Western Arctic Caribou Herd Working Group

December 13 - 14, 2023

Meeting Packet – Table of Contents

DRAFT Version 11-08-23

Western Arctic Caribou Herd (WACH)
Working Group Meeting
December 13-14, 2023, 8:30am - 5:00pm

Marriott Anchorage Downtown
820 West 7th Ave., Anchorage, AK 99501

Western Arctic Caribou Herd Working Group Mission:

"To work together to ensure the long-term conservation of the Western Arctic caribou herd and the ecosystem on which it depends, and to maintain traditional and other uses for the benefit of all people now and in the future."

DAY 1 – Wednesday, December 13

8:30 Call to Order

- Invocation
- WACH Working Group Roll Call / Establish Quorum
- Introduction of State and Federal Agency Leads
- New Working Group Member & Alternate Appointments
- Approval of Agenda – Preview Meeting Binder

8:40 Guest Elder – Hendy S. Ballot Sr. and Nellie K. Ballot, Noorvik, AK (50 min)

9:30 Round Robin Updates – What's been going on since 2022? (60 min)

What has everyone been up to since the last working group meeting? Please take a few minutes each to share your update.

10:30 Break (15 min)

10:45 Western Arctic Caribou Herd Status and Management Level (90 min)

10:45 Western Arctic Herd Overview and 2023 Census – including Technical Committee recommendation on status of the herd (45 min) – Alex Hansen, Alaska Department of Fish and Game (ADFG)

11:30 NPS Caribou Monitoring (15 min) - Kyle Joly, National Park Service (NPS)

11:45 Northern Latitude Caribou Herds (30 min) - Kyle Joly, National Park Service (NPS)

12:15 LUNCH (90 min)

1:45 Working Group discussion and decision on Herd Management Level per the 2019 WACH Cooperative Management Plan (30 min)

2:15 Regulation Change Proposals Under Consideration by the Board of Game and Federal Subsistence Board (15 min)

Board of Game Proposals – Phil Perry and Alex Hansen, Alaska Department of Fish & Game
Federal Subsistence Board Proposals – Will Wiese, US Fish & Wildlife Service

2:30 Review 2023 WACH WG Proposals Submitted to the Board of Game and Federal Subsistence Board (60 min) - Identify any new or amended recommendations to the Federal Subsistence Board, Board of Game, and/or Regional Advisory Councils, if appropriate.

WACH Working Group Meeting – Agenda (continued)

3:30 **BREAK** (15 min)

3:45 **CONTINUED: Review 2023 WACH WG Proposals Submitted to the Board of Game and Federal Subsistence Board** (60 min) - Identify any new or amended recommendations to the Federal Subsistence Board, Board of Game, and/or Regional Advisory Councils, if appropriate.

4:45 **ADJOURN DAY 1**

DAY 2 – Thursday, December 14

8:30 **Call to Order / Announcements / Review Day 2 Agenda**

8:35 **Resource Development in the Herd's Range** (30 min) – Tim Fullman, Resource Development Committee Chair

9:05 **Ambler Road Draft Supplemental Environmental Impact Statement** (35 min) – Geoff Beyersdorf, District Manager, Fairbanks District Office, Bureau of Land Management

9:40 **Community Harvest Program Update** (50 min) – Helen Cold, Subsistence Resource Specialist, Alaska Department of Fish & Game

10:30 **BREAK** (15 min)

10:45 **North Slope Communities – Harvest Data** (30 min) – Brian Person, Ph.D., Senior Wildlife Biologist, North Slope Borough

11:15 **Knowledge of the Caribou: A Database for Accessing Working Group Observations** (30 min) – Eliezer Gurarie, PhD, Assistant Professor, State University of New York, College of Environmental Science and Forestry

11:45 **LUNCH** (90 min)

1:15 **Communications, Education, and Outreach Update** (30 mins) - Brittany Sweeney, Selawik National Wildlife Refuge Outreach Specialist

1:45 **WORKING GROUP PHOTO** (30 min)

2:15 **Business Meeting – Actions - Assignments** (120 min)

- Review Day 1 Actions and Resolutions
- Approval of 2022 WACH Working Group Meeting Summary
- Committee Membership – Revise / Reconfirm
- WACH Working Group Cooperative Management Plan – Identify Committee for 2024 Plan Update
- Business / Action Items & Confirm Assignments
- Next Meeting – Date / Location

4:15 **Closing Comments – Working Group members** (30 min)

4:45 **ADJOURN**

WESTERN ARCTIC CARIBOU HERD WORKING GROUP
MEMBERSHIP LIST, December 2023

Working Group Seat	Primary Member	Alternate Member*
1. Anchorage Advisory Committee	Neil DeWitt	Matt Moore
2. Buckland, Deering, Selawik	Vida Coaltrain	Raymond Lee, Jr.
3. Anaktuvuk Pass, Nuiqsut	~~Eli Nukapigak~~	Mary Hugo
4. Elim, Golovin, White Mountain	~~Charles Saccheus~~	Morris Nakaruk
5. Fairbanks Hunters	John Wisniewski**	John Siegfried
6. Hunting Guides	Jake Jacobson	John (Thor) Stacey
7. Kivalina, Noatak	~~Enoch Mitchell~~	Daniel Foster, Sr.
8. Kotzebue	Cyrus Harris (Vice Chair)	Thomas Baker
9. Koyukuk River	~~Jack Reakoff**~~	Darrell Vent**
10. Lower Kobuk River	Vern Cleveland, Sr (Chair)	Kirk Sampson
11. Middle Yukon River	Michael Stickman	Arnold Demoski
12. Point Hope and Point Lay	Steve Oomittuk	Caroline Cannon
13. Nome	Charlie Lean	Jacob Martin
14. Conservationists	Tim Fullman	Alex Johnson
15. Northern Seward Peninsula	*vacant*	Johnson Eningowuk
16. Reindeer Herders Association	Tom Gray	Harry Karmun
17. Southern Seward Peninsula	Morris Nassuk	Leo Charles, Sr.
18. Transporters	~~Brad Saalsaa~~	Brian Alberts
19. Upper Kobuk River	William Bernhardt	Oscar Griest, Sr.
20. Atqasuk, Utqiaġvik, Wainwright	~~Wanda Kippi~~	Joseph Leavitt**

** double asterisks = need to be confirmed at the 2023 meeting
blue highlight = vacancies
~~strikeout~~ = will not be in attendance 2023
green highlight = alternate in attendance 2023

* Alternate member attends when Primary member is not able to attend

Officers - Officers in the Working Group include a Chair and Vice-Chair elected by the membership. Each shall serve a staggered three-year term.

Current Chair and Vice Chair terms:

Chair, Vern Cleveland, Sr.	2023-2025
Vice-Chair, Cyrus Harris	2022-2024

The following communities are the geographic areas represented by the Working Group seats. (Community groupings were approved by the WACH Working Group in December 2012.)

9. Koyukuk River: Huslia, Hughes, Allakaket, Bettles, Wiseman
10. Lower Kobuk River: Noorvik, Kiana
11. Middle Yukon River: Galena, Koyukuk, Nulato, Kaltag
15. Northern Seward Peninsula: Teller, Brevig Mission, Wales, Shishmaref
17. Southern Seward Peninsula: Koyuk, Shaktoolik, Unalakleet, Stebbins, St. Michael, Kotlik
19. Upper Kobuk River: Ambler, Shungnak, Kobuk

WACH WORKING GROUP – COMMITTEES

December 2023

Name: **Communications**
Established: December 2011
Membership: 5 WG members, Agency staff
(The Communications Committee was created from the previous Education/Newletter Committee and the Webpage Committee by action at December 2011 meeting)

Members:

WG Chair 05	John Wisniewski	jrw152@hotmail.com
WG Chair 10	Vern Cleveland (Ch.)	vernsr75@hotmail.com
WG Chair 14	Tim Fullman	tim_fullman@tws.org
WG Chair 16	Tom Gray	tom@akadventure.com
WG Chair 18	Brad Saalsaa	bsaalsaa@kpunet.net
ADFG	Deb Lawton	Deb.Lawton@alaska.gov
USFWS	Brittany Sweeney	Brittany_Sweeney@fws.gov
NPS	Kyle Joly	Kyle_Joly@nps.gov
BLM	Bruce Seppi	bseppi@blm.gov

Name: **Executive**
Established: January 2004
Membership: WG Chair, WG Vice Chair, 3 WG members

Members:

WG Chair 10	Vern Cleveland (Ch.)	vernsr75@hotmail.com
WG Chair 8	Cyrus Harris (V-Ch.)	charris@maniilaq.org
WG Chair 5	John Wisniewski	jrw152@hotmail.com
WG Chair 16	Tom Gray	tom@akadventure.com
WG Chair 20	Wanda Kippi	nativevillageofatqasuk@gmail.com

Name: **Local Knowledge/User**
Established: May 2004
Membership: 4 WG members, Selawik NWR Manager

Members:

WG Chair 8	Cyrus Harris	charris@maniilaq.org
WG Chair 11	Michael Stickman	mickeystickman@gmail.com
WG Chair 17	Morris Nassuk	nassukm@yahoo.com
WG Chair 19	William Bernhardt	trapperbillkobuk@msn.com
USFWS	Will Wiese	wilhelm_wiese@fws.gov

Name: **Resource Development**
Established: May 2004 (formed as NPR-A Committee; renamed in February 2006)
Membership: 12 WG members, Agency lead staff
Revised: December 2011 – Increased from original 6 WG members to 7 WG members
December 2013 – Increased from 7 WG members to 12 WG members, to provide seats for members in area in vicinity of proposed road to the Ambler Mining District

Members:

WG Chair 2	Vida Coaltrain	vcolatrain@gmail.com
WG Chair 7	Enoch Mitchell	fishandgamerep@nautaaq.org
WG Chair 8	Cyrus Harris	charris@maniilaq.org
WG Chair 10	Vern Cleveland, Sr.	vernsr75@hotmail.com
WG Chair 11	Michael Stickman	mickeystickman@gmail.com
WG Chair 12	Steve Oomittuk	steveoomittuk@hotmail.com
WG Chair 14	Tim Fullman (Ch.)	tim_fullman@tws.org
WG Chair 16	Tom Gray	tom@akadventure.com
WG Chair 17	Morris Nassuk	nassukm@yahoo.com
WG Chair 18	Brad Saalsaa	bsaalsaa@kpunet.net
WG Chair 19	William Bernhardt	trapperbillkobuk@msn.gov
ADFG	Tony Gorn	tony.gorn@alaska.gov
BLM	Bonnie Million	bmillion@blm.gov
USFWS	Will Wiese	wilhelm_wiese@fws.gov
NPS	Annie Carlson	ann_e_carlson@nps.gov

Name: **Technical**
Established: January 2004
Membership: WG Chair, Vice-Chair, 5 WG members (listed below); Agency staff.
(NOTE - December 2012 WG meeting – Decision that travel/per diem would be paid only for WG Chair and Vice Chair to attend TC meetings. December 2014 – WG decision to add Chair 13 to the TC. December 2016 – WG decision to add Chairs 1, 3, 7, 14 to TC.)

WG Members:

WG Chair 1	Neil DeWitt	neilfxrt84@msn.com
WG Chair 3	Eli Nukapigak	native.village@astacalaska.net
WG Chair 7	Enoch Mitchell	fishandgamerep@nautaaq.org
WG Chair 8	Cyrus Harris	charris@maniilaq.org
WG Chair 10	Vern Cleveland	vernsr75@hotmail.com
WG Chair 13	Charlie Lean	Charlie@nsedc.com
WG Chair 14	Tim Fullman	tim_fullman@tws.org

Agency TC members: Technical Committee agency membership is determined by the agency leads.

Information about past Working Group Committees:

Planning Committee – Established in December 2017 to work with agency leads to update the 2011 WACH Cooperative Management Plan. Committee sunset in 2019 following the Working Group's approval to update the plan.

Education/Newsletter Committee – Established in January 2005. Functions were combined with Webpage Committee and renamed the Communication Committee by action at December 2011 meeting. The Education/Newsletter Committee no longer exists.

Funding Committee – Established in May 2004 as Tribal Grant Committee. Renamed in December 2009. The functions of this committee were moved to the Executive Committee by action at December 2011 meeting. The Funding Committee no longer exists.

Membership Committee – Established in December 2003. The functions of this committee were sunset by action at December 2011 meeting and work now accomplished by the Executive Committee. The Membership Committee no longer exists.

Webpage Committee – Established in December 2010. Functions were combined with Education/Newsletter Committee and renamed the Communication Committee by action at December 2011 meeting. The Webpage Committee no longer exists.

CHARTER

FOR THE WESTERN ARTIC CARIBOU HERD WORKING GROUP*

I. Authorities

- Public meeting laws of the United States and the State of Alaska
- Title 16 of the Alaska Statutes (management of fish and game)
- ANILCA (Section 809)

II. Purpose

The Western Arctic Caribou Herd (WACH) Working Group is a permanent regional organization of representative stakeholders that meets regularly to exchange traditional and western scientific knowledge and through a process of consensual decision making, the Working Group coordinates suggested management guidelines to both the Alaska Board of Game and the Federal Subsistence Board.

Through these activities, the Working Group intends to ensure the conservation of the Western Arctic Caribou Herd, safeguard the spiritual and cultural well being of Alaska Natives and the interests of all users of the herd and to integrate indigenous knowledge with western science.

III. Goals and Objectives

G1. To insure health and conservation of the WACH

a. Emphasize protection of critical habitat (migration routes, calving grounds, winter and summer ranges).

b. Develop and implement a WACH management plan.

G2. To provide a harvest consistent with the customs, traditions and spiritual needs of all consumptive users.

a. Explore opportunities for tribal self-regulation.

G3. To involve federally recognized tribes, State and Federal agencies and all other users in making recommendations for research, monitoring, regulation, allocation and enforcement.

a. Establish communication with the reindeer industry, guides, transporters and other aircraft operators to minimize conflict.

G4. To respect indigenous, traditional and scientific knowledge and integrate them into management decisions.

G5. To emphasize indigenous, traditional and scientific education and foster communication among all caribou users.

a. Provide information and educational materials concerning the WACH and this charter to users, schools, communities, agencies and media services.

IV. Relationship to other organizations

The Working Group is not intended to function primarily as a political or lobbying institution. Nor is the Working Group intended to replace fish and game regulatory bodies such as the Alaska Board of Game and the Federal Subsistence Board.

The Working Group sees itself as a body that brings together all of the knowledge and concerns that people have in northwestern Alaska concerning the care and management of the Western Arctic Caribou Herd. It is a holistic approach intended to inform and educate all caribou users and to assist regulatory bodies with their work. Specifically this group collaborates and works cooperatively with all existing institutions including boroughs, land owners, regional, state, and federal subsistence advisory bodies to achieve consensus on care and management of the WACH.

*Drafted by Ken Adkisson, Earl Kingik, Dave Spirtes, John Trent and Pius Washington with assistance from Caleb Pungowiyi on June 27 at Kotzebue. The draft charter was subsequently modified and approved by consensus of the Working Group at Anaktuvuk Pass on August 2, 2000.

# # #

BYLAWS

FOR THE WESTERN ARCTIC CARIBOU HERD WORKING GROUP*

ARTICLE I. Name

The name of this organization is the Western Arctic Caribou Herd Working Group (Working Group).

ARTICLE II. Membership

Membership in the Working Group consists of representatives of stakeholders with a direct interest in the care and management of the WACH. The number of stakeholders in the Working Group is determined by the Working Group itself. Each stakeholder representative, however, is selected by his own constituency and serves at the pleasure of that constituency. In the event that a stakeholder representative cannot attend a function of the Working Group, there shall be a designated alternate representative.

A quorum of the Working Group will consist of greater than fifty percent (50%) of the existing Voting Chairs.

ARTICLE III. Voting

Each member in the Working Group has one vote. However the preferred method of decision making is by consensus process.

In the event that consensus cannot be reached on an issue, voting by majority will carry the issue. A minority report will also be recorded in the minutes of the meeting.

ARTICLE IV. Officers

Officers in the Working Group shall be a Chair and Vice-chair elected by the membership. Each shall serve a staggered three year term. In the event an officer cannot complete a term, a replacement will be elected by the Working Group.

ARTICLE V. Duties of Officers

The duties of the Chair shall consist of chairing meetings; representing the Working Group to other organizations, the public and the media; appointing special committees; consulting with and directing the resource agencies; and other duties consistent with the purpose and goals of the Working Group.

The duties of the Vice-chair are to assist the Chair and to fill in for the Chair when absent.

ARTICLE VI. Meetings

The Chair will convene two meetings per calendar year. Meeting locations will be rotated. Meetings will follow procedures described in Roberts Rules of Order.

ARTICLE VII. Relationship of resource management agencies to the Working Group

Resource agencies consist at this time of the USFWS, BLM, NPS, BIA, and ADF&G. Other agencies may join at a later date. Resource agencies serve as staff to the Working Group in a non-voting capacity. An agency representative will work closely with the Working Group Chair to provide professional services and support to the Working Group.

ARTICLE VIII. Funding

The resource agencies will work with the Working Group Chair to secure adequate long-term funding to support activities of the Working Group.

ARTICLE IX. Executive Committee

The Working Group shall establish an Executive Committee to make decisions when the Working Group is not in session. The voting members of the Executive Committee shall consist of the Chair, Vice Chair, and three additional Working Group voting chairs representing diversity on the Working Group. A quorum of the Executive Committee will consist of three voting members. Non-voting members on the Executive Committee will be the Working Group Coordinator and the Working Group Agency Representative. *(Article IX adopted by unanimous vote on May 4, 2004, Girdwood, Alaska. Amended to establish a quorum for the Executive Committee by unanimous vote on December 17, 2015.)*

**Drafted by Ken Adkisson, Joseph Ballot, Earl Kingik, Dave Spirtes, John Trent and Pius Washington with assistance from Caleb Pungowiyi June 27, 2000 at Kotzebue. The draft was subsequently modified and approved by consensus of the Working Group at Anaktuvuk Pass August 2, 2000. Bylaws amended on May 4, 2004 and December 17, 2015.*

# # #

MEMORANDUM OF UNDERSTANDING

among

THE UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management - Alaska
U.S. Fish and Wildlife Service (USFWS)- Alaska Region
National Park Service (NPS) Alaska Region

And

THE STATE OF ALASKA
Department of Fish and Game (ADF&G)

concerning

The Western Arctic Caribou Working Group
and
Western Arctic Caribou Herd Cooperative Management Plan

Purpose. The purpose of this agreement is to provide inter-agency support for the cooperative management of the Western Arctic Caribou Herd and its habitat by the U.S. Department of Interior, Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS) and National Park Service (NPS), and the State of Alaska, Department of Fish and Game (ADF&G). The signatory parties propose to work together within the scope of their respective authorities toward maintaining a sustainable, healthy ecosystem that supports a healthy and vibrant Western Arctic caribou herd throughout its range in northern and western Alaska.

I. Objectives. This MOU sets forth general terms, conditions and criteria under which the four parties will cooperatively manage the Western Arctic Caribou herd and its habitat with the following objectives.

A. Develop stable, long-term funding to support the Western Arctic Caribou Working Group (Working Group) and implement actions outlined in the Western Arctic Caribou Herd Cooperative Management Plan (Cooperative Management Plan).

B. Work together to ensure the long-term conservation of the Western Arctic caribou herd and the ecosystem on which it depends.

II. Authorities.

A. BLM enters into this MOU under the authority provided in the Federal Land Policy and Management Act of 1976 (FLPMA), the Alaska National Interest Lands Conservation Act (ANILCA) and the Code of Federal Regulations, Title 43, Chapter II.

B. ADF&G enters into this MOU under the authority provided in Article VIII of the Constitution of the State of Alaska, Section 16 of the Alaska Statutes, and Title 5 of the Alaska Administrative Code.

C. NPS enters into this MOU under the authority provided in 16 USC Sections 1,2, and 3.

D. USFWS enters into this MOU under the authority provided in Fish and Wildlife Coordination Act, 16 USC 661 to 666C.

IV. Responsibilities and Procedures. According to both Federal statutory law and regulation, and State statutory law and regulation, the four parties signatory to this MOU are authorized to manage wildlife populations and/or manage wildlife habitat as outlined in the Cooperative Plan. The parties agree that the agencies signatory to this MOU shall support the continued maintenance of the Working Group and implementation of the Cooperative Management Plan. These actions will be advantageous to all parties involved in terms of improved coordination of management and research efforts, cost sharing, reduce duplicity of effort, and increased opportunity for public involvement in managing the herd and its habitat

A. Each agency agrees to the following:

1. Seek funding to support the Working Group consistent with the agency's authority. Any transfer or sharing of funds will be done through more specific Cooperative Agreements consistent with each party's respective authorities.
2. Assist in implementing the Western Arctic Caribou Herd Cooperative Management Plan, focusing their individual efforts on management actions consistent with their respective mandates and authorities.
3. Give other agencies opportunities to provide input on issues of mutual concern.
4. Share information pertaining to habitat assessment, caribou population status, future and proposed development, and other relevant information with the other parties.

B. The parties will meet annually to review information reflecting on herd and habitat status plan and coordinate management activities, and prepare a brief annual status report, including recommendations, to the Working Group as described in the 2003 Western Arctic Herd Cooperative Management Plan.

C. All parties understand that this agreement shall not create any contractual obligations, or impose any financial obligation by one upon the other.

1. Each party accepts responsibility for its own costs resulting from participating in this agreement.

2. In accordance with Bureau policy, this instrument (MOU) excludes any obligations o exchange of Federal funds.

V. Administration.

A. Nothing in this MOU will be construed as affecting the authorities of the participants. Nothing will be construed as binding beyond the participants respective authorities, or to require participants to obligate or expend funds in excess of available appropriations.

B. This MOU in no way restricts the participants from participating in similar activities or arrangements with other public or private agencies, organizations, or individuals.

C. Conflicts between participants that cannot be resolved at the operational level (as a result of covenants stated in *IV. Responsibilities and Procedures*) will be referred to successively higher levels for resolution.

D. Participants will review this agreement at least every five years to determine its adequacy, effectiveness and continuing need.

E. Terms of this MOU may be renegotiated at any time following at least 30 days notice to the other participants.

F. This MOU shall become effective when signed by all parties. The MOU shall continue until written termination by mutual agreement, or by any party giving 30 days prior written notice to the other parties.

G. The points of contact for the signatory Agencies will be as follows:

The point of contact for ADF&G will be Management Coordinator, Region 5, Division of Wildlife Conservation.

The point of contact for the FWS will be the Refuge Manager of the Selawik National Wildlife Refuge.

The point of contact for the NPS will be the Superintendent for the Western Arctic National Park Lands.

The point of contact for the BLM will be Field Manager-BLM Central Yukon Field Office.

APPROVED:

Denby S. Lloyd
Commissioner
Alaska Department of Fish and Game
State of Alaska

13 July 09
Date

Thomas P. Lonnie
Alaska State Director
Bureau of Land Management
U.S. Department of Interior

9-9-09
Date

for Sue Masica, Director
Alaska Region
National Park Service
U.S. Department of Interior

8/19/09
Date

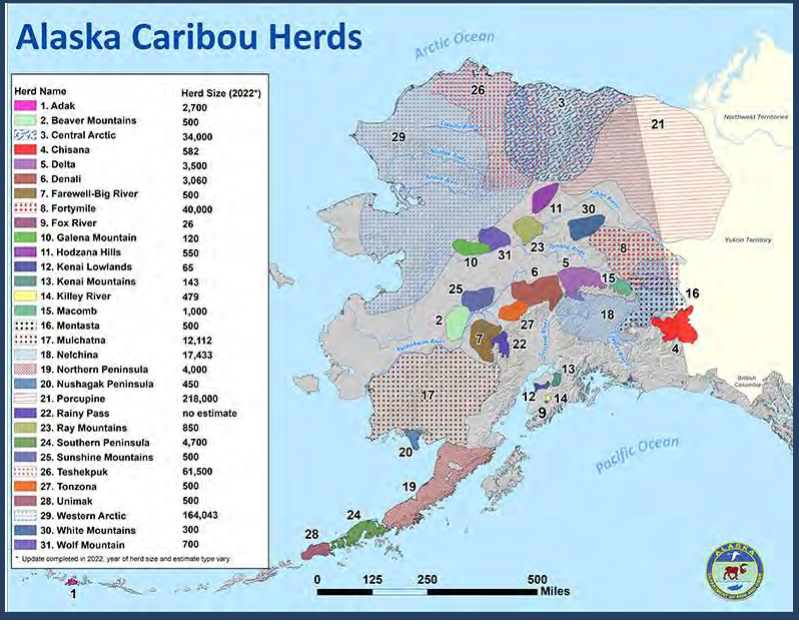
Geoff Haskett
Alaska Regional Director
U.S. Fish and Wildlife Service
U.S. Department of Interior

7/21/09
Date

WAH Caribou Overview

1

Caribou Herds of Alaska



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WAH Abundance

2023 Photocensus Results

- Rivest Estimate: 152,296
  - Or **152,000**
- +/- 6,852 (95% CI)
  - Minimum Count: 148,552

- 2022 – 164,000
- 2021 – 188,000
- 2020 – no census
- 2019 – 244,000
- 2018 – no census
- 2017 – 259,000

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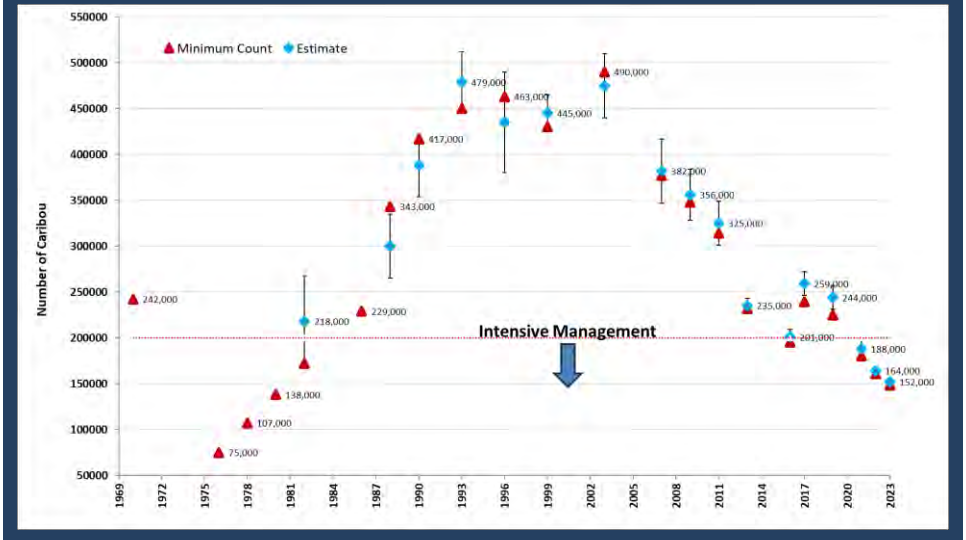
WAH Abundance Over Time



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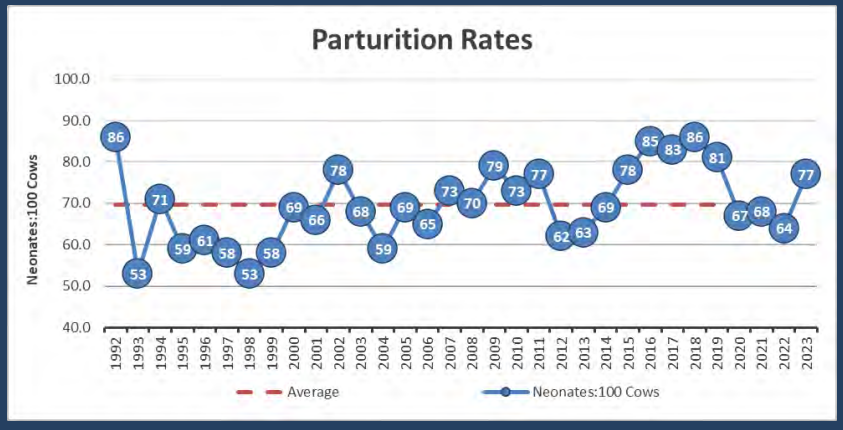
Calving

- Parturition - 77% (2023)
  - Long-term average (70%)



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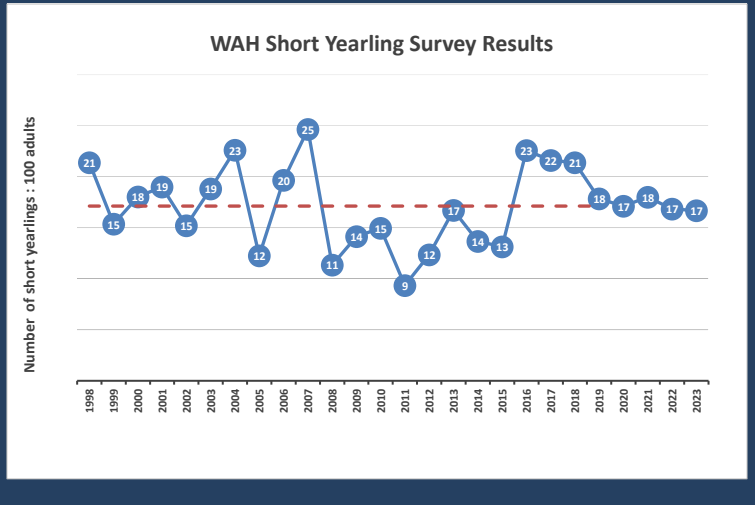
Recruitment

- Short Yearling Recruitment = 17:100 adults (average)
  - Long term average = 17



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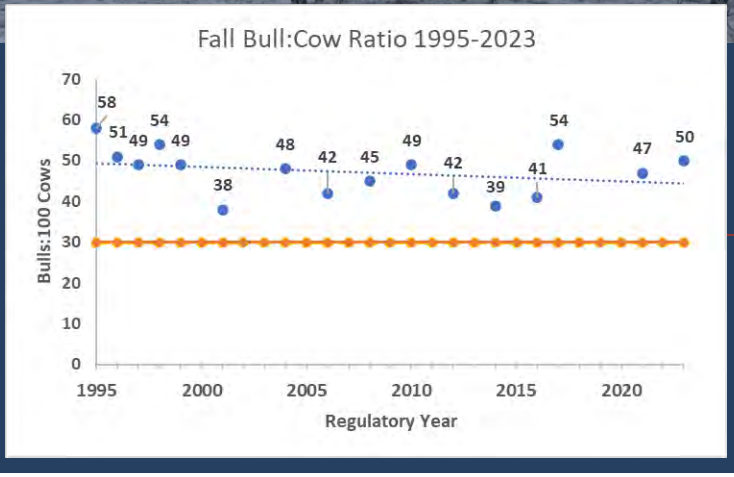
Fall Composition



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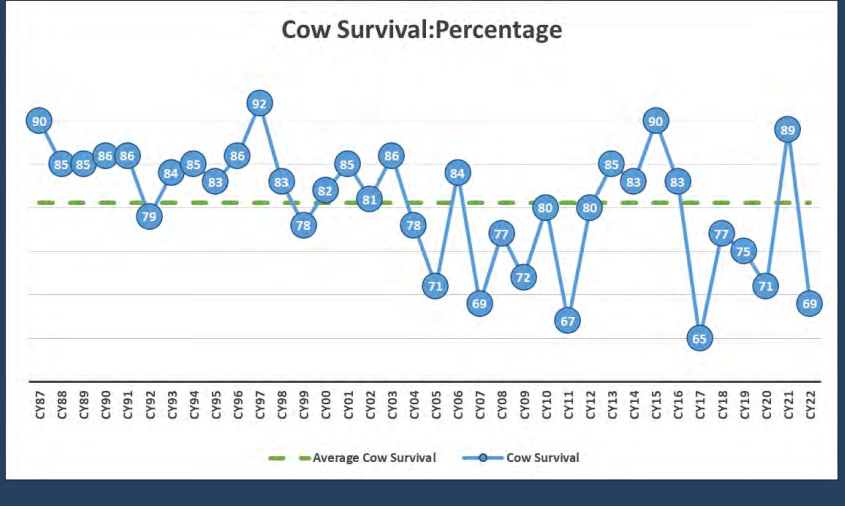
Adult Survival

- Adult Female Survival – 69% (below average)
  - Long term average = 81%



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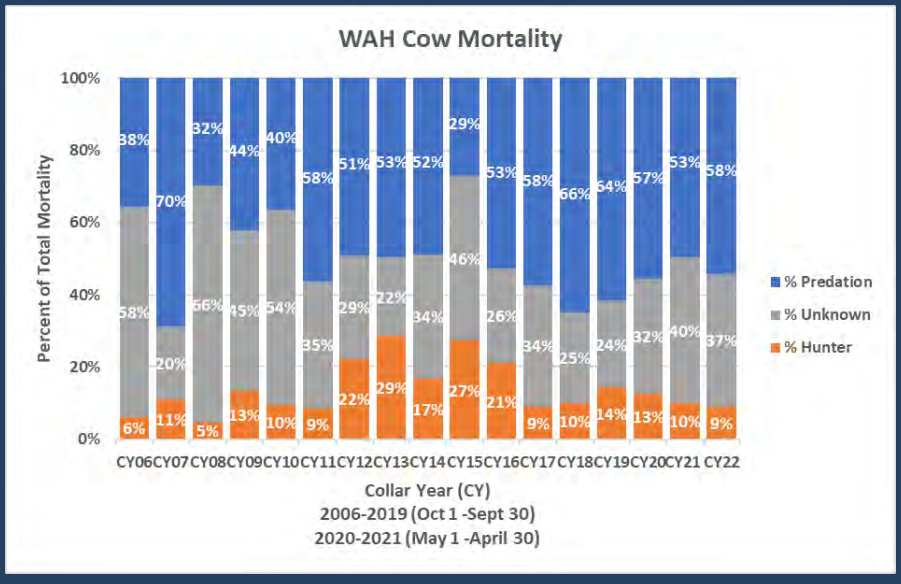
Mortality



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Mortality

- Mortality by cause (field visits of collars 2006-2022)
  - Predation **51%**
  - Other **32%**
  - Hunter harvest **17%**

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Recommended Harvest

Management Level	Population Trend		
	Declining Adult Cow Survival <80% Calf Recruitment <15:100	Stable Adult Cow Survival 80%-88% Calf Recruitment 15-22:100	Increasing Adult Cow Survival >88% Calf Recruitment >22:100
Liberal	Pop: 265,000+ Harvest: 14,000+	Pop: 230,000+ Harvest: 14,000+	Pop: 200,000+ Harvest: 14,000+
Conservative	Pop: 200,000-265,000 Harvest: 10,000-14,000	Pop: 170,000-230,000 Harvest: 10,000-14,000	Pop: 150,000-200,000 Harvest: 10,000-14,000
Preservative	Pop: 130,000-200,000 Harvest: 6,000-10,000	Pop: 115,000-170,000 Harvest: 6,000-10,000	Pop: 100,000-150,000 Harvest: 6,000-10,000
Critical	Pop: <130,000 Harvest: <6,000	Pop: <115,000 Harvest: <6,000	Pop: <100,000 Harvest: <6,000

- Recommended harvest rate at the preservative declining level
  - ~ 4.6% at 130,000
  - ~ 5% at 200,000
- 4.8% harvest of 152,000 combination of bulls/cows/calves
- At 152,000 treating calves as adults, the plan recommends a harvest of up to… 7,296 total caribou
- What about harvest ratios?
  - Historically GMU 23 harvest has been approximately 70% bulls and 30% cows

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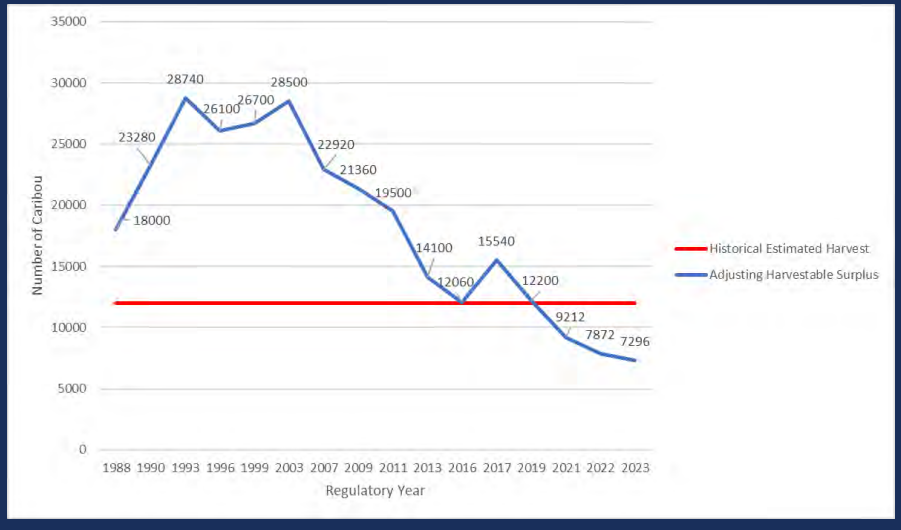
Harvestable Surplus (Table 2)



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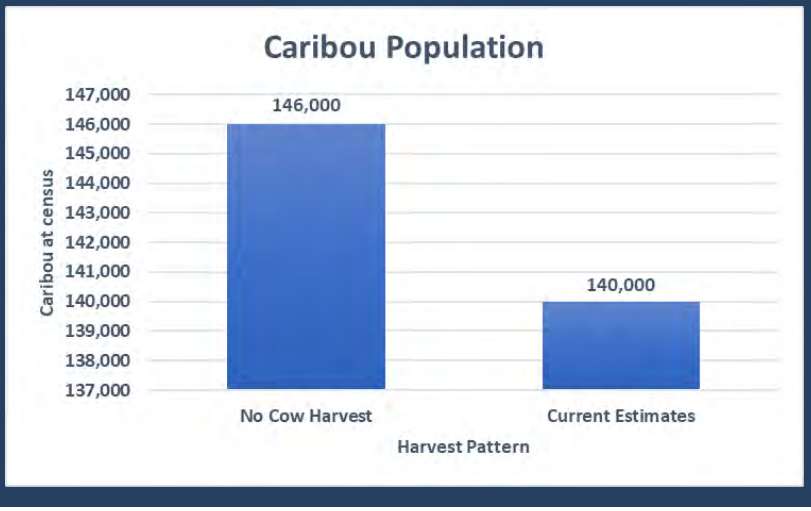
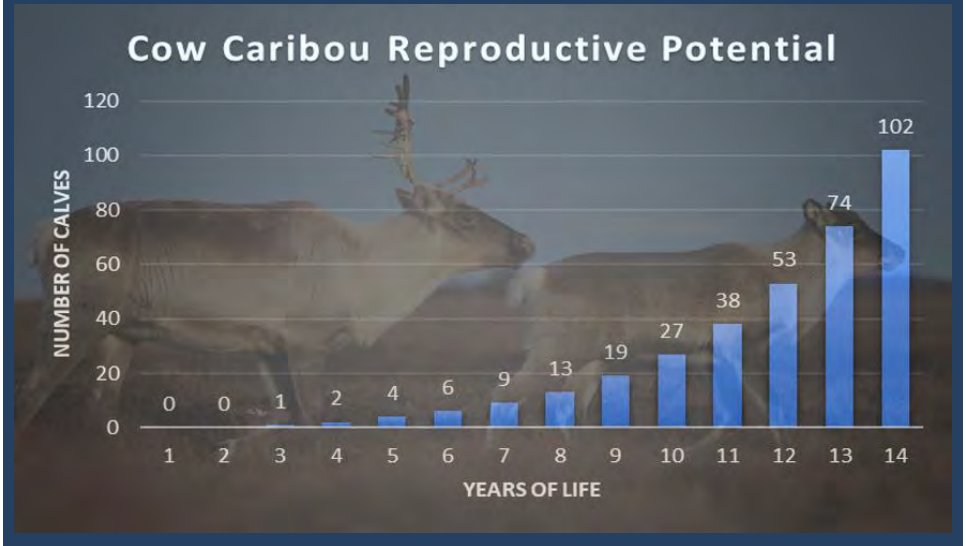
Harvest Strategies

- Harvest rates are likely closer to…60% bulls and 40% cows.
- What are the implications of cow harvest at this level?
- Suggests harvestable surplus for cows is close to zero.



13

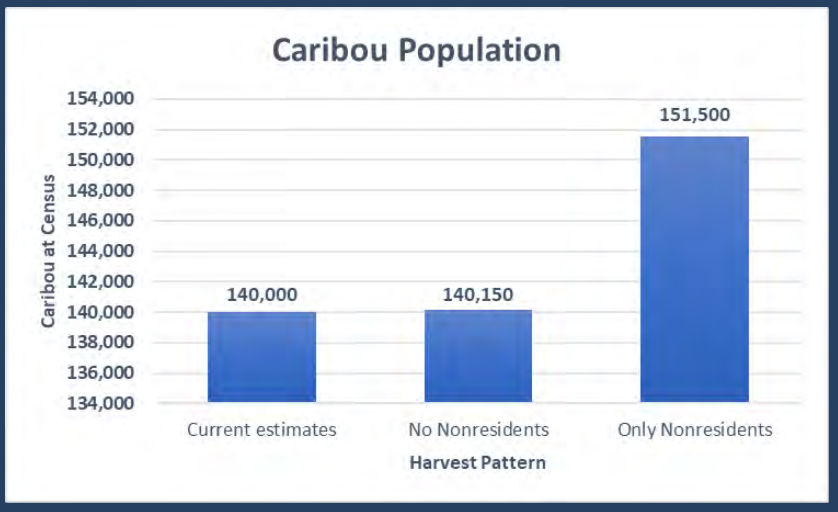
Why cows matter



14

Harvest Strategies

- What about non-resident harvest?



15

Management Actions

Net reduction of harvest is necessary

- Cow harvest – highest priority (no surplus)
- Bull harvest – maintain healthy bull:cow

Get accurate harvest data

- Through permits
- Other tools as needed

Increase understanding of mortality causes

- Predation
- Disease

16

Summary

Biological Concerns:

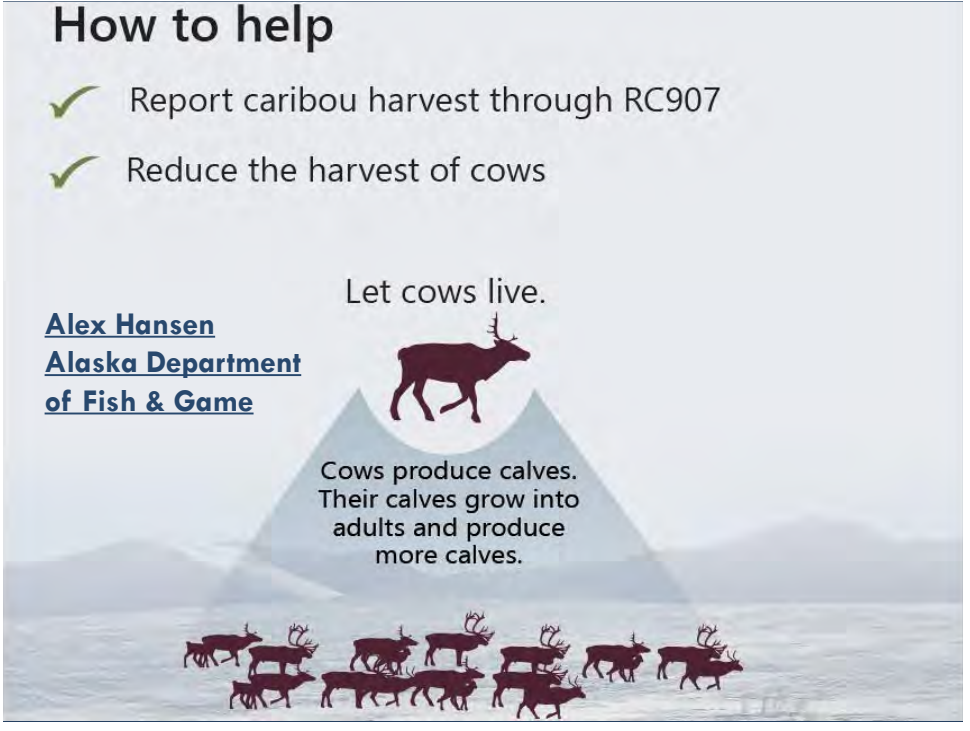
- Approaching the Critical Level (table 2)
  - Adult cow survival – below average
  - Harvestable Surplus – below long-term average harvest
  - Nonresident harvest is a very small part of total harvest
  - Better understanding of resident harvest is necessary
  - Reduction in cow harvest is necessary now and one of the few things we can change

17

How to help

- ✓ Report caribou harvest through RC907
- ✓ Reduce the harvest of cows

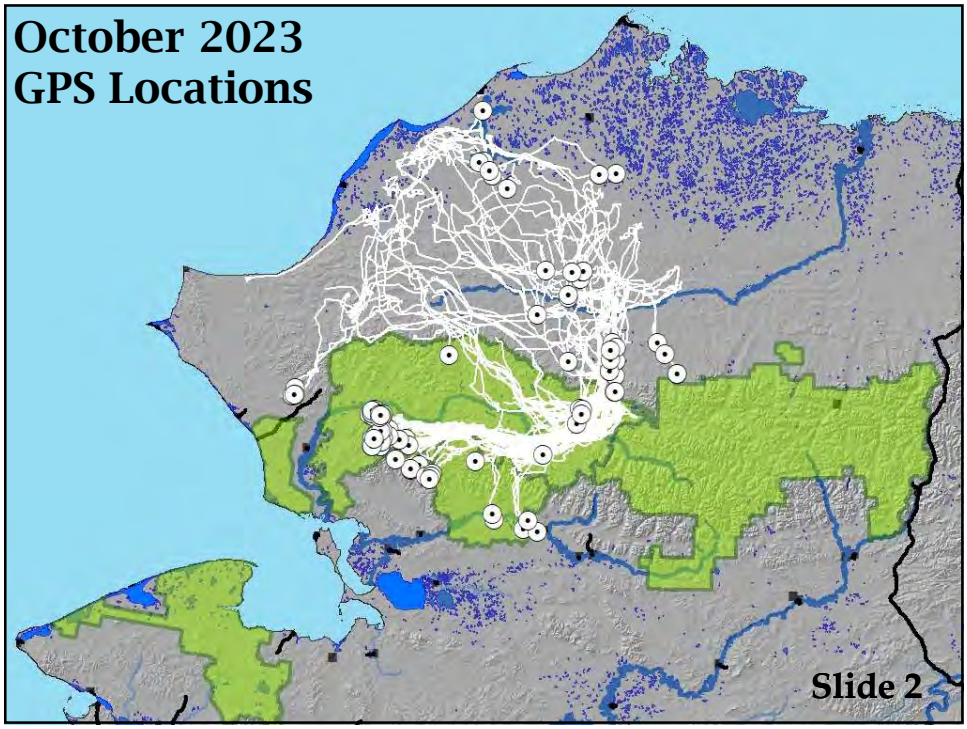
Alex Hansen
Alaska Department of Fish & Game



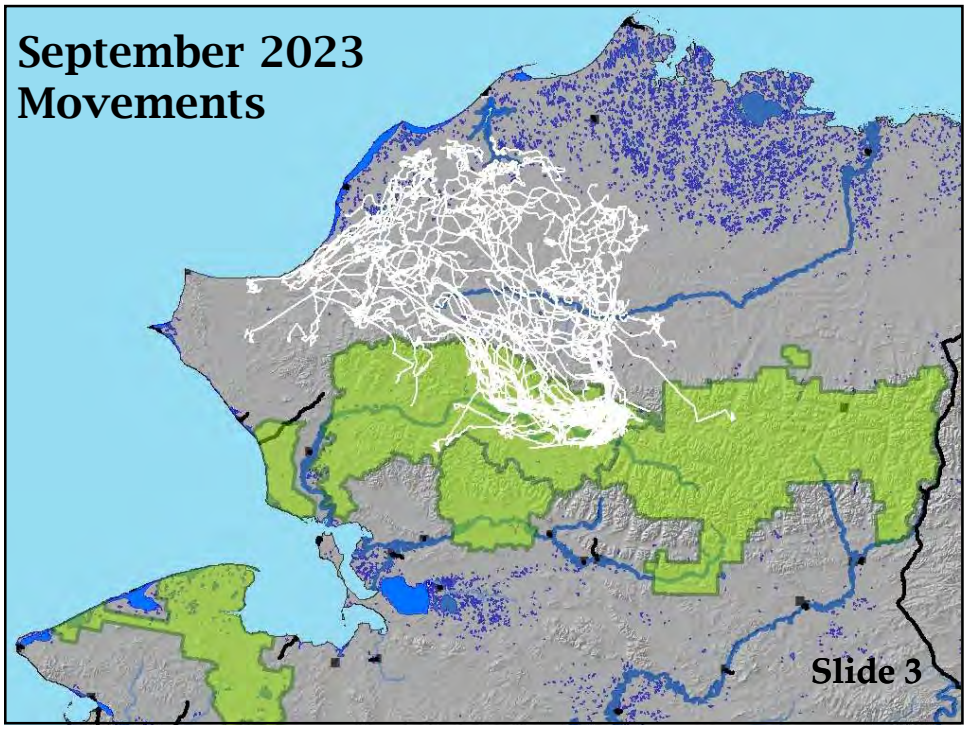
18


Western Arctic Herd Working Group
National Park Service Caribou Monitoring
September 2022 – August 2023
December 2023
Kyle Joly and Matt Cameron
Slide 1

1


October 2023
GPS Locations
Slide 2

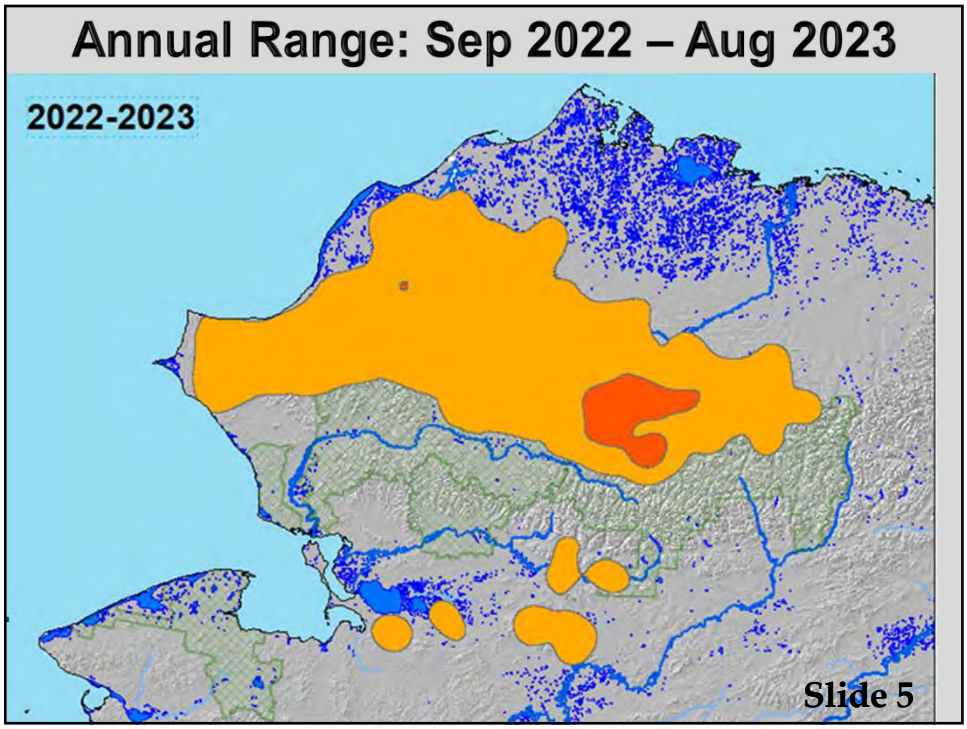
2


September 2023
Movements
Slide 3

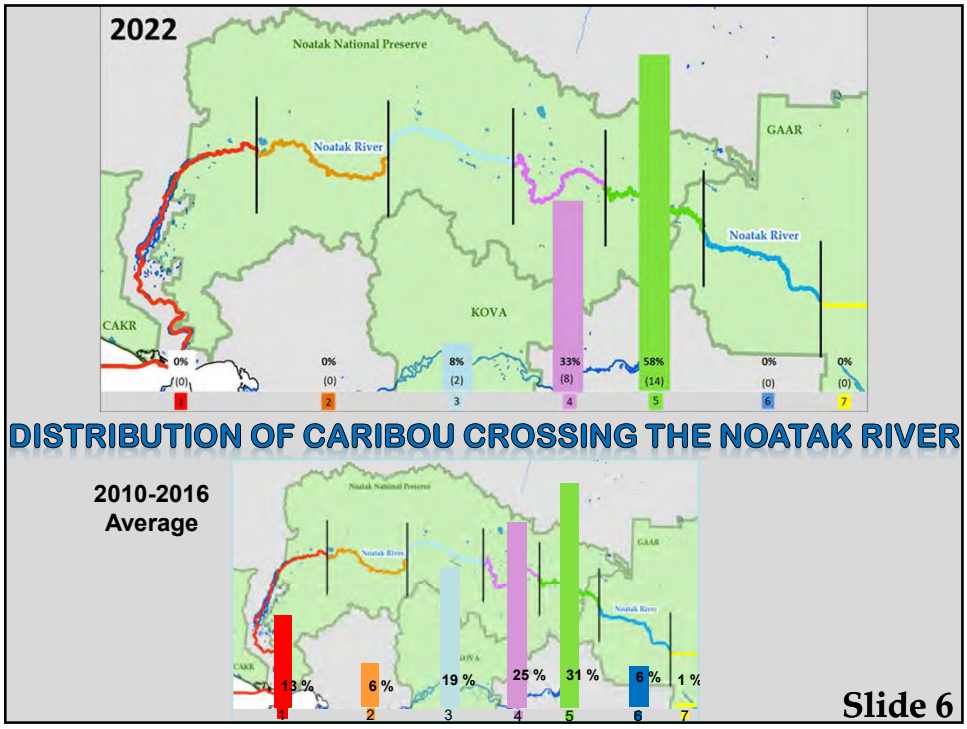
3


WAH Collar Results
Sep 2022 –Aug 2023
• 56 GPS Collars deployed
• All via netting, March-April 2023, record number
•Overwinter Park Use
• 0% Bering Land Bridge, 65% Gates of the Arctic
•Fall Park Use
• 15% in Kobuk Valley, record low
• Distance traveled
• Mean = 1777 miles, slightly below average
Slide 4

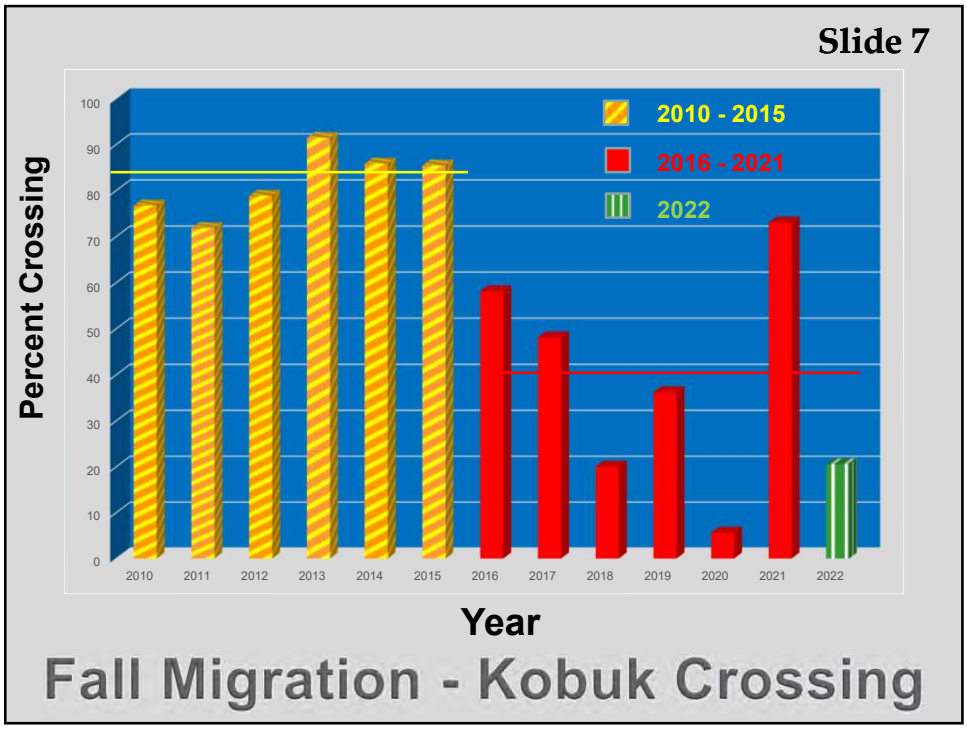
4


Annual Range: Sep 2022 – Aug 2023
2022-2023
Slide 5

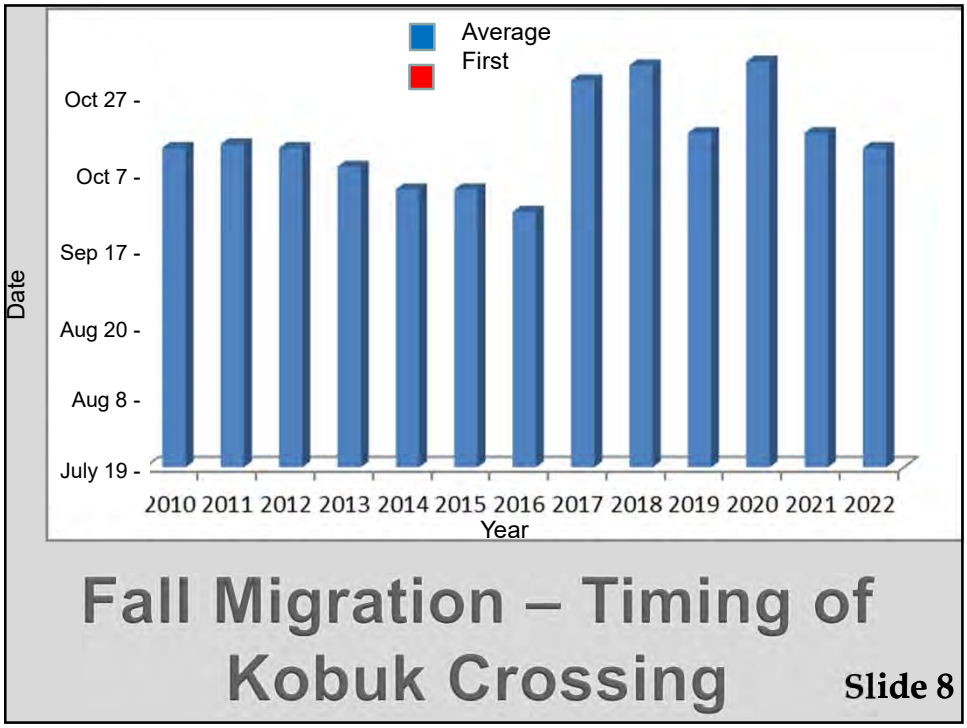
5


2022
Noatak National Preserve
Noatak River
GAAR
Noatak River
KOVA
CAKR
0%
(0)
0%
(0)
8%
(2)
33%
(8)
58%
(14)
0%
(0)
0%
(0)
1
2
3
4
5
6
7
DISTRIBUTION OF CARIBOU CROSSING THE NOATAK RIVER
2010-2016
Average
13 %
6 %
19 %
25 %
31 %
6 %
1 %
Slide 6

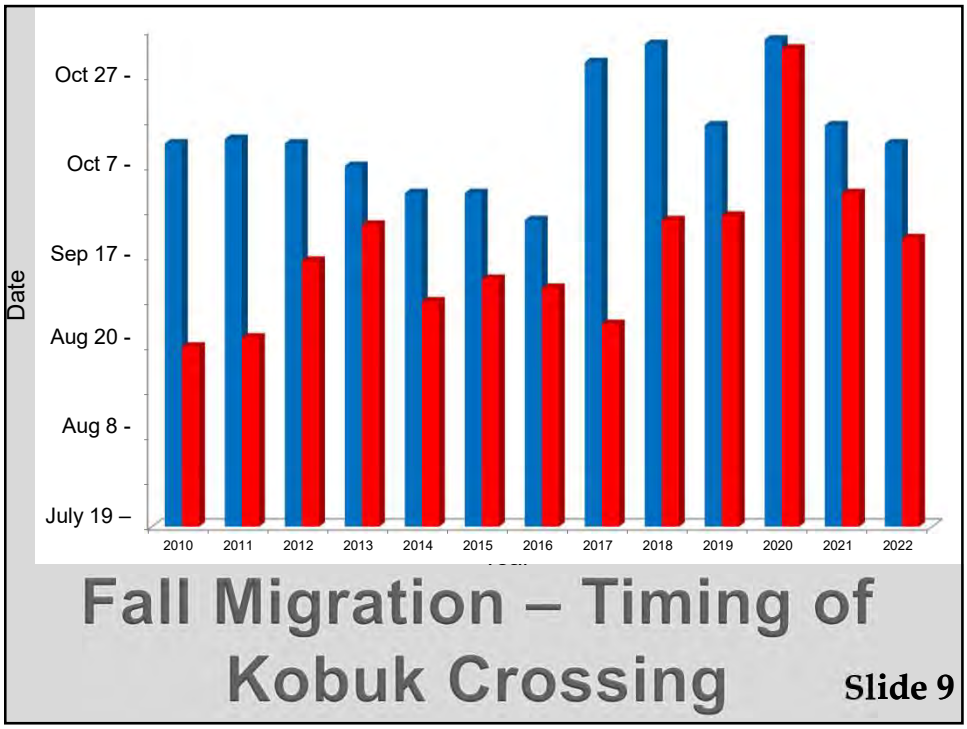
6


Slide 7
Percent Crossing
100
90
80
70
60
50
40
30
20
10
0
2010 - 2015
2016 - 2021
2022
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Year
Fall Migration - Kobuk Crossing

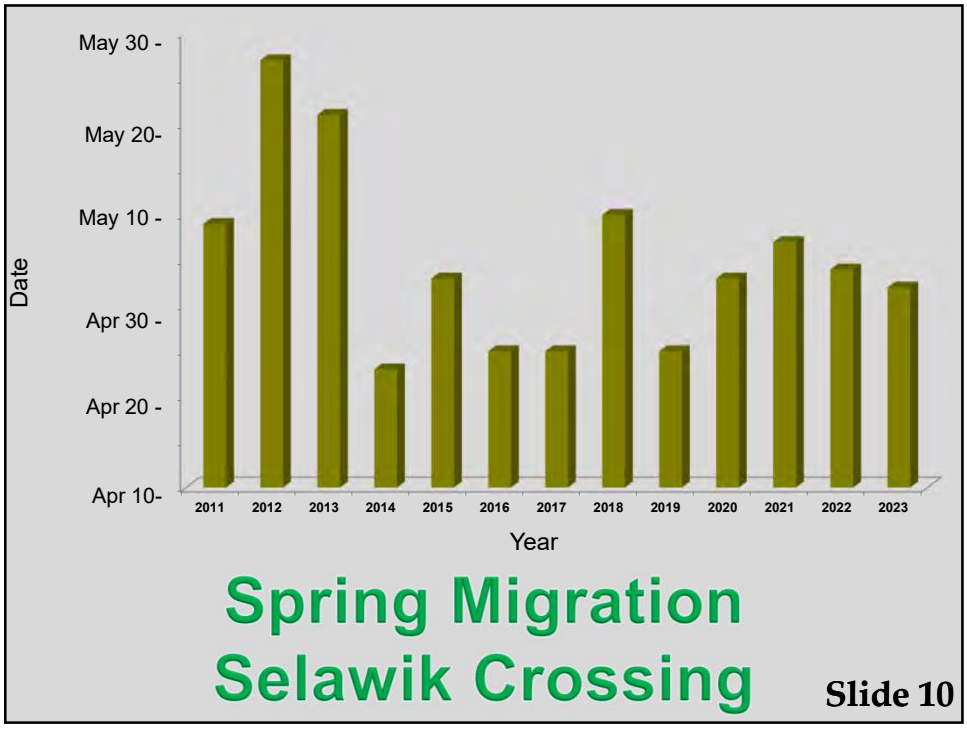
7


Average
First
Date
Oct 27 -
Oct 7 -
Sep 17 -
Aug 20 -
Aug 8 -
July 19 -
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Year
Fall Migration – Timing of Kobuk Crossing
Slide 8

8

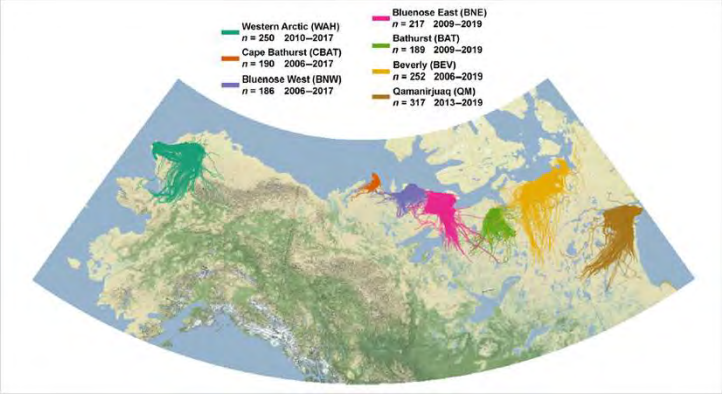

Oct 27 -
Oct 7 -
Sep 17 -
Aug 20 -
Aug 8 -
July 19 –
Date
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Fall Migration – Timing of Kobuk Crossing
Slide 9

9


May 30 -
May 20-
May 10 -
Apr 30 -
Apr 20 -
Apr 10-
Date
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year
Spring Migration Selawik Crossing
Slide 10

10

"Continental synchrony and local responses: Climatic effects on spatiotemporal patterns of calving in a social ungulate"

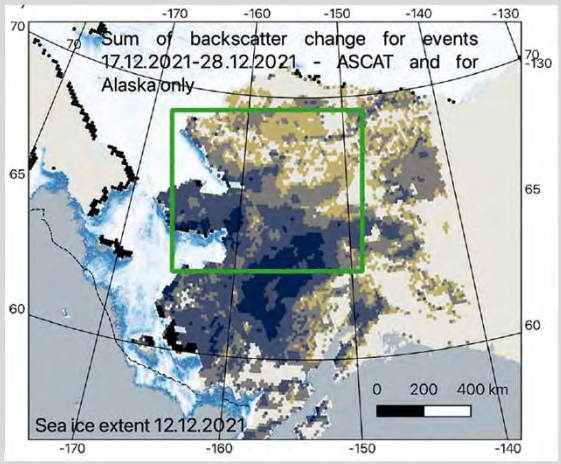


- Documented continental-level synchrony in calving
- Synchrony greatest within a herd
- Deep, wet snow delays caribou from getting to their calving grounds
- Average peak calving for the WAH was June 3

Slide 11

11

"Towards long-term records of rain-on-snow events across the Arctic from satellite data"

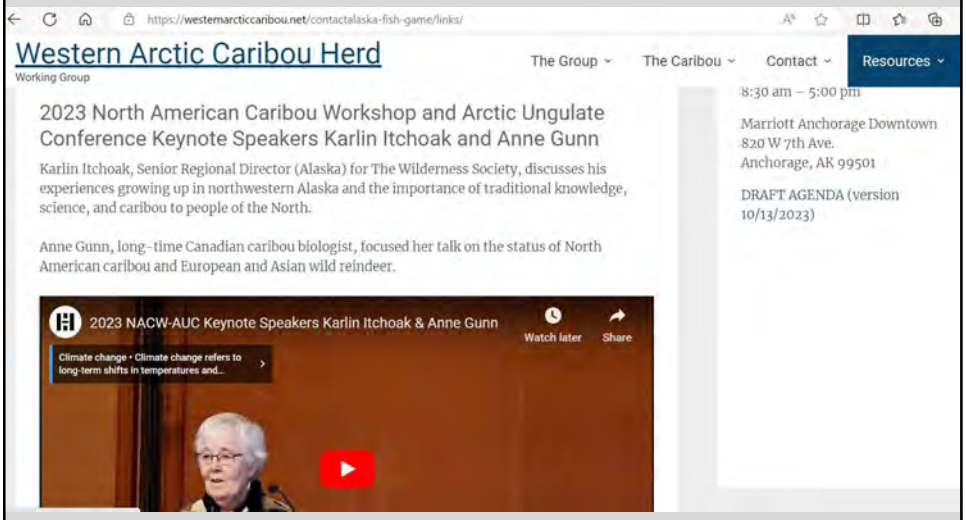


Slide 12

- Satellite-based radar sensors can be used to detect icing events
- Combining multiple sensors can improve accuracy
- Icing events can be very difficult on species like caribou and moose
- Public version: https://www.nps.gov/articles/000/detecting-icing-events.htm

12

2023 North American Caribou Workshop And Arctic Ungulate Conference



- **Public version:** https://westernarcticcaribou.net/contactalaska-fish-game/links/

Slide 13

13

14

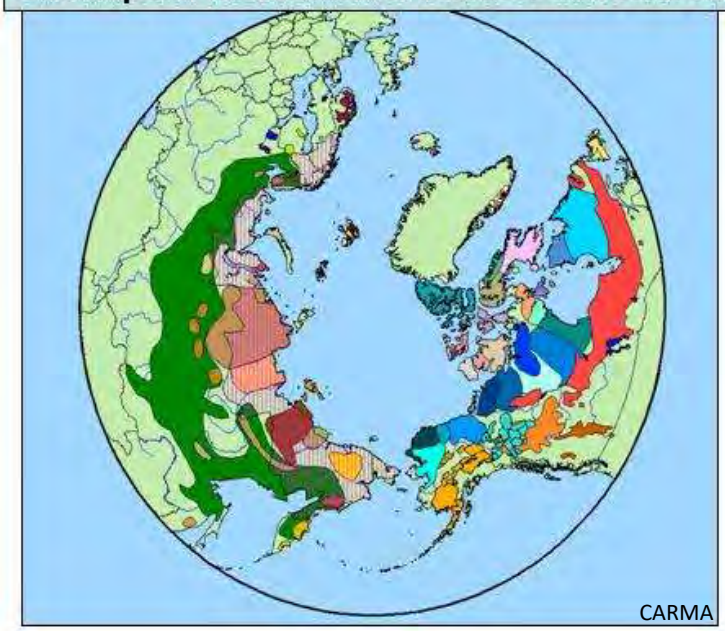
Caribou Overview

Kyle Joly, Wildlife Biologist, National Park Service, kyle_joly@nps.gov

Western Arctic Herd Working Group, December 13, 2023

1

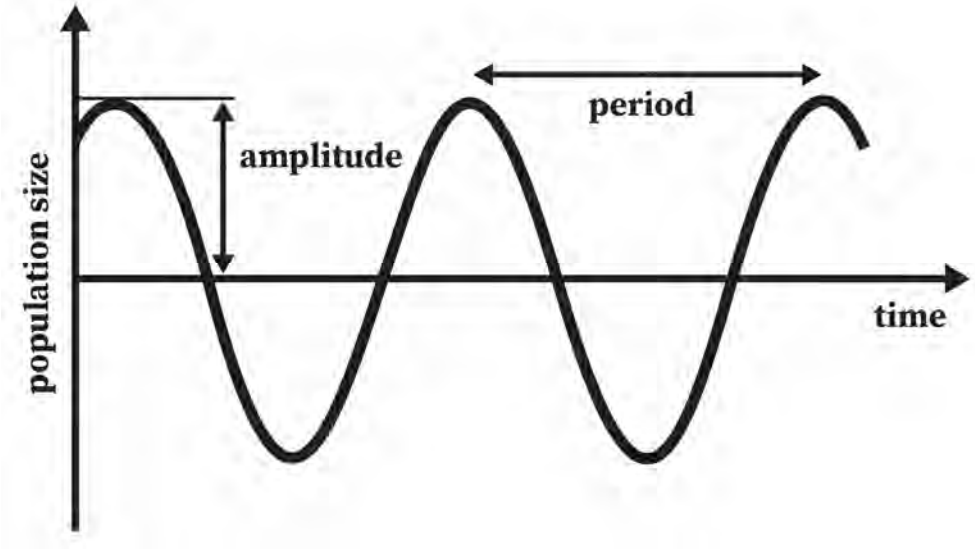
Circumpolar distribution of reindeer and caribou



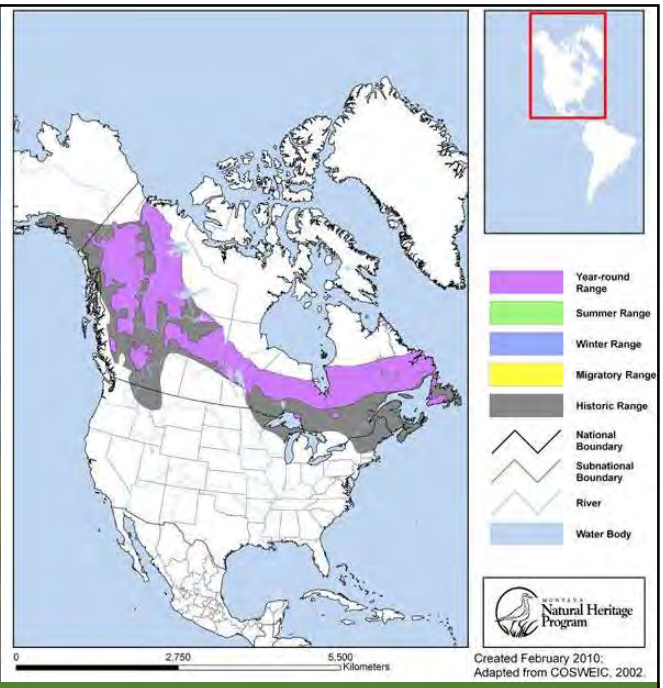
Western Arctic Herd Working Group, December 13, 2023

2

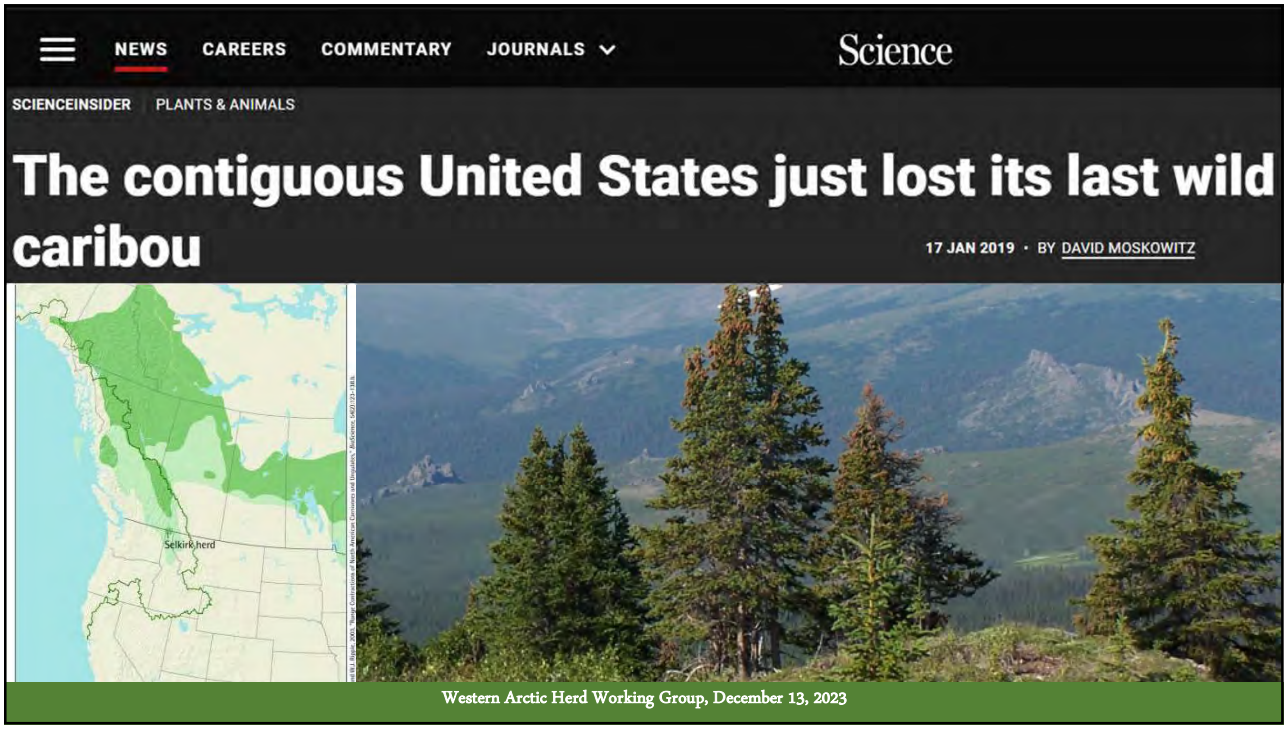
Barrenground Caribou Herd Population Oscillations



3



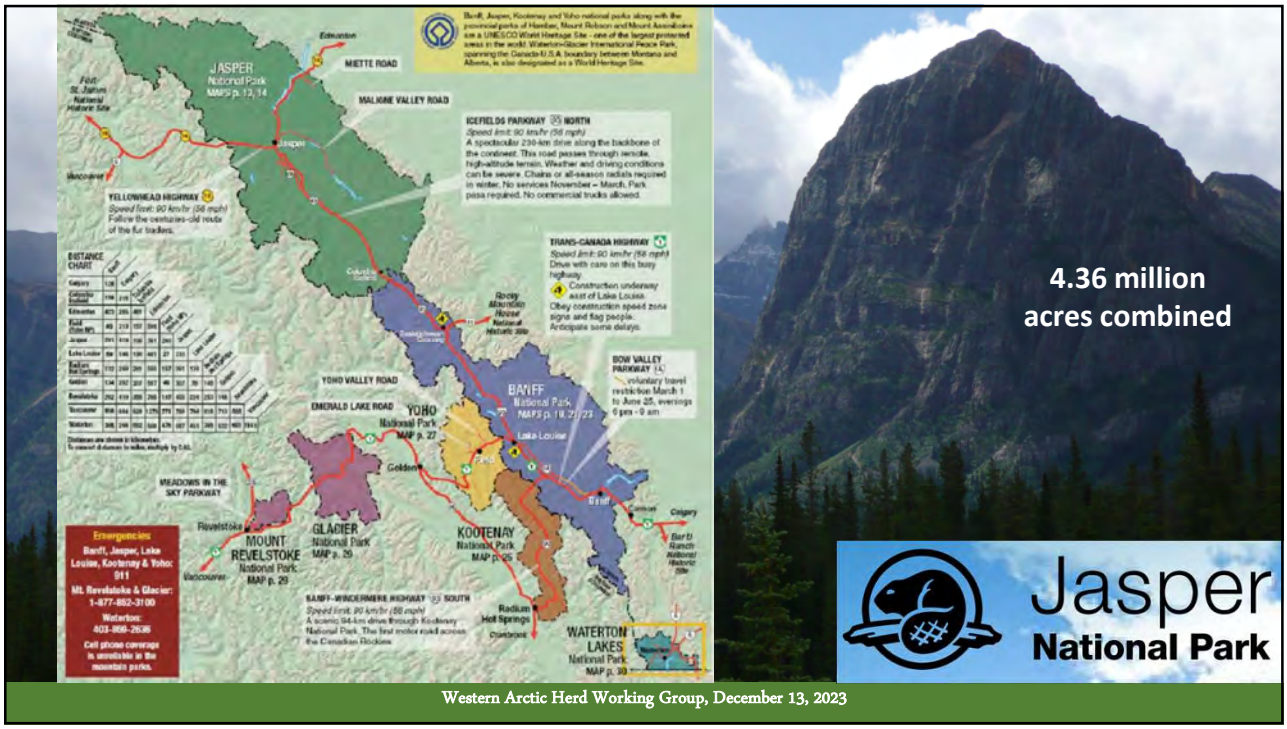
4


NEWS
CAREERS
COMMENTARY
JOURNALS
Science
SCIENCEINSIDER
PLANTS & ANIMALS
The contiguous United States just lost its last wild caribou
17 JAN 2019 · BY DAVID MOSKOWITZ
Selkirk herd
Western Arctic Herd Working Group, December 13, 2023

5


Jasper
National Park
Western Arctic Herd Working Group, December 13, 2023

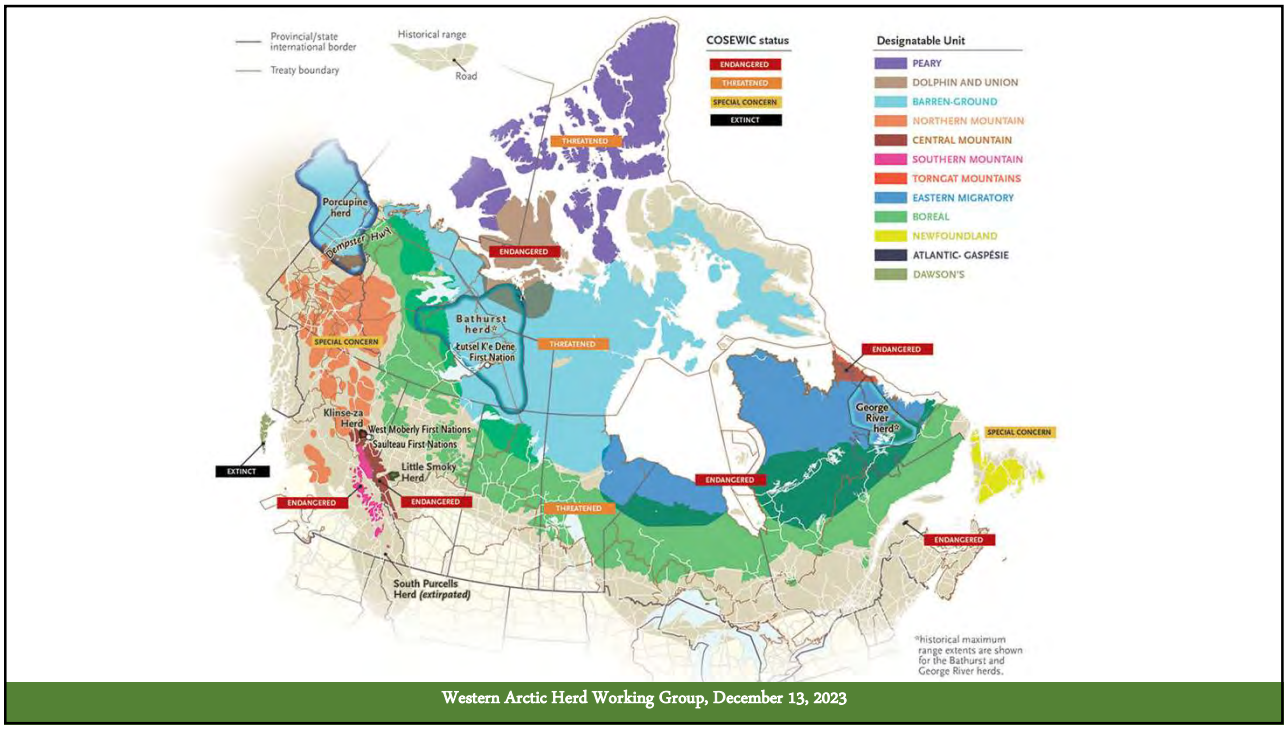
6


JASPER
National Park
MAPS p. 13, 14
MIETTE ROAD
MALIGNE VALLEY ROAD
ICEFIELDS PARKWAY (93) NORTH
YELLOWHEAD HIGHWAY (16)
TRANS-CANADA HIGHWAY (1)
BOW VALLEY PARKWAY (1A)
YOHO VALLEY ROAD
EMERALD LAKE ROAD
YOHO
National Park
MAP p. 27
BANFF
National Park
MAPS p. 18, 21, 23
Lake Louise
MEADOWS IN THE SKY PARKWAY
GLACIER
National Park
MAP p. 29
MOUNT REVELSTOKE
National Park
MAP p. 29
KOOTENAY
National Park
MAP p. 25
SANFF-WINDERMERE HIGHWAY (93) SOUTH
WATERTON LAKES
National Park
MAP p. 30
Emergencies
Banff, Jasper, Lake Louise, Kootenay & Yoho: 911
Mt. Revelstoke & Glacier: 1-877-852-3100
Waterton: 403-859-2636
Cell phone coverage is unreliable in the mountain parks.
4.36 million acres combined
Jasper
National Park

7

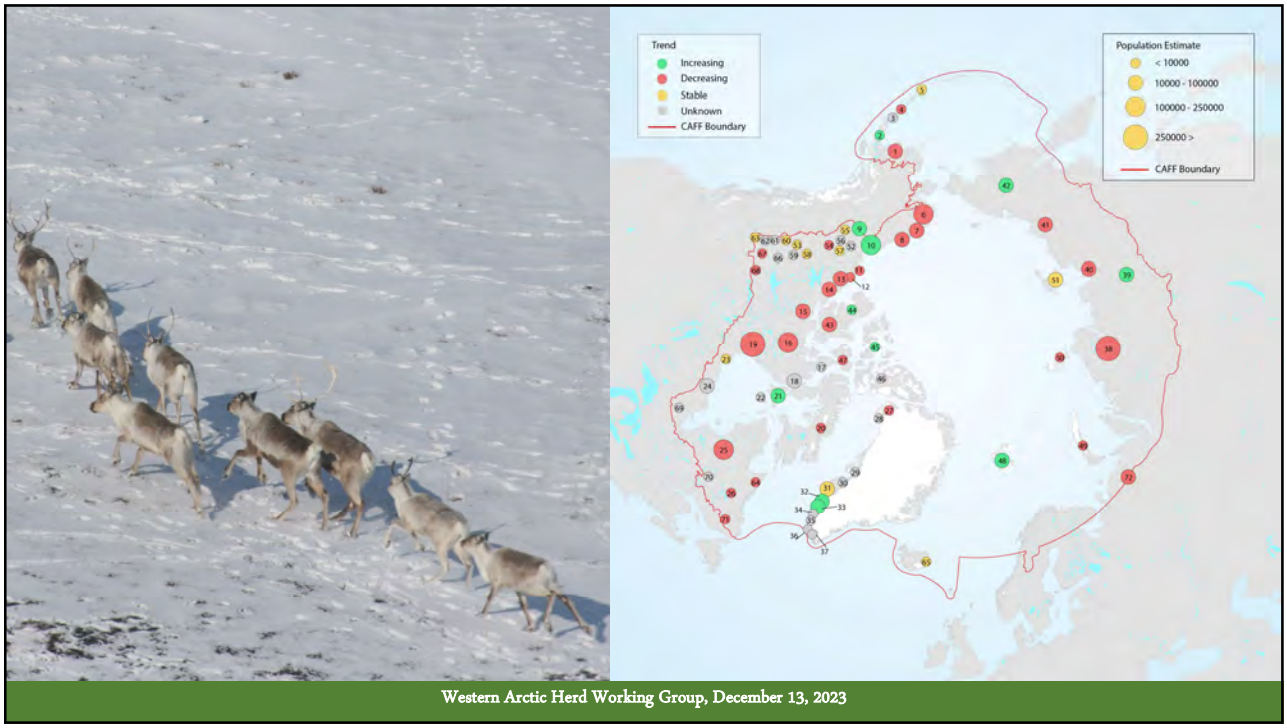

Diversity
Revisiting Extinction in National Parks: Mountain Caribou in Banff
M. HEBBLEWHITE,* C. WHITE,† AND M. MUSIANI†
Jasper caribou herd wiped out of existence
"The die off of Jasper's entire Maligne caribou population is a tragic, predictable result of decades-long habitat and wildlife errors."

8



Western Arctic Herd Working Group, December 13, 2023

9



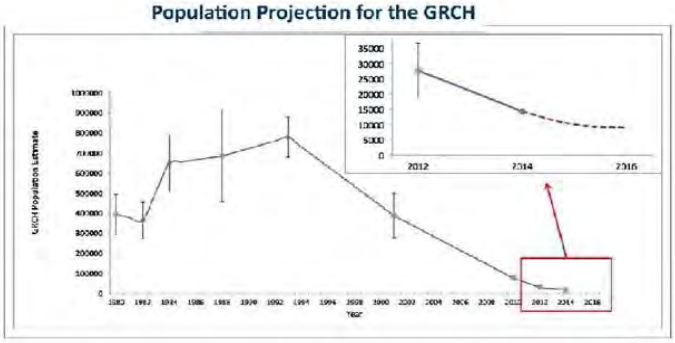
Western Arctic Herd Working Group, December 13, 2023

10

George River Caribou Herd (GRCH)

Quebec and Labrador

Population Projection for the GRCH



Western Arctic Herd Working Group, December 13, 2023

11

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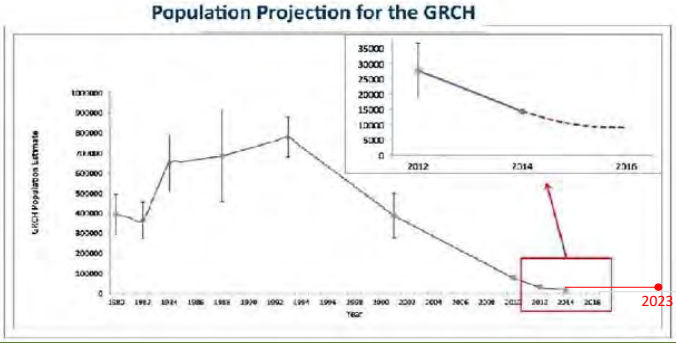
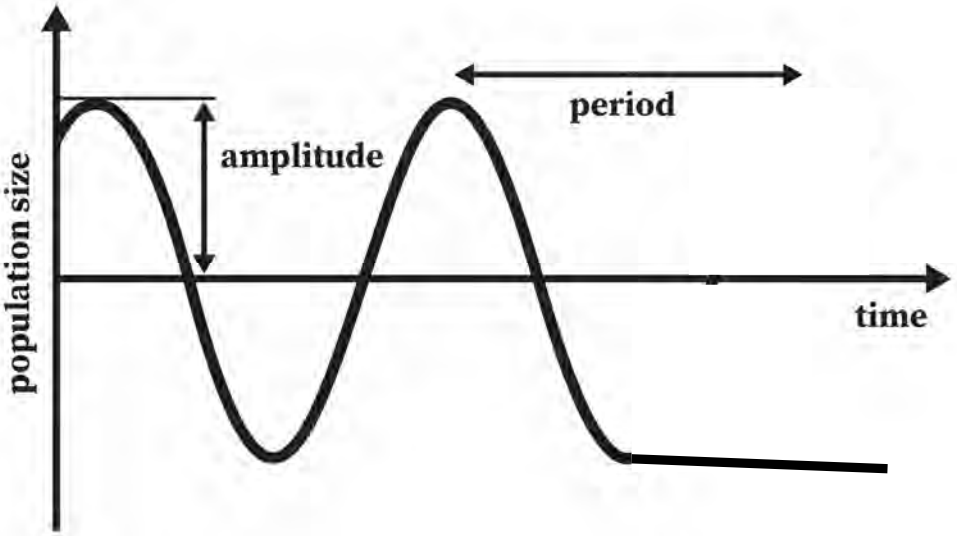


Western Arctic Herd Working Group, December 13, 2023

12

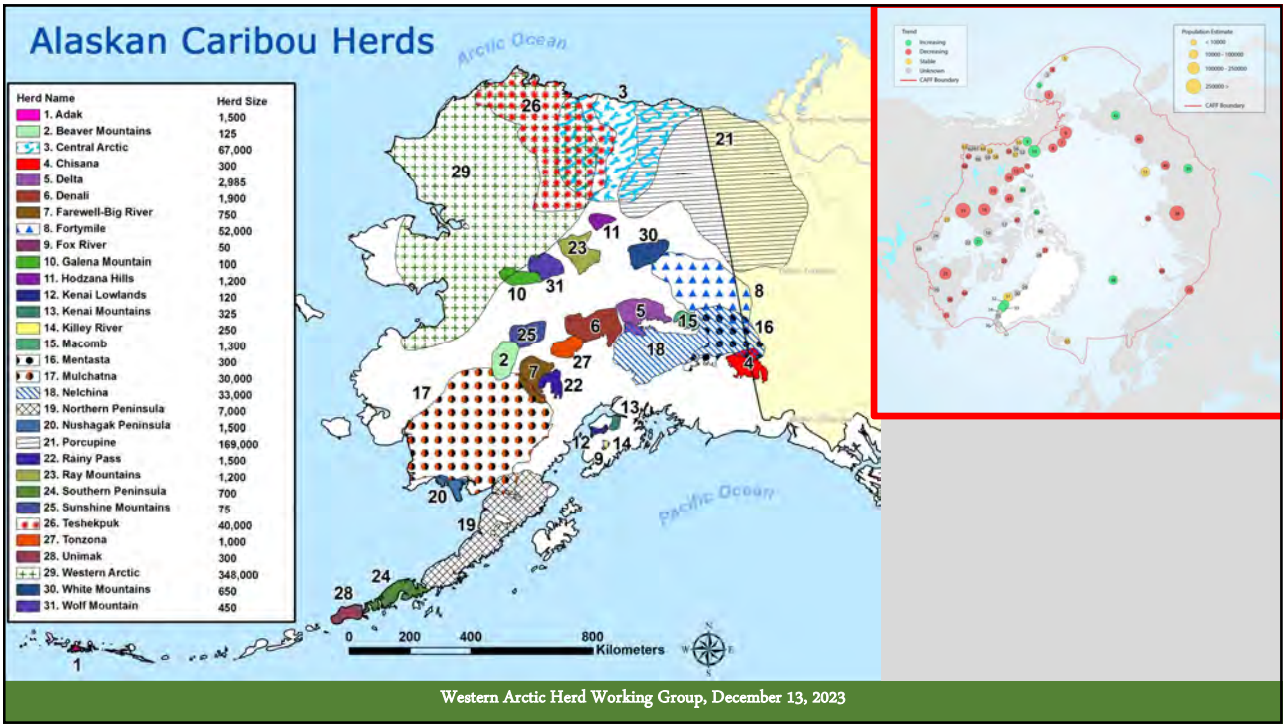
Barrenground Caribou Herd Population Oscillations



Western Arctic Herd Working Group, December 13, 2023

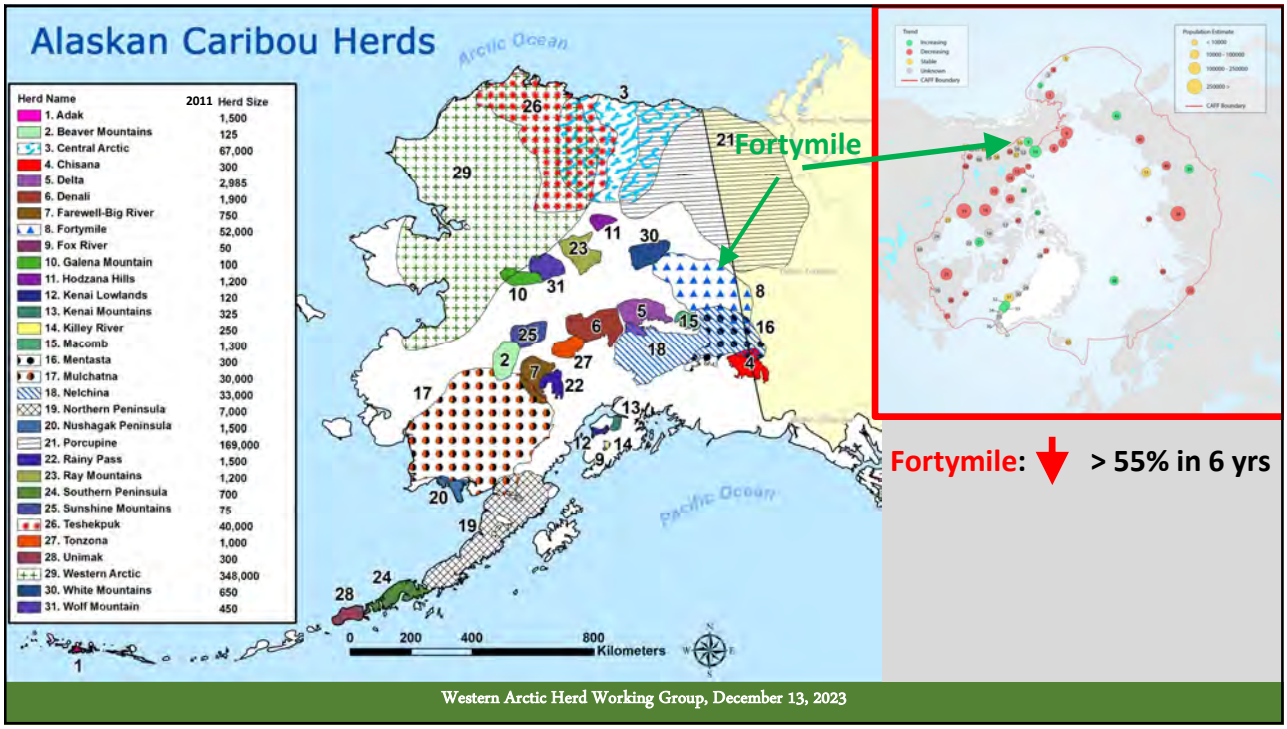
13

Alaskan Caribou Herds

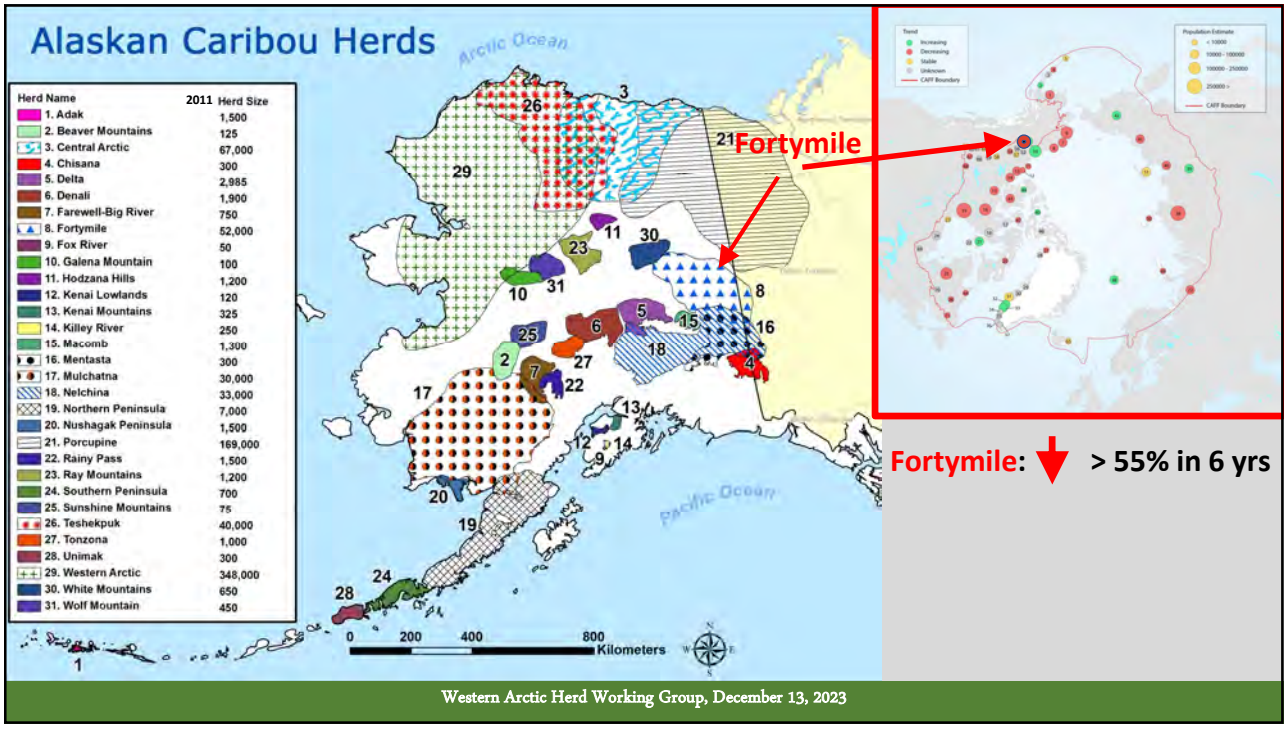


Western Arctic Herd Working Group, December 13, 2023

14


Alaskan Caribou Herds
Arctic Ocean
Pacific Ocean
Herd Name
2011 Herd Size
1. Adak 1,500
2. Beaver Mountains 125
3. Central Arctic 67,000
4. Chisana 300
5. Delta 2,985
6. Denali 1,900
7. Farewell-Big River 750
8. Fortymile 52,000
9. Fox River 50
10. Galena Mountain 100
11. Hodzana Hills 1,200
12. Kenai Lowlands 120
13. Kenai Mountains 325
14. Killey River 250
15. Macomb 1,300
16. Mentasta 300
17. Mulchatna 30,000
18. Nelchina 33,000
19. Northern Peninsula 7,000
20. Nushagak Peninsula 1,500
21. Porcupine 169,000
22. Rainy Pass 1,500
23. Ray Mountains 1,200
24. Southern Peninsula 700
25. Sunshine Mountains 75
26. Teshekpuk 40,000
27. Tonzona 1,000
28. Unimak 300
29. Western Arctic 348,000
30. White Mountains 650
31. Wolf Mountain 450
Fortymile
0 200 400 800 Kilometers
Fortymile: > 55% in 6 yrs
Western Arctic Herd Working Group, December 13, 2023

15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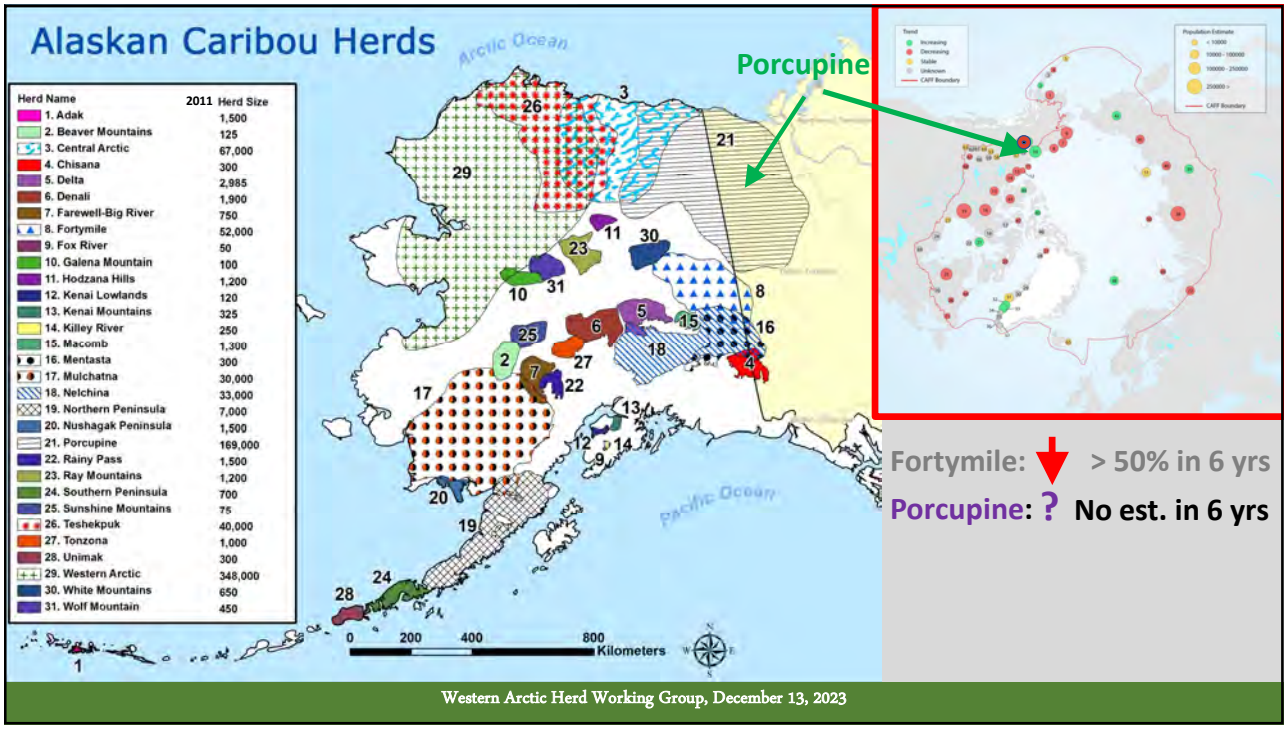
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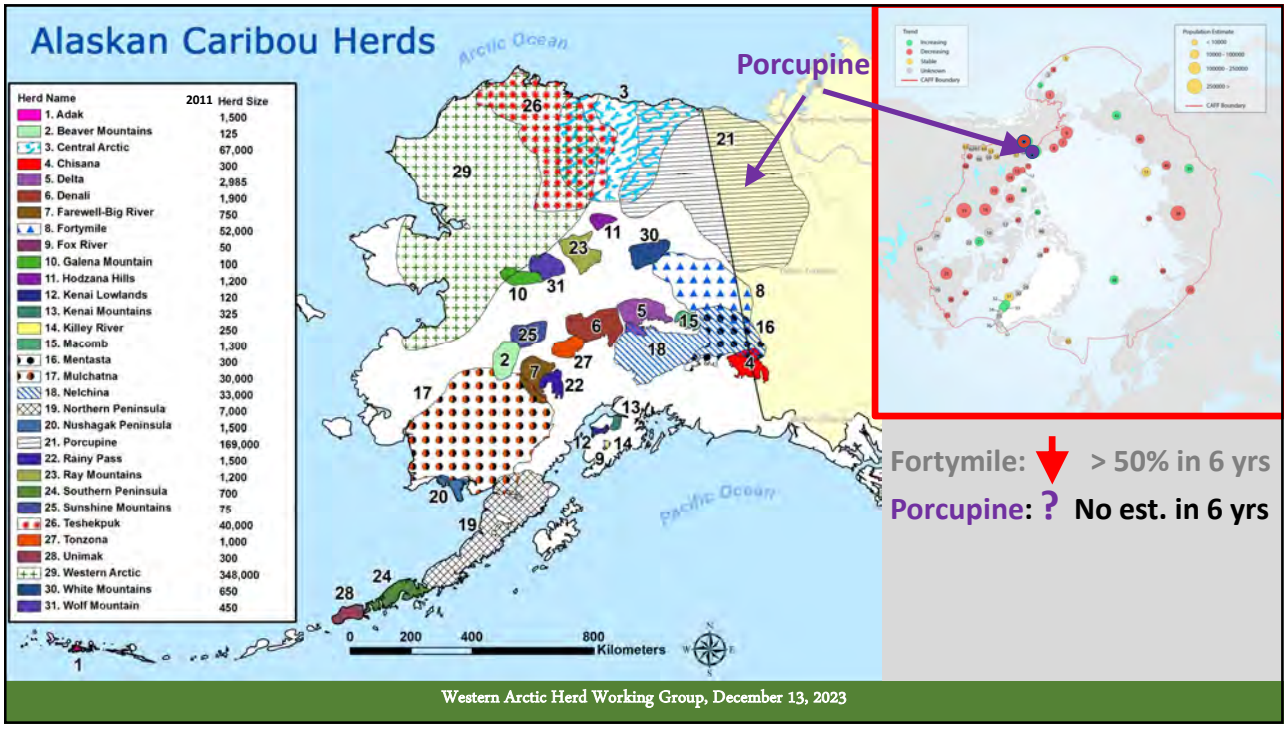
Fortymile: > 50% in 6 yrs
Porcupine: ? No est. in 6 yrs
Western Arctic Herd Working Group, December 13, 2023

17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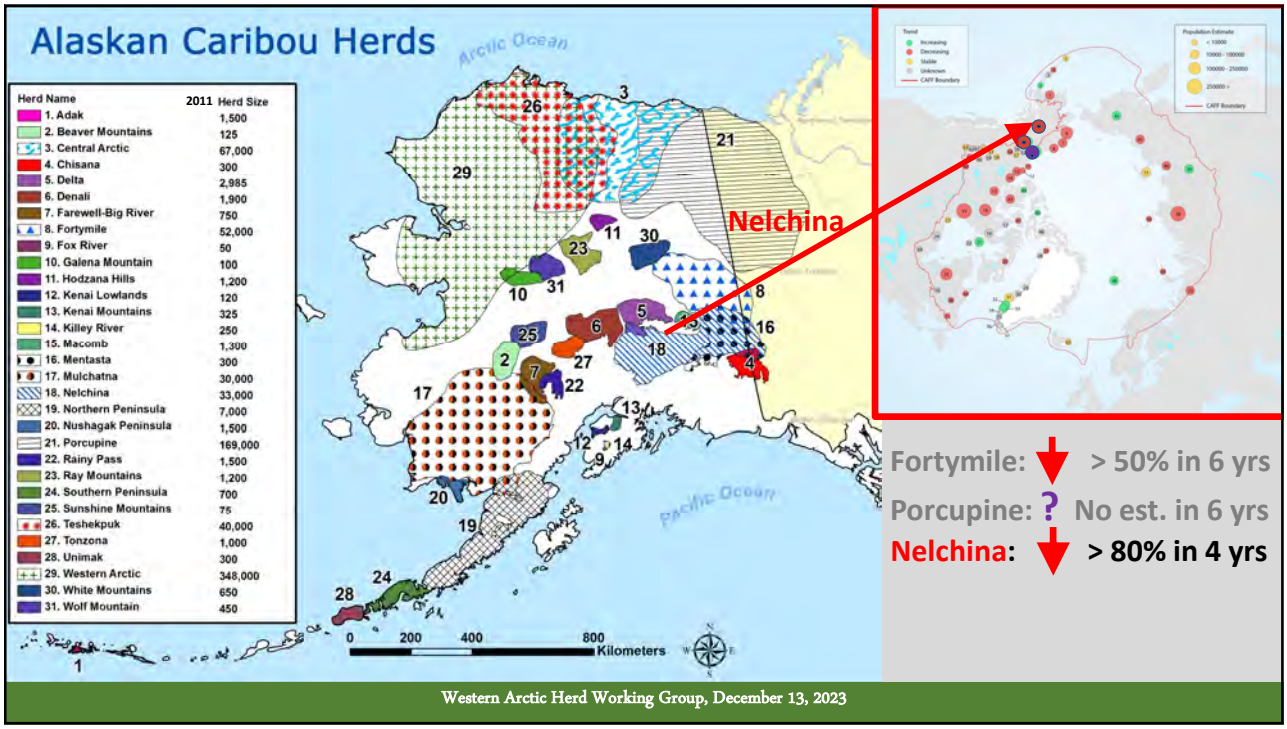
Western Arctic Herd Working Group, December 13, 2023

18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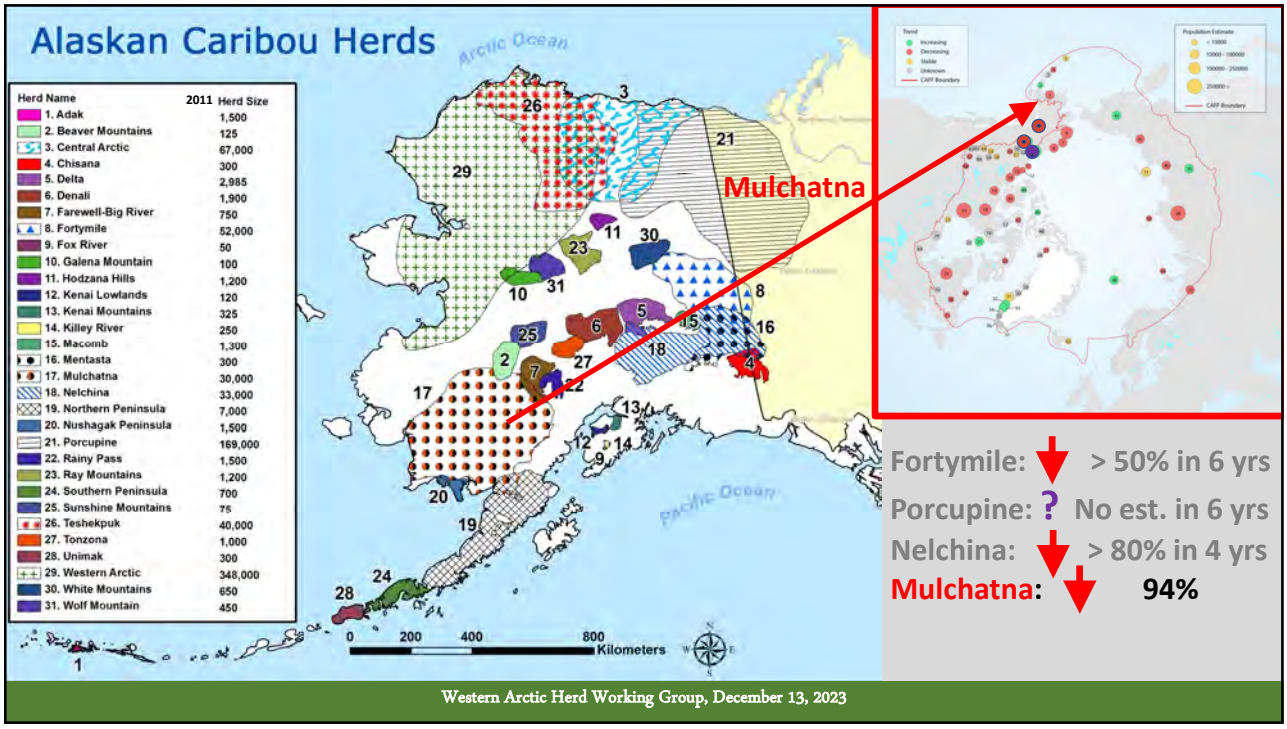
Nelchina
Fortymile: > 50% in 6 yrs
Porcupine: ? No est. in 6 yrs
Nelchina: > 80% in 4 yrs
Western Arctic Herd Working Group, December 13, 2023

19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2. Beaver Mountains 125
3. Central Arctic 67,000
4. Chisana 300
5. Delta 2,985
6. Denali 1,900
7. Farewell-Big River 750
8. Fortymile 52,000
9. Fox River 50
10. Galena Mountain 100
11. Hodzana Hills 1,200
12. Kenai Lowlands 120
13. Kenai Mountains 325
14. Killey River 250
15. Macomb 1,300
16. Mentasta 300
17. Mulchatna 30,000
18. Nelchina 33,000
19. Northern Peninsula 7,000
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21. Porcupine 169,000
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28. Unimak 300
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Porcupine: ? No est. in 6 yrs
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Mulchatna: 94%
Western Arctic Herd Working Group, December 13, 2023

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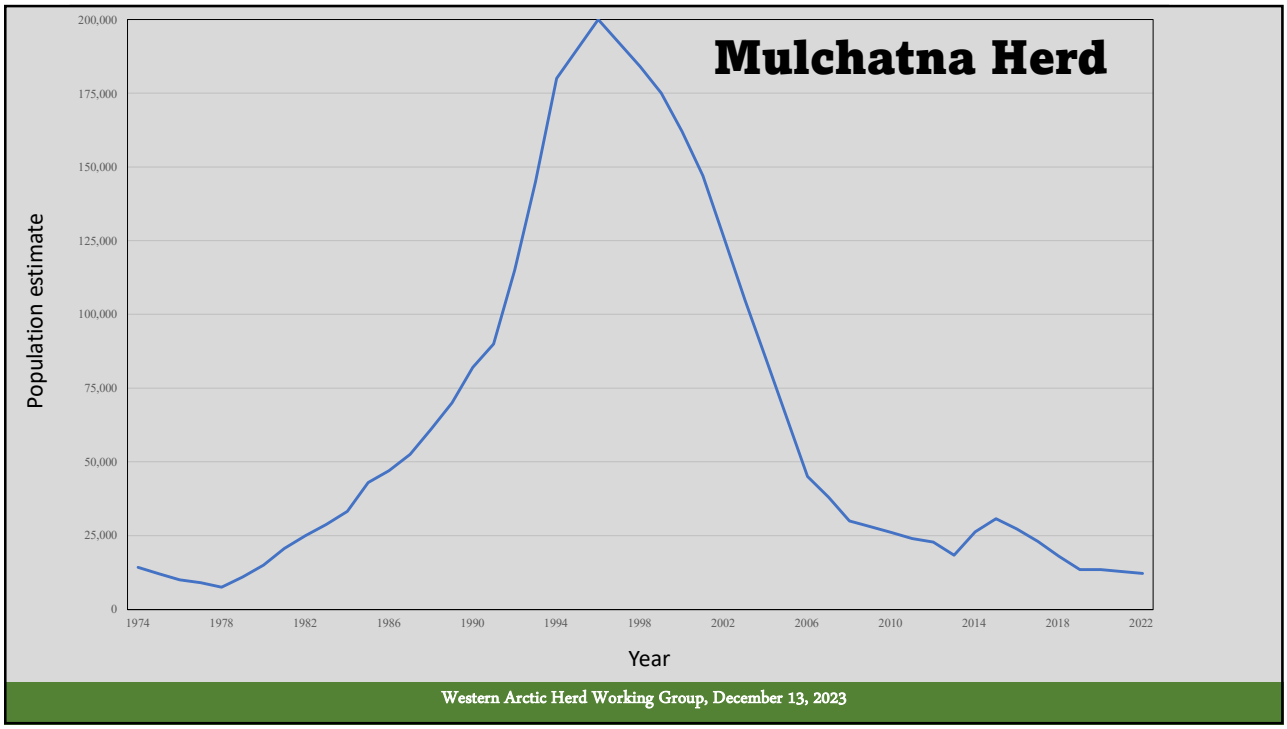
Mulchatna Herd
Population estimate
200,000
175,000
150,000
125,000
100,000
75,000
50,000
25,000
0
1974
1978
1982
1986
1990
1994
1998
2002
2006
2010
2014
2018
2022
Year
Western Arctic Herd Working Group, December 13, 2023

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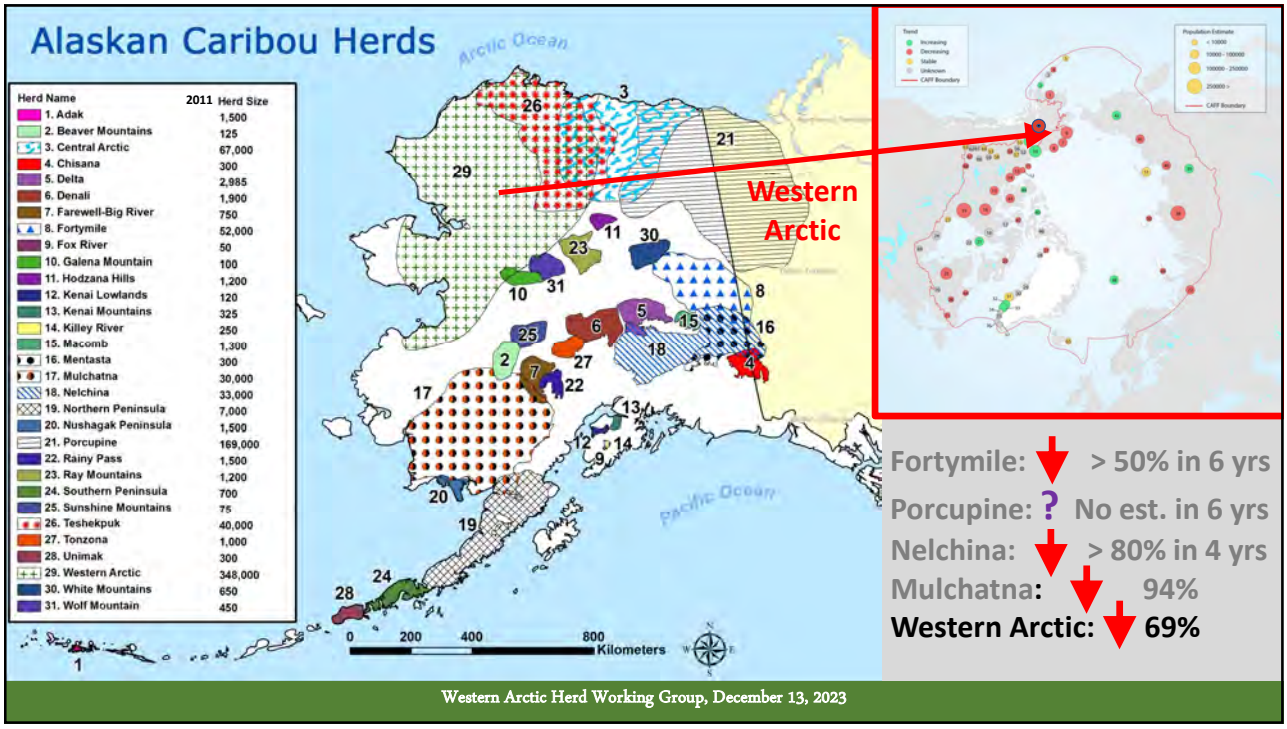
Alaskan Caribou Herds
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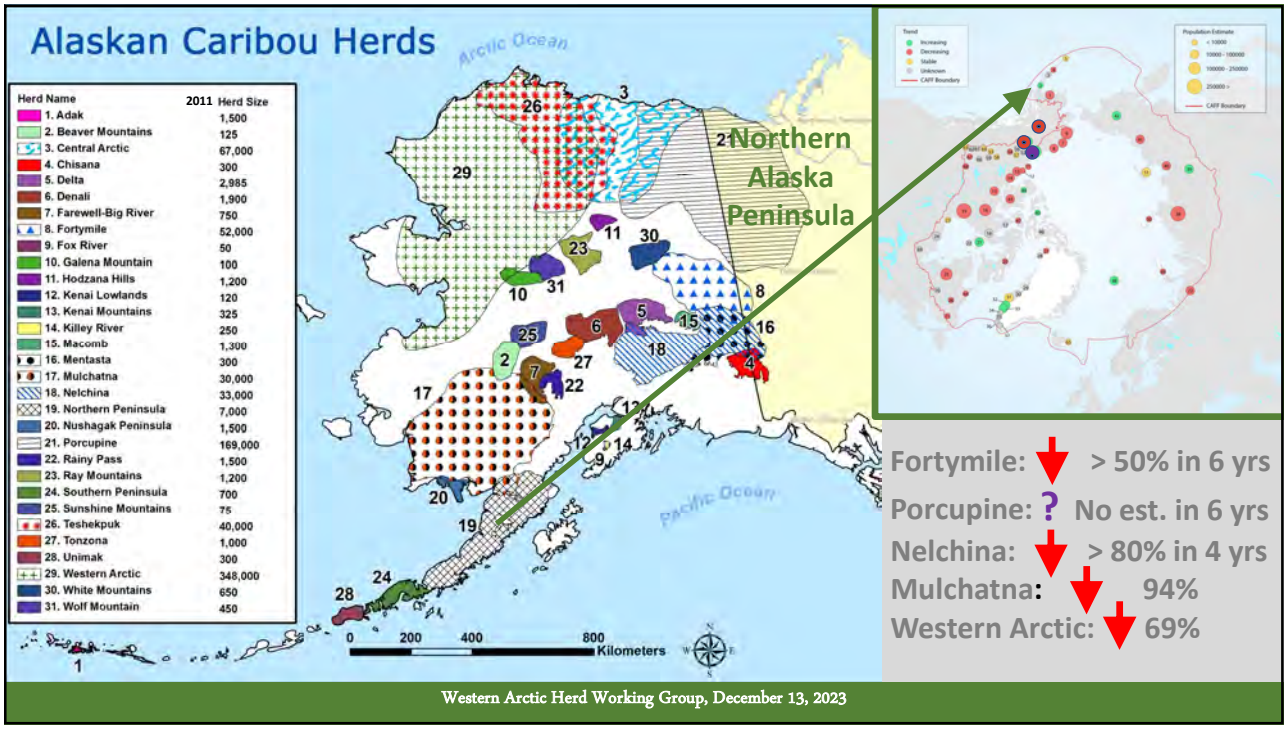
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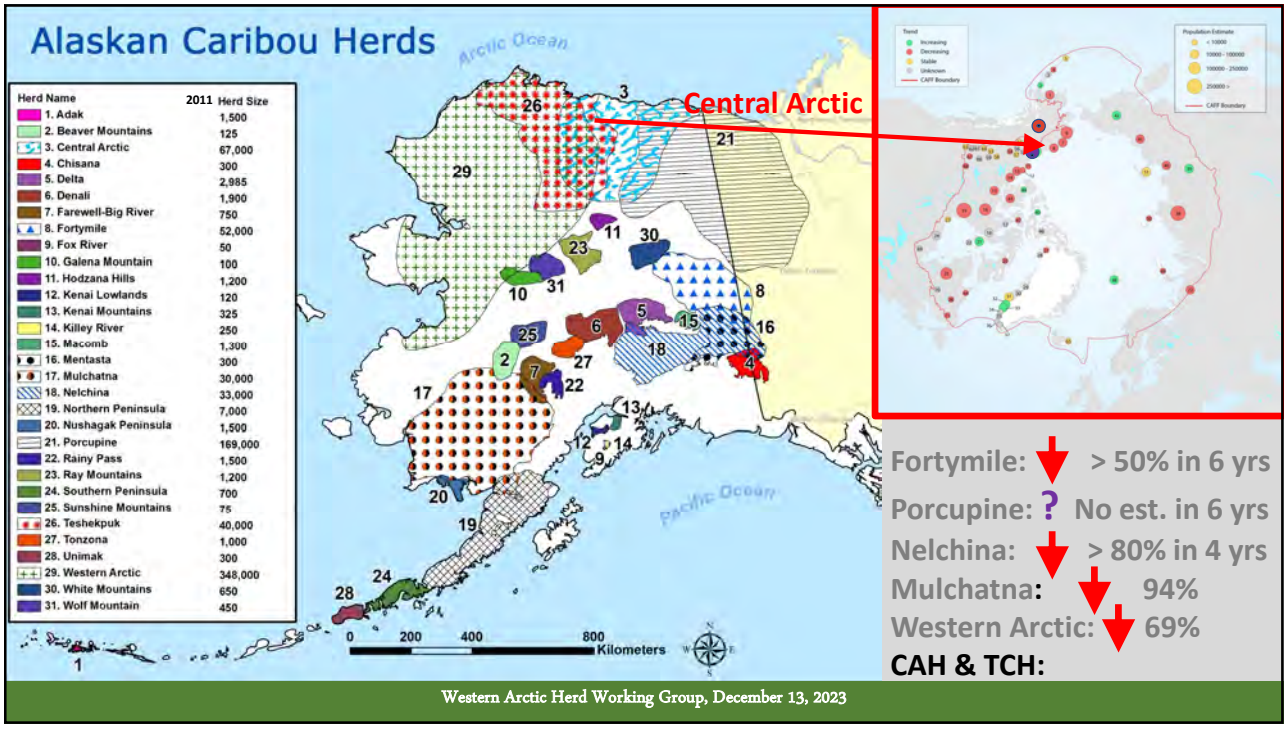
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CAH & TCH:
Western Arctic Herd Working Group, December 13, 2023

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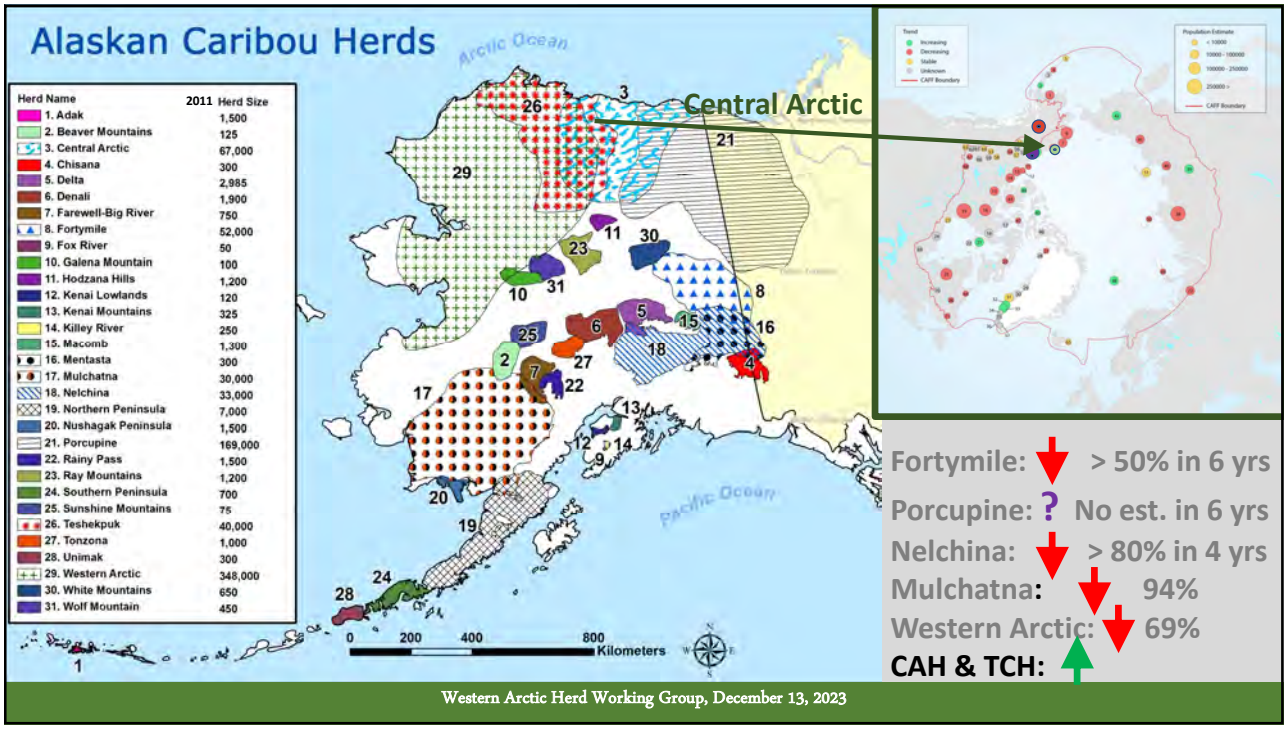
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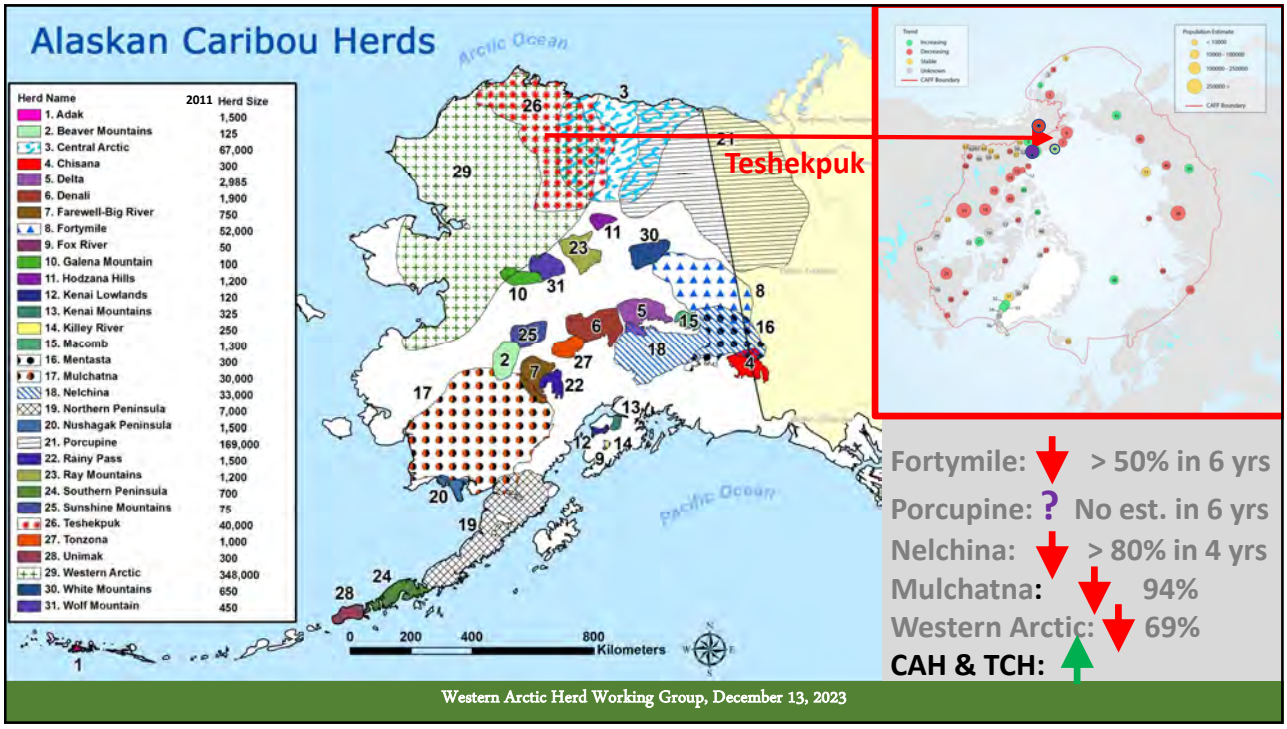
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Pacific Ocean
Teshekpuk
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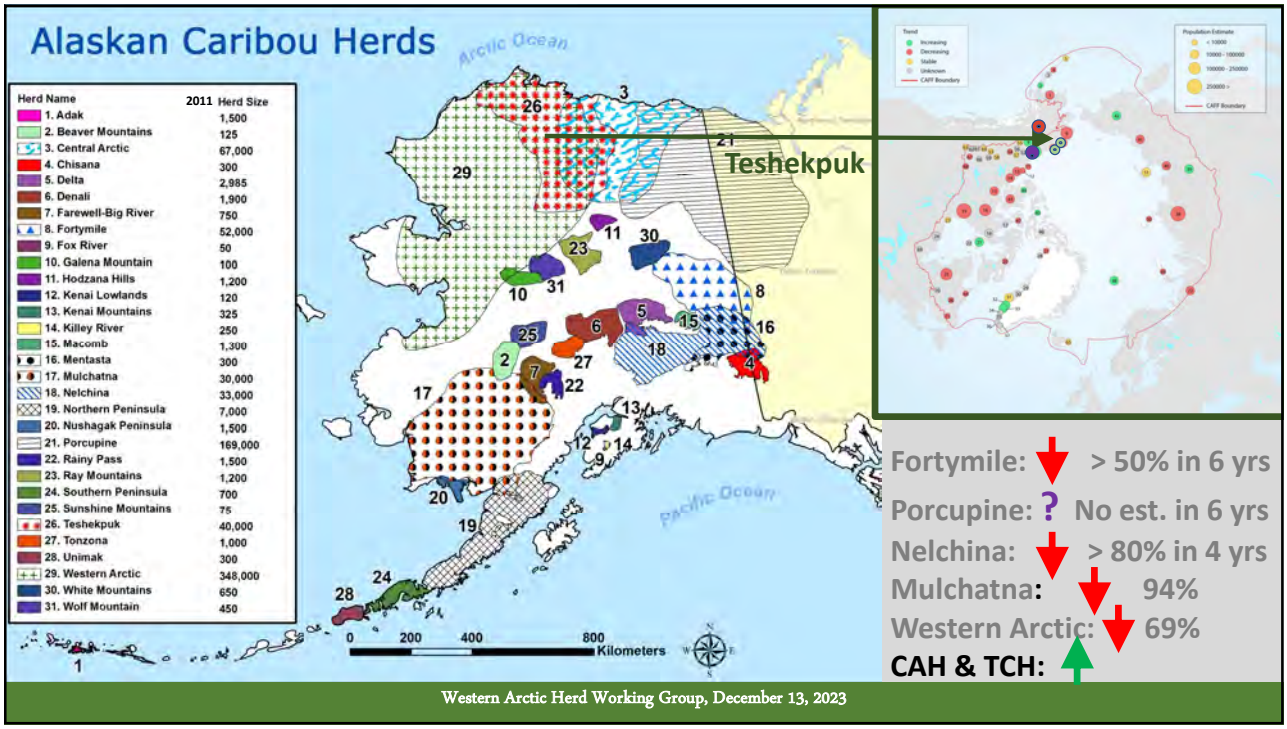
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CAH & TCH:
Western Arctic Herd Working Group, December 13, 2023

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Western Arctic Herd Working Group, December 13, 2023

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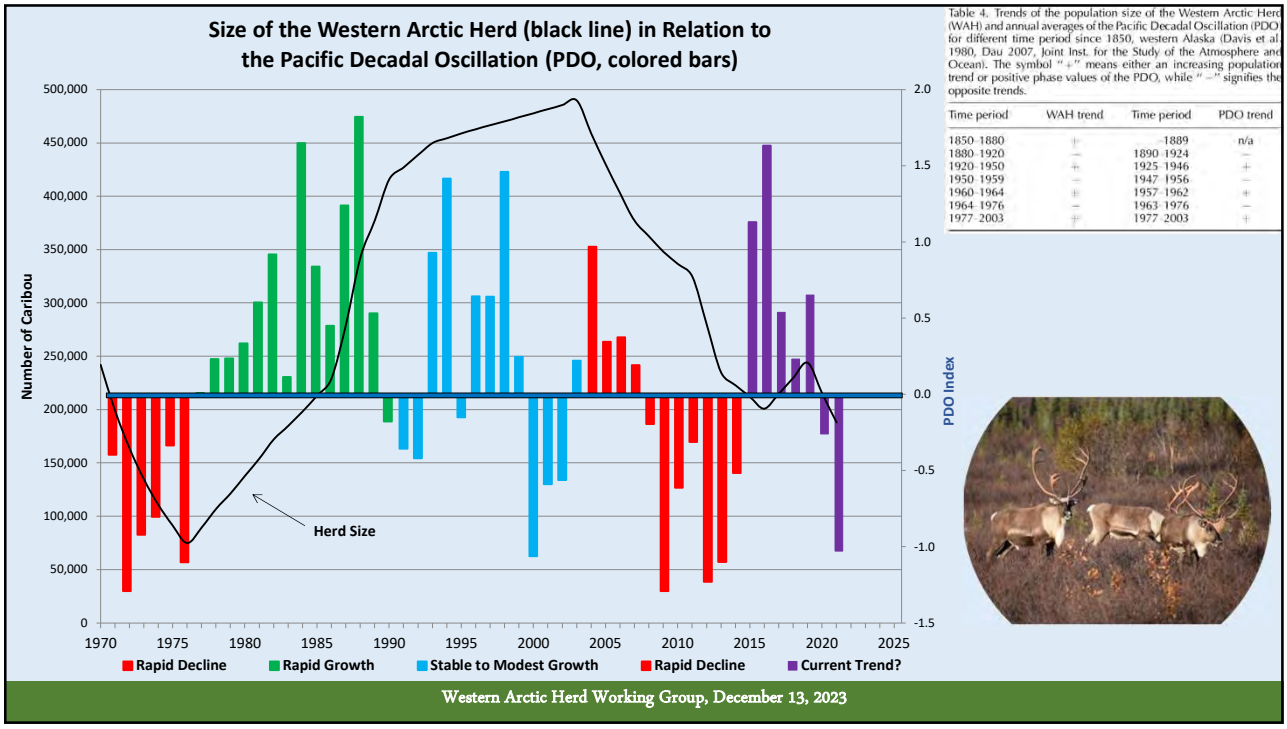

Table 4. Trends of the population size of the Western Arctic Herd (WAH) and annual averages of the Pacific Decadal Oscillation (PDO) for different time period since 1850, western Alaska (Davis et al. 1980, Dau 2007, Joint Inst. for the Study of the Atmosphere and Ocean). The symbol "+" means either an increasing population trend or positive phase values of the PDO, while "−" signifies the opposite trends.

Time period	WAH trend	Time period	PDO trend
1850-1880	+	-1889	n/a
1880-1920	−	1890-1924	−
1920-1950	+	1925-1946	+
1950-1959	−	1947-1956	−
1960-1964	+	1957-1962	+
1964-1976	−	1963-1976	−
1977-2003	+	1977-2003	+

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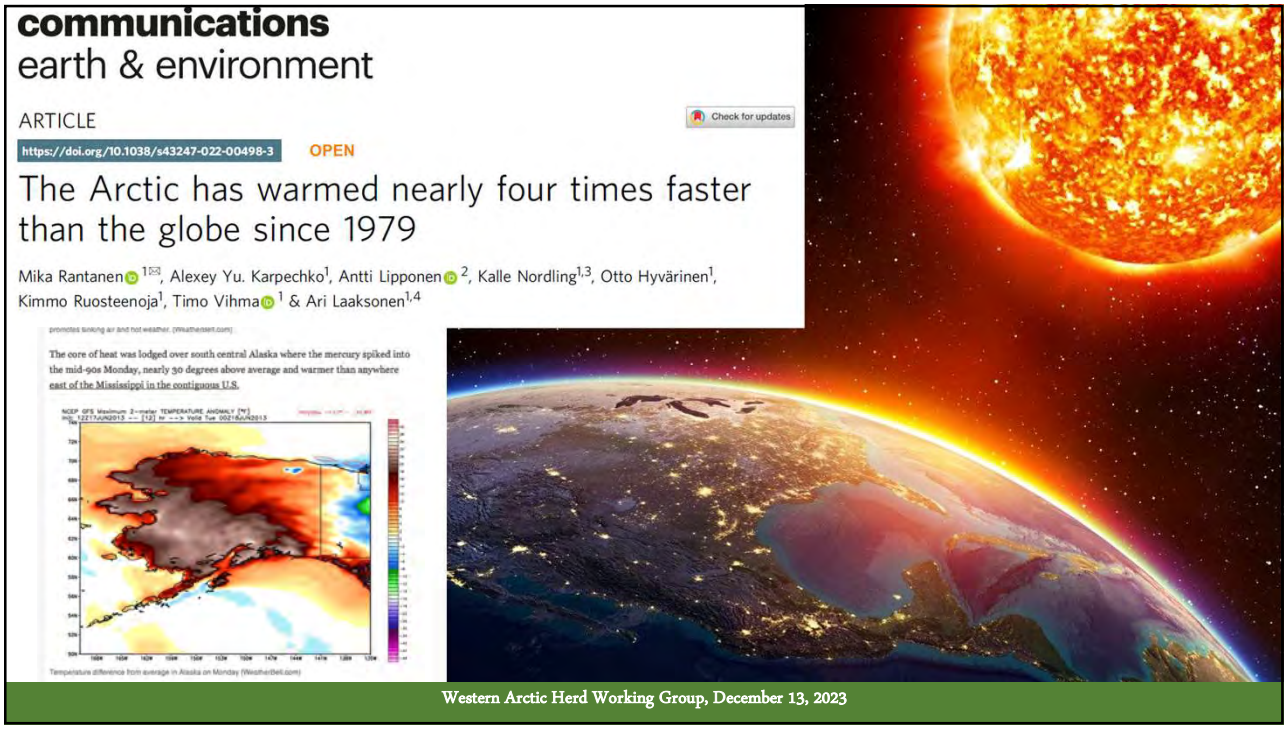

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D. Gustine photo
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Then...
... Now
Then...
... Now
Then...
... Now
Then...
... Now
HONDA
Western Arctic Herd Working Group, December 13, 2023

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The Washington Post
Climate and Environment
Trump administration wants drilling on more than two-thirds of the largest swath of U.S. public land
The nearly 23-million acre National Petroleum Reserve-Alaska provides a critical refuge to migrating caribou, waterfowl and other wildlife
ANCHORAGE DAILY NEWS
Alaska News
Villages sue Trump administration over proposed mining road that would cut through remote Interior Alaska
Many see the Red Dog mine as an ANCSA success story. What happens when the ore runs out?
Second in a series: The mine has brought wealth to Northwest Alaska, supporting Alaska Native communities and culture. But its relationship with the only village downstream is fraught, and the mine is running out of ore.
Western Arctic Herd Working Group, December 13, 2023

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Environmental Justice
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Multiple Stressors

- Climate Change
- Development
- Hunting
- Novel Species
- Disease
- Contaminants

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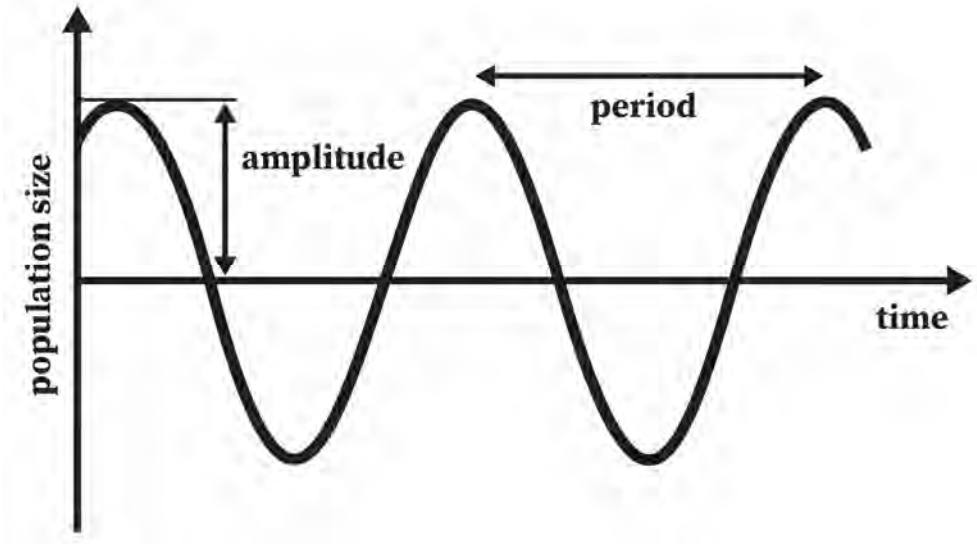
Barrenground Caribou Herd Population Oscillations



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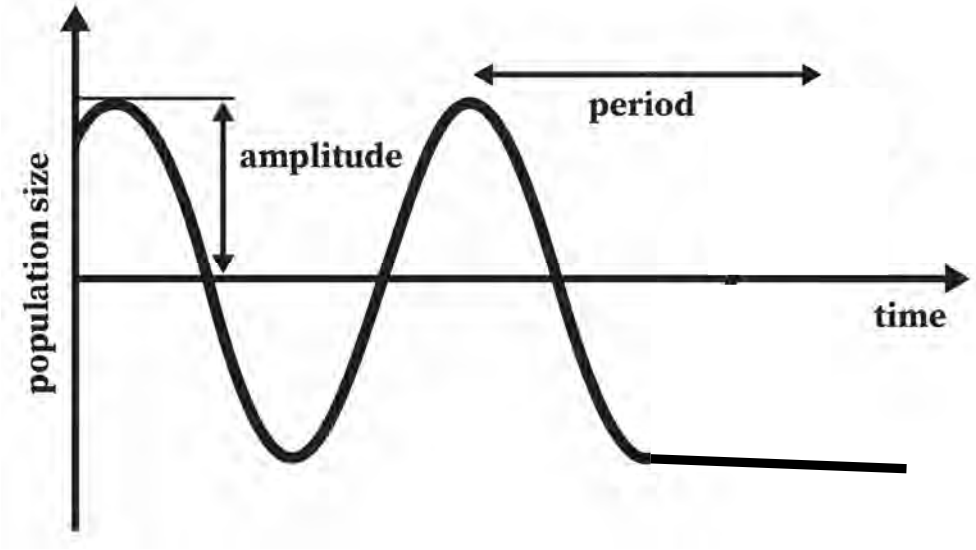
Barrenground Caribou Herd Population Oscillations



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Hunting Regulations

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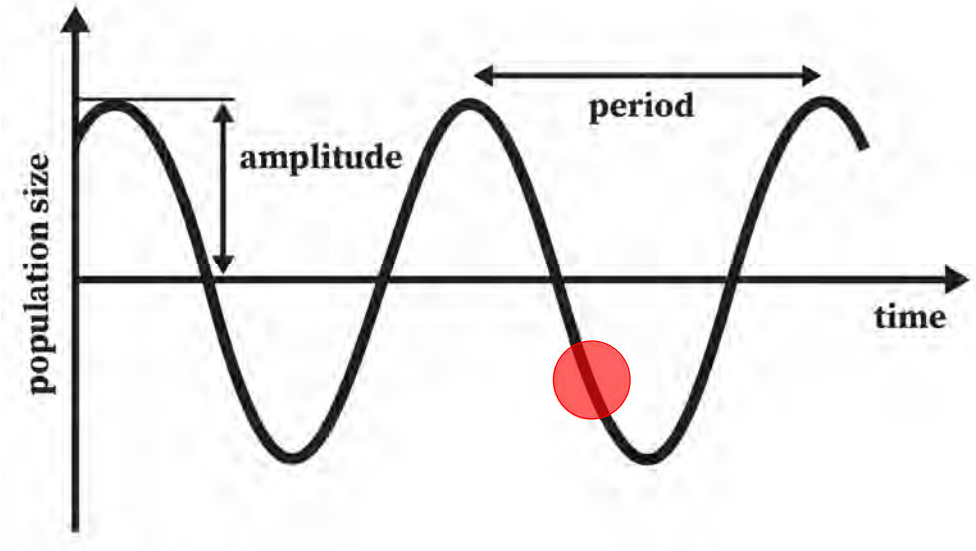
Barrenground Caribou Herd Population Oscillations



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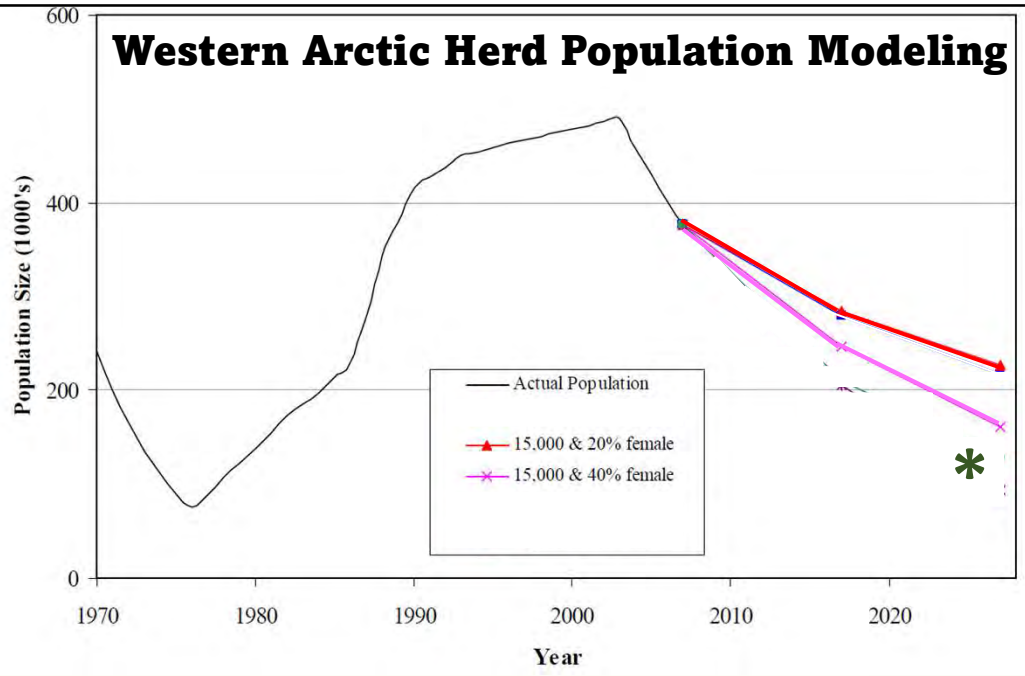
Western Arctic Herd Population Modeling



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Learn more:

NPS Caribou Monitoring: https://www.nps.gov/im/arcn/caribou.htm
(click the "Find all articles..." tab)

NPS Webpage: https://www.nps.gov/articles/kyle-joly-wildlife-biologist.htm

kyle_joly@nps.gov

All photos by K. Joly unless otherwise noted

Western Arctic Herd Working Group, December 13, 2023

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Placeholder for Technical Committee Report

2. POPULATION MANAGEMENT

The Working Group recognizes population management as a critical element for continued conservation of the Western Arctic Caribou Herd. Herd size and trend will change over time. At low population levels, management must conserve the herd and protect subsistence priority and uses, according to applicable federal and state regulations. At high population levels, management must consider density-based impacts to the herd and its range. Thus, management strategies must be responsive to changing conditions.

In general, population size, population trend (stable, increasing or decreasing), adult cow survival, and calf recruitment are the major factors considered when determining management actions and harvest scenarios for the herd's long-term conservation. As herd condition declines, the frequency or levels of management actions will be increased to better monitor the herd. Available harvest (harvestable surplus) will be based on estimated population size, trend, and herd condition. When estimates of available harvest drop below average range-wide harvests or the amount necessary for subsistence (about 8,000 to 12,000 caribou), restrictive harvest strategies become important to optimize available harvest among users and conserve the herd.

Western Arctic caribou on a frosty October day. Photo: NPS/K. Joly

This plan prescribes ranked, color-coded management levels for differing population sizes and trends of the Western Arctic Caribou Herd (Table 1). Harvest levels applicable to declining, stable and increasing populations are used to estimate the available harvest associated with each herd condition. Under "Liberal" management (green), few harvest restrictions will exist. With "Conservative" management (orange), harvest will be more limited and biological monitoring will intensify. "Preservative" management (yellow) will prompt increased restrictions where harvest may be limited to subsistence use only and biological monitoring of the herd will be maximized. Under "Critical" management (red), harvest will be highly restricted, habitat and/or population restoration efforts may be enacted, and maximum biological monitoring of the herd will be maintained.

Table 1 provides a guide to herd management level determined by population size, trend, cow survival, and calf recruitment. Population sizes guiding management level determinations are based on recent (since 1970) historical data for the Western Arctic Caribou Herd.

TABLE 1. Western Arctic Caribou Herd management levels using herd size, population trend, and harvest range.*

	Population Trend		
Management Level	Declining Adult Cow Survival <80% Calf Recruitment <15:100	Stable Adult Cow Survival 80%-88% Calf Recruitment 15-22:100	Increasing Adult Cow Survival >88% Calf Recruitment >22:100
Liberal	Pop: 265,000+ Harvest: 14,000+	Pop: 230,000+ Harvest: 14,000+	Pop: 200,000+ Harvest: 14,000+
Conservative	Pop: 200,000-265,000 Harvest: 10,000-14,000	Pop: 170,000-230,000 Harvest: 10,000-14,000	Pop: 150,000-200,000 Harvest: 10,000-14,000
Preservative	Pop: 130,000-200,000 Harvest: 6,000-10,000	Pop: 115,000-170,000 Harvest: 6,000-10,000	Pop: 100,000-150,000 Harvest: 6,000-10,000
Critical	Pop: <130,000 Harvest: <6,000	Pop: <115,000 Harvest: <6,000	Pop: <100,000 Harvest: <6,000

*Annual harvest has been estimated at around 12,000 caribou per year since 1996.

Each year, or as needed, agency biologists will evaluate the status of the herd in the Technical Committee meeting and develop recommendations on the herd management level for the Working Group. Table 1, which accounts for population size and trend, provides a guide for helping the Working Group determine which management level is appropriate for that year. Adult cow survival (typically < 80% for declining populations and > 88% for increasing populations), calf recruitment (typically < 15 calves: 100 cows for a declining population and > 22 for an increasing population), and other factors such as trends in adult mortality and calf survival, sex and age composition, range condition, caribou health and body condition, and more will provide the basis for the Technical Committee's evaluation of herd condition and their management level recommendation to bring to the full Working Group for approval.

The Working Group, with assistance from biologists and cooperating agencies, will review the Technical Committee's recommendations, consider traditional ecological knowledge and knowledge of all users, and seek consensus on the appropriate management strategy to recommend (Figure 12). When management levels change, or there is a need to revise management actions or harvest regulations, the Working Group will develop recommendations for specific actions including regulatory changes. Regulatory proposals will follow the normal state and federal board processes where advisory committees, regional advisory councils, and the public can review and comment on the proposals before board action is taken.

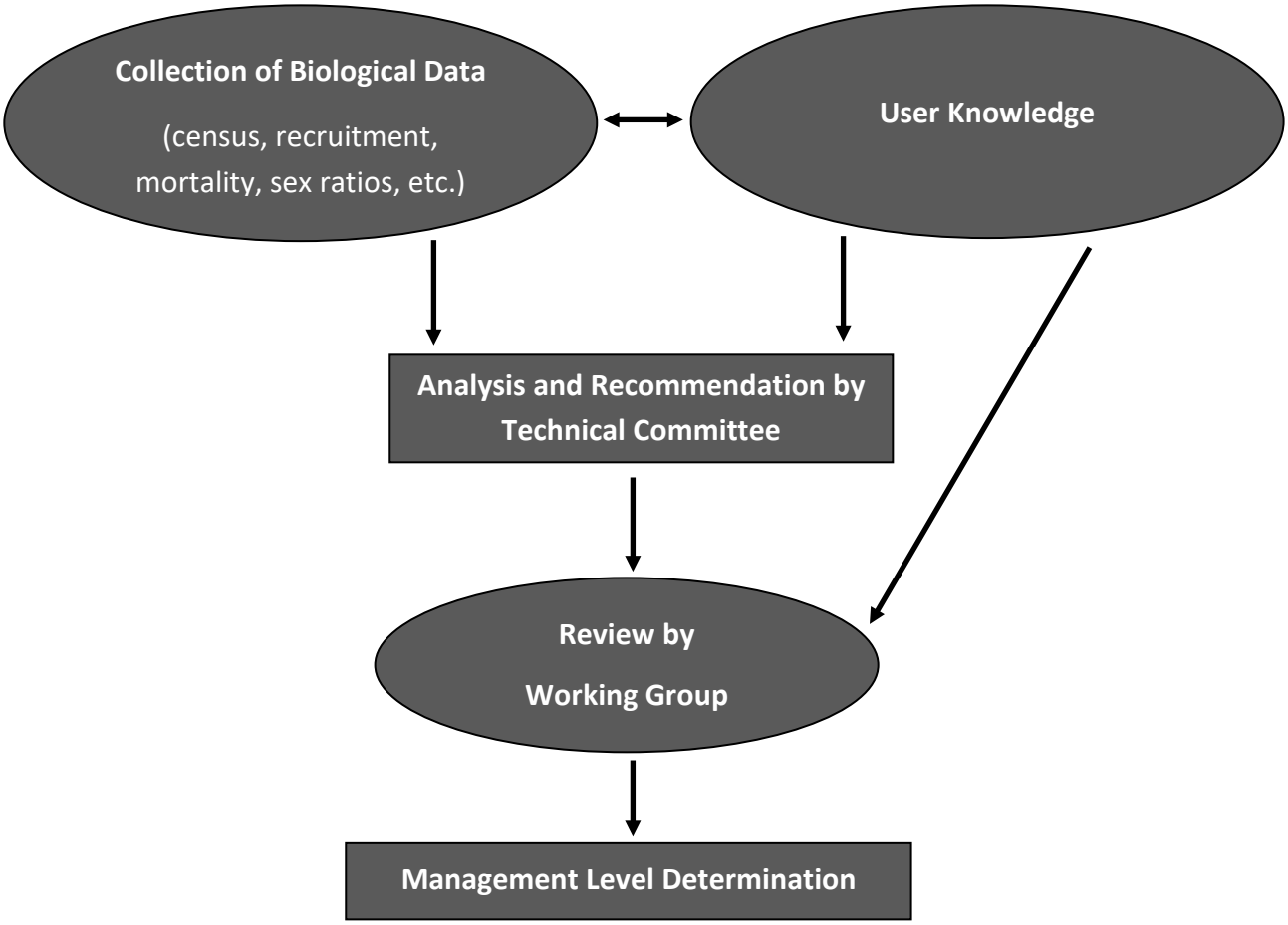


FIGURE 12. Management level decision-making process diagram.

Goal 2: Recognizing that caribou herds naturally fluctuate in numbers, manage for a healthy population using strategies adapted to population levels and trends.

Strategy:

A. Identify population management level to help guide decisions about management actions and caribou harvest. Four management levels are prescribed, relating to population size and trend (Table 1). The management levels presented in Table 1 should not be viewed as thresholds to trigger specific management actions, but as decision-making guidelines. When specific population conditions do not clearly fall into these categories, a combination of management actions and harvest recommendations outlined in Table 2 may be appropriate.

Summer months typically see the largest caribou groupings, or "aggregations." Photo: NPS/K. Joly

TABLE 2. Population management actions and potential harvest recommendations.

Liberal Management (Green)

Management actions:

1. Census the herd every 3 years or more often if major concerns arise.
2. Monitor calf production and survival, adult mortality, and exposure to disease annually.
3. Conduct comprehensive caribou health assessments at least once every 3 years to monitor causes of disease, types and levels of parasites, body condition, and levels of contaminants of concern in caribou tissues.
4. Estimate numbers of male and female caribou harvested annually throughout the range of the herd. Collect harvest information including date taken, residency of hunter, and approximate location of kill.
5. Investigate environmental contaminants as necessary.
6. Conduct thorough and timely investigations of local caribou die-offs.
7. Monitor changes in vegetation and habitat conditions, including winter and summer range, and consider both long term (decades) and short term (seasons) changes.
8. Monitor weather conditions year-round throughout the Western Arctic Caribou Herd range and snow conditions annually at least in Western Arctic Caribou Herd wintering areas.
9. Monitor numbers of wolves and brown bears in selected areas throughout the herd's range.
10. Estimate impacts of proposed development projects on caribou.
11. During increasing population trends, liberalize access, seasons and bag limits.

Caribou harvest recommendations may include:

1. Reduce harvest of bulls by nonresidents to maintain at least 30 bulls:100 cows.
2. No restriction of bull harvest by resident hunters unless bull:cow ratios fall below 30 bulls:100 cows.

TABLE 2. (continued)

Conservative Management (Orange)

Management actions: In addition to those listed under "Liberal Management," the following management actions will be conducted:

1. Census the herd at least once every 2 years.
2. Monitor sex and age composition every 2-3 years.
3. Conduct comprehensive caribou health assessments at least once every 2 years to monitor causes of disease, types and levels of parasites, body condition, and levels of contaminants of concern in caribou tissues.
4. Intensify efforts to monitor harvests.
5. Increase monitoring of possible environmental contamination as warranted.
6. Intensify monitoring of vegetation, snow and weather conditions and other habitat conditions that may impact caribou throughout their range.
7. Reduce impacts of human activities on caribou where possible.
8. Educate hunters about caribou conservation and the effects of harvesting cows on population size and trend. Additionally, encourage voluntary reduction in cow harvests by residents.
9. Monitor predator populations and, if appropriate, liberalize hunting and trapping regulations.

Caribou harvest recommendations may include:

1. Encourage voluntary reduction in calf harvest, especially when the population is declining.
2. No cow harvest by nonresidents.
3. Restriction of bull harvest by nonresidents.
4. Encourage voluntary reduction in cow harvests by residents.
5. Limit the subsistence harvest of bulls only when necessary to maintain a minimum 30:100 bull:cow ratio.

TABLE 2. (continued)

Preservative Management (Yellow)

Management actions: In addition to those listed under "Conservative Management," the following management actions will be conducted:

1. Census the herd annually.
2. Monitor calf production and survival, adult mortality, sex and age composition, caribou health, and age structure of the herd to the maximum degree possible.
3. Monitor harvests using permit and quota systems.
4. Maximize monitoring of environmental contamination if concerns exist.
5. Monitor vegetation, snow and weather conditions and other habitat conditions that may impact caribou to the maximum extent possible throughout their range.
6. Mitigate human impacts to caribou.
7. Prevent loss or degradation of seasonal habitat and maximize access to these areas by caribou.

Caribou harvest recommendations may include:

1. No harvest of calves.
2. Limit harvest of cows by resident hunters through permit hunts and/or village quotas.
3. Limit the subsistence harvest of bulls to maintain at least 30 bulls:100 cows.
4. Harvest restricted to residents only, according to state and federal law. Closure of some federal public lands to non-qualified users may be necessary.

TABLE 2. (continued)

D. Critical Management (Red)

Management actions:

1. Intensify all of the management actions listed under "Preservative Management" to the maximum extent possible.

Caribou harvest recommendations may include:

1. No harvest of calves.
2. Highly restrict the harvest of cows through permit hunts and/or village quotas.
3. Limit the subsistence harvest of bulls to maintain at least 30 bulls:100 cows.
4. Harvest restricted to residents only, according to state and federal law. Closure of some federal public lands to non-qualified users may be necessary.

Resource Development Committee Update

1) Ambler Road and Mining District
    a. New Draft SEIS
    b. Draft comments for review (**ACTION NEEDED**)

2) D1 Land Withdrawal
    a. BLM to consider opening millions of acres of caribou habitat for development
    b. Need to decide if the Working Group will comment (**ACTION NEEDED**)

3) NPR-A Special Area Rulemaking
    a. Comments submitted to BLM requesting increased protections for caribou and subsistence, including fully protecting WACH calving grounds

4) Graphite One Mine
    a. Mining interest on the Seward Peninsula
    b. No proposal yet

5) OTZ Microwave Tower Broadband Project
    a. 2023 was supposed to be a busy construction year

6) ASTAC Fiber Optic Project
    a. May be future opportunities for comment

7) Anarraaq-Aktigiruq exploration
    a. Application still under review by the Army Corps of Engineers

8) Willow Master Development Plan SEIS
    a. Plan approved in March

9) Noatak Planning and Environmental Linkage
    a. Seems to be on hold – website removed

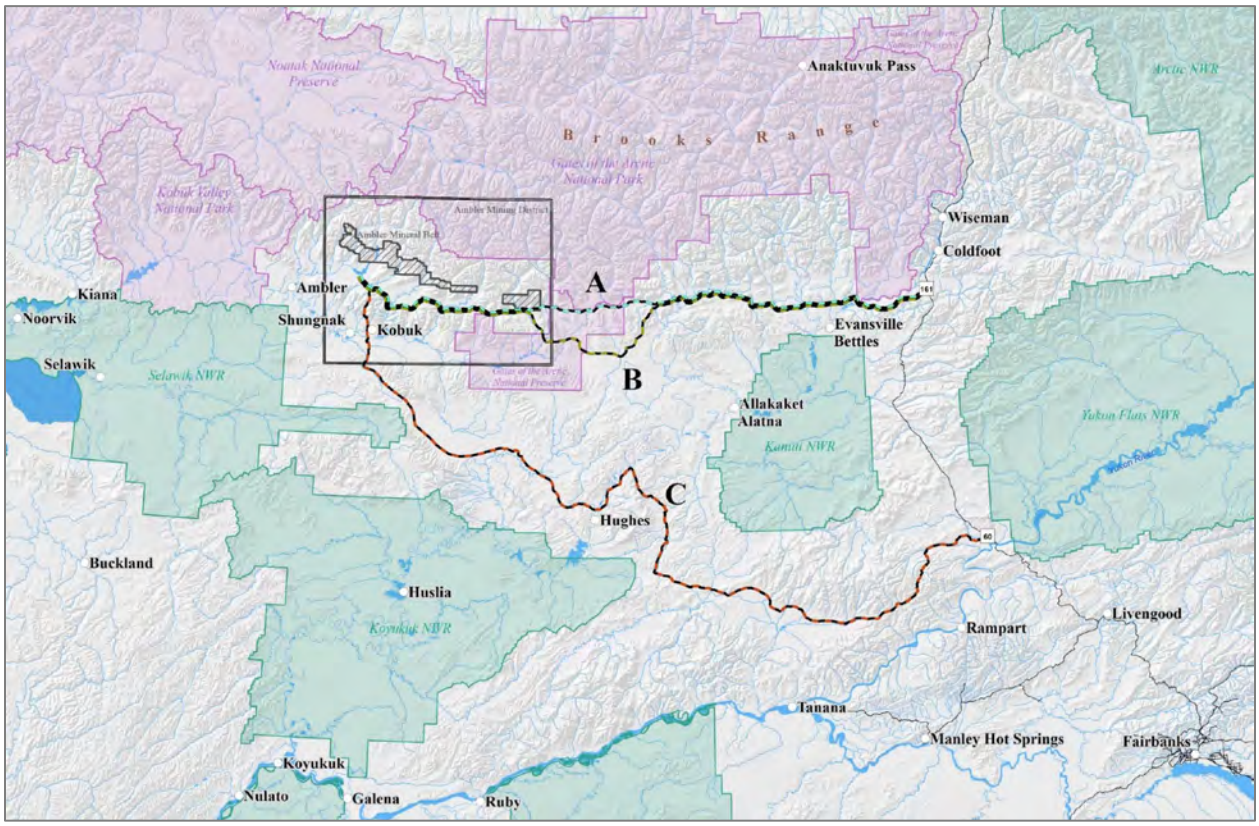
1) Ambler Road Project

Why a new EIS?

In July 2020, the Bureau of Land Management (BLM) approved permitting of an Ambler access road, however, in response to lawsuits by the Tanana Chiefs Conference, several villages in the region, and conservation groups BLM was directed to address issues with the previous approval, leading to a Supplemental Environmental Impact Statement (SEIS) process.

Content of the Draft SEIS

The Draft SEIS was released on October 13, 2023. It analyzes the same 3 alternatives as the previous version, shown below. BLM added consideration of an option in which construction would be done in two phases, rather than three, moving straight to a single-lane gravel road without first constructing a temporary pioneer road. This is estimated to reduce construction duration by 1-2 years.



Map 1-1 in the Ambler Road Draft SEIS.

Another change is that BLM now considers future public access and trespass on the road to be reasonably foreseeable. This was something we and others raised as a concern multiple times in our comments and BLM now acknowledges it is possible.

In the Draft SEIS, BLM proposes to approve the Alaska Industrial Development and Export Authority's (AIDEA) application for a right-of-way (ROW) authorization. **This would approve building of the road**.

The following quotes from the Draft SEIS highlight some of the expected impacts if this occurs:

Impacts to the WACH

> "Migrating caribou would encounter a network of active roads and industrial development that does not exist elsewhere in their range. It is much more likely that a system of roads would jeopardize long-distance migration than any single road." (p. 3-148)

> "The road could delay and deflect migrating caribou, which could increase energy expenditure, impact body condition, reduce foraging rates, increase winter mortality, and decrease breeding success, pregnancy rates, and calf recruitment. Such impacts could exacerbate or prolong population declines and hinder the herd's ability to naturally recover from low population levels." (p. M-27 – M-28)

> "Migration may be altered to the point where winter survival and calving success are affected." (p. M-10)

> "Habitat fragmentation could result in decreased abundance of caribou over time." (p.M-9)

> "Habitat fragmentation or displacement resulting from development may limit the ability of caribou to withstand and adapt to climate change." (p. 3-149)

"Available literature from the DMTS [Red Dog] road…suggests that the [proposed mitigation] measures are not very effective, and therefore behavioral disturbance, and displacement should be anticipated." (p. 3-138)

"While the project represents a small portion of the total WAH range, a substantial portion of the WAH encounter the project area annually." (p. M-9)

Impacts to subsistence

"During Government-to-Government consultation, all WAH communities expressed deep concern over the population decrease and stressed their fears that construction and use of the proposed road may further decrease the population." (p. M-9)

"The cumulative impacts to subsistence resulting from the proposed road, other reasonably foreseeable developments, and climate change could result in reduced harvesting opportunities for local residents and alterations in subsistence harvesting patterns." (p. M-34)

"Overall, changes to subsistence uses would be high-likelihood, high-magnitude, long- or permanent-duration impacts over an expansive area for all alternatives." (p. C-18)

"Population-level impacts could extend to the 42 WAH WG communities, particularly those with a moderate to high resilience on the resource." (p. M-36)

Public use of the road

"Given the requested ROW [right-of-way] time frame of 50 years, it is reasonably foreseeable that once the road is constructed, local residents within the general area of the road, as well as other residents within Alaska, will seek ways to access the road both lawfully and unlawfully." (p. H-32)

> “Illegal trespass by unauthorized users along the Ambler Road will likely occur by both local/regional residents and non-local individuals, particularly during the hunting season.” (p. 3-235)

Draft Comments

The Draft SEIS comment period ends December 22, 2023. A set of draft comments are included on the following pages for your review and discussion. These reinforce many of the points previously raised in other comments on the Ambler Road and address specific issues with the Draft SEIS document.

If we want to submit comments, we need to vote to approve submission today.

WACH WG Draft Ambler DSEIS Comments

December XX, 2023

Stacie McIntosh
Ambler Road SEIS Project Manager
Bureau of Land Management
BLM Fairbanks District Office
222 University Avenue
Fairbanks, AK 99709

RE: Ambler Road Draft Supplemental EIS Comments

Dear Ms. McIntosh,

On behalf of the Western Arctic Caribou Herd Working Group (Working Group) I submit the following comments on the Bureau of Land Management's (BLM) Draft Supplemental Environmental Impact Statement (DSEIS) for the Ambler Road. The Working Group is a permanent organization of stakeholders that works to ensure conservation of the Western Arctic Caribou Herd (WACH) and to maintain traditional and other uses now and into the future. The Working Group consists of Alaska Native subsistence users from communities within the range of the herd, other Alaskan hunters, guides, transporters, conservationists, and reindeer herders. Since its formation in 1997, the Working Group has submitted numerous advisory recommendations to government agencies, regulatory boards, and other bodies to support decisions that will ensure the long-term conservation of the WACH.

The Working Group has been very interested in the Ambler Road decision and has actively engaged in the Ambler Road EIS process, with multiple meetings with BLM staff and with formal comments provided at the scoping and draft phase of both the EIS and SEIS processes. We are concerned about the detrimental effects a road would have on caribou, their habitat, and the people who rely upon them for food security and customary and traditional ways of life. For these reasons, **the Working Group passed a motion in 2018 opposing creation of the Ambler Road**. In 2019, we requested that BLM change its preferred alternative in the Final EIS to the No Action Alternative and not approve the Alaska Industrial Development and Export Authority's (AIDEA) application for a right-of-way (ROW) authorization across federal land. Unfortunately, this request was not accommodated. We were again disappointed to see in the DSEIS that BLM proposes to approve the Ambler Road right-of-way application (BLM 2023a p. ES-1). We ask that BLM reconsider and not allow permitting of the Ambler Road.

WACH status and the Ambler Road

For many years, the WACH was the largest caribou herd in Alaska, with nearly 500,000 animals at its peak in the early 2000s. This large, wide-ranging herd provides a crucial subsistence resource to residents of approximately forty remote communities spread across the range of the

WACH, as well as many others who rely on caribou for their livelihoods or other reasons, as described above. The herd also plays an important role in a healthy environment that supports many other species and natural processes. Unfortunately, for about two decades the herd has been in serious decline. The 2022 count of 164,000 represents the lowest numbers since the 1970s.

There are very real consequences for subsistence hunters and other people in the WACH range of the consistent long-term decline of the herd. At our annual meeting last year, the Working Group voted to recommend a reduced subsistence harvest limit from five caribou per day to four per year, only one of which may be a female, as well as a pause on all non-resident harvest. This is not a recommendation we made lightly, knowing that it will have impacts on those who rely upon caribou most. However, in light of persistent declines we felt the need to take action in alignment with the Working Group's Cooperative Management Plan. When the people we represent are being asked to reduce their use of the WACH because of low herd size, allowing permitting and construction of an industrial mining road that BLM acknowledges will likely impact caribou habitat use, population size, and availability for subsistence is unconscionable.

It is notable that "during Government-to-Government consultation, all WAH communities expressed deep concern over the population decrease and stressed their fears that construction and use of the proposed road may further decrease the population" (p. M-9). Indeed, the DSEIS acknowledges that "habitat fragmentation could result in decreased abundance of caribou over time" and that impacts from a potential road "could exacerbate or prolong population declines and hinder the herd's ability to naturally recover from low population levels" (BLM 2023a p. M-9, M-28). The ANILCA 810 Evaluation reported in the DSEIS found significant restriction of subsistence for 30 or more communities, including many represented on the Working Group, was likely under each of the action alternatives. In many cases this finding is strongly influenced by expectations of population-level impacts to the WACH and reductions in the availability of caribou along with delays and deflections of migration. Under the cumulative case considering the proposed road, associated mines, climate change, and other reasonably foreseeable developments, the ANILCA 810 Evaluation concluded that "population-level impacts could extend to the 42 WAH WG communities, particularly those with a moderate to high resilience on the resource" (BLM 2023a p. M-36). These findings are of grave concern to the Working Group. We plead with BLM to heed the many warnings laid out in the DSEIS and to not proceed with permitting a road.

Improvements in the DSEIS

We are grateful that BLM has produced this DSEIS to address some of the deficiencies in the previous Ambler Road EIS. There are several areas in which the DSEIS has been improved that we describe below.

We appreciate the multiple references to the Working Group in the DSEIS, including acknowledgement of our moving the status of the WACH to "Preservative Declining" in response to the ongoing decline in herd size (e.g., BLM 2023a p.3-210). We are glad to see that

BLM has paid attention to the Working Group and its concerns and hope that it will continue to do so and will act in accordance with our request to select the No Action Alternative.

One of the issues raised by the Working Group in both our DEIS and SEIS Scoping comments was the potential for the road to switch from commercial-only access to public access in the future, based on the past history of road use in Alaska. We were pleased to see that after largely ignoring these concerns in the initial EIS process, BLM gave them greater consideration in the DSEIS. While being concerned by the possibility, we appreciate that BLM acknowledged that public use and trespass on the road are considered reasonably foreseeable as expected impacts and are analyzed as such in the DSEIS. We agree that there are a number of potentially harmful effects that such public use would have on caribou and subsistence use. We also are concerned about the potential for increased complexity of hunting regulations, which may create uncertainty for subsistence users in the region. The Working Group often seeks to make hunting regulations more clear and consistent, rather than adding additional levels of complexity as would likely be required if the road eventually was opened to the public.

Another change in the DSEIS is consideration of a 2-phase option that would skip construction of a seasonal pioneer road and proceed straight to a year-round single-lane road. This would have the effect of reducing the number and duration of construction periods, which may have stronger impacts on caribou and other species, as well as on subsistence. If a ROW is permitted, the Working Group is supportive of using a 2-phase approach to reduce construction phases. Furthermore, clear guidance should be provided about what would underlie the decision to allow the project to proceeding to Phase 3, as the DSEIS says a Phase 3 road may never be needed. This should only be allowed after a subsequent EIS process that establishes that a Phase 3 road is necessary and will avoid, minimize, and mitigate environmental harm.

We appreciate that the ANILCA 810 Evaluation was expanded to include all caribou subsistence study communities. As we have noted above and in previous comments, due to the mobile nature of the WACH impacts occurring in one part of the herd range may affect residents of communities far distant from the site of those impacts. We affirm the DSEIS statement that “a lack of caribou harvests does not mean that caribou is no longer culturally important to those communities” (BLM 2023a p. M-17). Caribou vary their use of habitats widely over time showing strong fidelity to certain seasonal ranges, such as their calving grounds (Cameron et al. 2020), but less fidelity to other seasonal ranges, with periodic use, abandonment, and later reuse. As herd size changes caribou may expand or contract their range use accordingly (e.g., Taillon et al. 2012, Virgl et al. 2017). Areas used heavily when populations are high may be temporarily abandoned at lower population sizes and then reused when the herd increases again. In light of this, it is important that BLM consider historic patterns of caribou space use and subsistence harvest rather than only looking at recent patterns as the herd decreases in size. Caribou are an important resource for all the communities represented on the Working Group and should be considered as such in the FSEIS.

Concerns and issues needing to be addressed in the DSEIS

While the DSEIS benefitted from the improvements described above, there remain a variety of areas in which improvement is needed in the DSEIS to address concerns and issues. It is very important for BLM to consider the full cumulative impacts both of a potential Ambler Road and the additional access roads and mines that it would support. The DSEIS acknowledges that "habitat loss and alteration due to the reasonably foreseeable development of the [Ambler Mining] District could equal or exceed that from the road itself…and exponentially increase fragmentation of migratory and winter range" (BLM 2023a p. 3-147). Any such impacts to the WACH and its availability for subsistence harvest and other uses is of great concern to the Working Group. We agree with the DSEIS statement that "subsistence-based communities are vulnerable to even small changes in resource distribution as these changes may have larger impacts on residents' ability to access hunting grounds" (BLM 2023a p. 3-211) and that "while certain local changes to resource movement or distribution may seem minimal from a biological perspective (i.e., not affecting overall population levels, body condition, herd ranges, etc.), local changes can have much larger impacts on resource availability to local hunters" (BLM 2023a p. 3-218). These observations reinforce why even relatively small impacts on caribou and their distribution are of great concern. Unfortunately, the impacts of the proposed project, especially with the cumulative mining development it would facilitate, are relatively large and may greatly affect both caribou and their users. This is of grave concern and reinforces the importance of BLM selecting the No Action Alternative.

The updated text description of the Ambler Mining District and Land Status in the DSEIS Introduction describes seven communities as harvesting resources from lands and waters within the Ambler Mining District (BLM 2023a p. 1-4). As we note above, around 40 communities rely on the WACH, which uses lands within the District and elsewhere along the proposed road corridor and thus would be affected by any permitted road. While this is acknowledged elsewhere in the DSEIS, it is important that it also be made clear here at the outset of the Introduction to make clear the broader impacts of development in the District.

The Working Group acknowledges the importance of increasing communications access, decreasing costs of fuel and other goods, and providing additional jobs for communities in proximity to the proposed road. However, we question whether the benefits of the proposed road will outweigh the expected costs, especially as the DSEIS itself acknowledges that recent studies of road-connected communities show substantially lower subsistence harvest than those not connected by roads and conclude that loss to subsistence would likely <u>not</u> be offset by an increase in income (BLM 2023a p. M-40). Such findings reinforce our opposition to the road.

The DSEIS states that the WACH has shown the same general movement patterns for the last 50 years (BLM 2023a p. 3-127). It is important to note recent patterns of altered timing and location of fall migration and winter use with fewer animals crossing the Kobuk River and more wintering north of the Brooks Range mountains (Joly and Cameron 2022). These changing patterns have impacted subsistence availability for many communities that formerly received large numbers of caribou and have altered scientific practices, leading to helicopter-based captures in spring for collaring caribou, rather than boat-based captures at Onion Portage. Such recent patterns may be indicative of future trends under climate change and should be clearly

described in the FSEIS beyond simply noting increased use of northern wintering areas since the FEIS was published.

When describing the influence of insects on caribou behavior, the DSEIS claims that during the insect harassment season "avoidance of insects becomes the only factor that influences habitat selection during conditions conducive to insect activity" (BLM 2023a p.3-128). This statement is not in alignment with the best-available scientific information. While insect activity does have a strong influence on caribou behavior and habitat selection, it is not the only factor that influences these processes. Recent work with the Central Arctic Herd found that adult female caribou avoid infrastructure more than expected by chance and that this avoidance continues during the mosquito harassment season, albeit at shorter distances than during calving or post-calving (Johnson et al. 2020). Similarly, Severson et al. (in press) found that while resource selection and probability of road crossing during insect harassment was strongly influenced by the level of insect harassment, they also were affected by traffic volume and distance to road. Clarification of this point is crucial as the current DSEIS text may erroneously imply that the proposed roads would have no effect on caribou during insect harassment. While most of the WACH interacts with the proposed road corridor in other seasons, it is nonetheless important to clarify that infrastructure and human activity can affect caribou movement, distribution, and habitat selection even when other environmental factors are also having a strong impact. The FSEIS needs to be updated to better conform with this best available scientific information.

The DSEIS states that "the reduction of lichen-dominated vegetation types would result in disproportionately greater impacts on the WAH than reduction of other vegetation types" (BLM 2023a p. 3-133). We agree that winter food availability is important for caribou and share concerns about potential of the proposed road to reduce lichen availability for overwintering caribou. We appreciate that the mean percentage lichen cover was calculated for each alternative but were surprised that no mapping was done of this information. It would be helpful to see maps of lichen cover along each route at a meaningful scale that allows evaluation of whether alteration in the proposed route would avoid areas of high potential winter food availability for caribou. We request that such mapping be included in the FSEIS.

We agree with the DSEIS' observation that even relatively low traffic levels, compared to some prior studies, can have detrimental effects on caribou movement patterns. Indeed, recent work by Prichard et al. (2022) and Severson et al. (in press) found behavioral responses of caribou even at low traffic levels while Smith and Johnson (2023) found that caribou rarely crossed winter roads with any level of traffic. These citations should be incorporated into the FSEIS (e.g., at p.3-136). Indigenous Knowledge and Western scientific information agree that impacts to caribou are expected from a road, reinforcing the Working Group's request that BLM select the No Action Alternative.

Our elders and hunters have shared repeatedly that the Arctic is changing in ways that affect the caribou and those who rely upon them. Climate change is of great concern for the future of the WACH, especially to the extent that it alters migration behavior and increases stresses like rain on snow events and winter icing, which can affect food availability for caribou. We agree with the DSEIS' statement that "habitat fragmentation or displacement resulting from development may limit the ability of caribou to withstand and adapt to climate change" (BLM 2023a p.3-149).

With the herd in decline and no clear signs of climate change being sufficiently addressed nationally or globally, this is a great concern for the WACH. Selecting the No Action Alternative would be a step by BLM to avoid adding pressures of fragmentation and displacement to the WACH and its users.

According to the DSEIS, if the road is allowed to proceed it could be completed before any associated mines have their own approvals (BLM 2023a p. H-9). Allowing this runs the risk of a road being completed, with all of its associated detrimental impacts described in the DSEIS, but without a guarantee that mine development will be permitted or completed. Instead, we request that it be specified that the road cannot be constructed until at least one mine also has its approval to better ensure that at least some financial benefits accompany the costs of the road. Again, this is a secondary choice and our primary recommendation is to disallow both the road and mines by selecting the No Action Alternative.

Reclamation of the proposed road

Another area of concern surrounds reclamation of the proposed road. While AIDEA proposes to remove the road and supporting infrastructure and reclaim and restore the habitat within the ROW, they have not provided a reclamation plan and do not intend to do so until close to the proposed road closure about 50 years from now (BLM 2023a p. 1-3). This raises serious questions about whether AIDEA will actually be able to conduct meaningful reclamation and whether the standards they propose will be sufficient to actually repair the harms they have done. By the time AIDEA proposes a mitigation plan they will already have reaped the financial benefits of decades of mining, leaving a diminished ability to meaningfully address deficiencies in the plan they eventually propose. While we agree that it is important to allow flexibility for plan improvements with new scientific studies and technological advances in restoration approaches, we also request that before a ROW is approved a detailed reclamation plan be developed and made available for public comment that demonstrates that a technically feasible reclamation plan exists, that it is in alignment with the best available scientific information and Indigenous Knowledge about environmental impacts of a potential road and mining and their remediation. We also request that AIDEA be required to provide bonding before beginning construction to fund reclamation and restoration (e.g., BLM 2023a p. 2-13). This must be sufficient to fully support the proposed measures, based on other similar projects and protected from inflation. Until these requirements are met, no ROW should be issued. Additional details on these and other mitigation measures pertaining to reclamation are included in the next section.

A major concern with the proposed reclamation is whether it will happen. The DSEIS states that,

> “mining companies may request, from the underlying landowner(s), that some segments of the road within the District stay open and revert to mining company control to allow their continued access from the Dahl Creek airport or mining company airstrips to the mines for required water treatment and monitoring activities, to be conducted potentially in perpetuity” (BLM 2023a p.2-12).

This indicates that not all roads may be removed from the program area and that some roads, aircraft activity, and traffic are likely to continue even after mining ceased. That these activities may continue “in perpetuity” suggests such roads and airstrips may never be removed and recovered, leading to continuing impacts to caribou, subsistence, and other wildlife and habitats. While the DSEIS states that such requests would require separate environmental approvals, their possibility nonetheless raises grave concerns about whether impacts will truly be removed in the future.

Related to the above, we are concerned about the effect of multiple jurisdictions on the likelihood of the road remaining closed to public access. The DSEIS indicates that owners of land crossed by the road could each decide what users to authorize, with AIDEA having to allow access (BLM 2023a p. H-27). In the same appendix, the DSEIS notes that the Alaska Department of Transportation & Public Facilities produced a report on potential infrastructure that states that if the Ambler Road is developed, nearby communities “could potentially connect to the National Highway System on a permit basis” (BLM 2023a p. H-33). The DSEIS acknowledges that “once communities are connected to the road for commercial purposes, it is unlikely that those commercial uses would be discontinued” (BLM 2023a p. H-33). This raises the question of whether the State of Alaska intends the road to be removed after mining or instead intends to provide long-term connections for communities to the road system. It also raises questions about what kind of access might be allowed for state-owned lands that could affect access and use across the road system.

Experience at the Red Dog Road also raises questions about whether AIDEA truly intends to remove the Ambler Road after its 50-year ROW ends. The DSEIS points out that a 2017 document from AIDEA describes potential uses of the Red Dog Road after current mining ends, including additional exploration and development, research, tourism, or Arctic shipping (BLM 2023a p.H-33). While it is unclear how directly this would transfer to future proposals for use of an Ambler Road by AIDEA, it raises the possibility that they will propose other uses of the road in the future, rather than seeking to reclaim and restore it.

Furthermore, the DSEIS states that AIDEA proposes to place fiberoptic communications lines for internet and phone service along the road (BLM 2023a p. H-35). It states that it is likely communities may want to connect to these lines to enhance their internet and phone access. However, the DSEIS fails to link this likelihood to a corresponding decrease in the likelihood of removal of these internet and phone lines after the road ROW ends. It seems likely that providing a public good like internet and phone access will be deemed important enough to justify retaining infrastructure instead of pursuing full reclamation. The FSEIS should acknowledge and fully analyze this possibility.

The DSEIS also acknowledges that reduction or abandonment of wildlife habitat, subsistence use areas, and cultural resources and uses are considered irreversible and cannot be fully recovered (BLM 2023a p. 3-252). Similarly, it is concluded that changes to subsistence uses would be occur with high likelihood or a long or permanent duration. This is a serious concern that questions whether reclamation is really possible. Even if reclamation occurs, the DSEIS acknowledges that linear features would remain and their use by predators such as wolves could continue to lead to higher predation rates in the vicinity of the Ambler Road corridor for decades

after the road is closed (BLM 2023a p. 3-139). In a time when residents of northwestern Alaska are being asked to reduce their subsistence harvest of caribou, the potential for increased predation facilitated by the project activities, even after removal, is of great concern. According to the DSEIS this is something that may happen even if reclamation occurs, reinforcing the importance of BLM selecting the No Action Alternative.

Other persistent impacts are acknowledged by the DSEIS that would continue beyond mine closure. For example, fencing would be placed around closed mines to limit wildlife access and the mining pit would be filled with water to create a pit lake (BLM 2023a p. H-18). Such actions would lead to enduring habitat loss, rather than true reclamation to pre-mining conditions. The DSEIS also notes that "if not economical to remove or sell at closure, mobile or stationary equipment would be stripped of electronics and batteries, and fluids drained and placed in an approved landfill for final disposal" (BLM 2023a p. H-18). The lack of an economic incentive to remove all materials taken to a site for road development or mining should not be considered of sufficient importance to justify their lack of removal. Instead, BLM should require that all materials brought into a site within the project area or associated mines be removed after the project is completed in support of more full restoration and reclamation.

Proposed mitigation measures

The DSEIS states that AIDEA proposes to adopt the wildlife interaction protocols used on the Delong Mountain Transportation System (Red Dog Road) for the Ambler Road (BLM 2023a p. 2-9, 2-18). The Working Group is concerned about the effectiveness of these proposed protocols. Both scientific studies (Wilson et al. 2016) and subsequent visualizations of movements by collared WACH caribou near the Red Dog Road shared by the National Park Service at the Working Group's annual meetings demonstrate altered movement behavior. Some animals delay crossing while others fail to cross the road entirely despite a wildlife interaction protocol and mitigation measures such as stopping vehicles while caribou are nearby. It seems likely that such reactions would similarly be observed around the Ambler Road if a similar protocol is used or be even greater based on differences in topography and vegetation in the Ambler region. We urge BLM to heed the knowledge shared by Alaska Native communities that raises concerns about the differences in conditions between the two areas and their effects on caribou (e.g., BLM 2023a p. M-19). We also note that the proposed Ambler Road is about four times as long as the Red Dog Road, which may hinder the ability of caribou to parallel the road and eventually pass around it without crossing, as is sometimes observed with the Red Dog Road. Together, this potential for similar or greater impacts with the Ambler Road is of great concern for increasing impacts on the WACH and its users and make reliance on Red Dog mitigation measures questionable. This aligns with the DSEIS' own statement that the measures used for the Red Dog Road "are not very effective, and therefore behavioral disturbance, and displacement should be anticipated" if they are applied to the Ambler Road (BLM 2023a p. 3-138). The lack of a scientifically validated means of mitigating impacts to caribou reinforces the importance of BLM selecting the No Action Alternative to protect subsistence, caribou, and the habitat they rely upon.

Appendix N in the DSEIS describes several potential mitigation measures that could be adopted for the Ambler Road. While we urge BLM to select the No Action Alternative, making these

mitigation measures unnecessary, if the project does proceed many of these proposed measures may be beneficial for caribou, habitat, and subsistence and should be strengthened and applied as requirements. Specific comments on proposed measures are included below:

1.1 General Measures

Potential Measure 4 states that AIDEA must notify the BLM Authorized Officer in writing 30 days before any temporary closure and 90 days before permanent closure and reclamation. This is reasonable for planned closures and will help ensure BLM oversight over closure activities and enforcement. However, as currently phrased the language of this measure could conflict with the ability of AIDEA to perform emergency closures, such as to shut down operations when caribou are present to reduce the likelihood of disturbance. It is unlikely this can be planned with a 30-day warning. The measure should be adopted with altered language that specifies that it applies to planned closures but is not intended to prevent emergency closures for safety reasons or to avoid disturbance to wildlife, subsistence, or other processes.

Potential Measure 7 states that AIDEA would not block or obstruct ingress or egress along existing roads, winter trails, or subsistence trails. Given the extreme importance of subsistence to communities across the state of Alaska, this is an important mitigation measure that should be adopted. In light of this importance, the exception allowing the Authorized Officer to approve blocking of trails or roads should be removed.

1.2 Reporting Requirements

Potential Measure 1 requires AIDEA to submit documentation of consultation with affected subsistence communities. It is important that such consultation occurs and requiring that documentation of this consultation be shared with BLM will allow BLM and other landowners oversight to ensure consultation is occurring. In addition to requiring that issues raised during consultation be reported, AIDEA should also be required to include a summary of how they intend to address the issues reported. This will improve the accountability of AIDEA to the concerns of subsistence communities. We also urge BLM to include a broad definition of what counts as “affected subsistence communities.” As is noted above and in the DSEIS, impacts on caribou at the project location will have consequences for communities across the range of the WACH who rely on caribou for subsistence and other uses. It should be specified that all of these communities have the opportunity to engage in consultation if desired by the community. With the modifications described, this important mitigation measure should be adopted in the FSEIS.

1.4 General Completion of Use (Restoration/Reclamation)

Potential Measure 1 requires removal of all improvements or equipment upon completion of use. This is important and should be adopted, however the exception to leave items approved by the Authorized Officer should be removed. As described above, leaving any items on the landscape is a concern and should not be permitted so that habitat can be

restored to the maximum extent possible and disturbance of wildlife and subsistence users minimized. In addition, the standard for the condition of restoration currently is described as “to a condition that is approved in writing by the Authorized Officer” (BLM 2023a p. N-6). This is too vague to provide reassurance that restoration will be adequate. The statement of effectiveness for this mitigation measure acknowledges that “The plan for what is being removed and how it would be removed would be important in ensuring the effectiveness of this stipulation” (BLM 2023a p. N-7). This reinforces why a reclamation plan needs to be clearly defined and reviewed by appropriate parties prior to approval of the ROW. This review should be conducted by agency staff, independent scientists, and Indigenous Knowledge holders from subsistence communities that will be affected by the project. The plan should also include a procedure for further review and updates over time as conditions change and technology improves.

Potential Measure 2 involves removing fill at the completion of the project and restoring the original contours of the landscape to return the land to its original condition for fish and wildlife. We agree that this is a worthy goal and should be adopted, though we also concur with the DSEIS’ statement that this is likely to be only partially effective. The lack of a clear ability to restore arctic environments reinforces the importance of BLM selecting the No Action Alternative.

Potential Measure 4 is related to our recommendations for measure 1 and requires AIDEA to submit a closure and reclamation plan for approval before construction is authorized, along with updates every 5 years and at key project stages. This is very important and should be adopted. It should also be strengthened to incorporate the independent review described above as part of the approval process.

The DSEIS summary of effectiveness for this section focuses primarily on the effectiveness of the proposed measures in keeping BLM informed about AIDEA’s plans. This is important but insufficient. To increase the likelihood of effective restoration, it is important that the measures taken by AIDEA have a reasonable chance of success. Review and approval of the plan by qualified subsistence users, scientists, and agency staff, in addition to the Authorized Officer, will increase the likelihood of restoration success.

2 Alternatives

Potential Measure 2 requires AIDEA to provide financial guarantees in the form of bonds or other such instruments to cover the full cost of construction, operation, maintenance, and termination/reclamation. This is a very important metric that should be required to ensure that project phases, especially termination and reclamation, have the funding needed to succeed. However, this will only be effective to the extent that bond amounts are sufficient to cover the expected expenses. This requirement should be updated to specify amounts necessary, or a process to determine those amounts, based on similar projects in similar environments. Amounts required should account for expected inflation and should include some margin for error to ensure future costs are not underestimated.

3.2.6 Acoustical Environment (Noise)

Potential Measure 1 requires AIDEA to provide a Noise Management Plan for land manager approval that outlines noise reduction methods and features to be used. This is an important measure for reducing environmental impacts, such as disruption of caribou. It should be adopted with the addition that the proposed plan be reviewed and approved by an expert group comprising agency staff, independent scientists, and subsistence users from the communities affected by the project.

3.3.2 Wildlife – General

Potential Measure 1 requires development and implementation of a Comprehensive Wildlife Interaction and Avoidance Plan "using the best available science and Indigenous Knowledge" (BLM 2023a p. N-30). This is an important measure that should be adopted. We were especially pleased to see a broader group specified for development of the plan prior to approval by the Authorized Officer. We urge that this list be expanded to also include independent scientists with relevant knowledge of the species for which policies are being developed and that the Subsistence Advisory Committee mentioned here include representatives from across the communities affected by the project. We also appreciated the stipulation for reviewing the plan at least every 5 years. As conditions continue to change, observations are gathered from subsistence hunters and others out on the land, and new scientific information is acquired, it is important that wildlife plans be updated.

Potential Measure 2 is similar to measure 1 but focused around a Comprehensive Fish and Wildlife Monitoring Plan. We are supportive of this measure, with the improvements mentioned for measure 1. Furthermore, the mitigation plan needs to not just focus on habitat but also on other key wildlife processes such as movement and resource selection. The plan also should specify funding mechanisms to support such monitoring. The recent Arctic National Wildlife Refuge Coastal Plain Leasing DSEIS proposed creation of an Adaptive Management Plan with funding given by the project proponent to the authorized agencies who would be responsible for carrying out or hiring others to conduct the monitoring (BLM 2023b). A similar plan would be useful for the Ambler Road with monitoring funded by AIDEA, with funding provided to the Alaska Department of Fish & Game and National Park Service who would be responsible for conducting monitoring or hiring other suitable groups to conduct monitoring. Potential Measure 2 also specifies that the monitoring plan will include a point of contact for communities and managers seeking and sharing information on fish and wildlife conditions in areas affected by the project. We request that this list of contacts include representatives of all caribou study communities and that the Working Group also be included in these communications.

Potential Measure 7 requires AIDEA to work with land managers and wildlife agencies to identify construction timing windows to protect wildlife. This may be beneficial but further information is needed about what kind of requirements will be included here and what factors will be considered to identify when timing windows will or will not occur.

We also request that the group that identifies these timing windows be expanded to include subsistence users from communities affected by the project, including across the full WACH range, and independent scientists with relevant knowledge.

We affirm the DSEIS' recognition that even if all the proposed wildlife mitigation measures were implemented, these would only be "partially effective at reducing impacts to wildlife as a result of construction and operation of the Ambler Road. It is not possible to fully avoid or mitigate the impacts of the road to wildlife" (BLM 2023a p. N-32). This again reinforces the importance of BLM selecting the No Action Alternative in the FSEIS.

3.3.5 Mammals

Potential Measure 1 states that during calving and major migration periods AIDEA activities on BLM-managed lands may be restricted by the Authorized Officer with written notice. While restricting activities to protect sensitive wildlife is important, it is likely to be minimally effective for caribou if it only is applied to BLM-managed lands since much of the area used by caribou lies outside these areas. The Working Group recognizes that BLM only has authority over the lands under its purview but strongly urges BLM to work with other landowners to apply the requirements of this and the other proposed mitigation measures across the entire Ambler Road area. We also note that currently the potential to restrict activities under this mitigation measure is restricted to migration and calving periods. As the DSEIS makes clear, winter is also an important period for caribou and is a season where there may be substantial overlap between caribou winter range and the proposed road. This measure should be rephrased to apply whenever caribou are present. Finally, greater specificity is needed for this mitigation measure to clarify how the Authorized Officer will determine if cessation of activities is needed and how long this should last. It should also be clarified that written notice can include electronic communication. Such rapid measures may be needed to allow rapid response to caribou movements or other changing conditions.

Potential Measure 2 gives wildlife the right of way on the Ambler Road and requires vehicles to slow down or stop to permit wildlife crossing of the road. It also allows the Authorized Officer to require temporary cessation of traffic during known caribou migration. This is very important and should be adopted. However, additional description is needed about how caribou will be monitored and at what spatial and temporal scales, as well as what the thresholds will be for group size and proximity to trigger road closures and for traffic to be restarted. Indigenous Knowledge and scientific observations indicate that caribou do not have to be next to a road to be affected by it. Rather, sounds, smells, and social cues may all affect behavioral responses, allowing them to occur at far greater distances than suggested by visual lines of sight. As is noted above for measure 1, if caribou encounter the road at other seasons (e.g., winter) it is important that this measure also be applied to allow temporary stopping of traffic. We appreciate the requirement to share data on road closures with state and federal agencies and ask that it also be made available to affected communities, scientists, and the public.

Potential Measure 8 prohibits hunting, fishing, shooting, and trapping by all AIDEA agents or employees, along with any contractors, agents, or employees of entities allowed commercial use of the road. This is incredibly important to adopt as it has been stated that this will occur throughout the Ambler EIS process. Potential for increased hunting access and competition between hunters is something the Working Group has consistently raised in our scoping and DEIS comments as a concern. This measure should help reduce these concerns, though potential for illegal trespass and hunting persists, as acknowledged by the DSEIS.

3.4.7 Subsistence Uses and Resources

Potential Measure 2 requires AIDEA to "consult directly and regularly with affected subsistence communities, and ensure that affected communities are represented on the subsistence working group" (BLM 2023a p. N-47). Ensuring avenues for AIDEA to hear from and respond to knowledge and concerns of affected communities is crucial and should be adopted in the FSEIS. We again emphasize that this group should include representatives of all caribou study communities, since the road and associated mines may affect caribou upon which they rely. We also request that the Working Group be kept apprised of consultation and communication opportunities.

Potential Measure 4 includes a suite of activities that AIDEA will undertake to reduce detrimental impacts to subsistence. While we agree with the DSEIS that "project activities, particularly during the construction process, would affect subsistence activities despite these measures" (BLM 2023a p. N-49) we nonetheless recommend their adoption as a step towards reducing subsistence impacts.

Conclusion

We appreciate the opportunity to provide these comments on the Ambler Road DSEIS. Throughout the DSEIS there are repeated warnings that impacts to caribou, their habitat, and the people that rely upon them are expected if the road is allowed to proceed. It is also clear that these impacts may have population-level consequences and that they may persist for long periods of time or in perpetuity. We cannot overstate how crucial it is that BLM heed these warnings. In light of all the concerns and issues raised above we again reiterate the strong request that BLM select the No Action Alternative and not proceed with permitting the Ambler Road. Thank you for your consideration.

On behalf of the Working Group,

Vern Cleveland, Sr., Chair

cc:
Steve Cohn, Alaska State Director, Bureau of Land Management
Western Arctic Caribou Herd Working Group Members & Alternates

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2) D1 Land Withdrawal

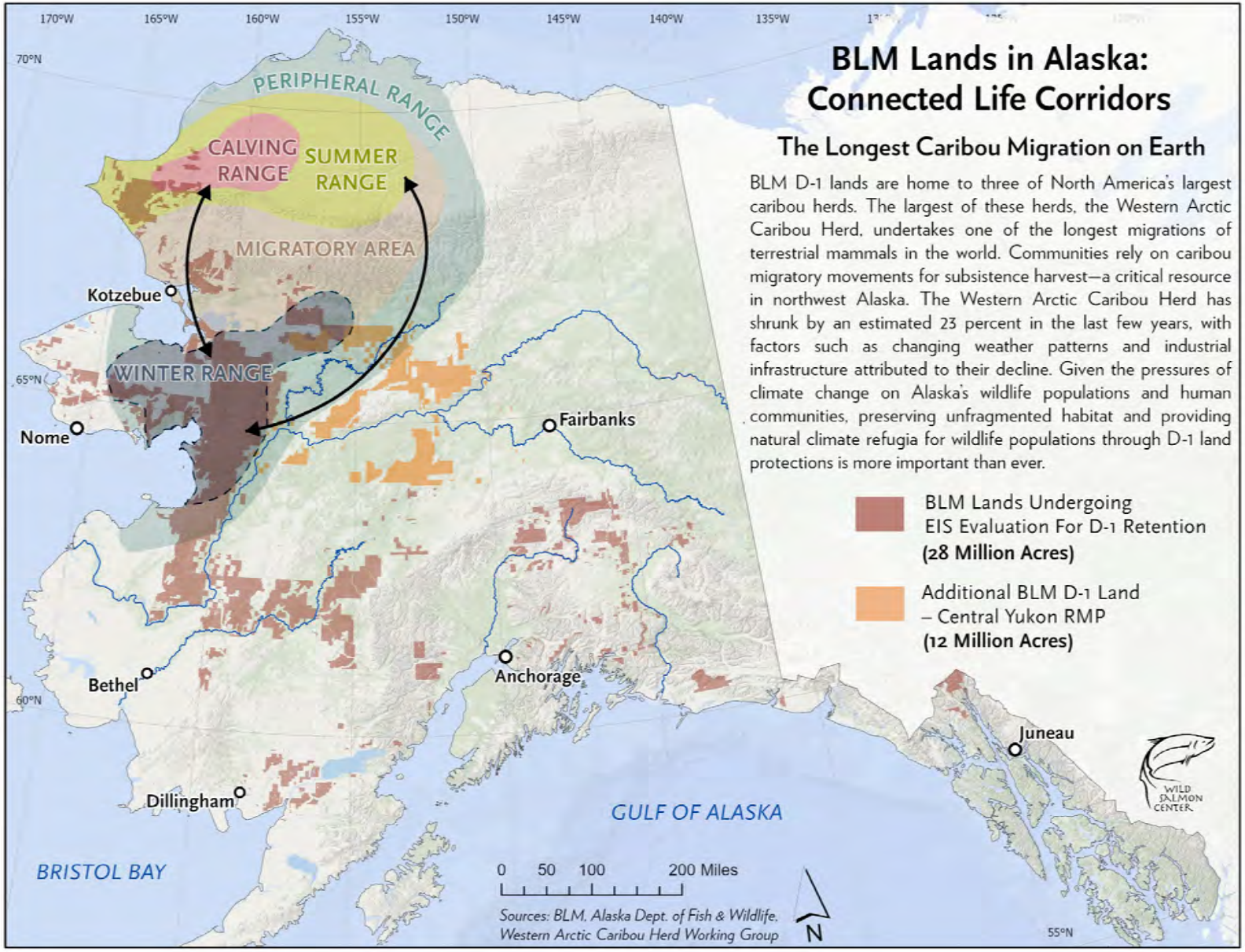
The Alaska Native Claims Settlement Act (ANCSA) withdrew nearly 50 million acres of land from mineral and energy development to allow protection for the public interest. These, “D-1 lands” are managed by the Bureau of Land Management (BLM). In August 2022, BLM began a process to consider the effects of opening 28 million acres of protected D-1 lands for extractive industrial development. They want to understand how removing current D-1 protections could affect communities, subsistence, and fish and wildlife.

As the map on the next page shows, **the lands being considered (shown in darker brown) overlap a substantial portion of the WACH annual range, including portions of the calving grounds, summer range, insect relief habitat, migratory areas, and winter range**.

BLM is expected to release a Draft Environmental Impact Statement (EIS) in late December or January, starting a 60-day comment period. This provides an opportunity for the Working Group to comment about the effects of development on caribou and how the D-1 lands support a healthy herd, subsistence harvest opportunities, and other uses.

BLM acknowledged in the Ambler Draft SEIS pointed out that if the D-1 lands are opened for development it could lead to “changes in subsistence management, including the loss of Federal subsistence priority on those lands for local residents” (Ambler DSEIS, p. M-39).

It would be helpful to vote today on whether the Working Group wants to submit comments on the D-1 Land Withdrawal EIS and whether we want to ask BLM to continue to protect D-1 lands for caribou, subsistence, and other uses.


BLM Lands in Alaska:
Connected Life Corridors
The Longest Caribou Migration on Earth
BLM D-1 lands are home to three of North America's largest caribou herds. The largest of these herds, the Western Arctic Caribou Herd, undertakes one of the longest migrations of terrestrial mammals in the world. Communities rely on caribou migratory movements for subsistence harvest—a critical resource in northwest Alaska. The Western Arctic Caribou Herd has shrunk by an estimated 23 percent in the last few years, with factors such as changing weather patterns and industrial infrastructure attributed to their decline. Given the pressures of climate change on Alaska's wildlife populations and human communities, preserving unfragmented habitat and providing natural climate refugia for wildlife populations through D-1 land protections is more important than ever.
BLM Lands Undergoing EIS Evaluation For D-1 Retention (28 Million Acres)
Additional BLM D-1 Land – Central Yukon RMP (12 Million Acres)
PERIPHERAL RANGE
CALVING RANGE
SUMMER RANGE
MIGRATORY AREA
WINTER RANGE
Kotzebue
Nome
Fairbanks
Bethel
Anchorage
Dillingham
Juneau
BRISTOL BAY
GULF OF ALASKA
0 50 100 200 Miles
N
Sources: BLM, Alaska Dept. of Fish & Wildlife, Western Arctic Caribou Herd Working Group
WILD SALMON CENTER
170°W
165°W
160°W
155°W
150°W
145°W
140°W
135°W
70°N
65°N
60°N
55°N

3) NPR-A Special Areas Rulemaking

The National Petroleum Reserve – Alaska (NPR-A) contains a large amount of important habitat for the WACH, including the majority of its calving grounds. Management of land use and development activities within the NPR-A is governed by an Integrated Activity Plan (IAP) that protects some areas while making others available for oil and gas leasing and development. The strongest protections for wildlife, habitat, and subsistence occur within designated "Special Areas," including the Utukok River Uplands Special Area that protects much of the WACH calving grounds and the Teshekpuk Lake Special Area that protects much of the calving grounds for the Teshekpuk Caribou Herd.

At our last year's annual meeting, the Working Group voted to draft comments to the Department of the Interior requesting permanent protection of caribou calving grounds in the NPR-A and raising of the northern boundary of the Utukok River Uplands Special Area to fully protect the WACH calving grounds.

On September 8, 2023 the Bureau of Land Management (BLM) asked for comments on a proposed new rule to govern management of surface resources, like caribou, and Special Areas in the NPR-A. This provided an excellent opportunity for elevating the concerns and requests of the Working Group. After multiple extensions, comments were due December 7, 2023. A final decision is expected this spring.

The comments submitted by the Working Group are included on the following pages. They review the proposed rule and offer affirmations of points that enhance protection of caribou and subsistence while raising concerns and making requests to better strengthen protections. This includes the request to raise the northern boundary of calving area protections for the WACH.

Western Arctic Caribou Herd Working Group

Goal: To work together to ensure the long-term conservation of the Western Arctic Caribou Herd and the ecosystem on which it depends, to maintain traditional and other uses for the benefit of all people now and in the future.

Chair: Vern Cleveland, Sr. Vice-Chair: Cyrus Harris

P.O. Box 175, Nome, AK 99762

November 3, 2023

Tracy Stone-Manning
U.S. Department of the Interior, Director (630)
Bureau of Land Management
1849 C St. NW, Room 5646
Washington, DC 20240

Re: Western Arctic Caribou Herd Working Group comments on RIN 1004-AE95: Management and Protection of the National Petroleum Reserve in Alaska

Dear Director Stone-Manning,

On behalf of the Western Arctic Caribou Herd Working Group (Working Group), the following comments are submitted to the Bureau of Land Management (BLM) regarding the proposed rule for Management and Protection of the National Petroleum Reserve-Alaska (NPR-A), RIN 1004-AE95.

The Working Group and its role in public processes

The Working Group is a permanent organization of diverse stakeholders that work cooperatively with each other and state, federal and regional resource management agencies with a goal "*to ensure the long-term conservation of the Western Arctic Caribou Herd and the ecosystem on which it depends, to maintain traditional and other uses for the benefit of all people now and in the future.*"

The Western Arctic Caribou Herd (WACH) is one of the largest caribou herds in Alaska and has provided an important subsistence resource and contributed to the cultural heritage of northwestern Alaska residents for thousands of years. The caribou of the WACH also provide opportunities for people from outside the range of the herd to hunt and experience caribou in vast Arctic landscapes, and serve as an important source of income for commercial operators that provide services to visiting users. Furthermore, the WACH is a critical component of the larger western Arctic ecosystem, influencing natural processes and providing resources for many mammals, birds, and plants.

In recognition of these varied values, the Working Group consists of subsistence users representing over 40 communities within the range of the herd, other Alaska hunters, guides, transporters, conservationists, and reindeer herders. Since its formation in 1997, the Working Group has submitted numerous advisory recommendations to government agencies, regulatory boards, and other bodies to support decisions that will ensure the long-term conservation of the WACH, its habitat, and its use.

Past Working Group engagement on the NPR-A

The Working Group knows the WACH is a vital and irreplaceable wildlife resource in northwestern Alaska and thus every effort must be made to protect and conserve the herd and its habitats in perpetuity. The NPR-A plays a necessary role in maintaining caribou as it contains critical seasonal ranges for both the WACH and the Teshekpuk Caribou Herd (TCH), both of which are heavily relied upon for subsistence use and other uses by Working Group members and those we represent. For this reason, management of the NPR-A has long been of great interest to the Working Group. As residents of Alaska, we recognize the value of responsible development but believe this should not come at the cost of failing to protect our important natural resources like caribou and their habitats.

In recognition of this, the Working Group provided detailed comments during the development of the 2013 and 2020 NPR-A Integrated Activity Plans (IAPs), calling on BLM to provide permanent protection for all caribou migration corridors and all seasonal core habitats for both the WACH and TCH. Habitat protection is essential to maintain caribou herds and is a driving mission of the Working Group. In support of this goal, the Working Group strongly advocated for the alternative that BLM ultimately selected in the 2013 IAP.

The Working Group reiterated its position supporting caribou protection in our comments on the 2019 draft Environmental Impact Statement (EIS) for the revised IAP. We requested that BLM adopt and strengthen Alternative A to better protect important habitat for both the WACH and TCH. Unfortunately, this was not reflected in BLM's final EIS. We greatly appreciate that the 2022 IAP Record of Decision changed course, returning to stronger protections for caribou and other species. Nonetheless, there remain areas for improvement.

Strengths of the proposed rule

We appreciate the efforts of the Department of the Interior (DOI) and BLM to update and standardize the rules managing the NPR-A, believing that this offers an important opportunity to enhance protections for caribou, their habitat, and the people who rely upon them. There are many ways in which the proposed rule offers improvements for management of the NPR-A that will enhance protection of caribou, their environment, and their users. **We continue to support permanent protection of caribou calving areas, insect relief habitat and migration corridors within the NPR-A.** Recognizing that permanent protection ultimately lies outside the authority of DOI, we support the proposed rule, with the improvements listed below, as a means of promoting stronger, lasting protections as a step toward more permanent protection.

We appreciate the emphasis on maximum protection of important subsistence species, along with the recognition that while this is especially applied in identified Special Areas, the Secretary of the Interior's responsibility to minimize ecological disturbances applies throughout the Reserve. Thank you for making explicit mention of the Working Group in the Background section of the proposed rule, along with our

recent designation of the herd's Preservative Declining status and our recommendation for strengthened protection of the WACH calving grounds. We hope BLM will heed these recommendations.

We agree with the proposed rule's recognition that "protection of traditional lands, waters, and the wild resources that inhabit them is essential to maintaining cultural traditions, traditional knowledge, and identity" for Iñupiat (p.62030-62031) and affirm that this also applies to other Alaska Native peoples. We appreciate that management of Special Areas in the proposed rule is specified to be both for protecting fish, wildlife, and their habitat, and also "associated subsistence use of such areas by rural residents," with appropriate access to Special Areas provided for subsistence purposes (§2361.50). We affirm that it is important to balance both the protection of species and access by subsistence users.

We also appreciate the requirement that BLM must rely on the best available scientific information and Indigenous Knowledge, along with the best available information concerning subsistence uses and resources within the NPR-A when making decisions about Special Area designation and amendment (§2361.30(a)(3)). The Working Group relies strongly on the joint wisdom found in Indigenous Knowledge and Western scientific ways of knowing and seeks to use both to support conservation and management of the WACH. We have repeatedly requested in comments that both ways of knowing be used to inform decisions and appreciate inclusion of this requirement in the proposed rule.

In alignment with our support for permanent protection of important caribou habitat, the Working Group strongly supports the BLM proposal to base decisions about designating lands as Special Areas solely on the presence of significant resource values, regardless of what other existing measures may or may not exist to protect those values (§2361.30(a)(6)). It is crucial that caribou, their habitat, and their use be conserved across their range in response to their many seasonal habitats and varied movements over time. We see this provision in the proposed rule as an important step towards these protections.

Furthermore, the proposals for protection of surface resources described in §2361.10(b) provide important mechanisms for conserving caribou and their habitat. In particular, the requirements to document consideration of reasonably foreseeable and significantly adverse effects, mitigation measures for those effects, inclusion of cumulative impacts and those occurring separated in time and space from the proposed actions, and consideration and accounting for uncertainty regarding potential effects offer critical clarity about the scope of considerations needed in future decisions. These are the sorts of topics we have raised in previous comments, and we appreciate BLM's proactive approach to addressing them. For example, we have often stressed that because of the wide-ranging nature of caribou, impacts on the WACH that occur far from a proposed activity may nonetheless have a cumulative effect with the proposed activity on the overall health of the herd. It is important that management takes a holistic view of the potential impacts to species, habitats, and people and the proposed rule presents a useful step forward in this regard. We especially appreciate the special recognition of accounting for and mitigating adverse effects on surface resources that support subsistence uses and needs (§2361.10(b)(2)).

The Working Group affirms the proposed rule's specification of a process for recommending new Special Areas, values, and measures to assure maximum protection of those places and values. We agree that it

is important to recognize and be responsive to changing conditions. Our elders and hunters have shared repeatedly that the Arctic is changing in ways that affect the caribou and those who rely upon them. We appreciate the recognition in the proposed rule of the impacts of climate change on the environment, wildlife, and human inhabitants of the NPR-A. We also appreciate the explicit processes laid out in the proposed rule to review and update NPR-A management and designation of Special Areas at least once every five years (§2361.30(a)(1)) in an attempt to be responsive to changing conditions.

One topic we regularly raise in our comments is the importance of making sufficient effort and providing adequate time for meaningful engagement with all interested parties, especially those living in remote areas. Due to the wide range of the WACH and the variety of users that rely on the herd, actions and decisions taken in one part of the herd range affect all communities across the region and those beyond. As is stated above, the Working Group includes representatives of stakeholder groups from across the state of Alaska. We appreciate the explicit provision in the proposed rule for opportunities for public input, including consultation with federally recognized Tribes (e.g., §2361.30(b), §2361.40(g-h)). Along with this, we request that sufficient time be made for meaningful engagement in such processes. It takes time to inform our members of new proposals and to organize discussion and feedback, especially for those living in some of the more remote villages where communication can be a challenge. Furthermore, representatives to the Working Group need time to communicate information with their communities about development proposals and Working Group positions in order to facilitate comment development and submission. Short commenting periods hinder these efforts.

Improvements needed in the proposed rule

While the proposed rule offers many enhancements in protecting caribou, subsistence, and habitat, there are opportunities for improvement upon the draft rule.

As we state above, the Working Group supports the rulemaking implementing the strongest protections possible for caribou habitat within the NPR-A, including calving areas, insect relief habitat and migration corridors. We would especially like to see permanent protection for the Utukok River Uplands and Teshekpuk Lake Special Areas. We appreciate the proposed rule's emphasis that maximum protection is to be the standard for Special Area management. To better achieve this standard for the WACH, **we request that BLM move the northern border of the area unavailable for leasing and new infrastructure to cover all of the Utukok River Uplands Special Area**. Comparison of Maps 1, 3, and 5 in the 2022 IAP Record of Decision shows that the northern boundary of the Utukok River Uplands Special Area extends beyond the area unavailable for leasing and new infrastructure. This leaves the northern portion of the WACH calving area unprotected from future development (Figure 1). Although designated as part of the Utukok River Uplands Special Area, this norther portion was not included in the area made unavailable for leasing and infrastructure in the 2013 IAP to allow the possibility of a trans-reserve pipeline that could be used to move oil from offshore drilling in the Chukchi Sea to the Trans Alaska Pipeline System. That offshore drilling never materialized, removing justification for not making this portion of a recognized Special Area unavailable for leasing and new infrastructure. The Working Group requested

this be addressed in our comments on the 2019 IAP DEIS. Subsequent scientific study affirmed this request, showing that failing to make the northern portion of the Utukok River Uplands Special Area unavailable for leasing and infrastructure led to increased predictions of WACH calving habitat loss under possible future development (Fullman et al. 2021a). We request that BLM align with the best available scientific information and Indigenous Knowledge and protect the northern portions of the WACH calving grounds in the Utukok River Uplands Special Area. With the WACH at the lowest size since the 1970s it is all the more important that any threats to the calving grounds be removed. **Making the <u>entire</u> Utukok River Uplands Special Area unavailable for leasing and new infrastructure is in keeping with BLM's duty to provide maximum protection of significant resource values within Special Areas (§2361.30(a)(7)) and we strongly request it be done immediately**.

As efforts are made to ensure maximum protection of the Utukok River Uplands Special Area and other Special Areas in the NPR-A, it is critical that both current and historical data be used to identify areas of importance for caribou, their habitat, and their use. Caribou vary their use of habitats widely over time. They show strong fidelity to certain seasonal ranges, such as their calving grounds (Cameron et al. 2020), but can show less fidelity to other seasonal ranges, with periodic use, abandonment, and later reuse. It has also been shown that as herd size changes caribou expand or contract their range use accordingly. Areas used heavily when populations are high may be temporarily abandoned at lower population sizes and then reused when the herd increases again. It is thus important that BLM seek to protect the entire historic calving ground and other key seasonal ranges, rather than only looking at recent patterns of space use as the herd decreases in size. Lower patterns of current use should not be taken as signs of lesser importance, but to achieve maximum protection Special Areas should encompass the full historical range of important seasonal habitats.

We appreciate recognition that the Utukok River Uplands Special Area and Teshekpuk Lake Special Area both serve as important caribou habitat and should be managed as such (§2361.20). While these are the primary areas where calving occurs for the WACH and TCH, along with important habitat at other seasons, caribou use of the NPR-A is much broader. In recognition of this, we request that important habitat for caribou be added to the description of managed resources for the Colville River Special Area. This Special Area encompasses summer range, winter range, and important migratory connectivity for the TCH (Person et al. 2007, Fullman et al. 2021b) and is used for subsistence harvest of caribou by the people of Nuiqsut. The western parts of the Colville River Special Area also overlap various seasonal ranges of the WACH (Joly and Cameron 2022, Figure 1). For these reasons we feel it important that caribou be mentioned specifically in §2361.20(a).

As mentioned above, we were pleased to see the requirement in the proposed rule for BLM to account for uncertainty regarding potential effects of proposed development. This is something that has not always happened in the past, so it would be helpful for BLM to include greater specificity about what qualifies as uncertainty and how it can meaningfully be considered in decisions. One way to strengthen this could be inclusion of a few examples in the preamble to the rule.

Finally, the background material for the proposed rule erroneously states that the WACH reached its recorded peak in the 1970s at a level of 243,000 animals (p.62029). In actuality, the largest herd size

since consistent monitoring began was in 2003 at a peak size of about 490,000 animals (Dau 2015). It is important to accurately reflect the change in the herd over time, as the current population size of 164,000 from the 2022 photocensus is only one-third of the peak herd size, while the erroneous peak listed in the proposed rule background would suggest the herd to currently be at two-thirds of the peak size. Including accurate numbers underscores the gravity of the current status of the herd, which has serious implications not only for the long-term viability of the herd, but also for opportunities for subsistence harvest and other uses of the herd. This underscores the need for enhanced protections for caribou habitat, such as those recommended above.

Thank you for the opportunity to provide comments on the proposed rule for NPR-A management.

On behalf of the Working Group,

Vern Cleveland Sr.

Vern Cleveland, Sr., Chair

cc:
Steve Cohen, Alaska State Director, Bureau of Land Management
Western Arctic Caribou Herd Working Group Members & Alternates

Attachments:

Figure 1. Western Arctic Caribou Herd range map.

References

Cameron MD, Joly K, Breed GA, Mulder CPH, Kielland K. 2020. Pronounced fidelity and selection for average conditions of calving area suggestive of spatial memory in a highly migratory ungulate. Frontiers in Ecology and Evolution 8, 564567.

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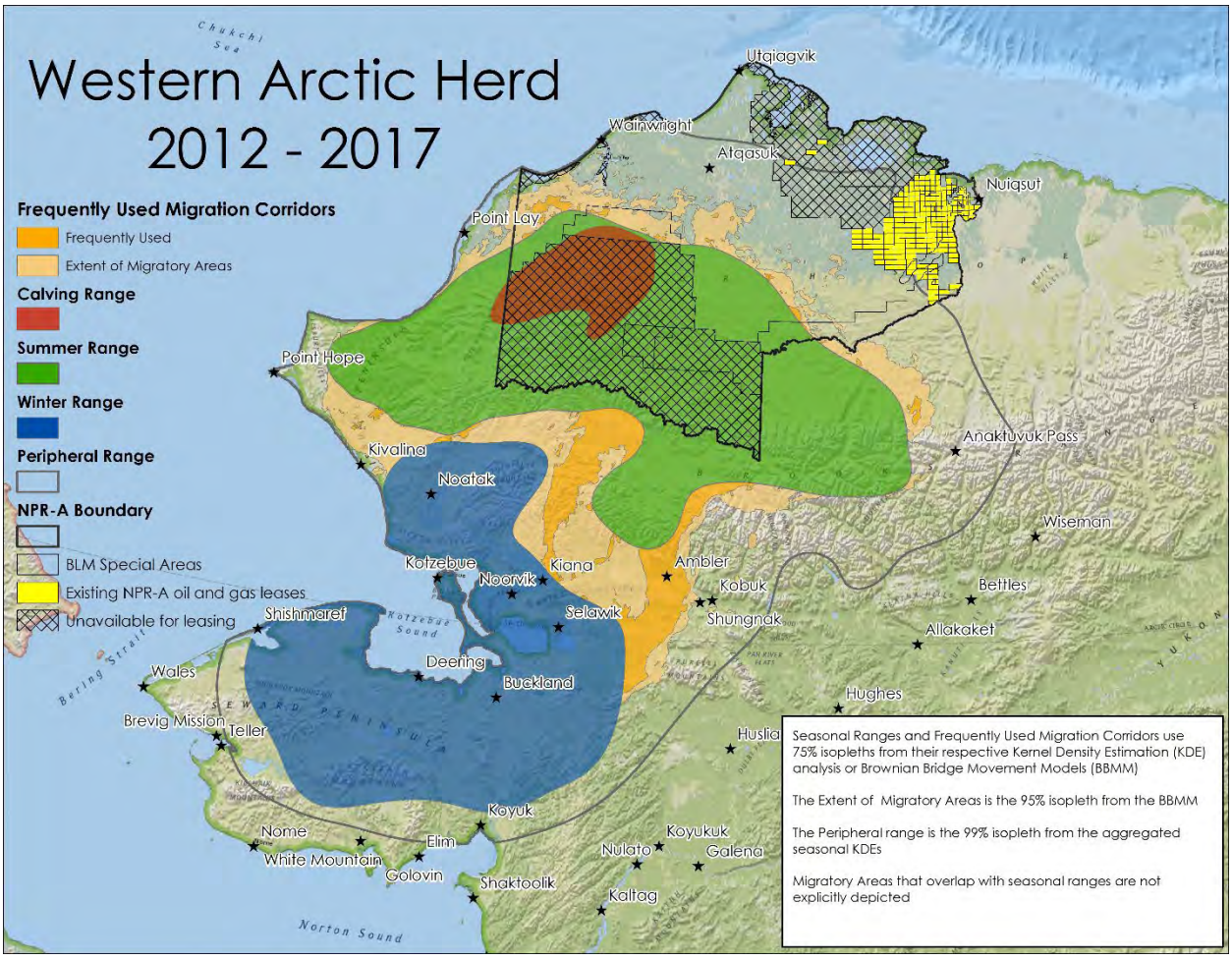


Figure 1. Western Arctic Caribou Herd range map, depicting caribou seasonal use areas, communities in and around the range of the herd, and NPR-A Special Areas, lands leased as of the 2019 IAP DEIS, and areas unavailable for leasing under the 2022 IAP. Map courtesy of the Alaska Department of Fish & Game.

4) Graphite One Mine

Figure 1-1 from the Graphite One Project Preliminary Feasibility Study Technical Report

The Graphite One project is a proposed graphite mine on the Seward Peninsula between Brevig Mission, Teller, and Nome (see map above).

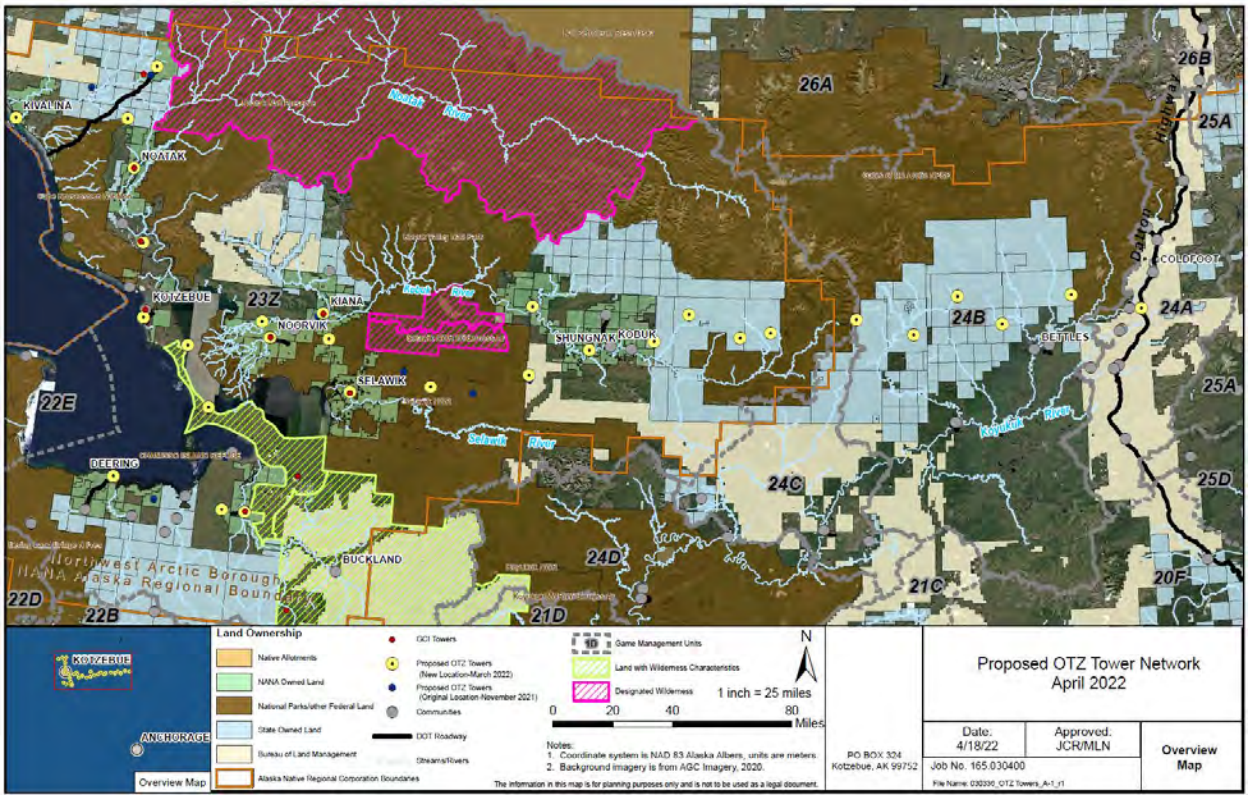
Interest in domestic graphite production is high as it is used in many things, such as electric vehicle batterie. Almost all of the world's high-quality graphite currently comes from China. The Alaska Delegation is very interested in this development, but concerns have been raised about impacts to subsistence from Brevig Mission and Teller residents, though opinions are mixed.

There is not yet an opportunity for public comment, but the Working Group will pay attention to the project moving forward. Graphite One hopes to complete their feasibility study in 2024 and apply for permits after that, which would lead to opportunities to comment.

5) OTZ Telephone Broadband Buildout Project

OTZ Telephone Cooperative proposed to build a series of microwave antennae tower communication sites to provide broadband internet between the Northwest Arctic Borough and the Dalton Highway. This could include up to 33 towers (see the yellow circles on the map below).

OTZ planned for a busy 2023 construction season, in which they were hoping to complete the project. As the time of printing, further information had not been obtained about the status of the project.



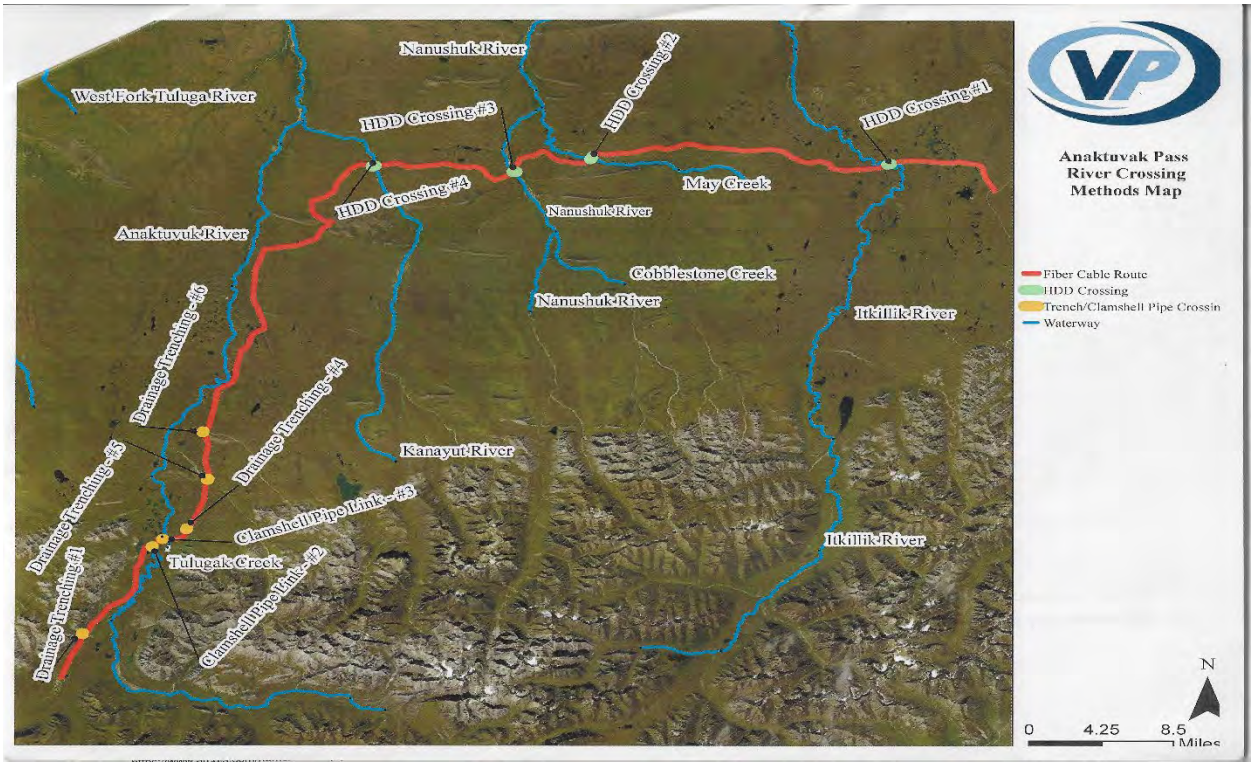
Project map from OTZ flyer dated March 2022

6) ASTAC Fiber Optic Project

Arctic Slope Telephone Association Cooperative, Inc. (ASTAC) provides telecommunications, including internet access, for North Slope communities. They recently received Federal grants to connect Anaktuvuk Pass, Nuiqsut, and Point Lay with high-speed fiber optic broadband.

Not a lot of details have been made public, but at least for Anaktuvuk Pass the plan seems to be to lay undersea cable on the tundra and wait for it to sink down out of sight. They are hoping to do construction in 2024 and 2025 with service available starting in 2025.

It is not clear what opportunities there are for public comment but if this is of interest to the Working Group we can try to engage further.



Proposed Anaktuvuk Pass fiber optic cable route

7) Anarraaq – Aktigiruq Mining Exploration

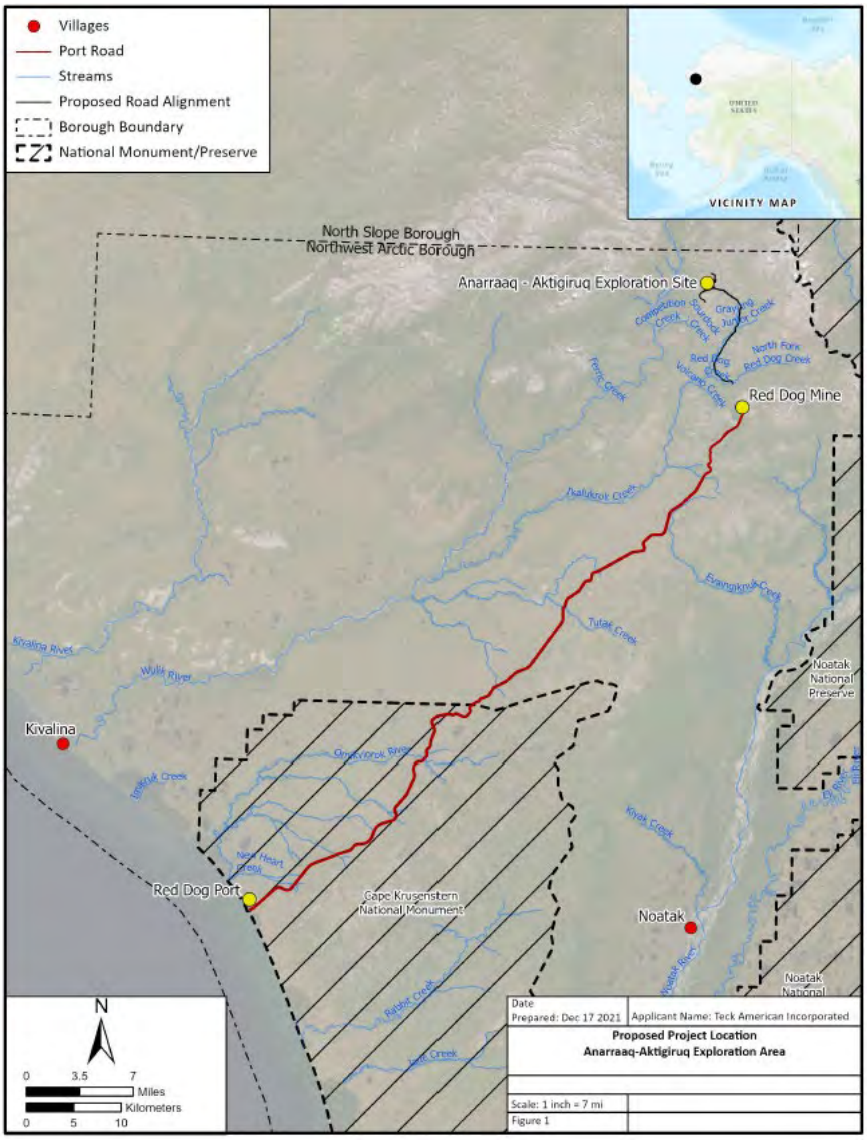


Fig. 1 from the US Army Corps of Engineers [Public Notice of Application for Permit](#) POA-2018-00075. 2022-03-10.

The Anarraaq-Aktigiruq mining exploration project would evaluate the potential of new mineral deposits north of the current Red Dog Mine (see map above). The Working Group commented multiple times on the Teck America Inc. proposal.

The Army Corps of Engineers has not yet made a decision about the application and is still working on the Section 106 process, including going through a new cultural study.

8) Willow Master Development Plan

The Willow project would expand infrastructure in the northeastern National Petroleum Reserve – Alaska (NPR-A). This is the farthest west oil and gas infrastructure that is currently proposed within the NPR-A and comes up to the edge of the Teshekpuk Lake Special Area, which protects critical calving, post-calving, and insect relief habitat for the Teshekpuk Caribou Herd.

The Willow project underwent multiple revisions and legal battles but was ultimately approved by BLM in March 2023. The final approval included three drill sites (down from the original five drill pads) plus associated infrastructure including a central processing facility, roads linking to existing infrastructure, and a new gravel mine and airstrip. See map below.

The Working Group did not comment on any of the various Willow processes.

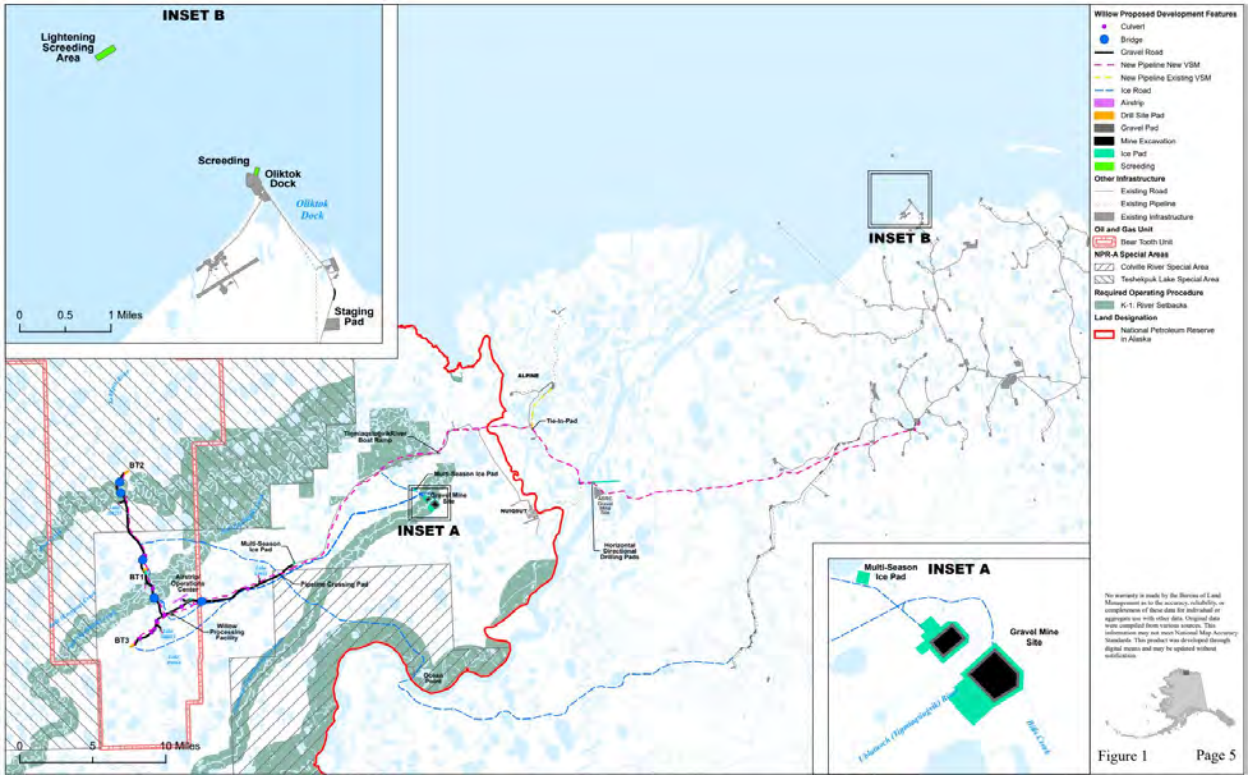
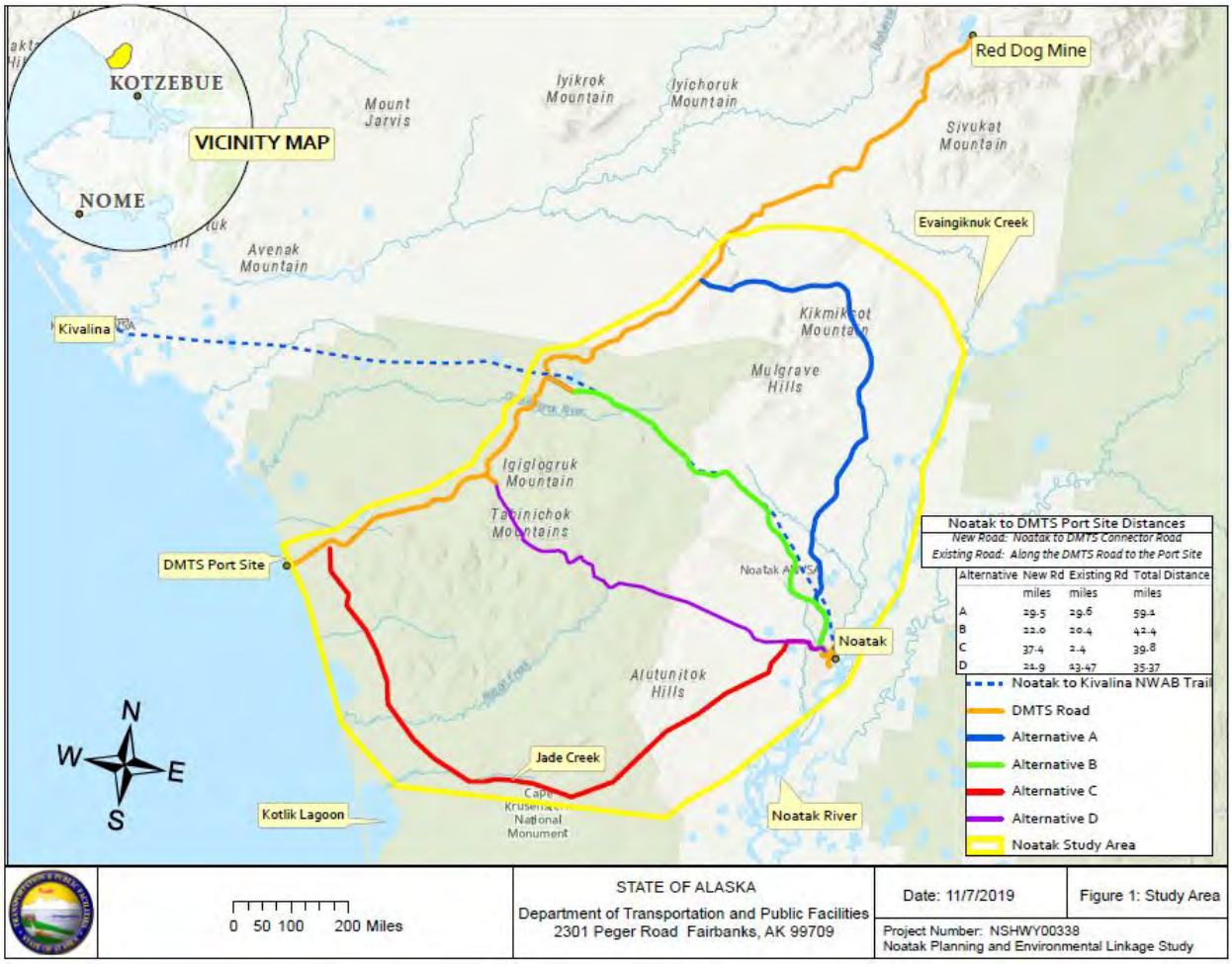


Figure 1 from the [Willow Master Development Project Record of Decision].

9) Noatak – Red Dog Road



Map obtained from [PEL website] on 10/30/20

In 2019, the Alaska Department of Transportation and Public Facilities (DOT&PF) announced it was partnering with the Northwest Arctic Borough and Native Village of Noatak to look into building a permanent gravel road connecting the Delong Mountain Transportation System (DMTS, i.e., the Red Dog road) and Noatak. They began a Noatak Planning and Environmental Linkage (PEL) study to consider project options.

The Working Group previously submitted comments raising issues we would like considered as the planning process moves forward. Since that time, it appears that DOT&PF has made little progress on the Noatak PEL as the website appears to have been removed.

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Ambler Road

Draft Supplemental Environmental Impact Statement

U.S. Department of the Interior
Bureau of Land Management

Ambler Mining District Industrial Access Project

Who proposed the project?

The Alaska Industrial Development and Export Authority (AIDEA) is the applicant requesting the right-of-way for the project.

What would the project consist of?

AIDEA has proposed to construct, operate, maintain, and eventually remove an all-season, industrial access-only road from the Dalton Highway to the Ambler Mining District. The project would include construction of bridges, material sites, maintenance stations, airstrips, and related features.

What is BLM's role?

BLM is required to respond to AIDEA's permit application requesting a right-of-way for the project. BLM is the lead federal agency for the Supplemental EIS and the subsistence analysis required by ANILCA Section 810, and for compliance with Section 106 of the National Historic Preservation Act.

Brief Project History

June 2016: Right-of-way application filed by the Alaska Industrial Development and Export Authority (AIDEA) for a new road from the Dalton Highway to the Ambler Mining District.

July 2020: BLM issues the Joint Record of Decision approving Alternative A: AIDEA's proposed action

August and October 2020: Lawsuits filed against BLM and the Department of Interior.

May 2022: U.S. District Court for Alaska approves a voluntary remand of the previous decision due to concerns with the original analysis, ANILCA 810 evaluation, and adequacy of the government-to-government consultation with Tribes.

September 2022: BLM publishes a Notice of Intent to prepare a Supplemental EIS for the Ambler Road Project in the Federal Register, initiating a 45-day comment period.

October 2023: BLM publishes the Notice of Availability for the Ambler Road Draft Supplemental EIS in the Federal Register, which begins a 60-day comment period ending on **December 22, 2023**.

Ongoing: Consultation with Tribes and Alaska Native Corporations regarding the Ambler Road project.

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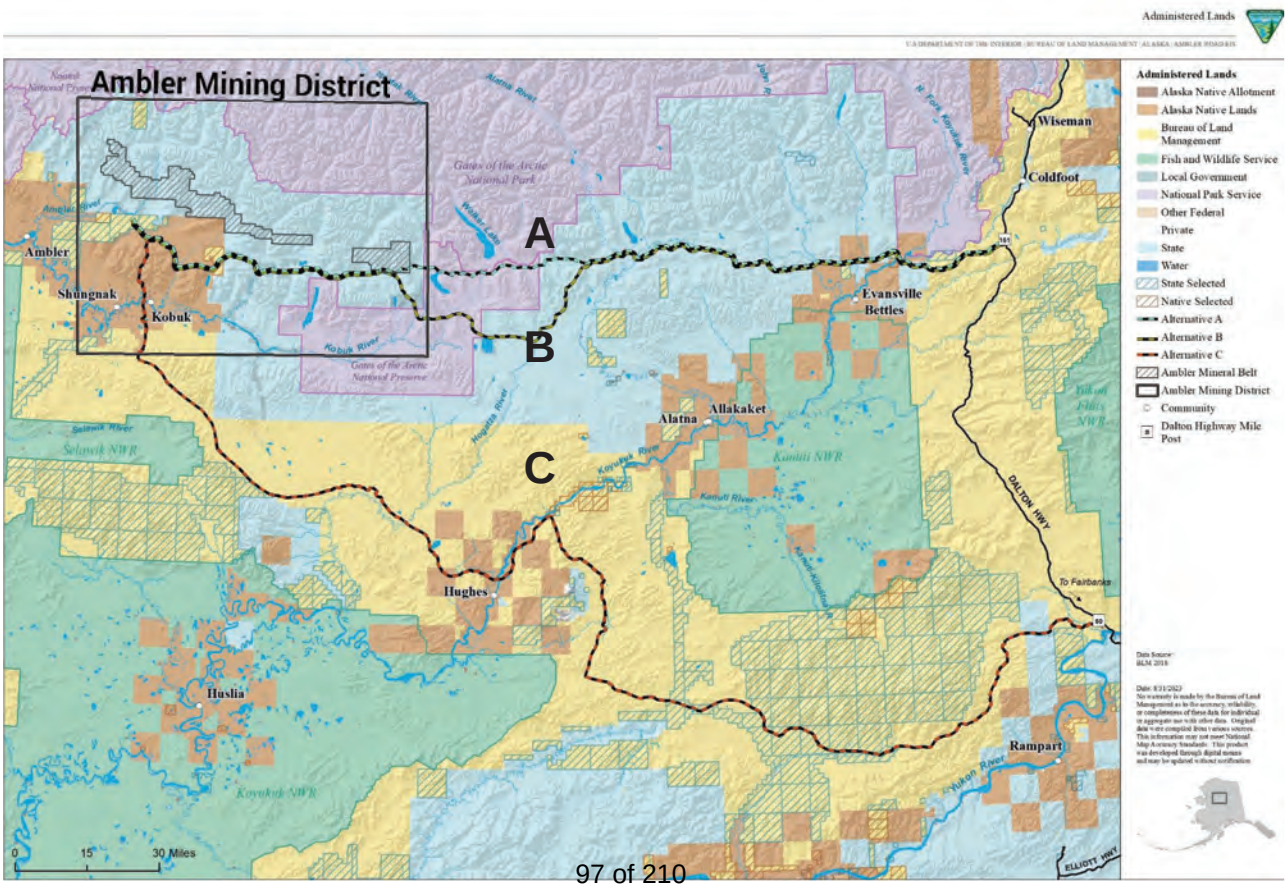

What is a Supplemental EIS?

A Supplemental EIS is a document that is prepared pursuant to the National Environmental Policy Act (NEPA) when there is substantial new information relevant to environmental concerns that have bearing on the proposed action or its effects.

The Ambler Road Draft Supplemental EIS builds upon the original analysis and presents the supplemental information by highlighting the new text in yellow.

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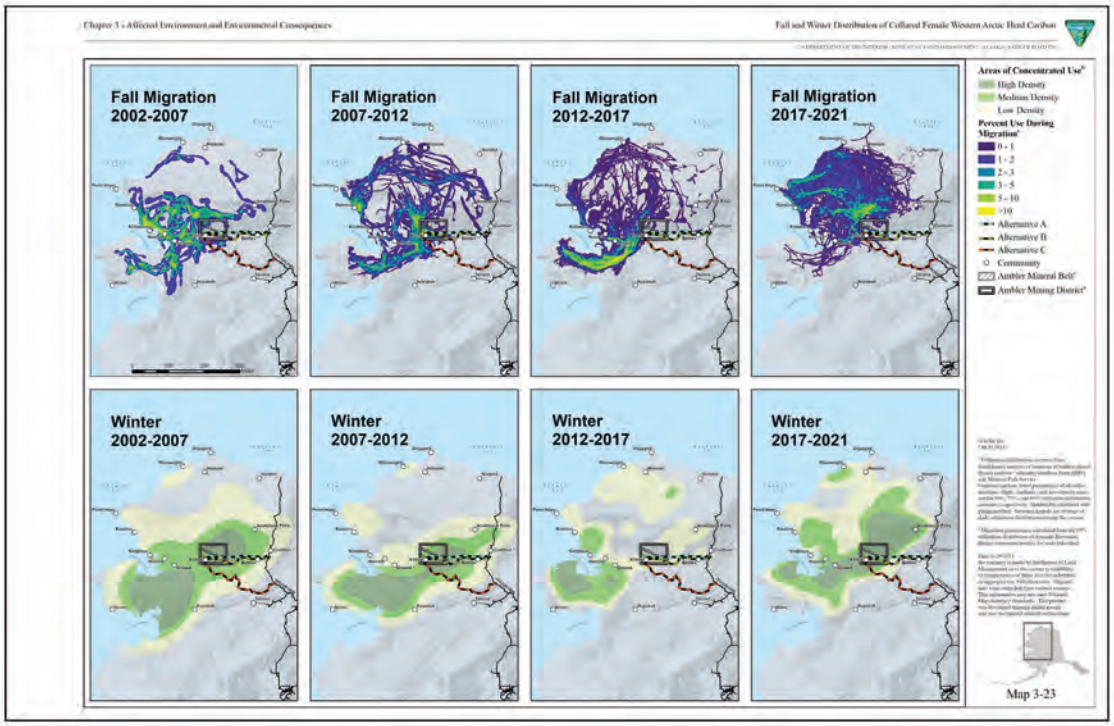
Draft Supplemental EIS

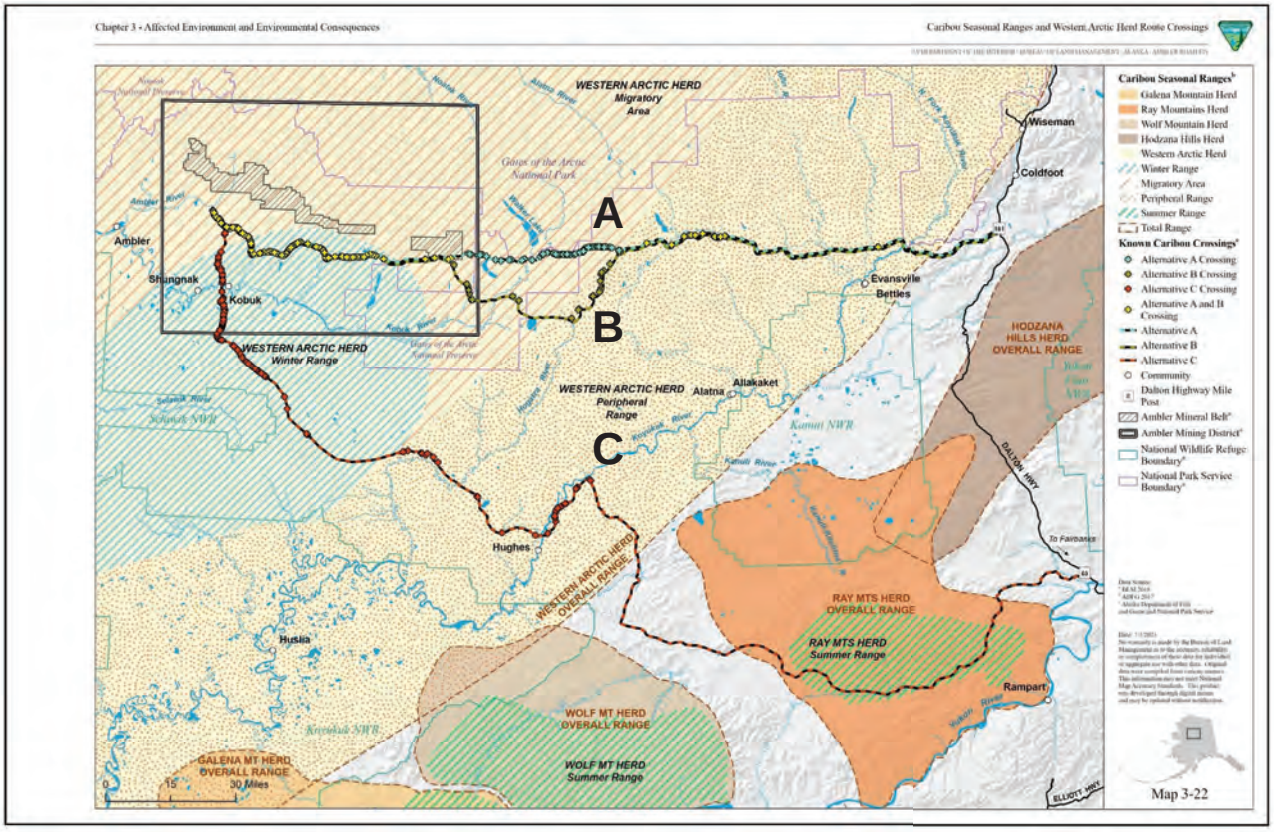
Includes updated data and new information:

- Water Resources
- Air quality and Climate
- Vegetation and Wetlands
- Fish and Aquatics
- Birds
- Mammals
- Transportation and Access
- Environmental Justice
- Subsistence
- Cultural Resources

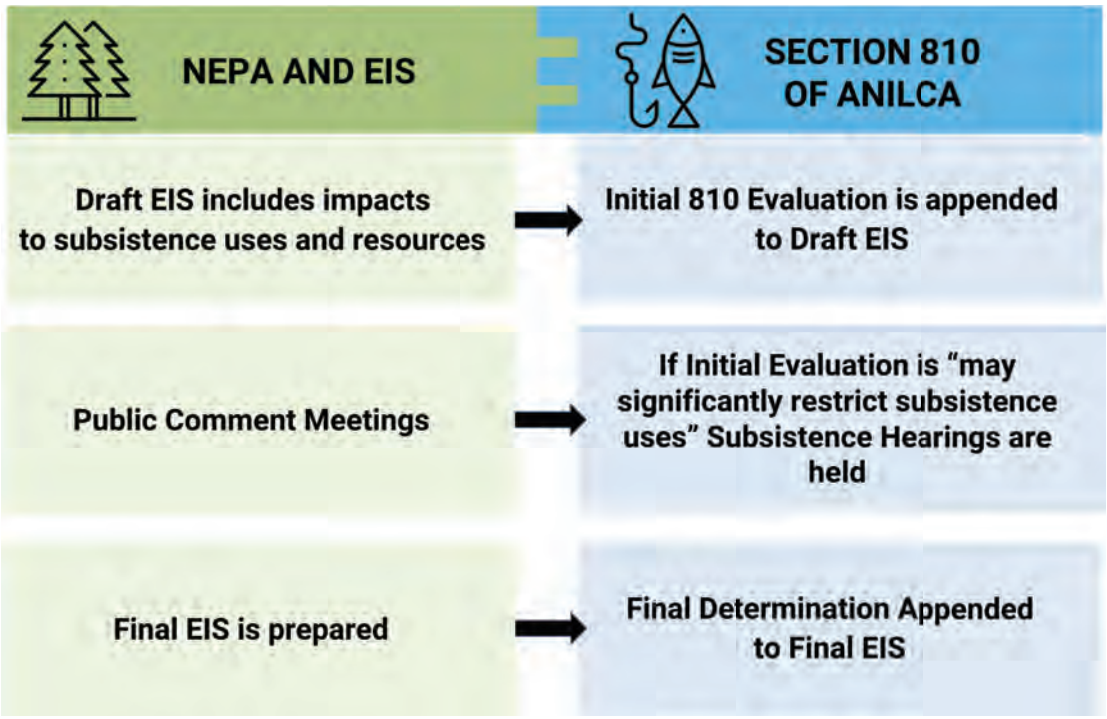
Updates reasonably foreseeable future actions and developments.

Updates proposed mitigation measures.


Chapter 3 • Affected Environment and Environmental Consequences
Fall and Winter Distribution of Collared Female Western Arctic Herd Caribou
Fall Migration 2002-2007
Fall Migration 2007-2012
Fall Migration 2012-2017
Fall Migration 2017-2021
Winter 2002-2007
Winter 2007-2012
Winter 2012-2017
Winter 2017-2021
Areas of Concentrated Use
High Density
Medium Density
Low Density
Percent Use During Migration
0 - 1
1 - 2
2 - 3
3 - 5
5 - 10
>10
Alternative A
Alternative B
Alternative C
Community
Ambler Mineral Belt
Ambler Mining District
Map 3-23


Chapter 3 • Affected Environment and Environmental Consequences
Caribou Seasonal Ranges and Western Arctic Herd Route Crossings
WESTERN ARCTIC HERD Migratory Area
WESTERN ARCTIC HERD Winter Range
WESTERN ARCTIC HERD Peripheral Range
A
B
C
Ambler
Shungnak
Kobuk
Hughes
Allakaket
Alatna
Wiseman
Coldfoot
Evansville
Bettles
HODZANA HILLS HERD OVERALL RANGE
RAY MTS HERD OVERALL RANGE
RAY MTS HERD Summer Range
WOLF MT HERD OVERALL RANGE
WOLF MT HERD Summer Range
GALENA MT HERD OVERALL RANGE
WESTERN ARCTIC HERD OVERALL RANGE
Huslia
Rampart
DALTON HWY
ELLIOTT HWY
To Fairbanks
Caribou Seasonal Ranges
Galena Mountain Herd
Ray Mountains Herd
Wolf Mountain Herd
Hodzana Hills Herd
Western Arctic Herd
Winter Range
Migratory Area
Peripheral Range
Summer Range
Total Range
Known Caribou Crossings
Alternative A Crossing
Alternative B Crossing
Alternative C Crossing
Alternative A and B Crossing
Alternative A
Alternative B
Alternative C
Community
Dalton Highway Mile Post
Ambler Mineral Belt
Ambler Mining District
National Wildlife Refuge Boundary
National Park Service Boundary
Map 3-22

ANILCA 810 Evaluation



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ANILCA 810 Evaluation

Factors Considered

- Abundance

Is there enough of a particular subsistence resource?

- Availability

Will the resource be available where and when needed?

- Access

Will hunters have any impediments in accessing harvest areas?

- Importance of the potentially impacted subsistence resource within a community

ANILCA 810 Findings: Cumulative

	Caribou			Fish			Moose			Vegetation			Other		
Community	Abun	Avail	Access	Abun	Avail	Access	Abun	Avail	Access	Abun	Avail	Access	Abun	Avail	Access
Alatna															
Allakaket															
Ambler															
Anaktuvuk Pass															
Bettles															
Evansville															
Hughes															
Huslia															
Kiana															
Kobuk															
Kotzebue															
Noorvik															
Shungnak															
Wiseman															
Selawik															
Noatak															
Buckland															
Stevens Village															
Coldfoot															
Deering															
Elim															
Golovin															
Kivalina															
Koyuk															
Nome															
Nuiqsut															
Pt. Hope															
Pt. Lay															
Shaktoolik															
Shishmaref															
Unalakleet															
Utqiagvik															

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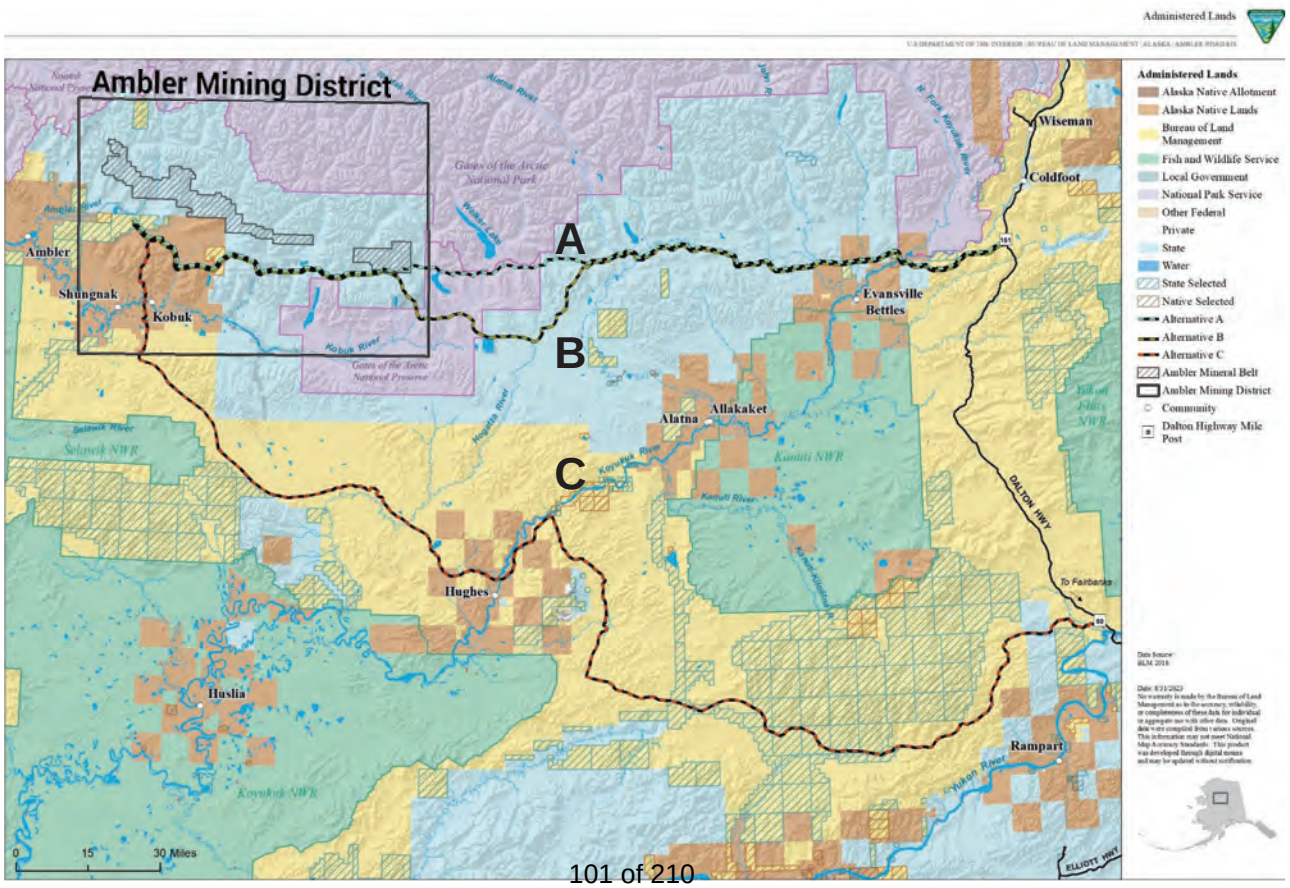

ANILCA 810 Summary for Alternatives A and B

- **Ambler Road could cause population level impacts to the Western Arctic Caribou Herd (a reduction in the abundance) due to**:
  - increased energy expenditure
  - reduced foraging rates,
  - increased winter mortality, and
  - decreased breeding success.
- **Ambler Road could cause a reduction in the availability of caribou due to**:
  - the herd being delayed or deflected by the road.
  - If the lead caribou are disrupted then a majority of the herd could be impacted.
- **Ambler Road could cause a reduction in the abundance and availability of harvestable fish due to**:
  - increased sedimentation and changes in habitat.
- **The construction and operation of the road could cause a reduction in access for the communities of:** Alatna, Allakaket, Ambler, Bettles, Evansville, Kobuk, and Shugnak.

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ANILCA 810 Summary for Alternative C

Alternative C would be:

- less likely to affect caribou migration routes
- but covers more Western Arctic Caribou Herd wintering grounds, and
- affects an overall greater amount of herd's habitat.
- Loss of winter habitat could be particularly detrimental to the WAH due to the herd's difficulty in accessing lichen during winter.

Alternative C would be:

- less likely to have direct impacts on sheefish spawning grounds in the Kobuk and Alatna rivers.
- But impacts to salmon spawning grounds could have larger effects to communities who harvest salmon downstream from the road corridor along the Yukon and Koyukuk rivers.

- **The construction and operation of the road could cause a reduction in access for the communities of**: Alatna, Allakaket, Ambler, Anaktuvuk Pass, Hughes, Huslia, Kobuk, Selawik, Shungnak, Stevens Village, and Tanana.

Providing Substantive Comments

A **substantive comment** identifies an issue or an idea in the Ambler Road Draft Supplemental EIS and explains why it is a problem or how to solve the problem.

You may want to focus on:

- Accuracy and thoroughness of the analysis.
- New information to add.
- Ways to reduce impacts (mitigation measures).

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How to Participate

Options for submitting comments:

- Provide verbal comments at a Public Meeting/Hearing
- Online: www.blm.gov/AmblerRoadEIS
- Mail or hand deliver to:

  BLM Fairbanks District Office,
  ATTN: Ambler Road Scoping Comments,
  222 University Ave., Fairbanks, AK 99709

Next Steps

Milestone	Date
SEIS public scoping period	September 20 – November 4, 2022
Draft SEIS public comment period	October 20 – December 22, 2023
Final SEIS	1st quarter 2024
Record of Decision	2nd quarter 2024

DIVISION OF SUBSTENCE

WACH Harvest Assessment Program

Project Overview and Preliminary Results

Prepared for the Western Arctic Herd Working Group Meeting

December 12-14, 2023


Helen Cold, ADF&G

Western Arctic Caribou Herd Harvest Assessment

- **Funding Agency:** US Fish and Wildlife Service
  - Research partnership among 8 study communities, ADF&G Subsistence, ADF&G Department of Wildlife Conservation
- **Purpose:** Conduct household large mammal harvest surveys (caribou focus) in 8 communities within the historic range of the Western Arctic caribou herd (WACH)
- **Focus area:** Communities of Golovin, Selawik, Shungnak, White Mountain, Shishmaref, Noatak, Deering and Kobuk
- **Methods:**
  - Household Surveys
  - Ethnographic interviews with mapping component
  - Participant observation

Project Timeline

- Project Start 03/2019, project end 06/2024
- 4 years of surveys (2 years in each community during alternate years, 4 communities surveyed per year)
- Fieldwork for spring 2020 postponed due to COVID
- Surveys in Shishmaref, Deering, Noatak and Kobuk conducted remotely in 2021
- Standard door-to-door in-person surveys resumed in Golovin, Selawik, Shungnak, and White Mountain in 2022
- Last year of surveys conducted in Shishmaref, Deering, Noatak, and Kobuk in spring 2023
- Report writing in progress, community reviews scheduled for end of 2023/early 2024.

Harvest and Use of Caribou

Study Year April 2018 to March 2019

	% households using	% households harvesting	# caribou harvested	Edible lbs./person
Golovin	65%	10%	40	48lbs
White Mountain	64%	12%	27	19lbs
Shungnak	98%	46%	365	208lbs
Selawik	96%	29%	252	50lbs

Study Year April 2020 to March 2021

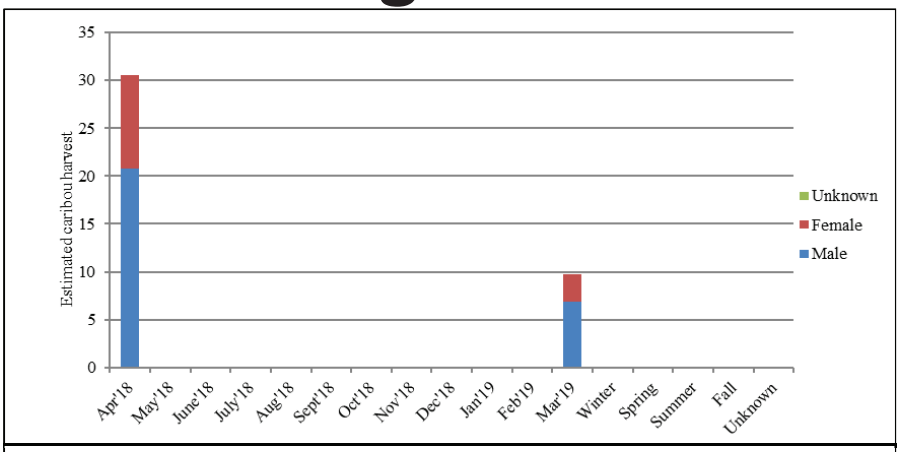
	% households using	% households harvesting	# caribou harvested	Edible lbs./person
Shishmaref	98%	55%	346	68lbs
Deering	84%	36%	81	62lbs
Noatak	98%	44%	288	70lbs
Kobuk	86%	42%	323	236lbs

Study Year April 2021 to March 2022

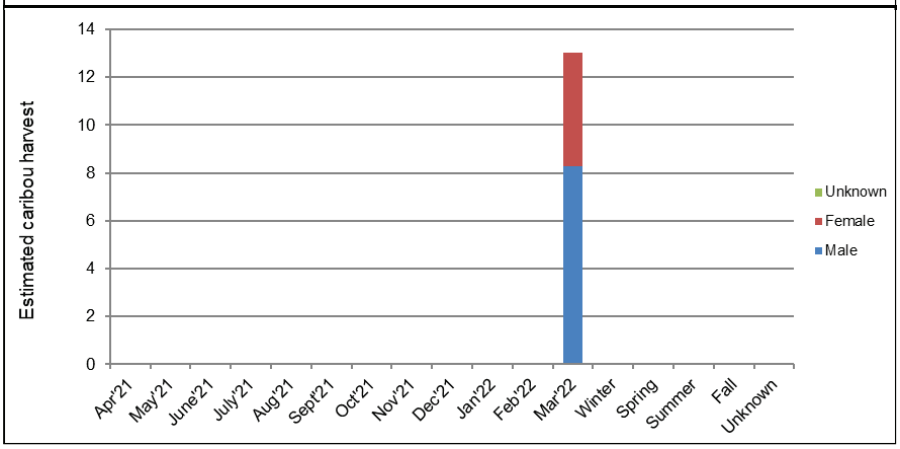
	% households using	% households harvesting	# caribou harvested	Edible lbs./person
Golovin	82%	5%	13	12lbs
White Mountain	49%	7%	15	10lbs
Shungnak	98%	46%	405	201lbs
Selawik	94%	35%	278	52lbs

Harvest Timing Golovin

2018-2019

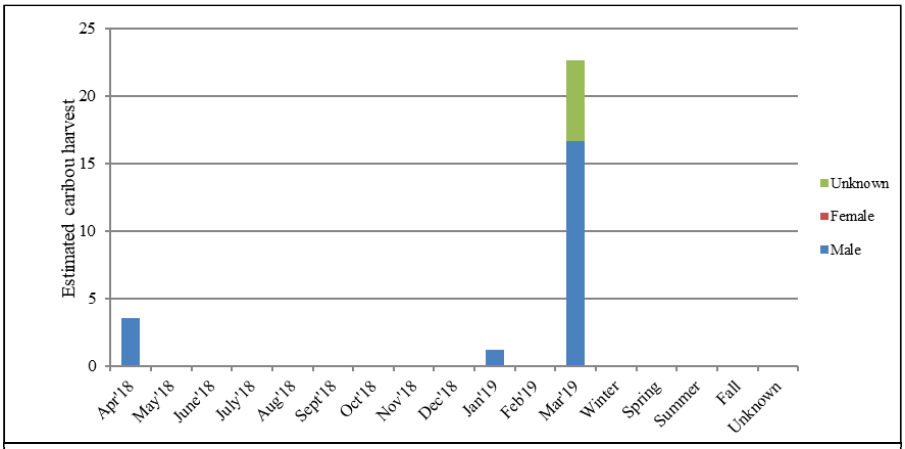


2021-2022

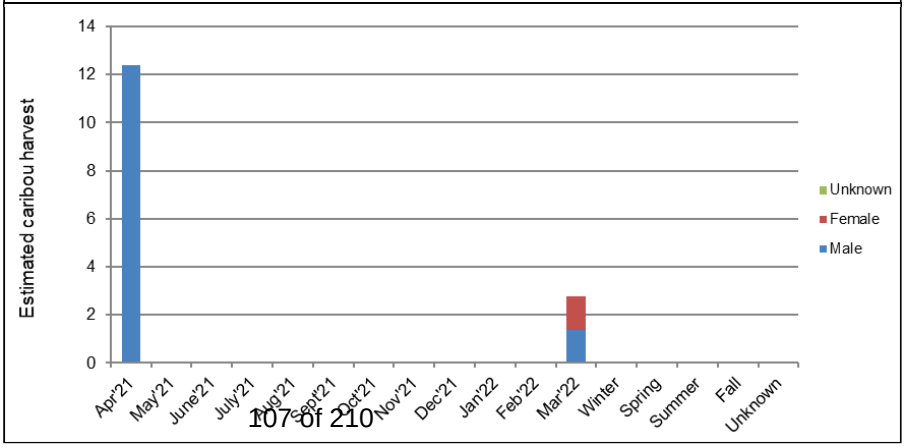


Harvest Timing White Mountain

2018-2019

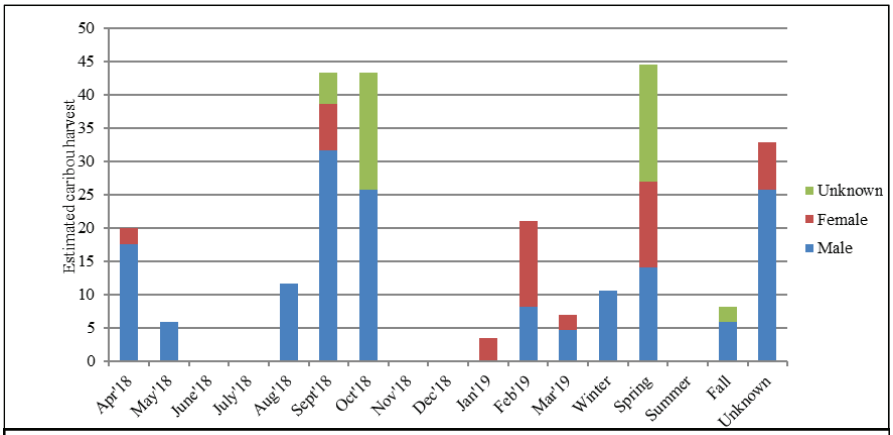


2021-2022

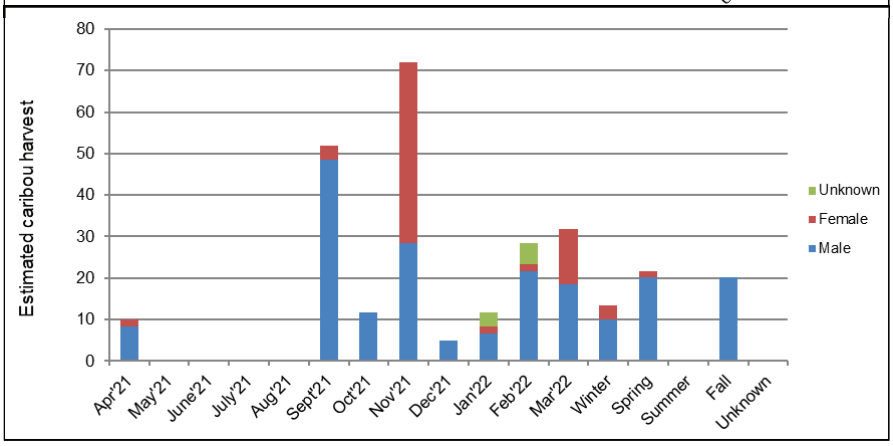


Harvest Timing Selawik

2018-2019

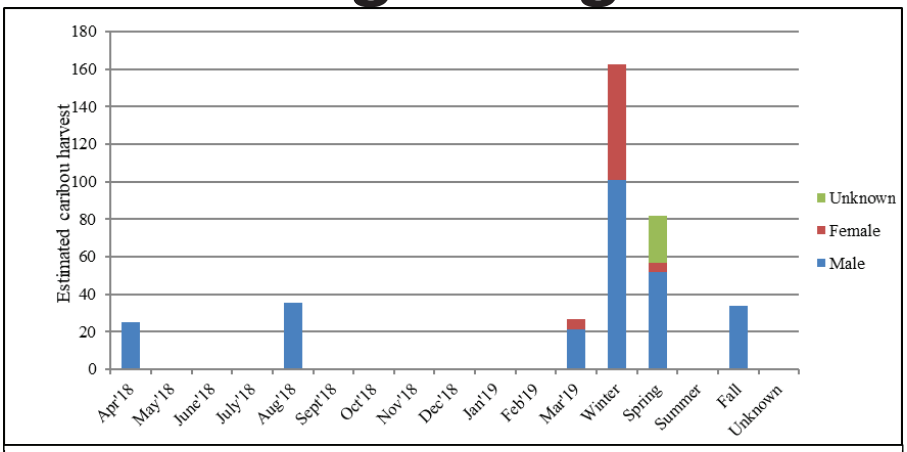


2021-2022

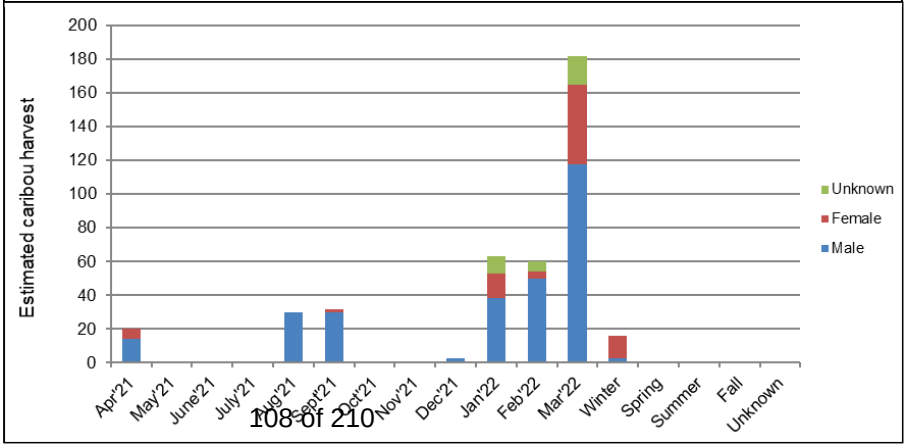


Harvest Timing Shungnak

2018-2019

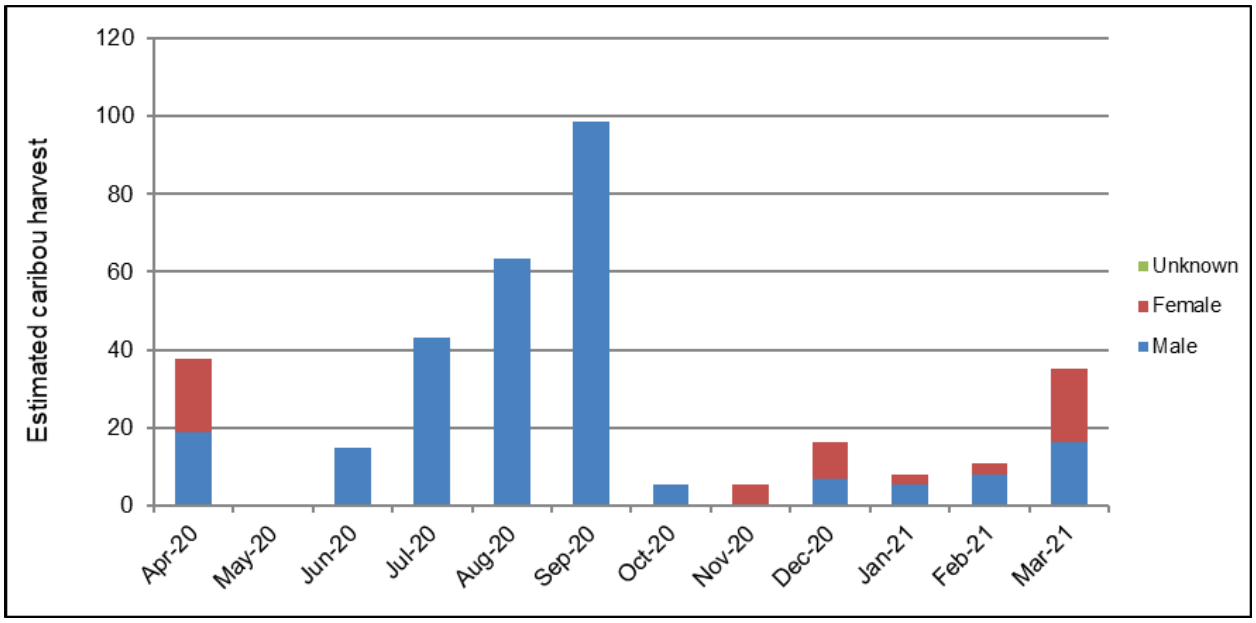


2021-2022



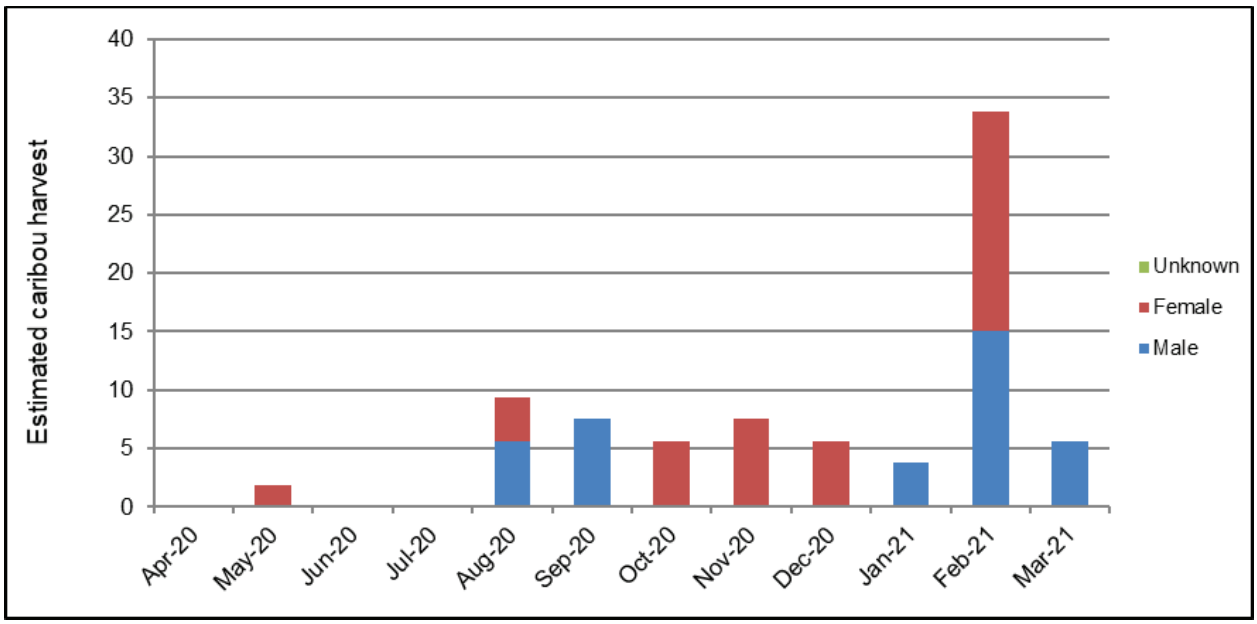
Harvest Timing Shishmaref

2020-2021



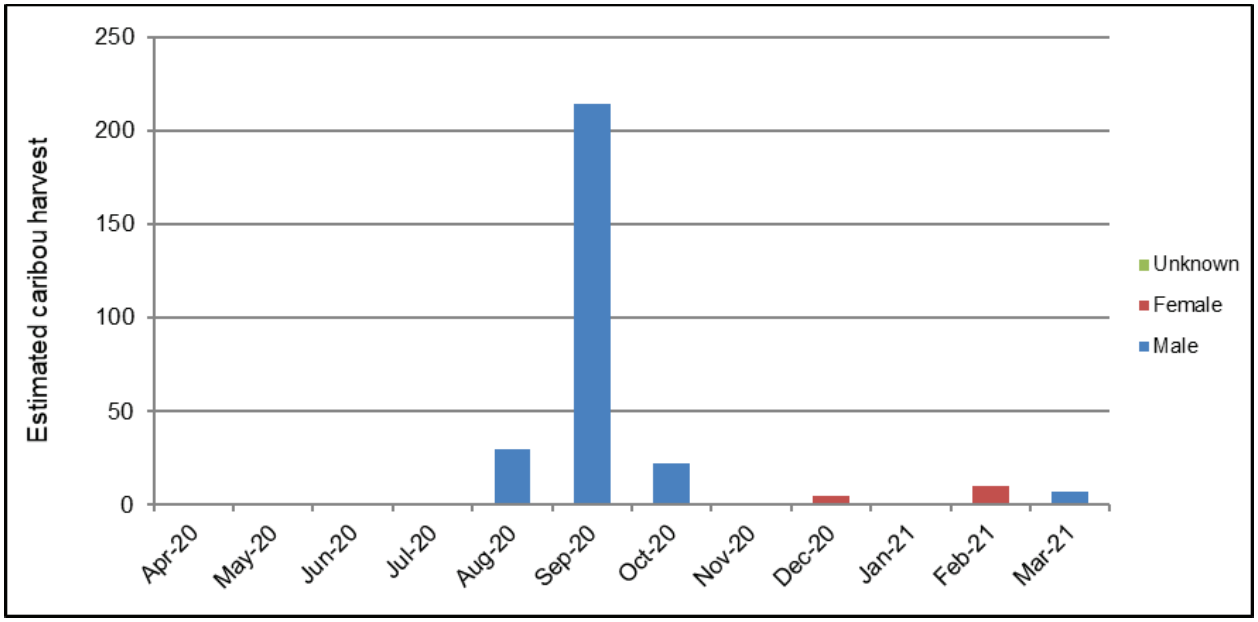
Harvest Timing Deering

2020-2021



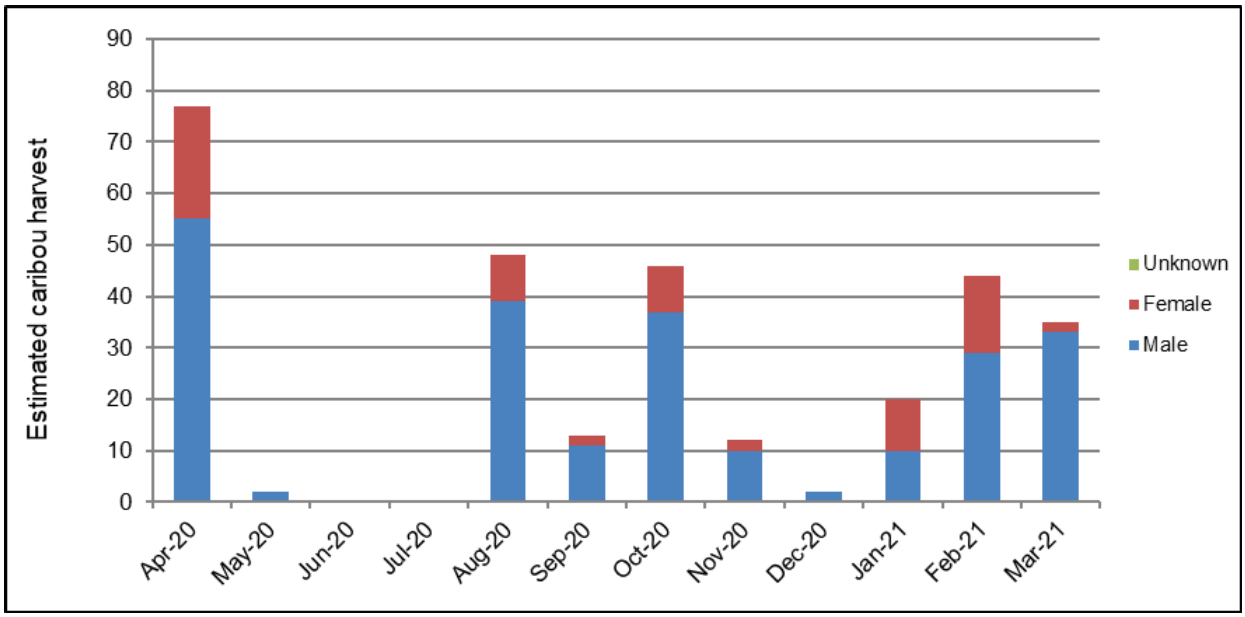
Harvest Timing Noatak

2020-2021



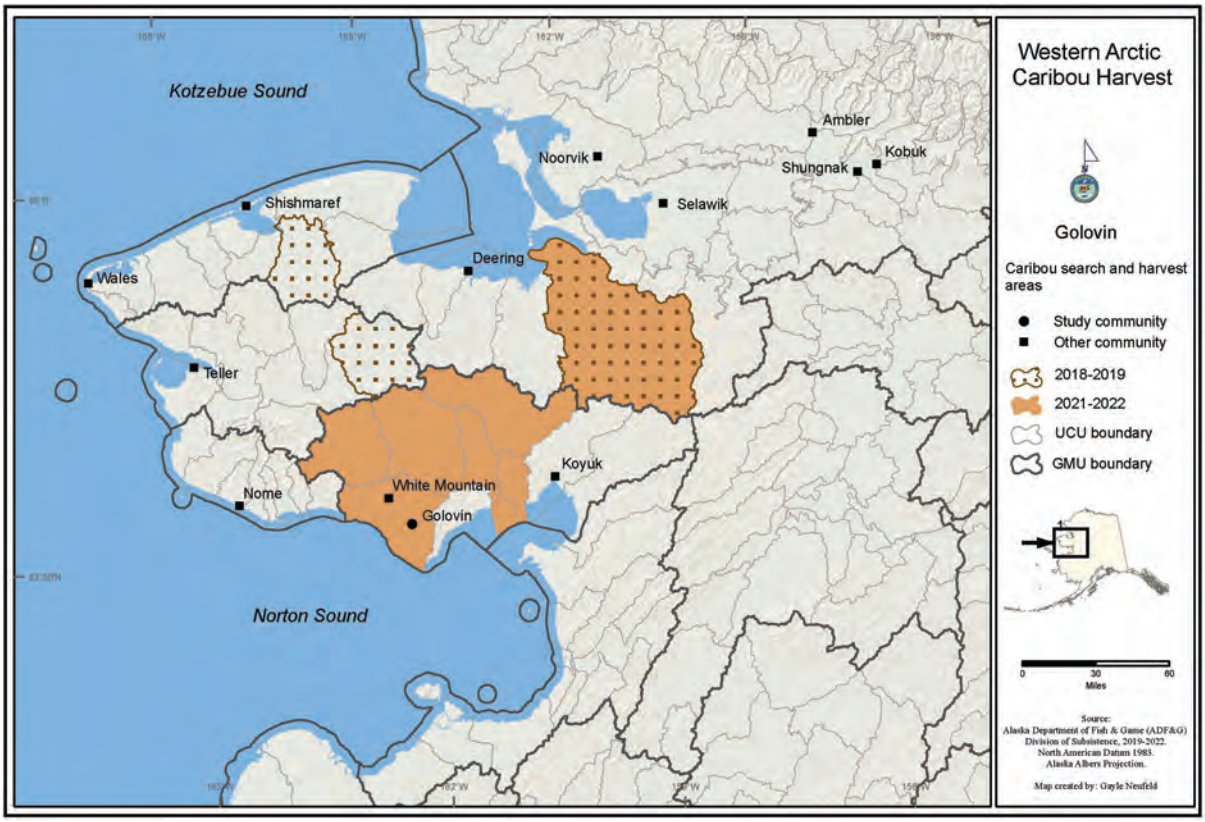
Harvest Timing Kobuk

2020-2021



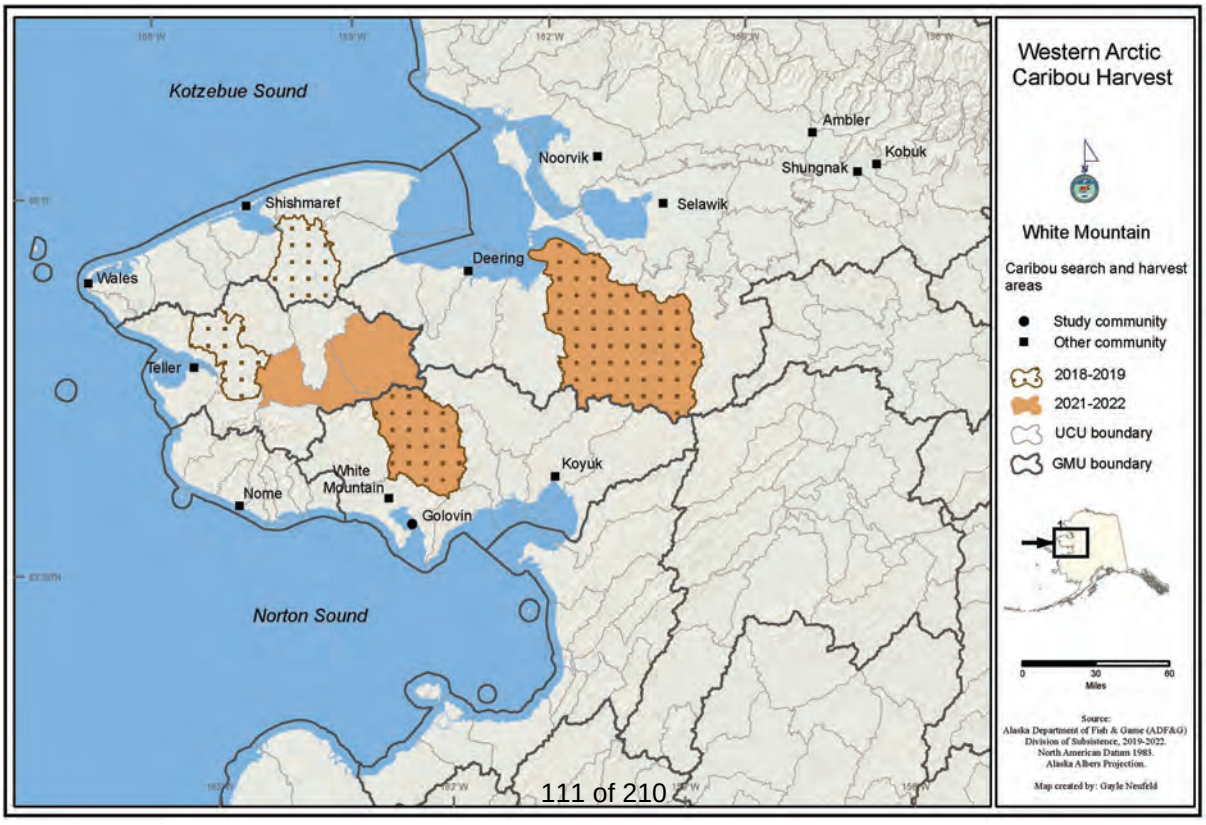
Harvest Areas Golovin

2018-2019, 2021-2022



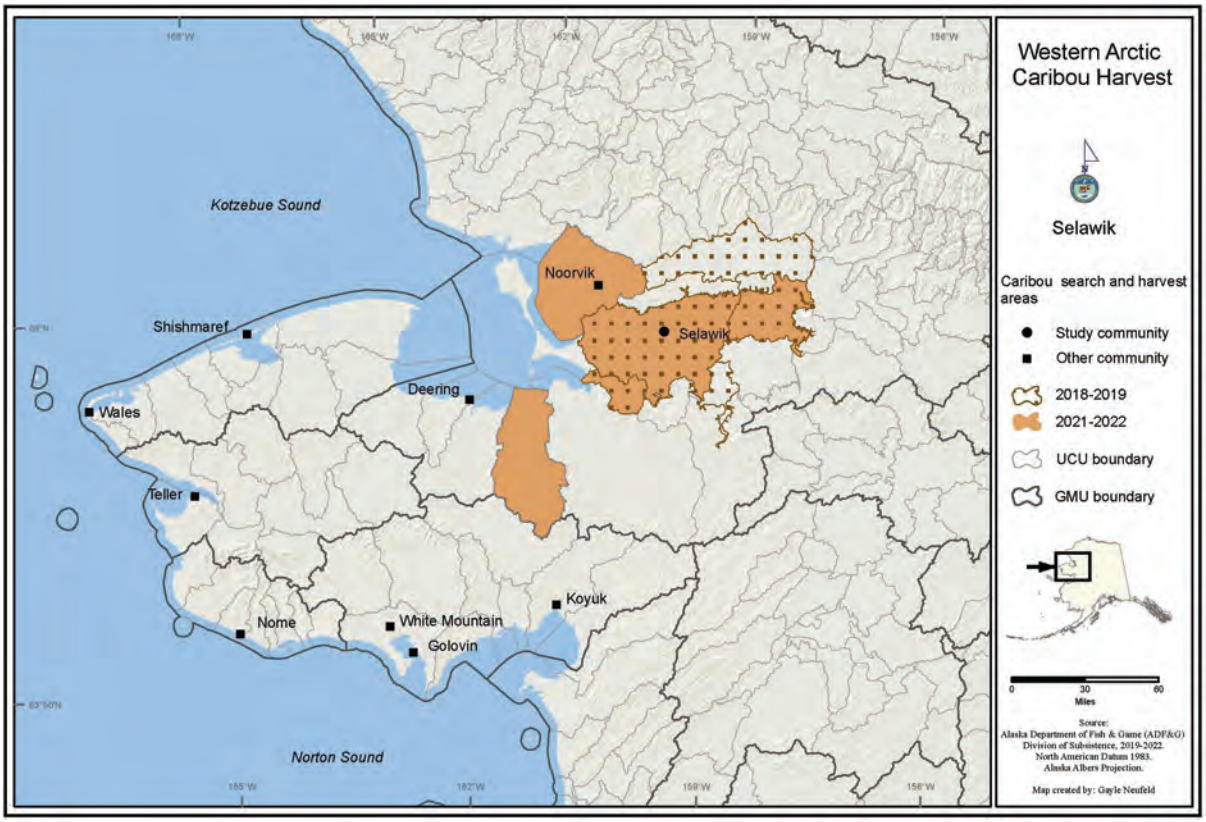
Harvest Areas White Mountain

2018-2019, 2021-2022



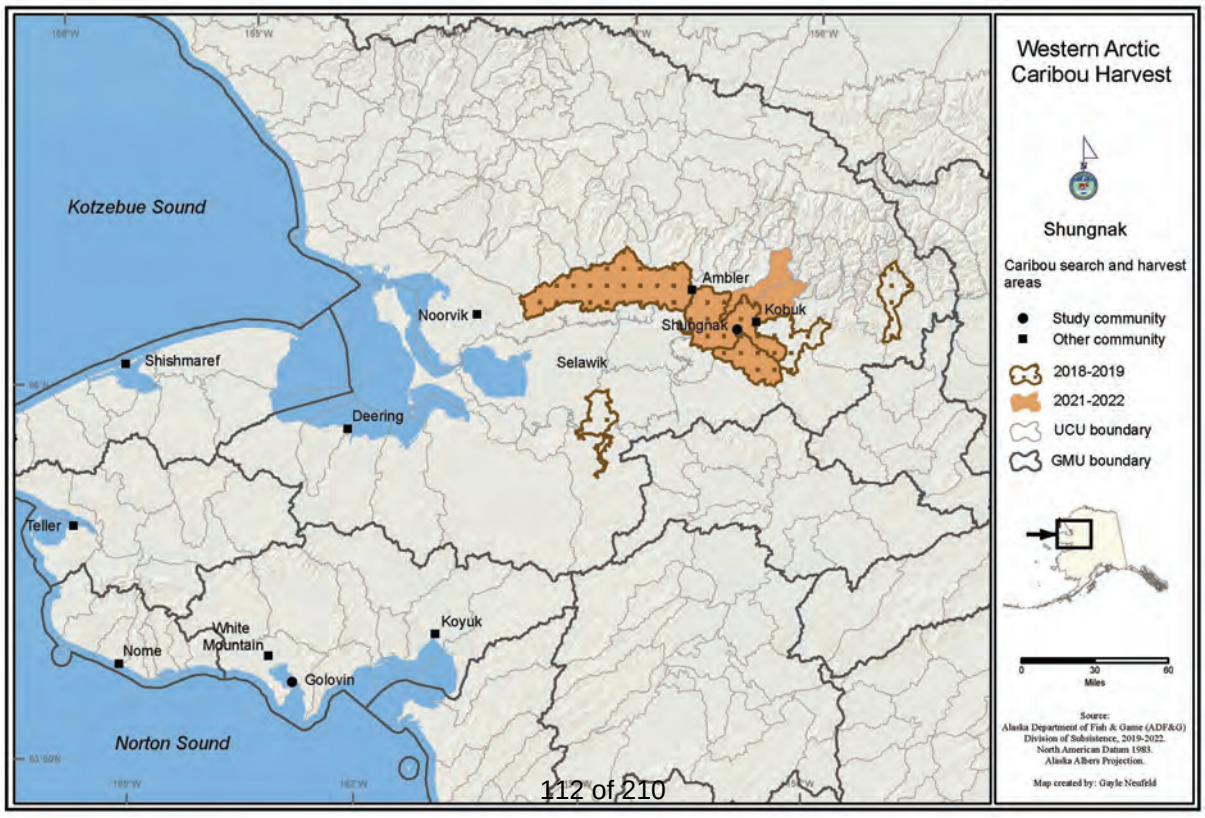
Harvest Areas Selawik

2018-2019, 2021-2022



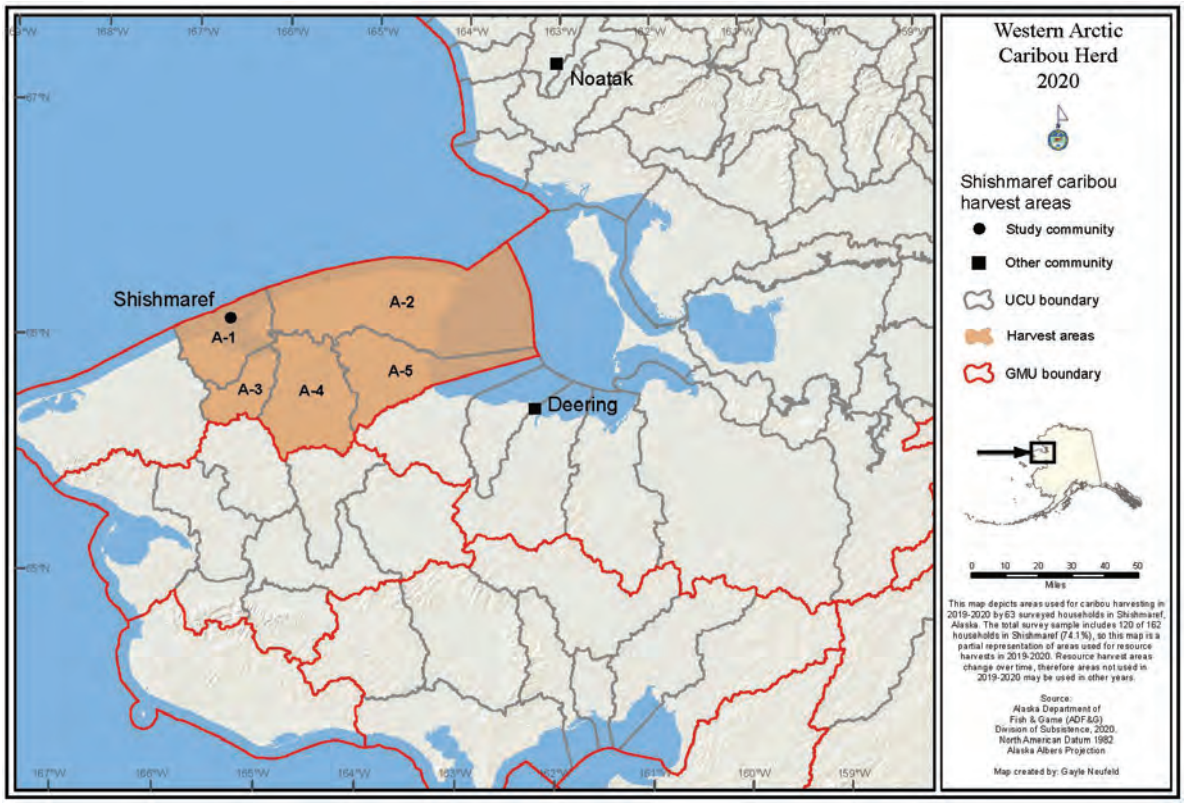
Harvest Areas Shungnak

2018-2019, 2021-2022



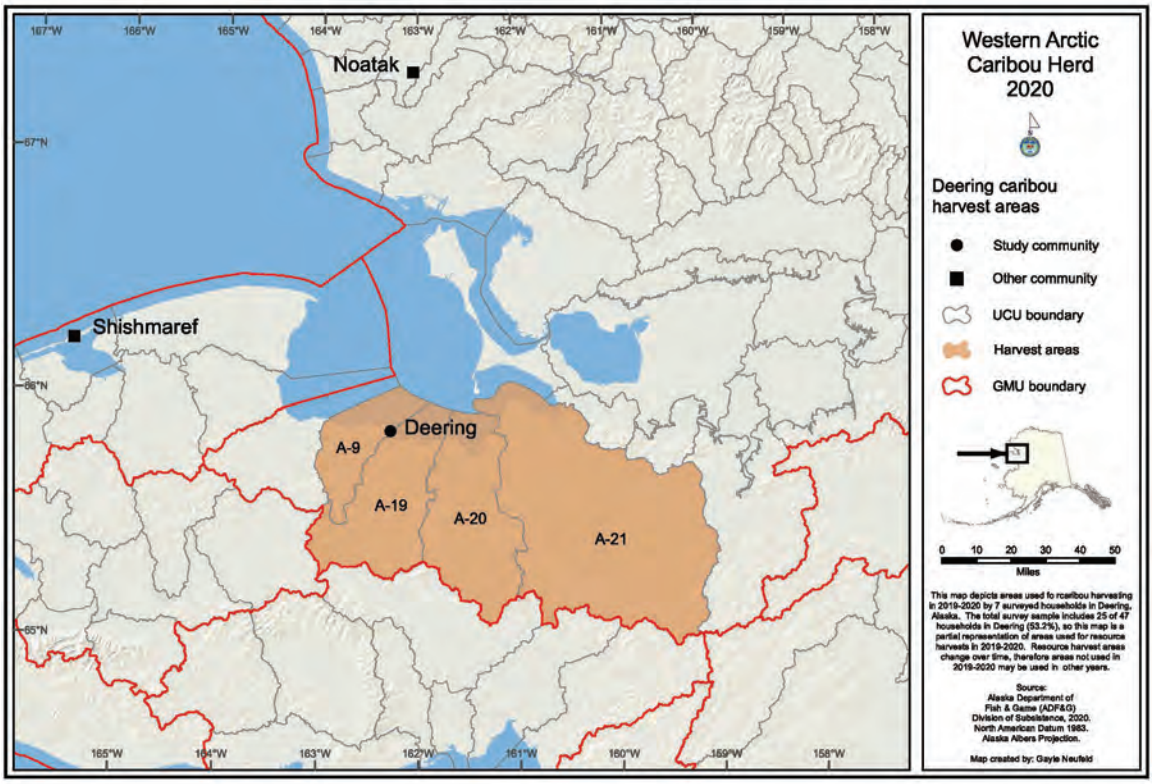
Harvest Areas Shishmaref

2020-2021



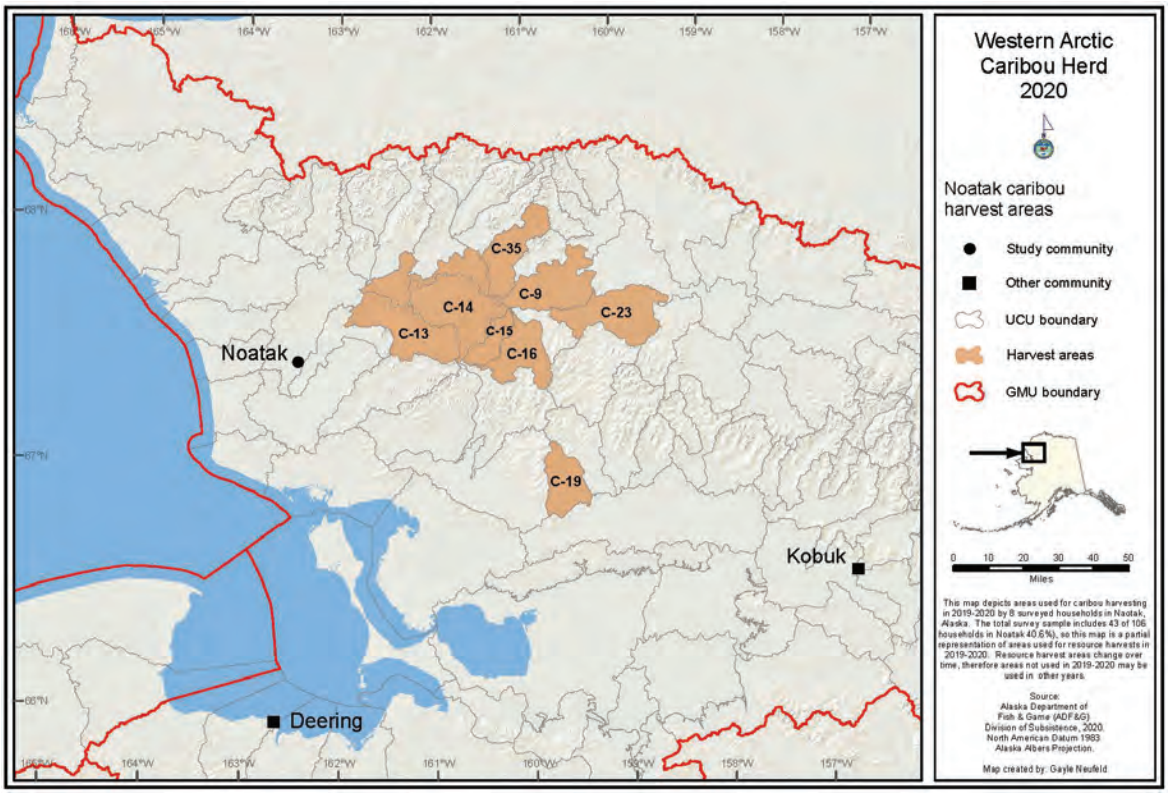
Harvest Areas Deering

2020-2021



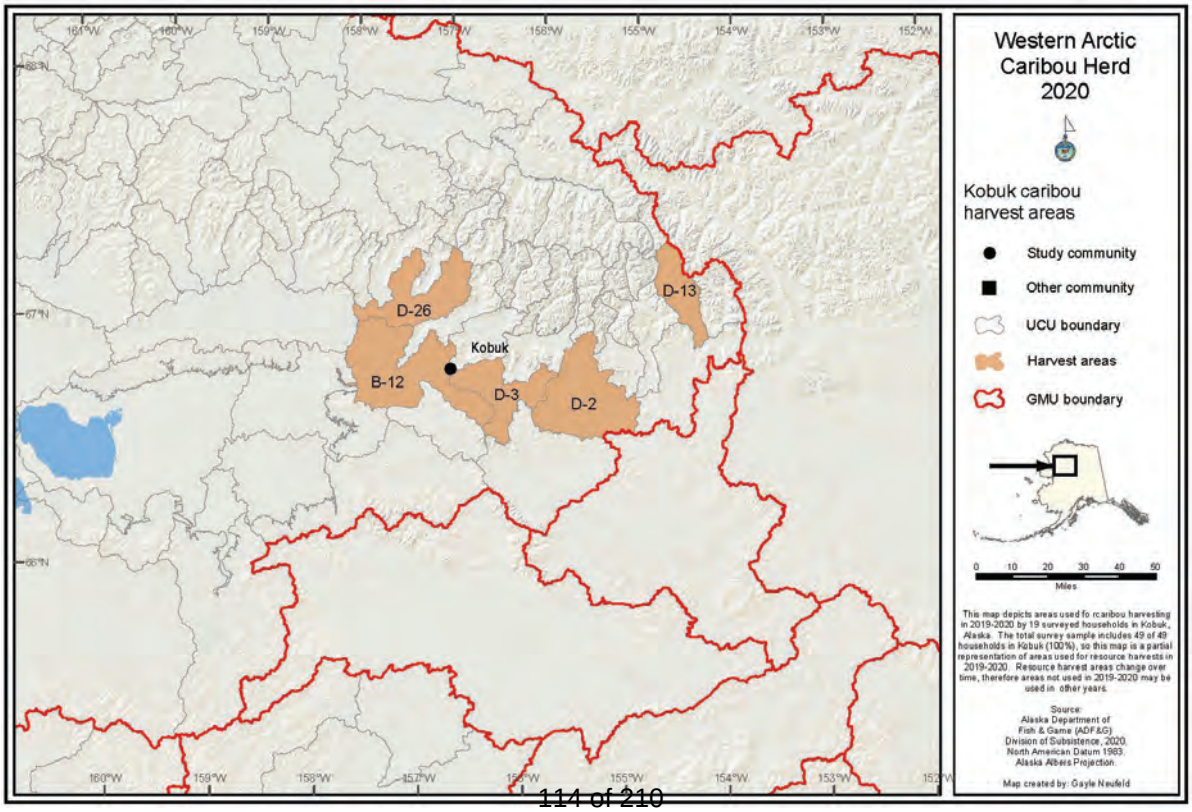
Harvest Areas Noatak

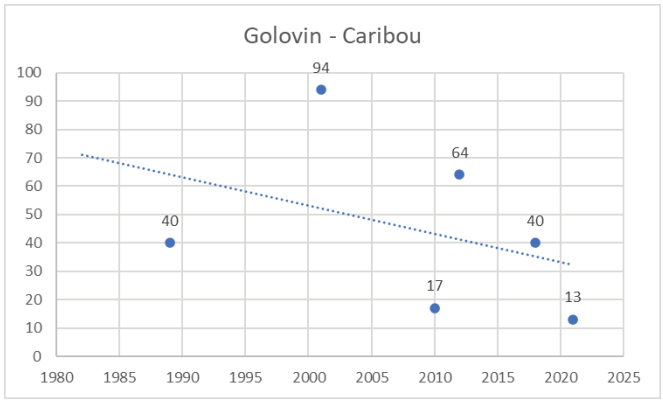
2020-2021

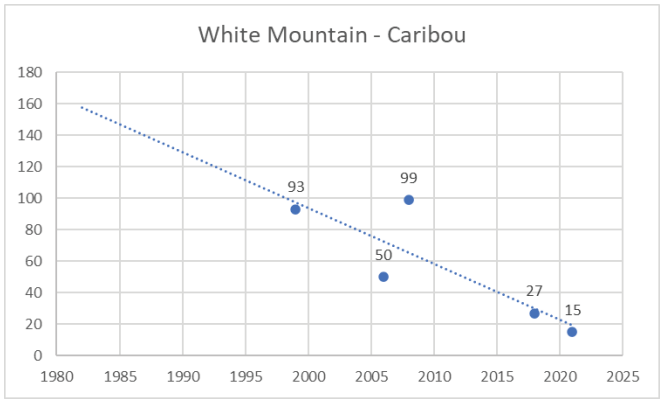


Harvest Areas Kobuk

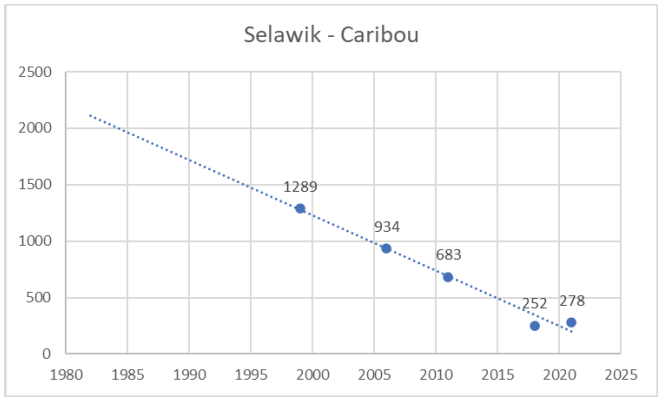
2020-2021

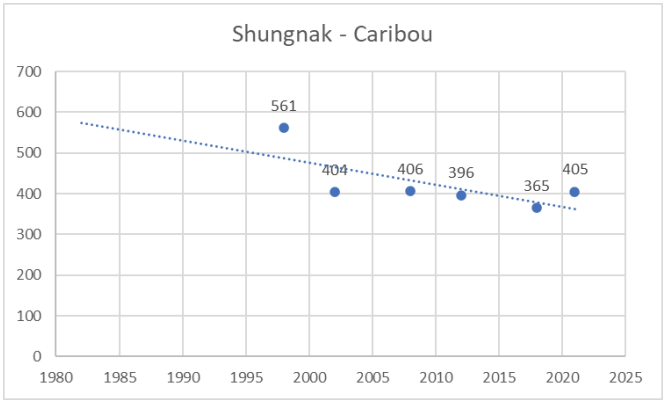


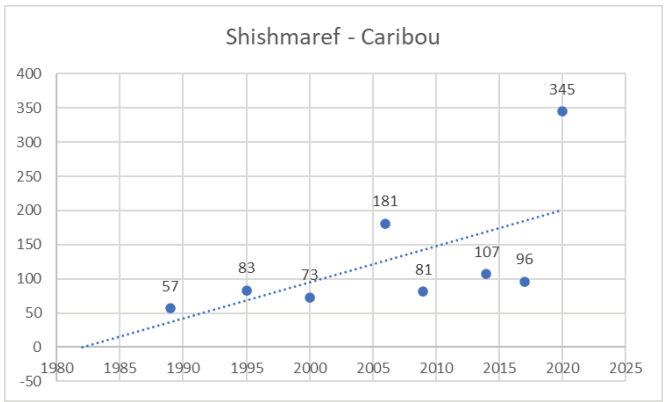


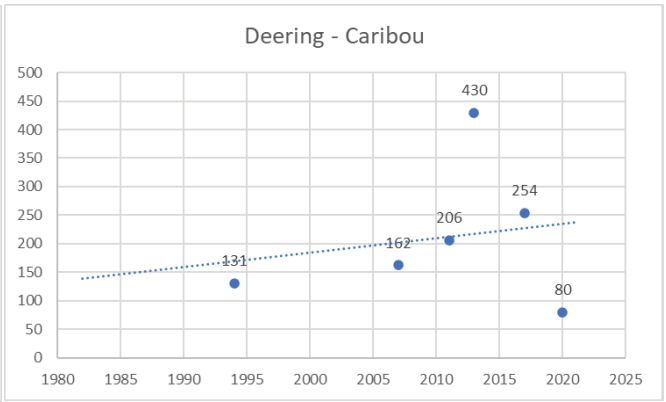


Caribou harvests over time

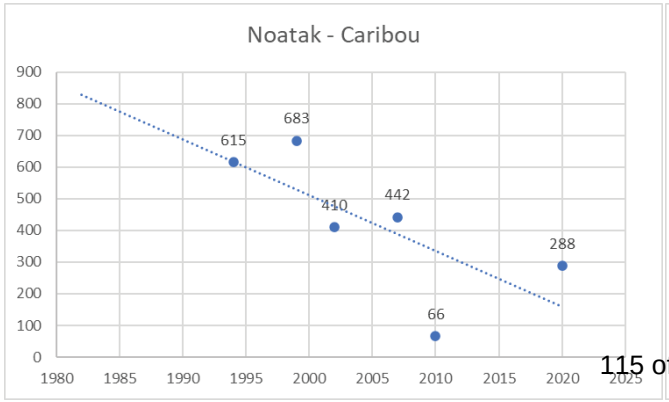


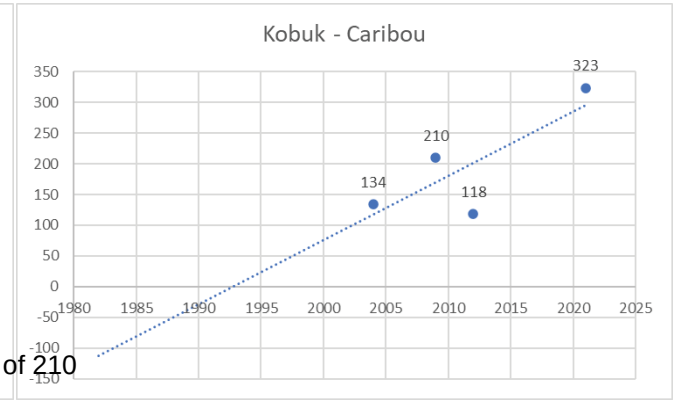




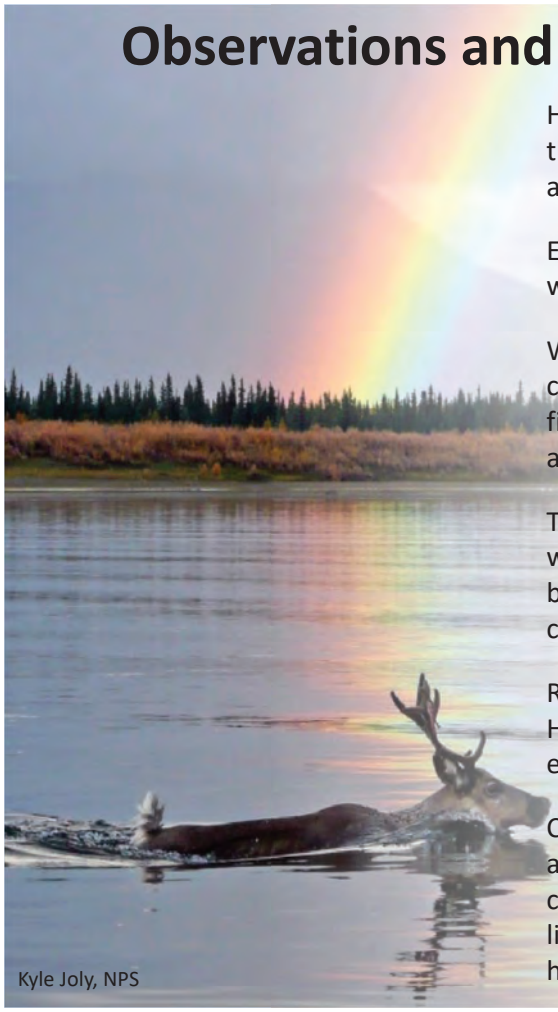


Caribou harvests over time





Observations and Concerns- Golovin



Kyle Joly, NPS

Hunters harvest fewer caribou than in the past 30 years because the caribou herd migration does not pass close to the community anymore, but caribou remain an important resource.

Elders continue to teach traditional values of sharing and not wasting to younger generations.

Warming temperatures and changing precipitation patterns caused by climate change are changing subsistence hunting and fishing. Changing conditions pose safety concerns with hunters and fishers traveling over ice.

The cost of responding to the increased number of extreme weather events in Golovin exacerbates the cost of subsistence because of damage to preserved foods, gear, and traditional camps.

Residents are noticing increased signs of wolves and bears. Hunters see more signs of predators close to town and more evidence of moose-kills in traditional hunting areas.

Competition from outside hunters during the fall moose hunt affects their ability to get enough moose and may have consequences for the health of the Fish River. Residents would like to see regulation changes that reduce the impact of outside hunters.

Observations and Concerns - Selawik

Residents learned to hunt land mammals from their families, often while out at camp doing other subsistence activities like drying fish, picking berries, or chopping wood.

Residents notice more frequent winter rain creates a layer of ice over lichens that caribou have a hard time digging through. New environmental patterns add stress to adult caribou survival.

Moose density is lower than in the past, making it harder to have success when you go out to harvest.

Residents are noticing an increase in predators, wolves and brown bears, which affect where caribou move, safety at fish nets, and safety around camps.

Sharing of caribou meat is very important for households unable to hunt or who are unsuccessful hunting.

Matt Cameron, NPS

Observations and Concerns- Shungnak

Shungnak hunters were able to harvest more caribou in 2021-22 than previous years because the herd passed very close to the community.

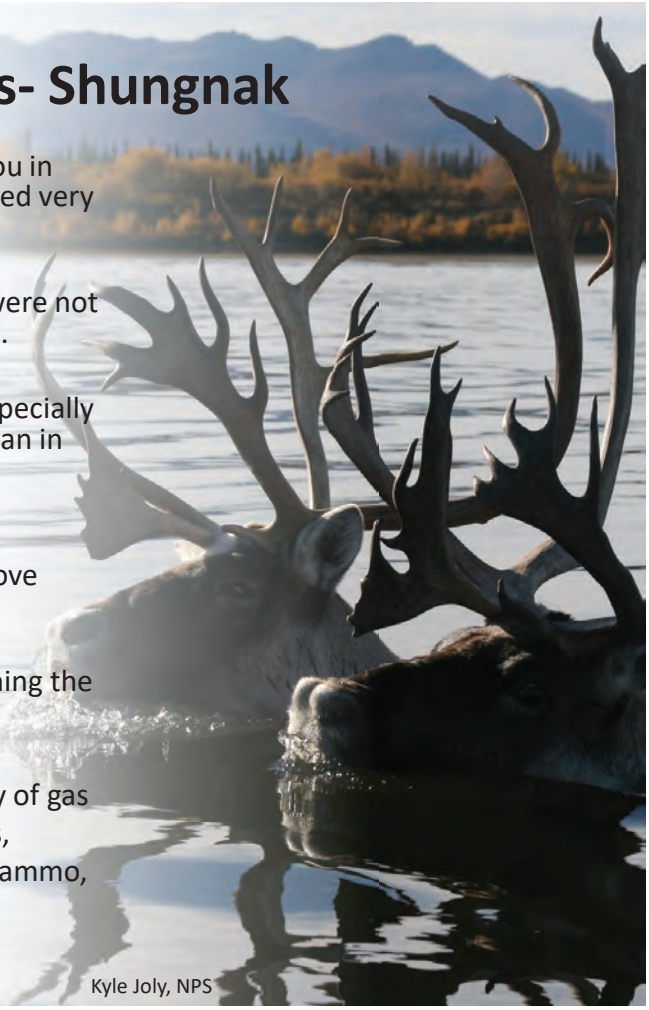
Hunters shared widely with elders and those who were not able to hunt in Shungnak and in other communities.

Residents have seen more predators in the area, especially wolves. Less hunters in Shungnak harvest wolves than in the past because there is less of a demand for furs.

People are concerned about activity related to development, changing how caribou and moose move across the land.

Elders notice the weather is warming and not reaching the cold temperatures it used to.

People are concerned with the price and availability of gas and gear. To make sure everyone meets their needs, people hunt for others, sometimes in exchange for ammo, gas, or using their boat or snowmachine.



Kyle Joly, NPS

Observations and Concerns – White Mountain

Residents say patterns of subsistence harvest have changed in the past 50 years because caribou migration does not come close to the community anymore and fewer caribou are harvested by local hunters each year.

White Mountain hunters' success during the fall moose quota hunt varies depending on the amount of pressure outside hunters put on the Fish River area.

Hunters are concerned about environmental damage caused by the increased number of boats on shallow parts of the river during the Fall hunt. Residents suggest regulation changes to reduce the impact of outside hunters.

Residents notice increased signs of predators, wolves and bears, coming close to town. Some younger people are hunting and trapping furbearers more, though the cost of gas and gear is a limitation.

Elders continue to teach traditional values of sharing and not wasting to younger generations.

Matt Cameron, NPS


Kyle Joly, NPS

Preliminary Observations and Concerns - Shishmaref

Residents are seeing more bears in the area and have concerns about caribou predation.

Concerns about aircraft prevalence around hunting areas (specifically the Serpentine River) during hunting season.

Several hunters expressed a desire to search for caribou west of town where hunting is currently not allowed.

Sharing of caribou meat (and moose meat) is very important for households that are unable to hunt or who are unsuccessful hunting.

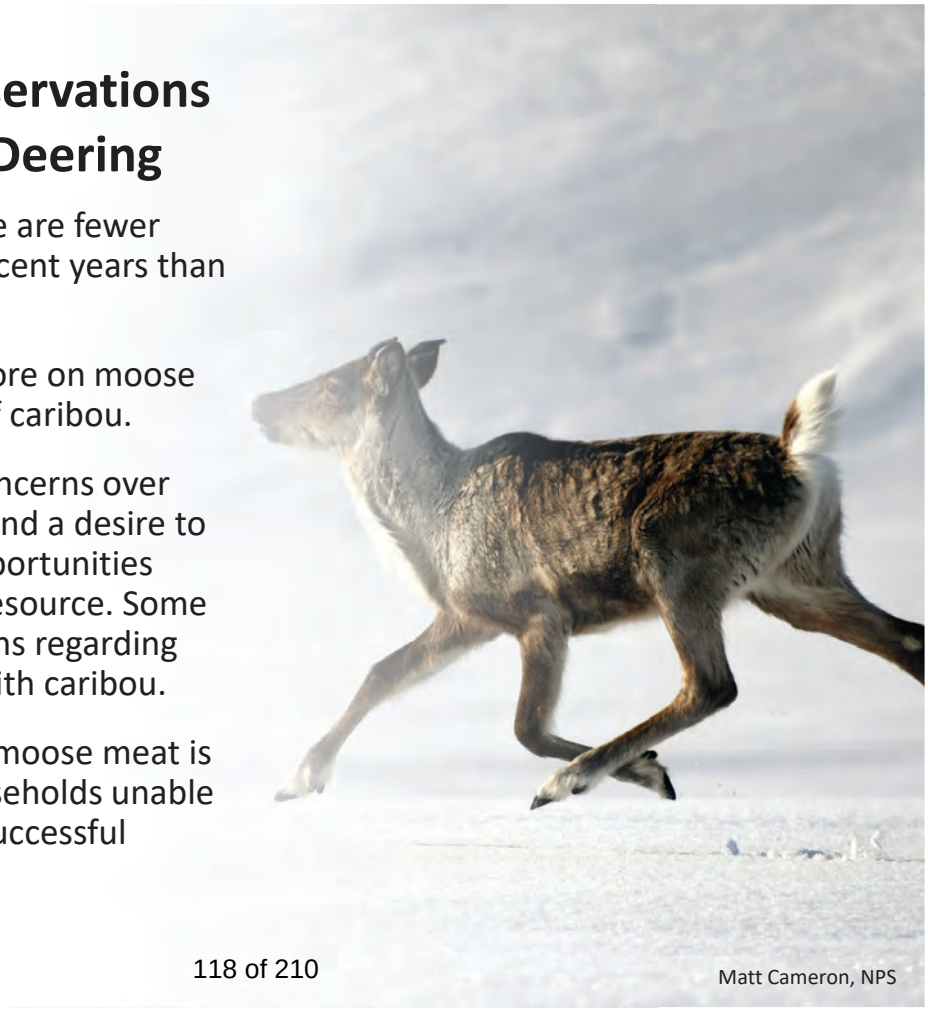
Preliminary Observations and Concerns - Deering

Residents indicate there are fewer caribou accessible in recent years than in the past.

Some families relied more on moose meat because of lack of caribou.

Residents expressed concerns over high muskox numbers and a desire to make more hunting opportunities available for this new resource. Some individuals had questions regarding possible competition with caribou.

Sharing of caribou and moose meat is very important for households unable to hunt or who are unsuccessful hunting.


Matt Cameron, NPS

Preliminary Observations and Concerns - Noatak

Many residents expressed concerns about aircraft prevalence around hunting areas upriver, and a desire to restrict sport hunting.

High cost of fuel combined with the distance hunters need to travel to reach the herd can be prohibitive for many families.

Some residents report an increase in the number of bears seen locally and have concerns about bear predation on caribou.

Sharing of caribou meat is very important for households unable to hunt or who are unsuccessful hunting.


Kyle Joly, NPS

Survey comments – Kobuk

Some residents had concerns over the effects of climate change on caribou habitat, but also on access to caribou due to unfrozen ground and lack of snow.

Many residents expressed an interest in hunting muskox to augment caribou harvests when caribou are less available.

Some households reported that moose were an important resource during times when caribou were scarce, and that moose meat was widely shared among community households.

Sharing of caribou meat is very important for households unable to hunt or who are unsuccessful hunting.


Matt Cameron, NPS

Future Research

In 2022 Working Group voted to encourage agencies to develop a comprehensive way to obtain accurate harvest data from communities across the herd's range.

ADF&G Subsistence hosted a roundtable discussion on 10/10/23 where several organizations came together to discuss future collaborative work to document WAH harvests across the herd's range.

Attendees:

NANA
NSBWD
USFWS
NPS
ADF&G DWC
ADF&G Subsistence

Morgan Urquia, ADF&G

Future Research (continued)

Roundtable highlights:

1) Survey content: only **key information** to keep as short as possible

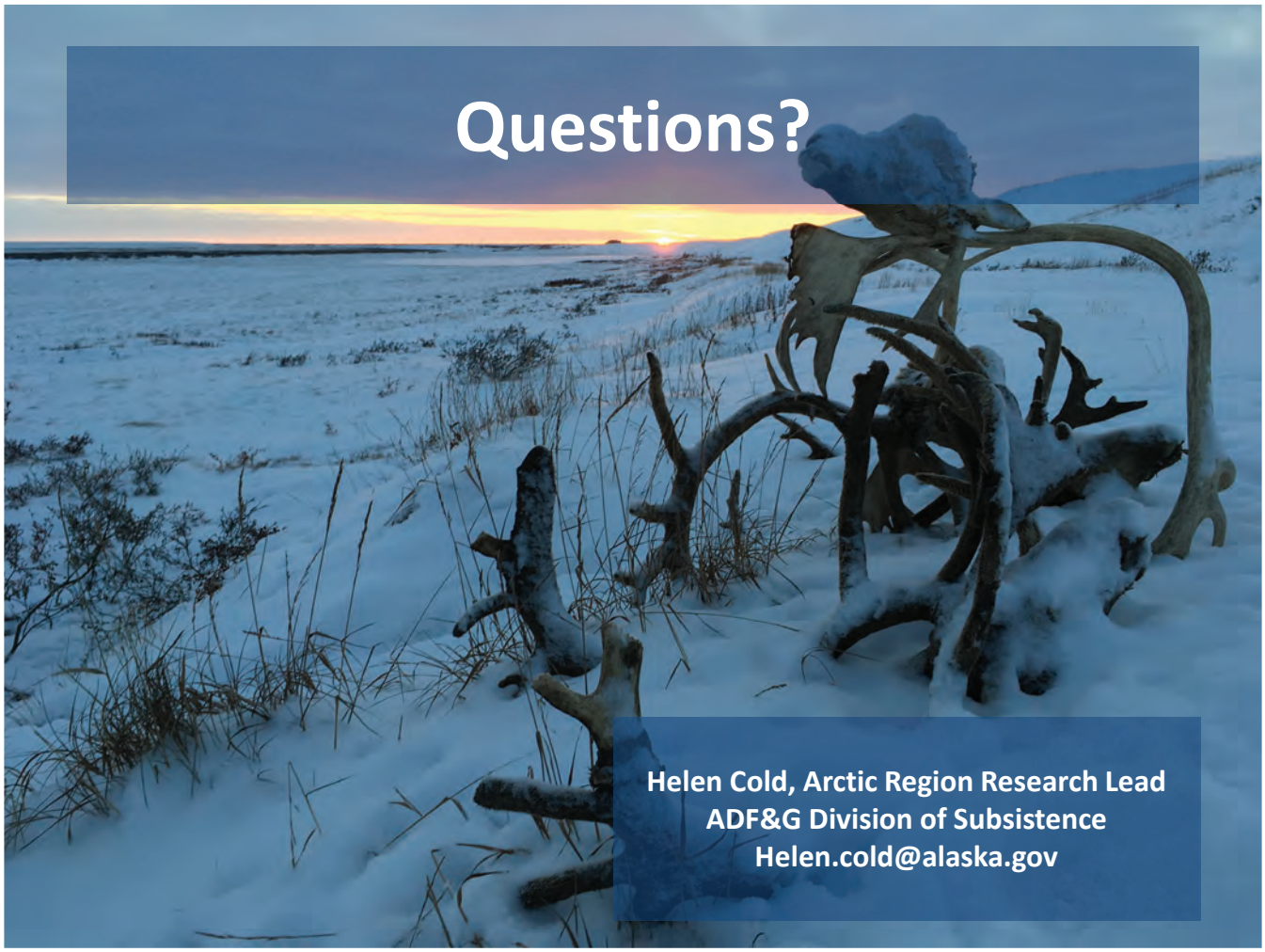
- # harvested
- sex
- time (month or season)
- location data
- harvest patterns

2.) Agencies broadly identified resources/capacities for survey involvement, including:

- Funding
- Project coordination/personnel

Details further defined at future regional meetings

Morgan Urquia, ADF&G


Questions?
Helen Cold, Arctic Region Research Lead
ADF&G Division of Subsistence
Helen.cold@alaska.gov

Caribou Harvest in Communities on the North Slope Within the Range of the Western Arctic Herd

WAH Working Group, December 13-14, 2023

Brian Person, Senior Wildlife Biologist, NSB Dept. Wildlife Management

OUTLINE:

- Methods for estimating caribou harvest in North Slope communities within the range of the Western Arctic Herd (WAH)
- Results of community harvest data from households were surveyed in the communities of Anaktuvuk Pass, Point Hope, Point Lay, Wainwright, Atqasuk, and Utqiagvik ~ between 2014-2021
- Methods used in a spatial analysis that assigns harvest to the WAH and Teshekpuk herd (TCH) between 2016-2021 when harvest data were available (SPTIAL ANALYSIS)
- Preliminary results on the proportion of caribou harvest from the WAH and TCH
- Discussion and next steps

METHODS FOR COMMUNITY HARVEST ESTIMATES:

Caribou harvest was estimated at the household level using 1 year recall interviews

<u>Household harvest</u> is the sum of the number of cow, bull, and unknown sex caribou harvested by all hunters within a household for a given year which was used in the following estimate of community harvest

<u>Community harvest</u> was estimated using the following equation:

$$\left[\left(\sum_{i}^{n} reported\ household\ harvest\right)/n\right] * N$$

where:

n **= the number of households surveyed in a community**
N **= total number of households in a community**

NSB DWM caribou harvest questions for JAN-DEC 20XX:

Village _____ Household ID _____ Interviewer _____

Date of Interview _____

1. Did you hunt caribou from <u>January to December in 20XX</u>? Yes____ No_____

If Yes:

2. What month/s did you harvest them? Please write the number harvested and sex in each month:

Month	Bull	Cow	UNK	Month	Bull	Cow	UNK
Jan				Feb			
Mar				Apr			
May				Jun			
Jul				Aug			
Sep				Oct			
Nov				Dec			

3. How many did you harvest? Male____ Female____ UNK_____ Total_____

4. In general how would you assess the body condition of the caribou you harvested? _____

1. **Skinny** (no back fat, little or no gut or kidney fat).
2. **Not Bad** (little back fat, some gut or kidney fat).
3. **Fat** (nice layer back fat, plenty of gut or kidney fat).
4. **Very Fat** (thick layer back fat all the way up the back & fat inside).

_____

_____

_____

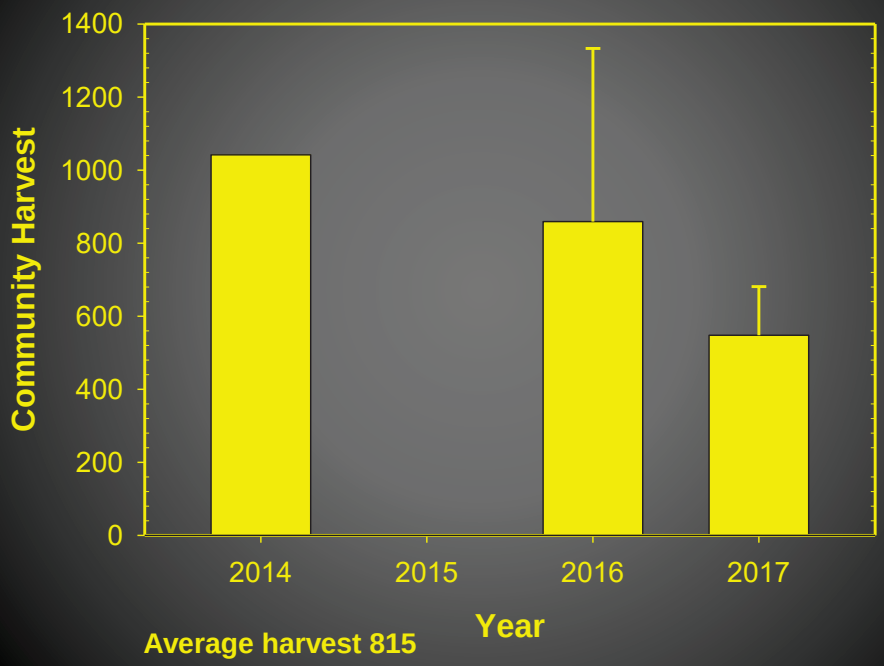
5. General hunt location (kill site/s)

_____

_____

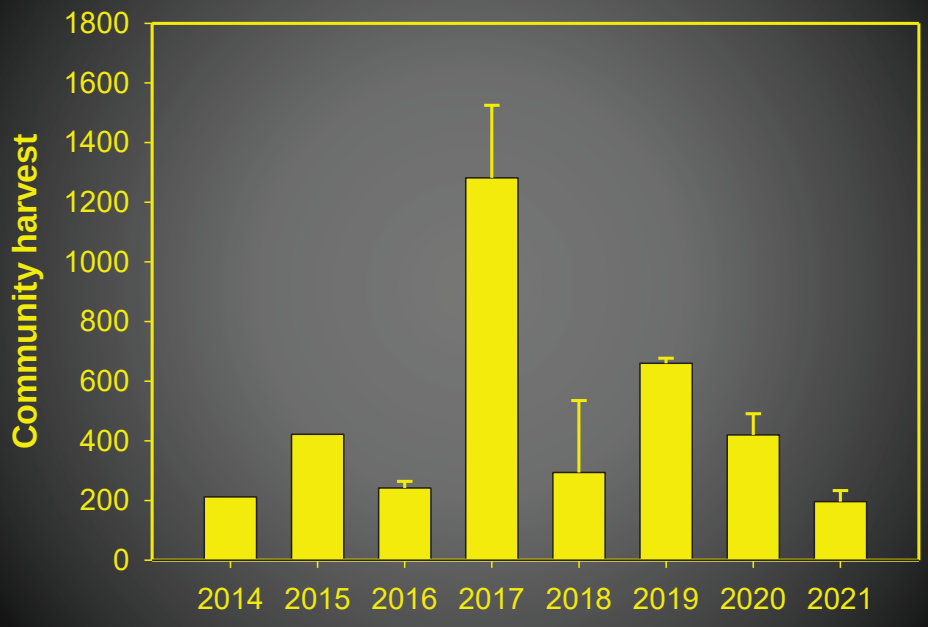
_____

Anaktuvuk Pass caribou harvest (95% CI)



Average harvest 815

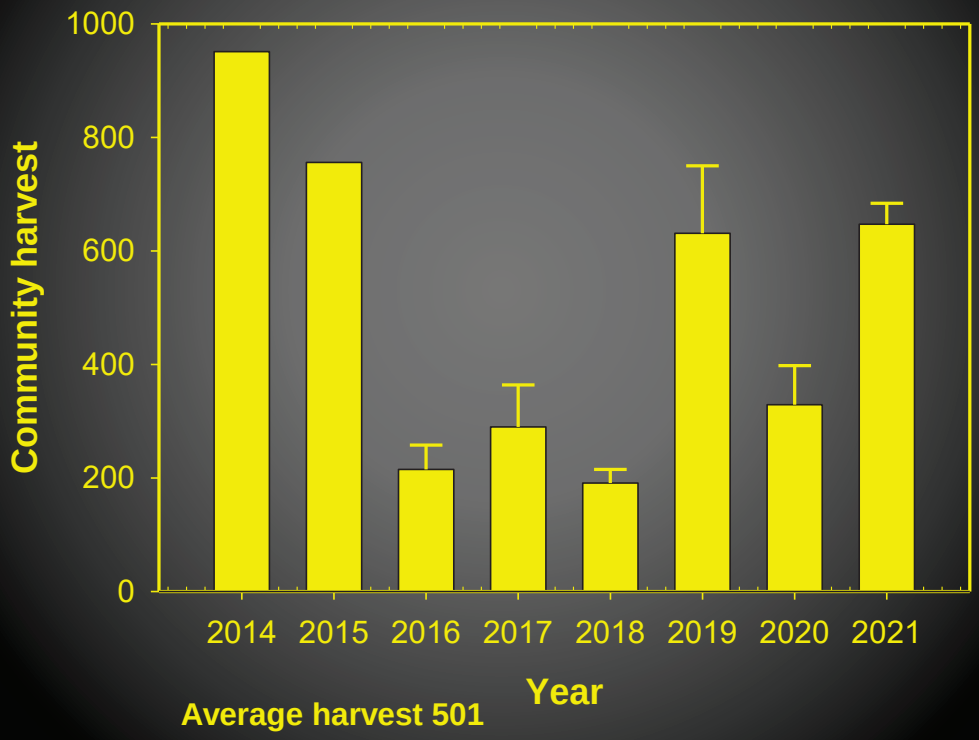
Point Hope caribou harvest (95% CI)



Average harvest 466

RESULTS - COMMUNITY HARVEST ESTIMATES

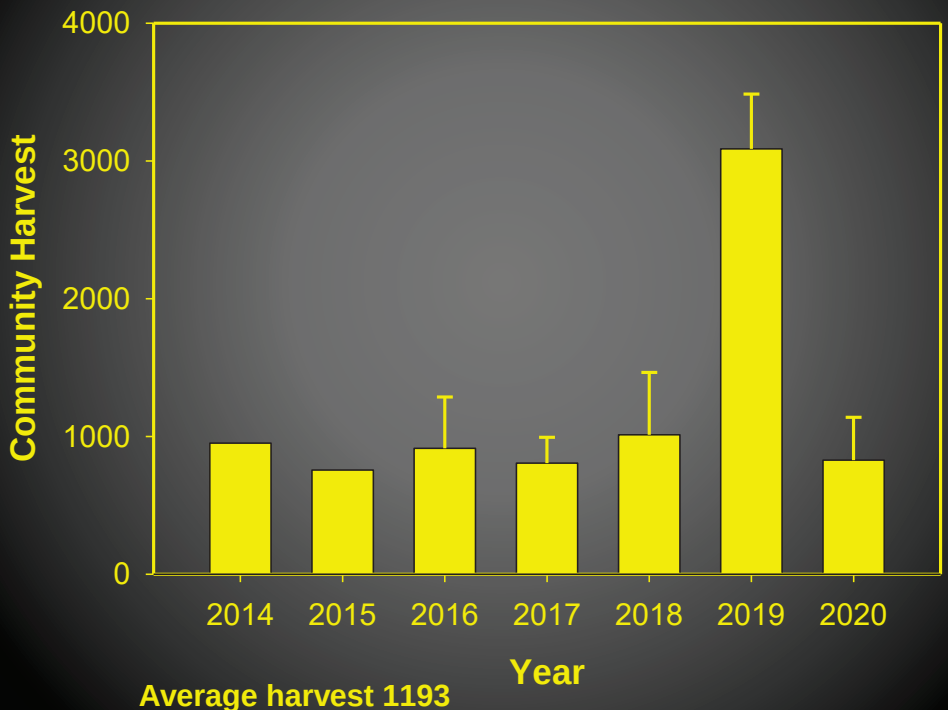
Point Lay caribou harvest (95% CI)



Average harvest 501

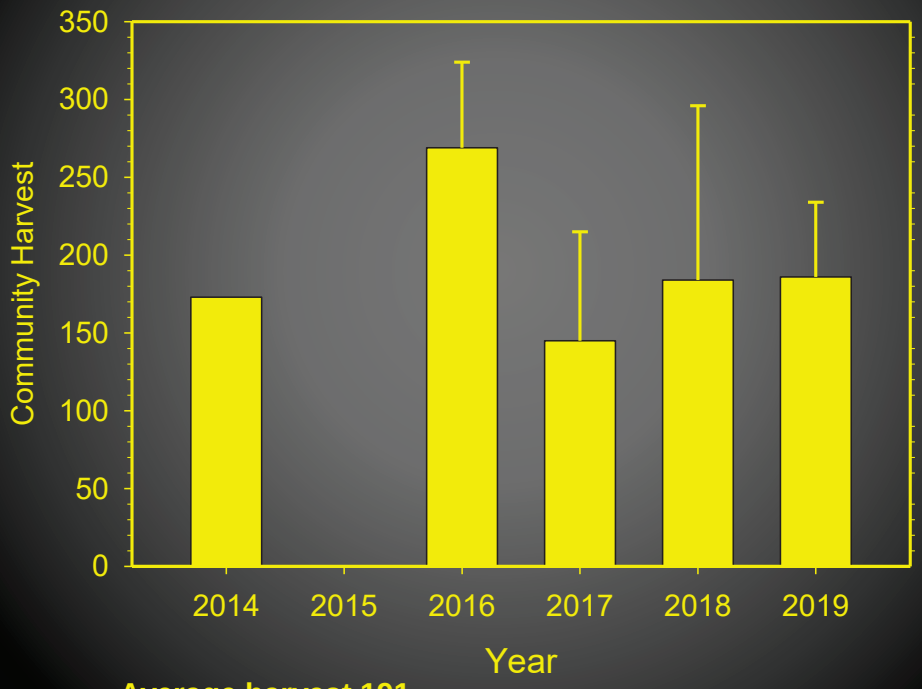
RESULTS - COMMUNITY HARVEST ESTIMATES

Wainwright caribou harvest (95% CI)



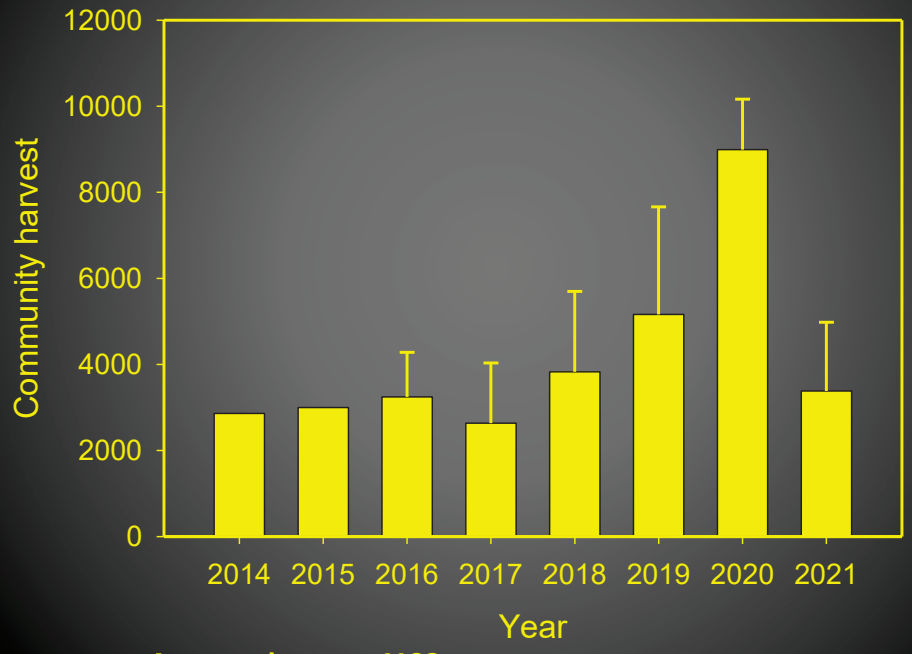
Average harvest 1193

Atqasuk caribou harvest (95% CI)



Average harvest 191

Utqiagvik caribou harvest (95% CI)



Average harvest 4138

METHODS FOR SPATIAL ANALYSIS USING THE COMMUNITY HARVEST DATA

A preliminary analysis of the proportion of caribou harvested from the Teshekpuk and Western Arctic Caribou Herd was conducted

Using telemetry data we calculated kernel density estimation (KDE) for individual caribou for each 2-day period (the average location in that 2-day period) and averaged those KDE's over each month in each year data were available

A raster of the utilization distribution sums to one and represents 100% of the herd distribution and the value of a single pixel represents the proportion of the herd in that pixel

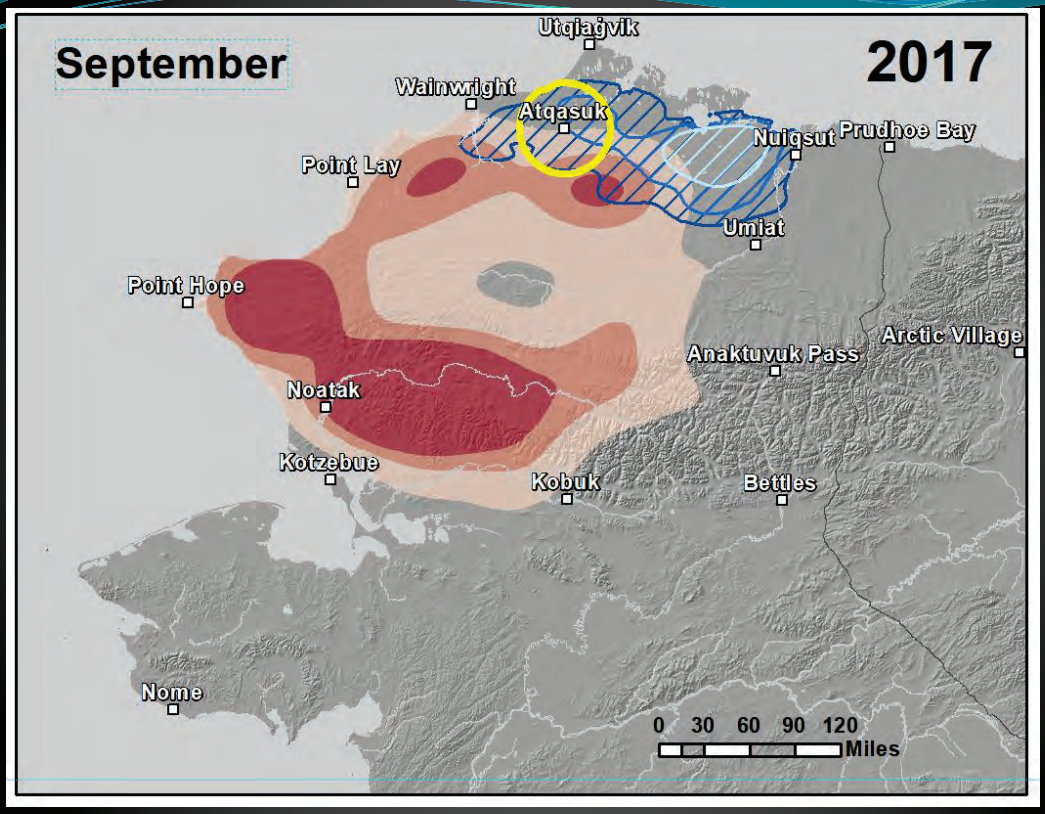
We multiplied that value by the herd size to get an estimate of the number of caribou expected to be in that pixel at a given time

We then clipped the UD raster in a 30 mile radius of each community, calculated the sum of the UD in that hunting polygon and multiplied that sum by the current population size

The proportion of total caribou by herd in that polygon is then applied to the harvest total to estimate the number of caribou from each herd that were harvested

For example, if 60 WAH and 40 TCH caribou were estimated to be within 30 miles of the community, the proportion of WAH animals was estimated to be 0.60. If 30 caribou were harvested by that community in that month, we assumed that 18 (60% of 30) were WAH caribou and 12 (40% of 30) were TCH caribou

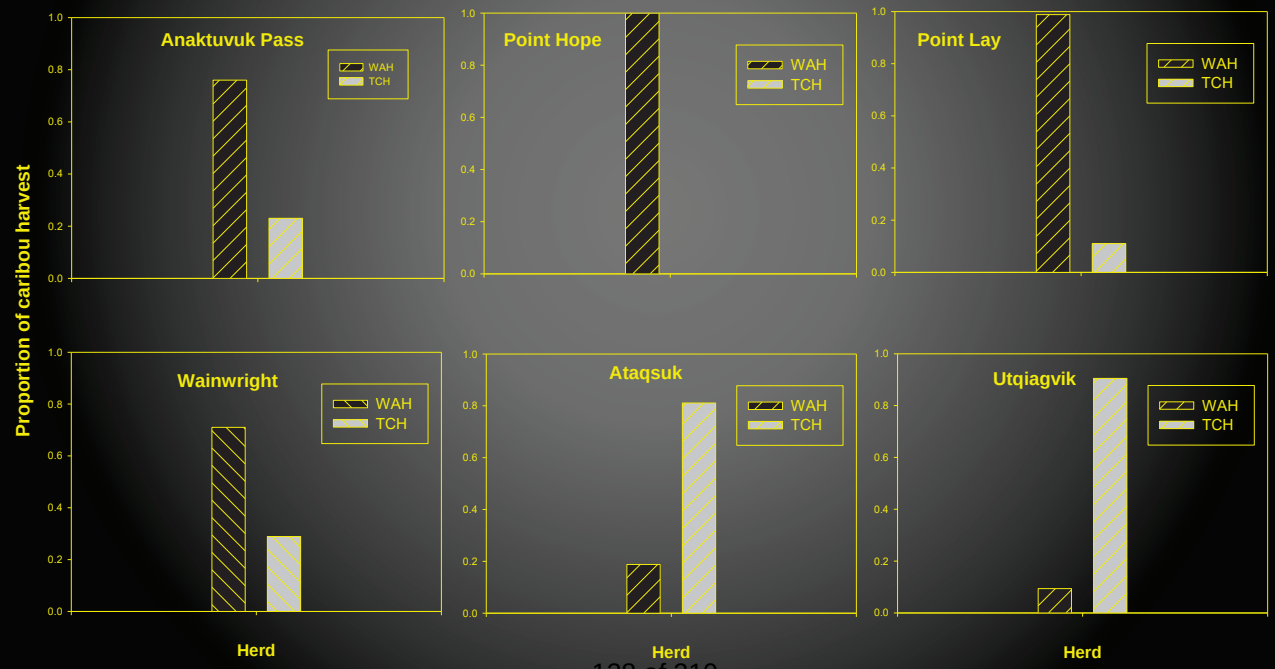
EXAMPLE OF HERD OVERLAP AND 30 MILE POLYGON NEAR ATQASUK



In September 2017 38% of harvest from WAH and 62% from TCH

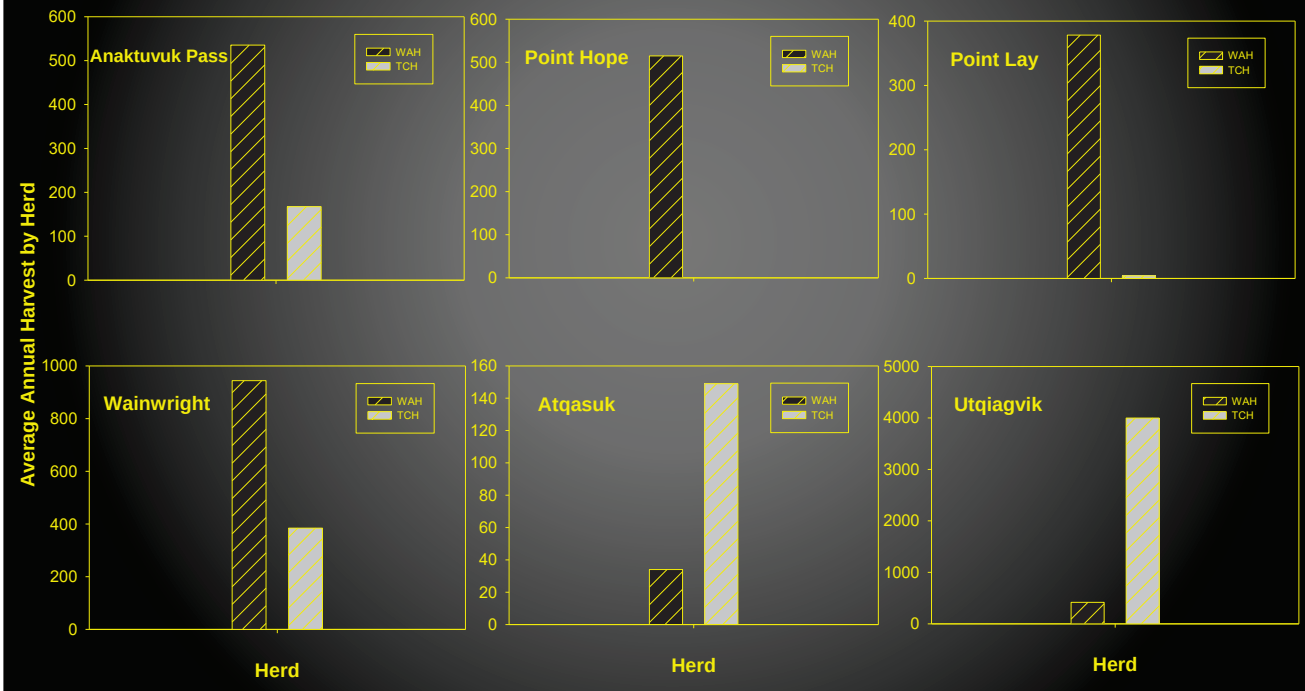
RESULTS – SPATIAL ANALYSIS

Expected proportion of WAH and TCH caribou harvest by communities within the range of the WAH



RESULTS – SPATIAL ANALYSIS

Average caribou harvest from the Western and Teshekpuk herds from communities within the range of the Western Arctic Herd



Summary:

Caribou harvest is variable among years and seasons

North Slope communities consume an average of 2,825 WAH caribou per year

Based on the 2023 census result of 152,000 caribou and assuming a 5% harvestable surplus of 7,600, North Slope communities are harvesting 37% of that surplus

Moving forward:

Continue to collect harvest data from all North Slope communities

Adjust hunting polygons based on season and mode of travel

Include Central Arctic Caribou telemetry data in the spatial analysis for Anaktuvuk Pass

Questions

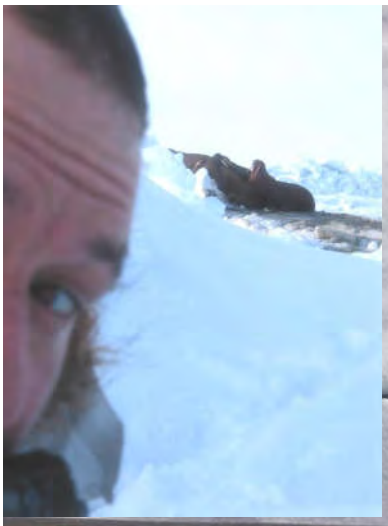
FATE of the CARIBOU PROJECT

Compiling Knowledge and Long-term Observations

Dr. Elie Gurarie
State University of New York
College of Environmental Science and Forestry

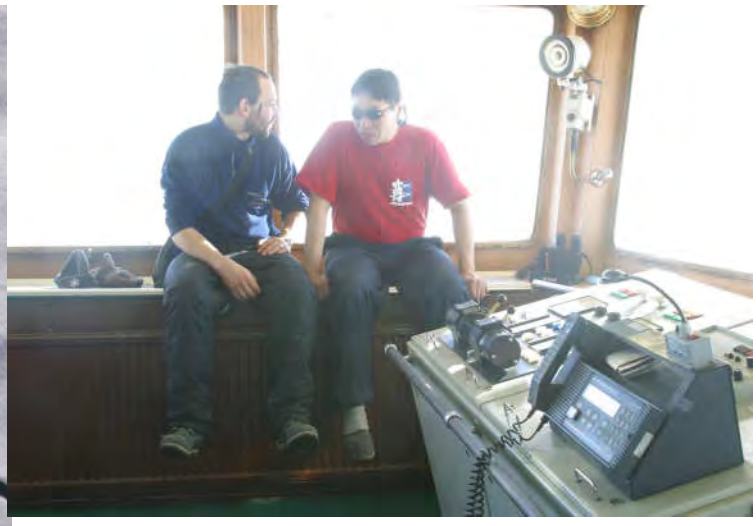
Western Arctic Caribou Herd Working Group – Anchorage – Dec, 2023

ESF
State University of New York College of Environmental Science and Forestry



Who we are

Dr. Elie Gurarie
egurarie@esf.edu
State University of New York
Syracuse, NY



Chloe Beaupré
PhD Student
Fate of the Caribou Project

Anna Brose
Communications Manager
Fate of the Caribou Project

Erica Wood
PhD Student (incoming)
Fate of the Caribou Project

Research involving WAH*

ARTICLE
Macrosystems Ecology

ECOSPHERE

Continental synchrony and local responses: Climatic effects on spatiotemporal patterns of calving in a social ungulate

Ophélie H. Couriot[1,2,3] | Matthew D. Cameron[4] | Kyle Joly[4] | Jan Adamczewski[5] | Mitch W. Campbell[6] | Tracy Davison[7] | Anne Gunn[2,8] | Allicia P. Kelly[9] | Mathieu Leblond[10] | Judy Williams[5] | William F. Fagan[1,2] | Anna Brose[2] | Eliezer Gurarie[1,2]

toxins

Communication

Behavioral, Physiological, Demographic and Ecological Impacts of Hematophagous and Endoparasitic Insects on an Arctic Ungulate

Kyle Joly [1,*], Ophélie Couriot [2,3], Matthew D. Cameron [1] and Eliezer Gurarie [3]

APPLICATION

Methods in Ecology and Evolution

For everything there is a season: Analysing periodic mortality patterns with the `cyclomort` R package

Eliezer Gurarie[1] | Peter R. Thompson[1,2] | Allicia P. Kelly[3] | Nicholas C. Larter[4] | William F. Fagan[1] | Kyle Joly[5]

esa ECOSPHERE

Tactical departures and strategic arrivals: Divergent effects of climate and weather on caribou spring migrations

Eliezer Gurarie,[1,2,†] Mark Hebblewhite,[2] Kyle Joly,[3] Allicia P. Kelly,[4] Jan Adamczewski,[5] Sarah C. Davidson,[6,7] Tracy Davison,[8] Anne Gunn,[9] Michael J. Suitor,[10] William F. Fagan,[1] and Natalie Boelman[11]

Anim. Migr. 2021; 8:156–167 DE GRUYTER

Commentary

Kyle Joly*, Anne Gunn, Steeve D. Côté, Manuela Panzacchi, Jan Adamczewski, Michael J. Suitor, Eliezer Gurarie

Caribou and reindeer migrations in the changing Arctic

ORIGINAL RESEARCH

Ecology and Evolution WILEY

Seasonal patterns of spatial fidelity and temporal consistency in the distribution and movements of a migratory ungulate

Kyle Joly[1] | Eliezer Gurarie[2] | D. Alexander Hansen[3] | Matthew D. Cameron[1]

Corrected: Author Correction

OPEN

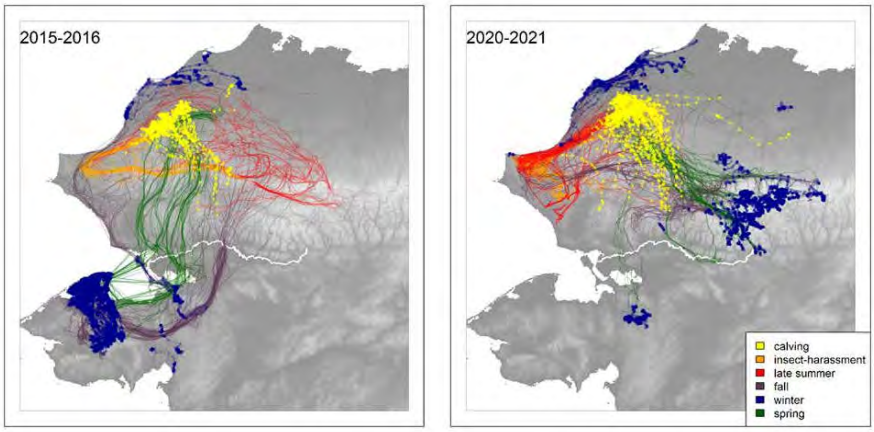
Longest terrestrial migrations and movements around the world

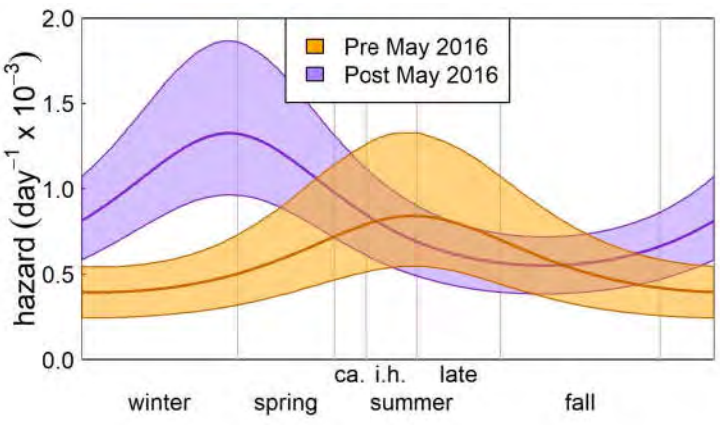
Kyle Joly[1*], Eliezer Gurarie[2], Mathew S. Sorum[3], Petra Kaczensky[4,5], Matthew D. Cameron[1], Andrew F. Jakes[6], Bridget L. Borg[7], Dejid Nandintsetseg[8,9], J. Grant C. Hopcraft[10], Bayarbaatar Buuveibaatar[11], Paul F. Jones[12], Thomas Mueller[8,9], Chris Walzer[5,13], Kirk A. Olson[11], John C. Payne[5,11,13], Adiya Yadamsuren[14,15] & Mark Hebblewhite[16]

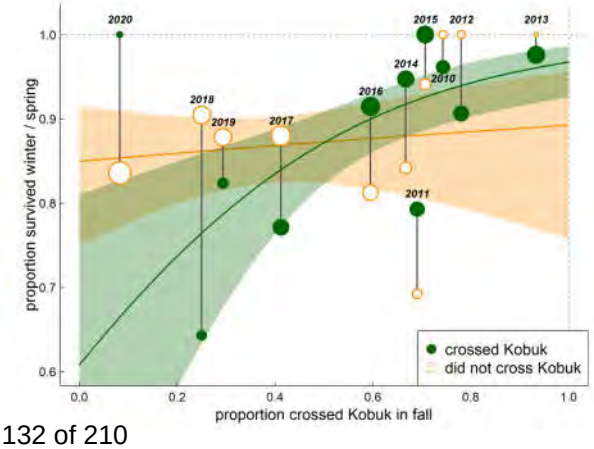
*** - with Kyle Joly**

Western Arctic Herd survival analyses

Eliezer Gurarie, Kyle Joly, Chloe Beaupré*, Ophélie Couriot, D. Alexander Hansen, William F. Fagan, Matthew D. Cameron





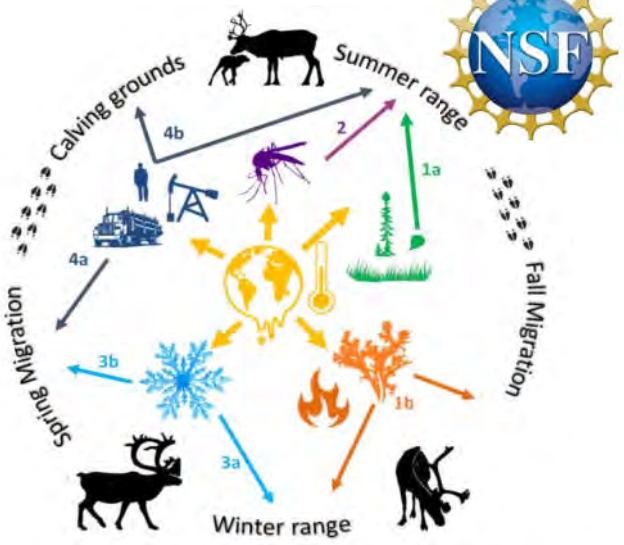


Chloe Beaupré
PhD Student
Fate of the Caribou Project

Principal Investigator

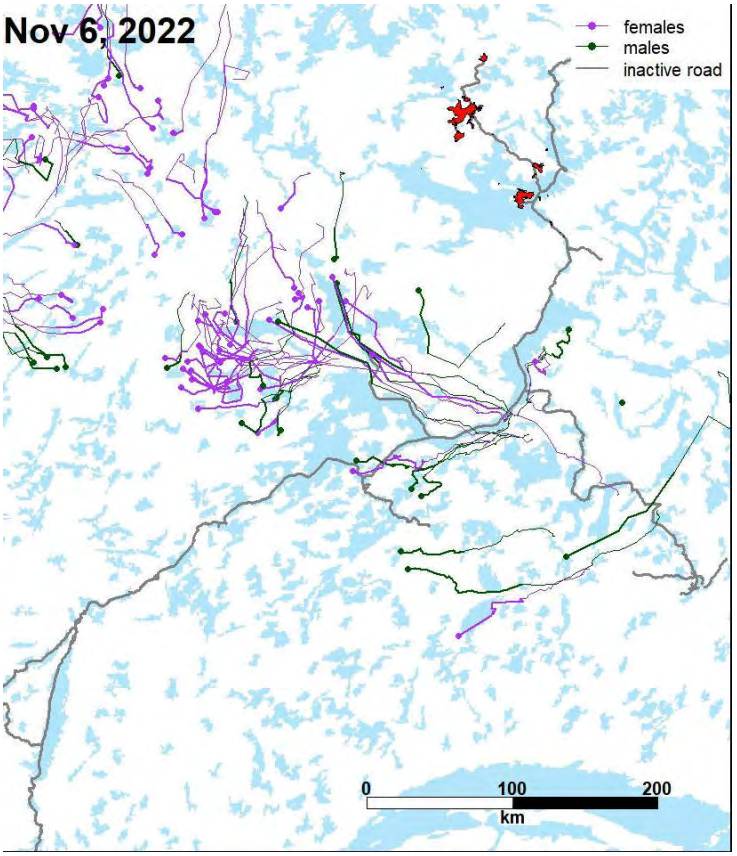
Mission: Serve the interests and lean on knowledge of communities, co-management boards and advisory councils to:

- explore the impacts of a changing Arctic on on caribou movements, space use, demography.
- **share** and **learn**.



Movement analysis

Impact of roads



Details / dates / design with Tłı̨chǫ *Ekwǫ̀ Nàxoèhdee K'è*

Bathurst caribou storymap

link

Knowledge of the Caribou

Goal

Build infrastructure to compile and share TEK observations of caribou (mainly from **existing reports and documents**).

Ideally:

- Searchable, Securely Stored, Extensible, Access-controlled
- Useful to local communities, research partners
- Involves local communities as full partners, including at the design stage

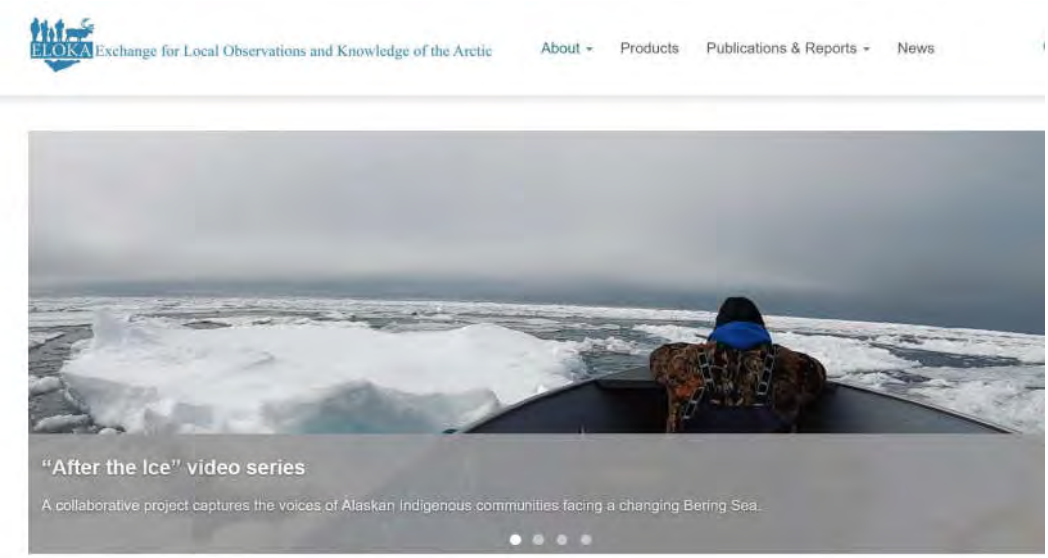
Collaborating with ELOKA
Exchange for Local Observations and Knowledge of the Arctic

ELOKA partners with **Indigenous communities in the Arctic** to:

create online products that facilitate the **collection**, **preservation**, **exchange**, and use of **local observations** and Indigenous Knowledge of the Arctic.

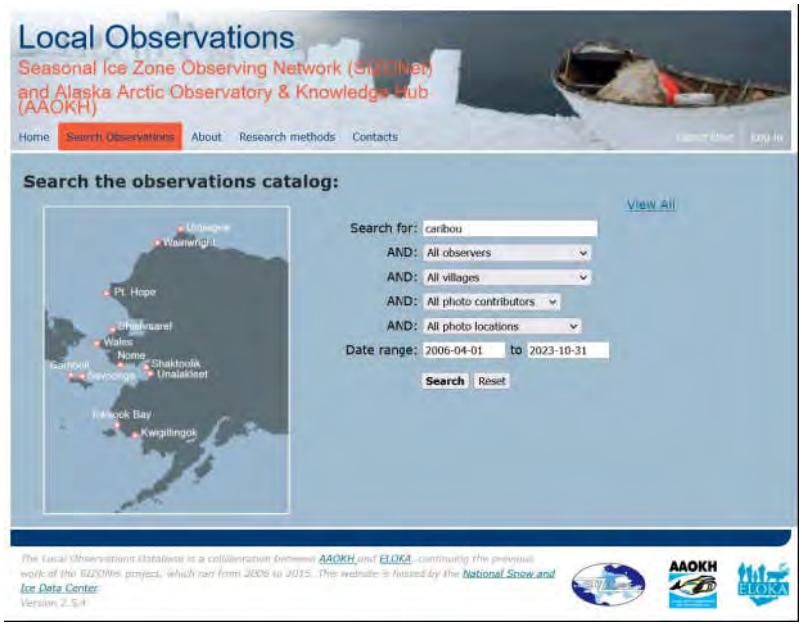
foster collaboration between **resident Arctic experts** and **visiting researchers**,

provide **data management** and **user support** and **develops digital tools** for **Indigenous Knowledge** in collaboration with our partners.

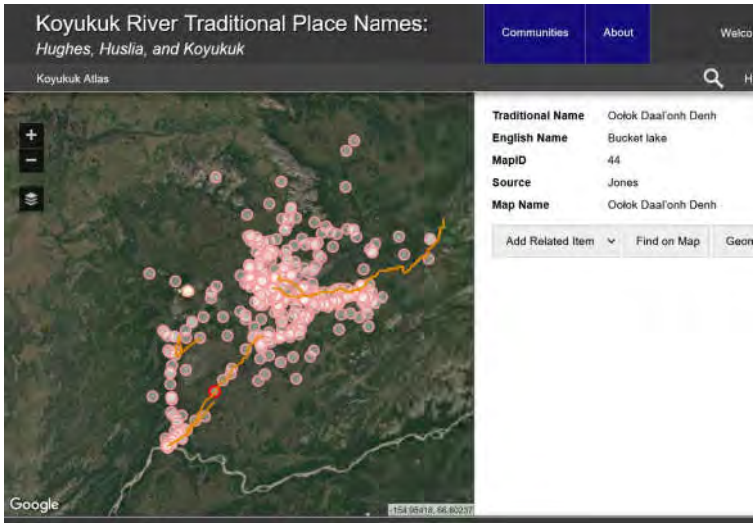


Examples of ELOKA-supported projects

Seasonal Ice Zone Observing Network (SIZONet)



Koyukuk place-name atlas



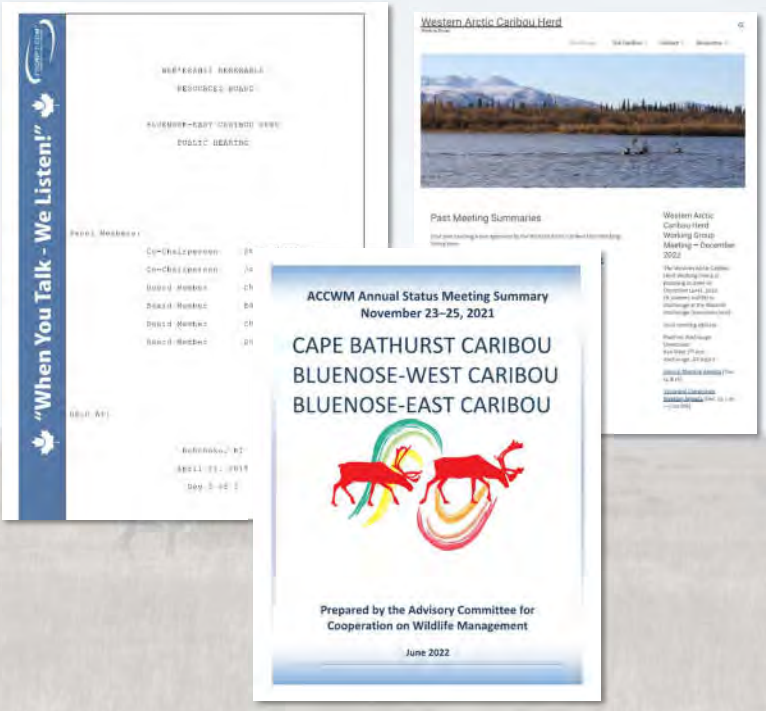
Compiling knowledge of caribou

Annual caribou workshops and herd-specific working group meetings

Observations provide local record and represent a significant time investment

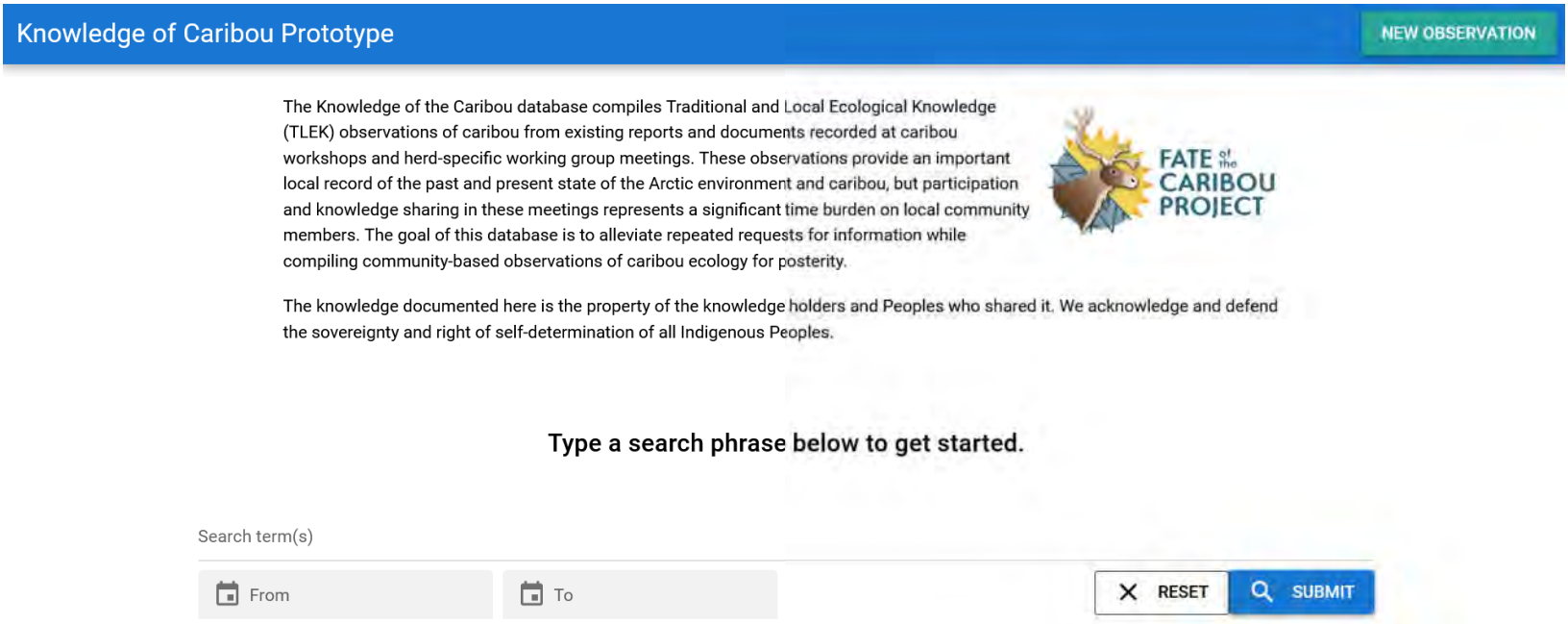
Important information within meeting notes is tucked away in pdf's

Not searchable/usable for communities (or researchers)



Knowledge of the Caribou Prototype

https://staging.eloka-arctic.org/caribou



Knowledge of the the Caribou Prototype

Knowledge of Caribou Prototype

NEW OBSERVATION

2011 Western Arctic Caribou Herd Working Group

https://westernarcticcaribou.net/wp-content/uploads/2017/01/wachwg-2011-meeting-summary-final.pdf

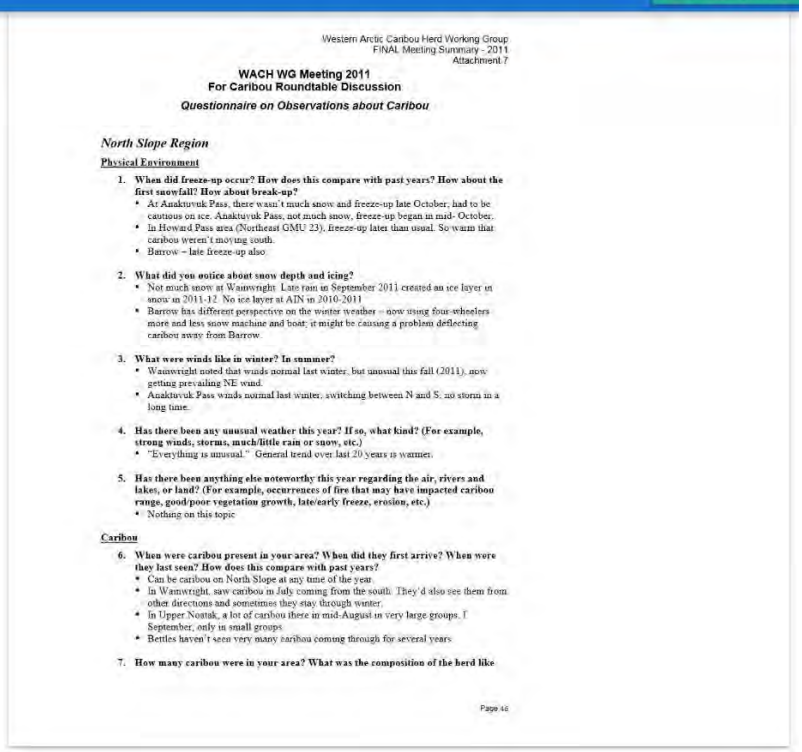
Herd(s) Western Arctic

Country US - Alaska

Observation

Not much snow at Wainwright. Late rain in September 2011 created an ice layer in snow in 2011-12. No ice layer at AIN in 2010-2011.

Page	49
Line	11
Created	2022-12-22T10:12:45.000Z
Reported	2011-12-01T00:00:00.000Z
Comments	No previous ice layer at AIN in 2010-2011
Region	 North Slope
Location	Wainwright
Trend	true



Western Arctic Caribou Herd Working Group
FINAL Meeting Summary - 2011
Attachment 7

WACH WG Meeting 2011
For Caribou Roundtable Discussion

Questionnaire on Observations about Caribou

North Slope Region

Physical Environment

1. **When did freeze-up occur? How does this compare with past years? How about the first snowfall? How about break-up?**
   - At Anaktuvuk Pass, there wasn't much snow and freeze-up late October, had to be cautious on ice. Anaktuvuk Pass, not much snow, freeze-up began in mid- October.
   - In Howard Pass area (Northeast GMU 23), freeze-up later than usual. So warm that caribou weren't moving south.
   - Barrow – late freeze-up also.
2. **What did you notice about snow depth and icing?**
   - Not much snow at Wainwright. Late rain in September 2011 created an ice layer in snow in 2011-12. No ice layer at AIN in 2010-2011
   - Barrow has different perspective on the winter weather – now using four-wheelers more and less snow machine and boat; it might be causing a problem deflecting caribou away from Barrow.
3. **What were winds like in winter? In summer?**
   - Wainwright noted that winds normal last winter, but unusual this fall (2011), now getting prevailing NE wind.
   - Anaktuvuk Pass winds normal last winter, switching between N and S, no storm in a long time.
4. **Has there been any unusual weather this year? If so, what kind? (For example, strong winds, storms, much/little rain or snow, etc.)**
   - "Everything is unusual." General trend over last 20 years is warmer.
5. **Has there been anything else noteworthy this year regarding the air, rivers and lakes, or land? (For example, occurrences of fire that may have impacted caribou range, good/poor vegetation growth, late/early freeze, erosion, etc.)**
   - Nothing on this topic

Caribou

6. **When were caribou present in your area? When did they first arrive? When were they last seen? How does this compare with past years?**
   - Can be caribou on North Slope at any time of the year.
   - In Wainwright, saw caribou in July coming from the south. They'd also see them from other directions and sometimes they stay through winter.
   - In Upper Noatak, a lot of caribou there in mid-August in very large groups. I September, only in small groups.
   - Bettles haven't seen very many caribou coming through for several years.
7. **How many caribou were in your area? What was the composition of the herd like**

Page 48

Knowledge of Caribou Status

1. Entered data from WACH-WG 2011 roundtable for prototype
2. Secured supplementary funding support from NSF – including honoraria.
3. Working with ELOKA database designer (Brendan B.) and student (Aram Z.) to build website
4. Recruit(ed/ing) Ph.D. student (Erica W.) to take reins

Brendan Billingsley

Jaylen Earls

Ophélie Couriot

Megan Cheshire

Aram Zaprosyan

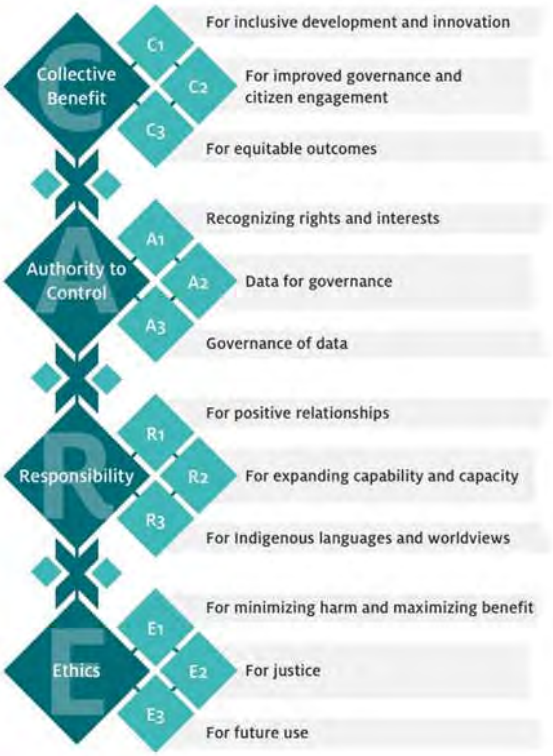
KotC next steps

1. Seeking **input** and **feature requests** from **communities**
2. Seeking further support
3. Still learning how to **enter data**

KotC ultimate goals

1. Stable, long-term, single infrastructure for retaining / accessing knowledge
2. Easily query observations for communication to communities or managers.
3. Identify patterns / trends / concerns.
4. Facilitate cross-herd / cross-Arctic comparisons

Data sovereignty | Data sharing



Consent (C)
Free, prior, and informed consent
Clear purpose, scope, and implications
Benefits will be shared with the

Access (A):
data restrictions: fully open? limited access?
clear protocols for managing, sharing, and controlling access to the data

Responsibility (R)
Steward data ethically, ensuring that it is used for the intended purpose and privacy (as appropriate) and security is maintained.

Ethics (E)
Ethics and equity are of central importance. Make sure research respects Indigenous culture, traditions, and knowledge. Spirit of consultation is incorporated throughout research and data sharing.

Discussion: what do you think?

1. Is this project of interest to the WACH-WG to complement the round table discussions?

2. If yes, are there **visions** or **features** you would like to see incorporated?

3. If yes, what is the best way to collaborate & contribute to design and building of KotC?

New NSF Grant Proposal:

Long-term Arctic Observing Network to understand the threats to caribou in a rapidly changing Arctic

Prof. Donatella Zona
San Diego State University

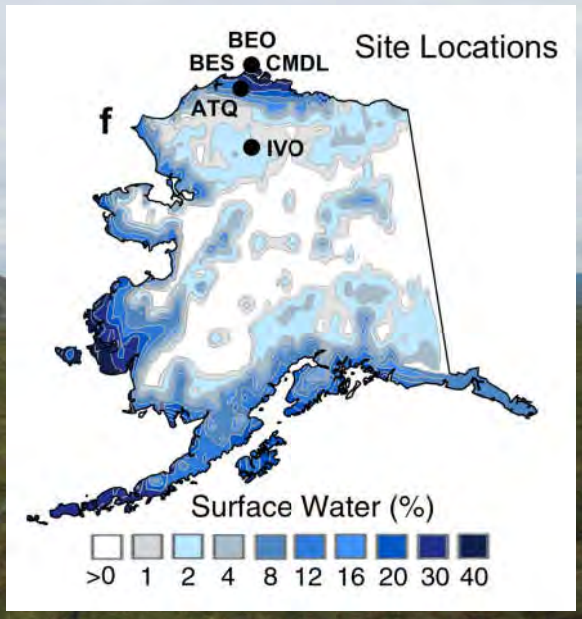
Alex Prichard
ABR Environmental Research

Prof. Ellen Aikens
University of Wyoming

Dr. Ophélie Couriot
SUNY-ESF

Erica Wood
PhD Student
SUNY-ESF

Five meteorological Eddy covariance towers operating since later 1990/early 2000 to present day



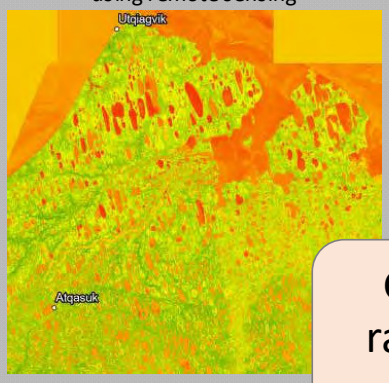
Year round measurements

GREENHOUSE GAS EXCHANGE (MODEL PLANT PRODUCTIVITY)

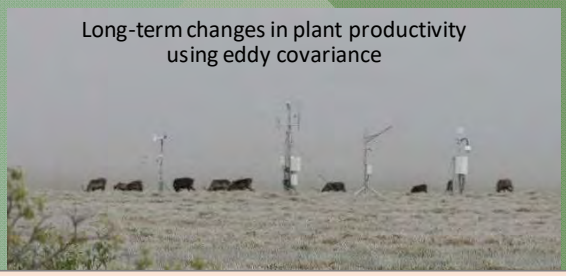
AIR AND SOIL TEMPERATURE
WIND SPEED
SNOW DEPTH,
SOIL MOISTURE, ETC.

Caribou also present

Long-term changes in vegetation using remote sensing



Long-term changes in plant productivity using eddy covariance



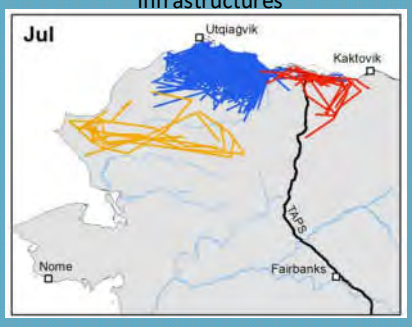
Changing snow pattern on N cycling, and lichens

Goals: Understanding caribou in a rapidly changing Arctic over a multi-decade time period

Including knowledge from hunters and Native communities

Modelling the larger scale changes in plant productivity across the study area

Caribou population size, migration routes, foraging, impacts of infrastructures



Our goals:

Center the **needs, knowledge** and **interests** of the communities within the WACH-WG range to **guide research questions**.

- We are **independent** researchers (not Government or Industry)

Seek support for **Knowledge of the Caribou** and other research initiatives.

Our goals:

Center the **needs, knowledge** and **interests** of the communities within the WACH-WG range to **guide research questions**.

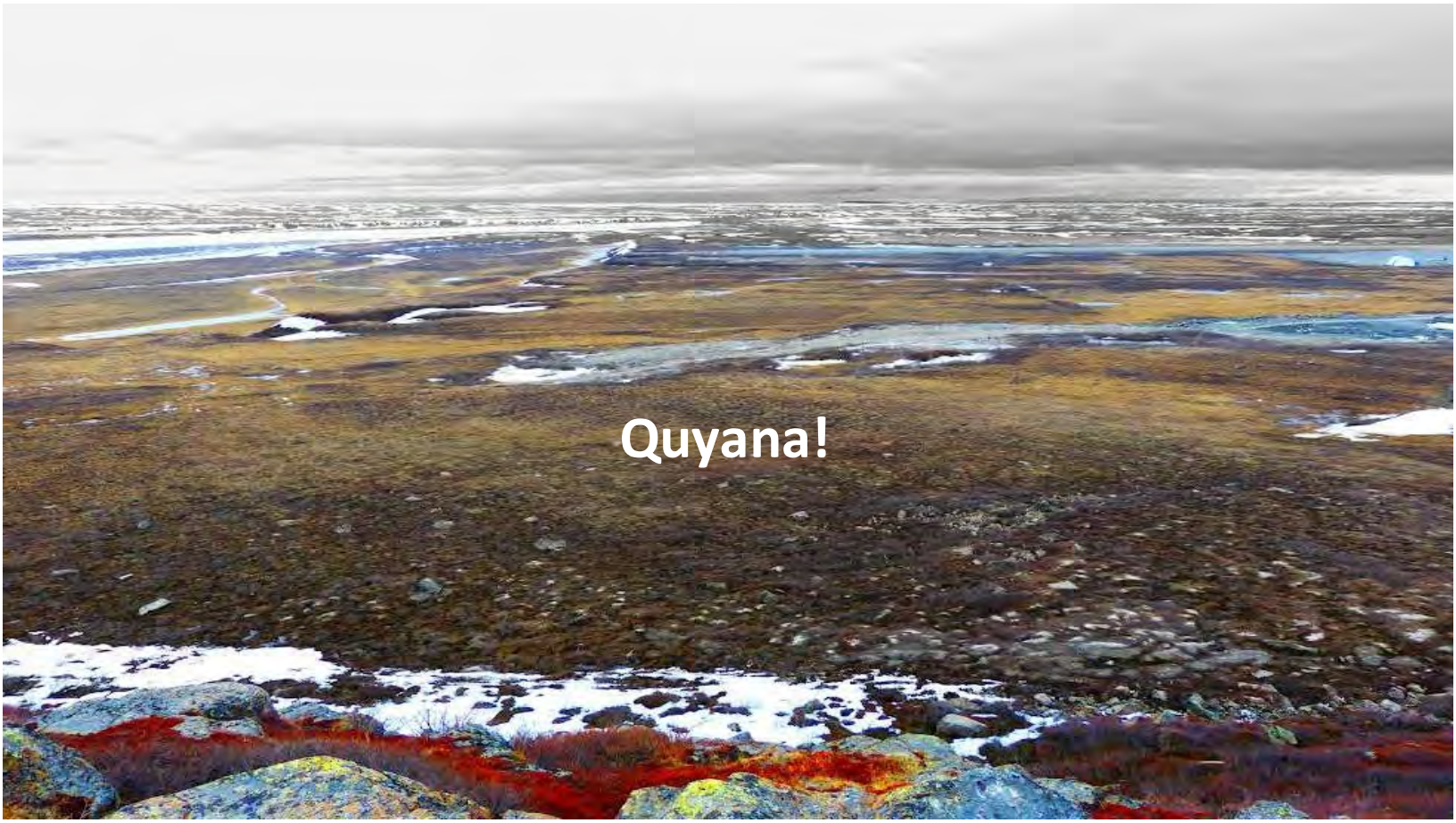
- We are **independent** researchers (not Government or Industry)

Seek support for **Knowledge of the Caribou** and other research initiatives.

A request:

Letter of support / collaboration from WACH-WG?

(due next week)


Quyana!

Western Arctic Caribou Herd Working Group

Communications Committee Report 2023

Compiled by Brittany Sweeney, USFWS, December 2023

The following is a list of communications which took place between the 2022 annual meeting and this year's meeting.

Themes we focused on this year include proposed regulation changes, what's happening with the herd, and what hunters can do to help.

Caribou Trails Newsletter:

The 2023 Edition of *Caribou Trails* was printed and distributed this summer. It was the 23rd edition of Caribou Trails. Copies have been included in your meeting packet, and you may also find the newsletter online at https://westernarcticcaribou.net/caribou-news/

January 2023 Caribou E-mail Newsletter:

Brittany Sweeney of USFWS Selawik Refuge produced an email newsletter with updates from the 2022 Working Group meeting, with assistance from Alex Hansen (ADFG) and Kyle Joly (NPS). The newsletter was emailed to contacts throughout the Northwest Arctic in January 2023, and a printout is included with this report.

Presentations and Community Meetings:

- Community Hunter Information Meetings in Unit 23, fall 2023. Noorvik 8/9/23, Ambler 8/18/23; Alex Hansen/ADFG, Brittany Sweeney/USFWS, Joe Dallemolle/NPS and Cyrus Harris/Maniilaq.
- NPS (Bering Land Bridge) presented at the Annual Reindeer Herders Association in November 2023 on NPS policy regarding WACH collaring locations, and on reindeer grazing permits.
- Northwest Arctic Federal Subsistence Regional Advisory Council meetings held in Kotzebue, March 2023 and October 2023, broadcast on KOTZ radio.
- Seward Peninsula Federal Subsistence Regional Advisory Council meetings held in Nome in April 2023 and October 2023.
- Tribal consultations by NPS (Western Arctic/Bering Land Bridge) or Selawik Refuge: 12
- NPS Subsistence resource commission meetings, 4 held in Kotzebue.
- NPS staff collected caribou harvest reports while in Shishmaref; provided the data to ADF&G.

- Brittany Sweeney (USFWS) addressed the Northwest Arctic Borough Assembly, and listening public, about proposed regulation changes & upcoming federal public hearing, April 2023.
- Carmen Daggett (ADFG) attended public meetings in Anaktuvuk Pass and Utqiaġvik (North Slope AC and Federal Subsistence Regional Advisory Council meetings) to discuss the WAH decline and what the community thought were appropriate regulatory actions.

School Programs:

- NPS in Northwest Arctic schools: 17 programs reaching 252 students K-12
- NPS in Nome: 2 High School presentations, 1 preschool program
- Kyle Joly (NPS) gave a talk to Denver Day School on caribou ecology
- Carmen Daggett (ADFG) presented to North Slope students grades 3-12 in Nuiqsut, Wainwright, Anaktuvuk Pass, and Atqasuk on WACH migration, decline, census and conservation.

Flyers:

Agency distributed flyers this year (see attachments)

- Three Things to Know, Spring 2023 (NPS, ADFG, USFWS)
- Caribou talking points (NPS, Kyle Joly)
- Regulation timeline flyer (NPS)
- Winter harvest "save the cows" and "let cows live" flyers (NPS and ADFG)
- Federal Subsistence program flyer on proposed WACH regulation changes and upcoming RAC meetings (NPS distributed in Seward Peninsula area)
- Caribou vs. Reindeer flyers (NPS, Bering Land Bridge)

Social Media:

WACH-related posts appear on the Selawik Refuge Facebook page (USFWS); Kobuk Valley National Park, Bering Land Bridge National Preserve, and Northwest Arctic Heritage Center pages (NPS); and the ADFG Wildlife Conservation – Northwest Alaska - Region V page.

Selawik Refuge posts are attached; NPS reported 8 posts made in total. ADFG ran a "let cows live" Facebook campaign in November 2023 which reached over 2,000 users.

Media Articles:

Anchorage Daily News/Arctic Sounder, Oct. 2023 – *Western Arctic Caribou Herd keeps shrinking, 2023 census shows* (see attached or https://www.adn.com/arctic-sounder/news/2023/10/26/western-arctic-caribou-herd-keeps-shrinking-2023-census-shows)

Arctic Sounder, Nov. 2023 – Caribou Arrive in the Northwest Arctic Region (see attached or https://www.adn.com/arctic-sounder/news/2023/11/22/caribou-arrive-in-the-northwest-arctic-region/)

Radio:

- KOTZ News ran a story about the 2023 census results in October 2023.
- Alex Hansen and Cyrus Harris recorded a PSA which aired on KOTZ in November 2023, focusing on "let cows live" messaging.
- KNOM and KICY radio stations in Nome aired information on upcoming Federal Regional Advisory meetings along with mention of the federal caribou proposals to be discussed.

Web Articles:

- Western Arctic Herd caribou page and story map on NPS Bering Land Bridge website - https://www.nps.gov/bela/learn/nature/caribou.htm
- Detecting icing: https://www.nps.gov/articles/000/detecting-icing-events.htm
- 2023 Migration & Climate change: https://www.arcus.org/witness-the-arctic/2023/2/highlight/1
- Caribou and Communities in a Changing Climate (FWS): https://storymaps.arcgis.com/stories/158c95ff398440e8b875a791e2bec2f8
- Local Knowledge Carries Caribou Forward: https://www.fws.gov/story/2023-11/local-knowledge-carries-caribou-forward

Scientific Publications:

- Chambers, N., M. MacCluskie, K. Bartz, B. Borg, M. Cameron, W. Deacy, G. Hilderbrand, K. Joly, A. Larsen, T. Lewis, B. Mangipane, C. McIntyre, J. Mizel, P. Owen, D. Payer, J. Schmidt, and M. Sorum. 2023. *How Wildlife are Responding to a Warming Climate*. Alaska Park Science 22 (1): 56-69. https://www.nps.gov/articles/000/aps-22-1-0.htm?utm_medium=email&utm_source=govdelivery
- Bartsch, A., H. Bergstedt, G. Pointner, X. Muri, K. Rautiainen, L. Leppänen, K. Joly, A. Sokolov, P. Orekhov, D. Ehrich, and E. M. Soininen. 2023. *Towards long-term records of rain-on-snow events across the Arctic from satellite data.* The Cryosphere 17: 889-915. DOI: 10.5194/tc-17-889-2023.
- Couriot, O., M. D. Cameron, K. Joly, J. Adamczewski, M. W. Campbell, T. Davison, A. Gunn, A. P. Kelly, M. Leblond, J. Williams, W. F. Fagan, A. Brose, and E. Gurarie. 2023. *Continental synchrony and local responses: climatic effects on spatiotemporal patterns of calving in a social ungulate*. Ecosphere 14 (1): e4399. DOI: 10.1002/ecs2.4399.

Technical Reports

- Joly, K., and M. D. Cameron. 2022. 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. National Park Service, Fort Collins, Colorado. https://doi.org/10.36967/2295319.

Committee Makeup:

Deb Lawton will be replacing Keane Richards on the Alaska Department of Fish & Game's education staff and will be based in Kotzebue. Deb will chair the communications committee. Brittany Sweeney from Selawik Refuge will assist Deb in the editorial role for the 2024 *Caribou Trails* newsletter, and with the committee business, as needed.

Communications committee members are currently:

- Vern Cleveland
- Tom Gray
- Tim Fullman
- Brad Saalsaa
- (*Dave Kilbourn*)

Any working group members interested in joining are welcome!

Agency representatives are:

- USFWS – Brittany Sweeney (email brittany_sweeney@fws.gov)
- NPS – Kyle Joly (email kyle_joly@nps.gov)
- ADFG – Deb Lawton (email deb.lawton@alaska.gov)
- BLM - *vacant*

Caribou Update, January 2023

Brought to you by Selawik National Wildlife Refuge - Kotzebue, AK

News from the Western Arctic Caribou Herd Working Group's Dec. 2022 meeting

"We have to be careful with our caribou right now. Things are pretty dire. If we're not careful, we're gonna lose it."

Those were the words of Austin Swan, Kivalina resident and this year's guest elder at the Western Arctic Caribou Herd Working Group Meeting. His sentiments convey much of the tone of the December 2022 meeting, in which Working Group members and biologists alike were very concerned about the current situation of the region's caribou herd.

A July 2022 photocensus – a count done from aerial photos of the herd – showed that the Western Arctic Herd had 164,000 animals. This was another year of decline, from the 2021 count of 188,000 and continued the downward population trend that has been happening for most of the past 20 years. The herd has the fewest number of animals it has had since the 1970s, and remains in the "preservative declining" management level.

Working Group Proposes Major Regulation Change

In a unanimous vote, after much discussion, the Working Group voted to propose new caribou hunting regulation changes: **to move from a bag limit of five caribou per hunter per day, to a total of four caribou per hunter per YEAR, only one of which may be a cow.**

The Working Group's proposal mirrors that put forward by the Kotzebue Sound Advisory Committee in December. These suggested changes will be sent forward to both the Alaska Board of Game and the Federal Subsistence Board, and will need to work their way through the respective processes before any new regulations would go into effect. However, the Working Group is hoping that individual hunters will get the message now and do what they can to help preserve caribou.

Cow Survival a Major Factor

In addition to tracking the herd's population, biologists with the Alaska Department of Fish & Game also keep an eye on how many calves are born ("calf production" or "parturition"), how many calves survive their first year ("recruitment"), and on the survival rate of adult cows.

In recent years, the most troubling signs among those indicators has been the cow survival. The cow survival rate is a huge factor in whether a caribou population is going to decline or possibly grow, according to ADFG caribou biologist Alex Hansen. Reducing cow harvest was a major point of discussion among the Working Group and a factor in why they proposed the changes that they did.

Calving: slightly below average
Long-term average is 70%
2021: 67% of collared cows had calves
2022: 68%
2023: 66%
Recruitment: right at average
long-term average is 17 calves per 100 adults (17:100)
2021: 17:100
2022: 17:100
2023: 17:100
Cow survival: below average
long-term average is 81% of collared cows surviving each year
2021: 77% cow survival
2022: 75% cow survival
2023: 71% cow survival

Lack of Harvest Data Hinders Management

Another resounding message from the Working Group was that they need harvest data to help better manage the herd. Without an accurate idea of how many caribou are being harvested year to year, it's difficult to know what actions are needed.

Is the current harvest exceeding the herd's ability to support itself? In biologist-speak, this idea is known as "harvestable surplus": the number of animals that can be harvested from a herd without having an overall negative impact on the population. At the current population level of 164,000 caribou, the harvestable surplus is just under 7,900 caribou. Are hunters taking more than that? Or has limited access reduced harvest below that amount already? At this time, that answer is unknown.

Currently, only a small percentage of hunters across the range of the herd are using the caribou permit to report their harvest, even though it has been required under state regulations for several years now. Knowing about the permits, being able to access them in the villages, and trusting how the information may be used were all barriers the Working Group discussed as factors in the low reporting rates.

> What you can do: get a free caribou permit from the Alaska Department of Fish and Game and report your harvests, either by mail or online.

The Working Group asked agencies and other interested groups to do everything possible to get better harvest data by next year's meeting. This could mean community reporting,

working with tribes, or some other plan – discussions are underway now on how to achieve this request.

This newsletter was produced by the Selawik National Wildlife Refuge
Contact Brittany Sweeney, Outreach Specialist, with questions or comments:
email: brittany_sweeney@fws.gov phone: (907) 442-3799 or 800-492-8848
In person: 160 Second Avenue, Kotzebue AK By mail: PO Box 270, Kotzebue AK

header photo and image of caribou antlers in snow by Lisa Hupp/USFWS.
Other images from USFWS Selawik Refuge photo files.

Caribou-related Facebook Posts on Selawik National Wildlife Refuge page

Dec. 2022-Dec. 2023 (in reverse order)

December 1, 2023

Cyrus Harris, an Iñupiaq Elder from the village of Sisualik, was around 10 years old when he experienced his first tuttu (Caribou in Iñupiaq) harvest, traveling toward the foothills where his ancestors had gathered migrating caribou for thousands of autumns before.

During his first hunts, vast amounts of knowledge were passed onto Harris, including one important lesson in patience: Permit the leading caribou safe passage, he was told, so that the hundreds or thousands more who follow behind, trusting the leaders, can continue their migration.

This act of reciprocity remains important for human and animal alike. It helps to keep caribou herd populations stable, while allowing the village continued access to all the food they need.

It is also one lesson of many that the Native Village of Kotzebue and Kiana Elders' Council have shared with hunters over recent years, with the help of Harris, Selawik National Wildlife Refuge employees, and other U.S. Fish and Wildlife employees and partners.

Check out our new story, which explores why local knowledge and partnerships are so important for the survival of caribou, especially as the weather changes in northwest Alaska.

Read Here! https://ow.ly/z0xE50QcZGK

Photo: Lisa Hupp, USFWS

November 14, 2023

#TuesdayTip Brush up on your winter caribou identification skills!

Help our herd by selecting young bulls rather than cows for harvest. #HunterSuccess #Tuttu

🦌Find ID tips and an online quiz at https://www.adfg.alaska.gov/index.cfm... OR
🦌Review, download or print a pdf at
https://www.adfg.alaska.gov/.../bull_or_cow_caribou_how...
photo of a group of caribou walking in the snow by Kyle Joly/NPS

November 3, 2023

🙏Caribou hunters, please help our herd!🙏
Caribou are moving closer to some communities within the Northwest Arctic, which may allow for increased hunter access.

✅When you're choosing which animals to harvest, please focus on younger bulls as much as possible.
✅Please give the cows a break.
✅Take only as much as you need.
Our region's caribou herd has been shrinking in numbers for 20 years, and dropped 12,000 animals from 2022 to 2023. We need caribou cows producing calves in order to help the herd bounce back. Be safe out there and good luck!

📷by Brittany Sweeney/USFWS

October 17, 2023

Breaking news on the Western Arctic Caribou Herd:
The latest population estimate for the herd, according to the Alaska Department of Fish and Game, is 152,000 animals as of July 2023. This is another year of decline and again sets the bar for the lowest number of caribou in the past 40 years.

USFWS photo by Kristine Sowl.

September 26, 2023

Hunters look forward to putting away some good quality food when they process their catch - BUT have you ever found something weird in your meat? The Alaska Department of Fish & Game has some excellent resources to help you figure out what it is and if it's dangerous or not (thanks ADFG 😀).
#TuesdayTip #hunting #WildGameMeat
Moose health and disease pocket guide: http://www.adfg.alaska.gov/.../moose_health_disease...
Caribou health and disease pocket guide:
http://www.adfg.alaska.gov/.../caribou_health_disease...

photo of a tiniikaq (moose) by USFWS/Selawik Refuge

August 26, 2023

Do you hunt caribou on the Kobuk River near Onion Portage? Ambler residents asked us to share this message: "Please don't charge out to the first group of bulls you see. Let them cross so more will follow. Be considerate of the other boats that are waiting."
Quyana to the folks in Ambler who came out to discuss hunter success and concerns at last week's meeting.

📷by Western Arctic Parklands/NPS

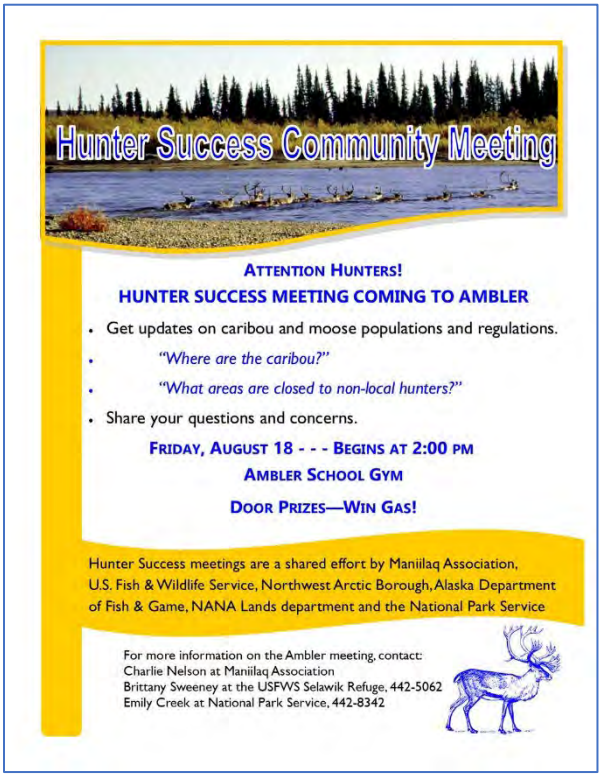
August 15, 2023

Info for Ivisaappaat:

🦌There will be a #HunterSuccess community meeting in Ambler

⌚Friday, August 18 at 2:00 pm in the school gym.

❓❓Have you been wondering "where the heck are the caribou?" Or not sure which moose permit you need? This is your chance to get updates!

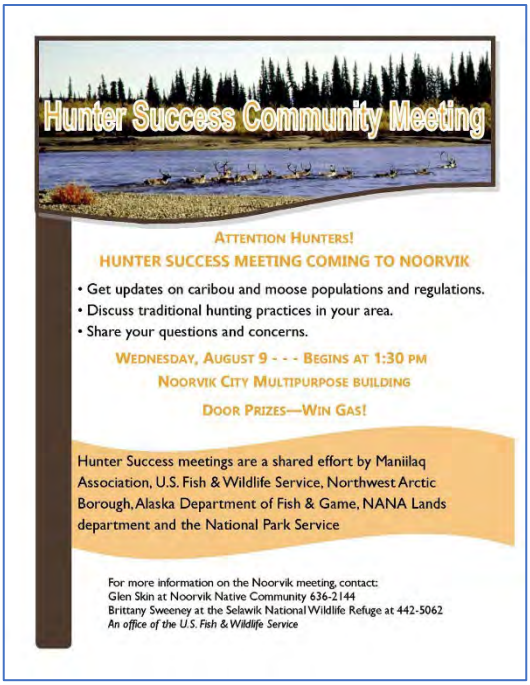


August 3, 2023

To all the folks in Nuurvik: Hunter Success meeting coming your way!

🗓️⏰Wednesday, August 8 starting at 1:30 pm.

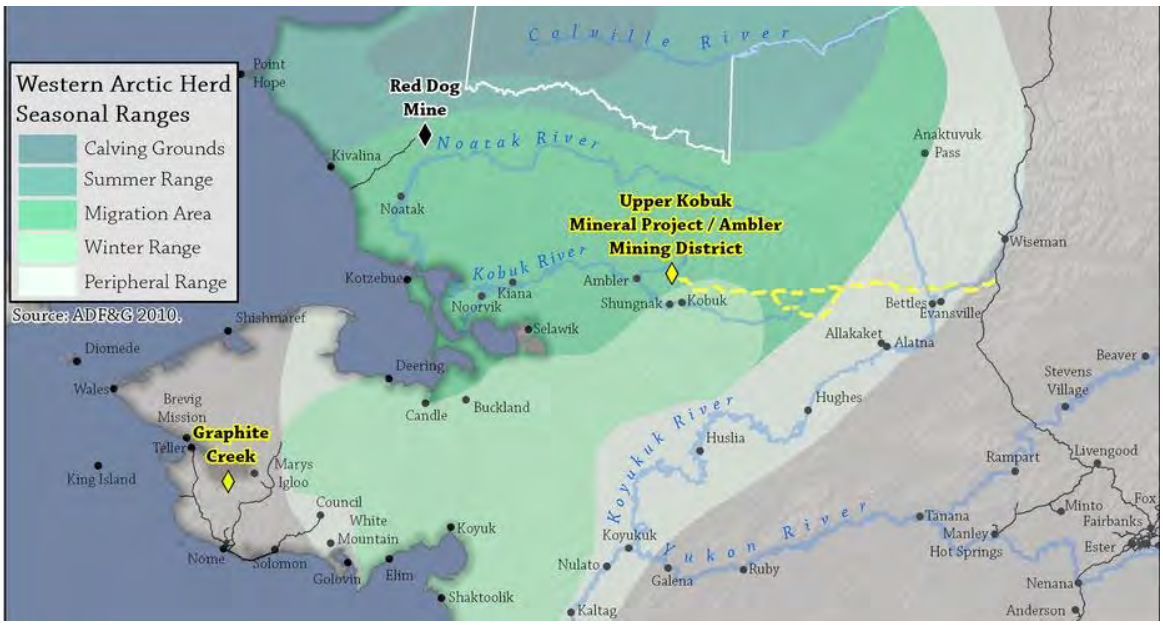
❓❓Have you been wondering "where the heck are the caribou?" Or not sure which moose permit you need? This is your chance to get updates! #HunterSuccess



June 30, 2023

Latest edition of "Caribou Trails" is out now! 🗞️📪🦌

Check out the 2023 summer issue of the Western Arctic Caribou Herd Working Group's newest paper newsletter to catch up on all the information about the herd.



WESTERNARCTICCARIBOU.NET

Caribou News

May 2, 2023

Hear Ye - Hear Ye - Public Hearing today

If you couldn't make last Wednesday's public hearing, and you want to provide a comment on proposed caribou regulations, you may join today's teleconference hearing for Wildlife Special Action 22-06 between 4-6 pm.

This special action requests reducing the bag limit to four caribou per year, only one of which may be a cow, across the range of the Western Arctic Caribou Herd.

phone: 888-455-7761 passcode: 6179618

more info online: https://www.doi.gov/.../public-hearings-announced-two...

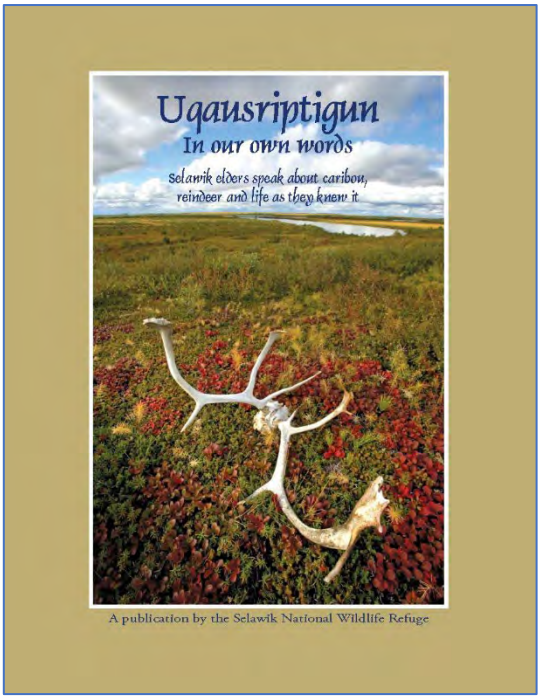
Photo of a group of caribou standing on snowy tundra in the early fall by Brittany Sweeney/USFWS

April 27, 2023

"Before caribou came to Selawik, the people walked and backpacked over to the Noatak River, to the headwaters. The term used was qakirut, meaning they went up north and over the Brooks Range to hunt." -Laura Iguaqpak Smith

#tbt #ThrowbackThursday #tuttu

Read more about caribou, reindeer, and the stories of Selawik elders in "Uqausriptigun: In our own words." Copies are available from our office, or you may read it online at



https://jukebox.uaf.edu/.../documents/Uqausriptigun.pdf

image: cover of Uqausriptigun booklet. Design by Sue Steinacher. Photo by Steve Hillebrand/USFWS.

April 17, 2023

Public Hearing on Caribou Hunting Regulations, April 26

Our region's subsistence advisory council has requested to change caribou bag limits to 4 caribou per year, no more than 1 of which may be a cow. This is motivated by concern over the decline of the herd. Have your say!

➡️In Person: April 26, 2023, in Kotzebue at the Northwest Arctic Heritage Center, 171 3rd Avenue, from 4:00 PM – 6:00PM (or until the end of public participation)
➡️Teleconference: 888-455-7761 (Toll Free)
➡️Passcode: 9411900
more info at https://www.doi.gov/.../public-hearings-announced-two...

photo: caribou antlers partially buried in snow, Lisa Hupp/USFWS

March 28, 2023

⚠️Attention Unit 23 caribou hunters:

Reminder, cow caribou season closes at the end of March, as cows get ready for calving time. Bull season remains open. Look twice, shoot once, as they say.

More at https://www.fws.gov/node/267478

photo of a group of caribou in the snow by Lisa Hupp/USFWS

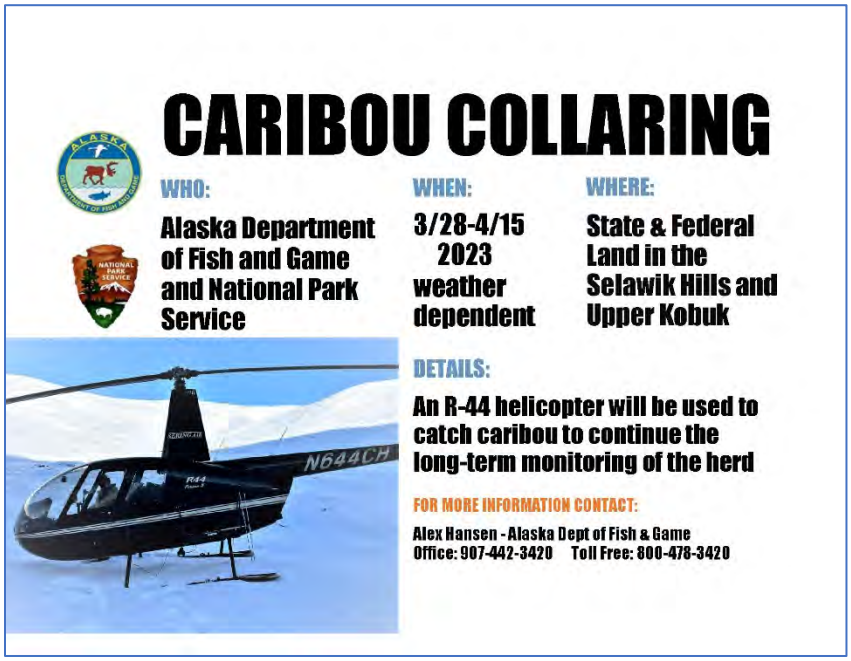
March 25, 2023

Selawik and Upper Kobuk residents:

🚁🦌🚁🦌🚁🦌

Please be aware that caribou collaring will be taking place in the near future. You may observe helicopter activity as part of this work.

Contact Alex Hansen at ADFG (442-3420) with questions or concerns.



March 9, 2023

Tuttu in Trouble: this week the Northwest Arctic Federal Subsistence Regional Advisory Council agreed that it's time to take action to help preserve this region's caribou (tuttu). The council submitted several proposals to change regulations, which now begin to work their way through state and federal systems. This takes several months. 🦌✅🦌✅

Hunters and those who share/use caribou should be aware that regulatory changes are likely coming in the future, probably in the form of reduced bag limits (something like 4 caribou per year). Every hunter can help make a difference NOW by reducing caribou harvest where possible, especially by taking fewer cows.

photo of young caribou in a snowy landscape by Lisa Hupp/USFWS

February 23, 2023

Relationship status? It's...complicated.

At least when it comes to the relationship between tuttu (caribou) and climate change. For example, longer warmer summers should give caribou more chance to feed and fatten up, right? Longer warmer summers can also mean more insect harassment, which is not so nice. Yeah, it's complicated.

📷Bull caribou swimming across the Kobuk River, courtesy Geoff Carroll/ADFG

January 19, 2023

"In January, we just want to hang out and eat snacks."

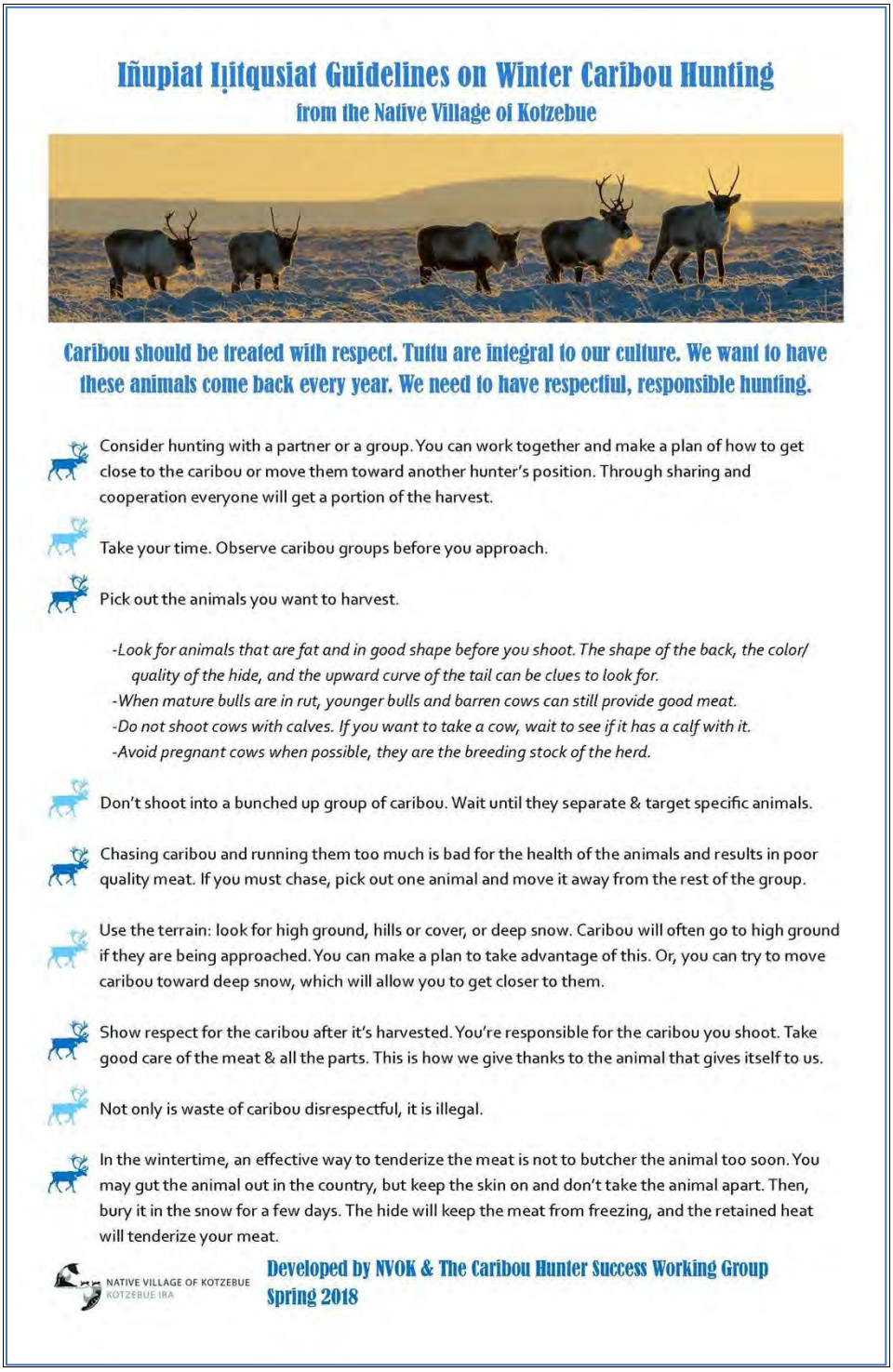
Anybody else feeling the winter mood?

Tuttu (caribou) move around less during winter than any other season. Once they reach their wintering grounds, they focus on finding food under the snow and avoiding predators.

photo of caribou foraging in the snow on Selawik Refuge by Lisa Hupp/USFWS

January 12, 2023

Reminder to winter caribou hunters: please remember these guidelines shared by elders and knowledge holders from the Native Village of Kotzebue
#respect4nature #traditionalknowledge



Iñupiat Iḷitqusiat Guidelines on Winter Caribou Hunting

from the Native Village of Kotzebue

Caribou should be treated with respect. Tuttu are integral to our culture. We want to have these animals come back every year. We need to have respectful, responsible hunting.

- Consider hunting with a partner or a group. You can work together and make a plan of how to get close to the caribou or move them toward another hunter's position. Through sharing and cooperation everyone will get a portion of the harvest.
- Take your time. Observe caribou groups before you approach.
- Pick out the animals you want to harvest.

  -Look for animals that are fat and in good shape before you shoot. The shape of the back, the color/ quality of the hide, and the upward curve of the tail can be clues to look for.
  -When mature bulls are in rut, younger bulls and barren cows can still provide good meat.
  -Do not shoot cows with calves. If you want to take a cow, wait to see if it has a calf with it.
  -Avoid pregnant cows when possible, they are the breeding stock of the herd.

- Don't shoot into a bunched up group of caribou. Wait until they separate & target specific animals.
- Chasing caribou and running them too much is bad for the health of the animals and results in poor quality meat. If you must chase, pick out one animal and move it away from the rest of the group.
- Use the terrain: look for high ground, hills or cover, or deep snow. Caribou will often go to high ground if they are being approached. You can make a plan to take advantage of this. Or, you can try to move caribou toward deep snow, which will allow you to get closer to them.
- Show respect for the caribou after it's harvested. You're responsible for the caribou you shoot. Take good care of the meat & all the parts. This is how we give thanks to the animal that gives itself to us.
- Not only is waste of caribou disrespectful, it is illegal.
- In the wintertime, an effective way to tenderize the meat is not to butcher the animal too soon. You may gut the animal out in the country, but keep the skin on and don't take the animal apart. Then, bury it in the snow for a few days. The hide will keep the meat from freezing, and the retained heat will tenderize your meat.

NATIVE VILLAGE OF KOTZEBUE
KOTZEBUE IRA

Developed by NVOK & The Caribou Hunter Success Working Group
Spring 2018

December 19, 2022

The Western Arctic Caribou Herd Working Group was very concerned about the ongoing decline of the herd, and decided to take this action to avoid the herd getting to an even more critical population level.

These are only suggestions at this point, they have to work their way through the regulatory process, but every hunter can help the herd by taking only what they need.

The Arctic Sounder

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The Western Arctic Caribou Herd Working Group voted Dec. 14 to propose changing state and federal hunting regulations in response to the herd's shrinking population. Subsistence and sport hunters, guides and conservationists in the group suggested reducing the harvest for resident subsistence hunters from five animals a day to four animals per year, just one of which could be a cow.
http://www.thearcticsounder.com/.../2250to_protect...

ANCHORAGE DAILY NEWS
The Arctic Sounder

News

Western Arctic Caribou Herd keeps shrinking, 2023 census shows

By Alena Naiden
Published: October 26, 2023

Data collected this year points to a continuing decline in the Western Arctic Caribou Herd.

The Alaska Department of Fish and Game recently shared the results from this summer's photo census of the herd, which is estimated at 152,000 animals. That indicates a 7% decline from the previous year.

"It just represents a continued decline for the last 20 years since 2003," said Alex Hansen, wildlife biologist with Fish and Game. "That's a concern."

From 2021 to 2022, the herd lost 24,000 caribou, dropping to a population of 164,000 animals — the lowest count since the early 1980s. From 2022 to 2023, the loss was 12,000 animals.

“The slower rate of decline is one bit of hopeful news for this herd,” said Brittany Sweeney, outreach specialist at Selawik National Wildlife Refuge.

Fish and Game shared the Western Arctic Caribou Herd photo census results at a meeting of the Northwest Arctic Subsistence Regional Advisory Council on Oct. 16.

[Previously: Western Arctic Caribou Herd shrank more in 2022, hurting Northwest Arctic subsistence hunters]

Like in previous years, biologists believe a combination of factors contributed to the herd’s decline.

“Weather has certainly been challenging, later springs,” Hansen said. “We had high predation rates this spring as caribou were moving into the calving grounds, predation from bears, wolves.”

Hansen said reducing harvest — specifically, cow harvest — might be necessary to preserve the declining herd.

“Though we don’t think that harvest put us in this position, we think that we’re in a spot where harvest could make it hard to recover from this position,” he said. ”We certainly have the potential to exceed harvestable surplus.”

Harvest reduction has been a topic of heated discussion in recent years. Proponents say immediate action is needed to protect the shrinking herd, while many local hunters speak against such regulations because residents in their communities rely on subsistence food. They also argue that limiting non-local hunters should come first.

[Alaska Federation of Natives asks Congress for ‘immediate action’ to expand subsistence protection]

Earlier this year, the Federal Subsistence Board considered a special temporary action to reduce the harvest for the duration of this past summer, but after receiving negative public comments to the proposal, the board voted against it.

Now, the Alaska Board of Game and the Federal Subsistence Board are considering longer-term proposals to reduce subsistence harvest limits for the Western Arctic Caribou Herd. Specifically, they're weighing whether to change the harvest in the Northwest Arctic and a portion of the North Slope in the next three years from five animals per day to four animals per year, just one of which could be a cow.

The Federal Subsistence Board is scheduled to meet in spring 2024, while the Board of Game will meet in January, Hansen said. The public comment period for the state runs through January 2024. If adopted by the board, the state hunting regulations will be effective July 1, 2024.

The proposals were discussed during the Northwest Arctic Subsistence Regional Advisory Council meeting in mid-October, said the chair of the council, Thomas Baker. The council decided to table the decision on whether they support the proposals until their March meeting, in hopes of discussing it more with other regions in the range of the herd.

"Due to overwhelming feedback from community members, from subsistence hunters, people that rely on subsisting from this herd, the negative feedback is that this is not the direction people would like to see us take," Baker said. "For one thing, it's not certain that four caribou a year per hunter is enough to provide for multi-generational homes, multi-family homes, smaller communities, where people may have to pool their resources together so that a small group of hunters goes out and harvest enough animals to provide for the majority of community."

"It does not, at this time, look like this is the appropriate action to take," Baker said.

Alena Naiden

Alena Naiden writes about communities in the North Slope and Northwest Arctic regions for the Arctic Sounder and ADN. Previously, she worked at the Fairbanks Daily News-Miner.

ANCHORAGE DAILY NEWS
The Arctic Sounder

News

Caribou arrive in the Northwest Arctic region

By Alena Naiden
Published: November 22, 2023

Their arrival was months late but residents still anticipated them eagerly: caribou came to the Kotzebue area this month.

“It’s been good,” hunter Cyrus Harris said. “It’s good to see caribou so we get caribou on the table.”

The Western Arctic Caribou Herd has been declining for years, and the migration patterns of the animals have been changing. In several locations in Northwest Alaska, caribou have been arriving later and later in the season.

[Western Arctic Caribou Herd keeps shrinking, 2023 census shows]

After summering near Point Hope, the herd — which is still one of the biggest in Alaska — usually moves south. Once rivers and lakes begin to freeze, the caribou cross the water and come to Kotzebue, where they linger for several weeks. Then they continue toward Buckland and Deering, the southern side of their migration.

But this year, animals went from Point Hope to Kivalina and then back up north, said Steve Oomittuk from Point Hope, who chairs the North Slope Subsistence Regional Advisory Council.

As a result, while in normal years Kotzebue residents used to be able to harvest caribou in September, these years the animals don't pass the town until late fall or early winter.

Ice conditions are one of the reasons for the caribou's late migration, said Thomas Baker, who is the new Representative for the House District 40 and the chair of the Northwest Arctic Subsistence Regional Advisory Council.

"There's still open water right in front of Kotzebue, along Front Street. If you were to look out 10, 15, 20 years ago, it might have been completely frozen by mid-October. If you went out there 50 years ago it would have been almost completely frozen by the end of September," he said. "Things are happening later. And these animals are crossing the ice — this was about the earliest that they've been able to cross because now it's actually solid."

Friday last week, people in Kotzebue finally started seeing caribou — hundreds of them — crossing the Kotzebue Sound north of town, coming from the Noatak riverside, Baker

said.

While it was not feasible to get across the Kobuk Lake in all directions, the animals came just a couple of miles north of Kotzebue, and people were able to snowmachine close enough to harvest them. As of Monday, the caribou were lingering behind town In the tundra near the winter trail.

“People have been successful, going out in small groups hunting together and picking out the animals that they want to harvest,” Baker said.

Kotzebue hunters harvested several caribou outside of town and brought the bounty home on Nov. 18. Photo by Desiree Hagen.

Harris manages Maniilaq Association’s Hunter Support Program and said that there has been enough meat to provide for Elders in the long-term care facilities across the region.

But with animals coming this late in the season, hunters have to look out for and avoid bulls who are in a rut and whose meat is not edible, Harris said. Some hunters end up

hunting cows, which is not advisable, given the decline of the herd.

He said it's a push "for letting the cows live so that the cows are able to breed the future stock of the herd."

Alena Naiden

Alena Naiden writes about communities in the North Slope and Northwest Arctic regions for the Arctic Sounder and ADN. Previously, she worked at the Fairbanks Daily News-Miner.

WESTERN ARCTIC CARIBOU HERD

THREE THINGS TO KNOW

SPRING 2023

NPS Map and Photo/Kyle Joly

HERD UPDATES

The caribou population has been in decline for 20 years. The 2022 Census was 164,000 animals.

Many people observe that caribou migration is changing or late. The map shows the migration range around 2017.

TUTTU IN TROUBLE

There are many stressors on the herd, including multiple impacts from climate change.

To help the herd recover, several groups have already created proposals to reduce harvest and limit cow harvest.

WHAT SHOULD THE HUNTING REGULATIONS SAY?

The regulatory season for hunting caribou is open for both federal and state regulations. Please share your concerns and ideas! Follow the charts below.

FEDERAL REGULATIONS TIMELINE

01.
A Proposed Rule is published in the Federal Register.

Proposals are accepted for approximately 45 days.

Feb 27 2023

02.
Proposals are reviewed by staff and validated to ensure that they fall within the authority of the Federal Subsistence Board.

Public has 60-days to comment on proposals.

April 12 2023

03.
Proposals are analyzed. A draft analysis with for each proposal is written, considering received public comments and with input from various agency staff.

At times subsistence users are directly consulted about the implications of the proposals.

April-Aug

04.
Regional Advisory Council (RAC) reviews the draft proposal at their annual fall meeting and vote yes or no. The Federal Subsistence Board takes that vote into account at their meeting.

Aug-Oct

05.
The Federal Subsistence Board meets to take action on the proposals.

Spring 2024

06.
Proposals adopted by the Board become part of the Final Rule, which is published in the Federal Register.

Wildlife rules are effective July 1.

July 2024

Contact NPS subsistence coordinator near you:
Western Arctic National Parklands: emily_creek@nps.gov
Bering Land Bridge National Preserve: nicole_braem@nps.gov
Gates of the Arctic National Park and Preserve: marcy_okada@nps.gov

Office of Subsistence:
kayla_mckinney@fws.gov or 907-786-3888

STATE REGULATIONS TIMELINE

01.
The Alaska Board of Game is accepting proposed changes to hunting and trapping regulations for the Interior, Arctic, & Western areas of Alaska which covers Game Management Units 12, 18, 19, 20, 21, 22, 23, 24, 25, and 26.

Feb 2023

02.
Proposals are due to ADF&G

May 1, 2023

03.
Proposals are compiled and submitted to public for the public comment period.

On-time comment period closes two weeks before board meeting. Last day to submit a comment on a proposal will be Jan 10, 2024

Jan 10, 2024

04.
Board Meeting is held. The board deliberates each proposal and comments, and votes.

The board meetings are open to the public. For unit 23 the meeting is : January 25-29, 2024

Jan 25, 2024

05.
Regulations are filed and then go into effect in July 2024

July 2024

Proposals may be submitted by email, mail, or online:

Mail: ADF&G, Boards Support Section
P.O. Box 115526 Juneau, AK 99811-5526

LINKS FOR MORE INFORMATION:

FEDERAL SUBSISTENCE INFO: WWW.FACEBOOK.COM/SUBSISTENCEALASKA OR WWW.DOI.GOV/SUBSISTENCE

STATE REGULATIONS: WWW.ADFG.ALASKA.GOV

RESEARCH: CARIBOU - GATES OF THE ARCTIC NATIONAL PARK & PRESERVE (U.S. NATIONAL PARK SERVICE) (NPS.GOV)

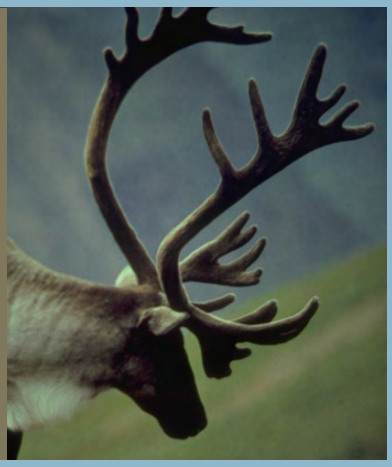
CONTINUING POPULATION DECLINE AND HIGH COW MORTALITY WILL IMPACT MANY PEOPLE.

Western Herd Caribou In Decline

- The WAH peaked at 490,000 caribou in 2003
- The herd has declined for the past 20 years, dropping to 164,000 caribou in 2022
- Recently, the WAH has been declining by about 12% per year

- The 2022/2023 winter was hard on caribou, likely due to deep and long-lasting snow
- 15% of collared cows died over the winter, making it one of the deadliest on record

- Cows, by bringing in calves to the population, are the driver of herd recovery
- Saving cows will allow for more recruitment of new calves and growth of the herd
- Whenever possible, avoid harvesting cows and focus on young bulls
- Tell others to protect cows and try to conserve the herd



- Support regulation changes intended to better protect cows and calves
- The WAH recovered after its last crash in 1976 with the help of hunters reducing their harvest and protecting cows
- Report your harvest: this will help allow the maximum sustainable harvest

Hunters, such as yourself, are the key to bringing back the herd

WESTERN ARCTIC CARIBOU HERD

FALL UPDATE

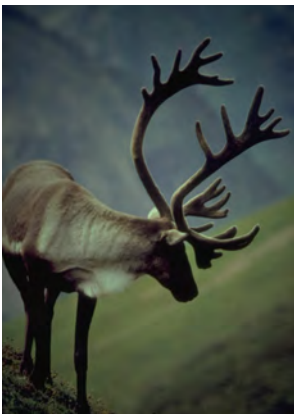
In an effort to preserve the declining herd subsistence advisory groups have submitted proposals to reduce harvest of caribou, especially cows.

Proposal 1: Summitted by NRWAC Subsistence council

Reduce the harvest of caribou in unit 23 to 4 caribou per year one of which may be a cow.

Proposal 2: Summitted by NWRAC

Close federal lands in unit 23 to sport hunters (non-federally qualified subsistence users) from Aug 1-Oct 31



State proposals for harvest reduction also submitted.

The Board of Game will meet:Kotzebue January 26-29.

Hunters, our caribou need your help!

LET COWS LIVE

Please focus harvest on young bulls.

We need cows with calves for the herd to recover.

Distinguish cows from bulls

Help sustain the

WESTERN ARCTIC CARIBOU HERD

for future generations

Let cows live!

The Western Arctic Caribou Herd keeps shrinking - another 12,000 animals lost from 2022-2023!

Ways caribou hunters can help the caribou population:

* Focus your harvest on younger bulls whenever possible.
* Avoid taking cows.
* Take only as much as you need.
* Stay within daily bag limits.
* Report your harvest on your RC907 or use QR Code.
* Questions? Kotzebue ADF&G Office @ (907) 442-3420

Proposals to change Federal subsistence hunting regulations

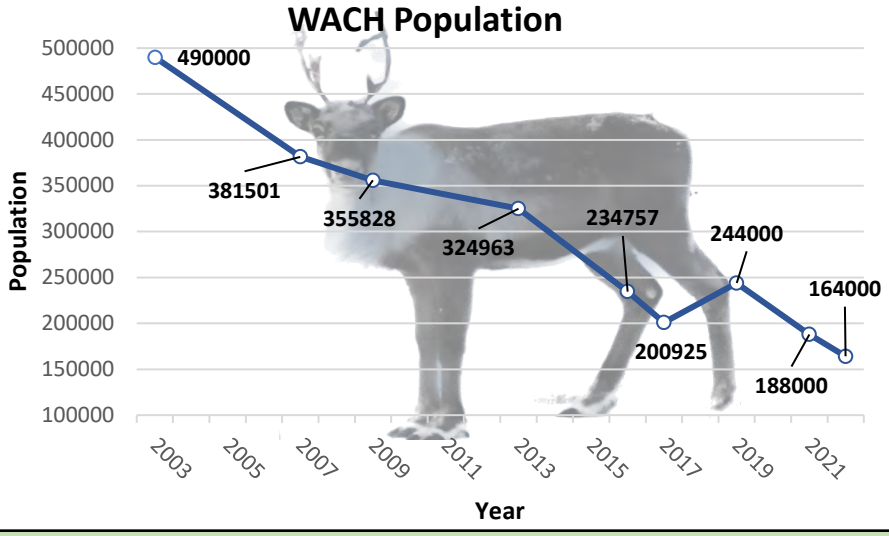
for the Western Arctic Caribou Herd (WACH)

Your Regional Advisory Council and the Federal Subsistence Board are requesting your participation

The WACH has declined from 490,000 animals in 2003 to 164, 000 animals in 2022

Cow and calf survival is decreasing

It is unknown why the herd is declining but increased predation and hunting pressure, fall and winter icing events, deteriorating habitat, and disease may be contributing factors.



WACH proposals submitted for the 2024–2026 Federal wildlife cycle

- **WP24-28** - proposes to reduce harvest to 4 caribou **per year, per hunter**, only 1 of which may be a cow, on Federal public land in Unit 21D remainder; 24B remainder; 24C; 24D; all caribou hunt areas within Units 22, 23, and 26A
- **WP24-29** - proposes to reduce harvest to 4 caribou **per year, per hunter**, only 1 of which may be a cow, on Federal public land in Unit 23
- **WP24-30** & **WP24-31** - propose to close Federal public land in Unit 23 to non-federally qualified hunters from August 1 – October 31

We Need Your Help

Report ALL harvest

Share your knowledge at the **Seward Peninsula Regional Advisory Council Meeting**:

November 1-2, 2023
Mini Convention Center; Nome
Convening at 9:00 AM daily
Toll-free number: 1-833-436-1163
Passcode: 271699760#

Federal Designated Hunter Permits Available

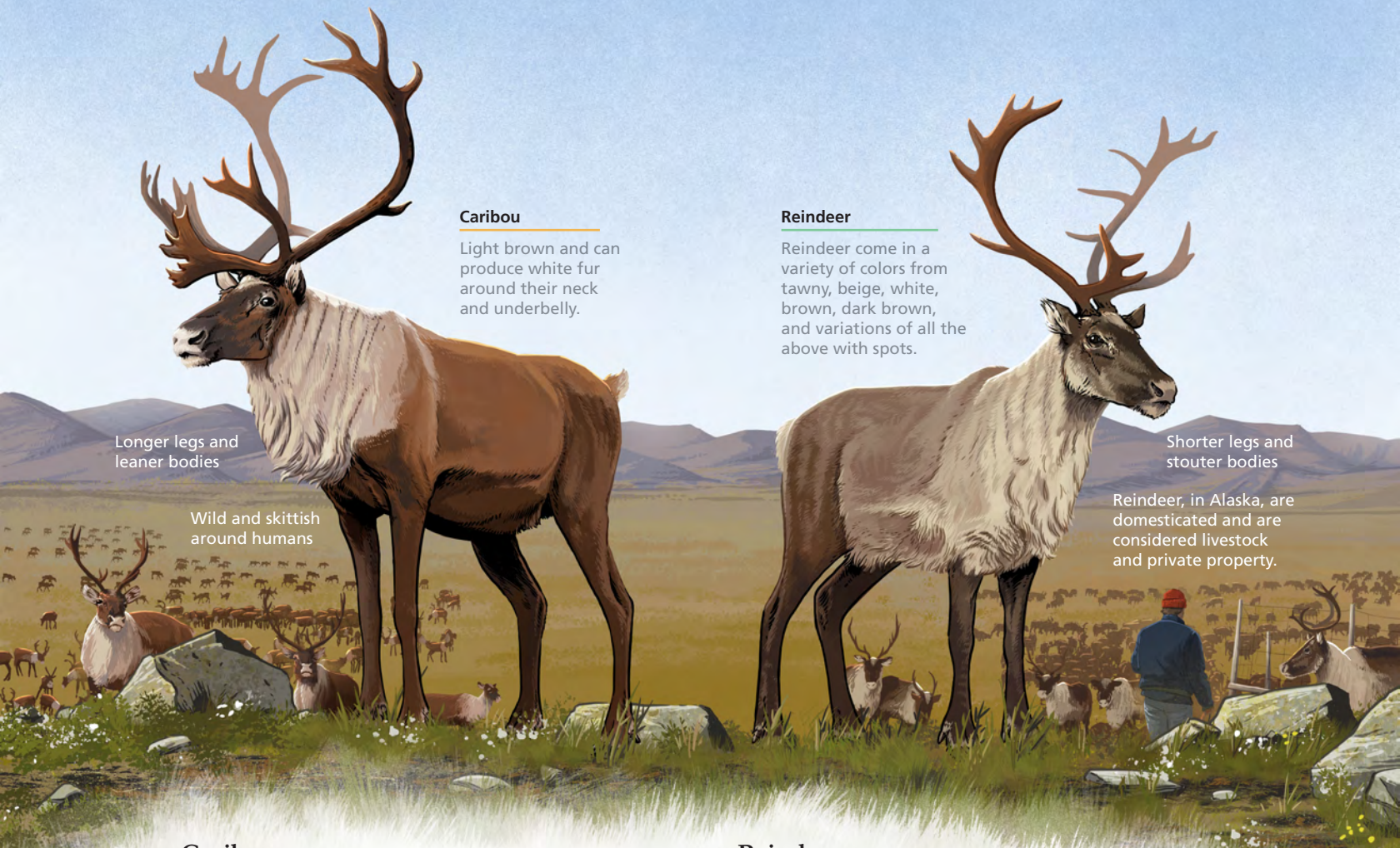
- A hunter may use this permit to harvest caribou for another federally qualified subsistence user
- See Federal staff for more information

What's the difference?

Caribou vs. Reindeer

Caribou and reindeer are the same species and share the same scientific name, *Rangifer tarandus*. Caribou are what the species is called in North America and reindeer are what they are called in Eurasia. All caribou are wild animals, whereas reindeer can be wild, semi-domesticated, or domesticated (animals selectively bred with a specific purpose in mind).

Though there are generalized similarities between caribou and reindeer, their appearance can vary from individual to individual, as it is influenced by diet, environment, and, in the case of reindeer, selective breeding.



Caribou

Caribou are native to Alaska. While there are many subspecies of caribou throughout the world, the barren-ground subspecies (*Rangifer tarandus granti*) dominates Alaska. Caribou move between their summer and winter range, a process called migration. In a single year, most Western Arctic Herd caribou walk over 2,000 miles. Their persistent patterns affect the area's ecology, as well as the people that share their range. They play a vital role in shaping subsistence and cultural practices for communities found within their expansive range.

Subspecies: A subspecies is a group within a species that has developed unique characteristics typically due to geographic isolation.

Reindeer

Reindeer were introduced to western Alaska from Siberia by Rev. Dr. Sheldon Jackson in 1892 to provide a stable food source for Alaska Native populations and an avenue into private enterprise. Over a period of 60 years, Inupiat communities and others were trained to herd reindeer through apprenticeship programs. After reaching peak population in the 1930s, the practice of reindeer herding dramatically declined. Today, all reindeer herds on the Seward Peninsula are managed by a handful of herders and the Reindeer Herders Association.

Selective Breeding: When animals are consistently bred, a specific breed of reindeer results, which over hundreds of years changes anatomical differences. Climate and environment magnify the effects.

Bering Land Bridge

National Park Service
U.S. Department of the Interior

Differences at birth and in behavior

Caribou give birth to reddish-brown calves in late May or early June.

Reindeer give birth to dark chocolate brown calves as early as mid-April.

Caribou conduct some of the longest terrestrial migrations in the world.

Domesticated reindeer are bred to be less migratory.

Caribou and Reindeer in Alaska

The Western Arctic Caribou herd is among the largest in North America and has a range that encompasses much of the Seward Peninsula, including Bering Land Bridge National Preserve and ranges north past the Utukok River Uplands in northern Alaska, where the herd calves.

The free-ranging reindeer herds can occasionally be seen grazing in the coastal areas of the peninsula, including within Bering Land Bridge, or throughout the tundra near villages. You might encounter reindeer herds grazing along the Teller and Kougarok Road. These free-ranging reindeer are prone to run off with wild caribou herds if they come into contact.

Western Arctic Caribou Herd Working Group
DRAFT – 2022 Meeting Summary

December 14-15, 2022
Downtown Marriott Hotel, 820 W. 7th Ave, Anchorage

DRAFT for review & approval by WACH Working Group at December 2023 meeting.

The Western Arctic Caribou Herd (WACH) Working Group (WG) met in person on December 14th and 15th, 2022 (see agenda at the end of this document). The following is a summary of meeting presentations and Working Group members' discussion. Motions passed at the meeting and Assignments for follow-up actions are listed on pages 16-18. The Working Group "Binder" that includes all written materials referred to at the meeting is posted at www.westernarcticcaribou.net

I. Call to Order – WG Chair Vern Cleveland called the teleconference to order at 8:30 a.m.

A. WACH WG Roll Call / Establish Quorum – Quorum was met with 16 of 20 WG members present at 8:30 am on Day 1. 17 of 20 members were present on Day 2. The following table lists WG membership attendance at this meeting.

Working Group Seat	Working Group Member
1. Anchorage Advisory Committee	Neil DeWitt
2. Buckland, Deering, Selawik	Vida Coaltrain
3. Anaktuvuk Pass, Nuiqsut	Eli Nukapigak
4. Elim, Golovin, White Mountain	Morris Nakaruk (alternate)
5. Fairbanks Hunters	David Kilbourn
6. Hunting Guides	Jake Jacobson
7. Kivalina, Noatak	Enoch Mitchell
8. Kotzebue	Cyrus Harris (Vice Chair)
9. Koyukuk River	Pollock Simon
10. Lower Kobuk River	Vern Cleveland, Sr. (Chair)
11. Middle Yukon River	Michael Stickman (not present)
12. Point Hope and Point Lay	Steve Oomittuk (not present)
13. Nome	Charlie Lean
14. Conservationists	Tim Fullman
15. Northern Seward Peninsula	Johnson Eningowuk (alternate)
16. Reindeer Herders Association	Tom Gray
17. Southern Seward Peninsula	Morris Nassuk
18. Transporters	Brian Alberts (alternate)
19. Upper Kobuk River	Bill Bernhardt (present day 2)
20. Atqasuk, Utqiagvik, Wainwright	Wanda Kippi (not present)

MOTION by Tim Fullman, second by Neil DeWitt, to approve the following alternate members to the WACH Working Group – Seat 8 alternate Thomas Baker; Seat 15 alternate Johnson Eningowuk; Motion PASSED unanimously on a voice vote. (NOTE: The Working Group is still seeking an alternate member for Seat 20.)

B. Audience Attendance: Public and agency attendance was not taken. However, 30+ people were present in the audience, including agency staff that presented information to the Working Group.

C. Approve Agenda: Facilitator Holly Spoth-Torres reviewed the agenda (Attachment 1). MOTION by Neil DeWitt, second by Morris Nassuk, to approve the meeting agenda. Motion PASSED unanimously on a voice vote.

II. Western Arctic Caribou Herd Status & Management Level

Western Arctic Caribou Herd Overview and 2021 Census – Alex Hansen, Alaska Department of Fish and Game (ADFG) Division of Wildlife Conservation, presented information about the WACH population status and trends (see p. 13 in 2021 WG Binder). The presentation laid the foundation for the WG's later recommendations regarding future management of the caribou herd (see p. 6 below). Key points in the ADFG presentation included:

- Herd population declining – The July 2022 photo census estimated 164,000 caribou in the Western Arctic Caribou Herd which is down from 188,000 in 2021. Census numbers for past years: 2020 – no census; 2019 – 244,000; 2018 – no census; 2017 – 259,000; 2016 – 201,000. In the two years between the 2019 and 2021 census, the herd declined nearly 12% per year.
- Calving (parturition) is below average – Summer surveys show that 64% of collared cows had calves in 2022, compared with 68% in 2021, 67% in 2020, 81% in 2019, 86% in 2018, and 83% in 2017. The long-term average calving rate is 70% (1992-2022). Parturition is down farther than we've seen in the past but is not super concerning.
- Yearling recruitment is average – Yearling recruitment in 2022 was 17:100 yearlings:adults, which is the same as in 2021 and matches the 25-year average (1998-2022).
- Adult cow survival is below average – Cow survival rate for 2021 was 71%, which is below the long-term average of 81% (1987-2020). Adult cow survival is the primary concern related to the recent population decline. The herd won't see growth unless survival is above 80%.
- Fall herd composition – The bull:cow ratio in fall 2021 was 47 bulls:100 cows. ADFG doesn't complete this survey every year. The last survey was in 2021. The goal is to maintain 30 bulls:100 cows. There are no major concerns currently.
- Cause of mortality – Primary causes of mortality are predation, "unknown", and hunting.
- Population trend – Since 2005, the herd has had more years of decline than increase or stability, with cow mortality higher and calf recruitment lower.
- Management level per WACH Cooperative Management Plan – Each year, the Working Group considers what management level should be assigned to the Western Arctic herd, based on Table 1 of the WACH Cooperative Management Plan (updated 2019). At its meeting on December 13, 2022, the WACH Technical Committee recommended that the Working Group assign the same management level as 2021, the management level "Preservative, Declining", based on the herd size (within the range of 130,000-200,000) and adult cow survival rate less than 80%. The Preservative, Declining Management Level recommends a harvest of somewhere between 6000 and 10,000 caribou. At this "Preservative" management level, the Cooperative Management Plan indicates that the following management recommendations should be considered (see Table 2 in the 2019 Management Plan):
  - No harvest of calves
  - Limit harvest of cows by residents through permit hunts and/or village quotas
  - Limit subsistence harvest of bulls only if <30 bulls:100 cows (NOTE: that is not the case in 2021, when bull:cow ratio was 47:100)
  - Restrict harvest to residents only, according to State and federal law. Closure of some federal public lands may be necessary.

(NOTE – Later in the meeting, the Working Group passed a motion designating the Western Arctic herd as "Preservative, Declining" in 2022. See page 6, below.)

- Recommended Harvest – The recommended harvest rate is 4.8%. 4.8% of 164,000 equals 7,872 caribou, keeping the harvest composition at 70% (5511) bulls and (2361) 30% cows.
- The C&T finding is positive, indicating that this herd is a subsistence priority. The ANS is 8,000 - 12,000.
- With the current population numbers decreasing, excessive harvest, especially of cows, can be very serious. For ADFG to understand the implications of harvest, we need to understand more accurately what the harvest is, so it is critical that we get better harvest data. The data gap between the estimated and reported harvest is very large. ADFG only captures data of about 10% of the harvest.
- Cow harvest should be our highest priority and we should discuss ways to reduce the cow harvest. However, we can't do this without also thinking about the bull harvest so that the ration remains healthy.

Working Group members' questions and discussion on herd status included:

- Q: Is it possible to control predators to improve the herd size?
  A: When ADFG goes to the board of game, considering we are now in a place of intensive management, the Board of Game may require habitat improvements, predator control, or other options. However, predator control actions are probably not an option on most federal lands.
- Q: In the past when the numbers declined so much, what management actions were taken to help increase the numbers of the herd?
  A: We need to dig into history a bit more, but local communities were restricted to bull harvest only – with a total of 3000 permits being issued in 1977.
- Comment – Aircraft may be impacting the herd migration.
- Comment – Limiting non-federally qualified hunters didn't have any impact on the herd numbers.
- Q: Do you have data about non-resident hunting?
  A: Yes, we have great harvest data about non-resident hunting from the transporters. Typically, the non-resident take was about 350 animals, almost exclusively bulls. This year, not all transporters were in operation. We are still waiting for the numbers to come back but I estimate the take to be 100 animals or less. The non-resident, non-local harvest is reduced and biologically the numbers are a 'drop in the bucket'. There are social implications and conflict between user groups, but that component of the harvest is biologically insignificant. If there is an impact to be made we need to consider limiting local harvest.
- Comment – Once we get to population numbers like this, we really need to be thinking about strategies to help the population. We don't want to see numbers in the early 1970s (75,000). Those were difficult days. Many of us didn't get any caribou this fall.
- Comment – The Kotzebue Advisory Commission decided to submit a proposal to the Board of Game because they thought that 5 caribou per day was too many considering the current census. Their proposal recommends a bag limit of 4 caribou annually, with only one allowed to be a cow.
- Comment – Please consider separating the Western Arctic Herd and the Teshekpuk herd when considering ANS.
- Comment – Predators are a large part of the mortality rate. Predator control could be effective – please consider this.
- Comment – Some communities see a lot of caribou in certain years when other communities don't see any caribou. It is so hard to predict. Comment Response – This is true, it is important to educate the entire region about the migration patterns so that everyone understands that this is a resource for everyone, the communities that see hundreds of caribou in a year as well as the communities that see zero. We all need to collectively work together to manage the herd sustainably for the future and future generations.

- Comment – Consider developing a citizen reporting system, cooperating with communities and villages to improve harvest data reporting.

National Park Service Caribou Monitoring – Kyle Joly, NPS, presented information on the movements of caribou the NPS has collared (see p. 24 in WG Binder). Points from the presentation:

- Fall 2022 migration routes & movements:
  - Only 20% of the herd migrated south of the Brooks Range, 80% stayed north of the range.
  - The herd stayed very far east, so villages like Noatak and Kivalina were not close to the herd at all. Most were on the North Slope; a few animals were in the upper Noatak.
  - There are no obvious barriers to movement.
- New Information about 2021 Migration: 10 caribou interacted with the Red Dog Mine Road and an evacuation road out of Kivalina. 2 animals eventually crossed the Red Dog Road even though it took them a while. Both survived the winter. Of the 8 that didn't cross the road, only 5 survived. 62.5% died. This is a very small sample size, but this could be important.
- WAH Collar Results – 33 GPS collars were deployed all on females. All netting occurred in April 2022.
- Migration distance – The mean distance of travel by collared caribou from September 2021 - August 2022 was 1,888 miles, which is higher than the previous year and slightly above average.
- Fall Migration, Noatak River Crossing – The distribution of the herd crossing the Noatak was almost identical in 2021 as 2020, with 57% crossing in the upper Noatak almost to the Gates of the Arctic boundary. When compared against the average distribution of the herd crossing the Noatak over time, in 2020 and 2021 only 1% of the herd crossed the very lower Noatak while between 2010 and 2016 an average of 13% crossed the lower Noatak.
- Fall migration, Kobuk River Crossing – From 2010-2015 over 80% of the collared caribou crossed the Kobuk River to winter farther south. From 2016-2020, only an average 34% crossed the Kobuk River, with a record low of just 6% of the herd crossing in 2020. In the fall of 2021, 73% of the herd crossed the Kobuk River. However, this is still lower than the long-term average of over 80%. Note that only a few animals traveled farther south to cross the next river, the Selawik River. Most animals didn't go much farther south than crossing the Kobuk River. Places like Shaktoolik and the Seward Peninsula, didn't see WAH caribou. The average date of Kobuk River crossing has gotten much later. Since 2010, the date of the first animal crossing the Kobuk has shifted by two months – from late August until early November. The average date of crossing for 2020 was November 2. The average date of crossing for 2021 was October 16. This creates a situation where hunters who would rather take the big bulls do not want them because they are in rut at that time – and this can increase hunting pressure on cows.
- Overwintering – There has been a dramatic change in recent years in where Western Arctic Herd caribou are wintering, in terms of NPS conservation units in the herd's range. For the last four winters, no caribou have wintered in the Bering Land Bridge National Preserve – while 6-7 years ago 75% of the collared animals wintered there. Another radical change is that 42% of the collars overwintered in the Kobuk Valley NP. In the first 8 years the NPS had GPS collars on caribou there wasn't a single collared animal who overwintered in Kobuk Valley NP.
- Spring migration – The route and timing of spring migration doesn't show as much variation over the years, as cows are motivated to get to the calving grounds and timing of calving has not been changing much. In 2022 the herd was crossing the Selawik River on May 4.
- Land Cover Map – There's a new product available that maps land cover from 1985 to 2020 and shows changes in lichen cover from the same time period. We are going to take a look at this and try to analyze the abundance of lichen, critical for caribou habitat, and see if we can make any determinations.
- Recent research papers of interest –

- Caribou Migrations in a Changing Arctic –
  - Snow and cold temperatures were linked to fall migratory movements.
  - Quantified traditional observations of caribou hunters.
  - Snow and cold temperatures are coming later due to climate change.
  - Reviewed factors influencing caribou migrations and how climate change will impact them.
  - Weather conditions, population size, development, disturbance, habitat, forage conditions, wildfire and other factors can impact migrations.
  - https://www.nps.gov/articles/000/boumigrationchanges.htm
- What Goes up Must Come Down: The Influence of Climate on Caribou Populations – Large, northern caribou populations, like the WAH, tend to oscillate and this appears to be linked to large-scale weather patterns. https://kids.frontiersin.org/articles/10.3389/frym.2021.631372

Working Group members' questions and discussion on the NPS presentation included:

- Q: I am not seeing a lot of activity around Selawik? Do we know why the caribou aren't coming to Selawik?
  A: Fidelity is what we refer to as caribou using the same route every year. We see very low fidelity especially in the fall. Caribou have a high fidelity to the calving grounds and the insect relief areas. The last few years there have been less animals migrating in general and their routes for the fall and winter are unknown and they just haven't been going through Selawik recently. Sometimes their routes are due to the availability of lichen, sometimes other factors influence their migration like climate or other disturbances.
- Q: Can caribou get Covid?
  A: It is possible for Covid to be transmitted but I don't think there's been a documented case. There have been documented cases in deer and other species. We do our best to mitigate transmission; if we aren't healthy, we don't go out into the field.
- Q: Are there any diseases observed in the herd?
  A: ADFG does a number of studies on the health of individual animals and the herd in general. The Western Arctic Herd is a healthy herd. Caribou can get diseases and they do occur, but it's generally a very low prevalence.
- Q: It seems like oscillations and natural weather patterns are cyclic. Do you think the herd will decrease and then eventually increase again based on these natural weather patterns?
  A: That has happened in the past and it the herd numbers could oscillate again along with the natural weather patterns, however there is evidence that climate change is disrupting the natural cycles and the oscillating patterns are becoming less regular. The pattern in the arctic is a 50-year cycle, a much longer cycle than El Nino, a 3-5-year cycle.
- Q: Has human presence at Onion Portage prevented caribou from returning there?

  A: Onion Portage is one the most famous archeological sites in the state, and people have documented human use of caribou at that spot 13,000 years. After 13,000 years caribou were still coming through, so that doesn't seem to be an issue.
- Q: Are reindeer factored into the caribou census?
  A: There aren't that many reindeer left, maybe less than 5000, and no one should be hunting them, because they are considered private property. These are primarily on the Seward Peninsula and very far away from where the censuses are conducted. There is a little bit of genetic mixing of reindeer and caribou, but not very much.

Working Group Decision on Herd Management Level – The Working Group discussed the recommendation from the Technical Committee that the WACH be within the "Preservative" and

"Declining" management category, with regard to Table 1 of the WACH Cooperative Management Plan (p. 21 of the 2019 plan). When discussing potential management actions, the Technical Committee recommends reducing the harvest of cows.

Working Group members expressed the following comments in discussion of the herd Management Level:

- We need to take some action now, to be able to preserve our harvest in the future.
- The Technical Committee wants to stress that real herd conservation will occur if we limit the harvest of female caribou.
- Agree that Preservative, Declining is the right management category, but the management actions we recommend as a result of this decision are where the important conversations need to occur.

MOTION by Neil DeWitt, second by Charlie Lean, to set the Management Level for the Western Arctic Herd at "Preservative, Declining" per the 2019 WACH Cooperative Management Plan, Table 1. Motion PASSED on a roll call vote. Votes - Yes: 14; Abstain: 1

Working Group discussion turned to what the "Preservative, Declining" Management Level may mean in terms of management of the Western Arctic Herd. Will Wiese, USFWS Acting Refuge Manager for the Selawik National Wildlife Refuge, noted that the 2019 WACH Cooperative Management Plan (Table 2) lists four management recommendations that can be considered when the herd is "Preservative, Declining". These are:

- No harvest of calves
- Limit harvest of cows by residents through permit hunts and/or village quotas
- Limit subsistence harvest of bulls only if <30 bulls:100 cows (NOTE: that is not the case in 2021, when bull:cow ratio is 47:100)
- Restrict harvest to residents only, according to State and federal law. Closure of some federal public lands may be necessary.

Working Group members asked the following questions and expressed the following (varied) viewpoints and ideas during the discussion of what actions to take to address the "Preservative, Declining" Management Level:

- Q: What are the current harvest numbers?
  A: We don't know.
- Comment: It is difficult for us to make recommendations if we don't know the true harvest numbers. We need to get better harvest numbers.
- Comment: If the long-term average annual harvest is 12,000 per year, and the Preservative, Declining Management Level recommends a harvest of 6,000 – 10,000 animals per year, we are already over by 2,000. We need to find ways to reduce harvest.
- Comment: We need to figure out how many caribou each family needs.
- Comment: We should focus on reducing the cow harvest.
- Comment: We should not allow any harvest of cows until the numbers start to increase again.
- Five caribou per day is too many when the herd is in a declining state. The Kotzebue AC took a very bold step, knowing the herd was declining, and proposed a bag limit of four caribou per year, one of which can be a cow. The one cow is included in case of hunter error. This is intended to be a temporary change so that when the numbers increase again, the bag limit can also increase.
- Comment: In the lower Kobuk there was a discussion about limiting to three per day, no cows.

- Q: If we limit cow harvest, what does that do to the population of the herd?
  A: There is a limit to the number of bulls we can shoot before it starts impacting the herd. The current numbers show that the herd can support an annual harvest of up to 8,000 bulls.
- A proposal like the Kotzebue AC makes a lot of sense, however we need to keep in mind that the timeline for proposals to be made, accepted, approved, and implemented is long. In the interim we can focus on education.
- It is important to minimize access to caribou, not criminalize.
- In addition to addressing the cows we also need to figure out why the calf survival rate is down.
- The North Slope Borough may not be as supportive of these restrictions as others.
- Q: Are there any members of the Federal Subsistence Board in attendance?
  A: No.
- Q: Does the draft Kotzebue AC proposal consider those that can't hunt, i.e., Elders, sick, etc?
  A: Yes, if a person is qualified a proxy can hunt for them under the state regs and if under the federal regulations, you can designate a hunter to hunt for you.

MOTION by Vern Cleveland, second by Tom Gray, to make a proposal to both the Board of Game and the Federal Subsistence Board to change regulations from a bag limit of five caribou per hunter per day, to a total of four caribou per hunter per year, only one of which may be a cow. The proposal includes all management units that contain the Western Arctic Herd including 21B, 22, 23, 26A, 24B, 24C, and 24D. Motion passes unanimously on a roll call vote. Votes - Yes: 16

Assignment: Holly Spoth-Torres will draft proposals to the Alaska Board of Game and Federal Subsistence Board, for the Chair's signature, recommending new regulations.

After a break, the Working Group discussion turned to additional management actions identified in the 2019 WACH Cooperative Management Plan (Table 2) and what other proposals the working group may wish to take.

MOTION by Charlie Lean, second by Tom Gray. RESOLUTION: The Western Arctic Caribou Herd Working Group believes that the ANS threshold has been crossed and urges the State to enact existing regulations in place, now that the ANS threshold has been passed. Motion passes on a roll call vote. Votes - Yes: 12; No: 4

Assignment: Holly Spoth-Torres will send this resolution to the Alaska Board of Game for their consideration.

Working Group members expressed the following (varied) viewpoints in discussion of the motion to eliminate non-Alaska resident caribou hunting of the Western Arctic Herd:

- Comment: Guided hunting is important to the Alaska economy, but we need to focus on subsistence first.
- Comment: Currently WSA 2101 limits non-federally qualified hunters from hunting on some federal land. This is temporary and will be in effect through the fall of 2023. A proposal is needed if you want to propose restricting non-Alaska-resident hunting of caribou on state lands.
- Comment: Biologically, eliminating non-Alaska-resident hunting may not make a big difference, but socially, this act could make a really big difference. If we are asking Alaskans to make a big sacrifice, limiting the annual bag limit down to four animals per year, it also makes sense that we would also ask non-residents to also make a sacrifice.
- Comment: Transporters are opposed to this action. There are likely other actions that would have a bigger, more meaningful impact.

- Q: Does the count for the Western Arctic Herd include animals for the Teshekpuk Herd?
  A: No. When we completed the counts, the herds were separate.

III. 2023 North American Caribou Workshop

Kyle Joly, NPS, provided information the 2023 North American Caribou Workshop & Arctic Ungulate Conference, an international conference coming to Anchorage's Captain Cook Hotel on May 8 – 12, 2023. This is the first time the two conferences have been held simultaneously. This is the largest gathering of caribou and ungulate (muskox, moose, reindeer, Dall sheep, etc.) scientists in the world. The theme is "Crossing Boundaries". There is funding for one Working Group member to attend. Please identify a Working Group member to attend plus an alternate. For more information visit: www.nacw-auc-2023.org

MOTION by Neil DeWitt, second by Tom Gray. The Western Arctic Caribou Herd Working Group agrees to send Cyrus Harris to the conference with Vern Cleveland as the alternate. Motion passes unanimously on a voice vote.

IV. Resource Development in the Herd's Range

Tim Fullman, Chair of the Working Group's Resource Development Committee, gave an update on resource development projects within the range of the herd (p. 69 in WG Binder).

Ambler Road and Mining District (p. 70 in WG Binder)

- In 2020 the BLM approved permitting of an Ambler access road.
- Two lawsuits were filed requiring the BLM to complete a Supplemental Environmental Impact Statement.
- There will be new opportunities to weigh in.
- Scoping for the SEIS took place in September through early November of 2022 and the Working Group submitted comments (see p. 71 of the WG binder) via a letter that was approved by the executive committee. This letter reiterated previous comments but also expressed concern about recent decreases in the herd numbers.
- The WG also submitted comments (as voted on in December of 2021) to Ambler Metals asking them to increase the distance at which they shut down operations at their Bornite Exploration camp when there are five or more caribou within five miles of the operation (see p. 77 of WG binder). No response was received from Ambler Metals.
- In February, 2022, the Working Group also sent comments to DNR asking they not grant the private exclusive easement requested by AIDEA for the Ambler Road (see letter on p. 80).

Other Ambler Development (p. 82 in WG Binder)

- Other claims have been filed by South32 and Trilogy Metals along the proposed Ambler Road route.
- Air and on-the-ground exploration activities have already started.
- We raised these concerns as cumulative impacts of the road on caribou when we submitted scoping comments to the BLM on the SEIS.

Anarraaq – Aktigiruq Mining Exploration (p. 83 in WG Binder)

- Teck American, Inc, proposed an exploration project to evaluate potential for new mineral deposits northeast of the Red Dog Mine. This would lead to construction of approximately eight miles of roads. The application with the Army Corps of Engineers was closed due to insufficient information.

However, in the spring of 2022 Teck reopened the application, provided new information that was requested, and is proposing to move forward with this exploration project. The Army Corps of Engineers reached out to us again for comments since we commented previously. We again provided comments in April of 2022 (p. 84 in WG Binder). We received a response to these comments (p. 86 in WG binder).

OTZ Microwave Tower Broadband Project (p. 88 in WG Binder)

- OTZ Telephone Cooperative has proposed to build a series of microwave antennae tower communications sites to provide broadband internet between the Northwest Arctic Borough and the Dalton Highway. The proposal includes up to 33 towers. OTZ is proposing construction in 2023.
- Improving internet connectivity is very important, however we want to make sure the project minimizes impacts to caribou.
- BLM may be preparing an Environmental Assessment and we will be tracking this.

Willow Master Development Plan (p. 89 in WG Binder)

- This project would expand infrastructure in the northeastern part of the National Petroleum Reserve, Alaska, or the NPR-A. Oil and gas development would move further westward and move up further north to the edge of the Teshekpuk Lake special area, which protects critical calving, post calving and insect relief habitat for the Teshekpuk caribou herd. This project was initially approved back in 2020, but like Ambler, there was a legal ruling that halted that development and led to a supplemental environmental impact statement analysis.
- The Willow Project is not one that the Working Group has commented on in the past because it primarily would impact the Teshekpuk Herd, not the Western Arctic Herd, but since the two herds tend to be managed similarly, and given some of the recent patterns of winter use by the Western Herd where many animals have stayed up on the North Slope, this is a project we should track.

Peregrine Exploration Program (p. 90 in WG Binder)

- The Peregrine Project is a five-year oil and gas exploration effort by 88 Energy in the eastern NPR-A southwest of Nuiqsut and north of Umiat. development and BLM is likely to revise their approval to address issues raised by the court. It is expected that there will be opportunities to comment on the project in spring 2022.
- Equipment has been moved into the area coming south on a snow road that extends off the North Slope Borough community Winter Access Trail. In the past two years, they've drilled multiple wells to do exploration, but recently they announced they're unlikely to do any exploration activity this winter season.
- We have not commented because the range is outside the Western Arctic Herd area.

Noatak – Red Dog Road - Planning and Environmental Linkage (p. 91 in WG Binder)

- In 2019, the Alaska Department of Transportation and Public Facilities (DOT&PF) announced it is partnering with the Northwest Arctic Borough and Native Village of Noatak to look into building a permanent gravel road connecting Noatak to the Delong Mountain Transportation System (DMTS, i.e., the Red Dog road). In 2020, the Working Group submitted a letter to DOT&PF relevant to minimizing impacts to the Western Arctic and Teshekpuk caribou herds. The state's planning process is ongoing and there is not currently an opportunity for comments.

The following comments and questions were raised in Working Group discussion of the Resource Development Committee report:

- Q: Are the OTZ towers being placed on the highest spots possible? Caribou also go to the high spots.
  A: Generally, towers are placed on high points. They are usually about 30 miles apart and need to be connected by line of sight.
- Q: Are the OTZ tower construction require road access?
  A: Materials will be flown in by helicopter.
- Comment: Broadband is very important for search and rescue in our area.
- Comment: People are very concerned about the impact of the Ambler Road through caribou migration routes and prime hunting and trapping areas. Although the road is proposed as a private road, people are very concerned that in the future it may be opened to the public allowing more access to hunting grounds.
- Q: Are they going to build the Noatak Road?
  A: The planning and environmental linkages phase is like pre-planning. There are route studies/analysis.
- Q: Are there requirements for dust control on the Red Dog Mine Road?
  A: The planning and environmental linkages phase is like pre-planning. There are route studies/analysis.
- Comment: Regarding the broadband it would be helpful to know what products/services will be available once the project is complete. Cell service? Internet? For whom and where?
- Comment: The impacts of roads on caribou are quite visible and this is well documented. The cause is unclear; it could be road dust, noise from trucks, hunting pressure. We are hopeful to have funding to study this in the future.
- Comment: The Noatak – Red Dog Road would help with fuel prices. It is rare that the barge makes it to Noatak anymore. Heating fuel and other fuel costs 10.99/gallon and all fuel is being flown in. Alternatives B, C and D are not favorable, but we will keep talking with the project team to find a good solution.
- Comment: I generally think broadband is a good thing, but I'm worried about all the noise that will impact the caribou herd.
- Comment: I'm concerned that continued road construction will impact the migration of the herd; but we need to cooperate with industry.
- Q: Have the impacts of the four alternatives identified in the Noatak – Red Dog Road on caribou been studied?
  A: The impacts of the Red Dog Road on caribou have been studied and published, however the four alternatives for connecting Noatak with the Red Dog Road have not been studied.
- Q: With all the road development occurring and being planned, are the impacts to caribou being monitored?
  A: The State of AK is doing some monitoring caribou monitoring (i.e. caribou stress tests) to analyze impacts to caribou.
- Q: I'm concerned about protecting the calving area? Is there anything we can do to help preserve the calving area from future expanded oil and gas development?
  A: If the Working Group wants, we can submit comments to the Department of the Interior asking for more permanent protection of the calving grounds and increase the protected area in the north. We could pass a resolution to do this.

V. Ambler Road Project

Wendy Huber, Ambler Road Project Manager/BLM Planning and Environmental Specialist and Bill Hedman, Assistant Field Manager for the Upper Yukon, presented information to the Working Group about the status of the Ambler Road project (p. 94 in WG Binder).

Summary of EIS Decision

- The BLM action was to analyze a proposed Right of Way (ROW) grant that provides for:
    - Technically and economically practical and feasible year-round industrial surface transportation access in support of mining exploration and development; and
    - Construction, operation, and maintenance of facilities associated with that access.
    - If approved, the road would be for private industrial access only.
- The BLM must decide if a ROW will be granted and, if so, the terms and conditions that will be imposed.
- The EIS must also provide the necessary analysis under NEPA for the U.S. Army Corps of Engineers and the U.S. Coast Guard for their permitting actions.

Key Milestones – Starting in 2020

- Programmatic agreement (PA) for Section 106 National Historic Preservation Act was finalized in April 2020.
    - BLM moves forward with implementing the PA with consulting parties and signatories as related to pre-construction activities.
- Joint Record of Decision (ROD) was signed in July 2020.
- NAEC et. al., lawsuit filed August 2020.
- TCC et. al., lawsuit filed October 2020.
- BLM issued ROW grant in January 2021.
- DOI filed motion for voluntary remand of decisions made in the Joint ROD – February 2022.
    - Motion cited perceived deficiencies in the ANILCA 810 analysis and perceived lack of consultation associated with development of the PA for the Section 106 process.
    - Motion requested to the agencies to allow for "reconsideration through the administrative process." [read: Supplemental EIS].
- Deputy Secretary suspended AIDEA's ROW grant – March 2022.
- Court granted motion for voluntary remand of decisions in the JROD – May 2022.

Supplemental EIS Timeline

- Notice of Intent published September 2022, starting the 45-day public comment period.
- Public comment period ended November 2022.
- BLM will begin working on a draft Supplemental Environmental Impact Statement (EIS) in early 2023.
- Anticipate Summer 2023 for the release of draft Supplemental EIS for public comment period.
- There will be a 45-day public comment period after the release of the DSEIS.

What is the SEIS?

- The Supplemental EIS will address procedural and legal deficiencies that were in the original project analysis related to subsistence impacts (pursuant to ANILCA Section 810 and to Tribal consultation that occurred pursuant to Section 106 process).
    - Section 106 - initiate a process to revise the PA for Section 106

  - ANILCA 810 - subsistence impacts to fisheries and caribou habitat and impacts to water in the surrounding project area.
- The BLM will look at any additional issues identified in scoping.
  - Possible alternatives from scoping will also be considered.

Opportunities for the WACH Working Group

- Part of looking at issues is reviewing any possible data gaps.
- If the working group has any new information or data, the BLM is interested in acquiring it.
- The working group can help with communicating that robust participation is needed at subsistence hearings.
- Any ideas on possible:
  - Mitigations
  - Alternatives
  - Solutions

The following comments and questions were raised in Working Group discussion of the Ambler Road report:

- Comment: A 45-day comment period is generally not enough time for us to have meaningful participation and input. Please consider extending the public comment deadline.
- Q: Do you respond to the public comments received during the scoping process?
  A: We consult with other agencies as we develop the draft after the scoping period, but we generally don't respond to scoping comments. We do respond to comments during the DSEIS phase.
- Q: Who reviews the public comments? Are they reviewed in Tribal Consultation?
  A: We share all comments publicly. We will also complete an official consultation through the Section 106 process. We are currently reaching out to tribes to see who might want to engage as a consulting party.
- Q: Is the road going to be a one-lane road or a two-lane road?
  A: The current plan is phased, starting with a winter access road to begin construction, then to a one-lane road, and with the final build-out eventually being a two-lane road.
- Comment: I don't support a 2-land road if the road is going to be a private road.
- Comment: A road out here will impact a subsistence way of life.
- Comment: If this road becomes public it will give greater access to resources like hunting and fishing grounds.
- Comment: I'm concerned about pollution if a road is constructed.
- Comment: I am very concerned about the caribou and subsistence economy if a road is built. If a road is built we would want a guarantee that the caribou will still migrate on their traditional routes.
- Comment: A proposed private road makes it easier for it to become public in the future. We need to protect our culture. A road connection brings access from more urban areas putting a subsistence lifestyle at risk.
  Response: AIDEA is requesting a private road and that is what we are primarily analyzing. However, we will be analyzing the possibility that a public road could be a future outcome.
- Q: If the road were to become public in the future, it is my understanding that before it does, another, separate EIS process need to happen? Is that true?
  A: Yes.
- Q: Will there be a fence along the road? Will there be caribou crossings? Will there be turnouts?
  A: AIDEA would be the one to tell you the details of the development plan.

- Q: Is there a traffic analysis?
  A: AIDEA's proposal includes a traffic demand analysis.
- Q: Will the new exploration proposals along the route be included in the analysis?
  A: BLM is aware of these new proposals and will be addressed in the SEIS.
- Q: Have the caribou been studied around the area of the proposed Ambler Road?
  A: The NPS has had GPS collars out since 2009. We have about a decade of GPS data and collar data since the 1970s. It will be important to study the potential impacts to the herd as the numbers increase and decrease temporally. The NPS has two studies out. One looks at habitat and the other looks at changes to subsistence in areas where roads have been constructed. Most of the caribou crossings in the area of the proposed route occur in the winter months. Kyle Joly can give a presentation next year and will share the papers.
- Q: Is the ROW really 450 feet wide? That is a significant footprint.
  A: A 400-foot-wide easement isn't that uncommon. The design footprint will be closer to 200 feet.
- Comment: The caribou movement near the Dalton Highway changed a little, but not that much. The Dalton Highway allowed more access for hunting, but caribou still migrate to villages. The Dalton highway has helped villages via access through the ice roads and industry. It helps both sides.
- Comment: There are pros and cons to the potential development of this road. We should all work together to make sure we all have opportunity and ensure our culture and resources are protected. We should make this the best we can for the most people.
- Comment: I was against the road, but then I got a job at Bornite and I realized that this road would create a lot of work and opportunities for us and our children. Maybe the cost of living will go down if the road is built.
- Q: How much weight do different comments get?
  A: All comments get the same amount of weight, whether they are public or a cooperating agency or an interested party as long as the comments are substantive in nature. The difference between a cooperating agency and the general public is that the agency will have responsibilities and may participate in alternatives development.
- Q: What are the details of the road design?
  A: AIDEA has not completed the design of the roadway yet.
- Q: What is the approved route of the road?
  A: Through the SEIS process the BLM is required to go back and analyze the alternatives again. However, if nothing changes, the route that is approved and permitted is Route A (see Yellow Route on p. 95 of WG binder).
- Q: I understand that the State and BLM are not considering a land swap, however has the State selected some of the BLM lands where the possible road right of way is located?
  A: Yes, the State has selected some of these lands, however, the land within the corridor lies withing Public Land Order withdrawal 5150 which means that those lands will be retained as a federal withdraw for the purpose of utility, transportation, and industrial routes. If PLO 5150 goes away, then yes, the State could get that land. However, that is just speculation right now.

VI. Community Harvest Assessment Program

Helen Cold, ADFG Subsistence Division, presented to the Working Group explaining the community harvest surveys (caribou focus) that are being conducted in eight communities within the range of the Western Arctic herd (p. 96 in the WG Binder).

- The communities included in the surveys: Golovin, Selawik, Shungnak, White Mountain, Shishmaref, Noatak, Deering and Kobuk.

- The project study updates for 2021-2022 include the Golovin, Selawik, Shungnak, and White Mountain communities. Deering, Noatak, Shishmaref, and Kobuk are pending community review.
- There are 2018-2019 estimates of caribou harvest by Golovin, Selawik, Shungnak and White Mountain (total harvest and pounds per capita); harvest timing; and harvest areas.
- Methods include household surveys, ethnographic interviews with mapping, and participant observation.
- Funding Agency: US Fish and Wildlife Service
    - Research partnership among 8 study communities, ADF&G Subsistence, ADF&G Department of Wildlife Conservation
- The project started in 2019 and will continue through 2024.

The following comments and questions were raised in Working Group discussion of the Community Harvest Assessment Program:

- Comment: This data is illuminating, but instead of focusing on small segments and only a few communities, maybe we should focus our energy on understanding the total harvest numbers.
- Comment: Instead of preselecting communities, we may consider focusing our efforts on the communities where we know the caribou were that year. We could adjust our surveys to mirror the migration patterns.
- Comment: Our primary goal should be to understand the total annual harvest.
- Comment: It is helpful to have more data that helps understand predators.
- Comment: On page 100 of the binder, it shows the percentages of households. It would be helpful to see that data in number of households.
- Q: Is this process considered best practice?
  A: ADF&G has been conducting research of this nature since 1978. We get high response rates and accurate data.

VII. Communication Committee Update

Brittany Sweeney, FWS Outreach Specialist for the Selawik National Wildlife Refuge and a member of the Communications Committee, briefly presented information about the actions of the committee during the past year. For details, please refer to pages 56-58 of the binder.

Brittany led a brainstorming session about ideas for content for the 2023 Caribou Trails newsletter, which gets mailed to everyone in the range of the herd. Ideas/topics discussed include:

- Summary of the action taken by the working group to develop proposals to the Board of Game and Federal Subsistence Board to reduce the bag limit from 5 animals per day to 4 animals annual, only one of which can be a female. Headline idea “Working Group Proposes Drastic Changes.”
- Call of action to communities to work with agencies to submit harvest numbers. Provide information on how overall understanding of harvest numbers can assist with better managing the herd.
- Illustrate how it is important that this isn’t arbitrary – focus on the why.
- Inform that the working group’s decision was focused on the health of the female population and this action may help the herd’s numbers increase.
- Stress the seriousness of the herd’s decline.
- Stress that we all need to do our part and play a role in conservation – that’s why the working group included a resolution to eliminate non-Alaska resident hunting.
- “Where are the Caribou?” Provide information about where the herd was in the last year.

- Provide a historic summary of where the caribou have been over time – through a guest elder.
- Provide a list of communities that are in the range of the herd.
- A highlight of a successful community data collection method to illustrate how important it is to have accurate harvest numbers.

VIII. Business Meeting

Approval of 2021 WACH WG Meeting Summary (p. 116 in WG Binder) – MOTION by Morris Nassuk, second by Neal Dewitt, to approve the 2021 WACH WG meeting summary. Motion PASSED unanimously by voice vote.

Election of Chair – MOTION by Morris Nassuk, second by Neil DeWitt, to nominate Vern Cleveland to serve as Chair of the WACH Working Group for 2023-2025. There was another MOTION by Enoch Mitchell, second by Neil DeWitt to nominate Cyrus Harris to serve as Chair of the WACH Working Group for 2023-2025. Votes were collected and tallied by paper ballot. Vern Cleveland received 8 votes and Cyrus Harris received 5 votes. Vern Cleveland will serve as the WACH Working Group Chair for the 2023-2025 term.

Adding a Mat-Su Borough Seat to the WACH WG – MOTION by Neil DeWitt to add a Mat-Su Borough seat to the WACH WG. The motion did not receive a second. The Working Group asks those who are interested to send a letter of interest and clear rationale for why they are not being represented currently.

Emergency Petition – MOTION by Neil Dewitt, second by Bill Barnhardt, to submit an emergency petition letter to ADF&G for an Agenda Change Request for their January 2023 meeting to consider an emergency regulation change for the Western Arctic Herd to limit harvest to 4 caribou per year only one of which can be a female. Motion FAILED by voice vote – only two WG members voted AYE.

Resolution – MOTION by Dave Kilbourne, second by Neil DeWitt, to encouraging agencies to collaborate to come up with a comprehensive solution, including but not limited to working with Alaska Native Corporations, IRAs, North Slope Borough, and others, to collect more accurate harvest data and return to the Working Group in 2023 with a more reasonable estimate of the harvest. Motion PASSED unanimously by voice vote.

Protection of Calving Grounds – MOTION by Tim Fullman, second by Tom Gray, to submit a letter to the Department of the Interior to add permanent protections to the calving grounds in the NPR-A including increasing the northern boundary to where the protection applies. Motion PASSED by voice vote – only two WG members voted NAY.

Committee Membership

- Remove Susan Georgette from the Resource Committee and replace with Will Wiese.

2023 WACH Working Group Meeting – The Working Group plans to meet in-person on December 13-14, 2023 in Anchorage. The Technical Committee will meet on December 12th in Anchorage. MOTION by Neil DeWitt, second by Tom Gray, to approve the 2023 WACH WG Annual Meeting dates and location. Motion PASSED unanimously by voice vote.

IX. Adjourn – MOTION by Tom Gray, second by Neil DeWitt, to adjourn the meeting. Motion PASSED unanimously by voice vote.

Motions Acted Upon at WACH Working Group Meeting

December 15, 2022

1. Membership Approvals: MOTION by Tim Fullman, second by Neil DeWitt, to approve the following alternate members to the WACH Working Group – Seat 8 alternate Thomas Baker; Seat 15 alternate Johnson Eningowuk; Motion PASSED unanimously on a voice vote.
2. Agenda Approval: MOTION by Neil DeWitt, second by Morris Nassuk, to approve the meeting agenda. Motion PASSED unanimously on a voice vote.
3. WACH Management Level, 2019 WACH Cooperative Management Plan: MOTION by Neil DeWitt, second by Charlie Lean, to set the Management Level for the Western Arctic Herd at "Preservative, Declining" per the 2019 WACH Cooperative Management Plan, Table 1. Motion PASSED on a roll call vote. Votes - Yes: 14; Abstain: 1
4. Submit Proposal to Board of Game and Federal Subsistence Board for Regulation Change: MOTION by Vern Cleveland, second by Tom Gray, to make a proposal to both the Board of Game and the Federal Subsistence Board to change regulations from a bag limit of five caribou per hunter per day, to a total of four caribou per hunter per year, only one of which may be a cow. The proposal includes all management units that contain the Western Arctic Herd including 21B, 22, 23, 26A, 24B, 24C, and 24D. Motion PASSED unanimously on a roll call vote. Votes - Yes: 16
5. Non-Alaska Resident Hunting Restrictions: MOTION by Charlie Lean, second by Tom Gray. RESOLUTION: The Western Arctic Caribou Herd Working Group believes that the ANS threshold has been crossed and urges the State to enact existing regulations in place, now that the ANS threshold has been passed. Motion PASSED on a roll call vote. Votes - Yes: 12; No: 4
6. 2023 North American Caribou Workshop WG Member Attendance: MOTION by Neil DeWitt, second by Tom Gray. The Western Arctic Caribou Herd Working Group agrees to send Cyrus Harris to the conference with Vern Cleveland as the alternate. Motion PASSED unanimously on a voice vote.
7. Approval of 2021 WACH WG Meeting Summary: MOTION by Morris Nassuk, second by Neal Dewitt, to approve the 2021 WACH WG meeting summary. Motion PASSED unanimously by voice vote.
8. Election of Chair: MOTION by Morris Nassuk, second by Neil DeWitt, to nominate Vern Cleveland to serve as Chair of the WACH Working Group for 2023-2025. There was another MOTION by Enoch Mitchell, second by Neil DeWitt to nominate Cyrus Harris to serve as Chair of the WACH Working Group for 2023-2025. Votes were collected and tallied by paper ballot. Vern Cleveland received 8 votes and Cyrus Harris received 5 votes. Vern Cleveland will serve as the WACH Working Group Chair for the 2023-2025 term.
9. Adding a Mat-Su Borough Seat to the WACH WG: MOTION by Neil DeWitt to add a Mat-Su Borough seat to the WACH WG. The motion did not receive a second. The Working Group asks those who are interested to send a letter of interest and clear rationale for why they are not being represented currently.
10. Emergency Petition: MOTION by Neil Dewitt, second by Bill Barnhardt, to submit an emergency petition letter to ADF&G for an Agenda Change Request for their January 2023 meeting to consider an emergency regulation change for the Western Arctic Herd to limit harvest to 4 caribou per year only one of which can be a female. Motion FAILED by voice vote – only two WG members voted AYE.
11. Resolution Concerning Harvest Data: MOTION by Dave Kilbourne, second by Neil DeWitt, to encouraging agencies to collaborate to come up with a comprehensive solution, including but not limited to working with Alaska Native Corporations, IRAs, North Slope Borough, and others, to

collect more accurate harvest data and return to the Working Group in 2023 with a more reasonable estimate of the harvest. Motion PASSED unanimously by voice vote.

12. Protection of Calving Grounds: MOTION by Tim Fullman, second by Tom Gray, to submit a letter to the Department of the Interior to add permanent protections to the calving grounds in the NPR-A including increasing the northern boundary to where the protection applies. Motion PASSED by voice vote – only two WG members voted NAY.
13. Adjournment: MOTION by Tom Gray, second by Neil DeWitt, to adjourn the meeting. Motion PASSED unanimously by voice vote.

Assignments Made at WACH Working Group Meeting

December 15, 2022

1. State and Federal Wildlife Regulation Proposal: Holly Spoth-Torres will draft a letter to the Board of Game, for the Chair's signature, providing the Working Group's comments and proposal to change regulations from a bag limit of five caribou per hunter per day, to a total of four caribou per hunter per year, only one of which may be a cow. The proposal includes all management units that contain the Western Arctic Herd including 21B, 22, 23, 26A, 24B, 24C, and 24D.
2. Alaska Board of Game Comment Letter: Holly Spoth-Torres will draft a letter to the Board of Game, for the Chair's signature, providing the Working Group's comments about the following resolution passed: The Western Arctic Caribou Herd Working Group believes that the ANS threshold has been crossed and urges the State to enact existing regulations in place, now that the ANS threshold has been passed.
3. Department of the Interior Comment Letter: Holly Spoth-Torres will work with Resource Development Chair Tim Fullman to draft a letter to the Department of the Interior, for the Chair's signature, requesting them to add permanent protections to the Western Arctic Herd calving grounds in the NPR-A including increasing the northern boundary to where the protection applies.
4. Filling Alternate Seats: Holly Spoth-Torres will work with Working Group members to fill the two vacant alternate seats (Seats 19 and 20).

Western Arctic Caribou Herd (WACH)
Working Group Meeting
December 14-15, 2022
8:30am - 5:00pm

Marriott Anchorage Downtown
820 West 7th Ave.
Anchorage, AK 99501

Western Arctic Caribou Herd Working Group Mission:

"To work together to ensure the long-term conservation of the Western Arctic caribou herd and the ecosystem on which it depends, and to maintain traditional and other uses for the benefit of all people now and in the future."

DAY 1 – Wednesday, December 14

8:30 Call to Order

- Invocation
- WACH Working Group Roll Call / Establish Quorum
- Introduction of State and Federal Agency Leads
- New Working Group Member & Alternate Appointments
- Approval of Agenda – Preview Meeting Binder

8:40 Guest Elder – Austin Swan Sr. and Nelda Emma Swan, Native Village of Kivalina (45 min)

9:25 Round Robin Updates – What's been going on since 2019? (65 min)

The last time the WACH Working Group met in person was two years ago! What has everyone been up to since then?

10:25 Break (15 min)

10:40 Western Arctic Caribou Herd Status and Management Level (110 min)

10:40 Western Arctic Herd Overview and 2022 Census – including Technical Committee recommendation on status of the herd (60 min) – Alex Hansen, Alaska Department of Fish and Game (ADFG)

11:40 NPS Caribou Monitoring (20 min) - Kyle Joly, National Park Service (NPS)

12:00 Working Group discussion and decision on Herd Management Level per the 2019 WACH Cooperative Management Plan (30 min)

12:30 LUNCH (75 min)

1:45 Management Implications of the Herd Management Level (120 min)

Based on the Management Level decision of the working group, review the management recommendations identified in Table 2 of the 2019 WACH Cooperative Management Plan and current State/Federal harvest regulations relevant to the recommendations.

Develop recommendations to the Federal Subsistence Board, Board of Game, and/or Regional Advisory Councils, if appropriate.

WACH Working Group Meeting – Agenda (continued)

3:45 **BREAK** (15 min)

4:00 **Communication, Education, and Outreach Committee Update** (30 min) – Brittany Sweeney, Selawik National Wildlife Refuge Outreach Specialist

4:30 **2023 North American Caribou Workshop** (15 min) – Kyle Joly, National Park Service (NPS)

4:45 **ADJOURN DAY 1**

DAY 2 – Thursday, December 15

8:30 **Call to Order / Announcements / Review Day 2 Agenda**

8:35 **Resource Development in the Herd's Range** (30 min) – Tim Fullman, Resource Development Committee Chair

9:05 **Ambler Road Project** (70 minutes) Wendy Huber, Planning and Environmental Specialist, Bureau of Land Management

10:15 **BREAK** (15 min)

10:30 **Alaska Department of Fish & Game Community Harvest Surveys for 2021 – 2022** (30 min) Helen Cold, Subsistence Resource Specialist, Alaska Department of Fish and Game

11:00 **Caribou Roundtable** (90 min) – Working Group members meet in small groups by region, to discuss their observations in 2022 regarding caribou, the harvest, weather, etc.

12:30 **LUNCH** (90 min)

2:00 **WORKING GROUP PHOTO & BREAK** (30 min)

3:00 **Business Meeting – Actions - Assignments** (105 min)

- Approval of 2021 WACH Working Group Meeting Summary
- Election of Chair for 2023-2025
- Committee Membership – Revise / reconfirm
- Business / Action Items & Confirm Assignments
- Next Meeting – Date / Location

4:45 **Closing Comments – Working Group members** (15 min)

5:00 **ADJOURN**

Western Arctic Caribou Herd Working Group
Executive Committee Report
December 2023

The Western Arctic Caribou Herd Working Group (WG) Chair and/or Executive Committee acted on the following items on behalf of the full WG since the December 2022 meeting:

1. April 10, 2023. As directed by WG action in December 2022, submitted a comment letter to the Federal Subsistence Board regarding bag limits.

2. April 14, 2023. As directed by WG action in December 2022, submitted a comment letter to the Alaska Board of Game regarding bag limits for resident hunters.

3. April 14, 2023. As directed by WG action in December 2022, submitted a comment letter to the Alaska Board of Game regarding nonresident hunters.

4. November 9, 2023. As directed by WG action in December 2022, submitted comments to the U.S. Department of the Interior, Bureau of Land Management proposed rulemaking for Management and Protection of the NPR-A, RIN 1004-AE95.

5. Approved the *Caribou Trails* newsletter for printing and distribution.

6. August 7, 2023. Met via teleconference to discuss and identify topics for the 2023 Working Group meeting agenda.

Federal Wildlife Proposal

Proponent:

Western Arctic Caribou Herd Working Group
Vern Cleveland, Chair
For details about this proposal please contact Holly Spoth-Torres, Working Group Facilitator
605 W 2nd Ave.
Anchorage, AK 99501
holly@huddleak.com
907-223-0136

Issue:

Reduce the caribou harvest limit across the range of the Western Arctic Caribou Herd (WACH) from five caribou per day to four caribou per year, only one of which may be a cow. Specifically, reduce the harvest limit in Units 21D, remainder; 24B, remainder; 24C; 24D; and all caribou hunt areas within Units 22, 23, and 26A.

Existing Federal Regulation:

> **Units 21D, remainder; 22; 23; 24B, remainder; 24C; 24D; 26A - Caribou**
>
> *5 caribou per day*

Proposed Federal Regulation:

> **Units 21D, remainder; 22; 23; 24B, remainder; 24C; 24D; 26A - Caribou**
>
> ~~*5 caribou per day*~~ ***4 caribou per year; however, no more than 1 cow may be taken***

Why Should this regulation be changed?

Data from biologists at the ADF&G illustrate that there has been continued decline in the Western Arctic Caribou Herd (WACH). The July 2022 photo census estimated 164,000 caribou in the Western Arctic Caribou Herd which is down from 188,000 in 2021. Census numbers for past years: 2020 – no census; 2019 – 244,000; 2018 – no census; 2017 – 259,000; 2016 – 201,000. In the two years between the 2019 and 2021 census, the herd declined nearly 12% per year. Additionally, data shows that the cow survival rate is at 71% in 2021, well below the herd's average of 81% (1981-2020). ADF&G presented this information to the WACH Working Group in December 2022.

At its annual meeting the WACH Working Group assigned the management level "Preservative, Declining" to the herd based on the current census (within the range of 130,000-200,000) and adult cow survival rate less than 80%.

In doing so, the WACH Working Group sees the immediate need to address the current herd decline by limiting the harvest of both bulls and cows to allow the herd population to begin to recover.

In the units identified above, the current bag limit is set at 5 caribou per person per day during the open periods for bulls and cows. The WACH WG proposes to change regulations to 4 caribou per person per year, with no more than one cow allowed.

Thank you for submitting a proposal to Alaska Department of Fish and Game, Boards Division.

Please save the Log Number below for future reference.

LOG NUMBER: EG-F22-208

DETAILS:

Management Unit or Area (if applicable): 21D remainder, 22, 23, 24B remainder, 24C, 24D, and 26A
Topic (if applicable): Hunting
Additional Topics (if applicable):
Meeting Name: Western Arctic / Western Region,Interior and Eastern Arctic Region

AAC: 85.025

Issue:

Data from biologists at the ADF&G illustrate that there has been continued decline in the Western Arctic Caribou Herd (WACH). The July 2022 photo census estimated 164,000 caribou in the Western Arctic Caribou Herd which is down from 188,000 in 2021. Census numbers for past years: 2020 – no census; 2019 – 244,000; 2018 – no census; 2017 – 259,000; 2016 – 201,000. In the two years between the 2019 and 2021 census, the herd declined nearly 12% per year. Additionally, data shows that the cow survival rate is at 71% in 2021, well below the herd's average of 81% (1981-2020). ADF&G presented this information to the WACH Working Group in December 2022.

At its annual meeting the WACH Working Group assigned the management level "Preservative, Declining" to the herd based on the current census (within the range of 130,000-200,000) and adult cow survival rate less than 80%.

In doing so, the WACH Working Group sees the immediate need to address the current herd decline by limiting the harvest of both bulls and cows to allow the herd population to begin to recover.

In the units identified above, the current bag limit is set at 5 caribou per person per day during the open periods for bulls and cows. The WACH WG proposes to change regulations to 4 caribou per person per year, with no more than one cow allowed.

Solution:

RESIDENT HUNTERS: **Four caribou** [FIVE CARIBOU PER DAY] **per year, however, no more than 1 cow may be taken**

Name: Western Arctic Caribou Herd Working Group, Vern Cleveland, Chair
Address: 605 W 2nd Ave
City: Anchorage
State: AK
Zip Code: 99501
Phone: 9072230136
Email: holly@huddleak.com

Return to Boards Process Home

Thank you for submitting a proposal to Alaska Department of Fish and Game, Boards Division.

Please save the Log Number below for future reference.

LOG NUMBER: EG-F22-209

DETAILS:

Management Unit or Area (if applicable): 21D remainder, 22, 23, 24B remainder, 24C, 24D, and 26A
Topic (if applicable): Hunting
Additional Topics (if applicable):
Meeting Name: Western Arctic / Western Region,Interior and Eastern Arctic Region

AAC: 85.025

Issue:

Data from biologists at the ADF&G illustrate that there has been continued decline in the Western Arctic Caribou Herd (WACH). The July 2022 photo census estimated 164,000 caribou in the Western Arctic Caribou Herd which is down from 188,000 in 2021. Census numbers for past years: 2020 – no census; 2019 – 244,000; 2018 – no census; 2017 – 259,000; 2016 – 201,000. In the two years between the 2019 and 2021 census, the herd declined nearly 12% per year. Additionally, data shows that the cow survival rate is at 71% in 2021, well below the herd's average of 81% (1981-2020). ADF&G presented this information to the WACH Working Group in December 2022.

At its annual meeting the WACH Working Group assigned the management level "Preservative, Declining" to the herd based on the current census (within the range of 130,000-200,000) and adult cow survival rate less than 80%. In doing so, the WACH Working Group sees the immediate need to address the current herd decline by limiting caribou harvest to allow the herd population to begin to recover.

In a separate proposal, the WACH Working Group proposes a reduction in harvest for resident hunters. The working group feels that if harvest reductions are placed on Alaskans to allow the herd to recover, there should also he harvest reductions for non-resident hunters.

Currently, in the units identified above, non-Alaska resident hunters are allowed to harvest one (1) bull per year. The WACH Working Group proposes to close caribou hunting in units 21D remainder, 22, 23, 24B remainder, 24C, 24D, and 26A to non-Alaska residents.

Solution:

The WACH working group proposes to close caribou hunting in units 21D remainder, 22, 23, 24B remainder, 24C, 24D, and 26A to non-Alaska residents.

NONRESIDENT HUNTERS: **No open season** [1 BULL].

Name: Western Arctic Caribou Herd Working Group, Vern Cleveland, Chair
Address: 605 W 2nd Ave
City: Anchorage
State: AK
Zip Code: 99501
Phone: 9072230136
Email: holly@huddleak.com

Return to Boards Process Home

Western Arctic Caribou Herd Working Group

Goal: To work together to ensure the long-term conservation of the Western Arctic Caribou Herd and the ecosystem on which it depends, to maintain traditional and other uses for the benefit of all people now and in the future.

Chair: Vern Cleveland, Sr. Vice-Chair: Cyrus Harris

P.O. Box 175, Nome, AK 99762

November 3, 2023

Tracy Stone-Manning
U.S. Department of the Interior, Director (630)
Bureau of Land Management
1849 C St. NW, Room 5646
Washington, DC 20240

Re: Western Arctic Caribou Herd Working Group comments on RIN 1004-AE95: Management and Protection of the National Petroleum Reserve in Alaska

Dear Director Stone-Manning,

On behalf of the Western Arctic Caribou Herd Working Group (Working Group), the following comments are submitted to the Bureau of Land Management (BLM) regarding the proposed rule for Management and Protection of the National Petroleum Reserve-Alaska (NPR-A), RIN 1004-AE95.

The Working Group and its role in public processes

The Working Group is a permanent organization of diverse stakeholders that work cooperatively with each other and state, federal and regional resource management agencies with a goal "*to ensure the long-term conservation of the Western Arctic Caribou Herd and the ecosystem on which it depends, to maintain traditional and other uses for the benefit of all people now and in the future.*"

The Western Arctic Caribou Herd (WACH) is one of the largest caribou herds in Alaska and has provided an important subsistence resource and contributed to the cultural heritage of northwestern Alaska residents for thousands of years. The caribou of the WACH also provide opportunities for people from outside the range of the herd to hunt and experience caribou in vast Arctic landscapes, and serve as an important source of income for commercial operators that provide services to visiting users. Furthermore, the WACH is a critical component of the larger western Arctic ecosystem, influencing natural processes and providing resources for many mammals, birds, and plants.

In recognition of these varied values, the Working Group consists of subsistence users representing over 40 communities within the range of the herd, other Alaska hunters, guides, transporters, conservationists, and reindeer herders. Since its formation in 1997, the Working Group has submitted numerous advisory recommendations to government agencies, regulatory boards, and other bodies to support decisions that will ensure the long-term conservation of the WACH, its habitat, and its use.

Past Working Group engagement on the NPR-A

The Working Group knows the WACH is a vital and irreplaceable wildlife resource in northwestern Alaska and thus every effort must be made to protect and conserve the herd and its habitats in perpetuity. The NPR-A plays a necessary role in maintaining caribou as it contains critical seasonal ranges for both the WACH and the Teshekpuk Caribou Herd (TCH), both of which are heavily relied upon for subsistence use and other uses by Working Group members and those we represent. For this reason, management of the NPR-A has long been of great interest to the Working Group. As residents of Alaska, we recognize the value of responsible development but believe this should not come at the cost of failing to protect our important natural resources like caribou and their habitats.

In recognition of this, the Working Group provided detailed comments during the development of the 2013 and 2020 NPR-A Integrated Activity Plans (IAPs), calling on BLM to provide permanent protection for all caribou migration corridors and all seasonal core habitats for both the WACH and TCH. Habitat protection is essential to maintain caribou herds and is a driving mission of the Working Group. In support of this goal, the Working Group strongly advocated for the alternative that BLM ultimately selected in the 2013 IAP.

The Working Group reiterated its position supporting caribou protection in our comments on the 2019 draft Environmental Impact Statement (EIS) for the revised IAP. We requested that BLM adopt and strengthen Alternative A to better protect important habitat for both the WACH and TCH. Unfortunately, this was not reflected in BLM's final EIS. We greatly appreciate that the 2022 IAP Record of Decision changed course, returning to stronger protections for caribou and other species. Nonetheless, there remain areas for improvement.

Strengths of the proposed rule

We appreciate the efforts of the Department of the Interior (DOI) and BLM to update and standardize the rules managing the NPR-A, believing that this offers an important opportunity to enhance protections for caribou, their habitat, and the people who rely upon them. There are many ways in which the proposed rule offers improvements for management of the NPR-A that will enhance protection of caribou, their environment, and their users. **We continue to support permanent protection of caribou calving areas, insect relief habitat and migration corridors within the NPR-A.** Recognizing that permanent protection ultimately lies outside the authority of DOI, we support the proposed rule, with the improvements listed below, as a means of promoting stronger, lasting protections as a step toward more permanent protection.

We appreciate the emphasis on maximum protection of important subsistence species, along with the recognition that while this is especially applied in identified Special Areas, the Secretary of the Interior's responsibility to minimize ecological disturbances applies throughout the Reserve. Thank you for making explicit mention of the Working Group in the Background section of the proposed rule, along with our

recent designation of the herd's Preservative Declining status and our recommendation for strengthened protection of the WACH calving grounds. We hope BLM will heed these recommendations.

We agree with the proposed rule's recognition that "protection of traditional lands, waters, and the wild resources that inhabit them is essential to maintaining cultural traditions, traditional knowledge, and identity" for Iñupiat (p.62030-62031) and affirm that this also applies to other Alaska Native peoples. We appreciate that management of Special Areas in the proposed rule is specified to be both for protecting fish, wildlife, and their habitat, and also "associated subsistence use of such areas by rural residents," with appropriate access to Special Areas provided for subsistence purposes (§2361.50). We affirm that it is important to balance both the protection of species and access by subsistence users.

We also appreciate the requirement that BLM must rely on the best available scientific information and Indigenous Knowledge, along with the best available information concerning subsistence uses and resources within the NPR-A when making decisions about Special Area designation and amendment (§2361.30(a)(3)). The Working Group relies strongly on the joint wisdom found in Indigenous Knowledge and Western scientific ways of knowing and seeks to use both to support conservation and management of the WACH. We have repeatedly requested in comments that both ways of knowing be used to inform decisions and appreciate inclusion of this requirement in the proposed rule.

In alignment with our support for permanent protection of important caribou habitat, the Working Group strongly supports the BLM proposal to base decisions about designating lands as Special Areas solely on the presence of significant resource values, regardless of what other existing measures may or may not exist to protect those values (§2361.30(a)(6)). It is crucial that caribou, their habitat, and their use be conserved across their range in response to their many seasonal habitats and varied movements over time. We see this provision in the proposed rule as an important step towards these protections.

Furthermore, the proposals for protection of surface resources described in §2361.10(b) provide important mechanisms for conserving caribou and their habitat. In particular, the requirements to document consideration of reasonably foreseeable and significantly adverse effects, mitigation measures for those effects, inclusion of cumulative impacts and those occurring separated in time and space from the proposed actions, and consideration and accounting for uncertainty regarding potential effects offer critical clarity about the scope of considerations needed in future decisions. These are the sorts of topics we have raised in previous comments, and we appreciate BLM's proactive approach to addressing them. For example, we have often stressed that because of the wide-ranging nature of caribou, impacts on the WACH that occur far from a proposed activity may nonetheless have a cumulative effect with the proposed activity on the overall health of the herd. It is important that management takes a holistic view of the potential impacts to species, habitats, and people and the proposed rule presents a useful step forward in this regard. We especially appreciate the special recognition of accounting for and mitigating adverse effects on surface resources that support subsistence uses and needs (§2361.10(b)(2)).

The Working Group affirms the proposed rule's specification of a process for recommending new Special Areas, values, and measures to assure maximum protection of those places and values. We agree that it

is important to recognize and be responsive to changing conditions. Our elders and hunters have shared repeatedly that the Arctic is changing in ways that affect the caribou and those who rely upon them. We appreciate the recognition in the proposed rule of the impacts of climate change on the environment, wildlife, and human inhabitants of the NPR-A. We also appreciate the explicit processes laid out in the proposed rule to review and update NPR-A management and designation of Special Areas at least once every five years (§2361.30(a)(1)) in an attempt to be responsive to changing conditions.

One topic we regularly raise in our comments is the importance of making sufficient effort and providing adequate time for meaningful engagement with all interested parties, especially those living in remote areas. Due to the wide range of the WACH and the variety of users that rely on the herd, actions and decisions taken in one part of the herd range affect all communities across the region and those beyond. As is stated above, the Working Group includes representatives of stakeholder groups from across the state of Alaska. We appreciate the explicit provision in the proposed rule for opportunities for public input, including consultation with federally recognized Tribes (e.g., §2361.30(b), §2361.40(g-h)). Along with this, we request that sufficient time be made for meaningful engagement in such processes. It takes time to inform our members of new proposals and to organize discussion and feedback, especially for those living in some of the more remote villages where communication can be a challenge. Furthermore, representatives to the Working Group need time to communicate information with their communities about development proposals and Working Group positions in order to facilitate comment development and submission. Short commenting periods hinder these efforts.

Improvements needed in the proposed rule

While the proposed rule offers many enhancements in protecting caribou, subsistence, and habitat, there are opportunities for improvement upon the draft rule.

As we state above, the Working Group supports the rulemaking implementing the strongest protections possible for caribou habitat within the NPR-A, including calving areas, insect relief habitat and migration corridors. We would especially like to see permanent protection for the Utukok River Uplands and Teshekpuk Lake Special Areas. We appreciate the proposed rule's emphasis that maximum protection is to be the standard for Special Area management. To better achieve this standard for the WACH, **we request that BLM move the northern border of the area unavailable for leasing and new infrastructure to cover all of the Utukok River Uplands Special Area**. Comparison of Maps 1, 3, and 5 in the 2022 IAP Record of Decision shows that the northern boundary of the Utukok River Uplands Special Area extends beyond the area unavailable for leasing and new infrastructure. This leaves the northern portion of the WACH calving area unprotected from future development (Figure 1). Although designated as part of the Utukok River Uplands Special Area, this norther portion was not included in the area made unavailable for leasing and infrastructure in the 2013 IAP to allow the possibility of a trans-reserve pipeline that could be used to move oil from offshore drilling in the Chukchi Sea to the Trans Alaska Pipeline System. That offshore drilling never materialized, removing justification for not making this portion of a recognized Special Area unavailable for leasing and new infrastructure. The Working Group requested

this be addressed in our comments on the 2019 IAP DEIS. Subsequent scientific study affirmed this request, showing that failing to make the northern portion of the Utukok River Uplands Special Area unavailable for leasing and infrastructure led to increased predictions of WACH calving habitat loss under possible future development (Fullman et al. 2021a). We request that BLM align with the best available scientific information and Indigenous Knowledge and protect the northern portions of the WACH calving grounds in the Utukok River Uplands Special Area. With the WACH at the lowest size since the 1970s it is all the more important that any threats to the calving grounds be removed. **Making the <u>entire</u> Utukok River Uplands Special Area unavailable for leasing and new infrastructure is in keeping with BLM's duty to provide maximum protection of significant resource values within Special Areas (§2361.30(a)(7)) and we strongly request it be done immediately**.

As efforts are made to ensure maximum protection of the Utukok River Uplands Special Area and other Special Areas in the NPR-A, it is critical that both current and historical data be used to identify areas of importance for caribou, their habitat, and their use. Caribou vary their use of habitats widely over time. They show strong fidelity to certain seasonal ranges, such as their calving grounds (Cameron et al. 2020), but can show less fidelity to other seasonal ranges, with periodic use, abandonment, and later reuse. It has also been shown that as herd size changes caribou expand or contract their range use accordingly. Areas used heavily when populations are high may be temporarily abandoned at lower population sizes and then reused when the herd increases again. It is thus important that BLM seek to protect the entire historic calving ground and other key seasonal ranges, rather than only looking at recent patterns of space use as the herd decreases in size. Lower patterns of current use should not be taken as signs of lesser importance, but to achieve maximum protection Special Areas should encompass the full historical range of important seasonal habitats.

We appreciate recognition that the Utukok River Uplands Special Area and Teshekpuk Lake Special Area both serve as important caribou habitat and should be managed as such (§2361.20). While these are the primary areas where calving occurs for the WACH and TCH, along with important habitat at other seasons, caribou use of the NPR-A is much broader. In recognition of this, we request that important habitat for caribou be added to the description of managed resources for the Colville River Special Area. This Special Area encompasses summer range, winter range, and important migratory connectivity for the TCH (Person et al. 2007, Fullman et al. 2021b) and is used for subsistence harvest of caribou by the people of Nuiqsut. The western parts of the Colville River Special Area also overlap various seasonal ranges of the WACH (Joly and Cameron 2022, Figure 1). For these reasons we feel it important that caribou be mentioned specifically in §2361.20(a).

As mentioned above, we were pleased to see the requirement in the proposed rule for BLM to account for uncertainty regarding potential effects of proposed development. This is something that has not always happened in the past, so it would be helpful for BLM to include greater specificity about what qualifies as uncertainty and how it can meaningfully be considered in decisions. One way to strengthen this could be inclusion of a few examples in the preamble to the rule.

Finally, the background material for the proposed rule erroneously states that the WACH reached its recorded peak in the 1970s at a level of 243,000 animals (p.62029). In actuality, the largest herd size

since consistent monitoring began was in 2003 at a peak size of about 490,000 animals (Dau 2015). It is important to accurately reflect the change in the herd over time, as the current population size of 164,000 from the 2022 photocensus is only one-third of the peak herd size, while the erroneous peak listed in the proposed rule background would suggest the herd to currently be at two-thirds of the peak size. Including accurate numbers underscores the gravity of the current status of the herd, which has serious implications not only for the long-term viability of the herd, but also for opportunities for subsistence harvest and other uses of the herd. This underscores the need for enhanced protections for caribou habitat, such as those recommended above.

Thank you for the opportunity to provide comments on the proposed rule for NPR-A management.

On behalf of the Working Group,

Vern Cleveland Sr.

Vern Cleveland, Sr., Chair

cc:
Steve Cohen, Alaska State Director, Bureau of Land Management
Western Arctic Caribou Herd Working Group Members & Alternates

Attachments:

Figure 1. Western Arctic Caribou Herd range map.

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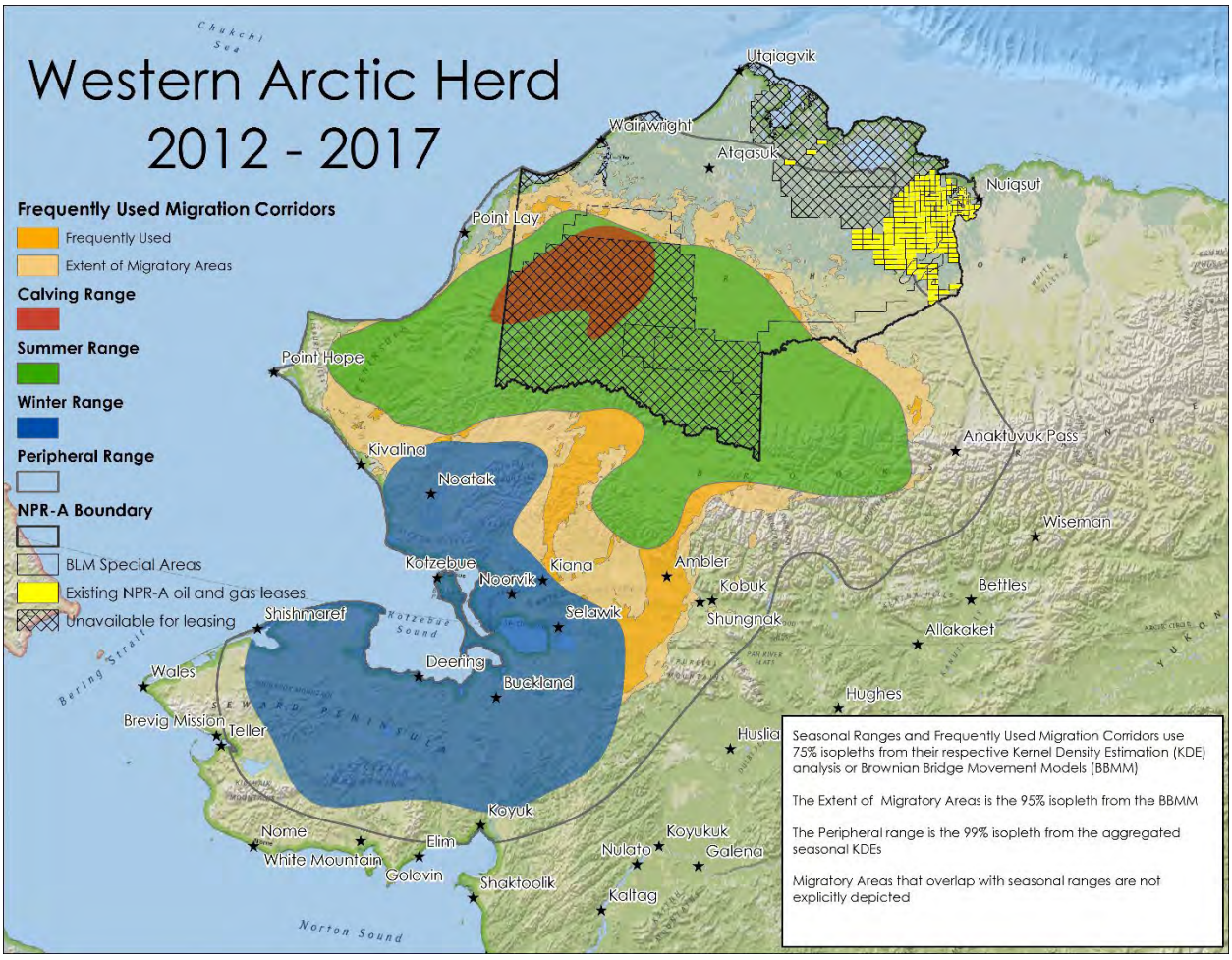

Figure 1. Western Arctic Caribou Herd range map, depicting caribou seasonal use areas, communities in and around the range of the herd, and NPR-A Special Areas, lands leased as of the 2019 IAP DEIS, and areas unavailable for leasing under the 2022 IAP. Map courtesy of the Alaska Department of Fish & Game.