

Western Arctic Caribou Herd Working Group 2020 Meeting Summary

December 9, 2020
Via Teleconference

The Western Arctic Caribou Herd (WACH) Working Group (WG) met via teleconference on December 9, 2020 (Agenda in Attachment 1). The following is a summary of meeting presentations and WG members' discussion. Motions passed at the meeting and Assignments for follow-up actions are listed in Attachment 2. Working Group members' responses to the Caribou Roundtable form are included in Attachment 3. The Working Group "Binder" that includes all written materials referred to at the meeting is posted at www.westernarcticcaribou.net

Wednesday, December 8, 2020

I. Call to Order – WG Chair Vern Cleveland called the teleconference to order at 1:00 p.m.

A. Invocation: Working Group members observed a moment of silence in remembrance of people and communities suffering with the pandemic or other needs.

B. WACH WG Roll Call / Establish Quorum – Quorum was met with 16 of 20 WG members present on the teleconference. The following table lists WG membership attendance.

Working Group Seat	Voting Chair
1. Anchorage Advisory Committee	Neil DeWitt
2. Buckland, Deering, Selawik	Ron Moto, Sr. (not present)
3. Anaktuvuk Pass, Nuiqsut.....	Eli Nukapigak
4. Elim, Golovin, White Mountain	Charles Saccheus (not present)
5. Fairbanks Hunters.....	David Kilbourn
6. Hunting Guides.....	Jake Jacobson
7. Kivalina, Noatak	Enoch Mitchell.
8. Kotzebue.....	Cyrus Harris (Vice Chair)
9. Koyukuk River (Huslia, Hughes, Allakaket, Bettles, Wiseman)	Pollock Simon, Sr. (not present)*
10. Lower Kobuk River (Noorvik, Kiana).	Vern Cleveland, Sr. (Chair)
11. Middle Yukon River (Galena, Koyukuk, Nulato, Kaltag).....	Michael Stickman
12. Point Hope and Point Lay.....	Steve Oomittuk
13. Nome	Charlie Lean
14. Conservationists.....	Tim Fullman
15. Northern Seward Peninsula (Teller, Brevig Mission, Wales, Shishmaref)	Elmer Seetot, Jr.
16. Reindeer Herders Association	Tom Gray
17. Southern Seward Peninsula (Koyuk, Shaktoolik, Unalakleet, Stebbins, St. Michael, Kotlik)	Morris Nassuk
18. Transporters	Julie Owen
19. Upper Kobuk River (Ambler, Shungnak, Kobuk).....	Bill Bernhardt
20. Atqasuk, Utqiagvik, Wainwright.....	Wanda Kippi (not present)

* Note, Koyukuk River alternate Mr. Jack Reakoff was present as an audience member during the teleconference, but did not participate in discussion as an Alternate member during the Working Group meeting due to an error by the meeting facilitator.

C. Audience Attendance: Public and agency attendance was not taken. However, 65 people were present in the teleconference audience, including agency staff that presented information to the WG.

D. Approve Agenda: Facilitator Jan Caulfield reviewed the agenda (Attachment 1). MOTION by Neil DeWitt, second by Charlie Lean, to approve the meeting agenda. Motion carried unanimously.

II. Western Arctic Caribou Herd Status

Western Arctic Herd Overview – 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 WG Binder). The presentation laid the foundation for the WG’s later recommendations regarding future management of the caribou herd. Key points in the ADFG presentation included:

- Herd abundance – 2019 photo census results provided an estimate of 244,000 caribou in the Western Arctic Herd. No census was conducted in 2020, but planning is underway to conduct the census in 2021. The 2019 her estimate is lower than the 2017 photo census, which estimated 259,000 caribou in the herd.
- High adult female mortality – Cow mortality for 2019-2020 was 25%, higher than the long-term average of 18%. Adult female survival is the most important metric influencing the population trajectory.
- Recruitment is average – Yearling recruitment in 2020 was 17:100 yearlings:adults, which matches the 25-year average.
- Calving (parturition) is average – Summer surveys show that 67% of collared cows had calves in 2020, compared with 81% in 2019, 86% in 2018, and 83% in 2017. Parturition rates are not an issue of concern for the WAH.
- WAH Collaring – After many years of collaring swimming caribou at the Onion Portage crossing of the Kobuk River during the fall migration, ADFG and the National Park Service (NPS) are no longer able to rely on this method and location. Agencies collared 49 caribou at Onion Portage in 2019, but the collaring effort failed in three of the past four years (including 2020) due to lack of caribou at the crossing. The agencies have not located another river crossing where this type of collaring would be possible. ADFG is now considering collaring animals from helicopter during spring (as is done with other Alaska herds) using either net guns or darting with tranquilizer. There are currently 70 collars out and ADFG has 58 collars to deploy in spring 2021. It is important to get those collars out before the summer 2021 photo census. Alex Hansen asked Working Group members for feedback on these methods. The following points were noted in WG and agency discussion:
 - Each method has its pros and cons and they are similar in terms of safety for the cows. Kyle Joly, NPS, noted that the mortality rate for darting caribou is about 2-3%, which is not high, but is higher than collaring at Onion Portage.
 - Net gunning is more dangerous for the gunners and it can be hard to find experienced pilot/gunner pairs to do this work effectively.
 - Agencies work hard to put the darted or netted caribou down without injury, typically in snow and on even terrain.
- Neonate Study 2017-2019 – ADFG’s study of WAH calves indicate calving ground survival is 86% (2017-2019) and annual survival 37% (2017-2019).
- WAH abundance has declined, but not at rapid rate – Herd status looks good at this time and ADFG hopes that it will stabilize and rebound in numbers. At its December 8, 2020 meeting, the WACH Technical Committee (TC) recommended to the Working Group that the Western Arctic herd be considered “Conservative, Declining” on Table 1 of the *2019 Western Arctic Caribou Herd Cooperative Management Plan*. This is the same designation given to the Western Arctic Herd at the 2019 WG meeting. The TC believes this designation to be appropriate given the small decline from 2018 to 2019, the lack of a new photo census number for 2020, and lower than average adult cow survival. There is no difference in the harvest or management recommendations between the “Conservative, Stable” and “Conservative, Declining” categories (see Table 2 in the 2019 WAH management plan). (NOTE – Later in the meeting, the WG passed a motion designating the herd as “Conservative, Declining” in 2020. See page 4, below.)

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

- Q: When we see higher cow mortality, is that because there are more collars on older cows? A: ADFG does not know the ages of the cows that it collars (although they are calf-bearing age). It is possible that there are more collars on older cows, but that is not known.
- Comment that wolf predation is a factor on the Seward Peninsula. (ADFG noted that they did not see wolf predation on the calving grounds during the neonate mortality study, but it is a mortality factor later in the year.)
- It is very unfortunate to lose the opportunity for middle- and high school students to participate in collaring and work with the caribou at Onion Portage. Perhaps find a new way for students to be involved in caribou management.
- It may be possible to catch caribou via net from snow machine? (This has been done for reindeer.)
- Q: Could a "roving team" of agency staff try to find another river crossing location that could work, to replace Onion Portage? A: We would transition back to this collaring method if we can, but we haven't seen other feasible locations yet. In the past few years, the caribou aren't even coming to a point on the Kobuk River where we can catch them.
- Preference to have a photo census every year. (ADFG noted that the 2019 WAH management plan indicates that for the "Conservative" management status, the herd should be censused "at least one every 2 years" (not annually) and there has been a census attempt every year since 2015. ADFG agrees that it is very important to have a census number in 2021.)
- Q: What is more convenient for access for collaring, aircraft or boat? A: Weather can be a challenge, but we do successfully do the bulk of our work from the air.
- Q: Would collaring from helicopter lead to more random distribution of collars in the herd? A: While this may be the case, ADFG feels confident that collaring animals at Onion Portage is also random, due to the mixing of the herd during migrations.

NPS Caribou Monitoring – Kyle Joly, NPS, presented information on the caribou the NPS has collared (see p.23 in WG Binder). Information included: location of collared caribou in November 2020, their movements/range in Sept. 2019-Aug. 2020, distribution of caribou as they cross the Noatak River in the fall (2010-2019), the timing of the fall crossing of the Kobuk River (2010-2019), and the timing of the spring migration crossing of the Selawik (2011-2020). Points from the presentation:

- In winter 2019-2020, there were no overwintering caribou in the Bering Land Bridge National Preserve and their presence was also down in the upper Gates of the Arctic National Park & Preserve (just 17% of the collars were located there). Fall/winter usage is down in all of the NPS units within the range of the WAH.
- The mean distance of travel by collared caribou from Sept. 2019-Aug. 2020 was 1,577 miles. This is the 6th year in a row in which the mean annual distance traveled has declined (it used to average 2,000 miles/year).
- From Sept. 2019-Aug. 2020, the caribou ranged farther west and north than usual – not as many animals ventured east. More animals are overwintering in the Brooks Range, not crossing to areas south of the Kobuk River.
- Fall migrations across the Kobuk River were later in 2017, 2018 and 2019 than in the past – and 2020 will be the latest date by far. Agencies are uncertain of the reason for this delay in migration. The date of first crossing has shifted from August to November in 2020. As of December 9, 2020, only 4 collared cows (<10% of the collars) have crossed the Kobuk River to go south.
- Not as many caribou are overwintering on the Seward Peninsula and the spring migration date is trending earlier.

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

- Discussion of impacts of migratory caribou on commercial reindeer herds. Reindeer industry continues to urge that ADFG provide herders with access to satellite collar data to help them address loss of reindeer into the caribou herd.

The Working Group concurred with the recommendation of the Technical Committee to designate the WAH as “Conservative/Declining” under Table 1 of the 2019 WAH management plan.

MOTION by Morris Nassuk, seconded by Jake Jacobson, to designate the WAH as “Conservative, Declining” category on Table 1 of the *2019 WACH Cooperative Management Plan*. Motion carried unanimously.

III. Wildlife Harvest Regulations

Implementation of Registration Permits – Alex Hansen, ADFG, discussed registration permits RC907 and RC800 (see p. 33 in the WG Binder). ADFG estimates annual WAH harvest at 12,000 caribou, based on community harvest surveys and considering the availability of caribou for harvest. Approximately 95% of that harvest is local hunters, and 5% non-local. However, ADFG needs more accurate harvest data for optimal herd management – and this is even more important when the herd is declining. ADFG is working hard on public outreach, to explain that harvest reporting will help ADFG manage and conserve the herd for the future. Many local hunters are still not obtaining the registration permits, but the return rate for those who receive permits is high.

Alaska Board of Game Regulations – Alex Hansen, ADFG, noted that the Board of Game met in January 2020 and took action on proposals for regulation changes that affect WAH harvest that took effect in July 2020 (see p. 39 of the WG binder). The Working Group submitted comments on these regulatory proposals prior to the Board of Game’s meeting in January 2020. (See also WACH Working Group Final Meeting Summary for 2019, on www.westernarcticcaribou.net) The next opportunity to submit proposals for state wildlife regulations will be in 2022.

Federal Subsistence Board Regulations– Lisa Maas, USFWS Office of Subsistence Management, explained that proposals for changes to wildlife harvest regulations affecting the WAH would be open in early 2021, for regulations that would take effect in July 2022 (see p. 45 of WG Binder). She noted that in 2020, the Federal Subsistence Board adopted a regulation to have year round bull season in Game Management Unit 23 and to allow the harvest of calves on federal lands in Unit 23. (Noted that calf harvest is allowed on state lands in Units 22, 23, and 26A).

MOTION by Tom Gray, seconded by Neil DeWitt, to submit a proposal to the Federal Subsistence Board to allow calf harvest on federal lands on the Seward Peninsula in Unit 22. Motion carried unanimously.

The intent of this motion is to allow for calves to be harvested in those circumstances where they have lost their mother and are wandering unattached to the herd. This also resolves the current situation, in which it is legal to take calves on state land in Unit 22, but not on federal land in that Unit.

MOTION by Steve Oomittuk, seconded by Morris Nassuk, to support the North Slope Subsistence Regional Advisory Council’s (NSRAC) proposal to close federal lands in Game Management Unit 26 to non-federally qualified subsistence hunters (if the NSRAC submit this proposal to the Federal Subsistence Board in early 2021). After discussion (below) the motion passed: 10 Yes, 5 No, 1 Abstention.

The following points were made during the Working Group’s discussion of this motion:

- It is important to support the RACs that are concerned about subsistence hunters’ ability to obtain food.

- Concern that non-local hunters' activities can cause changes in the herd's migration route, making it difficult for subsistence hunters to succeed in their hunting using boat access.
- It is estimated that non-local hunters harvest just 5% of the harvest, which does not impact the herd's abundance. Unless there is a biological reason for the closure, cannot support the motion.
- There is not much state land available in Unit 26.
- Concern that this would create separate regulations for state and federal lands, which creates problems for hunters and enforcement.
- ADFG commented that the State does not recognize a biological concern with the caribou herd at this time that would warrant a closure on federal lands, especially since the non-local harvest is very low compared to the total harvest. The former closure on federal lands in Unit 23 created unforeseen consequences, including hunter displacement to and crowding on state lands, which affected other subsistence communities and hunters. This could, for example, affect hunters in the Kivalina or Point Hope areas, where non-local hunters would be concentrated on state lands near these communities. ADFG is concerned that these closures could increase contention, rather than fixing a problem.
- The Chair and several Working Group members asked that in the future written information be provided for the Working Group to consider in advance, so they could be better prepared for discussion.

ASSIGNMENT – Facilitator Jan Caulfield will work with Chair Vern Cleveland, Sr., to submit the WACH Working Group's regulatory proposal and comments to the Federal Subsistence Board, per the two motions above.

IV. Resource Development Committee Update

Tim Fullman, Chair of the WG's Resource Development Committee, gave an update on resource development projects within the range of the WACH (p. 49 in WG Binder).

Ambler Mining District Industrial Access Project (p. 50 in WG Binder)

- The Ambler Road Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) were issued in 2020, with a decision to construct the road on Route A (see map on p. 50).
- Trilogy Metals has submitted a feasibility study for mine development. When mining permit applications are submitted, there will be an opportunity for the Working Group to comment.
- The Working Group may want to submit a letter to the incoming Secretary of the Department of Interior, to inform them of concerns regarding the proposed road and mine development and potential effects on the caribou herd and subsistence harvest.

National Petroleum Reserve in Alaska (NPR-A) Integrated Activity Plan (IAP) Revision (p. 52 in WG Binder)

- In 2020, the Working Group submitted comments to the Bureau of Land Management (BLM) on the Draft NPR-A IAP Revision (p. 57 in WG Binder), supporting Alternative A, which maintains existing protections for caribou and other species, and made suggestions for how to strengthen protections for caribou.
- The BLM issued a Final EIS for the IAP Revision in July 2020. The Final EIS added an additional alternative, Alternative E, which reduced the area closed to oil and gas leasing, but added additional "no surface occupancy" areas. Alternative E was identified as the preferred alternative, but no Record of Decision (ROD) has been released to date. This ROD may be issued before the end of 2020, with a lease sale in early January. This would provide an opportunity for Working Group to comment to BLM.

Noatak – Red Dog Road (p. 68 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 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.

Kotzebue to Cape Blossom Road (p. 75 in WG Binder)

- DOT&PF is considering construction of a gravel road south from Kotzebue across the Baldwin Peninsula to beach access near Cape Blossom.
- Opportunities for public comment have passed, but raising it for Working Group consideration.

Willow Master Development Plan (p. 76 in WG Binder)

- The Willow project would expand infrastructure for oil and gas development in the northeastern NPR-A, and would be the closest development to the Teshekpuk Lake Special Area, which is important habitat for the Teshekpuk Caribou Herd. The Working Group did not comment on the Willow Draft EIS in 2019.

Anarraaq – Aktigirug Mining Exploration (p. 77 in WG Binder)

- Teck American, Inc, is proposing an exploration project to evaluate potential for new mineral deposits northeast of the Red Dog Mine. The project is currently on hold as Teck reevaluates its plan, but the WG Resource Development Committee will continue to track future opportunities to comment.

Arctic Strategic Transportation and Resources (ASTAR) Project (p. 78 in WG Binder)

- The State of Alaska's ASTAR project seeks to advance infrastructure development that would benefit North Slope Borough communities. There is not an active public process at this time, but the WG Resource Development Committee will continue to monitor this, as the project maps show roads and other infrastructure that would bisect the WAH and Teshekpuk caribou herds' calving grounds.

Arctic National Wildlife Refuge (ANWR) Oil and Gas Leasing (no written material in WG Binder)

- The entire Arctic Refuge coastal plan was made open to leasing in 2020. There was a call for lease tract nominations, with leasing bids accepted for a January 6 lease sale.
- The area is used by the Porcupine caribou herd and regularly by the Central Arctic herd, with at least one instance of use by the Teshekpuk Herd for overwintering. It has not been used by the Western Arctic Herd.
- Raised this topic at the request of a Working Group member who wanted more information about the lease sale and opportunities to comment.

MOTION by Charlie Lean, second Neil DeWitt, to empower the Executive Committee to work with Tim Fullman, as Resource Development Committee Chair, to submit letters if there are opportunities to comment to BLM regarding oil and gas leasing in the NPR-A on the calving grounds and regarding the Ambler Road project. After discussion the motion passed: 14 Yes, 1 No, 1 Abstention.

Tim Fullman clarified that if additional opportunities to comment come up prior to the next Working Group meeting (e.g., related to other projects), the Resource Development Committee can work with the Executive Committee to develop and submit comments. The Bylaws give the 5-person Executive Committee the authority "to make decisions when the Working Group is not in session" (see p. 8 in the WG Binder). Regarding the Ambler Road, Bill Bernhardt asked that the Executive Committee should include someone who lives in the area where the road is going to go.

V. Business Meeting

Approval of 2019 WACH WG Meeting Summary (p. 79 in WG Binder) – MOTION by Tim Fullman, second by Neil DeWitt, to approve the 2019 WACH WG meeting summary. Motion carried unanimously.

Executive Committee Report – This report lists actions taken by the Executive Committee in 2020 (see p. 97 of the WG Binder).

Communication Committee Report – Heather Jameson from ADFG reviewed the Communications Committee Report (see p. 99 of the WG Binder), highlighting the 20th Anniversary issue of the Caribou Trails newsletter sent out in 2020. Next year, the committee plans to distribute an E-newsletter as well as the Caribou Trails. The committee welcomes suggestions from Working Group members for outreach topics or education opportunities.

Caribou Roundtable Forms – Jan Caulfield asked Working Group members to fill-out and send in the Caribou Roundtable Forms, using the stamped, addressed form.

2021 WACH Working Group Meeting – The Working Group plans to meet in-person in Anchorage in December 2021. Jan Caulfield will contact Working Group members about preferred dates.

VI. Adjournment – MOTION by Neil DeWitt, second by Tom Gray, to adjourn the meeting at 4:50PM on December 9, 2020. Motion carried unanimously.

**Western Arctic Caribou Herd (WACH)
Working Group Meeting
December 9, 2020 1:00 - 5:00pm
Via Teleconference**

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.”

Agenda

1:00 Call to Order (20 min)

Teleconference – *operator moderates WG member discussion; audience listen only*

WACH Working Group Roll Call / Establish Quorum (*p. 1*)

Review Agenda – *Focus on information sharing & Working Group member observations and questions*

1:20 Western Arctic Caribou Herd Status (70 min)

1:20 Western Arctic Herd Overview – including Technical Committee recommendation on status of the herd per the 2019 WACH Cooperative Management Plan (30 min) – Alex Hansen, Alaska Department of Fish and Game (ADFG) (*p. 13*)

1:50 National Park Service (NPS) Caribou Monitoring (10 min) – Kyle Joly, NPS (*p. 23*)

2:00 Working Group decision on herd status per the 2019 plan (30 min)

2:30 Break (10 min)

2:40 Wildlife Harvest Regulations (40 min)

2:40 Western Arctic Herd registration permits (10 min) – Alex Hansen, ADFG (*p. 33*)

2:50 Alaska Board of Game 2020 action on proposals affecting Western Arctic Herd (10 min) – Alex Hansen, ADFG (*p. 39*)

3:00 Federal Subsistence Regulations – New Wildlife Regulation Proposals to be Accepted in 2021 (20 min) – Lisa Maas, OSM (*p. 45*)

3:20 Resource Development Committee Update (40 min) – Tim Fullman, Chair, WG Resource Development Committee (*p. 49*)

4:00 Working Group Business Meeting (60 min)

– Approval 2019 WG Meeting Summary (*p. 79*)

– Executive Committee Report (*p. 97*)

– Communication Committee Report (*p. 99*)

– Business / Action Items

– 2021 Meeting – Date / Location

5:00 Adjourn

Motions Acted Upon at WACH Working Group Meeting

December 9, 2020

1. Agenda Approval: MOTION by Neil DeWitt, second by Enoch Mitchell to approve meeting agenda. Motion carried unanimously.
2. WACH Management Level, 2019 WACH Cooperative Management Plan: MOTION by Morris Nassuk, seconded by Jake Jacobson, to designate the WAH as “Conservative, Declining” category on Table 1 of the *2019 WACH Cooperative Management Plan*. Motion carried unanimously.
3. Federal Regulatory Proposal – Calf Harvest in Unit 22: MOTION by Tom Gray, seconded by Neil DeWitt, to submit a proposal to the Federal Subsistence Board to allow calf harvest on federal lands on the Seward Peninsula in Unit 22. Motion carried unanimously.
4. Federal Regulatory Proposal, Comment Letter – Support proposal to close federal lands to non-federally qualified subsistence hunters in Unit 26: MOTION by Steve Oomittuk, seconded by Morris Nassuk, to support the North Slope Subsistence Regional Advisory Council (RAC)’s proposal to close federal lands in Game Management Unit 26 to non-federally qualified subsistence hunters (if they submit this proposal to the Federal Subsistence Board). Motion passed: 10 Yes, 5 No, 1 Abstention.
5. Resource Development Comments: MOTION by Charlie Lean, second Neil DeWitt, to empower the Executive Committee to work with Tim Fullman, as Resource Development Committee Chair, to submit letters if there are opportunities to comment to BLM regarding oil and gas leasing in the NPR-A on the calving grounds and regarding the Ambler Road project. After discussion the motion passed: 14 Yes, 1 No, 1 Abstention.
6. Approval of 2019 WACH WG Meeting Summary (p. 79 in WG Binder) – MOTION by Tim Fullman, second by Neil DeWitt, to approve the 2019 WACH WG meeting summary. Motion carried unanimously.
7. Adjournment – MOTION by Neil DeWitt, second by Tom Gray, to adjourn the meeting at 4:50PM on December 9, 2020. Motion carried unanimously.

Assignments Made at WACH Working Group Meeting

December 9, 2020

1. Regulatory Proposals – Facilitator Jan Caulfield will work with Chair Vern Cleveland, Sr., to submit the WACH Working Group’s regulatory proposal and comment letter to the Federal Subsistence Board. (See Motions 3 and 4, above).

Western Arctic Caribou Herd Working Group Caribou Roundtable Questionnaire Responses – 2020

The December 9, 2020 Western Arctic Caribou Herd Working Group meeting was held via teleconference. Working Group members were asked to complete the Caribou Roundtable Questionnaire form and send it in to the facilitator. Responses received from Working Group members as of January 18, 2021 are provided below. Additional responses will be added to this record as they are received. Responses will also be entered into the Caribou Roundtable database from 2011-2020 that is posted on the group's website, <https://westernarcticcaribou.net/>

Kotzebue Sound / Game Management Unit 23

Working Group members: Vern Cleveland Sr. (Noorvik), Cyrus Harris (Kotzebue), Enoch Mitchell (Noatak)

Weather/Physical Environment

1. When did freeze-up occur? How does this compare with past years? How about the first snowfall? How about break-up?

- Vern – Freeze up very late October 2020. Getting later and later. Need snow. Still very little snow (Dec 2020).
- Cyrus – Late freeze up and early break up seem to be the norm now days.
- Enoch – Freeze up first week of November 2020 – seems to be getting later and later every year. First snowfall was on time, but not as much as we used to get 20 years ago.

When did break-up occur [in 2020] and how did that compare with past years?

- Vern – Breakup is earlier and earlier every year.
- Enoch - Break up was more like “melt-up” and it was on time.

2. What did you notice about snow depth and icing?

- Vern – No snow. Ice not very thick. Too warm.
- Cyrus – Fair amount of snow for November (Kotzebue). Early snowstorm in November.
- Cyrus – Lack of land fast ice.
- Enoch – Very little snow and expect it will snow lots in April (2021) again. Ice is very thin; does not get very thick anymore.

3. What were winds like in winter? In summer?

- Vern – Winter mild with hardly any storms. Wish it would blow more in summer to keep bugs away.
- Cyrus – Prevailing East/Southeast winds.
- Enoch – Winds mild so far this winter. We get strong winds and storms in April now. No strong winds all summer.

4. Has there been any unusual weather this year (2020)? If so, what kind? (For example, strong winds, storms, much/little rain or snow, etc.)

- Vern – Strong wind in late November 2020. Hardly any storms and it rains. Send snow please!
- Enoch – Not much rain. Not much snow.

- 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.)**
- Vern – It's just too warm in the fall.
 - Enoch – The late fall season and late freeze up has had a late caribou migration.

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?**
- Vern – Caribou arrive in November and are very late. It's been getting later and later.
 - Cyrus – Few caribou spent the summer around the Cape Krusenstern area. Occasional sighting along Cape Krusenstern to Sisaulik (June, July, August 2020). Small herds arrived in mid- to late-October around Sealing Point, Cape Krusenstern. Larger herd migrated through Cape Krusenstern-Sisaulik-Kotzebue mid- to late-November after Kotzebue Sound freeze-up.
 - Enoch – In my time and my dad's time and his dad's time, the caribou were always present. Compare? – the caribou seems to be smaller in size and a lot less fat than in my father's time.
- 7. How many caribou were in your area? What was the composition of the herd like (calves, males/females)? How does this compare with past years?**
- Vern – Lots of females. Healthy. Males in rut!!
 - Cyrus – The caribou that summered near Cape Krusenstern consist of about 12 animals – 2 mature bulls, 1 young bull, and the rest cows and yearlings. The small herds (30-40 animals) in October 2020 were mostly cows and yearlings. The bigger herd that migrated through in November 2020 were all mixed.
 - Enoch – We always have caribou on the Noatak River. The mixture was always like half females and half bulls. We seem to be seeing smaller and smaller bunches cross [the river] here and there, compared to the large herds of 50 or so that crossed the river 20+ years ago.
- 8. If you harvested caribou, how did the meat and skins compare with past years? What did you notice about fat? Parasites?**
- Vern – No fat. Traveling too much. Meat was good!
 - Cyrus – The few caribou that I harvested were all good. The early ones had a little fat; the latter ones were mostly lean, but good meat.
 - Enoch – The caribou are much leaner than in past years.
- 9. Were there any other notable changes regarding caribou compared with past years?**
- Vern – Migration getting later and later.
 - Cyrus – Not so much along the coast. The coastal migration route usually takes place after the bay (Kotzebue Sound) freeze-up.
 - Enoch – Yes, they seem to show up skittish and lean.

Other Animals

- 10. What did you notice about bears and wolves in your area?**
- Vern – Lots of bears and wolves.
 - Cyrus – Fair amount of bear along the coast, along with few wolf tracks. More abundance of wolves along the coast after the caribou herd migrated through (November 2020).
 - Enoch – Lot of bears – We see them on every bend of the [Noatak] River. Lots of wolves – People spotting them near town [Noatak] and more frequently. There's been a caribou kill and a bear killed by wolves near the village limits.

10-A. How did these predators affect caribou in your area?

- Vern – Affect caribou a lot. Predators – bears, wolves, eagles.
- Cyrus – Uncertain; did not spend enough time observing.
- Enoch – They trouble the caribou when it's time to come down to the river. They are killing off caribou here and there.

11. Have there been any notable changes regarding other animals in your area, compared with past years? (For example, new animals arriving in your area, or animals that you do not see much of any more, or changes in behavior or body condition).

- Vern – Lots of eagles in our area. In the past hardly any, but now quite a few eagles everywhere.
- Enoch – There have been many beaver moving into our river [Noatak]. We never used to have beaver.

Other Comments

12. How do people in the communities use caribou, other than for meat (e.g. clothing)?

- Vern – Too much Facebook. No sewing. But still use skins for mukluks.
- Enoch – Clothing, sleeping mats, sewing, crafts and rain gear.

13. What types of recent exploration and development or other activity have you noticed in the region that may be impacting caribou?

- Vern – Red Dog Road.
- Enoch – Planes diving at caribou, diverting the herd.

14. What have you noticed regarding any conflicts between local and non-local hunting in the area of your community? Do you have suggestions for how to reduce conflicts?

- Vern – Shut down outside hunters [to reduce conflicts].
- Cyrus – Lack of respect from non-locals coming into our village (see more information below).
- Enoch – I have noticed no [direct] conflicts between local and non-local hunters. Just conflict with planes diving at caribou and diverting them.

15. Is there anything else that you have seen this year that you would like to mention?

- Vern – Yeah. No snow. Santa didn't even make it, with no snow!! LOL!
- Cyrus - The reason I mentioned respect (question 14, above) is that there is a lack of respect from non-locals toward the local people. For example, during the Covid 19 pandemic and mandates in our community, I overheard one non-local sport hunter talking to another group of non-local hunters. His statement was, "Look at these Eskimos, what's with weather that mask: he's sweating and his glasses are fogging up". As soon as I stopped to hear more what he had to say, he shut up and turned away. This happened in August 2020 during the time I was traveling back from Anchorage. This group was all unmasked at the Anchorage Airport and all the way to Kotzebue. Another similar incident happened to another local person two weeks prior.
- Enoch – Yes, Covid 19.

Koyukuk & Middle Yukon Region

Working Group member: Pollock Simon, Sr. (Allakaket)

Weather/Physical Environment

- 1. When did freeze-up occur? How does this compare with past years? How about the first snowfall? How about break-up?**
 - Pollock – Freeze-up was about mid-September. Later than past years. Break-up is about two weeks early now.
- 2. What did you notice about snow depth and icing?**
 - Pollock – Last year (winter 2019-20) we had lots of snow; about 5' deep.
- 3. What were winds like in winter? In summer?**
 - Pollock – Not much wind in Allakaket. More winds in summer.
- 4. Has there been any unusual weather this year? If so, what kind? (For example, strong winds, storms, much/little rain or snow, etc.)**
 - Pollock – Last winter (2019-20) was cold December to March. There was lots of snow.
- 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.)**
 - Pollock – High water during break-up. Lots of bank erosion.

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?**
 - Pollock – No caribou this year. Before 1974 there used to be lots of caribou around Allakaket. They started pushing north with the oil pipeline. That year, the caribou didn't come back for 12 years. The Haul Road was open for public use shortly after (Dalton Highway). People came up and down the road, and the caribou stayed more to the west. Hunters came up the road and started shooting at caribou. After that, the caribou stayed to the west of the haul road. The caribou did not cross over to our area again.
- 7. How many caribou were in your area? What was the composition of the herd like (calves, males/females)? How does this compare with past years?**
 - Pollock – No caribou.
- 8. If you harvested caribou, how did the meat and skins compare with past years? What did you notice about fat? Parasites?**
 - Pollock – Don't know.
- 9. Were there any other notable changes regarding caribou compared with past years?**
 - Pollock – No caribou this year.

Other Animals

10. What did you notice about bears and wolves in your area?

- Pollock – The black bear population declines.

10-A How did these predators affect caribou in your area?

- Pollock – Wolf always follow the caribou.

11. Have there been any notable changes regarding other animals in your area, compared with past years? (For example, new animals arriving in your area, or animals that you do not see much of any more, or changes in behavior or body condition).

- Pollock – The caribou don't come back here (Allakaket) since 1974.

Other Comments

12. How do people in the communities use caribou, other than for meat (e.g. clothing)?

- Pollock – We use the caribou skins for mattress.

13. What types of recent exploration and development or other activity have you noticed in the region that may be impacting caribou?

- Pollock – The pipeline, the Haul Road (Dalton Highway). People come up the road and hunt. Any kind of road development will impact the caribou migration routes. For this, I hate road development.

14. What have you noticed regarding any conflicts between local and non-local hunting in the area of your community? Do you have suggestions for how to reduce conflicts?

- Pollock – There are some outside hunters, but not much game around this area.

15. Is there anything else that you have seen this year that you would like to mention?

- Pollock – Some fish and game planes fly around during hunting season. We don't want the planes to fly around. They chase the moose away.

Seward Peninsula Region

Working Group members: Charlie Lean (Nome), Morris Nassuk (Koyuk), Elmer Seetot, Jr. (Brevig Mission)

Weather/Physical Environment

1. When did freeze-up occur? How does this compare with past years? How about the first snowfall? How about break-up?

- Morris – Freeze-up late October 2020.
- Charlie – Rivers are staying open much later. Some still open at Thanksgiving – a month later than a few years ago.
- Elmer – Port Clarence Bay froze up around December 11, 2020. About five times in my lifetime has the Bay froze as late as December or January. Lots of rain in late May 2020 – During the month we constantly had rain. Break-up around the 4th week of May 2020. Freeze-up in the Bering Sea has been later and break-up earlier than in past years.

2. What did you notice about snow depth and icing?

- Morris – Not much snow in winter 2019-20. It came in February 2020.
- Charlie – Normal.
- Elmer – The depth of the snow on the tundra really has not accumulated through the past winter.

3. What were winds like in winter? In summer?

- Morris – Consistent North wind.
- Elmer – Most of our high winds that occur in the summer have been offshore, like Northeast or East. But, our onshore winds during fishing season lasts about a month and a half recently.

4. Has there been any unusual weather this year? If so, what kind? (For example, strong winds, storms, much/little rain or snow, etc.)

- Morris – High water.
- Charlie – Two warm summers. 2020 was second driest year on record.
- Elmer – More high winds coming from the easterly direction.

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.)

- Morris – Fires.
- Elmer – With early May melting, surrounding vegetation in the tundra have been dry and spongy and surrounding vegetation in the tundra have been dry and spongy and salmon berries were hard to locate, but the blackberries did grow good from early melting of the snow.

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?

- Morris – Not as near [to Koyuk] as before, although a group passed the Iglutalik River towards the Nulato area between Unalakleet and Nulato in February/March 2020. The past years, they were scatted in the area in a larger group scattered around the Seward Peninsula.
- Charlie – Very few caribou have come within 100 miles [of Nome] for two years. The caribou that have been taken seem to be resident in two remote locations, Mt. Bendeleben and Midnight Mountain. These have been there for decades, but have been mingling with the caribou every winter.

- Elmer – Caribou are present throughout the year, but are located in the mountains north of Brevig. Really have not seen caribou around or at the Agiapuk River in the past couple of years.

7. How many caribou were in your area? What was the composition of the herd like (calves, males/females)? How does this compare with past years?

- Morris – In approximate groups of 50-70 or less. The females and calves were in the rear of the males. In comparison [to past years], they were harder to get.
- Charlie – Small bands, not sure on size. Mixed groups; males, females, yearlings
- Elmer – Male caribou tend to hang out towards the northern portion of the Seward Peninsula. Hunters have harvested in early fall north of Brevig Mission mountains.

8. If you harvested caribou, how did the meat and skins compare with past years? What did you notice about fat? Parasites?

- Morris – The meat was low in fat content, which is understandable with their migratory patterns. Did not have or hear of any parasites.
- Charlie – Resident animals have more parasites, nasal bots and warbles. Poor condition in spring.
- Elmer – Caribou have been lean that the hunters have harvested. Due to late snow conditions, Brevig hunters have not hunted in the Kuzitrin River / Bendeleben Mountains last spring (2020) and went north to hunt.

9. Were there any other notable changes regarding caribou compared with past years?

- Morris – Less frequent migration routes in this area [near Koyuk].
- Elmer – Weather changes have kept the caribou more toward the eastern part of the Seward Peninsula and hope they are in good feeding areas.

Other Animals

10. What did you notice about bears and wolves in your area?

- Morris – They are still present and seem to be increasing in numbers. The wolves are still healthy.
- Charlie – Fewer wolves, but still some. Late snow and early bear season reduced bear near Nome. Many humpies have allowed for a high reproduction rate for bear.
- Elmer – Noticed a little increase of bears in and around Grantley Harbor/Imaruk Basin in the spring and summer. Never did see an increase of wolf harvest last winter due to hunters going out late in spring when snow conditions improved a bit.

10-A. How did these predators affect caribou in your area?

- Morris – No definite proof, but my thoughts are that they keep the healthy caribou on the move.
- Charlie – Wolves hunt the animals where they roam; wolves are as reduced as the caribou. Bear [numbers] seem to track with salmon runs.
- Elmer - I know that in the past observations by me, predators have kept the animals on the move depending on wind conditions.

11. Have there been any notable changes regarding other animals in your area, compared with past years? (For example, new animals arriving in your area, or animals that you do not see much of any more, or changes in behavior or body condition).

- Morris – Musk ox.
- Charlie – Most predators are doing well.
- Elmer – I did not see any notable changes in the Seward Peninsula area.

Other Comments

12. How do people in the communities use caribou, other than for meat (e.g. clothing)?

- Morris – Diet & main course.
- Elmer – Preferred harvest in early winter, the hides are sought after for sleeping and sled mats. Sineu taken from the caribou for sewing.

13. What types of recent exploration and development or other activity have you noticed in the region that may be impacting caribou?

- Morris – Not much.
- Elmer – Nothing I can think of now.

14. What have you noticed regarding any conflicts between local and non-local hunting in the area of your community? Do you have suggestions for how to reduce conflicts?

- Morris – None. (Tough question. Unsure on it.)
- Charlie – Not much caribou hunting. Moose hunt lasted 2-4 days. Not much opportunity.
- Elmer – Reindeer herders have lost their animals to caribou migration and hunters at times have harvested reindeer for their meat supply when caribou are not present.

15. Is there anything else that you have seen this year that you would like to mention?

- Morris – Less caribou in traditional hunting routes.
- Elmer – Fall migration of snow geese are staying west of Brevig Mission feeding and fattening up before their trip down south. Fish species were not seen in great numbers during the past years.

North Slope Region

No Caribou Roundtable responses were received from Working Group members with knowledge of the North Slope Region.