic Village were totally dependent on the land for food and for their nutritional and cultural needs. The Council said managers cannot only depend on harvest tickets for harvest information. It continued that there was a problem with transporters throughout the region. Transporters brought people up to this area, and they did not clean up after themselves. The Eastern Interior Council heard testimony from Arctic Village residents during their fall 2005 meeting that sheep have been harvested but not reported by subsistence users in this area. The Council indicated there was a need for a meeting with the people of Arctic Village and a need for more work on this issue before the area was opened to non-federally qualified users. The Council said there was no biological reason given to support this proposal, and this was an opportunity for the people in the area to work with non-subsistence users before submitting a proposal (OSM 2006b:452–453). The North Slope Council recommended deferring the proposal to get more information on the status of the sheep population and more harvest information. The Council said it would feel very uncomfortable making a decision that might be detrimental when there was a lack of information (OSM 2006a:452–453). The Board rejected the proposal. The Board said it had listened to public testimony on this proposal and was unable to pass a motion to allow non-federally qualified users to hunt sheep in the Cane and Red Sheep Creek drainages or to defer action on the proposal with respect to the remainder of the AVSMA. The Board did not see a need for action at this time because of the commitment of the ANWR staff to conduct sheep surveys in the area the following summer (FSB 2006:261–283, OSM 2006a:6).

In 2006, Wildlife Special Action Request WSA06-03 was submitted by the U.S. Fish and Wildlife Service. It requested that the Board open Cane and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users from Aug. 10-Sept. 20, 2006. The Board approved the request, having reviewed new information on sheep abundance in the AVSMA from a survey conducted by the USFWS in June 2006, the results of which were presented in an assessment report.

In 2007, Proposal WP07-56 was submitted by ADF&G. It requested that the Board open Cane and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users from Aug. 10 - Sept. 20. The Eastern Interior Council recommended the Board defer action on the proposal for one year to allow formation of a working group of representatives from affected villages, hunting interests, and agencies to decide what an acceptable sheep harvest or number of sheep hunters would be in this area, and then draft a proposal to the Alaska Board of Game (BOG) for its March 2008 meeting. The Council said the proposal could contain the number of non-federally qualified users allowed to hunt in the Cane and Red Sheep Creek drainages. The Council said the working group timeline would give the Board time to monitor the progress of the working group, the BOG proposal(s), and the actions of the BOG before the Board met later in the spring of 2008. The Council said it had received testimony from Arctic Village sheep hunters, local elders, and Arctic Village Tribal Council members and all requested that the closure of the Cane and Red Sheep drainages to non-federally qualified users remain in effect. Testimony included the cultural importance of the area because of burial sites, allotments, and a traditional area where they hunt sheep, and that they would not be able to compete with other hunters if the area was opened to non-federally qualified users. The Council said testimony also included the high cost of accessing the area and the difficulty reaching the area other than by aircraft. Council members

discussed the relationship of caribou migrations and the need to hunt for sheep, as well as the desired time to harvest sheep. When caribou and moose are plentiful, local hunters do not hunt for sheep, but when caribou and moose are not plentiful, they depend on sheep. The Council shared that the last time a similar proposal to open the area to other hunters was submitted, the Council had unanimously opposed it but was overridden by the Board. The Council sympathized with Arctic Village concerns but believed the closure of the Cane and Red Sheep Creek drainages would be lifted by the Board based on its approval of WSA06-03. Several Council members worked with Arctic Village Council members to consider ways to limit the number of other hunters allowed to hunt in the area; hence, the recommendation to defer to a working group (OSM 2007a). The North Slope Council recommended the Board oppose the proposal. The Council said that there was no evidence that passage of this proposal would not impact villages. The Council said resource needs should be assessed to ensure subsistence users' needs were being met at each village. The sheep population was so small, it could not support additional harvest by commercial and sport hunters (OSM 2007a).

The Board adopted the proposal. The Board said that Section 815(3) of ANILCA only allows restrictions on the taking of fish and wildlife for non-subsistence uses on Federal public lands if necessary for the conservation of healthy populations of fish and wildlife, to continue subsistence uses of such populations, or pursuant to other applicable law. Maintaining the Federal closure to non-subsistence hunting of sheep in the Cane and Red Sheep Creek drainages was no longer necessary for the conservation of a healthy sheep population. Allowing sheep hunting by non-federally qualified users in these drainages would not adversely affect the sheep population because these hunters would be limited to taking one full-curl ram during the fall season. Removal of some full-curl rams from the population was not expected to reduce the reproductive success of the sheep population. Maintaining the closure to non-subsistence hunting of sheep in these drainages was also not necessary to provide for continued subsistence use of sheep. The sheep population could support harvest by both subsistence and non-subsistence hunters. The existing closure was also not justified for reasons of public safety, administration, or pursuant other applicable law (OSM 2007b).

In 2012, the Board re-established the closure to sheep hunting by non-federally qualified users in the Cane and Red Sheep Creek drainages during the fall because the Board said that although there was no conservation concern, the closure was needed to ensure the continuation of traditional subsistence uses of sheep by Arctic Village hunters (OSM 2012b:7; 77 Fed. Reg. 114 35485 [June 13, 2012]). Proposal WP12-76 was submitted by the Eastern Interior Council, which recommended the Board support the proposal. The Council said the proposal enhanced the ability of the residents of Arctic Village to pursue subsistence opportunities and might reduce incidents of trespass and resource damage. The Council said it appreciated the information provided during public testimony and recognized the powerful connection between residents of Arctic Village and the subject area as one that was deeply culturally rooted. The Council said it was compelled by extensive and detailed public testimony and that subsistence users were concerned that non-subsistence users were interfering with subsistence users, particularly with Arctic Village residents. The North Slope Council also recommended the Board support the proposal. The Council said that the travel time by rural residents was a concern due to the long distance required and the cost of fuel. The Board adopted the proposal (OSM 2012a:355).

In 2013, Proposal WP14-51 was submitted by ADF&G. It requested the Board open the Cane and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users from Aug. 10 - Sept. 20. Additionally, ADF&G requested the requirement that those who wanted to hunt in the Cane and Red Sheep Creek drainages must possess proof of completion of an ADF&G-approved course on hunter ethics and orientation, including land status and trespass information. The Eastern Interior Council recommended the Board oppose the proposal. The Council said it had heard extensive testimony from Tribal officials from Arctic Village Council, Venetie Village Council, Native Village of Venetie Tribal Government, TCC and community members who expressed the importance of sheep in this area to their culture and community. The Council said public testimony also noted that air traffic disturbance and hunter activity was pushing sheep further away and higher. The Council said that the cultural importance of the sheep and the area to Arctic Village and other residents was their overriding concern. The North Slope Council also recommended the Board oppose the proposal. The Council said deflection or disturbance of sheep by sport hunters and aircraft flights made it difficult for Arctic Village residents to reach sheep for subsistence hunting. The Council said these sheep were a very important subsistence food shared within the community, and even if local harvest numbers were not high, effort to reach the animals was considerable and the sharing of the meat and organs was widespread and important. The Council said these sheep and this location had special cultural and medicinal value due to their history and relationship with the community as well the mineral licks that the sheep frequented in this area, which gave the meat unique qualities (OSM 2014a: 350).

The Board rejected Proposal WP14-51. The Board rejected this proposal based on the OSM analysis and conclusion, the recommendations of the North Slope and Eastern Interior Councils, and overwhelming public comment over the years, including the testimony presented to the Board in 2012 during consideration of a similar proposal. The Board referenced extensive public testimony of local community concerns and the cultural importance of this area, and the long-established administrative record on this issue. The Board recognized the cultural importance of the Cane and Red Sheep Creek drainages for subsistence uses of sheep by the residents of Arctic Village and Venetie. The Board said the importance of this area was also demonstrated by the number and location of Native allotments, cultural sites, and ethnographic studies documenting the long history of use in this area (OSM 2014b:3).

Furthermore, the Board heard testimony and reports that aircraft and non-subsistence hunter activity may have interfered with subsistence users' attempts to harvest sheep in this area. The Board concurred with this testimony—that non-federally qualified user activities had resulted in the displacement of sheep, pushing them out of range and preventing subsistence hunters from being able to harvest them. The Board supported keeping the closure in place to help ensure the continued subsistence uses of sheep for residents of Arctic Village, Venetie, and the other villages with C&T for sheep in this area: Chalkyitsik, Fort Yukon, and Kaktovik. The Board said that this closure was based on ANILCA Section 815(3), which allows for a restriction on the taking of fish and wildlife for non-subsistence uses on public lands when necessary to continue Federal subsistence uses (OSM 2014b:3).

In 2014, WRFR14-01 was submitted by the State of Alaska requesting that the Board reconsider its actions on Proposal WP14-51, described above. In September 2015, the Board denied the request

(OSM 2017). The Board determined that none of the claims in the request met the criteria to warrant further reconsideration, as set forth in 50 CFR Part 100.20.

In 2018, Proposal WP18-56 was submitted by Richard Bishop of Fairbanks, requesting that the Board open the AVSMA to the harvest of sheep by non-federally qualified users. The Eastern Interior Council supported the proposal with modification to open the area north of Cane Creek only. The Council said that the only legitimate reasons under Title VIII of ANILCA to restrict or eliminate the use of a resource on Federal public lands by non-subsistence users are conservation concerns and/or detrimental effects on the satisfaction of subsistence needs. The Council recognized that the issue was of cultural concern and felt that “cultural or social issues” are not a legitimate reason to close the area under provisions of ANILCA. The closing of the AVSMA to the harvest of sheep by non-subsistence users only affects sheep hunters. All other types of visitors to the area, including hikers, wildlife photographers, and flight site-seers, have been allowed to use the area. The Council stated that they consider this issue to be a “political football” and were very disappointed to find out that it was not resolved and was on the table again. The Council felt that sheep conservation was very important and encouraged Federal and State government agencies to work together on this regulatory issue. The Council also suggested requiring a specially designed, respectful hunter education course for users who would hunt in this area. The Council felt that learning respect for other people’s uses and for the resource is very important, as well as learning and understanding other cultures. The Red Sheep Creek area is an important cultural place, and Alaska Native cultures value the world and wildlife very differently than Euro-American culture. The importance of a certain area in the Alaska Native culture does not have to manifest itself in a substantial harvest. To alleviate some potential conservation concerns, the Council modified the proposal to only open the area north of Cane Creek, including the Red Sheep Creek drainage (OSM 2018a).

The North Slope Council opposed Proposal WP18-56. The Council found this proposal alarming in that it could potentially take away a very important subsistence priority on Federal public lands that, despite being small in size, has been vital to the community of Arctic Village for generations and was very important to other rural communities in the region with cultural and traditional use of sheep in this area. The Council said opening the AVSMA to hunting by non-federally qualified users would be detrimental to subsistence users, and it was necessary to restrict these other uses in order to provide for subsistence needs. The Council highlighted that there is a considerable amount of historical discussion, and the importance of this area to the local communities is well-supported. There was need for stability and for food security in these communities. The importance of protecting the subsistence opportunity in this area was well documented and recognized through repeated proposal reviews. The historic and contemporary hunting patterns exist to provide food security to the community, and the closure had allowed for the continued traditional harvest of sheep. The Council also stressed that the concern was not only the harvest of sheep by non-federally qualified users, but also the deflection of these sheep by nonresident hunting and plane activity pushing sheep further and higher up into the mountains, displacing them away from the local community. The Council stated it had heard testimony from Arctic Village as well as Kaktovik in the past. It noted that hunters from Kaktovik hunted in the AVSMA when other animals were not available, and it was an important area because sheep have been reliably found around the natural mineral formations in that small area (OSM 2018a).

North Slope Council members spoke to the cultural importance of this area and that the sheep not only provided important subsistence food but were also considered medicinal, providing minerals and special nourishment for elders and were helpful for recovery from illness. It noted that sheep are an important survival food when caribou do not come around the community, and even if harvest is low in some years, it is critical to maintain the sheep population for food security when people need to shift harvest to more sheep in low caribou years. The Council stressed that the sheep population needs to be higher before opening up the hunt, and the census data was incomplete and unreliable. It was noted that even though non-federally qualified users would be required to take a full-curl ram, the pressure of numerous hunters traveling into the area to harvest those rams would displace animals that locals would otherwise have been able to hunt. Additionally, the breeding impact of that lone, full-curl ram was important in a sheep population that was struggling, and when there are concerns about recruitment and stabilizing the population (OSM 2018a).

The Board rejected Proposal WP18-56. The Board stated that the AVSMA needs to remain closed because of the significant spiritual/cultural importance of the area and to support the continuation of the subsistence uses by the area's residents. The Board also encouraged the State to come up with suggestions or a proposal to resolve this issue during the next wildlife regulatory cycle (OSM 2018b).

In 2019, ADF&G submitted Proposal WP20-49, which requested re-opening the AVSMA in Unit 25A to the harvest of sheep by non-federally qualified users. ADF&G stated that the closure to non-federally qualified users was not necessary to accommodate local subsistence uses because harvest records indicate (according to the proponent) that residents of the communities rarely hunt sheep. Further, ADF&G claimed that there were no conservation concerns with reopening this hunt and that because of the full-curl ram harvest limit during the fall hunting season, there would be no effect on the sheep population. ADF&G continued that it was unknown if federally qualified subsistence users would be impacted by adoption of this proposal and, based on biological data, federally qualified subsistence users would retain opportunity to meet their subsistence needs if non-federally qualified users regained opportunity to harvest sheep in the AVSMA. The Eastern Interior and North Slope Councils opposed, and the Board rejected this proposal. The Board stated that there is still a significant conservation concern and the user group conflicts have not yet been resolved (85 Fed. Reg. 226 74798 [November 23, 2020]).

As stated above, the Eastern Interior Council opposed the proposal. However, prior to their October 2019 meeting, the Council attempted to address issues to decrease tension between ADF&G and the Board in regard to the AVSMA closure by submitting Proposal 82 to the BOG (EIRAC 2019: 69-70). In this proposal, the Council stated that it "...intends for this proposal to become a joint effort between the State Board of Game, the Federal Subsistence Board and Arctic Village residents to find a workable solution to a historically contentious issue and build mutual respect between parties" (BOG 2020: 95). Proposal 82 requested that the BOG establish a new hunt area akin to the AVSMA with the following hunts: 1) a draw permit hunt for residents and non-residents in the fall (Aug. 10-Sept. 20) with a harvest limit of one ram with full-curl horn or larger every four regulatory years; 2) a registration permit (RS595) hunt for residents in the winter (Oct. 1-Apr. 30) with a harvest limit of one ram with full-curl horn or larger every four regulatory years; and 3) a youth hunt by harvest

ticket in August (Aug. 1-5) with a harvest limit of one ram with full-curl horn or larger. These proposed harvest limits were intended as a compromise to reduce sheep harvest by non-federally qualified subsistence users. It was not intended as a harvest limit for federally qualified subsistence users. The Council also requested elimination of the nonresident youth hunt in the AVSMA. The Council expressed hope that the BOG would develop a hunter ethics and orientation course for non-federally qualified hunters that included land status and trespass information. According to Proposal 82, the BOG "...addressed this issue by requiring sheep hunters in this area to complete a department approved" course which it required (5 AAC 92.003(i)) but had not implemented because the AVSMA had been closed to non-federally qualified users (BOG 2020: 97).

In 2019, the Eastern Interior Council discussed the need to form a working group or subcommittee to bring all stakeholders to the table to address the Cane and Red Sheep Creek drainages. Stakeholders include Arctic Village Council, Venetie Village Council, Native Village of Venetie Tribal Government, TCC, ADF&G and the EIRAC. (EIRAC 2019: 5, 63-67, 581). This idea was the result of an informal meeting that occurred the night before the fall 2019 Council meeting began and led to Tribal government officials attending the Council meeting and providing extensive testimony in a roundtable discussion (EIRAC 2019). Much of the discussion focused on the issue of harvest data and how lack of data definitely does not indicate lack of harvest or need (EIRAC 2019: 102, 105, 111, 115). Extensive traditional knowledge was shared, including the sacredness of Red Sheep Creek, sharing of sheep meat with other villages, traditional management, which includes direction from a hunting chief as to when it is and is not appropriate to hunt and observations of extremely low numbers of sheep in the Cane and Red Sheep Creek drainages (EIRAC 2019: 42-49, 51-54). Most pointed, however, was the repeated emphasis by Tribal officials and some Council members that the issue of the AVSMA must be addressed through formal government-to-government consultation (EIRAC 2019: 50, 64, 66, 117). Evon Peter, former Chief of Arctic Village stated:

...I think it is really important for us to recognize that we have three sovereigns at work in Alaska and those are the Federal government, the State government and Tribal governments. As I began looking at the letter that was sent out to Arctic Village, I think it was addressed to our council or our chief, and it refers to just Arctic Village residents, but that doesn't really adhere to the frameworks of those three government-to-government relationships between our Tribe, the State and the Federal government (EIRAC 2019: 47).

As noted above, the Eastern Interior Council voted unanimously to oppose WP20-49.

The North Slope Council also voted to oppose WP20-49 in support of Arctic Village and Venetie and in acknowledgement of the importance of the subsistence sheep harvest. The North Slope Council stated that it is important to protect customary and traditional uses of sheep and the opportunity to hunt without conflict (FSB 2020: 607).

In March 2020, the BOG voted to amend Proposal 82, resulting in the current State regulations. It created the Eastern Brooks Range Management Area (EBRMA) which covers

the same area as the AVSMA, and a requirement to take a hunter education course specifically for non-federally qualified hunters planning to hunt in the AVSMA/EBRMA. This course has not been created because the AVSMA has remained closed to non-federally qualified users (EIRAC 2019: 66). Harvest limits were changed under the winter registration permit hunt (RS595) from three sheep to one ram with $\frac{3}{4}$ -curl horn or less every four years and a draw permit fall hunt was established for residents and non-residents as proposed (FSB 2020: 562). Much like at the Eastern Interior Council meeting, Tribal government officials from Arctic Village Council and Venetie Village Council, Native Village of Venetie Tribal Government and TCC shared traditional ecological knowledge, information about the sacredness of sheep and the low numbers of sheep within the Red Sheep Creek drainage during the BOG meeting (BOG 2020). Again, Tribal officials, including the Charlene Stern, the then Vice-President of TCC repeatedly emphasized that the path to addressing the AVSMA is formal, government-to-government consultation (BOG 2020).

In April 2020, the Board voted to reject Proposal WP20-49. Much of the Board discussion covered the same points as the Eastern Interior Council's discussion. Tribal officials from Arctic Village Council, Venetie Village Council, Native Village of Venetie Tribal Government, TCC and residents of Arctic Village and Venetie provided testimony on the very low numbers of sheep in the Cane and Red Sheep Creek drainages (FSB 2020). While Federal and State officials talked of working groups and subcommittees, Tribal officials repeatedly emphasized their desire for formal, government-to-government consultation to address the AVSMA (FSB 2020: 565, 567, 581). Charlene Stern, then Vice-President of TCC, stated:

TCC opposes Proposal WP20-49 and any attempt to open a non-subsistence hunt in the Arctic Village Sheep Management Area. As a tribal member, citizen of Arctic Village, the men in my family, including my grandfather and uncles, were raised with sheep hunting as part of their seasonal subsistence cycle. The Gwich'in people of Arctic Village have intergenerational knowledge about the sheep of Red Sheep Creek and Cane Creek areas and have consistently opposed efforts to open it to non-subsistence hunting. This area is included in our customary and traditional use area and is a critical historical and spiritual site including burial grounds. Any proposed change to the management of sheep must be discussed in advance in Tribal consultation with the Arctic Village Council and Venetie Village Council and Native Village of Venetie Tribal Government (FSB 2020: 581).



U.S. Fish and Wildlife Service
Bureau of Land Management
National Park Service
Bureau of Indian Affairs

Federal Subsistence Board Informational Flyer



Contact:

Office of Subsistence Management
(907) 786-3888 or (800) 478-1456
subsistence@fws.gov

How to Submit a Proposal to Change Federal Subsistence Regulations

Alaska rural residents and the public are an integral part of the Federal regulatory process. Any person or group can submit proposals to change Federal subsistence regulations, comment on proposals, or testify at meetings. By becoming involved in the process, subsistence users and the public assist with effective management of subsistence activities and ensure consideration of traditional and local knowledge in subsistence management decisions. Subsistence users also provide valuable fish and wildlife harvest information.

A call for proposals to change Federal subsistence regulations is issued in January of even-numbered years for fish and shellfish and in odd-numbered years for wildlife. Proposals to change the nonrural determinations will be accepted in January of every other even-numbered year (every other fish cycle). The period during which proposals are accepted is no less than 30 calendar days. Proposals must be submitted within this time frame. Announcements are made each year regarding the proposals being accepted and timelines that apply.

You may propose changes to Federal subsistence season dates, harvest limits, methods and means of harvest, customary and traditional use and nonrural determinations.

What your proposal should contain:

There is no form to submit your proposal to change Federal subsistence regulations. Include the following information in your proposal submission (you may submit as many as you like):

- Your name and contact information (address, phone, fax, or e-mail address)
- Your organization (if applicable)
- What regulations you wish to change. Include game management unit number, drainage, or area, and species. Quote the current regulation if known. If you are proposing a new regulation, please state “new regulation.”
- The proposed regulation written as you would like to see it
- An explanation of why this regulation change should be made
- Any additional information that you believe will help the Federal Subsistence Board (Board) in evaluating the proposed change

You may submit your proposals by one of the following methods:

- Electronically: Go to the Federal Rulemaking Portal: <https://www.regulations.gov>. In the Search box, enter the Docket number [the docket number will list in the proposed rule, news releases, and other forms of outreach]. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. Ensure you select the proposed rule by the U.S. Fish and Wildlife Service and **not** by the U.S. Forest Service. You may submit a comment or proposal by clicking on “Comment.”
- By mail: Submit by U.S. mail or hand delivery: Public Comments Processing, Attn: [list the Docket number]; U.S. Fish and Wildlife Service; 5275 Leesburg Pike, MS: PRB (JAO/3W); Falls Church, VA 22041–3803.
- By hardcopy: If in-person Federal Subsistence Regional Advisory Council (Council) meetings are held, you may also deliver a hard copy to the Designated Federal Official (DFO) attending any of the Council public meetings. Information on the dates, locations, and call-in numbers for the Council meetings are announced with several news releases, public service announcements, on our webpage, and social media (see bottom of page for web addresses).

Submit a separate proposal for each proposed change; however, ***do not submit the same proposal by different accepted methods listed above.*** To cite which regulation(s) you want to change, you may reference 50 CFR 100 or 36 CFR 242, or the proposed regulations published in the Federal Register: <https://www.federalregister.gov/>. All proposals and comments, including personal information, are posted online at <https://www.regulations.gov>.

We cannot accept proposals delivered or sent to the Alaska Regional Office of the U.S. Fish and Wildlife Service, this includes: phone or voicemail, fax, hand delivery, mail, or email.

For the proposal processing timeline and additional information contact the Office of Subsistence Management at (800) 478-1456 / (907) 786-3888 or go to <https://www.doi.gov/subsistence/proposal/submit.cfm>.

How a proposal to change Federal subsistence regulations is processed:

- Once a proposal to change Federal subsistence regulations is received by the Board, the U.S. Fish and Wildlife Service, Office of Subsistence Management (OSM) validates the proposal, assigns a proposal number and lead analyst.
- The proposals are compiled into a book for statewide distribution and posted online to the Program website (<https://www.doi.gov/subsistence/current-proposals>). The proposals are also sent out to the applicable Councils and the Alaska Department of Fish and Game (ADF&G) and the Interagency Staff Committee (ISC) for review. The period during which comments are accepted is no less than 30 calendar days. Comments must be submitted within this time frame.
- The lead analyst works with appropriate agencies and proponents to develop an analysis on the proposal.
- The analysis is sent to the Regional Advisory Councils, ADF&G, and the ISC for comments and recommendations to the Federal Subsistence Board. The public is welcome and encouraged to provide comments directly to the Councils and the Board

at their meetings. The final analysis contains all the comments and recommendations received by interested/affected parties. This packet of information is then presented to the Board for action.

- The decision to adopt, adopt with modification, defer, or reject the proposal is then made by the Board. The public is provided the opportunity to provide comment directly to the Board prior to the Board's final decision.
- The final rule is published in the Federal Register and a public regulations booklet is developed and distributed statewide and on the Program's website.

Missing out on the latest Federal subsistence issues? If you'd like to receive emails and notifications on the Federal Subsistence Management Program, you may subscribe for regular updates by emailing fws-fsb-subsistence-request@lists.fws.gov. Additional information on the Federal Subsistence Management Program may be found on the web at <https://www.doi.gov/subsistence> or by visiting www.facebook.com/subsistencealaska.

ANNUAL REPORTS

Background

ANILCA established the Annual Reports as the way to bring regional subsistence uses and needs to the Secretaries' attention. The Secretaries delegated this responsibility to the Board. Section 805(c) deference includes matters brought forward in the Annual Report.

The Annual Report provides the Councils an opportunity to address the directors of each of the four Department of Interior agencies and the Department of Agriculture Forest Service in their capacity as members of the Federal Subsistence Board. The Board is required to discuss and reply to each issue in every Annual Report and to take action when within the Board's authority. In many cases, if the issue is outside of the Board's authority, the Board will provide information to the Council on how to contact personnel at the correct agency. As agency directors, the Board members have authority to implement most of the actions which would effect the changes recommended by the Councils, even those not covered in Section 805(c). The Councils are strongly encouraged to take advantage of this opportunity.

Report Content

Both Title VIII Section 805 and 50 CFR §100.11 (Subpart B of the regulations) describe what may be contained in an Annual Report from the councils to the Board. This description includes issues that are not generally addressed by the normal regulatory process:

- an identification of current and anticipated subsistence uses of fish and wildlife populations within the region;
- an evaluation of current and anticipated subsistence needs for fish and wildlife populations from the public lands within the region;
- a recommended strategy for the management of fish and wildlife populations within the region to accommodate such subsistence uses and needs related to the public lands; and
- recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.

Please avoid filler or fluff language that does not specifically raise an issue of concern or information to the Board.

Report Clarity

In order for the Board to adequately respond to each Council's annual report, it is important for the annual report itself to state issues clearly.

- If addressing an existing Board policy, Councils should please state whether there is something unclear about the policy, if there is uncertainty about the reason for the policy, or if the Council needs information on how the policy is applied.
- Council members should discuss in detail at Council meetings the issues for the annual report and assist the Council Coordinator in understanding and stating the issues clearly.

- Council Coordinators and OSM staff should assist the Council members during the meeting in ensuring that the issue is stated clearly.

Thus, if the Councils can be clear about their issues of concern and ensure that the Council Coordinator is relaying them sufficiently, then the Board and OSM staff will endeavor to provide as concise and responsive of a reply as is possible.

Report Format

While no particular format is necessary for the Annual Reports, the report must clearly state the following for each item the Council wants the Board to address:

1. Numbering of the issues,
2. A description of each issue,
3. Whether the Council seeks Board action on the matter and, if so, what action the Council recommends, and
4. As much evidence or explanation as necessary to support the Council's request or statements relating to the item of interest.

North Slope Subsistence Regional Advisory Council

c/o Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503-6199
Phone: (907) 787-3888, Fax: (907) 786-3898
Toll Free: 1-800-478-1456

In Reply Refer to:
RAC/NS.22138.JG

Anthony Christianson, Chair
Federal Subsistence Board
c/o Office of Subsistence Management
1011 E. Tudor Road, MS 121
Anchorage, Alaska 99503-6199

Dear Chairman Christianson,

The North Slope Subsistence Regional Advisory Council (Council) appreciates the opportunity to submit its FY-2022 annual report to the Federal Subsistence Board (Board) under the provisions of Section 805(a)(3)(D) of the Alaska National Interest Lands Conservation Act (ANILCA). At its public meetings held in Utqiagvik on October 13-14, 2022, the Council identified concerns and recommendations for this report. The Council approved this annual report at its February 22-23, 2023, meeting. The Council wishes to share information and raise concerns dealing with implementation of Title VIII of ANILCA and the continuation of subsistence uses in the North Slope Region.

1. Food security and preservation methods, particularly the freezing and thawing of ice throughout the season.

The Council has expressed concerns about losing the ability to use traditional practices for preserving food due to changing weather conditions. Harvested fish are traditionally preserved through natural freezing immediately after harvest, and whale meat is stored in underground cellars dug into the permafrost, which keeps the meat frozen. However, warmer conditions preclude freezing fish naturally, and the permafrost has been thawing, spoiling whale meat in cellars. Council members voiced concerns about not being able to harvest large quantities of fish for fear of the catch spoiling before getting eaten. Because of this, there is less food available to community members for sharing and consumption, contributing to higher levels of food insecurity. Council members also voiced concerns about thawed whale meat creating food poisoning issues. The Alaska Department of Fish and Game has been funding projects to buffer traditional ice cellars from thawing and the Council expressed interest in receiving updates about this research.

Chairman Christianson

2. Request to improve management and research of sport hunting and effects on caribou migration near Anaktuvuk Pass.

The Council expressed concern about sport hunting for caribou near Anaktuvuk Pass. The Council strongly supports research on caribou migration patterns. The Council suggested comparing radio collar data from Alaska Department of Fish and Game and the North Slope Borough's Wildlife Division and dates and locations of hunters with migration patterns to see if there is deflection of traditional migration routes. The Dalton Highway is flooded with caribou sport hunters in August and September as well as fly-in hunters, but the areas where they are hunting have minimal enforcement. The Council inquired about implementing time and area closures during the caribou harvest, as is done for bowhead whales. Industrial activities can cause localized resource depletions by deflection. The Council suggested closures on the lands and waters immediately outside village boundaries that fall under federal jurisdiction during peak subsistence activities. The Council expressed interest in learning more about requesting rezoning around villages to reclassify an area into subsistence activity areas, similar to reclassifying zones for oil and gas development.

3. Effects of contaminants on fish health and food safety in Anaktuvuk Pass.

The Council was concerned with the quality of fish and the ability to safely harvest them in Anaktuvuk Pass. Council members noted that biologists are rarely in the Anaktuvuk Pass region to investigate issues of fish contamination. The Council noted an instance where a fish was harvested, but the stomach was the consistency of milk. The Council voiced concerns about the pipeline and buried corroded equipment leaching iron into the soil and surrounding sloughs and contaminating fish stocks. The Council is also concerned about population structure, abundance, and health of Lake Trout and Arctic Grayling in the area. This concern is reflected in the Priority Information Needs for the Fisheries Resource Monitoring Program.

4. Update on Ahtna Intertribal Resource Commission cooperative management agreement with U.S Department of the Interior.

The Council requests a presentation on the cooperative management agreement between Ahtna Intertribal Resource Commission and the U.S. Department of the Interior. The Council wants to know the Ahtna people successfully managed their own quotas for moose and other resources and wants to learn from Ahtna Intertribal Resource Commission's experiences.

During the discussion, the Council asked that the Board elevate the concerns noted in the FY2022 Annual Report if the Board cannot directly address them.

The North Slope Subsistence Regional Advisory Council appreciates the Board's attention to these matters and the opportunity to assist the Federal Subsistence Management Program in meeting its charge of protecting subsistence resources and uses of these resources on Federal public lands and waters. The Council looks forward to continuing discussions about the issues and concerns of subsistence users in the North Slope Region. If you have any questions regarding this report, please contact me via Jessica Gill, Council Coordinator, Office of Subsistence Management, at jessica_gill@fws.gov, or 1-800-478-1456 or 1-907-310-6129.

Chairman Christianson

Sincerely,

Gordon Brower
Chair Regional Advisory Council
North Slope Region

cc: Federal Subsistence Board
North Slope Subsistence Regional Advisory Council
Office of Subsistence Management
Interagency Staff Committee
Benjamin Mulligan, Deputy Commissioner, Alaska Department of Fish and Game
Mark Burch, Special Projects Coordinator, Alaska Department of Fish and Game
Administrative Record

DRAFT

Subsistence Regional Advisory Council Correspondence Policy

The intent of the Subsistence Regional Advisory Council (Council) correspondence policy is to ensure that Councils can correspond appropriately with the Federal Subsistence Board (Board) and other entities. In addition, the correspondence policy will assist Councils in directing their concerns in an effective manner.

The Alaska National Interest Lands Conservation Act (ANILCA), Title VIII required the creation of the Councils to serve as advisors to the Secretary of the Interior and the Secretary of Agriculture and to provide meaningful local participation in the management of fish and wildlife resources on Federal public lands. Within the framework of Title VIII and the Federal Advisory Committee Act, Congress assigned specific powers and duties to the Councils. These are also reflected in the Councils' charters. (*Reference: ANILCA Title VIII §805, §808, and §810; Implementing regulations for Title VIII, 50 CFR 100 .11 and 36 CFR 242 .11; Implementing regulations for FACA, 41 CFR Part 102-3.70 and 3.75*)

The Secretaries of the Interior and Agriculture created the Board and delegated responsibility for implementing the Title VIII rural subsistence priority regarding fish and wildlife resources on Federal public lands and waters. The Board was also given the duty of establishing rules and procedures for the operation of the Councils in accordance with the requirements of the Federal Advisory Committee Act. The Office of Subsistence Management (OSM) was established to facilitate the work of the Federal Subsistence Management Program.

Policy

1. Council correspondence shall be limited to subsistence-related matters, including matters related to the operation of the Federal Subsistence Management Program, and issues relevant to the subsistence way of life.
2. Councils may and are encouraged to correspond directly with the Board. The Councils are advisory bodies to the Board.
3. Councils are urged to make use of the annual report process to bring matters to the Board's attention.
4. Types of communication encompassed by this policy include but are not limited to the following: letters of support, resolutions, letters offering comment or recommendations, ANILCA §810 comments (subsistence and land use decisions), and any other correspondence to any government agency or any tribal or private organization or individual.
5. The correspondence process is as follows:
 - Councils shall discuss and agree upon the contents of proposed correspondence during a public meeting.
 - Council Coordinators draft the correspondence in accordance with the Council's position.
 - Council Coordinators will transmit all draft correspondence to the Assistant Regional

Director (ARD) of OSM for review prior to mailing, except as noted in items 6, 7, and 8 of this policy.

- Recognizing that such correspondence is the result of an official Council action and may be urgent, the ARD will complete this review in a timely manner.
 - Modifications identified as necessary by the ARD will be discussed with the Council Chair. Council Chairs have the final authority to approve letters.
6. Councils may submit notification of appointment directly to Subsistence Resource Commissions under §808 without review by the ARD of OSM.
 7. Councils may submit comments regarding proposed regulatory changes affecting subsistence uses within their regions to the Alaska Board of Fisheries and the Alaska Board of Game without review by the ARD of OSM. The comments will be channeled through the appropriate OSM division(s) supervisors for review. A copy of comments or proposals will be forwarded to the ARD when the original is submitted.
 8. Administrative correspondence such as letters of appreciation, requests for agency reports at Council meetings, and cover letters for meeting agendas will be channeled through the Council Coordinator to the appropriate OSM division(s) supervisor for review.
 9. Due to Hatch Act restrictions, Councils may not communicate with elected officials or political appointees in other Federal agencies. Councils further may not write directly to Secretaries of Federal agencies or their offices, and instead may write to the Board to request that the Board relay correspondence on relevant subject matters of interest to the Secretaries of the Interior or Agriculture or to other Federal agencies at the Secretarial level. This does not prohibit Council members from acting in their capacity as private citizens or through other organizations with which they are affiliated.
 10. Councils will submit copies of all correspondence generated and received by them to OSM to be filed in the administrative record system.

Approved by the Federal Subsistence Board on June 15, 2004.

Revised by the Federal Subsistence Board on XXXXXXXX.

TABLE 1—COMPARISON OF CURRENT¹ AND PROPOSED FEES—Continued

I-407	Record of Abandonment of Lawful Permanent Resident Status	No Fee	No Fee	N/A	N/A
I-485J	Confirmation of Bona Fide Job Offer or Request for Job Portability Under INA Section 204(j).	No Fee	No Fee	N/A	N/A
I-508	Request for Waiver of Certain Rights, Privileges, Exemptions, and Immunities.	No Fee	No Fee	N/A	N/A
I-566	Interagency Record of Request—A, G, or NATO Dependent Employment Authorization or Change/Adjustment To/From A, G, or NATO Status.	No Fee	No Fee	N/A	N/A
I-693	Report of Medical Examination and Vaccination Record	No Fee	No Fee	N/A	N/A
I-854	Inter-Agency Alien Witness and Informant Record	No Fee	No Fee	N/A	N/A
I-864	Affidavit of Support Under Section 213A of the INA	No Fee	No Fee	N/A	N/A
I-864A	Contract Between Sponsor and Household Member	No Fee	No Fee	N/A	N/A
I-864EZ	Affidavit of Support Under Section 213A of the INA	No Fee	No Fee	N/A	N/A
I-864W	Request for Exemption for Intending Immigrant's Affidavit of Support.	No Fee	No Fee	N/A	N/A
I-865	Sponsor's Notice of Change of Address	No Fee	No Fee	N/A	N/A
I-912	Request for Fee Waiver	No Fee	No Fee	N/A	N/A
I-942	Request for Reduced Fee	No Fee	No Fee	N/A	N/A

¹ These are fees that USCIS is currently charging and not those codified by the 2020 fee rule.

Christina E. McDonald,

Federal Register Liaison, U.S. Department of Homeland Security.

[FR Doc. 2023-00274 Filed 1-6-23; 8:45 am]

BILLING CODE 9111-97-P

DEPARTMENT OF THE INTERIOR

National Park Service

36 CFR Part 13

[NPS-AKRO-33913; PPAKAKROZ5, PPMRLE1Y.L00000]

RIN 1024-AE70

Alaska; Hunting and Trapping in National Preserves

AGENCY: National Park Service, Interior.

ACTION: Proposed rule.

SUMMARY: The National Park Service (NPS) proposes to amend its regulations for sport hunting and trapping in national preserves in Alaska. This proposed rule would prohibit certain harvest practices, including bear baiting; and prohibit predator control or predator reduction on national preserves.

DATES: Comments on the proposed rule must be received by 11:59 p.m. ET on March 10, 2023.

ADDRESSES: You may submit comments, identified by Regulation Identifier Number (RIN) 1024-AE70, by either of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.

- *Mail or Hand Deliver to:* National Park Service, Regional Director, Alaska Regional Office, 240 West 5th Ave., Anchorage, AK 99501. *Comments delivered on external electronic storage devices (flash drives, compact discs, etc.) will not be accepted.*

- *Instructions:* Comments will not be accepted by fax, email, or in any way other than those specified above. Comments delivered on external electronic storage devices (flash drives, compact discs, etc.) will not be accepted. All submissions received must include the words “National Park Service” or “NPS” and must include the docket number or RIN (1024-AE70) for this rulemaking. Comments received will be posted without change to <https://www.regulations.gov>, including any personal information provided.

- *Docket:* For access to the docket to read background documents or comments received, go to <https://www.regulations.gov> and search for “1024-AE70.”

FOR FURTHER INFORMATION CONTACT:

Regional Director, Alaska Regional Office, 240 West 5th Ave., Anchorage, AK 99501; phone (907) 644-3510; email: AKR_Regulations@nps.gov.

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SUPPLEMENTARY INFORMATION:

Background

The Alaska National Interest Lands Conservation Act (ANILCA) allows harvest of wildlife in national preserves in Alaska for subsistence purposes by local rural residents under Federal regulations. ANILCA also allows harvest of wildlife for sport purposes by any individual under laws of the State of Alaska (referred to as the State) that do not conflict with federal laws. ANILCA requires the National Park Service (NPS) to manage national preserves consistent

with the NPS Organic Act of 1916, which directs the NPS “to conserve the scenery, natural and historic objects, and wild life in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” 54 U.S.C. 100101(a).

On June 9, 2020, the NPS published a final rule (2020 Rule; 85 FR 35181) that removed restrictions on sport hunting and trapping in national preserves in Alaska that were implemented by the NPS in 2015 (2015 Rule; 80 FR 64325). These included restrictions on the following methods of taking wildlife that were and continue to be authorized by the State in certain locations: taking black bear cubs, and sows with cubs, with artificial light at den sites; harvesting bears over bait; taking wolves and coyotes (including pups) during the denning season (between May 1 and August 9); taking swimming caribou; taking caribou from motorboats under power; and using dogs to hunt black bears. The 2015 Rule prohibited other harvest practices that were and continue to be similarly prohibited by the State. These prohibitions were also removed by the 2020 Rule. The 2020 Rule also removed a statement in the 2015 Rule that State laws or management actions that seek to, or have the potential to, alter or manipulate natural predator populations or processes in order to increase harvest of ungulates by humans are not allowed in national preserves in Alaska. The NPS based the 2020 Rule in part on direction from the Department of the Interior (DOI) to expand recreational hunting opportunities and align hunting opportunities with those established by states. Secretarial Orders 3347 and 3356. The 2020 Rule also responded to direction from the

Secretary of the Interior to review and reconsider regulations that were more restrictive than state provisions, and specifically the restrictions on harvesting wildlife found in the 2015 Rule.

The harvest practices at issue in both the 2015 and 2020 Rules are specific to harvest under the authorization for sport hunting and trapping in ANILCA. Neither rule addressed subsistence harvest by rural residents under title VIII of ANILCA.

The 2015 Rule

Some of the harvest methods prohibited by the 2015 Rule targeted predators. When the NPS restricted these harvest methods in the 2015 Rule, it concluded that these methods were allowed by the State for the purpose of reducing predation by bears and wolves to increase populations of prey species (ungulates) for harvest by human hunters. The State's hunting regulations are driven by proposals from members of the public, fish and game advisory entities, and State and Federal government agencies. The State, through the State of Alaska Board of Game (BOG), deliberates on the various proposals publicly. Many of the comments made in the proposals and BOG deliberations on specific hunting practices showed that they were intended to reduce predator populations for the purpose of increasing prey populations. Though the State objected to this conclusion in its comments on the 2015 Rule, the NPS's conclusion was based on State law and policies;¹ BOG proposals, deliberations, and decisions;² and Alaska Department of Fish and Game actions, statements, and publications leading up to the 2015 Rule.³ Because NPS Management

¹ Alaska Statutes (AS) section 16.05.255(k) (definition of sustained yield); Findings of the Alaska Board of Game, 2006–164–BOG, Board of Game Bear Conservation and Management Policy (May 14, 2006) (rescinded in 2012).

² See, e.g., Alaska Board of Game Proposal Book for March 2012, proposals 146, 167, 232.

³ See, e.g., AS section 16.05.255(e); State of Alaska Department of Fish and Game Emergency Order on Hunting and Trapping 04–01–11 (Mar. 31, 2011) (available at Administrative Record for Alaska v. Jewell et al., No. 3:17–cv–00013–JWS, D. Alaska pp. NPS0164632–35); State of Alaska Department of Fish and Game Agenda Change 11 Request to State Board of Game to increase brown bear harvest in game management unit 22 (2015); Alaska Department of Fish and Game Wildlife Conservation Director Corey Rossi, "Abundance Based Fish, Game Management Can Benefit All," Anchorage Daily News (Feb. 21, 2009); ADFG News Release—Wolf Hunting and Trapping Season extended in Unit 9 and 10 in response to caribou population declines (3/31/2011); Alaska Department of Fish and Game Craig Fleener, Testimony to U.S. Senate Committee on Energy and Natural Resources re: Abundance Based Wildlife Management (Sept. 23, 2013); Alaska Department of

Policies state that the NPS will manage park lands for natural processes (including natural wildlife fluctuations, abundances, and behaviors) and explicitly prohibit predator control, the NPS determined that these harvest methods authorized by the State were in conflict with NPS mandates. NPS Management Policies (4.4.1, 4.4.3) (2006). For these reasons and because the State refused to exempt national preserves from these authorized practices, the NPS prohibited them in the 2015 Rule and adopted a regulatory provision consistent with NPS policy direction on predator control related to harvest. The 2015 Rule further provided that the Regional Director would compile, annually update, and post on the NPS website a list of any State predator control laws or actions prohibited by the NPS on national preserves in Alaska.

As stated above, the 2015 Rule only restricted harvest for "sport purposes." Although this phrase is used in ANILCA, the statute does not define the term "sport." In the 2015 Rule, the NPS reasoned that harvest for subsistence is for the purpose of feeding oneself and family and maintaining cultural practices, and that "sport" or recreational hunting invokes Western concepts of fairness which do not necessarily apply to subsistence practices. Therefore, the 2015 Rule prohibited the practices of harvesting swimming caribou and taking caribou from motorboats under power which the NPS concluded were not consistent with generally accepted notions of "sport" hunting. This conclusion also supported restrictions in the 2015 Rule on the practices of taking bear cubs and sows with cubs; and using a vehicle to chase, drive, herd, molest, or otherwise disturb wildlife. To illustrate how the 2015 Rule worked in practice, a federally qualified local rural resident could harvest bear cubs and sows with cubs, or could harvest swimming caribou (where authorized under federal subsistence regulations), but a hunter from Anchorage, Fairbanks, Juneau or other nonrural areas in Alaska, or a hunter from outside Alaska, could not.

In the 2015 Rule, the NPS also concluded that the practice of putting out bait to attract bears for harvest poses an unacceptable safety risk to the visiting public and leads to unnatural wildlife behavior by attracting bears to a food source that would not normally

Fish and Game, Hunting and Trapping Emergency Order 4–01–11 to Extend Wolf Hunting and Trapping Seasons in GMU [Game Management Unit] 9 and 10 (LACL and KATM) (Nov. 25, 2014); ADFG Presentation Intensive Management of Wolves, Bears, and Ungulates in Alaska (Feb. 2009).

be there. The NPS based this conclusion on the understanding that bears are more likely to attack when defending a food source and therefore visitors who encountered a bait station would be at risk from bear attacks. In addition, the NPS concluded that baiting could cause more bears to become conditioned to human food, creating unacceptable public safety risks. The NPS based this conclusion on the fact that not all bears that visit bait stations are harvested; for example, a hunter may not be present when the bear visits the station, or a hunter may decide not to harvest a particular bear for a variety of reasons. Additionally, other animals are attracted to bait stations. Because bait often includes dog food and human food, including items like bacon grease and pancake syrup, which are not a natural component of animal diets, the NPS was concerned that baiting could lead to bears and other animals associating these foods with people, which would create a variety of risks to people, bears, and property. For these reasons, the 2015 Rule prohibited bear baiting in national preserves in Alaska.

The NPS received approximately 70,000 comments during the public comment period for the 2015 Rule. These included unique comment letters, form letters, and signed petitions. Approximately 65,000 comments were form letters. The NPS also received three petitions with a combined total of approximately 75,000 signatures. The NPS counted a letter or petition as a single comment, regardless of the number of signatories. More than 99% of the public comments supported the 2015 Rule. Comments on the 2015 Rule can be viewed on *regulations.gov* by searching for "RIN 1024-AE21".

The 2020 Rule

The 2020 Rule reconsidered the conclusions in the 2015 Rule regarding predator control, sport hunting, and bear baiting. First, the 2020 Rule reversed the 2015 Rule's conclusion that the State intended to reduce predator populations through its hunting regulations. As explained above, the NPS's conclusion in the 2015 Rule was based on BOG proposals, deliberations, and decisions; and Alaska Department of Fish and Game actions, statements, and publications that preceded the 2015 Rule. However, in their written comments on the 2015 and 2020 Rules, the State denied that the harvest

practices for predators were part of their predator control or intensive management programs and therefore were not efforts to reduce predators. In its written comments, the State argued that the liberalized predator harvest

rules were simply a means to provide new opportunities for hunters to harvest predators, in response to requests received by the BOG. The State argued that it provided these new opportunities under a “sustained yield” management framework, which is distinct from what the State considers “predator control.” The State asserted that it has a separate, formal predator control program which is not considered “hunting” by the State. According to the State, predator control occurs only through its “intensive management” program.

The NPS afforded the State’s written comments on the 2020 Rule more weight than it did on the State’s similar comments on the 2015 Rule, both of which were in conflict with other contemporaneous public State positions on the matter. The NPS took into account the analysis in the environmental assessment supporting the 2020 Rule, which concluded that the hunting practices in question would not likely alter natural predator-prey dynamics at the population level or have a significant foreseeable adverse impact to wildlife populations, or otherwise impair park resources. The NPS also considered what it viewed as the legislative requirements of ANILCA with respect to hunting. Based upon these considerations, the NPS concluded the hunting practices did not run afoul of NPS Management Policies section 4.4.3, which prohibits predator reduction to increase numbers of harvested prey species. This led the NPS to remove two provisions that were implemented in the 2015 Rule: (1) the statement that State laws or management actions intended to reduce predators are not allowed in NPS units in Alaska, and (2) prohibitions on several methods of harvesting predators. With prohibitions on harvest methods removed, the 2020 Rule went back to deferring to authorizations under State law for harvesting predators. To illustrate how the 2020 Rule works in practice, Alaska residents, including rural and nonrural residents, and out-of-state hunters may take wolves and coyotes (including pups) for sport purposes in national preserves during the denning season in accordance with State law.

The 2020 Rule also relied upon a different interpretation of the term “sport” in ANILCA’s authorization for harvest of wildlife for sport purposes in national preserves in Alaska. As explained above, the 2015 Rule gave the term “sport” its common meaning associated with standards of fairness, and prohibited certain practices that were not compatible with these standards. In the 2020 Rule, the NPS

stated that in the absence of a statutory definition, the term “sport” merely served to distinguish sport hunting from harvest under federal subsistence regulations. Consequently, under the 2020 Rule, practices that may not be generally compatible with notions of “sport”—such as harvesting swimming caribou or taking cubs and pups or mothers with their young—may be used by anyone in national preserves in accordance with State law.

Finally, the 2020 Rule reconsidered the risk of bear baiting to the visiting public. The NPS noted that peer-reviewed data are limited on the specific topic of hunting bears over bait. Additionally, the NPS concluded that human-bear interactions are likely to be rare, other than for hunters seeking bears, due to a lack of observed bear conditioning to associate bait stations with humans and the relatively few people in such remote areas to interact with bears. In making this risk assessment, the NPS took into account state regulations on baiting that are intended to mitigate safety concerns, and NPS authority to enact local closures if and where necessary. For these reasons and because of policy direction from the DOI and the Secretary of the Interior requiring maximum deference to state laws on harvest that did not exist in 2015, the 2020 Rule rescinded the prohibition on bear baiting that was implemented in the 2015 Rule. As a result, any Alaska resident, including rural and nonrural residents, or out-of-state hunter may take bears over bait in national preserves in Alaska in accordance with State law, including with the use of human and dog foods.

The NPS received approximately 211,780 pieces of correspondence, with a total of 489,101 signatures, during the public comment period for the 2020 Rule. Of the 211,780 pieces of correspondence, approximately 176,000 were form letters and approximately 35,000 were unique comments. More than 99% of the public comments opposed the 2020 Rule. Comments on the 2020 Rule can be viewed on *regulations.gov* by searching for “RIN 1024-AE38”.

Proposed Rule

In this proposed rule, the NPS reconsiders the conclusions that supported the 2020 Rule. This proposed rule addresses three topics that were considered in the 2015 and 2020 Rules: (1) bear baiting; (2) the meaning and scope of hunting for “sport purposes” under ANILCA; and (3) State law addressing predator harvest. After reconsidering these topics, the NPS

proposes in this rule to prohibit the same harvest methods that were prohibited in the 2015 Rule. The proposed rule also would prohibit predator control or predator reduction on national preserves. Finally, the proposed rule would clarify the regulatory definition of trapping for reasons explained below. The NPS has begun consulting and communicating with Tribes and Alaska Native Claims Settlement Act (ANCSA) Corporations that would be most affected by this proposed rule and the feedback provided to date has been incorporated by the NPS in this proposed rule as discussed below.

Bear Baiting

The NPS proposes to prohibit bear baiting in national preserves in Alaska. Bait that hunters typically use to attract bears includes processed foods like bread, pastries, dog food, and bacon grease. As explained below, this proposal would lower the risk that bears will associate food at bait stations with humans and become conditioned to eating human-produced foods, thereby creating a public safety concern. This proposal would also lower the probability of visitors encountering a bait station where bears may attack to defend a food source. The proposal to prohibit baiting is supported by two primary risk factors and other considerations that are discussed below.

Risk of Bears Defending a Food Source

The risks caused by humans feeding bears (including baiting them with food) are widely recognized.⁴ Bears are more likely to attack when defending a food source, putting visitors who encounter a bear at or near a bait station or a kill site

⁴Herrero, S. 2018. Bear attacks: their causes and avoidance. Lyons Press, Guilford, Connecticut, USA at p. 22; Glitzenstein, E., Fritschie, J. The Forest Service’s Bait and Switch: A Case Study on Bear Baiting and the Service’s Struggle to Adopt a Reasoned Policy on a Controversial Hunting Practice within the National Forests. 1 *Animal Law* 47, 55–56 (1995). See also, Denali State Park Management Plan, 69 (2006) (“The practice has the potential for creating serious human-bear conflicts, by encouraging bears to associate campgrounds and other human congregation points with food sources.”); City and Borough of Juneau, Living with Bears: How to Avoid Conflict (available at https://juneau.org/wp-content/uploads/2017/03/2004_living_w_pamphlet_finaljustified.pdf), City and Borough of Juneau, Living in Bear Country (available at https://juneau.org/wp-content/uploads/2017/03/living_in_bear_country_color.pdf) (“It is well known that garbage kills bears—that is, once bears associate people with a food reward, a chain of events is set into motion and the end result, very often, is a dead bear.”); Biologists say trash bears in Eagle River will be killed—but people are the problem, Anchorage Daily News (available at www.adn.com/alaska-news/wildlife/2018/06/18/biologists-say-trash-bears-in-eagle-river-will-be-killed-but-people-are-the-problem/).

at significant risk.⁵ Visitors to national preserves in Alaska may inadvertently encounter bears and bait stations while engaging in sightseeing, hiking, boating, hunting, photography, fishing, and a range of other activities. This is because despite the vast, relatively undeveloped nature of these national preserves, most visitation occurs near roads, trails, waterways, or other encampments (e.g., cabins, residences, communities). Establishing and maintaining a bait station requires the transport of supplies, including bait, barrels, tree stands, and game cameras. The same roads, trails, and waterways used by visitors are, therefore, also used by those setting up a bait station. Thus, despite the vast landscapes, bear baiting and many other visitor activities are concentrated around the same limited access points. Processed foods are most commonly used for bait because they are convenient to obtain and are attractive to bears. Processed foods do not degrade quickly nor are they rapidly or easily broken down by insects and microbes. As a result, they persist on the landscape along with the public safety risk of bears defending a food source.

The NPS recognizes that there are restrictions in State law intended to mitigate the risks described above. Bait stations are prohibited within ¼ mile of a road or trail and within one mile of a dwelling, cabin, campground, or other recreational facility. State regulations also require bait station areas to be signed so that the public is aware that a bait station exists. Although these mitigation measures may reduce the immediate risk of park visitors approaching a bear defending bait, NPS records indicate that bait stations established at Wrangell-St. Elias National Park and Preserve often do not comply with the State's minimum distance requirements. Further, as discussed below, these requirements do not mitigate the risk of other adverse outcomes associated with baiting that are discussed below.

Risk of Habituated and Food-Conditioned Bears

Another aspect of bear baiting that poses a public safety and property risk is the possibility that bears become habituated to humans through exposure to human scents at bait stations and then become food conditioned, meaning

⁵Herrero, S. 2018. Bear attacks: their causes and avoidance. Lyons Press, Guilford, Connecticut, USA. at p. 22; Glitzenstein, E., Fritschie, J. The Forest Service's Bait and Switch: A Case Study on Bear Baiting and the Service's Struggle to Adopt a Reasoned Policy on a Controversial Hunting Practice within the National Forests. 1 Animal Law 47, 55–56 (1995).

they learn to associate humans with a food reward (bait). This is particularly true of processed foods that are not part of a bear's natural diet because virtually all encounters with processed foods include exposure to human scent.

It is well understood that habituated and food-conditioned bears pose a heightened public safety risk.⁶ The published works of Stephen Herrero, a recognized authority on human-bear conflicts and bear attacks explain the dangers from bears that are habituated to people or have learned to feed on human food, highlight that habituation combined with food-conditioning has been associated with a large number of injuries to humans, and indicate food-conditioning of bears may result from exposure to human food at bait stations.

The State's mitigation measures mentioned above, including requirements for buffers and signage, do not adequately address the risk associated with habituated and food-conditioned bears because bears range widely, having home ranges of tens to hundreds of square miles.⁷ The buffers around roads, trails, and dwellings are therefore inconsequential for bears that feed at bait stations but are not harvested there. These bears have the potential to become habituated to humans and conditioned to human-produced foods, resulting in increased likelihood of incidents that compromise public safety, result in property damage and threaten the lives of bears who are killed in defense of human life and property.

In the 2020 Rule, the NPS determined that the lack of conclusive evidence that bear baiting poses safety concerns justified allowing bear baiting. While the NPS acknowledges the lack of peer-reviewed data demonstrating that bear baiting poses a public safety risk, this data gap exists primarily because rigorous studies specific to this point are logistically and ethically infeasible. The determination made by the NPS in the 2020 Rule did not fully consider the vast experience and knowledge of recognized experts and professional resource managers. In April 2022, the NPS queried 14 NPS resource managers

⁶Herrero, S. 2018. Bear attacks: their causes and avoidance. Lyons Press, Guilford, Connecticut, USA. at p. 22; Glitzenstein, E., Fritschie, J. The Forest Service's Bait and Switch: A Case Study on Bear Baiting and the Service's Struggle to Adopt a Reasoned Policy on a Controversial Hunting Practice within the National Forests. 1 Animal Law 47, 55–56 (1995).

⁷See, e.g., Glitzenstein, E., Fritschie, J. The Forest Service's Bait and Switch: A Case Study on Bear Baiting and the Service's Struggle to Adopt a Reasoned Policy on a Controversial Hunting Practice within the National Forests. 1 Animal Law 52–53 (1995).

and wildlife biologists from 12 different National Park System units in Alaska about bear baiting. These technical experts' unanimous opinion was that bear baiting will increase the likelihood of defense of life and property kills of bears and will alter the natural processes and behaviors of bears and other wildlife. Considering the potential for significant human injury or even death, these experts considered the overall risk of bear baiting to the visiting public to be moderate to high. These findings generally agree with the universal recognition in the field of bear management that food conditioned bears result in increased bear mortality and heightened risk to public safety and property, and that baiting, by its very design and intent, alters bear behavior. The findings also are consistent with the State's management plan for Denali State Park. The management plan expresses concern that bear baiting "teaches bears to associate humans with food sources" and states that bear baiting is in direct conflict with recreational, non-hunting uses of the park. The plan further notes that bear baiting has "the potential for creating serious human-bear conflicts, by encouraging bears to associate campgrounds and other human congregation points with food sources."⁸

Other Considerations

In addition to the risks explained above, there are other considerations that support the proposal to prohibit all bear baiting. The NPS is guided by its mandates under the NPS Organic Act to conserve wildlife and under ANILCA to protect wildlife populations. Food-conditioned bears are more likely to be killed by authorities or by the public in defense of life or property.⁹ While the NPS supports wildlife harvest as authorized in ANILCA, it cannot

⁸Denali State Park Management Plan, 69 (2006).

⁹See e.g., City and Borough of Juneau, Living with Bears: How to Avoid Conflict (available at https://juneau.org/wp-content/uploads/2017/03/2004_living_w_pamphlet_finaljustified.pdf), and Borough of Juneau, Living in Bear Country (available at https://juneau.org/wp-content/uploads/2011/03/living_in_bear_country_color.pdf)

("It is well known that garbage kills bears—that is, once bears associate people with a food reward, a chain of events is set into motion and the end result, very often, is a dead bear."); Biologists say trash bears in Eagle River will be killed—but people are the problem, Anchorage Daily News (available at www.adn.com/alaska-news/wildlife/2018/06/18/biologists-say-trash-bears-in-eagle-river-will-be-killed-but-people-are-the-problem/); Glitzenstein, E., Fritschie, J. The Forest Service's Bait and Switch: A Case Study on Bear Baiting and the Service's Struggle to Adopt a Reasoned Policy on a Controversial Hunting Practice within the National Forests. 1 Animal Law 52–53 (1995).

promote activities that increase non-harvest mortalities of bears.

Feedback From Tribes and ANCSA Corporations on Bear Baiting

Feedback received to date from Tribes and ANCSA Corporations indicates baiting bears is not a common activity in or near national preserves and not something done commonly by local rural residents. Many of the entities voiced support for prohibiting baiting altogether, limiting bait to natural items, increasing buffer zones around developments, or requiring a permit. On the other hand, a minority—mostly entities affiliated with the Wrangell-St. Elias area—recommended continuing to allow sport hunters to harvest bears over bait, including with use of processed foods like donuts and dog food. Consultation and communication with Tribes and ANCSA Corporations is ongoing and feedback will continue to be considered by the NPS throughout the rulemaking process.

The Meaning and Scope of Hunting for “Sport Purposes” Under ANILCA

Hunting is prohibited in National Park System units except as specifically authorized by Congress. 36 CFR 2.2(b). Title VIII of ANILCA allows local rural residents to harvest wildlife for subsistence in most, but not all, lands administered by the NPS in Alaska. Title VIII also created a priority for federal subsistence harvest over other consumptive uses of fish and wildlife. Separate from subsistence harvest, ANILCA authorized anyone to harvest wildlife for “sport purposes.” When first authorized under ANILCA, the State managed subsistence harvest by local rural residents under Title VIII as well as harvest for sport purposes by anyone. After a ruling from the State Supreme Court that the State Constitution barred the State from implementing the rural subsistence provisions of ANILCA, the Federal government assumed management of subsistence harvest under title VIII. Following this decision, the State only regulates harvest for sport purposes under ANILCA.¹⁰ Under the State’s current framework, Alaska residents have a priority over nonresidents but there is no prioritization based upon where one resides in Alaska.

¹⁰ The State of Alaska also uses the term “subsistence” when referencing harvest of fish and wildlife by state residents. It is important to recognize, however, that state subsistence harvest is not the same as federal subsistence under title VIII of ANILCA, which is limited to only local rural residents. When the term “subsistence” is used in this document, it refers to subsistence under title VIII of ANILCA and harvest of fish and wildlife under federal regulations.

Accordingly, all residents of Alaska have an equal opportunity to harvest wildlife for “sport purposes” in national preserves under State law.

The NPS is re-evaluating whether it was appropriate for the 2020 Rule to change its interpretation of the term “sport” in the 2015 Rule. An important implication of that change is that the 2020 Rule expanded sport hunting opportunities for nonlocal residents who are not qualified to harvest wildlife under federal subsistence laws. As mentioned above, in the spring of 2022 the NPS reached out to Tribes and ANCSA Corporations that are most likely to be impacted by this proposed rule. In these discussions, most of these entities expressed concern that increasing harvest opportunities under ANILCA’s authorization for sport hunting and trapping could result in increased competition from individuals that are not local to the area. In addition, most of these entities do not believe there is a demand to engage in these harvest practices in national preserves (other than limited demand to bait bears in Wrangell-St. Elias) and expressed a preference that the NPS not authorize practices that could encourage more nonlocal hunters to visit the area and compete for wildlife resources.

This feedback from Tribes and ANCSA Corporations illustrates a tension between the interests conveyed and the outcome of the 2020 Rule which increased harvest opportunities for nonlocal rural residents. In the 2015 Rule, the NPS said harvest of wildlife for “sport purposes” carries with it concepts of fairness or fair chase. These constructs do not necessarily apply to subsistence practices which emphasize cultural traditions and acquisition of calories for sustenance. In the 2020 Rule, the NPS changed its interpretation by saying the term “sport” only serves to differentiate harvest under State regulations from harvest under federal subsistence regulations. As a result, practices that some might consider only appropriate for subsistence harvest by local rural residents now may be used by anyone harvesting for “sport purposes” under State law. As conveyed by the Tribes and ANCSA Corporations, this increases competition between federal subsistence hunters and sport hunters by expanding hunting opportunities to those who are not local rural residents. It also allows for sport hunters to engage in practices that are not considered sporting under notions of the term as described above. The examples below illustrate how this issue plays out in national preserves in Alaska today:

- *Swimming caribou.* Under the 2015 Rule, only qualified rural residents could harvest swimming caribou in national preserves in accordance with federal subsistence regulations, which recognize the practice as part of a customary and traditional subsistence lifestyle. Individuals from Anchorage, Fairbanks, Juneau and other nonrural areas in Alaska, as well as out-of-state hunters, could not harvest swimming caribou in national preserves. Under the 2020 Rule, residents of nonrural areas in Alaska (including Anchorage, Fairbanks, and Juneau) and out-of-state hunters can harvest swimming caribou in national preserves in accordance with State law under ANILCA’s authorization for harvest for “sport purposes.”

- *Black bear cubs and sows with cubs.* Under the 2015 Rule, only a qualified rural resident could harvest bear cubs and sows with cubs in accordance with federal subsistence regulations, which recognize this practice as an uncommon but customary and traditional harvest practice by some Native cultures in northern Alaska. Accordingly, while the NPS supported the activity under federal subsistence regulations, the NPS did not support it under ANILCA’s authorization for “sport” hunting.” Under the 2020 Rule which deferred to State law, harvest of bear cubs and sows with cubs is not limited based on where one resides. Accordingly, under the 2020 Rule individuals who are not local to the area can harvest bear cubs and sows with cubs at den sites in national preserves under ANILCA’s authorization for harvest for “sport” purposes.

- *Take of wolves and coyotes, including pups, during the denning season.* The 2015 Rule prohibited sport hunters from taking wolves and coyotes during the denning season, a time when their pelts are not in prime condition, which can leave pups and cubs orphaned and left to starve. Under the 2020 Rule, any hunter (including those from out of state) can harvest wolves and coyotes year-round, including pups during the denning season. This reduces the number of wolves and coyotes available to harvest when their pelts are fuller and therefore more desirable to subsistence users and other trappers.

These examples demonstrate that the NPS’s interpretation of the term “sport” under the 2015 Rule created a result that is more in line with the majority of feedback received to date from Tribes and ANCSA Corporations. The NPS Organic Act directs the NPS to conserve wildlife. Based upon this conservation mandate, hunting is prohibited in National Park System units except as authorized by Congress. 36 CFR 2.2(b).

ANILCA authorizes harvest for Federal subsistence and “sport purposes” in national preserves in Alaska. The NPS interprets the term “sport” to include the concept of fair chase as articulated by some hunting organizations,¹¹ as not providing an unfair advantage to the hunter and allowing the game to have a reasonable chance of escape. This involves avoiding the targeting of animals that are particularly vulnerable, such as while swimming, while young, or while caring for their young. While the NPS understands that the exact boundaries of this concept involve some level of ambiguity, the NPS believes the practices addressed in this proposed rule fall outside the norms of “sport” hunting.

The NPS requests comment on this concept of “sport” and whether the practices described in these examples should be allowed as a “sport” hunt in national preserves in Alaska. Giving meaning of the term “sport” also prioritizes harvest for subsistence by local rural residents by avoiding competition with nonlocal residents who are hunting for sport purposes under ANILCA. This is consistent with the priority that Congress placed on the customary and traditional uses of wild renewable resources by local rural residents under ANILCA (*see* Sec. 101(c)). For these reasons, the proposed rule would reinstate the prohibitions in the 2015 Rule on methods of harvest that are not compatible with generally accepted notions of “sport” hunting. The proposed rule would define the terms “big game,” “cub bear,” “fur animal,” and “furbearer,” which are used in the table of prohibited harvest methods, in the same way they were defined in the 2015 Rule.

State Law Addressing Predator Harvest

The proposed rule also would address opportunities to harvest predators that are authorized by the State. NPS policy interprets and implements the NPS Organic Act. NPS Management Policies require the NPS to manage National Park System units for natural processes, including natural wildlife fluctuations, abundances, and behaviors, and specifically prohibit the NPS from engaging in predator reduction efforts to benefit one harvested species over another or allowing others to do so on NPS lands. (NPS Management Policies 2006, Ch. 4). These activities are prohibited by policy even if they do not actually reduce predator populations or

increase the number of prey species available to hunters. The NPS believes the 2020 Rule is in tension with these policies based upon the information it collected over a period of years before the publication of the 2015 Rule. This information indicates that the predator harvest practices that were allowed by the State were allowed for the purpose of benefited prey species over predators. For this reason, the proposed rule would reinstate the prohibitions in the 2015 Rule on methods of harvest that target predators for the purpose of increasing populations of prey species for human harvest. In addition, the proposed rule would add the following statement to its regulations to clarify that predator control is not allowed on NPS lands: “Actions to reduce the numbers of native species for the purpose of increasing the numbers of harvested species (*e.g.*, predator control or predator reduction) are not allowed.”

Trapping Clarification

Finally, the proposed rule would revise the definition of “trapping” in part 13 to clarify that trapping only includes activities that use a “trap” as that term is defined in part 13. The definition of “trapping” promulgated in the 2015 Rule inadvertently omitted reference to the use of traps, instead referring only to “taking furbearers under a trapping license.” The proposed revision would resolve any question about whether trapping can include any method of taking furbearers under a trapping license, which could include the use of firearms depending upon the terms of the license. This change would more closely align the definition of “trapping” in part 13 with the definition that applies to System units outside of Alaska in part 1.

Compliance With Other Laws, Executive Orders and Department Policy

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the OMB will review all significant rules. The Office of Information and Regulatory Affairs has determined that this proposed rule is significant because it raises novel legal or policy issues. The NPS has assessed the potential costs and benefits of this proposed rule in the report entitled “Cost-Benefit and Regulatory Flexibility Analyses: Alaska Hunting and Trapping Regulations in National Preserves” which can be viewed online at <https://www.regulations.gov> by searching for “1024-AE70.” Executive Order 13563

reaffirms the principles of Executive Order 12866 while calling for improvements in the nation’s regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. Executive Order 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. The NPS has developed this proposed rule in a manner consistent with these requirements.

Regulatory Flexibility Act

This proposed rule will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). This certification is based on the cost-benefit and regulatory flexibility analyses found in the report entitled “Cost-Benefit and Regulatory Flexibility Analyses: Alaska Hunting and Trapping Regulations in National Preserves” which can be viewed online at <https://www.regulations.gov> by searching for “1024-AE70.”

Unfunded Mandates Reform Act

This proposed rule does not impose an unfunded mandate on Tribal, State, or local governments or the private sector of more than \$100 million per year. The proposed rule does not have a significant or unique effect on Tribal, State, or local governments or the private sector. It addresses public use of national park lands and imposes no requirements on other agencies or governments. A statement containing the information required by the Unfunded Mandates Reform Act (2 U.S.C. 1531 *et seq.*) is not required.

Takings (Executive Order 12630)

This proposed rule does not effect a taking of private property or otherwise have takings implications under Executive Order 12630. A takings implication assessment is not required.

Federalism (Executive Order 13132)

Under the criteria in section 1 of Executive Order 13132, the proposed rule does not have sufficient federalism implications to warrant the preparation of a Federalism summary impact statement. This proposed rule only affects use of federally administered

¹¹ The Hunting Heritage Foundation, www.huntingheritagefoundation.com (last visited July 25, 2022); Boone and Crockett Club, www.boone-crockett.org/principles-fair-chase (last visited July 25, 2022).

lands and waters. It has no outside effects on other areas. A Federalism summary impact statement is not required.

Civil Justice Reform (Executive Order 12988)

This proposed rule complies with the requirements of Executive Order 12988. This proposed rule:

(a) Meets the criteria of section 3(a) requiring that all regulations be reviewed to eliminate errors and ambiguity and be written to minimize litigation; and

(b) Meets the criteria of section 3(b)(2) requiring that all regulations be written in clear language and contain clear legal standards.

Consultation With Indian Tribes and ANCSA Corporations (Executive Order 13175 and Department Policy)

The DOI strives to strengthen its government-to-government relationship with Indian Tribes through a commitment to consultation with Indian Tribes and recognition of their right to self-governance and Tribal sovereignty. The NPS has begun consulting and communicating with Tribes and ANCSA Corporations that would be most affected by this proposed rule and the feedback provided to date has been incorporated by the NPS in this proposed rule. The NPS has evaluated this proposed rule under the criteria in Executive Order 13175 and under the Department's Tribal consultation and ANCSA Corporation policies. This proposed rule would restrict harvest methods for sport hunting only; it would not affect subsistence harvest under Title VIII of ANILCA. Feedback from Tribes and ANCSA Corporations indicates that these harvest methods are not common or allowed in many areas by the State. For these reasons, the NPS does not believe the proposed rule will have a substantial direct effect on federally recognized Tribes or ANCSA Corporation lands, water areas, or resources. Consultation and communication with Tribes and ANCSA Corporations is ongoing and feedback will continue to be considered by the NPS throughout the rulemaking process.

Paperwork Reduction Act

This proposed rule does not contain information collection requirements, and a submission to the Office of Management and Budget under the Paperwork Reduction Act is not required. The NPS may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

The NPS will prepare an environmental assessment of this proposed rule to determine whether this proposed rule will have a significant impact on the quality of the human environment under the National Environmental Policy Act of 1969. The environmental assessment will include new information, as appropriate, as well as an impact analysis similar to what was provided in the environmental assessments prepared for the 2015 Rule and the 2020 Rule, both of which resulted in a finding of no significant impact.

Effects on the Energy Supply (Executive Order 13211)

This proposed rule is not a significant energy action under the definition in Executive Order 13211; the proposed rule is not likely to have a significant adverse effect on the supply, distribution, or use of energy, and the proposed rule has not otherwise been designated by the Administrator of Office of Information and Regulatory Affairs as a significant energy action. A Statement of Energy Effects is not required.

Clarity of This Rule

The NPS is required by Executive Orders 12866 (section 1(b)(12)) and 12988 (section 3(b)(1)(B)), and 13563 (section 1(a)), and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule the NPS publishes must:

- (a) Be logically organized;
- (b) Use the active voice to address readers directly;
- (c) Use common, everyday words and clear language rather than jargon;
- (d) Be divided into short sections and sentences; and
- (e) Use lists and tables wherever possible.

If you feel that the NPS has not met these requirements, send the NPS comments by one of the methods listed in the ADDRESSES section. To better help the NPS revise the rule, your comments should be as specific as possible. For example, you should identify the numbers of the sections or paragraphs that you find unclear, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Public Participation

It is the policy of the DOI, whenever practicable, to afford the public an opportunity to participate in the rulemaking process. Accordingly, interested persons may submit written comments regarding this proposed rule

by one of the methods listed in the ADDRESSES section of this document.

Public Availability of Comments

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask the NPS in your comment to withhold your personal identifying information from public review, the NPS cannot guarantee that it will be able to do so.

List of Subjects in 36 CFR Part 13

Alaska, National Parks, Reporting and recordkeeping requirements.

In consideration of the foregoing, the National Park Service proposes to amend 36 CFR part 13 as set forth below:

PART 13—NATIONAL PARK SYSTEM UNITS IN ALASKA

1. The authority citation for part B continues to read as follows:

Authority: 16 U.S.C. 3101 *et seq.*; 54 U.S.C. 100101, 100751, 320102; Sec. 13.1204 also issued under Pub. L. 104-333, Sec. 1035, 110 Stat. 4240, November 12, 1996.

- 2. In § 13.1:
 - a. Add in alphabetical order the definitions for “Big game”, “Cub bear”, “Fur animal”, and “Furbearer”.
 - b. Revise the definition of “Trapping”.
 The additions and revision read as follows:

§ 13.1 Definitions.

* * * * *

Big game means black bear, brown bear, bison, caribou, Sitka black-tailed deer, elk, mountain goat, moose, muskox, Dall's sheep, wolf, and wolverine.

* * * * *

Cub bear means a brown (grizzly) bear in its first or second year of life, or a black bear (including the cinnamon and blue phases) in its first year of life.

* * * * *

Fur animal means a classification of animals subject to taking with a hunting license, consisting of beaver, coyote, arctic fox, red fox, lynx, flying squirrel, ground squirrel, or red squirrel that have not been domestically raised.

Furbearer means a beaver, coyote, arctic fox, red fox, lynx, marten, mink, least weasel, short-tailed weasel, muskrat, land otter, red squirrel, flying squirrel, ground squirrel, Alaskan marmot, hoary marmot, woodchuck, wolf and wolverine.

* * * * *

Trapping means taking furbearers with a trap under a trapping license.

* * * * *

3. In § 13.42, add paragraphs (f) and (k) to read as follows:

§ 13.42 Taking of wildlife in national preserves.

* * * * *

(f) Actions to reduce the numbers of native species for the purpose of increasing the numbers of harvested species (*e.g.*, predator control or predator reduction) are prohibited.

* * * * *

(k) This paragraph applies to the taking of wildlife in park areas

administered as national preserves except for subsistence uses by local rural residents pursuant to applicable Federal law and regulation. The following are prohibited:

TABLE 1 TO PARAGRAPH (k)

Prohibited acts	Any exceptions?
(1) Shooting from, on, or across a park road or highway	None.
(2) Using any poison or other substance that kills or temporarily incapacitates wildlife.	None.
(3) Taking wildlife from an aircraft, off-road vehicle, motorboat, motor vehicle, or snowmachine.	If the motor has been completely shut off and progress from the motor's power has ceased.
(4) Using an aircraft, snowmachine, off-road vehicle, motorboat, or other motor vehicle to harass wildlife, including chasing, driving, herding, molesting, or otherwise disturbing wildlife.	None.
(5) Taking big game while the animal is swimming	None.
(6) Using a machine gun, a set gun, or a shotgun larger than 10 gauge	None.
(7) Using the aid of a pit, fire, artificial salt lick, explosive, expanding gas arrow, bomb, smoke, chemical, or a conventional steel trap with an inside jaw spread over nine inches.	Killer style traps with an inside jaw spread less than 13 inches may be used for trapping, except to take any species of bear or ungulate.
(8) Using any electronic device to take, harass, chase, drive, herd, or molest wildlife, including but not limited to: artificial light; laser sights; electronically enhanced night vision scope; any device that has been airborne, controlled remotely, and used to spot or locate game with the use of a camera, video, or other sensing device; radio or satellite communication; cellular or satellite telephone; or motion detector.	(i) Rangefinders may be used. (ii) Electronic calls may be used for game animals except moose. (iii) Artificial light may be used for the purpose of taking furbearers under a trapping license during an open season from Nov. 1 through March 31 where authorized by the State. (iv) Artificial light may be used by a tracking dog handler with one leashed dog to aid in tracking and dispatching a wounded big game animal. (v) Electronic devices approved in writing by the Regional Director.
(9) Using snares, nets, or traps to take any species of bear or ungulate	None.
(10) Using bait	Using bait to trap furbearers.
(11) Taking big game with the aid or use of a dog	Leashed dog for tracking wounded big game.
(12) Taking wolves and coyotes from May 1 through August 9	None.
(13) Taking cub bears or female bears with cubs	None.
(14) Taking a fur animal or furbearer by disturbing or destroying a den	Muskrat pushups or feeding houses.

Shannon Estenoz,
Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2023-00142 Filed 1-6-23; 8:45 am]

BILLING CODE 4312-52-P



Arctic National Wildlife Refuge U.S. Fish and Wildlife Service Summary of Activities



Figure 1. Collage of 2022 Arctic Refuge field projects.

Prepared for Eastern Interior and North Slope Regional Advisory Councils - October 2022

Arctic National Wildlife Refuge
907-456-0250, 800-362-4546
arctic_refuge@fws.gov, www.fws.gov/refuge/arctic

Refuge Staffing Updates:

Arctic Refuge worked through the Student Conservation Association (SCA) to recruit and select two interns to support the Visitor Services program in 2022.

Patrick Magrath worked at the Arctic Interagency Visitor Center at Coldfoot, on the Dalton Highway to serve visitors needing information about federal lands east and west of the road, including helping to be sure hunters were aware of the changes made by the Federal Subsistence hunting regulations.

Rachel Heckerman worked as a Visual Information Intern to create informational and educational visual products, such as videos and posters.

Sadie Ulman, who had worked as a seasonal technician for the Refuge since 2020, joined our staff in a term position this summer. Sadie's primary duties will be focused on the numerous research and management issues around migratory birds, particularly in relation to potential development and climate change.

Adeline Dymont joined the Canning River Delta seasonal field crew as an Alaska Native Science and Engineering Program (ANSEP) student technician. Born and raised in Bethel, Adeline has participated in ANSEP since high school and is entering her third year studying Biology at the University of Alaska, Anchorage. Adeline excelled as a technician for the Small Mammal project! In the future, Adeline plans to work as a biologist in Western Alaska.

Oil and Gas Leasing Programs:

The USFWS and BLM, working with numerous cooperating agencies, are in the process of completing a Draft Supplemental EIS (SEIS) for the Coastal Plain Oil and Gas program for public review and comment. The targeted deadline for a final SEIS and Record of Decision is August 2023.

Field Projects/Research – Refuge staff and collaborative researchers completed numerous monitoring and research projects during the 2022 summer season. These included projects investigating caribou habitat selection research, several studies on avian species, and small mammal (i.e. lemmings) research.

Biological Monitoring and Research

Tundra Nesting Birds at the Canning River Delta

The Canning River Delta study site in Arctic Refuge was established in the late 1970s and has since become the primary tundra nesting bird research station for the refuge.

Work at this location is a collaboration between numerous partners, including Arctic National Wildlife Refuge, FWS External Affairs, FWS Fairbanks Field Office, FWS Migratory Birds, Manomet, Inc., the Wildlife Conservation Society, University of Alaska, Fairbanks, the U.S. Geological Survey, Alaska Department of Fish and Game, Washington Department of Fish and Wildlife, and Oregon Department of Fish and Wildlife.

Figure 2. 2021 Canning River Delta field camp



Many of the species studied at the Canning Delta are Priority Refuge Resources of Concern (ROC), and the study site includes habitat types such as coastal wetlands, tundra lakes and ponds, and moist and wet sedge-shrub meadows that are separately listed as Priority ROCs (<https://ecos.fws.gov/Serv-Cat/DownloadFile/201641>) for the Arctic Refuge.

2022 marked yet another step forward in our effort to implement a more multidisciplinary approach to research projects at the site. This work is important to scientifically inform management decisions to better understand how climate change and other anthropogenic stressors are impacting the species and habitats that occur there.

Field technicians arrived at the Canning River Delta on June 6 and departed July 24. Overall, it was a late spring at the Canning and preliminary data suggests tundra nesting bird abundance was lower this year than average. Although generally the most abundant tundra nesting birds, this summer there were relatively few pectoral sandpiper, semipalmated sandpiper, and cackling geese nests.

Efforts will continue to use and evaluate novel ways to reduce costs and minimize our disturbance to the tundra environment, including the use of small cameras and temperature loggers at nests to monitor behavior and predation events (for example, see recent publications on the efficacy of using cameras to monitor shorebird nests <https://onlinelibrary.wiley.com/doi/10.1111> and how temperature loggers can be used to study links between shorebird behavior and environmental conditions <https://www.sciencedirect.com/science/article/abs/pii/S0048969720360149>).



Figure 3. Some of the members of the 2022 Canning River Delta research crew.

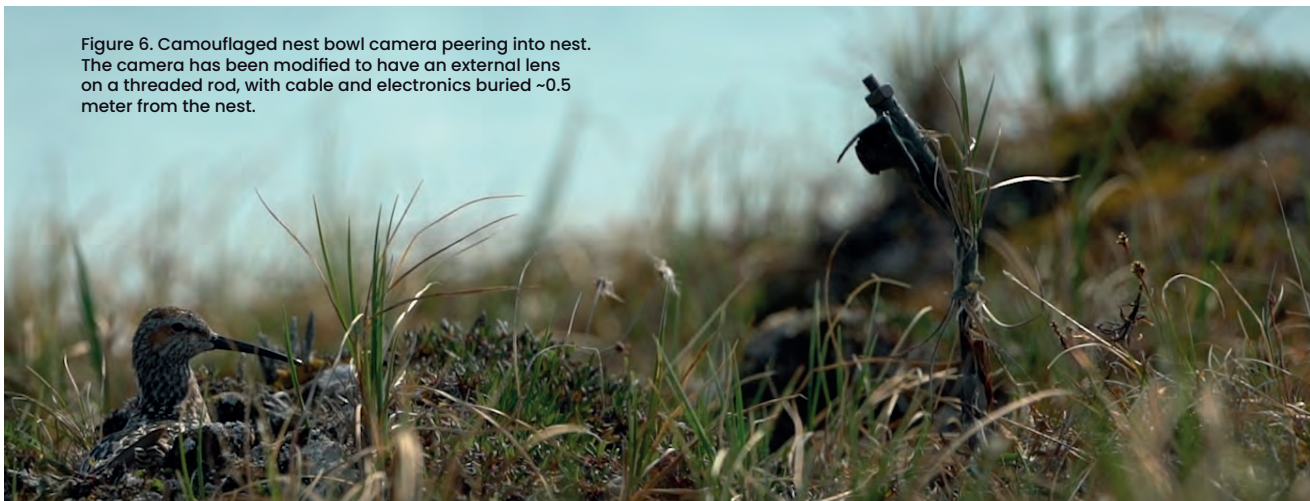


Figure 4. Aerial photo of Canning River Delta field camp area in late May 2022 showing snow cover of the late spring.



Figure 5. Camera images from a tundra swan nest show a wolf depredating all young in the nest while the adult attempts to unsuccessfully ward off the predator (left, right images). One adult swan also was consumed by the wolf.

Figure 6. Camouflaged nest bowl camera peering into nest. The camera has been modified to have an external lens on a threaded rod, with cable and electronics buried ~0.5 meter from the nest.



Red-throated loon abundance and distribution

Refuge staff conducted a collaborative aerial loon survey in late June/early July on the eastern Arctic Coastal Plain, from the Sagavanirktok River delta eastward in the Refuge. This project will provide measures of lake use by Red-throated and Pacific loons relevant to conservation planning and development of best management practices to conserve loons and their habitat.

Snow goose abundance and distribution

In early September 2022, Refuge staff conducted a lesser snow goose survey to document distribution and abundance of post-breeding snow geese on the Refuge Coastal Plain. This aerial survey began in 1973 and was last conducted in 2004. It was conducted 25 times during that time period. The Refuge added to this long-term data set by conducting the survey again this year. Data from this year is being processed.

Shorebird abundance and distribution

This summer, partners from FWS Migratory Birds and Mano-

met, Inc. conducted a second year of contemporary Program for Regional and International Shorebird Monitoring

(PRISM) surveys (see 2019 results here <http://jyi.iw.mybluehost.me/wp-content/uploads/2020/04/Revisiting-the-ANWR-PRISM-Saalfeld-et-al-1.pdf>). These surveys span the entire coastal plain of the Refuge and provide data both on population status of common shorebird species breeding in the Refuge, and density and distribution. These latter parameters are especially important as we develop best practices for meeting all Arctic Refuge's purposes. Our partners provide a great synopsis of this year's work (spoiler – it was a cold start to spring for them as well!) at <https://www.manomet.org/publication/arctic-research-team-unprecedented-conditions-monitoring-shorebirds/>

Cackling goose migration and wintering areas

This past year the Refuge expanded its collaborative work tracking the behavior and migration of cackling geese by tagging birds at the Canning River, near Prudhoe Bay, and in the Colville River area. Cackling geese have increased 10-fold at the Canning River Delta study site over the last several decades and, in most years, are now the most common waterbird encountered.

Figure 7 and 8. View from aircraft while conducting aerial loon survey.



Figure 9. Flock of lesser snow geese staging on the Coastal Plain of the Arctic Refuge.





Figure 10. Researcher holding female Cackling goose captured from nest at the Canning River Delta study site and fitted with a solar-powered GPS transmitter neck collar.

Research seeks to track the post-breeding and wintering movements of cackling geese by attaching neck collars weighing about 22 grams (about the weight of a single aa battery) that collect a GPS location every 15 minutes and transmit the data via cell towers when the birds enter areas of cell coverage in Canada and the Lower 48.

During winter of 2021-2022, non-breeding locations were obtained from 13 birds that were marked on the breeding grounds around Canning River Delta and Prudhoe Bay in June/July 2021. All these birds wintered in the western portion of the Central Flyway. Nine wintered primarily in Colorado, and 4 in New

Mexico. One of these birds also moved through Oklahoma, Kansas, and Nebraska during winter. These results are noteworthy because they are currently included in the Pacific Flyway index of Taverner's cackling geese. If follow up work confirms that this growing population on the North Slope winters in the Central Flyway, managers may need to reexamine harvest criteria for cackling geese in Western states like Washington and Oregon.



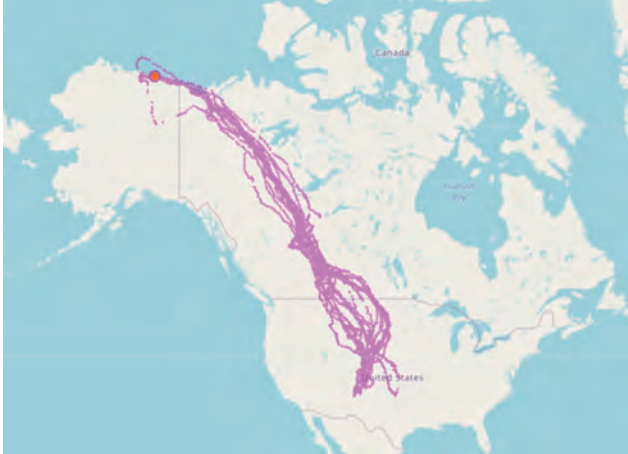


Figure 11. Migration and wintering locations (pink dots) from July 2021 through May 2022 of cackling geese fitted with GPS-GSM transmitters the previous summer at the Canning River Delta in Arctic NWR and around Prudhoe Bay.

Loon near-shore and on-shore habitat use

This year, partners at USGS attached glue-on solar transmitters to 20 red-throated and 20 Pacific loons near the Canning and Sagavanirktok Rivers.

This work will provide data on how loons use near-shore coastal and on-shore areas of these important breeding sites to allow for developing best management practices

and understand how climate change may be affecting their prey resources. (see prior years report: <https://pubs.er.usgs.gov/publication/ofr20211029>).

Whimbrel monitoring at the Katakaturuk River

This summer, partners at FWS Migratory Birds and Manomet, Inc. worked at the Katakaturuk River study site in Arctic Refuge to tag whimbrel with transmitters. See their great synopsis of the work (<https://www.manomet.org/publication/satellite-transmitters-migratory-shorebirds-in-decline/>).

Alaska Landbird Monitoring Survey

In June two staff members deployed on the Porcupine River near the Canadian border to conduct the Alaska Landbird Monitoring Survey at 1 of the 2 survey areas in the Refuge. Over a period of 5 survey days, breeding songbirds were counted as part of this state-wide effort. These surveys fill in knowledge gaps from other bird monitoring efforts (e.g., Breeding Bird Survey) by not being road-biased. Highlights from the survey include a surprising number of Yellow-bellied flycatchers, Western wood-pewees, and Olive-sided flycatchers, all species experiencing range-wide declines.

Figure 12. Researcher holding loon captured from nest at the Canning River Delta study site





Figure 13. Transmitter attached to a whimbrel to track migration routes



Figure 14. Migration routes through mid-September of whimbrel captured on nests at the Katakturuk River study site in Arctic Refuge in 2022 and tagged with solar-powered transmitters.



Small mammals at the Canning River Delta

Small mammal species such as lemmings and voles, typically undergo dramatic multi-year population cycles, with some years of high population peaks, followed by years of severe population crashes. These extreme fluctuations can cause cascading effects in other wildlife species in arctic food webs and peak lemming years have been linked to increased breeding success of tundra nesting birds. In these years, the huge abundance of lemmings on the tundra causes predators of birds and their nests, such as arctic fox, to preferentially consume lemmings, thereby shielding tundra nesting birds from predation pressure. However, this relationship is unconfirmed for most of the Alaskan North Slope, including the Coastal Plain of Arctic Refuge. To address this, staff initiated a project at the Canning River Delta to investigate the relationship and document annual small mammal population dynamics on the Coastal Plain of Arctic Refuge.

Building on pilot work completed in prior years, in 2022 we collected data on the abundance of small mammals at the Canning River Delta through live-trapping and using remote monitoring tools (cameras). Early review of live-trapping data suggest that vole populations were down in June and July 2022 compared to the summer of 2021, while both brown and collared lemming species may have been increasing slightly.

In pursuit of developing a small mammal remote monitoring protocol that is relatively simple, inexpensive, and could be broadly utilized in northern Alaska, staff tested a new game camera with good success. These easy-to-use cameras cost less than \$50 per unit, and therefore will allow for widescale use and monitoring of small mammals in Arctic Refuge (and the Coastal Plain at-large). Additionally staff began training on and using artificial intelligence (AI) algorithms to analyze game camera footage, which is a huge time-saver and is a significant step towards allowing for widespread use of this non-invasive tool.



Figure 15. Adeline Dyment, an Alaska Native Science and Engineering Program (ANSEP) student, setting up a small mammal live-trapping grid at the Canning River Delta.



Figure 16. A brown lemming anesthetized with isoflurane is marked and processed after being live-trapped





Figure 17. Porcupine Caribou on the Arctic Coastal Plain

Ongoing monitoring of Porcupine Caribou Herd

Partners (ADFG, Yukon Government, USFWS, and USGS) have continued monitoring Porcupine Caribou Herd movement, habitat use, diet, and population trends through radio-telemetry, aerial surveys, and field work.

To address information needs of DOI agencies and partners, the USGS, USFWS, Yukon Government, Parks Canada, and Alaska Department of Fish and Game (ADFG) are conducting a 5-year study to understand how climate-mediated changes in summer, forage conditions, and insect harassment shape the distribution, behavior, and dynamics of the Porcupine Caribou Herd (PCH). The project leverages long-term monitoring data on PCH space-use and demography (collected by Yukon Government and ADFG) with new field data on diet, forage quality, foraging behavior, and insect harassment.

To identify the early summer diet of PCH, fecal samples from where the caribou had been less than 48 hours previously were collected. This ensured sampling of fresh fecal pellets representative of the recent diet of the herd.

During summers 2020–2022, researchers collected data on foraging behavior, diet, and insect harassment using caribou-borne video collars that collect video clips across the summer. Collaborators developed an online web app to facilitate the scoring of video data, which is now being used by project staff, collaborators and volunteers. So far more than 11,000 videos have been scored for activity, habitat and insect data.





Figure 18. Researcher collecting fecal samples of Porcupine Caribou Herd

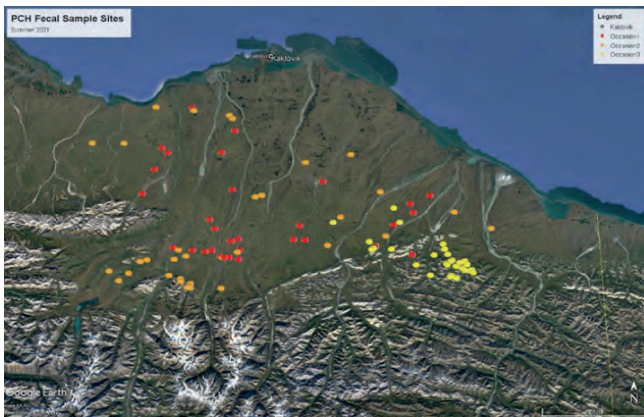


Figure 19. Fecal sample sites map on Arctic Refuge

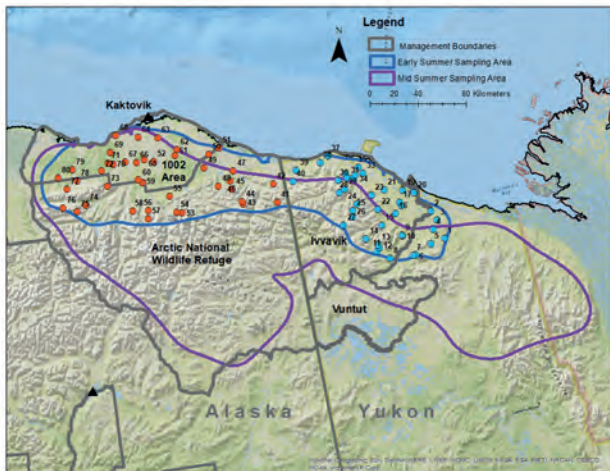


Figure 20. Early (blue) and mid-summer (purple) forage sampling areas.



Research Publication – Porcupine Caribou Herd

Biologists at USGS, USFWS, and the Department of Environment (Yukon Government) analyzed how spring vegetation phenology affects the spatial ecology of the Porcupine Caribou Herd (PCH). In years with early spring green-up, the herd primarily used habitat in Alaska. In years with late green-up, they spent more time in the Yukon. Future climate conditions and green-up patterns indicate a possible shift in PCH calving and post-calving distributions further west into Alaska. (Severson et al. 2021. Spring phenology drives range shifts in a migratory Arctic ungulate with key implications for the future. *Global Change Biology*. DOI: 10.1111/gcb.15682).

Figure 21: Projected Calving Habitat Use Trends

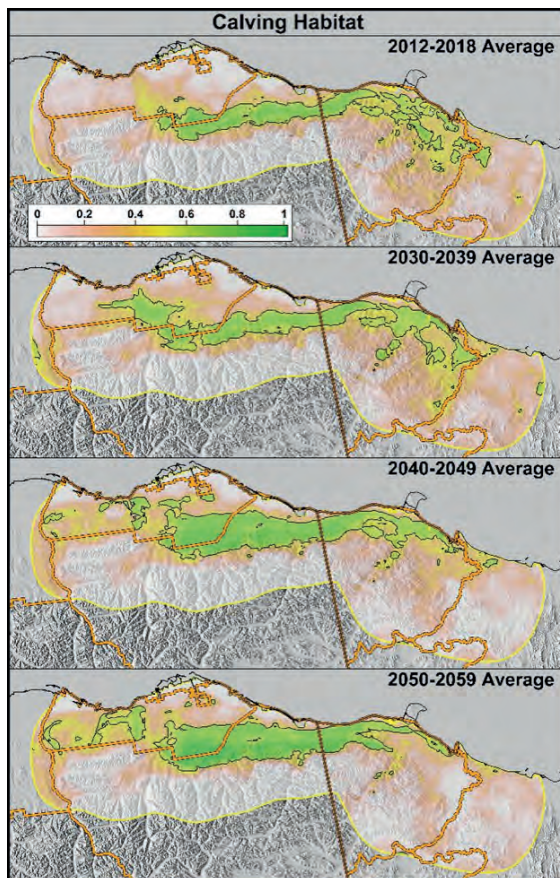
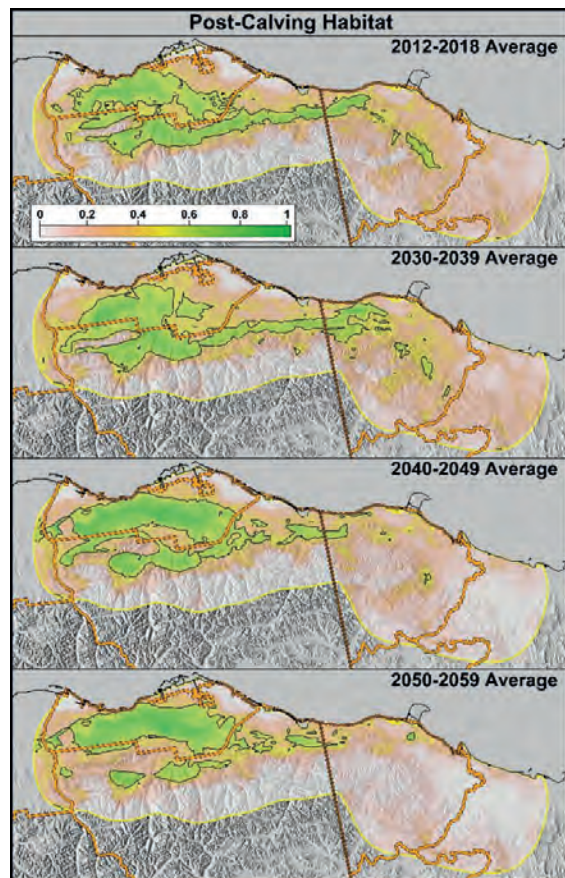


Figure 22: Projected Post-Calving Habitat Use Trends



Caribou Antler Study:

In August and September 2022, collaborators from University of Cincinnati, Cincinnati, OH and an Arctic Refuge staff member conducted a series of antler surveys along the East Fork of the Chandalar and Junjik Rivers, north of Arctic Village. With permission from the Native Village of Venetie Tribal Government (contacts: Margorie Gemmill and Myra Thuma), and support from the First Chief of Arctic Village (Robert Sam), they also surveyed for antlers on "The Mountain", a region south of Arctic Village. This work was conducted to evaluate the nutrient value (for various mammals and birds) of shed antlers and bones lying on Arctic landscapes. Specifically, the study evaluated the diversity and intensity with which different species utilize bone minerals as part of their diets. This work was supported by multiple partners from Arctic Village, including Mike Garnet, Robert Sam, Timothy Robert (Venetie), and Donald Tritt. In partnership with Arctic Refuge, the University of Cincinnati collaborators taught in Arctic Village School as part of Camp Goonhzii.

Sheep Surveys

Dall sheep have been identified as a Resource of Concern in the Arctic Refuge Inventory and Monitoring Plan. Having an accurate estimate of the Dall sheep population is a priority for Arctic Refuge. The Refuge attempts to conduct an aerial survey in one of three survey areas each year. No Dall sheep surveys were conducted in the Refuge in 2022 due to a lack of available pilots and aircraft. However, Refuge biologists assisted with National Park Service aerial surveys in adjacent areas in Gates of the Arctic National Park. Additionally, two Refuge staff were trained in the aerial distance sampling survey methodology being employed by the Refuge, NPS, and BLM across the Brooks Range.

Moose Research Project

Arctic Refuge initiated a moose research project in cooperation with the National Park Service, the Bureau of Land Management, and the University of Alaska, Fairbanks, to gain a better understanding of migratory patterns, seasonal distribution, spatial ecology, and population of moose inhabiting the Brooks Range and Coastal Plain of the Refuge and adjacent National Park Service and Bureau of Land Management areas and to investigate the environmental factors driving these patterns to better design viable management and conservation strategies at a landscape scale.



Figure 23: Projected Calving Habitat Use Trends

Laboratory analyses of diet have already begun. A reconnaissance survey was conducted on the north slope of the Brooks Range on drainages from the Kongakut River westward to the Canning River in early April 2022 prior to a moose capture and collaring operation that occurred in mid-April. Moose were observed throughout much of the Kongakut River drainage and within a small section of the Canning River drainage. No moose were observed within any of the drainages between the Kongakut River and the Canning River.

In mid-April twelve cow moose were captured and collared in the Kongakut River drainage and twelve cow moose were captured and collared in the Canning River drainage. 75% of the cow moose gave birth to calves. There were 4 sets of twins. Staff conducted calving surveys in late May and early June. Calving dates for Arctic Refuge ranged from May 10 to June 7 with an average calving date of May 22.





Figure 24: Moose with collar on standing in snow

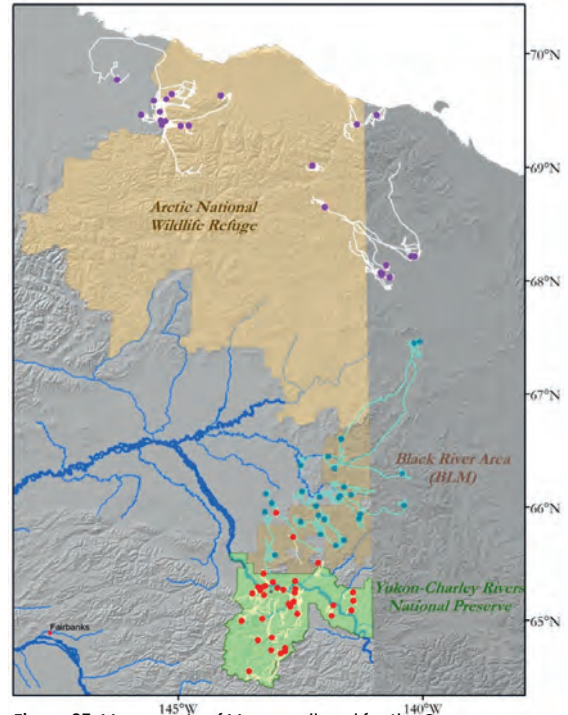


Figure 25: Movements of Moose collared for the Cooperative Moose project



Figure 26: Close up of moose with collar on



Bear-Salmon Project:

Observations by fisheries biologists and villagers along the Chandalar River above Venetie suggest that grizzly bears are drawn in from a wide area to exploit fall spawning chum salmon. A Refuge pilot and biologist conducted aerial surveys along a stretch of river about 4-20 miles upriver from Venetie to identify sites used heavily by grizzly bears for possible future bear research. They conducted their first survey on September 8, but the Chandalar River was running high and was very turbid. No spawning salmon were observed, not even in clear spring water pools. They plan to repeat this survey in October after more chum have entered the river.

Snow and Climate Monitoring

Arctic staff (in collaboration with the USGS) maintained a network of monitoring stations across the Coastal Plain of the Arctic Refuge to help inform management decisions about overland tundra travel and to monitor climate change. These stations report real-time data on a suite of climatological variables. In July, staff visited 5 long-term climate monitoring stations to repair and update equipment, and to deploy one new station at the Canning River Delta. Staff also visited 6 short-term snow monitoring stations across the Coastal Plain.

Public Use Management

Polar Bear viewing – For a third year in a row, Special Use Permits for Polar Bear Viewing were not issued and no boat-based commercial guiding was conducted in 2022. Staff resumed efforts to help inform best practices for a possible future Refuge-managed, boat-based, commercial viewing program. While the Refuge has no intentions of resuming authorizing this activity unless it fits within a larger set of goals stated by Kaktovik community leaders, the work to date can serve as a starting point for information sharing and collaboration. Staff also continue to coordinate with the Marine Mammals Management Office of the USFWS to help support the community in addressing human-bear issues that occur when bears return to the region each fall.

Hunt Guide Use Area Offerings – Arctic Refuge staff selected big game hunting guides for eight Guide Use Areas that were open for application in a recent statewide offer-

ing. Once selections are finalized, guides will be issued a permit for 5 years. Guides would then have the opportunity to renew for an additional 5 years. General areas offered during this selection cycle include the Kongakut drainage, Upper Hulahula River, Middle Fork Chandalar/Wind River, Junjik River/Smoke Creek, Upper Collen/Mid Sheenjek and Ivishak/Ribdon Rivers.

Off Road Vehicle (ORV)

Traditional Access for Subsistence purposes - A final report from a study of ORV use as a traditional means of subsistence access that was commissioned by the USFWS in 2021 was released to the participating communities and a Draft Traditional Access determination of that use is currently being evaluated. Section 811(b) of the Alaska National Interest Lands Conservation Act (ANILCA) allows for the "use of snowmobiles, motorboats, dog teams and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses," subject to reasonable regulation. This evaluation is intended to determine the nature of ORV use as an "other means of surface transportation" by local residents.

Dall Sheep hunting closure WSA 22-02

The Federal Subsistence Board (Board) approved changes to federal sheep hunting regulations in Units 24A and 26B. On July 26, 2022, the Board approved Temporary Wildlife Special Action WSA22-02 to close Federal public lands in Unit 24A and a portion of Unit 26B to sheep hunting by all users for the 2022-2023 and 2023-2024 wildlife regulatory years. (For more information, see WSA22-02 FAQ Sheet (doi.gov)).



Environmental Education and Outreach

Art in the Arctic

The 7th annual Art in the Arctic Art Show occurred in March 2022 in Fairbanks. This year's juried art show celebrated caribou. The goal in highlighting caribou was for the public to become more aware of the significance of this species that depend on all three Fairbanks-based refuges. Caribou from the following herds occur at least occasionally, if not regularly on the three northern refuges: Central Arctic, Forty-mile, Hodzana Hills, Porcupine, Ray Mountains, Western Arctic, and White Mountains Herd. Artwork and artist biographies were on display for the month of May at VENU, located at 514 Second Avenue.

Voices of the Wilderness

Francis Vallejo was selected as the Voices of the Wilderness (VOTW) Artist in Residence for 2022. Francis is an illustrator from Detroit, Michigan. He accompanied Refuge staff on the Dalton Highway and assisted at the Canning River Bird Camp. Francis will work closely with Refuge staff this next year with goals to communicate with his local urban audience about the Arctic Refuge.

Arctic Interagency Visitor Center (AIVC)

Staff from BLM, NPS, and FWS hosted about 5,000 visitors at the AIVC in Coldfoot this summer. In addition to daily one-on-one interactions with visitors, staff offered in-person interpretive and educational programs about topics specific to the Arctic. These opportunities helped orient visitors to the distinct aspects of Northern Alaska, including the value of subsistence to local residents and the agencies' responsibilities to insure ongoing subsistence opportunities. Additionally, Arctic Refuge partnered with various agencies and organizations to host a Wild and Scenic Rivers weekend at the AIVC. This event spotlighted the ways that congressionally designated Wild and Scenic Rivers protect and enhance special values of those rivers, including values such as scenery, recreation, fish, culture and subsistence.

Science Camps

The annual culture and science camp, Camp Goonzhii, occurred August 29–September 1, 2022 at the Arctic Village School. Refuge staff and collaborators worked with students in grades K-12 and covered lessons about geology, firearms safety,



Figure 27: An attendee to the 7th annual Art in the Arctic views artwork.



Figure 28: A sketch by Francis Vallejo of the Canning River field camp.



Figure 29: Students at the Arctic Village School prepare for a field trip on the Chandalar River.



mapping, owls, Leave No Trace ethics, bones and antlers, and more. Elder Trimble Gilbert shared traditional stories. The students went on a field trip up the Chandalar River where they assisted with a bone collection survey. A special thank you to the Friends of Alaska National Wildlife Refuges for providing funds to host a community spaghetti dinner at the school.

The annual Kaktovik Oceanography Program (KOP) hosted by the University of Texas Marine Science Institute (UTMSI) was shortened this year. Scientists and Arctic Refuge's Environmental Education Specialist worked with K-12 students at the Harold Kaveolook School for two days during the first week of school. Students learned about careers in science, the marine food chain, weasels, and more. UTMSI and Arctic Refuge hope to host a full week-long camp in 2023.

Resource Management

Refuge staff worked with a private vendor to remove a fuel barrel cache located at the Jago River Bitty. This cache had been used to support research studies in the 1002 area of the Refuge. The need for this cache resulted from passage of the 2017 Tax and Jobs Act that opened the Refuge Coastal Plain for Oil & Gas leasing and potential development.

In July 2022, Refuge staff conducted fieldwork on the Wind River, one of three congressionally designated Wild and Scenic Rivers on Arctic Refuge. In 2021, staff had conducted a literature review to identify the river's Outstandingly Remarkable Values, a legal requirement of the Wild and Scenic Rivers Act. This year's fieldwork sought to verify and further describe the river's values. Other objectives of this fieldwork included to collect water quality samples, to collect digital content for inreach and outreach projects, and to survey for the presence of Little Brown Bats. Although survey efforts didn't detect any bats, future surveys in the Southern Brooks Range may have different results.



National Park Service
U.S. Department of the Interior



Natural Resource Stewardship and Science

Caribou Vital Sign Annual Report for the Arctic Network Inventory and Monitoring Program

September 2021–August 2022

Natural Resource Report NPS/ARCN/NRR—2022/2484



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November 2022

U.S. Department of the Interior
National Park Service
Natural Resource Stewardship and Science
Fort Collins, Colorado

The National Park Service, Natural Resource Stewardship and Science office in Fort Collins, Colorado, publishes a range of reports that address natural resource topics. These reports are of interest and applicability to a broad audience in the National Park Service and others in natural resource management, including scientists, conservation and environmental constituencies, and the public.

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This report is available in digital format from the [Arctic Inventory and Monitoring Network's Caribou Vital Signs webpage](#) and the [Natural Resource Publications Management website](#). If you have difficulty accessing information in this publication, particularly if using assistive technology, please email irma@nps.gov.

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Executive Summary

Caribou (*Rangifer tarandus*) are an integral part of the ecological and cultural fabric of northwest Alaska. Western Arctic Herd (WAH) caribou roam over this entire region, including all 5 Arctic Network (ARCN) Inventory and Monitoring Program's National Park units. Conservation of healthy caribou populations are specifically mentioned within the enabling legislation (Alaska National Interested Lands Conservation Act or ANILCA) for 3 of these park units and is of importance to subsistence hunters. Caribou are, by far, the most abundant large mammal in northwest Alaska and are famous for their long-distance migrations and large population oscillations. For these reasons, the ARCN parks chose WAH caribou as a Vital Sign for long-term monitoring.

This report documents the monitoring results of this Vital Sign during its 13th year (September 2021–August 2022) of implementation. Results from the previous years of monitoring are also included for ease of comparison. Periodic syntheses of these data will be performed and reported on as appropriate. National Park Service (NPS) monitoring of the WAH is done in conjunction and cooperation with the Alaska Department of Fish and Game (ADFG). Thanks to a 2015 data sharing agreement, the report includes data funded by the ADFG dating back to September 2013. That particular year was chosen as it represents when ADFG started deploying a substantial number of GPS collars on an 8-hour relocation schedule.

Monitoring of the herd relies heavily on the use of Global Positioning System (GPS) radio telemetry collars that are capable of transmitting location data to a satellite. Given the extremely remote area that the WAH inhabits, this system provides the most efficient and accurate means to track individual caribou. These data are utilized to monitor the timing and location of migrations, as well as seasonal distributions of WAH caribou. Monitoring movement and the phenology of movement is perhaps the simplest means to track the influence of climate change, natural perturbations, development, and other potential impacts on a species—an analysis of which is outside the scope of this current report.

This report also documents the NPS commitment and involvement with the WAH Working Group. The group is composed of important stakeholders including representatives for rural villages, sport hunters, conservationists, hunting guides, hunting transporters, and reindeer herders. In addition, all the agencies charged with managing the WAH, including the ADFG, NPS, FWS and BLM, serve as advisors to the group. Information gathered by the Caribou Vital Sign monitoring program are intended to supplement and complement existing data streams gathered by the other cooperating agencies and will be important in future management decisions.

Acknowledgments

The ADFG, BLM, FWS, and students of the regional high schools helped with collar deployments over the years. We thank the NPS GIS Team for the comprehensive technical database and GIS assistance that made this report possible over the past 13 years. Monitoring a herd that ranges over a vast and remote landscape provides numerous challenges, and we thank ADFG biologists Alex Hansen, Christie Osburn, Nicole Edmison, and others for their continued assistance and collaboration. We thank Alex Hansen, Mat Sorum, and Eric Wald for reviewing drafts that improved this report.

List of Acronyms

ADFG: Alaska Department of Fish and Game

ANILCA: Alaska National Interest Lands Conservation Act

ARCN: Arctic Network Inventory and Monitoring Program

BELA: Bering Land Bridge National Preserve

BLM: Bureau of Land Management

CAKR: Cape Krusenstern National Monument

FWS: US Fish and Wildlife Service

GAAR: Gates of the Arctic National Park and Preserve

KOVA: Kobuk Valley National Park

NOAT: Noatak National Preserve

NPS: National Park Service

WAH: Western Arctic Herd

Introduction

This report is the latest in a series of annual reports documenting long-term monitoring of the Western Arctic Herd (WAH). Caribou (*Rangifer tarandus*) were chosen to be a Vital Sign of the National Park Service's (NPS) Arctic Network (ARCN) Inventory and Monitoring Program because they: (1) are an extremely important subsistence species that occur within all ARCN park units (Gates of the Arctic National Park and Preserve (GAAR); Noatak National Preserve (NOAT); Cape Krusenstern National Monument (CAKR), Kobuk Valley National Park (KOVA) and Bering Land Bridge National Preserve (BELA)); (2) are specifically identified in the enabling legislation (Alaska National Interest Lands Conservation Act [ANILCA]) of GAAR, KOVA and NOAT to be managed for natural and healthy populations; (3) directly impact reindeer and reindeer herders in BELA; (4) are considered good indicators of the condition of park ecosystems because they consume lichens and fungi (which derive their nutrients from the atmosphere and thus are sensitive to pollutants) making them good bio-indicators of environmental toxins; (5) are of great importance to park visitors because of the opportunities to view caribou in Alaskan parks; (6) are an example of the ever more rare natural phenomenon of long-distance migration of a large land mammal; (7) are an integral part of the ecology and social fabric of northwest Alaska; and, (8) can be compared with national and international caribou datasets across the Arctic region to gain insight into the ecology of the WAH or Arctic ecology in general.

Of the 4 Alaska Arctic caribou herds, only the WAH regularly utilizes all 5 ARCN park units (Figure 1). WAH caribou are of great importance to people for both consumptive and non-consumptive purposes, and to the ecosystem as a whole. At an estimated population size of over 490,000 animals in 2003 (Dau 2007), the WAH is a significant ecological force in northwest Alaska. The herd rather steadily declined from its 2003 apex to 164,000 in 2022 (Alex Hansen, *personal communication*, 2022). More robust measures may be needed to help slow or reverse this nearly 20-year decline. The heritage and traditions of Alaska Natives in approximately 40 subsistence-based communities in the region have been shaped by the availability of these caribou (Western Arctic Herd Working Group 2019). The availability of the WAH also affects the economy of this region. The presence and relative abundance of WAH caribou have substantial impacts on the populations of wolves, bears, and wolverines in the area. Caribou integrate regional environmental conditions in northwestern Alaska because of their migratory nature. Caribou may have substantial effects on plant and lichen communities and by extension to wildlife communities, either directly through browsing and grazing, or indirectly through biogeochemical cycling. While the primary objectives of monitoring will be to track the distribution and migrations of caribou, a variety of ancillary data (e.g., survival) will be obtained in the monitoring process that are likely to have great value for park and wildlife management, ungulate research, and evaluating long-term changes in the WAH.

This report documents the results of ARCN caribou monitoring for the 13th year (September 2021–August 2022) of the program. The caribou monitoring protocols contain the detailed methodology employed to obtain the results presented here (Joly et al. 2012). Periodic syntheses of these data will be performed and reported on as appropriate.

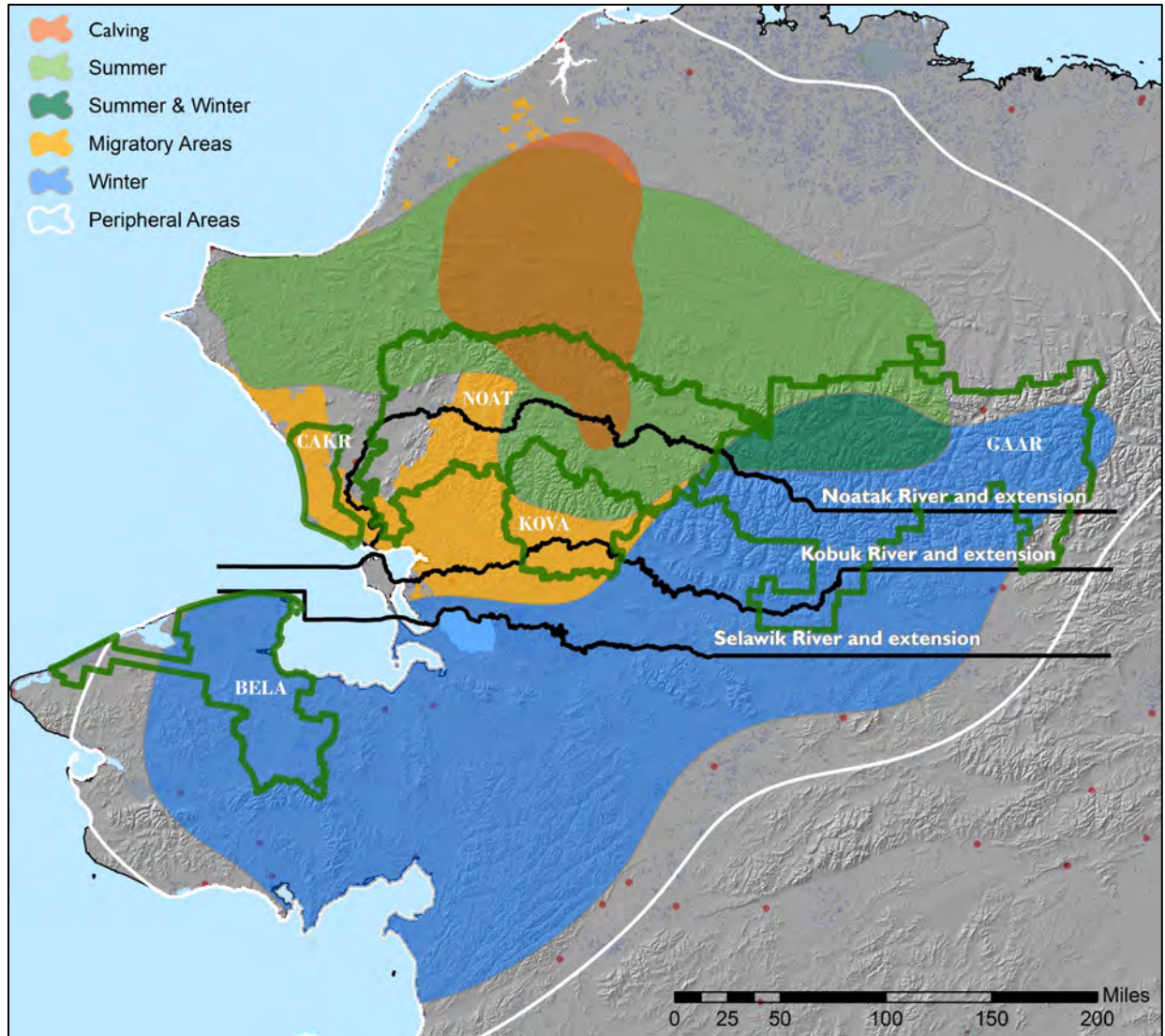


Figure 1. Study area and the range of the Western Arctic Herd. Generalized range data courtesy of the Alaska Department of Fish and Game. The red dots indicate villages and towns. Black lines depict key rivers. These rivers have been artificially extended to the east to help track the timing of caribou migratory movements. Green polygons are NPS units.

Measurable Objectives – Core Program

- Capture and radio-collar WAH caribou to maintain a sample size of 30–40 GPS collars.
- Obtain frequent (>2/day) location data via GPS-satellite telemetry.
- Membership, attendance and activity on the WAH Working Group Technical Committee.
- Attendance and involvement at WAH Working Group meetings.
- Obtain herd and environmental condition data by radio tracking.
- Define seasonal ranges (i.e., calving, insect relief, summer, winter).
- Define migratory corridors.
- Detect changes in range distribution over time.
- Detect changes in adult survivorship over time.
- Detect changes in migration routes and movement phenology over time.
- Detect changes in the location and timing of calving (using GPS data).

Methods

The methods outlined here are provided to give the reader a brief summary of the methods and analyses that were conducted to monitor the WAH. Detailed methodologies used to develop this report can be found in the ARCN Caribou Vital Sign Protocol (Joly et al. 2012, available at <https://www.nps.gov/im/arcn/caribou.htm>).

Collar Deployments

For decades, all WAH collars had been deployed at Onion Portage, KOVA, from early September to early October. Caribou were captured by hand using motorboats to intercept animals as they swim across the Kobuk River. However, because only a total of 7 collars were deployed in 2017 and 2018 combined, due to fewer caribou migrating, additional collars have been deployed using net gun techniques starting in April 2019. Both river and net gun captures used protocols approved by a State of Alaska Institutional Animal Care and Use Committee (IACUC). NPS collars were only deployed on adult (> 2 years old) female caribou. Capture operations are led by ADFG, in conjunction and cooperation with the NPS. Every collar is equipped with GPS technology that can transmit position data to satellites that can regularly be downloaded in an office setting. Collars are programmed to collect locations at least every 8 hours throughout the year (i.e., 1095 relocations per caribou per {non-leap} year for the 8-hour interval). For collars collecting relocations more frequently than every 8 hours, the data were subsampled to 8 hours for this report to provide consistency among individuals.

Year One Survivorship

Survivorship reported here merely represents how many caribou that were collared in this reporting period (i.e., September 2021–August 2022) remained alive through the end of the monitoring year (i.e., August 2022). The number that survived plus the number that died will equal 100% (i.e., collar malfunctions are not included). Survivorship of collars deployed in the spring, via netting, is not directly comparable to the survivorship of collars deployed in the fall, using motorboats.

Seasonal Range Use

Both 50% and 95% utilization distribution kernels (Worton 1989) were produced using ArcGIS and ArcGIS tools developed by the NPS (see Joly et al. 2012). Kernels were developed for the year (September 1–August 31) and for the following seasons: winter (December 1–March 31), calving period (May 28–June 14), insect relief (June 15–July 14), and late-summer (July 15–August 31). Kernels were created for individual caribou each season and then compiled so that individuals, regardless of the number of relocations per individual, were weighted evenly (i.e., normalized to a common scale). Results from every year of monitoring are also included for ease of comparison. The Least Squares Cross Validation (LSCV) smoothing parameter (Worton 1989) was utilized for all kernels (Joly et al. 2012). In fall, all collars were deployed at Onion Portage in KOVA, while in spring, collar deployments were clustered in areas relatively near aviation bases. As a result, their initial distribution was not considered representative of the entire herd. At calving, the collared caribou were considered mixed with the herd based on the distribution of collars deployed in

previous years (Prichard et al., in press). Range use and distribution analyses only considered collared caribou that were mixed with the rest of the herd.

Distribution and Movements

The GPS radiocollar data were used to determine what percentage of GPS-collared caribou were found in each ARCN park unit during summer (June, July and August), fall (September, October and November), winter (December, January, February and March) and spring (April and May). ArcGIS was used to determine distances and velocities between successive GPS relocations. Annual distance moved was the sum of the distances between successive GPS relocations.

Migration Phenology

ArcGIS was used to analyze the GPS data to determine when individual caribou crossed the Selawik, Kobuk and Noatak Rivers on their northward (“spring”; typically, between April 1–June 15) and southward (“fall”; typically September 1–November 30) migrations. The percentage of GPS-collared caribou that crossed each specified river, and the average date they crossed were calculated.

Migration Routes

A histogram of the longitudes at which the collared caribou crossed the Noatak River (the first major river crossed) heading southward was developed as a visual aid to understand the geographic distribution of the fall migration. Categories of longitudes are based on equal numbers of river miles rather than equal distribution of longitudes to account for the primarily north-south direction of the river at its mouth. The minimum distance, and its date of occurrence, between individual GPS-collared caribou and the villages of Noatak, Shungnak and Selawik, and Onion Portage, were calculated using ArcGIS for spring (April 1–May 31) and fall migrations (September 1–November 30).

Results

Collar Deployments

With continued late migrations and relatively few caribou crossing the Kobuk River in fall, we again relied upon net gunning to deploy collars. Thirty-three (33) GPS collars were deployed via net gunning in the upper Kobuk River drainage from April 1st through the 2nd, 2022. Since the inception of this project, over 800,000 GPS locations have been gathered at an 8-hour interval (Table 1). It is expected that about 12–15 NPS collars will need to be deployed annually to maintain an adequate sample size due to mortalities and the lifespan of GPS collars (~8 years). We do not collect females with calves at heel data during spring captures.

Table 1. Collar deployment overview. Number and survivorship (%) of GPS-satellite collars deployed on adult (>2 years old) female caribou, number of collared caribou that appeared to be accompanied by a calf, and number of GPS locations acquired at an 8-hour interval.

Monitoring Year	Deployment Season	Collars Deployed	Survived 1st Year (%)	Died (%)	Collar Failures (%)	With Calf (%)	# Collars W/ Complete Year of Data	Total GPS Locations
2021–2022 ^a	Combined	33	–	–	–	–	56	90,619
2021–2022	Spring	33	32 (100%)	0 (0%)	1 (3.0%)	NA	–	–
2021–2022	Fall	0	–	–	–	–	–	–
2020–2021 ^a	Combined	48	–	–	–	–	50	79,517
2020–2021	Spring	48	38 (79.2%)	10 (20.8%)	0 (0.0%)	NA	–	–
2020–2021	Fall	0	–	–	–	–	–	–
2019–2020 ^a	Combined	42	–	–	–	–	70	79,161
2019–2020	Spring	0	–	–	–	–	–	–
2019–2020	Fall	42	35 (85.4%)	6 (14.6%)	1 (2.4%)	18 (42.9%)	–	–
2018–2019 ^a	Combined	33	–	–	–	–	32	52,044
2018–2019	Spring	30	18 (90.0%)	2 (10.0%)	10 (33%)	6 (20%)	–	–
2018–2019	Fall	3	3 (100%)	0 (0%)	0 (0.0%)	2 (66.7%)	–	–
2017–2018 ^a	Combined	4	3 (75.0%)	1 (25.0%)	0 (0.0%)	3 (75.0%)	52	63,277
2017–2018	Fall	25	22 (88.0%)	3 (12.0%)	0 (0.0%)	19 (76.0%)	77	86,651
2016–2017 ^a	Combined	38	35 (92.1%)	3 (7.9%)	0 (0.0%)	28 (73.7%)	79	76,284
2016–2017	Fall	35	28 (80.0%)	7 (20.0%)	0 (0.0%)	24 (68.6%)	52	62,076
2015–2016 ^a	Combined	25	19 (76.0%)	6 (24.0%)	0 (0.0%)	11 (44.0%)	46	55,971
2015–2016	Fall	12	8 (66.7%)	4 (33.3%)	0 (0.0%)	7 (58.3%)	34	42,965
2014–2015 ^a	Combined	14	10 (76.9%)	3 (23.1%)	1 (7.1%)	10 (71.4%)	36	46,706
2014–2015	Fall	15	13 (86.7%)	2 (13.3%)	0 (0.0%)	10 (66.7%)	39	48,892
2013–2014 ^a	Combined	39	31 (81.6%)	7 (18.4%)	1 (2.6%)	25 (64.1%)	31	39,086
2013–2014	Fall	39	31 (81.6%)	7 (18.4%)	1 (2.6%)	25 (64.1%)	31	39,086
2012–2013 ^a	Combined	363	–	–	–	157 (62.3%)	654	823,249
2012–2013	Fall	363	–	–	–	157 (62.3%)	654	823,249

^a Bold text indicates row containing an entire year's worth of data.

Year One Survivorship

Survival of the caribou collared in spring 2022 through the end of August was 100%. Spring capture cohorts only have to survive 6 months to reach the end of the reporting year, as opposed to 12 months for fall captures, thus, one would expect survival of spring capture cohorts to be greater than those of fall capture cohorts. The survival rate for this monitoring rate, nevertheless, is the highest reported and highest possible. It also is an increase from previous spring capture results (Table 1). For the past 13 years of monitoring, there are over 650 datasets that contain a complete year of locations.

Seasonal Range Use

The 50% and 95% utilization distributions (kernels) are depicted for the following ranges: 2021–2022 annual range (Table 2; Figures 2a and 2b; only for caribou collared from 2009–2021; however most caribou collared before 2015 dropped their collars prior to the end of the reporting year and were not used), 2021–2022 winter range (Table 3; Figures 3a and 3b; only for caribou collared from 2009–2021), 2022 calving grounds (Table 4; Figures 4a and 4b), 2022 insect relief areas (Table 5; Figures 5a and 5b), and 2022 summer range (Table 6; Figures 6a and 6b). The 50% kernels are also referred to as “core areas”. CAKR, GAAR, KOVA, and NOAT were utilized by collared WAH caribou during this reporting period, but BELA was not. The annual distribution was fairly different than most years but perhaps most similar to 2012–2013. It was by far the smallest area covered by an annual distribution. The core area was primarily just south of the village of Ambler, where much of the herd wintered. The 2021–2022 winter distribution also covered the least amount of area for any monitoring year. This was due to the tight cluster of collared animals just south of Ambler. During calving, collared caribou were primarily north of park units and in the general calving grounds. The calving distribution was similar to a number of other years, including 2020, 2011, and 2010. The 2022 insect relief area was generally consistent with past years, with the distinction that the herd did not move into the Brooks Range during this period and remained along the western coast near Cape Lisburne. Caribou distribution during late summer was broadly dispersed across the western portion of North Slope and Brooks Range, relatively similar to previous years except for 2020.

Table 2. Annual range areas of Western Arctic Herd caribou (95% and 50% kernels for September 1–August 31).

Year	Sample Size	95% kernel area (km2)	50% kernel area (km2)
2021–2022	51	32118	1081
2020–2021	51	102321	4468
2019–2020	37	174149	16045
2018–2019	32	129884	5523
2017–2018	52	129123	5758
2016–2017	55	100312	2493
2015–2016	44	101094	6387
2014–2015	22	48860	3375
2013–2014	25	46678	1618
2012–2013	34	72778	2169
2011–2012	36	125906	4374
2010–2011	26	136415	6058

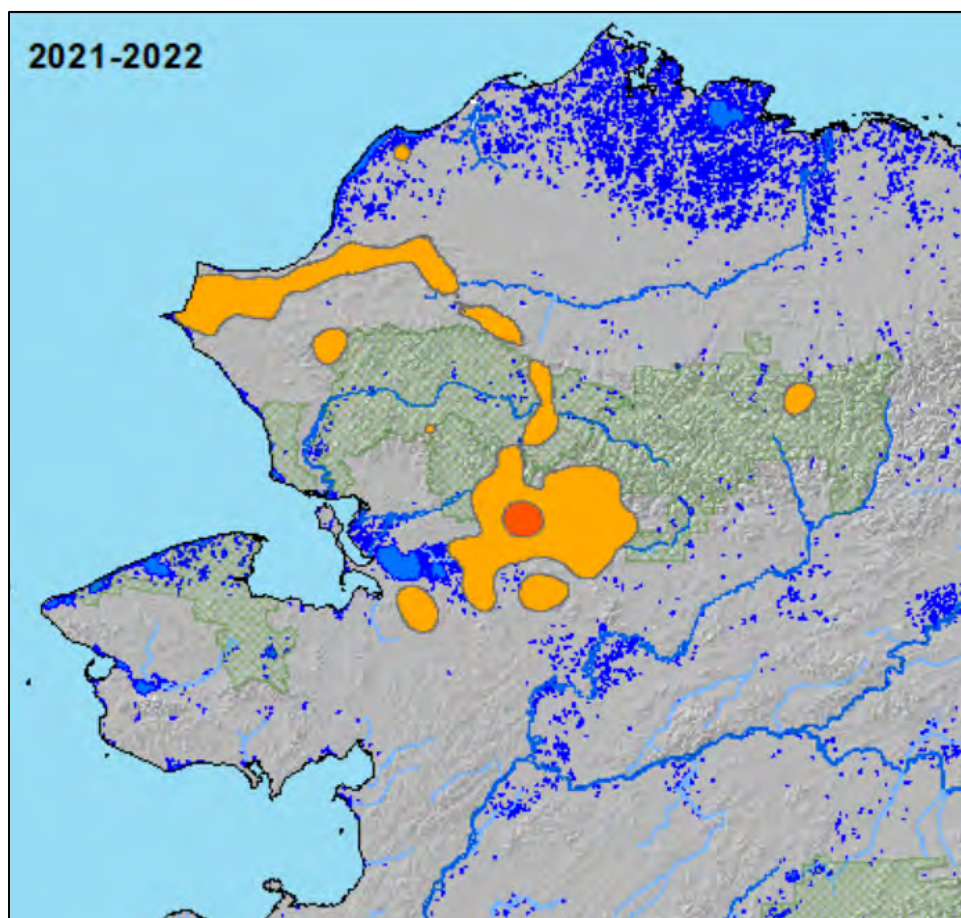


Figure 2a. 2021–2022 annual (September 1–August 31) range use of Western Arctic Herd caribou. Light orange depicts the 95% kernel and dark orange the 50% kernel. Green hatched areas are NPS units.

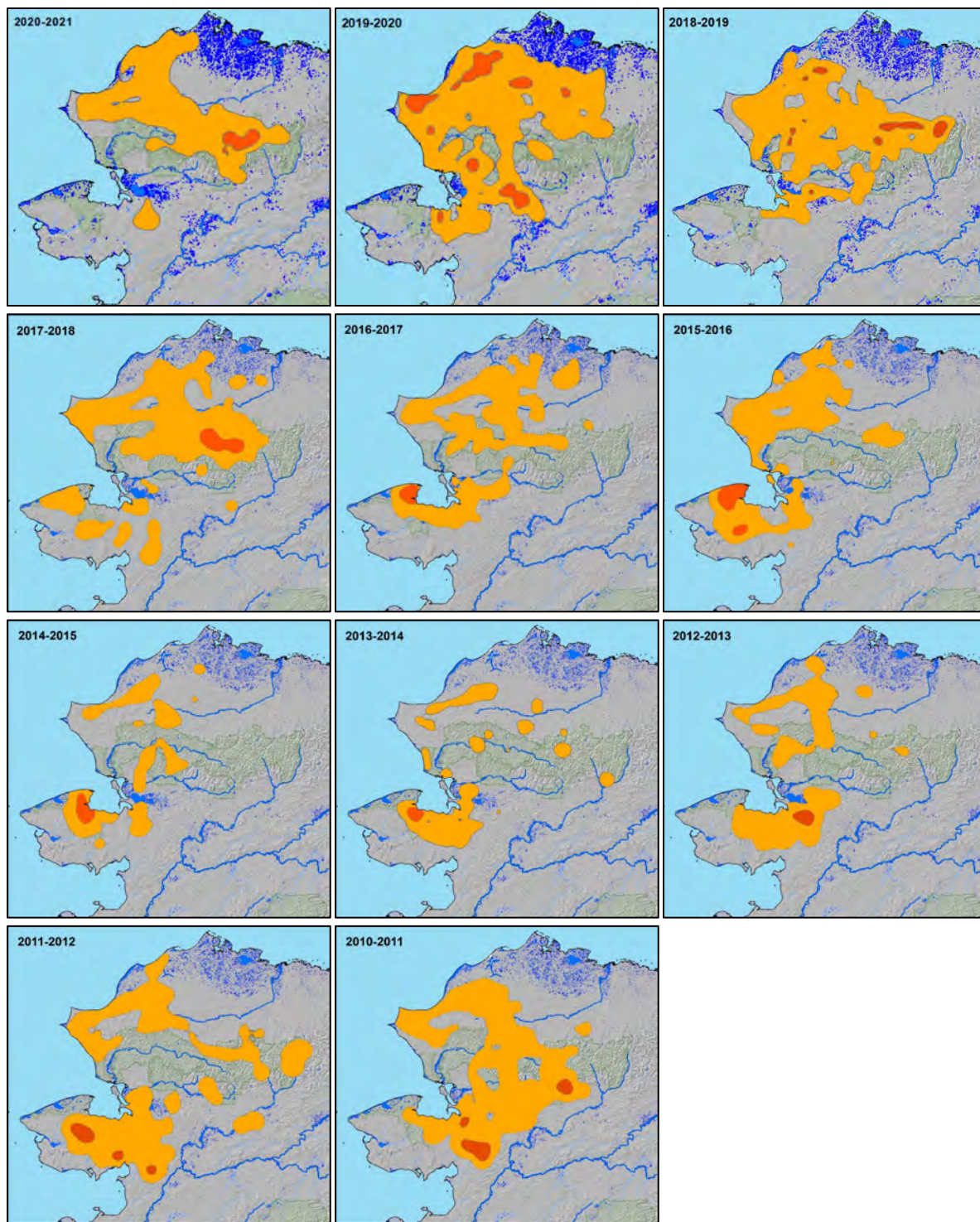


Figure 2b. 2010–2021 annual (September 1–August 31) range use of Western Arctic Herd caribou. Light orange depicts the 95% kernel and dark orange the 50% kernel. Green hatched areas are NPS units.

Table 3. Winter range areas of Western Arctic Herd caribou (95% and 50% kernels for December 1–March 31).

Year	Sample Size	95% kernel area (km2)	50% kernel area (km2)
2021–2022	68	1913	82
2020–2021	58	5002	23
2019–2020	40	11757	274
2018–2019	40	8191	84
2017–2018	63	9814	67
2016–2017	67	10321	538
2015–2016	48	6210	151
2014–2015	36	5386	133
2013–2014	35	4338	105
2012–2013	30	5801	131
2011–2012	40	3933	86
2010–2011	27	9170	274

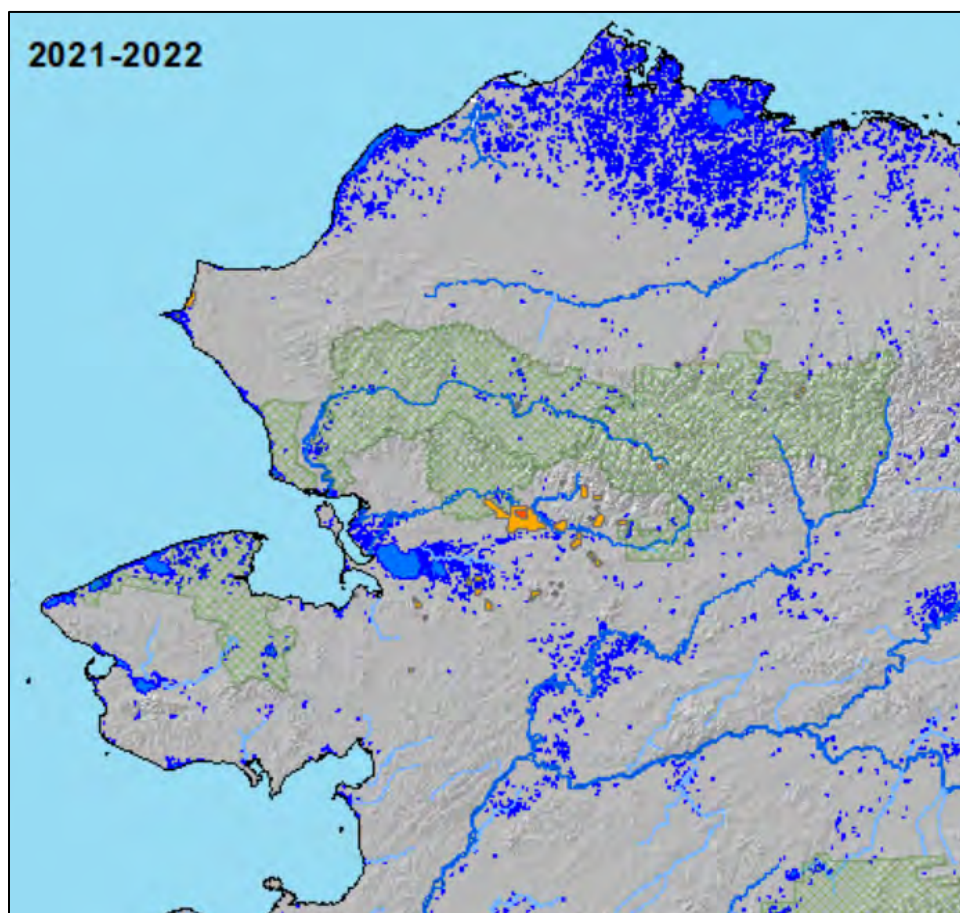


Figure 3a. 2021–2022 winter (December 1–March 31) range use of Western Arctic Herd caribou. Light orange depicts the 95% kernel and dark orange the 50% kernel. Green hatched areas are Park units.

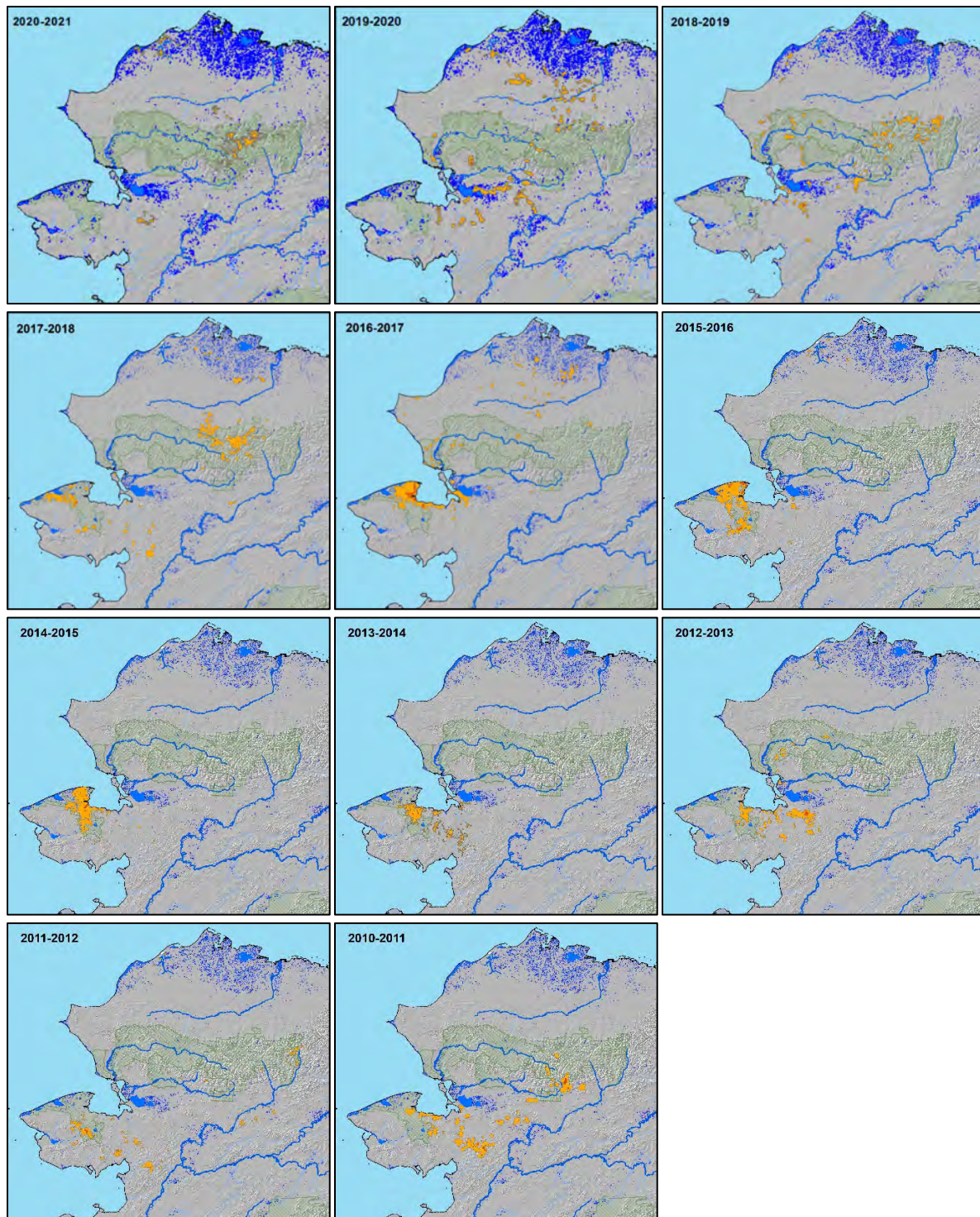


Figure 3b. 2010–2021 winter (December 1–March 31) range use of Western Arctic Herd caribou. Light orange depicts the 95% kernel and dark orange the 50% kernel. Green hatched areas are Park units.

Table 4. Calving period areas of the Western Arctic Herd (95% and 50% kernels for May 28–June 14).

Year	Sample Size	95% kernel area (km2)	50% kernel area (km2)
2022	101	13660	460
2021	78	8654	505
2020	70	14370	651
2019	58	4712	355
2018	54	9996	375
2017	84	7511	364
2016	82	6790	806
2015	54	5127	193
2014	56	4514	111
2013	40	21870	749
2012	38	31219	2118
2011	42	11429	291
2010	33	18362	707

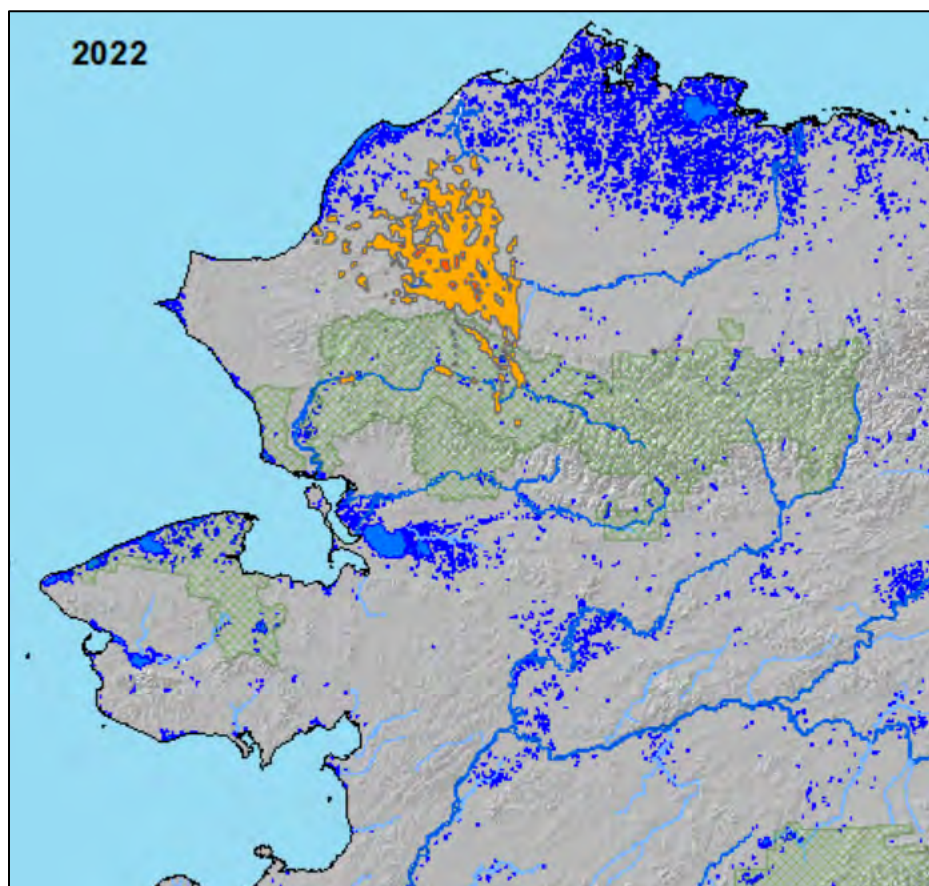


Figure 4a. 2022 calving period (May 28–June 14) area use by Western Arctic Herd caribou. Light orange depicts the 95% kernel and dark orange the 50% kernel. Green hatched areas are Park units. These kernels include all (both parturient and non-parturient) GPS-collared cows.

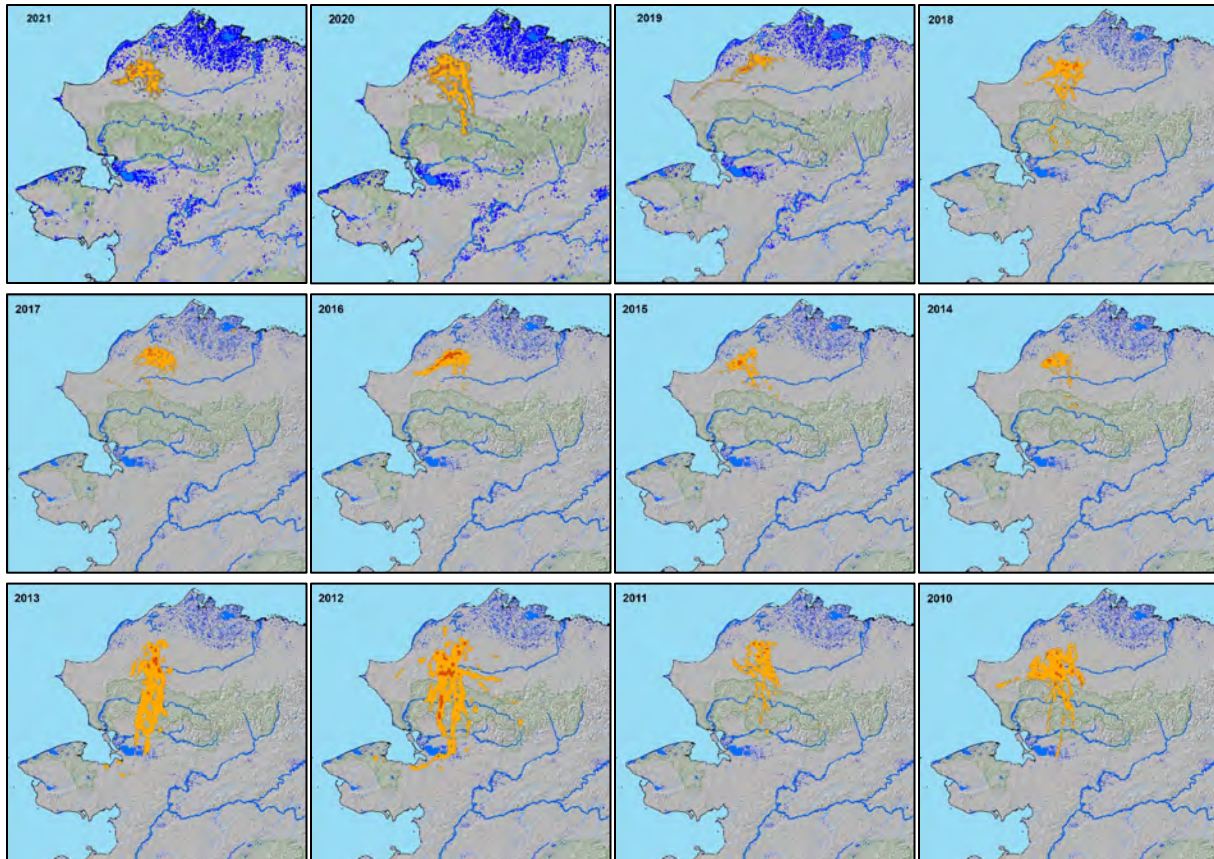


Figure 4b. 2010–2021 calving period (May 28–June 14) area use by Western Arctic Herd caribou. Light orange depicts the 95% kernel and dark orange the 50% kernel. Green hatched areas are Park units. These kernels include all (both parturient and non-parturient) GPS-collared cows.

Table 5. Insect relief areas of Western Arctic Herd caribou (95% and 50% kernels for June 15–July 14).

Year	Sample Size	95% kernel area (km2)	50% kernel area (km2)
2022	98	18256	3241
2021	77	19924	3616
2020	70	16457	1938
2019	57	19746	3465
2018	54	22787	6033
2017	80	25874	4858
2016	82	24722	7190
2015	52	20537	3834
2014	47	17214	4226
2013	36	22043	3688
2012	38	24476	5505
2011	40	20734	2737
2010	33	31142	3468

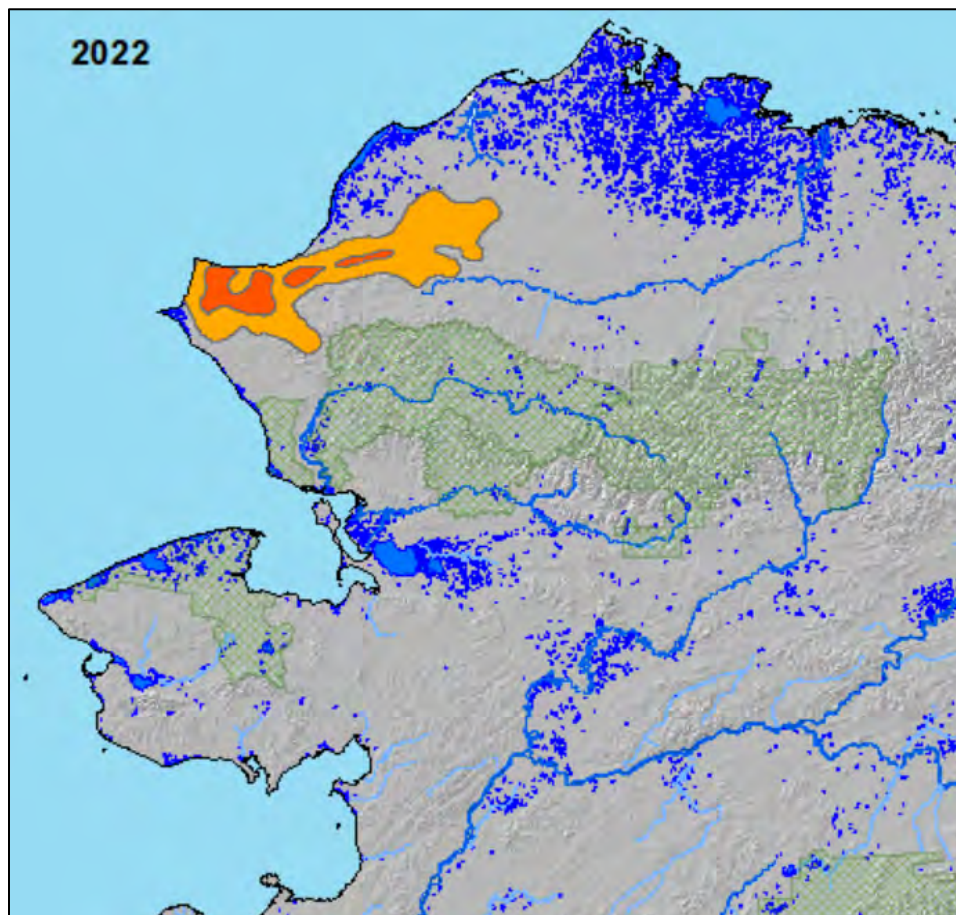


Figure 5a. 2022 insect relief (June 15–July 14) area use of Western Arctic Herd caribou. Light orange depicts the 95% kernel and dark orange the 50% kernel. Green hatched areas are Park units.

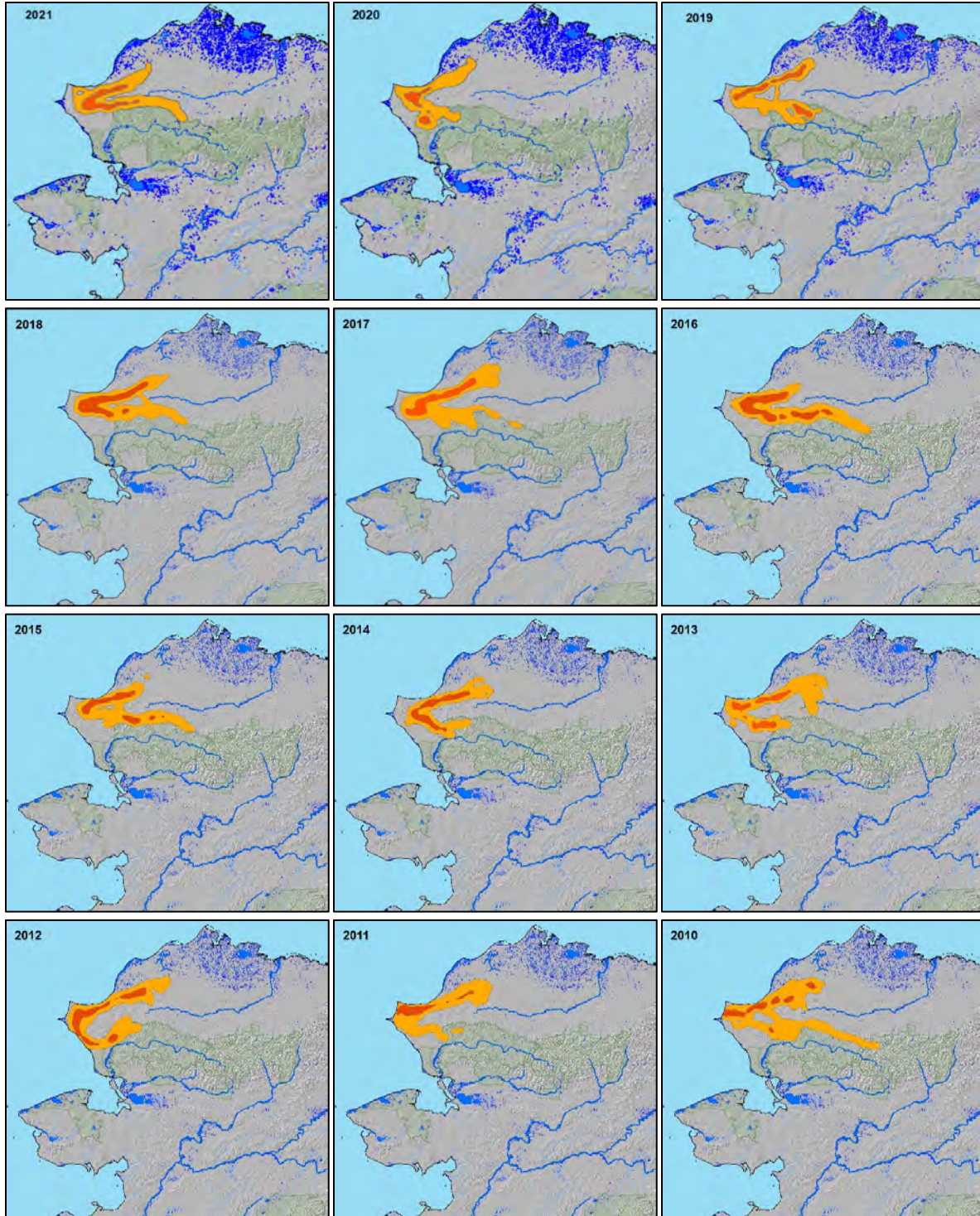


Figure 5b. 2010–2021 insect relief (June 15–July 14) area use of Western Arctic Herd caribou. Light orange depicts the 95% kernel and dark orange the 50% kernel. Green hatched areas are Park units.

Table 6. Late-summer areas of Western Arctic Herd caribou late-summer (95% and 50% kernels for July 15–August 31).

Year	Sample Size	95% kernel area (km2)	50% kernel area (km2)
2022	88	41671	2368
2021	72	46120	936
2020	68	19945	1104
2019	53	27437	243
2018	52	32126	432
2017	78	58281	4807
2016	81	47168	937
2015	51	44808	888
2014	46	53809	2687
2013	36	35253	359
2012	38	49736	2236
2011	39	64807	4373
2010	31	43859	2914

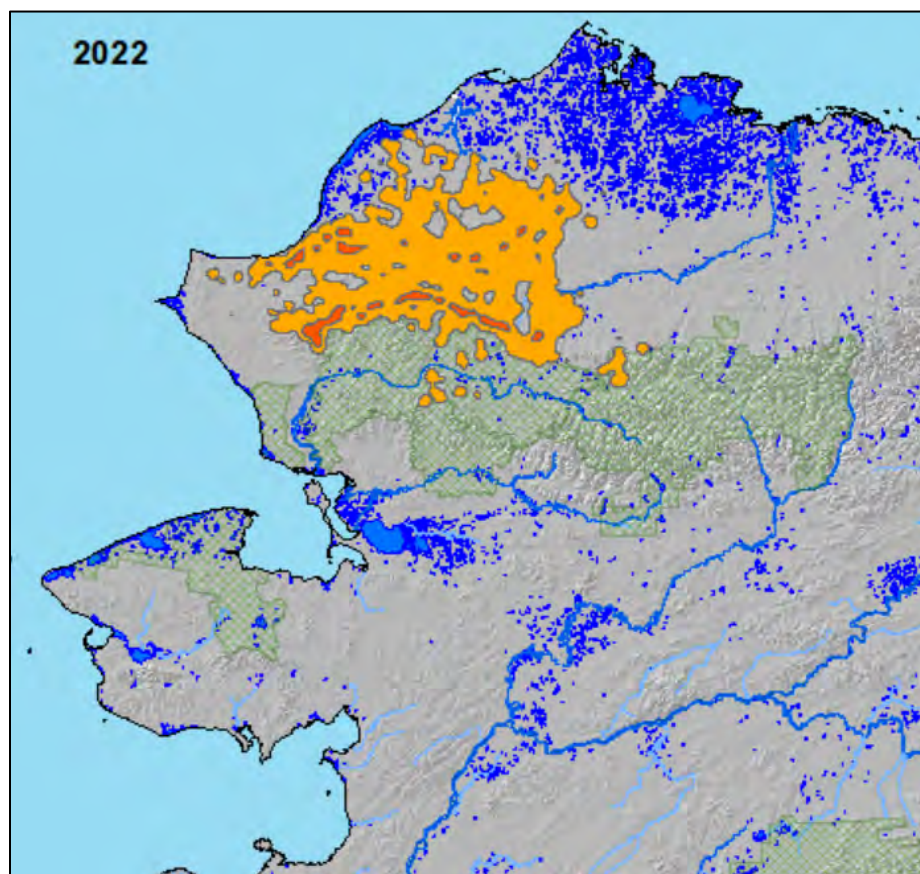


Figure 6a. 2022 late-summer (July 15–August 31) range use of Western Arctic Herd caribou. Light orange depicts the 95% kernel and dark orange the 50% kernel. Green hatched areas are Park units.

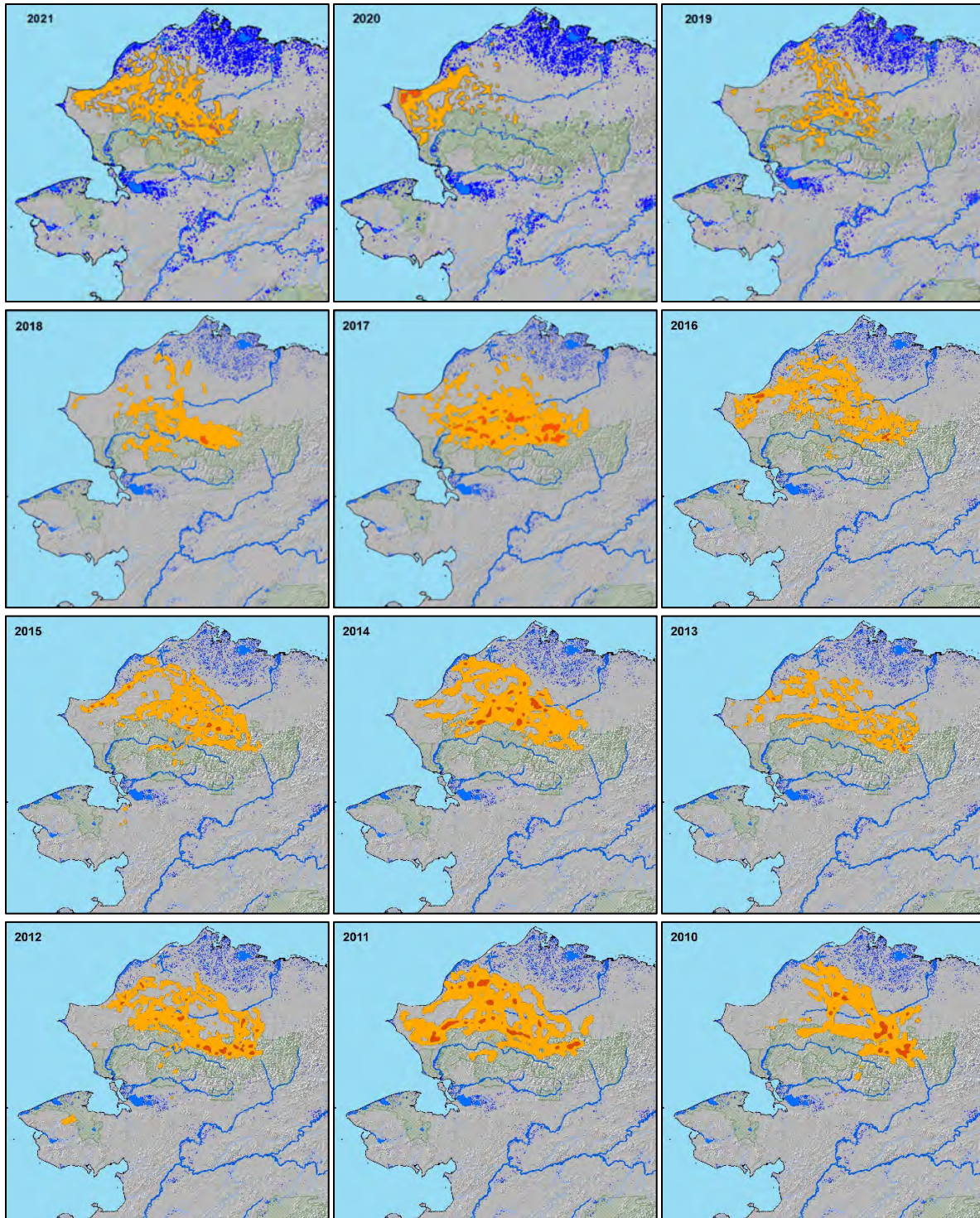


Figure 6b. 2010–2021 late-summer (July 15–August 31) range use of Western Arctic Herd caribou. Light orange depicts the 95% kernel and dark orange the 50% kernel. Green hatched areas are Park units.

Distribution and Movements

Usage of the 5 ARCN Parks is detailed in Tables 7a and 7b. For the 4th year in a row, no collared caribou entered BELA. NOAT again recorded the highest percentage of use compared to other Parks in fall, summer, and spring. While fall use of KOVA was lower than NOAT in 2021, it was the highest use of KOVA in fall ever reported. While migration was later than normal (see Table 9a, below), this finding reveals that the distribution of the herd in fall was more similar to the early years of this monitoring program than more recent years. In early November, 1 caribou moved northward nearly to the town of Utqiagvik (formerly known as Barrow): this is the farthest north any GPS collared WAH caribou has been found since monitoring began. In perhaps the most unusual result for distribution and movements, KOVA recorded the highest use during the 2021–2022 winter, with more than 40 times the previous long-term average use. After no reported winter use of KOVA in the first 8 monitoring years, the winter of 2021–2022 was the 4th consecutive year caribou used the Park. Nearly all the collars within KOVA during winter were in the southeast corner of the Park. NOAT had the highest use in spring 2021. KOVA had the next most use, which was more than double its previous long-term spring average. Summertime use of all 5 ARCN Parks were below to the long-term averages: it was the second lowest reported use of GAAR and the third lowest for KOVA and NOAT, as caribou stayed further north and west than most other summers. WAH caribou continued to exhibit some of the longest migrations and movements of any terrestrial mammal. After 6 straight years of decline, the mean annual distance traveled by all collared caribou this reporting year increased for the second year in a row. It was the greatest amount of movement since the 2015–2016 monitoring year (Table 8). Caribou movements have been shown to be significantly impacted by the Delong Mountain Transportation System (DMTS, commonly referred to as the Red Dog Road; Wilson et al. 2016). Ten collared caribou were in the vicinity of the DMTS during the fall of 2021. The deflection of caribou movement by the road was readily apparent (Figure 7). Only 2 of these 10 individuals eventually crossed the road. Of the 8 that stayed north of the Brooks Range for winter, 3 (37.5%) died, while both that migrated south survived until the end of the monitoring year.

Table 7a. Percent of Western Arctic Herd (WAH) collars that entered different Park units, including Bering Land Bridge National Preserve (BELA), Cape Krusenstern National Monument (CAKR), Gates of the Arctic National Park and Preserve (GAAR), Kobuk Valley National Park (KOVA), and Noatak National Preserve (NOAT). Fall (September, October, and November) and winter (December, January, February, and March). Averages are for all years.

Season	Sample Size	BELA	CAKR	GAAR	KOVA	NOAT
Fall 2021	88	0.0	9.1	15.9	69.3	79.5
Fall 2020	70	0.0	0.0	65.7	22.9	74.3
Fall 2019	52	0.0	13.5	1.9	25.0	38.5
Fall 2018	52	0.0	17.3	40.4	32.7	73.1
Fall 2017	82	15.9	20.7	35.4	41.5	58.5
Fall 2016	77	42.9	11.7	10.4	45.4	63.6
Fall 2015	50	70.0	22.0	4.0	58.0	60.0
Fall 2014	46	82.6	8.7	19.6	50.0	71.7
Fall 2013	35	0.0	8.6	20.0	57.1	88.6
Fall 2012	38	26.3	7.9	10.5	36.8	84.2
Fall 2011	39	12.8	28.2	33.3	33.3	46.2
Fall 2010	29	3.6	0.0	51.7	62.1	89.7
Fall Average	55	21.2	12.3	25.7	44.5	69.0
Winter 2021–2022	79	0.0	1.3	16.5	41.8	6.3
Winter 2020–2021	65	0.0	0.0	70.8	1.5	4.6
Winter 2019–2020	46	0.0	2.2	17.4	2.2	4.3
Winter 2018–2019	47	0.0	2.1	46.8	4.3	25.5
Winter 2017–2018	72	23.6	6.9	33.3	0.0	12.5
Winter 2016–2017	72	47.2	11.1	5.6	0.0	11.1
Winter 2015–2016	47	74.5	0.0	0.0	0.0	0.0
Winter 2014–2015	43	72.1	0.0	4.7	0.0	2.3
Winter 2013–2014	35	60.0	0.0	8.6	0.0	0.0
Winter 2012–2013	36	30.6	8.3	0.0	0.0	11.1
Winter 2011–2012	31	16.1	0.0	35.5	0.0	0.0
Winter 2010–2011	28	7.1	0.0	32.1	0.0	0.0
Winter Average	50	27.6	2.7	22.6	4.2	6.5

Table 7b. Percent of Western Arctic Herd (WAH) collars that entered different Park units, including Bering Land Bridge National Preserve (BELA), Cape Krusenstern National Monument (CAKR), Gates of the Arctic National Park and Preserve (GAAR), Kobuk Valley National Park (KOVA), and Noatak National Preserve (NOAT). Spring (April and May) and summer (June, July and August). Averages are for all years.

Season	Sample Size	BELA	CAKR	GAAR	KOVA	NOAT
Spring 2022	73	0.0	1.4	11.0	53.4	86.3
Spring 2021	57	0.0	0.0	73.6	0.0	38.6
Spring 2020	41	0.0	2.4	17.1	22.0	43.9
Spring 2019	41	0.0	0.0	41.5	2.4	46.3
Spring 2018	62	25.8	0.0	32.3	12.9	51.6
Spring 2017	66	31.8	4.5	3.0	34.8	63.6
Spring 2016	46	76.1	0.0	0.0	19.6	84.8
Spring 2015	33	63.6	3.0	6.1	21.2	87.9
Spring 2014	35	45.7	0.0	8.6	14.3	88.6
Spring 2013	30	13.3	0.0	0.0	66.7	70.0
Spring 2012	29	17.2	0.0	27.6	31.0	48.3
Spring 2011	28	3.6	0.0	35.7	42.9	82.1
Spring Average	45	23.1	0.9	21.4	26.8	66.0
Summer 2022	102	0.0	0.0	2.9	2.9	79.4
Summer 2021	97	0.0	0.0	57.7	4.1	86.6
Summer 2020	70	0.0	14.3	0.0	0.0	60.0
Summer 2019	59	0.0	0.0	18.6	15.3	93.1
Summer 2018	55	0.0	0.0	67.3	29.1	94.5
Summer 2017	86	0.0	0.0	46.5	11.6	90.7
Summer 2016	80	1.3	0.0	36.3	10.0	96.3
Summer 2015	53	3.8	0.0	50.9	9.4	96.2
Summer 2014	57	0.0	0.0	43.9	0.0	80.7
Summer 2013	41	0.0	0.0	51.2	31.7	87.8
Summer 2012	39	2.6	0.0	59.0	20.5	92.3
Summer 2011	40	0.0	0.0	37.5	10.0	65.0
Summer 2010	30	0.0	0.0	90.0	10.0	100.0
Summer Average	62	0.6	1.1	43.2	11.9	86.4

Table 8. Annual distance (September 1–August 31) moved by GPS-collared Western Arctic Herd caribou cows. Average is for all years.

Monitoring Year	Sample Size	Mean Distance (SD)	Maximum Distance
2021–2022	51*	3039 (358) km	3833 km
2020–2021	50	2722 (322) km	3416 km
2019–2020	37	2538 (312) km	3138 km
2018–2019	32	2540 (362) km	3126 km
2017–2018	47	2854 (432) km	3820 km
2016–2017	55	2932 (523) km	3756 km
2015–2016	35	3110 (488) km	3827 km
2014–2015	22	3238 (521) km	4076 km
2013–2014	24	3392 (521) km	4404 km
2012–2013	34	3071 (304) km	3636 km
2011–2012	36	3085 (485) km	3758 km
2010–2011	39	3045 (323) km	3747 km
2009–2010	31	3254 (237) km	3724 km
Average	38	2986 (263) km	3712 km
Total	493	–	–

* Five caribou had 5-month long data gaps so were not included.

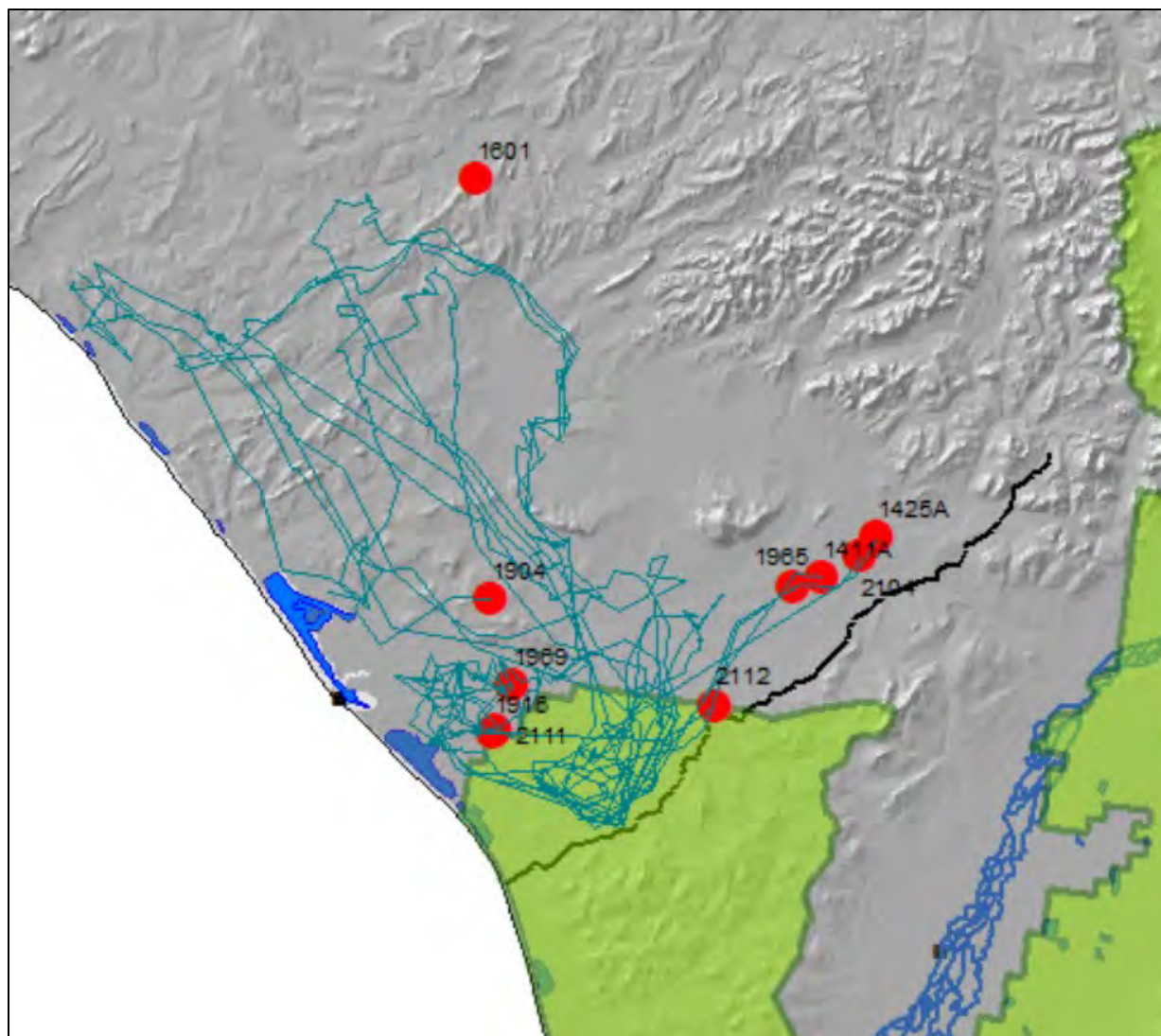


Figure 7. Caribou movements near the Delong Mountain Transportation System. Locations (red dots) of GPS collared female caribou on November 1, 2021 and their movements (blue-green lines) for the prior 30-day period. The black line represents the Delong Mountain Transportation System (commonly known as the Red Dog Road). Caribou were reluctant to cross the road; only 2 of the 10 collared caribou eventually crossed the road.

Migration Phenology

The results for when and how many GPS-collared caribou crossed the Noatak, Kobuk and Selawik Rivers on their annual ‘spring’ and ‘fall’ migrations are detailed in Tables 9a and 9b. The timing of the fall 2021 migration was mixed. The average crossing date of the Noatak was earlier than the long-term average, but this was heavily influenced by several individuals that crossed in summer. These crossings do not appear to be associated with fall migration. Meanwhile, the crossing of the Kobuk was near average. However, it was later than any of the first 7 years of monitoring yet relatively early compared the past few years (which have been extremely late). Notably, the first collared caribou crossed the Kobuk River on October 1st. This was the second latest first crossing ever; only the record late crossing of 2020 was later. The crossing of the Selawik River (November 13) was the latest ever reported. After 6 years in a row that the percentage of collared caribou crossing the Noatak had declined, that percentage increased for the second year in a row for the fall of 2021. For the Kobuk River, fall of 2021 had the highest percentage (73%) of collared caribou crossing since 2015. For comparison, from 2016–2020, an average of only 34% of collared caribou crossed the Kobuk River. While a doubling of the recent average, this percentage was still lower than the proportion of the herd that crossed from 2010–2015. The percentage crossing the Selawik River was the second lowest on record, exceeding only fall of 2020. Overall, there is a general trend of less caribou crossing all these key rivers in fall over the last 12 years, reflecting a shift away from the southernmost winter ranges by the herd. The duration (the number of days between the average date of crossing the Noatak and Selawik Rivers) of the fall 2021 migration was the longest on record (58 days). The average fall migration duration for the last 5 years (2017–2021) was 46 days while only being 18.4 days for the 7 years spanning 2010–2016. Spring migration across the Selawik and Kobuk Rivers, in contrast, was fairly consistent with near average timing.

Table 9a. Fall migration timing and prevalence of river crossing events by Western Arctic Herd caribou. Reported results are average date (standard deviation in number of days); percentage of collared cows crossing; and sample size results for generally southward 'fall' migration. Dates are for the first crossing if the individual re-crosses. Duration is the number days between Noatak and Selawik River crossings. Average (Avg) is for all years.

Year	Noatak River			Kobuk River			Selawik River			Duration
	Crossing Date (SD)	% Crossed	N	Crossing Date (SD)	% Crossed	N	Crossing Date (SD)	% Crossed	N	
2021	Sep 16 (24.2)	85.7%	84	Oct 16 (14.8)	73.2%	82	Nov 13 (12.8)	10.0%	80	58
2020	Sep 26 (23.0)	63.9%	72	Nov 3 (1.0)	5.6%	72	Nov 9 (0.6)	5.6%	72	44
2019	Sep 6 (42.7)	46.8%	47	Oct 16 (13.3)	36.2%	47	Oct 25 (14.4)	27.7%	47	49
2018	Oct 13 (28.6)	56.0%	50	Nov 3 (23.2)	20.0%	50	Nov 7 (16.1)	16.0%	50	25
2017	Sep 17 (40.0)	65.9%	82	Oct 30 (22.5)	48.1%	81	Nov 10 (18.2)	42.3%	78	54
2016	Sep 15 (21.1)	73.3%	75	Sep 24 (12.7)	58.1%	74	Oct 2 (15.4)	52.1%	73	17
2015	Sep 22 (29.5)	85.7%	49	Oct 1 (22.3)	85.4%	48	Oct 5 (21.0)	85.4%	48	13
2014	Sep 12 (19.9)	88.9%	45	Oct 1 (15.8)	84.8%	45	Oct 7 (15.6)	86.4%	44	25
2013	Sep 26 (16.9)	100%	35	Oct 7 (17.4)	91.4%	35	Oct 12 (16.4)	88.6%	35	16
2012	Oct 8 (20.8)	84.8%	33	Oct 11 (17.7)	78.8%	33	Oct 14 (18.1)	70.0%	33	6
2011	Sep 27 (37.2)	74.4%	39	Oct 13 (27.0)	71.8%	39	Oct 19 (27.4)	61.5%	39	22
2010	Sep 24 (16.4)	96.7%	30	Oct 12 (17.6)	76.7%	30	Oct 24 (11.7)	62.1%	29	30
Avg	Sep 23 (26.7)	76.8%	53	Oct 14 (17.1)	60.8%	53	Oct 22 (15.6)	50.6%	52	30

Table 9b. Spring migration timing and prevalence of river crossing events by Western Arctic Herd caribou. Reported results are average date (standard deviation in number of days); percentage of collared cows crossing; and sample size results for generally northward ‘spring’ migration. Dates are for the first crossing if the individual re-crosses. ‘Spring migration’ is not limited to the months of April and May as some cows cross the Noatak in early June. These later crossings are included in the results. Duration is the number days between Noatak and Selawik River crossings. Average (Avg) is for all years.

Year	Noatak River			Kobuk River			Selawik River			Duration
	Crossing Date (SD)	% Crossed	N	Crossing Date (SD)	% Crossed	N	Crossing Date (SD)	% Crossed	N	
2022	May 21 (14.3)	87.0%	69	May 8 (8.5)	54.2%	72	May 4 (7.3)	18.1%	72	17
2021	Apr 18 (27.1)	26.3%	57	May 9 (8.3)	8.8%	57	May 7 (6.7)	7.0%	57	NA
2020	May 19 (5.8)	45.9%	37	May 12 (5.3)	37.8%	37	May 3 (5.6)	27.0%	37	16
2019	May 12 (10.8)	34.1%	41	May 10 (7.4)	21.4%	42	Apr 25 (14.4)	23.3%	43	17
2018	May 24 (7.4)	36.1%	61	May 18 (8.8)	37.7%	61	May 10 (6.8)	38.1%	63	14
2017	May 11 (4.6)	65.1%	63	May 2 (10.0)	61.9%	63	Apr 25 (5.3)	59.4%	64	16
2016	May 7 (8.4)	84.8%	46	Apr 28 (8.3)	84.8%	46	Apr 24 (8.6)	84.8% ^a	46	13
2015	May 18 (6.5)	84.4%	32	May 9 (6.2)	81.8%	33	May 3 (4.4)	82.3%	34	15
2014	May 8 (7.3)	91.2 %	34	Apr 27 (4.1)	88.2%	34	Apr 23 (3.6)	88.2%	34	15
2013	May 31 (6.2)	93.1%	29	May 26 (8.1)	79.3%	29	May 21 (10.2)	79.3%	29	10
2012	June 7 (26.7)	74.4%	43	May 29 (26.4)	69.7%	43	May 26 (27.5)	69.7% ^b	43	12
2011	May 18 (11.8)	96.3%	27	May 15 (5.8)	70.4%	27	May 9 (5.8)	55.5%	27	9
Avg	May 17 (11.4)	68.2%	45	May 11 (8.9)	58.0%	45	May 5 (8.9)	47.8%	46	14

^a One caribou (‘1529’) did not migrate north and stayed on the Seward Peninsula.

^b One caribou (‘1108’) did not migrate north and stayed on the Seward Peninsula.

Migration Routes

A histogram (Figures 8a and 8b) of where caribou crossed the Noatak River provides a visual depiction of the geographic spread of the fall migration. Crossings of the Noatak continue to be variable. The 2021 migration was distributed very similarly to 2020. The bulk of the caribou crossing the Noatak River did so towards the central portion of the river.

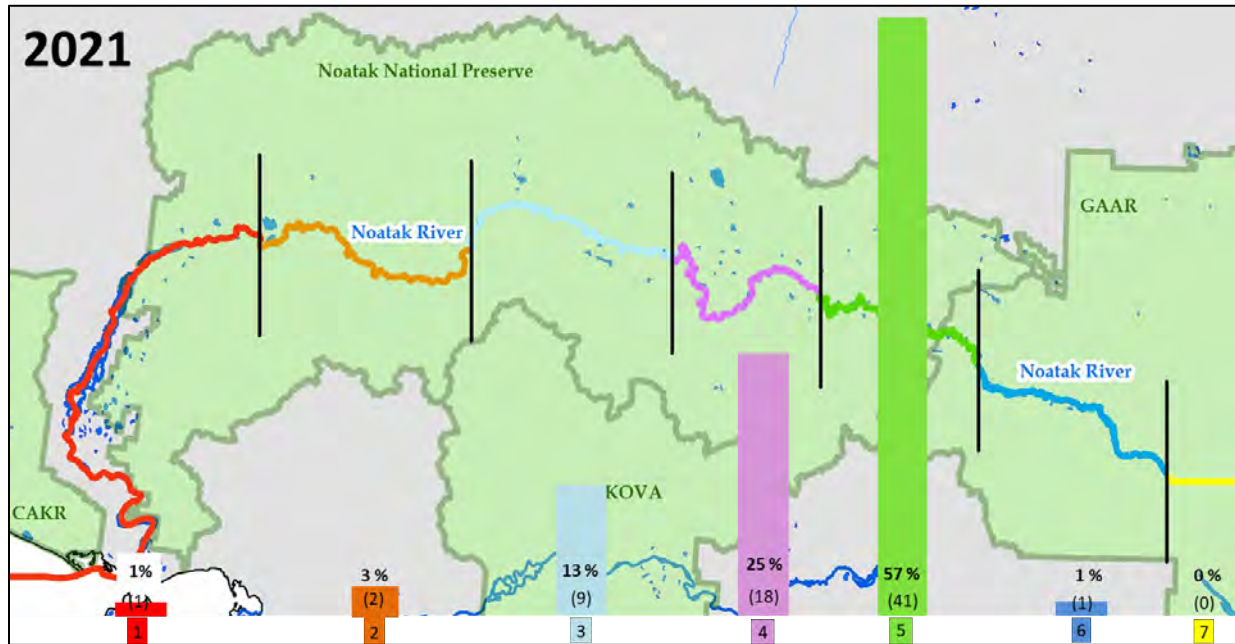


Figure 8a. 2021 distribution of caribou crossing the Noatak River during fall. This histogram depicts where collared female caribou crossed the Noatak River, generally from north to south, on their fall migration. Relative percentages (top number) and absolute number (middle number) of caribou are provided. The river is divided into seven (lowest number) color-coded segments which are displayed in the background. The middle five segments are 100 river kilometers long, while the westernmost segment (red) is 200 km (before extending into the Chukchi Sea) and the easternmost (yellow) runs as far east as WAH caribou are known to migrate.

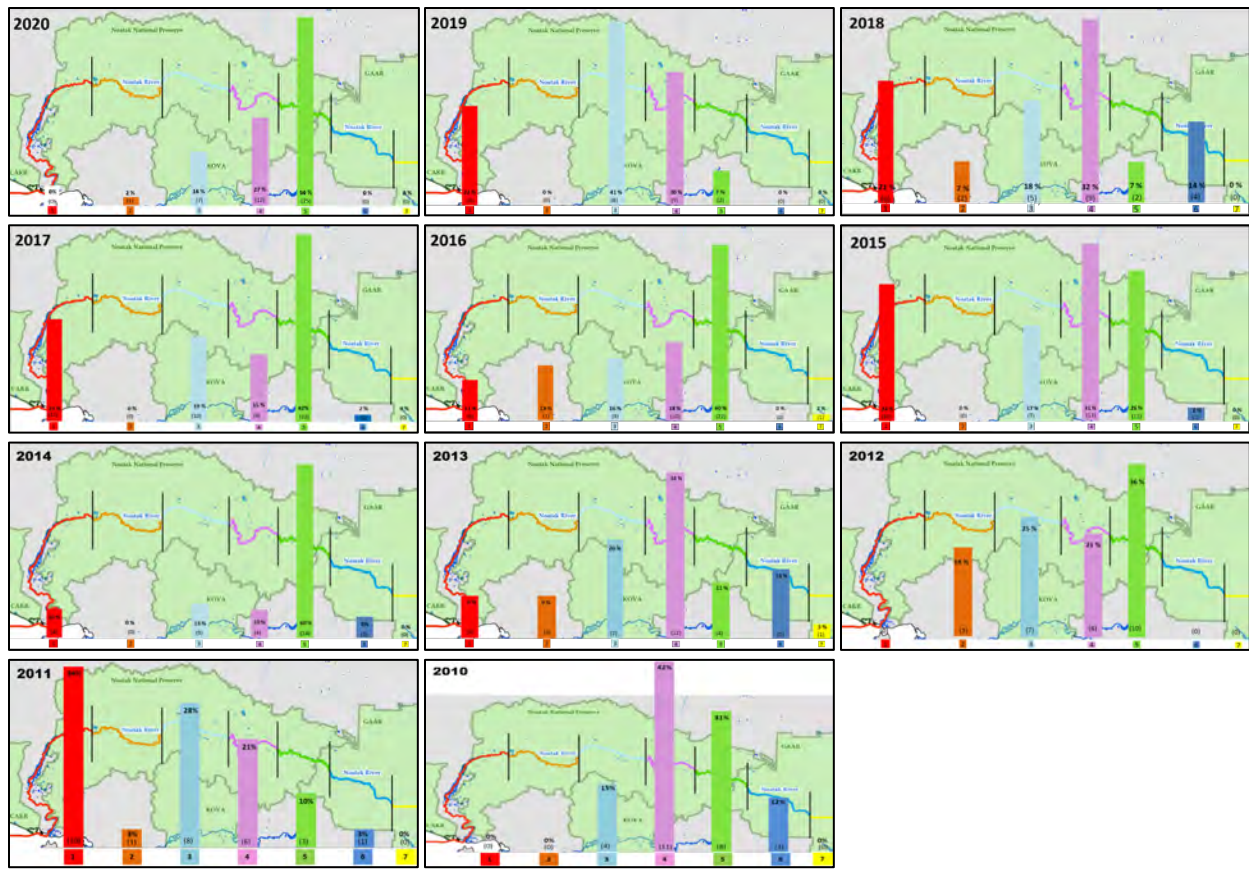


Figure 8b. 2010–2020 distribution of caribou crossing the Noatak River during fall. This histogram depicts where collared female caribou crossed the Noatak River, generally from north to south, on their fall migration. Relative percentages (top number) and absolute number (middle number) of caribou are provided. The river is divided into seven (lowest number) color-coded segments which are displayed in the background. The middle five segments are 100 river kilometers long, while the westernmost segment (red) is 200 km (before extending into the Chukchi Sea) and the easternmost (yellow) runs as far east as WAH caribou are known to migrate. Historic records dating back to the inception of vital sign monitoring.

The timing and minimum distance GPS-collared caribou were to the villages of Noatak, Shungnak and Selawik as well as Onion Portage on their annual ‘spring’ and ‘fall’ migrations are detailed in Tables 10a and 10b. Onion Portage, which has been used as a Kobuk River crossing by caribou for more than 10,000 years, is frequently utilized both during the fall and spring migrations (Anderson 1968). While the fall 2021 minimum distance and timing to Noatak was close to average, the distances to Shungnak, Selawik, and Onion Portage were some the shortest ever reported. However, it was the latest ever that caribou came their closest to Shungnak and Selawik and the 3rd latest for Onion Portage. With migration not getting far south, the minimum distance in spring was a record low for Onion Portage and the 2nd lowest for Shungnak. The spring timing was early for Shungnak but near average for the other key locations.

Table 10a. Fall season minimum distance and date that collared Western Arctic Herd caribou passed the northwest Arctic villages of Noatak, Shungnak, and Selawik, and the historical caribou river crossing location of Onion Portage, KOVA. Reported results are average distance in kilometers (standard deviation); average date (standard deviation); and sample size. Results are for generally southward, fall (September–November) migration. Average is for all years.

Year	n	Noatak		Shungnak		Selawik		Onion Portage	
		Distance (SD)	Date (SD)	Distance (SD)	Date (SD)	Distance (SD)	Date (SD)	Distance (SD)	Date (SD)
2021	73	144.2 (67.6)	Oct 4 (19.5)	60.1 (90.6)	Nov 9 (16.6)	90.0 (83.5)	Oct 26 (16.2)	54.5 (79.5)	Oct 19 (18.2)
2020	65	118.0 (54.4)	Sept 11 (17.8)	148.8 (101.9)	Oct 11 (20.8)	181.6 (85.0)	Oct 10 (21.7)	126.4 (92.9)	Oct 7 (16.2)
2019	46	155.5 (92.6)	Sept 27 (21.5)	169.1 (101.9)	Nov 4 (23.7)	178.4 (132.6)	Oct 16 (27.5)	145.2 (108.5)	Oct 24 (27.7)
2018	46	116.0 (85.1)	Oct 6 (27.2)	142.7 (73.0)	Oct 25 (31.9)	135.1 (82.7)	Oct 17 (34.4)	117.0 (65.1)	Oct 17 (32.8)
2017	69	135.9 (103.9)	Oct 5 (31.6)	138.6 (81.0)	Oct 30 (27.6)	138.9 (94.7)	Oct 25 (32.0)	115.5 (81.0)	Oct 27 (29.9)
2016	73	137.5 (88.3)	Oct 21 (33.4)	139.9 (100.6)	Oct 7 (28.5)	123.8 (107.5)	Oct 8 (23.6)	110.2 (97.4)	Oct 4 (26.6)
2015	49	132.7 (64.3)	Oct 23 (30.0)	132.0 (103.9)	Oct 3 (26.8)	86.3 (88.3)	Oct 6 (24.0)	93.2 (101.8)	Oct 2 (26.0)
2014	46	165.8 (76.5)	Oct 16 (26.9)	80.1 (88.2)	Oct 7 (23.6)	96.4 (95.7)	Oct 8 (18.8)	62.8 (87.6)	Oct 1 (22.5)
2013	35	146.8 (69.7)	Oct 14 (25.9)	83.8 (53.2)	Oct 11 (19.1)	63.9 (59.3)	Oct 15 (17.1)	60.4 (52.4)	Oct 9 (20.0)
2012	34	155.0 (61.1)	Oct 22 (31.7)	78.1 (87.1)	Oct 16 (19.9)	81.6 (49.9)	Oct 24 (20.0)	58.5 (71.6)	Oct 13 (19.8)
2011	39	123.8 (83.6)	Sep 30 (28.1)	140.0 (106.5)	Oct 19 (27.1)	118.4 (117.7)	Oct 12 (29.4)	122.8 (96.9)	Oct 14 (27.0)
2010	29	176.8 (54.2)	Oct 7 (17.6)	36.6 (37.3)	Oct 8 (15.5)	86.1 (53.1)	Oct 20 (12.7)	32.6 (32.7)	Oct 3 (14.6)
Average	50	142.3 (75.1)	Oct 8 (25.9)	112.5 (85.4)	Oct 17 (23.4)	115.0 (87.5)	Oct 15 (23.1)	91.6 (80.6)	Oct 11 (23.4)

Table 10b. Spring season minimum distance and date that collared Western Arctic Herd caribou passed the northwest Arctic villages of Noatak, Shungnak, and Selawik, and the historical caribou river crossing location of Onion Portage, KOVA. Reported results are average distance in kilometers (standard deviation); average date (standard deviation); and sample size. Results are for generally northward, spring (April and May) migration. Average is for all years.

Year	n	Noatak		Shungnak		Selawik		Onion Portage	
		Distance (SD)	Date (SD)	Distance (SD)	Date (SD)	Distance (SD)	Date (SD)	Distance (SD)	Date (SD)
2022	63	182.3 (50.7)	May 20 (13.2)	80.2 (96.0)	Apr 26 (17.9)	127.5 (77.4)	May 2 (15.6)	63.1 (86.6)	May 6 (14.5)
2021	57	222.1 (58.2)	May 17 (11.5)	181.7 (84.0)	May 1 (15.3)	238.8 (84.9)	May 7 (13.2)	172.3 (72.6)	May 5 (13.5)
2020	37	203.9 (87.3)	May 18 (11.8)	177.4 (105.0)	April 29 (18.5)	190.5 (133.0)	May 5 (16.1)	152.0 (106.8)	May 5 (17.4)
2019	36	167.2 (65.7)	May 6 (18.1)	173.1 (63.4)	Apr 23 (15.6)	184.3 (89.1)	Apr 28 (16.4)	149.6 (57.4)	Apr 27 (14.9)
2018	53	189.0 (78.2)	May 21 (6.7)	149.8 (54.6)	May 4 (17.9)	149.9 (122.9)	May 8 (12.9)	131.0 (60.6)	May 7 (15.8)
2017	61	167.8 (97.2)	Apr 30 (17.6)	164.2 (103.3)	May 1 (16.5)	126.4 (145.1)	Apr 28 (16.5)	129.5 (107.6)	May 5 (15.2)
2016	46	103.6 (78.0)	May 5 (9.6)	180.7 (68.1)	May 1 (12.7)	82.6 (107.8)	Apr 29 (12.7)	136.9 (71.2)	May 2 (12.4)
2015	37	124.4 (69.6)	May 9 (13.7)	162.9 (71.7)	May 5 (13.6)	69.5 (104.0)	May 2 (13.4)	120.7 (77.5)	May 7 (14.0)
2014	35	117.1 (81.1)	May 5 (8.5)	143.1 (28.7)	Apr 27 (7.8)	53.2 (85.5)	Apr 26 (8.3)	102.6 (45.9)	Apr 29 (7.4)
2013	30	138.5 (52.4)	May 23 (14.1)	123.9 (57.5)	May 18 (17.2)	58.3 (68.9)	May 11 (20.0)	79.4 (57.0)	May 19 (17.5)
2012	29	178.2 (97.2)	May 26 (7.7)	142.1 (69.4)	May 22 (10.3)	117.0 (116.7)	May 22 (9.8)	117.0 (72.5)	May 23 (10.3)
2011	27	202.3 (40.7)	May 20 (9.8)	74.5 (46.7)	May 9 (12.0)	110.3 (97.4)	May 12 (7.78)	64.8 (60.3)	May 15 (8.2)
Average	43	166.4 (71.4)	May 14 (11.9)	146.1 (70.7)	May 4 (14.6)	125.7 (102.7)	May 5 (13.6)	118.2 (73.0)	May 7 (13.4)

Western Arctic Herd Working Group

Several NPS employees, including ARCN's Caribou Vital Sign Monitoring Lead, attended and presented information at the December 2021 meeting, which was held via teleconference due to COVID-19 safety protocols. The Caribou Vital Sign lead acted as the NPS representative on the Technical Committee and contributed to the 'Caribou Trails' newsletters. NPS, through GAAR and Western Arctic Parklands, contributed financially to support the Western Arctic Caribou Herd Working Group and the Western Arctic Caribou Herd Technical Committee meeting.

New Products Completed Prior to the End of Reporting Period

Information on the WAH was disseminated in several mediums in the current monitoring year (see below). Most of the following products can be found on ARCN's Caribou Vital Sign webpage, which is located at <https://www.nps.gov/im/arcn/caribou.htm>: use the "Find all articles, report, and data here" link.

Technical Reports

Joly, K. and M. D. Cameron. 2021. Caribou vital sign annual report for the Arctic Network Inventory and Monitoring Program: September 2020–August 2021. Natural Resource Report NPS/ARC/NRR—2021/2335. National Park Service, Fort Collins, Colorado.
<https://doi.org/10.36967/nrr-2288517>.

Scientific Journal Articles

Cameron, M. D., J. M. Eisaguirre, G. A Breed, K. Joly, and K. Kielland. 2021. Mechanistic movement models identify continuously updated autumn migration cues in Arctic caribou. *Movement Ecology* 9 (54). DOI: 10.1186/s40462-021-00288-0.

Joly, K., A. Gunn, S. D. Côté, M. Panzacchi, J. Adamczewski, M. J. Sutor, and E. Gurarie. 2021. Caribou and reindeer migrations in the changing Arctic. *Animal Migrations* 8: 156–167. DOI: 10.1515/ami-2020-0110.

Outreach

Provided caribou information at grade school educational programs as well as multiple media outlets, and public presentations. A one-page handout about delayed fall migration for the herd was made for ARC/N parks. An article about caribou population oscillations was produced for an online journal whose target audience is aspiring middle school science students. The article is located at: <https://kids.frontiersin.org/articles/10.3389/frm.2021.631372>.

Discussion

GPS collars were deployed in the WAH for the first time in 2009. Since then, over 820,000 relocations have been collected during the first 13 years of vital sign monitoring. During this reporting period (September 2021–August 2022), 33 additional GPS collars were deployed. Due to the trend of lowered percentage of collared caribou crossing the Kobuk River and late migration, net gunning was used to deploy collars in April 2022. Our successful spring capture efforts highlight how effective helicopter deployments can be and we expect the need to continue employing this method as long as fall migration remains irregular and unpredictable for the WAH. Collaboration with the ADFG continues to be an integral part of achieving Vital Sign objectives and greatly improves the capacity of the program.

All the caribou that were collared in the spring of 2022 survived through end of August, which was in contrast to the low survival rate of the spring 2021 cohort. As part of the Caribou Vital Sign's periodic review, a comprehensive review of mortalities has been initiated. Lower adult female survival has the potential to slow herd growth or even contribute to population declines. The last photo-census (2022) completed by the ADFG revealed a decrease in the population to 164,000 caribou (Alex Hansen, *personal communication*, 2022). A reduction in cow harvest has the potential to help slow the herd's decline.

Range use by GPS-collared cows during this reporting period was restricted, primarily due to the very few collared animals moving south of the Selawik River for winter. Both the annual and winter area distributions were the smallest on record. In winter, collared animals were clustered along and just south of the Kobuk River near the villages of Ambler, Shungnak, and Kobuk. Interestingly, despite the overall smaller range use, the average annual movement (3039 km) increased and was the highest it has been since the 2015–2016 monitoring year.

WAH caribou continued to use NOAT more consistently, over the course of the year, than other park units. This is likely due to its strategic location in relation to spring and fall migration routes as well as containing summer habitat. For the first time since GPS monitoring began, a plurality (42%) of the herd overwintered in KOVA, which exhibited the greatest use of all Park units in winter. For comparison, during the first 8 years of monitoring, no collared caribou wintered in KOVA and use had always been < 5%. For the fourth year in a row, no collared caribou used BELA this monitoring year (use was reported in all 8 previous monitoring years) or even entered the Seward Peninsula. This is a remarkable turnaround from 6–7 years ago, when the Seward Peninsula represented a major winter area for the herd and 72–75 % of collared caribou wintered in BELA.

About 10 collared caribou came within the vicinity of the Red Dog Mine and the Delong Mountain Transportation System this monitoring year. The movements of these caribou displayed obvious deflections (Figure 7). Only 2 of these caribou eventually crossed the road, with the remainder staying north for the winter. Both individuals that made it across the road and migrated south survived until the end of the monitoring year (September 2022). Three of the 8 (37.5%) that did not cross the road, and wintered north of it, died before the end of winter. These observations support previous findings (e.g., Wilson et al. 2016) that the road is impacting the fall migration of the WAH,

yet the underlying causes of what road-related factors are acting as a barrier to movement remain unknown at this time.

This monitoring year had the highest percentage of collared caribou crossing the Kobuk River since 2015. From 2016–2020, an average of only 34% of collared caribou crossed the Kobuk River, but in 2021, 73% of the collared caribou cross the Kobuk River. While a doubling of the recent average, this percentage was still lower than the average number (82%) that crossed from 2010–2015. Despite the relatively high percentage of caribou crossing the Kobuk River in the fall of 2021, the migration largely stalled out at this point and only 10% of collared caribou crossed the Selawik River, which was the second lowest on record. While the average timing of the Kobuk River crossing in 2021 was near the overall average, it was later than all 7 of the first years of monitoring. The first crossing of the Kobuk River was the second latest on record. Similarly, fall of 2021 was the latest average crossing of the Selawik River.

The root causes of these changing migratory and range-use patterns are unknown. Climate change is leading to snow and cold temperatures occurring later in fall, which may contribute to the delayed migration patterns we have been documenting (Cameron et al. 2021). Another potential factor in reduced and later migrations is the smaller size of the herd (Joly et al. 2021). After nearly 20 years of population decline, the herd is less than half that of its peak (490,000 individuals) in 2003. Smaller populations use less space than larger ones, thus smaller populations tend to have shorter migrations than larger ones.

These delayed migration patterns have important implications for subsistence users of caribou: later migrations can coincide with rapidly decreasing temperatures and pan ice running in the river, which can prevent hunting and travel difficult. Moreover, later arrival of caribou in fall can mean they arrive in some hunting areas during the rut, when the meat of males is unpalatable. This can increase harvest pressure on females. This has the potential to put additional downward pressure on the herd.

Two scientific journal articles on caribou migration were published. We were able to confirm and quantify the impacts of accumulating snow and decreasing temperatures on fall migratory movements that subsistence hunters have long known about (Cameron et al. 2021). The second paper was a review of the factors that affect caribou migrations, including climate, habitat productivity, and development (Joly et al. 2021). These research papers have important management implications. We also produced an article about caribou population oscillations for an online journal dedicated to middle school science students. Further research is ongoing and hopefully additional papers will be available for the next annual report. A large number of products and presentations, including these 2 scientific papers, have been developed in conjunction with monitoring this Vital Sign; most of which are available on-line at <https://www.nps.gov/im/arcn/caribou.htm>.

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[Natural Resource Stewardship and Science](#)

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The Department of the Interior protects and manages the nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its special responsibilities to American Indians, Alaska Natives, and affiliated Island Communities.

NPS 953/186886, November 2022

Alaska Department of Fish and Game Subsistence Division

Review of Arctic Area Subsistence Division Projects

Helen Cold
ADF&G Subsistence Division

Presentation to the North Slope RAC
February 23-24, 2023



Assessing the Effects of Oil Activity on Subsistence in Nuiqsut, Alaska

- **Funding Agency:** Oil Search Alaska (OSA)
- **Purpose:** Investigate the effects of oil development activities and associated infrastructure on Nuiqsut subsistence hunters
- **Focus area:** Community of Nuiqsut
- **Methods:**
 - Ethnographic interviews with mapping component
 - Project designed in coordination with Nuiqsut Subsistence Fisheries project to reduce community research fatigue
- **Project timeline:**
 - Project Start 10/2021, project end 02/2025
 - 15-20 semi-structured key respondent interviews with a mapping component
 - Conducted 7 interviews April 2022, 1 interview July 2022
- **Future work:**
 - Will conduct additional interviews during subsequent community visit January 2023



UAF Wainwright Comprehensive Survey

- **Funding Agency:** Bureau of Land Management (BLM) augmenting State of Alaska funds
 - Partnership between community of Wainwright and ADF&G Subsistence, with NSBWD input and guidance
- **Purpose:** Conduct a subsistence harvest update for major resource categories to assess changes in past 10 years
- **Focus area:** Wainwright
- **Methods:**
 - Household Surveys
 - Ethnographic interviews with mapping component
 - Participant observation
- **Project timeline:**
 - Start/End: 2022-2025
 - 1 year of surveys focusing on harvests of major resources
- **Future work:**
 - Fieldwork approved by Village of Wainwright December 2022
 - Community outreach meeting planned for August 2023, surveys planned for January/February 2024



Proposed - Kaktovik Beluga Project

- **Funding Agency:** Bureau of Ocean Energy Management (BOEM)
- **Purpose:** Document subsistence harvest practices for beluga as well as traditional knowledge of Beaufort Sea beluga stock
- **Focus area:** Kaktovik
- **Project Background:** Kaktovik hunters hold unique knowledge specific to beluga in the Beaufort Sea. This research would be an opportunity for residents of Kaktovik to share their expertise with residents of other Arctic communities, scientists, and co-management groups like the Alaska Beluga Whale Committee. This up-to-date information on when, where and how residents of Kaktovik harvest beluga whales can help inform NEPA analyses to understand possible impacts of potential OCS resource developments.



Proposed - Kaktovik Beluga Project (2)

- **Objectives:**
 - Evaluate baseline temporal and spatial data about subsistence beluga hunting in Kaktovik
 - Document how the people of Kaktovik hunt belugas and how beluga is processed
 - Examine the cultural importance of belugas and beluga harvest for Kaktovik
- **Proposed Methods:**
 - Ethnographic interviews
 - Mapping beluga habitats, migration patterns, and traditional hunting areas
 - Focus groups
 - Participant observation
- **Project timeline:**
 - Extended community consultation (2021-2023)
 - If project approved by community partners, research plan will be developed collaboratively spring 2023, and fieldwork will take place fall-winter 2023 and fall 2024



Questions?

Thank you!

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Fall 2023 Regional Advisory Council Meeting Calendar

Last updated 11/7/2022

Due to travel budget limitations placed by Department of the Interior on the U.S. Fish and Wildlife Service and the Office of Subsistence Management, the dates and locations of these meetings will be subject to change

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Aug. 13	Aug. 14 Window Opens	Aug. 15	Aug. 16	Aug. 17	Aug. 18	Aug. 19
Aug. 20	Aug. 21	Aug. 22	Aug. 23	Aug. 24	Aug. 25	Aug. 26
Aug. 27	Aug. 28	Aug. 29	Aug. 30	Aug. 31	Sep. 1	Sep. 2
Sep. 3	Sep. 4 Holiday	Sep. 5	Sep. 6	Sep. 7	Sep. 8	Sep. 9
Sep. 10	Sep. 11	Sep. 12	Sep. 13	Sep. 14	Sep. 15	Sep. 16
Sep. 17	Sep. 18	Sep. 19	Sep. 20	Sep. 21	Sep. 22	Sep. 23
Sep. 24	Sep. 25	Sep. 26	Sep. 27	Sep. 28	Sep. 29	Sep. 30
Oct. 1	Oct. 2	Oct. 3	Oct. 4	Oct. 5	Oct. 6	Oct. 7
	SCRAC (Kenai)		EIRAC (Tok or Fairbanks)			
Oct. 8	Oct. 9 Holiday	Oct. 10	Oct. 11	Oct. 12	Oct. 13	Oct. 14
		YKDRAC (Anchorage or Bethel)				
		WIRAC (Fairbanks)				
Oct. 15	Oct. 16	Oct. 17	Oct. 18	Oct. 19	Oct. 20	Oct. 21
	NWARAC (Kotzebue)					
Oct. 22	Oct. 23	Oct. 24	Oct. 25	Oct. 26	Oct. 27	Oct. 28
		BBRAC (Dillingham)				
		SEARAC (Sitka)				
Oct. 29	Oct. 30	Oct. 31	Nov. 1	Nov. 2	Nov. 3 Window Closes	Nov. 4
			NSRAC (Utqiagvik)			
			SPRAC (Nome)			

Winter 2024 Regional Advisory Council Meeting Calendar

Last updated 12/22/2022

Due to travel budget limitations placed by Department of the Interior on the U.S. Fish and Wildlife Service and the Office of Subsistence Management, the dates and locations of these meetings will be subject to change

Sunday	Monday	Tuesday	Wednesday-	Thursday	Friday	Saturday
<i>Mar. 3</i>	<i>Mar. 4 Window Opens</i>	<i>Mar. 5</i>	<i>Mar. 6</i>	<i>Mar. 7</i>	<i>Mar. 8</i>	<i>Mar. 9</i>
<i>Mar. 10</i>	<i>Mar. 11</i>	<i>Mar. 12</i>	<i>Mar. 13</i>	<i>Mar. 14</i>	<i>Mar. 15</i>	<i>Mar. 16</i>
<i>Mar. 17</i>	<i>Mar. 18</i>	<i>Mar. 19</i>	<i>Mar. 20</i>	<i>Mar. 21</i>	<i>Mar. 22</i>	<i>Mar. 23</i>
<i>Mar. 24</i>	<i>Mar. 25</i>	<i>Mar. 26</i>	<i>Mar. 27</i>	<i>Mar. 28</i>	<i>Mar. 29 Window Closes</i>	<i>Mar. 30</i>

Fall 2024 Regional Advisory Council Meeting Calendar

Last updated 12/22/2022

Due to travel budget limitations placed by Department of the Interior on the U.S. Fish and Wildlife Service and the Office of Subsistence Management, the dates and locations of these meetings will be subject to change

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Aug. 18	Aug. 19 Window Opens	Aug. 20	Aug. 21	Aug. 22	Aug. 23	Aug. 24
Aug. 25	Aug. 26	Aug. 27	Aug. 28	Aug. 29	Aug. 30	Aug. 31
Sep. 1	Sep. 2 Holiday	Sep. 3	Sep. 4	Sep. 5	Sep. 6	Sep. 7
Sep. 8	Sep. 9	Sep. 10	Sep. 11	Sep. 12	Sep. 13	Sep. 14
Sep. 15	Sep. 16	Sep. 17	Sep. 18	Sep. 19	Sep. 20	Sep. 21
Sep. 22	Sep. 23	Sep. 24	Sep. 25	Sep. 26	Sep. 27	Sep. 28
Sep. 29	Sep. 30	Oct. 1	Oct. 2	Oct. 3	Oct. 4	Oct. 5
Oct. 6	Oct. 7	Oct. 8	Oct. 9	Oct. 10	Oct. 11	Oct. 12
Oct. 13	Oct. 14 Holiday	Oct. 15	Oct. 16	Oct. 17	Oct. 18	Oct. 19
Oct. 20	Oct. 21	Oct. 22	Oct. 23	Oct. 24	Oct. 25	Oct. 26
Oct. 27	Oct. 28	Oct. 29	Oct. 30	Oct. 31	Nov. 1 Window Closes	Nov. 2

Subsistence Regional Advisory Council Correspondence Policy

The Federal Subsistence Board (Board) recognizes the value of the Regional Advisory Councils' role in the Federal Subsistence Management Program. The Board realizes that the Councils must interact with fish and wildlife resource agencies, organizations, and the public as part of their official duties, and that this interaction may include correspondence. Since the beginning of the Federal Subsistence Program, Regional Advisory Councils have prepared correspondence to entities other than the Board. Informally, Councils were asked to provide drafts of correspondence to the Office of Subsistence Management (OSM) for review prior to mailing. Recently, the Board was asked to clarify its position regarding Council correspondence. This policy is intended to formalize guidance from the Board to the Regional Advisory Councils in preparing correspondence.

The Board is mindful of its obligation to provide the Regional Advisory Councils with clear operating guidelines and policies, and has approved the correspondence policy set out below. The intent of the Regional Advisory Council correspondence policy is to ensure that Councils are able to correspond appropriately with other entities. In addition, the correspondence policy will assist Councils in directing their concerns to others most effectively and forestall any breach of department policy.

The Alaska National Interest Lands Conservation Act, Title VIII required the creation of Alaska's Subsistence Regional Advisory Councils to serve as advisors to the Secretary of the Interior and the Secretary of Agriculture and to provide meaningful local participation in the management of fish and wildlife resources on Federal public lands. Within the framework of Title VIII and the Federal Advisory Committee Act, Congress assigned specific powers and duties to the Regional Advisory Councils. These are also reflected in the Councils' charters. (*Reference: ANILCA Title VIII §805, §808, and §810; Implementing regulations for Title VIII, 50 CFR 100 __.11 and 36 CFR 242 __.11; Implementing regulations for FACA, 41 CFR Part 102-3.70 and 3.75*)

The Secretaries of Interior and Agriculture created the Federal Subsistence Board and delegated to it the responsibility for managing fish and wildlife resources on Federal public lands. The Board was also given the duty of establishing rules and procedures for the operation of the Regional Advisory Councils. The Office of Subsistence Management was established within the Federal Subsistence Management Program's lead agency, the U.S. Fish and Wildlife Service, to administer the Program. (*Reference: 36 CFR Part 242 and 50 CFR Part 100 Subparts C and D*)

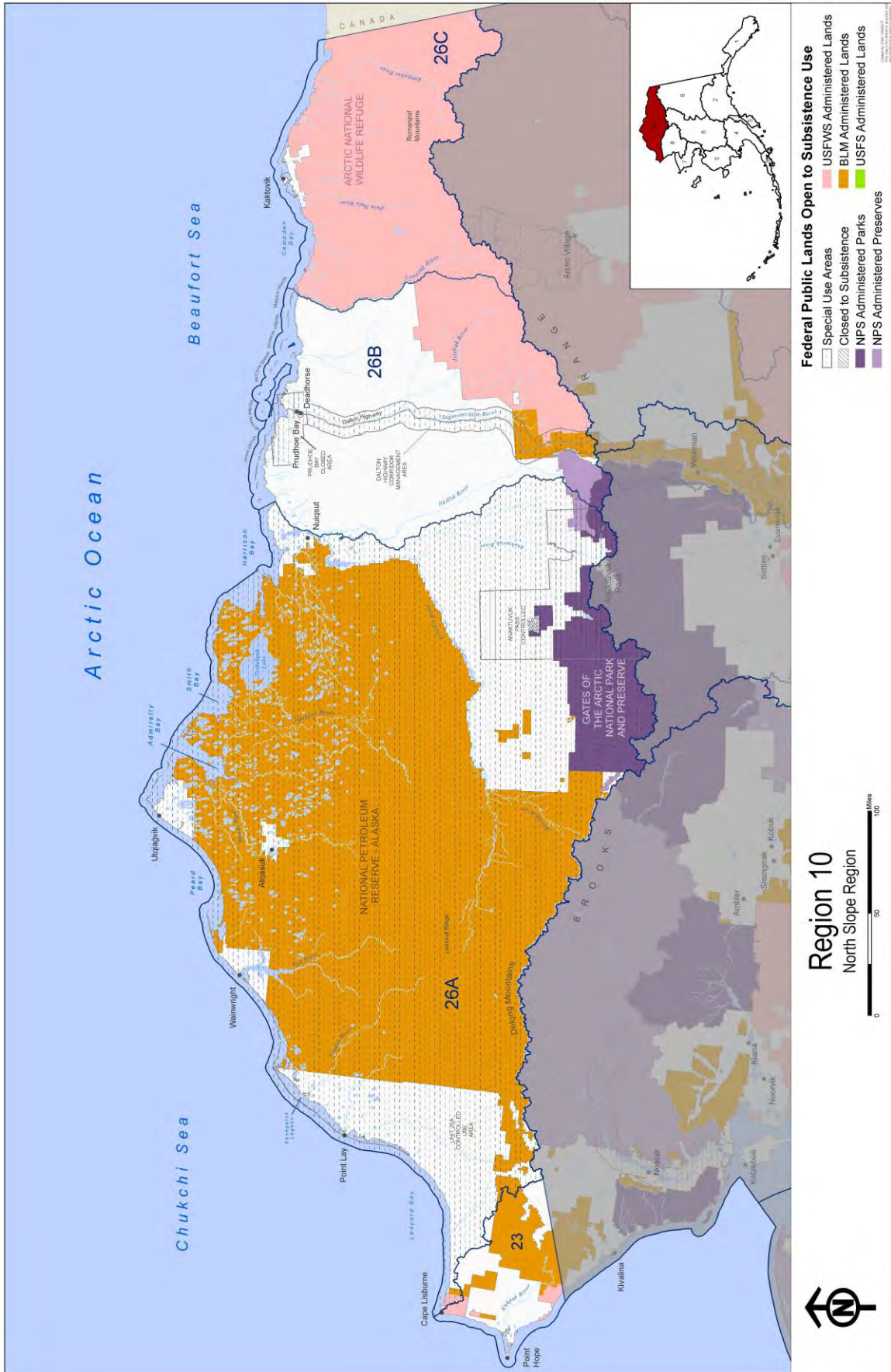
Policy

1. The subject matter of Council correspondence shall be limited to matters over which the Council has authority under §805(a)(3), §808, §810 of Title VIII, Subpart B §____.11(c) of regulation, and as described in the Council charters.
2. Councils may, and are encouraged to, correspond directly with the Board. The Councils are advisors to the Board.
3. Councils are urged to also make use of the annual report process to bring matters to the Board's attention.

4. As a general rule, Councils discuss and agree upon proposed correspondence during a public meeting. Occasionally, a Council chair may be requested to write a letter when it is not feasible to wait until a public Council meeting. In such cases, the content of the letter shall be limited to the known position of the Council as discussed in previous Council meetings.
5. Except as noted in Items 6, 7, and 8 of this policy, Councils will transmit all correspondence to the Assistant Regional Director (ARD) of OSM for review prior to mailing. This includes, but is not limited to, letters of support, resolutions, letters offering comment or recommendations, and any other correspondence to any government agency or any tribal or private organization or individual.
 - a. Recognizing that such correspondence is the result of an official Council action and may be urgent, the ARD will respond in a timely manner.
 - b. Modifications identified as necessary by the ARD will be discussed with the Council chair. Councils will make the modifications before sending out the correspondence.
6. Councils may submit written comments requested by Federal land management agencies under ANILCA §810 or requested by regional Subsistence Resource Commissions (SRC) under §808 directly to the requesting agency. Section 808 correspondence includes comments and information solicited by the SRCs and notification of appointment by the Council to an SRC.
7. Councils may submit proposed regulatory changes or written comments regarding proposed regulatory changes affecting subsistence uses within their regions to the Alaska Board of Fisheries or the Alaska Board of Game directly. A copy of any comments or proposals will be forwarded to the ARD when the original is submitted.
8. Administrative correspondence such as letters of appreciation, requests for agency reports at Council meetings, and cover letters for meeting agendas will go through the Council's regional coordinator to the appropriate OSM division chief for review.
9. Councils will submit copies of all correspondence generated by and received by them to OSM to be filed in the administrative record system.
10. Except as noted in Items 6, 7, and 8, Councils or individual Council members acting on behalf of or as representative of the Council may not, through correspondence or any other means of communication, attempt to persuade any elected or appointed political officials, any government agency, or any tribal or private organization or individual to take a particular action on an issue. This does not prohibit Council members from acting in their capacity as private citizens or through other organizations with which they are affiliated.

Approved by the Federal Subsistence Board on June 15, 2004.

Region 10 – North Slope Region Map



**Department of the Interior
U. S. Fish and Wildlife Service**

North Slope Subsistence Regional Advisory Council

Charter

1. **Committee's Official Designation.** The Council's official designation is the North Slope Subsistence Regional Advisory Council (Council).
2. **Authority.** The Council is renewed by virtue of the authority set out in the Alaska National Interest Lands Conservation Act (ANILCA) (16 U.S.C. 3115 (1988)) Title VIII, and under the authority of the Secretary of the Interior, in furtherance of 16 U.S.C. 410hh-2. The Council is regulated by the Federal Advisory Committee Act (FACA), as amended, (5 U.S.C., Appendix 2).
3. **Objectives and Scope of Activities.** The objective of the Council is to provide a forum for the residents of the Region with personal knowledge of local conditions and resource requirements to have a meaningful role in the subsistence management of fish and wildlife on Federal lands and waters in the Region.
4. **Description of Duties.** Council duties and responsibilities, where applicable, are as follows:
 - a. Recommend the initiation, review, and evaluate of proposals for regulations, policies, management plans, and other matters relating to subsistence uses of fish and wildlife on public lands within the region.
 - b. Provide a forum for the expression of opinions and recommendations by persons interested in any matter related to the subsistence uses of fish and wildlife on public lands within the Region.
 - c. Encourage local and regional participation in the decision-making process affecting the taking of fish and wildlife on the public lands within the region for subsistence uses.
 - d. Prepare an annual report to the Secretary containing the following:
 - (1) An identification of current and anticipated subsistence uses of fish and wildlife populations within the Region;
 - (2) An evaluation of current and anticipated subsistence needs for fish and wildlife populations within the Region;

- (3) A recommended strategy for the management of fish and wildlife populations within the Region to accommodate such subsistence uses and needs; and
 - (4) Recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.
 - e. Appoint one member to the Gates of the Arctic National Park Subsistence Resource Commission in accordance with section 808 of the ANILCA.
 - f. Make recommendations on determinations of customary and traditional use of subsistence resources.
 - g. Make recommendations on determinations of rural status.
 - h. Provide recommendations on the establishment and membership of Federal local advisory committees.
- 5. **Agency or Official to Whom the Council Reports.** The Council reports to the Federal Subsistence Board Chair, who is appointed by the Secretary of the Interior with the concurrence of the Secretary of Agriculture.
- 6. **Support.** The U.S. Fish and Wildlife Service will provide administrative support for the activities of the Council through the Office of Subsistence Management.
- 7. **Estimated Annual Operating Costs and Staff Years.** The annual operating costs associated with supporting the Council's functions are estimated to be \$165,000, including all direct and indirect expenses and 1.0 staff years.
- 8. **Designated Federal Officer.** The DFO is the Subsistence Council Coordinator for the Region or such other Federal employee as may be designated by the Assistant Regional Director – Subsistence, Region 11, U.S. Fish and Wildlife Service. The DFO is a full-time Federal employee appointed in accordance with Agency procedures. The DFO will:
 - (a) Approve or call all Council and subcommittee meetings;
 - (b) Prepare and approve all meeting agendas;
 - (c) Attend all committee and subcommittee meetings;
 - (d) Adjourn any meeting when the DFO determines adjournment to be in the public interest; and

(e) Chair meetings when directed to do so by the official to whom the advisory committee reports.

9. Estimated Number and Frequency of Meetings. The Council will meet 1-2 times per year, and at such times as designated by the Federal Subsistence Board Chair or the DFO.

10. Duration. Continuing.

11. Termination. The Council will be inactive 2 years from the date the charter is filed, unless prior to that date, the charter is renewed in accordance with provisions of section 14 of the FACA. The Council will not meet or take any action without a valid current charter.

12. Membership and Designation. The Council's membership is composed of representative members as follows:

Ten members who are knowledgeable and experienced in matters relating to subsistence uses of fish and wildlife and who are residents of the region represented by the Council.

To ensure that each Council represents a diversity of interests, the Federal Subsistence Board in their nomination recommendations to the Secretary will strive to ensure that seven of the members (70 percent) represent subsistence interests within the region and three of the members (30 percent) represent commercial and sport interests within the region. The portion of membership representing commercial and sport interests must include, where possible, at least one representative from the sport community and one representative from the commercial community.

The Secretary of the Interior will appoint members based on the recommendations from the Federal Subsistence Board and with the concurrence of the Secretary of Agriculture.

Members will be appointed for 3-year terms. Members serve at the discretion of the Secretary.

If appointments for a given year have not yet been announced, a member may continue to serve on the Council following the expiration of his or her term until such appointments have been made. Unless reappointed, the member's service ends on the date of announcement even if that member's specific seat remains unfilled.

Alternate members may be appointed to the Council to fill vacancies if they occur out of cycle. An alternate member must be approved and appointed by the Secretary before attending the meeting as a representative. The term for an appointed alternate member will be the same as the term of the member whose vacancy is being filled.

Council members will elect a Chair, Vice-Chair, and Secretary for a 1-year term.

Members of the Council will serve without compensation. However, while away from their homes or regular places of business, Council and subcommittee members engaged in Council, or subcommittee business, approved by the DFO, may be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in Government service under Section 5703 of title 5 of the United States Code.

13. **Ethics Responsibilities of Members.** No Council or subcommittee member will participate in any Council or subcommittee deliberations or votes relating to a specific party matter before the Department or its bureaus and offices including a lease, license, permit, contract, grant, claim, agreement, or litigation in which the member or the entity the member represents has a direct financial interest.
14. **Subcommittees.** Subject to the DFO’s approval, subcommittees may be formed for the purpose of compiling information or conducting research. However, such subcommittees must act only under the direction of the DFO and must report their recommendations to the full Council for consideration. Subcommittees must not provide advice or work products directly to the Agency. Subcommittees will meet as necessary to accomplish their assignments, subject to the approval of the DFO and the availability of resources.
15. **Recordkeeping.** The Records of the Council, and formally and informally established subcommittees or other subgroups of the Council, must be handled in accordance with General Records Schedule 6.2, and other approved Agency records disposition schedules. These records must be available for public inspection and copying, subject to the Freedom of Information Act (5 U.S.C. 552).

_____/signature on the filed original/
Secretary of the Interior

Dec. 10, 2021
Date Signed

Dec. 13, 2021
Date Filed

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