

Western Arctic Caribou Herd Working Group DRAFT – 2014 Meeting Summary

December 16-17, 2015
Anchorage, AK

***Draft** for review & approval by WACH Working Group at December 2016 meeting*

The Western Arctic Caribou Herd (WACH) Working Group (WG) met in Anchorage on December 16-17, 2015 (agenda, Attachment 1). The WG's Technical Committee met in Anchorage on December 15, 2015 (Attachment 2). The following is a summary of meeting presentations and discussion. Motions passed at the meeting are shaded in gray below and listed in Attachment 3. Assignments are highlighted in yellow below and listed in Attachment 4.

Wednesday, December 16, 2015

I. Call to Order – 8:30 a.m.

A. Invocation: Roland Booth offered the opening invocation, at the request of Working Group Chair Vern Cleveland.

B. WACH WG Roll Call / Establish Quorum

| Working Group Seat | Voting Chair | Alternate |
|----------------------------------------------------------------|--------------------------------------|---------------------------------|
| 1. Anchorage Advisory Committee | <i>Neil DeWitt</i> | <i>Kenny Rodgers</i> |
| 2. Buckland, Deering, Selawik | Ron Moto Sr | Percy Ballott |
| 3. Anaktuvuk Pass, Nuiqsut | Isaac Kaigelak | Esther Hugo |
| 4. Elim, Golovin, White Mountain | Charles Saccheus | Morris Nakaruk |
| 5. Fairbanks Hunters | Allen Barrette | Rod Arno |
| 6. Hunting Guides | Phil Driver | Bob Hannon |
| 7. Kivalina, Noatak | <i>Enoch Mitchell</i> | Daniel Foster, Sr. |
| 8. Kotzebue | Cyrus Harris (Vice Chair) | Willie Goodwin |
| 9. Koyukuk River | Pollock Simon, Sr. | Jack Reakoff |
| (Huslia, Hughes, Allakaket, Bettles, Wiseman) | | |
| 10. Lower Kobuk River | Vern Cleveland, Sr (Chair) | vacant |
| (Noorvik, Kiana) | | |
| 11. Middle Yukon River | Benedict Jones | Micky Stickman |
| (Galena, Koyukuk, Nulato, Kaltag) | | |
| 12. Point Hope and Point Lay | Steve Oomituk | vacant |
| 13. Nome | Charlie Lean | Jacob Martin |
| 14. Conservationists | <i>Tim Fullman</i> | David Krause |
| 15. Northern Seward Peninsula | Elmer Seetot, Jr. (Day 2 only) | Christine Komanaseak |
| (Teller, Brevig Mission, Wales, Shishmaref) | | |
| 16. Reindeer Herders Association | Tom Gray | Alfred Karmun |
| 17. Southern Seward Peninsula | Morris Nassuk (Day 1 only) | Leo Charles, Sr. |
| (Koyuk, Shaktoolik, Unalakleet, Stebbins, St. Michael, Kotlik) | | |
| 18. Transporters | Jared Cummings | Julie Owen |
| 19. Upper Kobuk River | William Bernhardt | vacant |
| (Ambler, Shungnak, Kobuk) | | |
| 20. Atqasuk, Barrow, Wainwright | Oliver Peetook | vacant |

Italic print indicates members or officers voted in at the 2015 meeting (see Motion below)

Blue text = vacancies Strike-out text = not present

Gray shading = motions; Yellow highlight = assignments

Initial roll call on Day 1 showed 15 members present; quorum of >50% was met. Final attendance was 15 out of 20 Working Group members on both Day 1 and Day 2 (Voting Chair for seats 15 and 17 each attended only one day). Inclement weather was a factor in attendance for seats 15 and 20.

- C. Audience Attendance: Audience attendance is listed in Attachment 5. Noted that prior to the lunch break on the first day of the WG meeting, Commissioner Sam Cotton of the Alaska Department of Fish and Game (ADF&G) introduced himself to the Working Group and expressed his appreciation for their work.
- D. Approval of Agenda: MOTION to approve agenda as presented, by Tom Gray, seconded by Allen Barrette. Motion carried unanimously.
- E. Member Appointment: MOTION by Allen Barrette, second by Neil DeWitt, to accept nomination of the following Working Group Voting Chairs and Alternates: Seat 1 Neil DeWitt and Alternate Kenny Rodgers; Seat 7 Voting Chair Enoch Mitchell and Alternate Daniel Foster, Sr.; Seat 13 Voting Chair Charlie Lean and Alternate Jacob Martin; Seat 14 Voting Chair Tim Fullman and Alternate David Krause; Seat 18 Alternate Julie Owen. Motion carried unanimously.

II. **Guest Elder – Mr. Roland Booth, Noatak, Alaska** (verbatim remarks)

I am a subsistence user, but as you live life you can't hunt and expect to be able to sustain your livelihood without a job anymore. So it's interesting as to how things have developed or evolved up to this moment as far as subsistence use areas are concerned, caribou being one of them. We're also concerned about the salmon, the fish that we thrive on; the pollock that are on the Wulik River just west of our village where I'm from.

As far as caribou are concerned, ever since I came home from having been to high school, trade school and the service in 1967... when I came home, the life that I kind of got accustomed to was to trade. You get home and there is no trade that you are accustomed to doing. So when you come home to that kind of environment or predicament, however way you want to put it, you have to do what you've got to do to survive.

So after a while I became a commercial fisherman, a seasonal tradesman, and also a trapper to some degree. Not any of them particularly professionally, but good enough to be able to survive in the environment that I live in. With that having been said, the issues that concern me as far as this Working Group is concerned is caribou and I think that is the reason why we are gathered here this morning.

Having looked at the presenters that have been before me, I just can't imagine what more I can add and give to the Working Group – as far as what they do with the caribou, why it interests us so much, this particular breed of animal.

It's because they have so many uses that we have become accustomed to, not only for our sustenance, as far as food is concerned, but for those that were in the past, those who were before me, it was their major source of clothing. And you know if you've ever lived in our region, for those of us that live in the north, it is cold. And from what I know it's still cold like what it was when I was growing up – but I tell you, you never get used to cold. It still freezes you if you are not prepared to do what you got to do to survive. It's still that kind of cold. So for that reason our folks were accustomed to gathering the hides of caribou for their clothing. Not only was it good for clothing but I tell you, you cannot find any mattress that is as warm, that cold doesn't

permeate through, you can't find any better mattress than caribou hide. Whatever properties that are on it keeps the cold from passing right through the fur. You tell me, maybe you know the, scientific reasons why it does that but I tell you, you can't find any better mattress than a caribou hide.

Beyond the skin, the legs were also used. You don't see those very much anymore. We've kind of got accustomed to the bunny boots and all the Sorels that are downtown in the shops. And we've kind of gotten accustomed to wearing those kinds of clothing rather than mukluks that I grew up with for the cold weather. [The mukluks] were made for different seasons – some for summer use, some for winter, some for cold weather use. So there were differences in the making of each one of those mukluks that I was accustomed to seeing when I was growing up.

Not only that, but they make good socks. I've never seen any kind of socks that are still being made today that compare anywhere close to the caribou pair of socks that would keep you from freezing your feet. You can get them wet and still be able to survive in cold weather. Lot of the socks you find anymore, you get them wet and a few minutes later you are frozen. And they've got no heat properties as far as keeping you warm. But a pair of caribou socks, you get them wet, you take them off and flip them over, you turn them inside out, wipe them on snow and they will dry out. That's totally against the thinking of the mind, right? You get socks wet and you rub them on snow and they are supposed to dry out? But surprise, a guy does that, he flips his socks inside out, rub on the snow, flip the snow off, put the socks back inside out, put them on, and go on with your life. You can't find any better socks. I don't see them anymore. If you know who makes them let me know, I'd like to have a pair.

But I tell you, those are some of the uses – every single one you've heard about from the presenters that have been before me.

As far as caribou itself is concerned, I tell you again, for those of us who are accustomed to eating it – some of you might prefer moose because that's what you grew up with – but for those of us in my village, caribou has always been our preference. I get a moose tag every season, but by the time caribou shows up, I just kind of put my moose tag away, and deal with for caribou. If I don't get caribou I suppose I'll probably get interested in the moose and do what I've got to do. But it is that kind of a lifestyle that I've kind of gotten accustomed to. Not only as far as the subsistence use of it is concerned.

And subsistence, mind you, is not limited to caribou – you've got moose, fish, and you kind of evolve around this amazing thing. If you ever have to eat one meat consistently, day in day out, breakfast, lunch and dinner, what would your choice be if you were limited to that? I'm sure that some of you would prefer to have what you are accustomed to having, but if any changes were to happen and I have a choice of one meal that would sustain me for the rest of my life, it would be caribou meat. Because not only do you dry it and eat it, you cut it up and fry it up on your pan and make yourself a steak; you can grind it and make yourself a burger (meat patty). Of all the things that will sustain me, that would be my preference as far as a choice of meat is concerned. Maybe for some of you it is prime beef, because you've gotten accustomed to that, but for me personally it would again be caribou, for some of you it would be moose.

It has been kind of an interesting life – I don't know how many of you in here are 70 or more years. In my 76 years of my life, pushing 77 now, it has been interesting as far as subsistence with caribou is concerned. This, out of all those years that I've been home since 1967, this is the first time that I missed out on fall caribou hunting, for the very simple reason the caribou herd did not migrate right through my village for the first time. Until just recently during the latter part of

September and the early part of October is when they pass by and by the time you know about it, and you get a little leery about even looking at bulls by that time of the season.

So, for the first time in all the years that I've been out there, I never got myself a bull caribou. Not that I didn't get to eat some, because in a Native community like mine, we got sharing folks that shared their catches. For me personally, my freezer is still okay as far as a caribou is concerned, because even though I didn't catch any there are still a lot of folks that do get them. In our native village of Noatak, I'm just one of the Booths there. To start I had a lot of brothers, we're down to three now, but we are still the Booths, and we still share what we catch. But then I've got lots of nieces and nephews that do know me and make sure that I get three meals a day. Besides, my wife would not allow me to go hungry anyways. Even though I'm look thin to a lot of you, it's not because I've been lacking in food or have missed a few meals. It's just the way some of us are made I suppose. I still get three meals a day.

That is how life is been, but it's changing I tell you. You hear a lot about climate change, if that's something that interests you. For those of us that live there, you don't have to add two and two to make something else. We know the changes that are occurring. It doesn't have to be what scientists might be telling you are the reasons for climate change. It could be something else. It's just a matter of things that are supposed to be changing that are occurring.

Everyone wants to know what's the reasoning for it. I'll tell you what the reasoning for it is: the Creator of this earth knows exactly what is going on. He created the way that it was, and it still is the way he created it to be. And there is no change that occurs in it that will surprise him one iota of a bit. You might want to point a finger at the reasons why climate changes are happening and the issues that might be of importance to you, might be the reasons that you are saying that is the reason that the climate change is happening. But I tell you, my older brother who is 90 will tell you the first time in all of his life, several years ago, before climate change issue became something of an interest to a lot of folks, he does a lot of jigging for fish and he's out there jigging for fish, and he makes his hole on the river and lo and behold for the first time in his life he saw algae on our river. Our river is pretty swift. The Noatak River has always had a swift current. He made his hole on the river to do his jigging and he looks in the hole, and just below, on the bottom on the river on the gravel was some algae. That totally surprised him. And he made that to be known to some of us. And he said, 'Never seen anything like it. There are some things are changing.' Not only was that an issue, but just a few years after that our beaches kind of showed some of the algae that was beginning to show on the river on the gravel.

A lot of things are happening, as far as our caribou herds are concerned, which I'm interested in, and still have interest in. A lot of things are occurring to cause the change and decline. You and I might want to allude to something that we thought it might be but I tell you it's something that our Creator knows exactly what is going on. You can list the things about why it might be declining, but it's good to know what might be the causes. There are many factors – I'm one of the factors. I go out hunting them and my way of hunting might be a little different than the way that my fathers and forefathers were accustomed to hunting. Their way of hunting were always very primitive to the way that you and I would think. Their bow and arrow would kind of be primitive to me. I wouldn't even know how to shoot one. My way would be a high-powered rifle, and I'm accustomed to doing that. I'm accustomed to hunting with a snowmachine. I don't do it just like they do. And if not a snowmachine, in fall-time I have a boat that will take me upriver a lot quicker than my dad – he would take several days or a week maybe to go up to where is his favorite hunting spot that only takes me a few hours to get there. So the changes are a factor.

So, when you factor everything into the very issue that you and I have been talking about –

caribou – they are a not a species that are totally strange to human beings or any predator that may be hunting them. Not only is it me, a subsistence user, but there's also game hunters that are out there. If you look out through your binoculars almost every hill is covered with some human being that would totally surprise you. What in the world are they doing out in the country nowhere? Well they are hunting the same thing that I am interested in. That's why they're out there in nowhere.

Just a few years ago, for the first time I saw some wolves that were chasing caribou in fall time that I'm kind of accustomed to hunting. Wolves that are hunting, they're predators but I've never seen them hunting during fall season. Maybe they do it somewhere else, but for the area that I'm talking about it's the first time I've seen them doing that.

So we've got a lot of predators that are vying for the same game. So it's kind of interesting to know that all of us are interested and I'm glad you are talking about these issues, and I am sure you will come up with some protective measures to make sure they are sustained to a number where all of us can continue to gather them in a way that we are accustomed to gathering them.

Thank you for the privilege and honor to be present.

Vern Cleveland – Roland, before Red Dog was built, how far did you have to go hunt?

Roland Booth – A lot of things are causing the migration routes to be changed. Maybe the road is probably one of them. I wouldn't consider it to be the major one. [Where we hunt has] always been somewhere close by depending on where they happen to be fall time. It could be just a few hour trip from the village in the fall time. When the lakes freeze is when we would start to hunt. Usually don't get them in fall time except for those of us who are fortunate enough to go way up there to get them.

But he folks that were before me, the only time they would get them would be up the river if they happened to be come by when they happened to be seining for the fish they were trying to catch. Never used to be too far for me, but for them, for the way they traveled, I suppose it would be quite a ways. And I am talking about the Kuguruk River and the Kelly River right around that area. It's only a couple of hours drive for me personally, but for those that were before me, that would be a long trip if you don't have the current means of travel. Later on after freeze up, it would be a lot closer - either in the flats right across from the village or up in the mountains just behind the village is where they generally would hunt.

Vern Cleveland - For first time this year, the Red Dog road was completely closed for two days for caribou to cross. And they did cross. During the night. I don't know if they went through Noatak or not. It was complete silence, there was nobody on the road for two days.

Roland Booth - Thank you for that very herd that crossed the road system this fall. It's always good to have folks that know and understand and would always call someone in the village that a certain amount or number of caribou has crossed the road and what area they crossed so we'd always be aware. And some folks when they cross and head up the river, make sure they were able to pick where they might cross.

So our hunting is not always really the same. Some of us are a little more patient than some of the younger folks. Over the years we learn some of us are patient and some are not. Some of us are trigger-happy, some of us try not to be. So, it varies again, if you happen to know and understand the caribou, if you cut them off before they cross somewhere they always go somewhere else. So if you hunt the first ones that show up, so it's going to be pretty hard for the next bunch of groups

that shows up to try to hunt in the same area.

That caribou group, some of them showed up right behind the village and they just worked their way right to the coast.

Simon Pollack Sr. – Question about caribou habitat change in your area due to climate change. Caribou feed like the lichens. Are they decreasing due to the permafrost thawing and bleaching in the summer time?

Roland Booth – I'll tell you about some changes that have occurred, depending upon the fall seasons how they occur. After it rains, if it freezes it hampers the feeding area of the caribou. And if it snows a lot and if the snow gets too deep, which it hasn't in our area for quite some time now, that probably affects the growth of the feeding areas. It could be because of the snow that the growth of the feeding grounds are not conducive to the caribou herd that are migrating through. So whatever the reasons might be, personally, I don't know to answer you directly. Some of the folks that are present might be able to tell you that.

Enoch Mitchell – We have had some fires this year in June and the past few years. We had one big one two years ago, way up river, and that took a lot of lichen. It takes about 50 years for them to grow back. Maybe that's why caribou are moving kind of further out this year.

We had snow and rain this fall again, so I guess they'll have trouble feeding on the lichen but overall the hunt for the caribou was good. We had plenty of healthy caribou.

Roland Booth – We had some fires on the river on the upper Noatak too in just recent years so it might be a factor to some degree.

Steve Oomituk – In the old days they used to let the first herd of caribou go through so they would have a trail. They told us not to get the first ones. In the last 20 years we see so many sport hunters go out in front with their airplanes and drop them off in front of the caribou, they are changing the migration route and stuff. You live right there in Noatak, do you see a lot changes from sport hunters being dropped off in front of the herd before they make it through? That's always been a big concern for us. They don't make it to Point Hope as often as they used to because they're changing the migration now. Do you see a lot of that in Noatak?

Roland Booth – Yes, that is one of the factors that has always been a concern for us. Over the years I've seen some game hunters dropped off, usually it's way up in the upper Noatak, the Ambler area. The herd that pass way up on the Noatak, that bunch probably would be affected a lot more than the ones ... that would be one of the factors that would occur usually in the past. Lately, in recent years, there have been a lot more of the game hunters that are vying for the same bunch of caribou that we are hunting, so that has to be factored in to, to what's been going on.

Thank you again for having me. I appreciate the trip to Anchorage and it is nice meeting all of you.

III. Caribou Roundtable (p. 13 in WG Binder)

The WG divided into four small regional groups for Caribou Roundtable discussions and then came back in a large group to share what they had discussed. The notes from each small group are included in Attachment 6 and were summarized in presentations to the full group. The US Fish and Wildlife Service (USFWS) Selawik Refuge staff enters the roundtable notes into a database each year to document this shared traditional and local knowledge. The Caribou

Roundtable questions are sent to Working Group members in advance of the meeting each year, so they can circulate them to others in their communities and collect additional traditional and local knowledge to share during the roundtable.

IV. School Presentations – Noorvik School

Students from the Noorvik school participated in five-day trip to radio collar caribou at Onion Portage in September 2014. Noorvik students Mae Howarth and Marie Howarth presented a slide show of their activities and expressed thanks to the Working Group and agency staff for the opportunity. They talked about their experiences camping and holding and collaring the caribou.

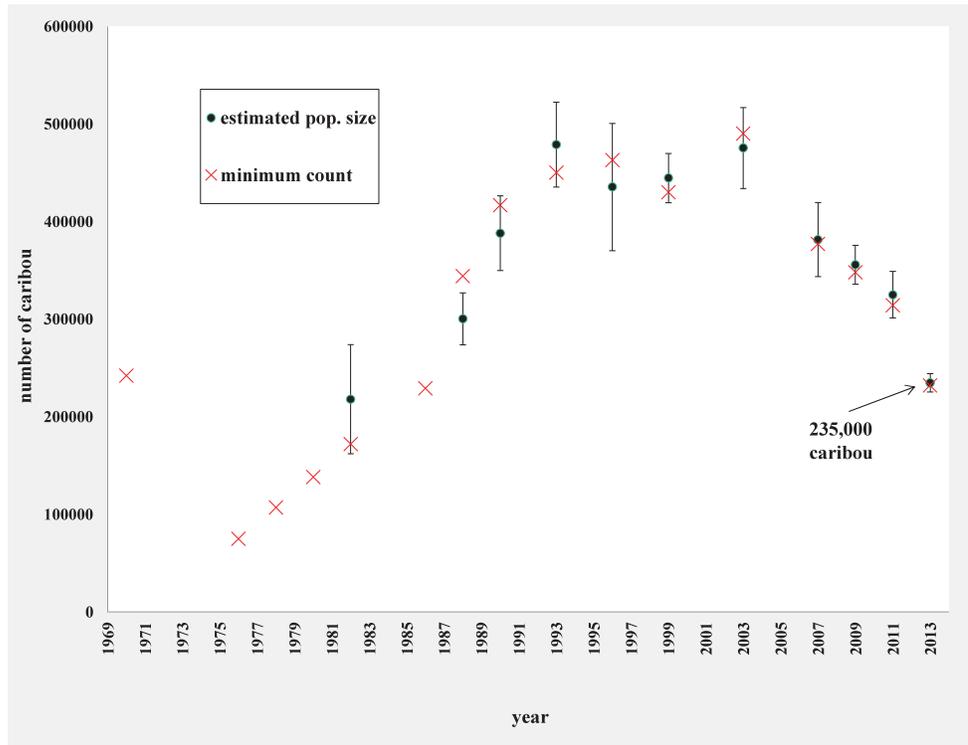
V. Herd Population Status (p. 27 in WG Binder)

Report by Lincoln Parrett, ADF&G, Division of Wildlife Conservation. Key points in presentation included:

- Seasonal distribution and movements – Satellite tracking of collared caribou show they are widely distributed within their range. The PowerPoint presentation (WG binder p. 27) show distribution and movements for 1988-2014 within their range. There is some comingling with the Teshekpuk Caribou Herd in their range.
- Population size and herd condition – The most recent count in July 2013 is 235,000 caribou in the WAH (see slide below for census results). An aerial census attempted in July 2015 was not successful due to poor weather and low light conditions, and ADF&G will conduct a new census in summer 2016 (see ADF&G memo on pages 45-46 of WG binder). ADF&G estimates that the herd is now at 200,000 animals, based on the 2013 census number, mortality, and modeling (using calf births, adult female mortality, and overall mortality as model input data). In 2015, the caribou were observed at Onion Portage (and by local hunters) to be in very good condition – no disease, fat. Calves in 2015 were the biggest ADF&G has weighed in the eight years of data.
- Population trend – The herd peaked at 490,000 in 2003, declined by 4-6% per year, to 325,000 in July 2011, and then has declined more steeply to the 2013 level, then less steeply from 2013-2015. Previously, there had been 13% annual population growth in the 1980's, followed by 1-3% annual growth from 1990-2003. The long-term data (1969-2013) demonstrates that the herd size fluctuates.
- The population is now below 265,000 and is declining, which means that it is in the “Conservative Management Level” in the 2011 WAH Cooperative Management Plan (see Table 1 of the Plan). The Technical Committee is recommending to the Working Group that the herd be considered to be in the Conservative Management Level. Appendix 2 of the plan provides recommended guidelines regarding population monitoring by agencies and harvest management by the Board of Game and Federal Subsistence Board. (Prior to the 2013 census count, the WAH was in the “Liberal Management Level.”) The Plan can be found online at www.westernarcticcaribo.org under “The Group” tab).
- Forecasted population trend – ADF&G estimates that the herd is currently at 200,000 animals, and is forecasting that the herd will continue to decline, but at a lower rate than that seen in the years 2011-2013, where hard weather conditions and other factors contributed to 30% decline each year. There is no model that can predict the herd's future population. Generally, adult cow mortality has exceeded female calf survival since 2003, which has led to the declining population.
- Adult cow mortality – Since 1985 there has been a trend of increasing adult cow mortality. However, the last three years cow mortality has been lower due to easier winters.

- Female calf survival – Since 1985, there has also been a trend of decreased survival for female calves (although there is a lot of year to year variability). In the past three years, calf survival has been better than in the five years prior to that.

Census Results



Red 'X' = minimum counts of population size

Black dots = population estimates based only on collared caribou

Vertical bars = ±95% confidence intervals for the population estimates

Alaska Dept. Fish & Game

WAH Overview: Slide 4

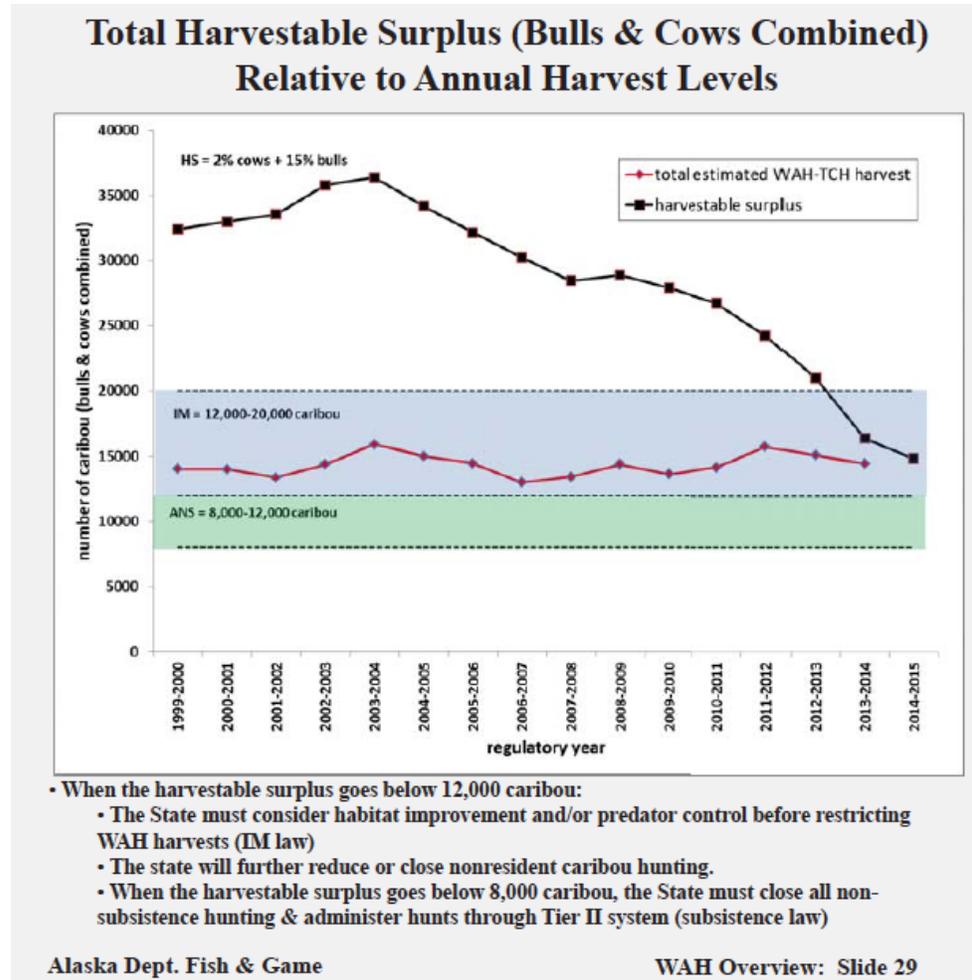
- Fall Bull-Cow Ratio – The 2011 WAH Management Plan recommends a bull:cow ratio of 40:100 be maintained for the herd. The herd is at that level now (2014, 2015).
- Proportion of Bulls & Cows Harvested – Harvests have not declined as the herd size has declined. The proportion of bulls harvested has been increasing. Cow harvest is increasing at a much slower rate, but can still have an effect on the population.
- Factors driving WAH decline – Lincoln Parrett reviewed the many factors that affect the herd's population. He noted that Jim Dau (retired ADF&G caribou biologist) thinks that weather and predators are the main factors. Jim suggests that severe icing events started the herd into decline; predator populations are still going up, so are putting pressure on the herd size. Other factors are not evidently contributing to the population decline. For example: Calf production is fairly high and stable, but there may be a long-term reduced calf survival rate, with cause unknown. Winter range has changed since the early 1980s, but summer range

seems adequate to support the herd. Noted that size of the caribou are now smaller on average than they were in the 1980s, when the herd was increasing in size. Not sure if range is affecting the body size. Caribou are healthy – no indications of disease, inflammation, parasites. Range is largely intact (not fragmented by development). Harvest has played a very small role in the herd demographics – not affecting abundance.

- Harvest data– Characteristics of harvest are shown in the PowerPoint slides on pages 36-38 of the WG binder. 95% of the harvest is by subsistence users; 5% by non-local hunters, including nonresidents of Alaska. Subsistence harvests over the past 25 years in the range of the WACH have been quite stable, at a long-term average of approximately 13,900 per year, with 10,000 of those animals harvested in Game Management Unit 23. Of these 13,900 caribou, approximately 2,350 each year are actually animals from the Teshekpuk Caribou Herd. The percentage of the herd that is being harvested each year is rising from the long-term average of about 2.8%, to about 4.6% of the herd in 2013 and 2014.
- Harvestable Surplus – As shown in the graph below (from p. 40 of the WG binder), the harvestable surplus of caribou from the WAH is declining – and is converging with the usual average harvest level. Cow harvests have likely already exceeded the harvestable surplus for several years. Bull harvests will probably exceed the harvestable surplus in 2015-16. Federal law requires federal public lands to be closed to all non-subsistence hunting when the harvestable surplus cannot meet federally qualified subsistence users' needs.
- Management / Regulation Changes – To date, in March 2015, the Board of Game adopted regulations that changed some seasons and bag limits for caribou hunting, including no harvest of calves and no cow harvest by non-residents of Alaska.
- Amount Necessary for Subsistence for the WAH is 8,000-12,000 caribou. When the WAH harvestable surplus goes below 12,000 caribou:
 - The State of Alaska must consider habitat improvement and/or predator control before restricting WAH harvests (Intensive Management [IM] law). However, this does not guarantee that predator control will be implemented. (ADF&G has started to draft IM feasibility assessment; required to do this and present to Board of Game.)
 - The State will further reduce or close nonresident caribou hunting.

When the harvestable surplus goes below 8,000 caribou, the State must close all non-subsistence hunting & administer hunts through a Tier II system (Subsistence law). This would be in the form of individual permits.

- Summary – ADF&G is asking hunters to voluntarily reduce their harvests of WAH caribou, especially cows, and has been talking about this with Advisory Committees. Reducing harvests will not necessarily stop or reverse the decline, since other factors (weather, predators) are also influences. However, reducing harvest is necessary to avoid making the decline even worse. State and federal caribou regulations are now very complicated. Making the regulations as simple as possible, and consistent across the state and federal systems, will help hunters, avoid hunter mistakes, and will help reduce WAH harvests if people trust and believe in the value of the regulatory change.



Working Group discussion and Q/A regarding the ADF&G presentation:

- This is the first year that ADF&G has collared calves, to try to learn more about their over-winter mortality. We do not know when and why calves are dying.
- For adult caribou, the vast majority of the mortality that ADF&G can determine is from predation.
- Recommend that the graphs for WACH and TCH be separated so can understand the populations separately, when we are this close to having to make regulatory decisions affecting harvest of the herds.
- Essential to have a new population number (census) as soon as possible.

VI. National Park Service (NPS) Caribou Monitoring (p. 47 in WG Binder)

Kyle Joly, NPS, presented information on the movements of caribou the NPS has collared, including the range in Sept. 2014-Aug. 2015, the distribution of caribou as they cross the Noatak River in the fall (2013-2015), the timing of the fall crossing of the Kobuk River, and the timing of the spring migration crossing of the Selawik, Kobuk and Noatak Rivers. He noted that the NPS is also studying predators in the Gates of the Arctic National Park & Preserve. They have collared 35 grizzly bears, and have also looked for other predators.

Working Group discussion and Q/A regarding this presentation:

- The Reindeer Herders Association (RHA) is interested in any information they can get about caribou on the Seward Peninsula. Very difficult to separate reindeer out of the caribou herd.
- Noted that there are a lot of wolves on the Seward Peninsula.
- Concern about wolf predation – interest in wolf collaring project.

Hilary Robison, NPS Western Arctic Parklands, asked the Working Group for their input and recommendation regarding whether there should be a study of calf mortality on the calving grounds, watching for mortality in the days after their birth. This has been done (by other agency biologists) for the TCH, Porcupine herd, and the Denali herd to collect data on and better understand causes of calf mortality in those herds. However, it hasn't been seriously considered by the agencies for the WAH, because it has been thought that residents would not want the herd disturbed on the calving grounds.

MOTION by Neil DeWitt, seconded by Tom Gray, to support NPS in going forward with a calf mortality study and bring the results back to the WG at its next meeting.

The Working Group discussed that the study would not be completed this quickly, in time for report at the next annual meeting. The question is, would the Working Group be supportive of the NPS planning for and initiating a calf mortality study. It would take time to get funding, design the project, and conduct the research.

Lincoln Parrett, ADF&G, described how a calf mortality study was done for the TCH. ADF&G handled about 70 calves/year. Placed expandable collars on calves (collars weigh about 165g) – placing about 25 collars per day. Must use helicopters to catch the calves (about two weeks with helicopter on the calving grounds). Important to minimize capture time because of risk of abandonment by the cow – for each calf, collar it, weigh it, sex it. Of the research and management activities Lincoln has been involved in, this is on the disturbing end of things. You handle 70 calves, but are disturbing many more animals than that. The key question is, is the information you are gaining worth the disturbance? Focus on the calving grounds, gives information about whether predator control at that area would be effective. If we are interested in the annual cycle, it also makes sense to start on the calving ground. When we approach an Intensive Management (IM) threshold, we would usually consider doing a calving study.

Working Group, agency, and audience members offered the following points:

- Lincoln Parrett – For the TCH, Lincoln Parrett (ADF&G) found that calves survived into the wintertime. But there is a different predation regime for that herd than there is for the WAH. For the Denali herd, there is intense predator regime and the calf mortality study there showed that 43% of the calves didn't make it past 8 days, and on to the first 30 days of life. It is different for each herd.
- Discussion of whether it is more effective to study the predators (e.g., wolves), rather than the prey (caribou calves).
- Cyrus Harris – Concern about disturbance of calving; discussion of use of remote tools.
- Allen Barrette – Would be important that information about predation be used. Question the federal agency's interest in better understanding predation, but being unwilling to use this information in predator management on federal lands.
- Charlie Lean, Morris Nassuk, Tom Gray – possible predators also include foxes, wolverine, eagles, bears
- Harry Brower – concern about cumulative effects of research activities on the herd.

MOTION to TABLE the prior motion, by Tom Gray, seconded by Cyrus Harris. Motion to table carried unanimously.

VII. State & Federal Caribou Hunting Regulations and Proposals (begins on p. 57 in WG Binder)

A. Current State Regulations, 2015-2016, WAH and TCH

Brandon Saito, Area Biologist, ADF&G Division of Wildlife Conservation, presented a summary of current State of Alaska caribou hunting regulations relevant to the Western Arctic Caribou Herd and Teshekpuk Caribou Herd. The information in the WG meeting binder (pages 57-82) explains the complex State caribou harvest regulations and provides maps. Pages 83-94 present summaries and maps of both the State and federal caribou harvest regulations for GMUs 21D, 22, 23, 24, 26A and 26B.

Reminder that the Board of Game adopted regulatory changes related to the WAH at the March 2015 meeting.

Points raised in WG discussion:

- Q – Charlie Lean: Why is the recommended bull:cow ratio of 40:100 so high for the WAH? Other herds in the state, the ratio is 20 to 30:100. A – The WG Cooperative Management Plan recommended the 40:100 ratio. It could be lowered.
- Q – Tom Gray: What is the lowest bull:cow ratio biologists would want to see? A- Would not want to see as low as 20:100 because change can happen quickly. Would feel comfortable with 30:100. Working with that ratio would not cause any change in harvest at this time, but could make a difference in the future.

B. Proposals to Federal Subsistence Board

Chris McKee, USFWS Office of Subsistence Management (OSM), presented the ten regulatory proposals and one Special Action Request for federal regulation changes related to the WAH (see WG meeting binder, pages 95-128). The Federal Subsistence Board (FSB) will consider these proposals at the April 2016 meeting. It was noted that there will be public meeting held in Kotzebue prior to the FSB meeting, regarding the Special Action Request made by the Northwest Arctic Subsistence Regional Advisory Council, to close federal lands in Unit 23 to non-Federally qualified users.

Thursday, December 17, 2015

I. Call to Order – The meeting was called to order at 8:30 a.m. Quorum confirmed.

II. State & Federal Caribou Hunting Regulations and Proposals (Continued from Day One)

Tony Gorn, Area Biologist, ADF&G Division of Wildlife Conservation, summarized the seven regulatory proposals made to the Alaska Board of Game for State regulation changes related to harvest of the WAH (see WG meeting binder, pages 129-136). The Board of Game at their March 18-28 meeting in Fairbanks will consider the proposals. Public comments are due by March 4.

Tony also reported on the Board's future schedule: Region 5 Board of Game meeting will be January or February 2017 in Bethel. The deadline for proposals to be considered at that meeting is April 29, 2016.

(NOTE – During the Business Meeting, the Working Group passed a motion regarding regulatory proposal 73, which would establish a minimum caliber ammunition for caribou hunts of .243 or larger. See p. 20 for this motion and the WG's discussion on this proposal.)

III. Community Harvest Assessments (begins at p. 137 in WG Binder)

Nikki Braem from the ADF&G Division of Subsistence presented preliminary estimates of 2014 caribou harvest by the communities of Shishmaref, Kotzebue, Point Hope, Barrow, Nuiqsut, and Anaktuvuk Pass. Community surveys were conducted between January and May 2015. The Subsistence Division contacts Tribal and local governments in each community before they begin a study. They hire local residents to work with them on the surveys; surveys are anonymous and confidential.

For each community, the preliminary data for 2014 shows harvest survey results (estimated total and per person harvest), patterns of use (#bulls/cows, % households harvesting, comparison to previous years), and the % of the total subsistence harvest that is caribou:

- Shishmaref – In 2014, Shishmaref harvested 487 caribou (54% bulls, 33% cows, 13% unknown). Residents harvested 0.8 caribou (107 pounds of meat) per person/year. Caribou makes up 17% of the community's total subsistence harvest (by weight).
- Kotzebue – In 2014, Kotzebue harvested 1,278 caribou (75% bulls, 17% cows, 8% unknown). Residents harvested 0.4 caribou (58 pounds of meat) per person/year. Caribou makes up 25% of the community's total subsistence harvest (by weight).
- Point Hope – In 2014, Point Hope harvested 185 caribou (62% bulls, 24% cows, 14% unknown). Residents harvested 0.3 caribou (34 pounds of meat) per person/year. Caribou makes up 6% of the community's total subsistence harvest (by weight).
- Barrow - In 2014, Barrow harvested 4,231 caribou (47% bulls, 30% cows, 23% unknown). Residents harvested 0.8 caribou (103 pounds of meat) per person/year. Caribou makes up 31% of the community's total subsistence harvest (by weight).
- Nuiqsut - In 2014, Nuiqsut harvested 773 caribou (73% bulls, 21% cows, 6% unknown). Residents harvested 1.9 caribou (242 pounds of meat) per person/year. Caribou makes up 29% of the community's total subsistence harvest (by weight).
- Anaktuvuk Pass - In 2014, Anaktuvuk Pass harvested 770 caribou (51% bulls, 39% cows, 10% unknown). Residents harvested 2.4 caribou (315 pounds of meat) per person/year. Caribou makes up 88% of the community's total subsistence harvest (by weight).

Jim Simon, ADF&G Subsistence Division, clarified that this is preliminary data for 2014. ADF&G hasn't taken the data back to the villages yet for their help in interpreting the data, but felt it was important to share with the Working Group at this time, because of the declining herd. ADF&G has collected data over the years from almost all communities that use the WAH. Will see that in next presentation by Jim Magdanz (30 year community harvest data review).

The following points were raised in discussion:

- Concern that harvested cows may be pregnant. (ADFG response – Yes, a lot of them are, but we don't think that small percentage would affect the population trend.)
- Noted that Barrow responses had a high percentage where gender of harvested caribou was unknown. (ADFG noted that the gender was certainly known at the time of the hunt, but was not recollected during the interview. Sometimes spouse of hunter is interviewed, rather than the hunter.)
- Appreciate that local people are hired to do the interviews in communities.
- One audience member (Harry Brower) expressed concern that the preliminary data were shared, before reviewed by the communities.

IV. Caribou Management in the Future: WACH Cooperative Management Plan (2011) and Table 1 (p. 139 in WG Binder)

Jim Simon (ADF&G Subsistence Division), Jim Magdanz, UAF researcher (formerly with ADF&G Subsistence Division) and Lincoln Parrett (ADF&G Wildlife Conservation Division) presented information to the Working Group related to anticipating potential effects of a continued WAH decline on harvest, herd population trend, and future regulations.

Jim Magdanz's presented information about household caribou harvest patterns, sharing of caribou within a community, and exploring how harvests *might* change in the future under current herd population trend. Data includes:

- 146 community estimates of caribou subsistence harvest (in 37 communities, conducted 1989-2013, in GMU 21, 22,23,24 & 26))
- 3,500 households surveyed (in 25 communities in the WAH range, conducted 1998-2013), in GMU 22,23 & 26)

Take home messages from analysis of this data:

- People living in the range of the WAH have been meeting their needs with about 13,000 caribou annually (even when more were available to harvest).
- This overall level of harvest appears to have been pretty steady over the past 25 years, but there are regional differences.
- Looking to the future – we may not have 13,000 caribou/year to harvest.
- Average harvest is 3.6 caribou/household – but this varies among regions
- Community, household, and sharing data show that there are super-households and super-hunters that specialist in the production and wide-distribution (sharing) of caribou. A community is most productive – and food secure – if the most capable people harvest and process each kind of subsistence food.
- When caribou become scarce – we expect communities to harvest fewer, but our surveys are not yet showing that change.

The following points were raised in Working Group discussion:

- In regional centers, cannot survey every household. (ADF&G noted that the confidence intervals are bigger for results in these larger communities, where not every household is surveyed.)
- Noted that community harvest would be affected by where the caribou are moving – when resource is not available to a community, they cannot harvest them.
- This data are key to evaluating what to do with the herd in the future.
- Concern that the Nome harvest level shown is too low (avg. of 92 caribou per year). Is there an on-going effort to update surveys so that data is useful to the Advisory Committees (AC) and the Regional Advisory Council (RAC)? (Jim Simon mentioned

funding issues for surveys in the regional centers – would like to have updated survey information for Nome, but do not have funding for that project.)

- Non-local Alaska resident hunters are not surveyed. Should they be surveyed, but treated as their own “community”? (ADF&G responded that individual household surveys would not be feasible in the larger communities where these hunters live. Generally, the State has high confidence that urban/non-local hunters are reporting their harvest.)
- Noted that when a hunter gives away a caribou, ADF&G records that as a caribou taken by that hunter (not by the household that received it through sharing).

Lincoln Parrett presented information about what may be the future for caribou harvest and regulations, under the WAH’s declining population trend. Key points:

- ADF&G will conduct a photo census of the herd in 2016. Expect the count to be available by December 2016.
- Models indicate that the herd has probably continued to decline since it was last successfully surveyed at 235,000 in 20-13. ADF&G expects the herd is currently about 200,000 animals.
- New State regulations went into effect in July 2015 – The regulations mostly conform to current hunting practices – and it is not yet certain how those new regulations will affect harvest.
- The future is uncertain – If population projects are accurate, we will have been harvesting over the recommended harvest level since 2014. The combined WAH and Teshekpuk Caribou Herd (TCH) harvestable surplus will fall before the intensive management (IM) objective for the WAH and the upper Amount Necessary for Subsistence (ANS) threshold for both herds starting in 2017. Noted that ADF&G is starting to look at an IM feasibility study.
- By 2017, compared to current harvest, we would need to reduce harvest by 20%.
- The key questions are – What regulations would work best to reduce harvest? And, how can we better track the harvest?

The following points were raised in Working Group discussion:

- Future regulations need to consider the regional differences – when communities harvest and how much they take. Need to have more localized regulations, based on local ACs and RACs.
- If this herd keeps declining, we will need to reduce our overall harvest – but how?
- Question whether the 200,000 caribou are mingled with reindeer? A- Random sampling indicates fairly low on reindeer in that herd count.
- Concern that the new State regulations that eliminated bull harvest during the rut had unintended consequence of increasing cow harvest in October-November.
- There is interest in collaring caribou that stay on the Seward Peninsula.
- Suggestion that there needs to be harvest tickets for all harvest – to ensure more timely and accurate information regarding number harvested, sex, etc.
- When WG member make recommendations to the State on the best way forward, you need to consider the constituencies, the communities, the ACs, the RACs. Also, need to consider management and use of the WAH in the context of the other caribou herds that people would use for subsistence. Need to think outside the box, not so focused on regulatory processes. Maybe lessen the take of this herd, and increasing use of others?

The Working Group brought back up the tabled motion regarding conducting a WAH calf mortality survey. Hillary Robison, NPS, indicated the agency could do a calving mortality study, as has been done on other herds – to determine if early calf mortality is an impact on the WAH

population. Lincoln Parrett, ADF&G, said that the calving herd would usually be observed every day for two weeks. If dead calves are observed, biologists need to get to them quickly and determine the cause of mortality. After the first intensive two weeks, biologists would return two weeks later, and then every month after that. Lincoln emphasized that this work would be very proactive – and noted that the State does not have funding for this project.

Working Group members raised the following:

- Important to understand predation.
- Important to understand the time in life history that have potential for higher mortality.
- Important to have both state and federal biologists involved in this project.
- Concern that environmental change – such as weather systems, pollution of tundra range – are not being studied.
- Need the calf mortality study, since the population is already so near to the Amount Necessary for Subsistence threshold. This data will be needed for future management decisions.

MOTION by Neil DeWitt to support NPS conduct of a calf mortality study for the WAH, seconded by Tom Gray. Motion carried 13:1.

V. Executive Committee Report (p. 141 in WG Binder)

The Executive Committee report in the WG binder listed five actions in 2015, regarding: representing the WG in public comment opportunities related to Alaska Board of Game and Federal Subsistence Board regulatory proposals, approval of the *Caribou Trails* newsletter, development of the 2015 WG meeting agenda, and selection of main and alternate members for the Nome and Kivalina WG seats (recommended to full WG for their approval). Copies of letters written to the Board of Game and Federal Subsistence Board are in the WG Binder. All Executive Committee work was done via email or teleconference.

VI. Resource Development Committee (p. 144-A in WG Binder)

Working Group member Tim Fullman described the work of the Resource Development Committee in 2015 (chaired by Darcie Warden that year, who is no longer on the WG). Tim noted that the Committee had no actions in 2015. However, upcoming issues in 2016 that may require attention include:

- Wind farm proposal near Red Dog (very early stages)
- Bureau of Land Management (BLM) Regional Mitigation Strategy for the Northeastern NPR-A (although this is likely to the west of the range of the WAH)
- Application for right-of-way through the NPS Cape Krusenstern National Monument for a fuel access road to Noatak
- Ambler District Industrial Access Road – request for right-of-way through NPS Gates of the Arctic and initiation of scoping for the Environmental Impact Statement (EIS).

VII. 2015 Technical Committee Report

Jan Caulfield reviewed the report from the Technical Committee, which met on December 15, 2015. The report is provided in Attachment 2. The Technical Committee recommended that the Working Group take action to fix errors in Table 1 (see revised Table 1 in Attachment 2).

MOTION by Neil DeWitt, seconded by Bill Bernhardt, to approve the changes to Table 1 in the 2011 Western Arctic Caribou Herd Cooperative Management Plan. Motion approved unanimously.

Assignment – Prepare errata sheet for Table 1 & insert into electronic copies of the Cooperative Management Plan. Post on website. (Jan Caulfield)

VIII. Communication Committee Report (p. 145 in WG Binder)

Kari Rasmussen, ADF&G staff to the Communication Committee, addressed the following points:

- The Education management actions in the 2011 WACH Cooperative Management Plan are all underway. ADF&G, BLM, USFWS and NPS all contribute to outreach and education efforts. Vern Cleveland chairs the Communication Committee.
- Major activities for 2015 – (ADF&G and USFWS staff)
 - Caribou Trails newsletter published in June 2015. Next issue in summer 2016.
 - Started production of Caribou Gender ID quiz
 - Visited villages with ADF&G caribou biologist for outreach regarding new State hunting regulations
 - Coordinated student trip to Onion Portage (September 2015)
 - School visits – education activities about caribou and their habitat
 - WACH WG website upkeep
 - Use of Facebook page to communicate regulation and conservation issues

In WG comments, Elmer Seetot said that traditional ecological knowledge said that the caribou would return, and last year was the first time he's seen them west of the Kuzitrin River and beyond. What the elders said would happen, is happening. Don't dismiss what the elders say.

Suggested that Caribou Trails include an article about Jim Dau and Peter Bente, who are retiring. Both were involved in the formation of the Working Group – before it formed, local people weren't involved in these kind of discussions.

Suggested newsletter article about caribou as an ecological driver in the region. They are a subsistence food security item and are the primary prey species in the region – and when they are unavailable, hunters move on to secondary species (musk ox, moose).

IX. Management Agency Reports - ADF&G, BLM, NPS, USFWS

The text of the agency reports is provided in Attachment 7. Key points are summarized here.

ADF&G (p. 147 in WG Binder) – Steve Machida, ADF&G Regional Supervisor, acknowledged three retirements: Jim Dau, Peter Bente, Geoff Carroll. ADF&G would like to see improvement in their capability to do more wildlife research – in 2015 hired a biometrician. Would like to put another research position in place. State if facing severe budget concerns, but most of the Division's budget is not from General Funds. Steve indicated that in Region 5 approximately 30% of the budget goes toward caribou management and research for the Teshekpuk and Western Arctic herds. Field activities include biennial photo census, fall composition surveys, spring recruitment surveys, caribou collaring at Onion Portage, animal collection for disease and body condition assessment, range-wide telemetry surveys, and harvest assessment surveys. ADF&G's Education Associate for Region 5 based in Nome is assigned to assist with WACH caribou wildlife education efforts (see section VIII, above). A significant activity of staff is providing

comments to agencies about potential impacts road and development projects may have on caribou movements and distribution. The next Region 5 Board of Game meeting is scheduled for January 2017.

BLM (p. 149 in WG Binder) – Douglas Baloo, BLM Assistant Anchorage Field Office Manager, noted that the Anchorage field office now has management responsibility for Northwest Alaska (lands around the Nulato Hills and within the NANA Corporation boundary). The BLM report addressed a variety of land management plans and Rapid Ecological Assessments that BLM is preparing or has completed in the herd range. The BLM agency report also addresses reindeer grazing, wildlife projects, recreation, mining, and realty work done by the agency.

Topics raised in Working Group comments:

- Question about installation of cell phone towers. A – Permits went through review under the National Environmental Policy Act (NEPA) and public process.
- Questions about BLM work with WACH habitat, fire suppression, permafrost, Ambler Road:
 - BLM Central Yukon Field Office is doing habitat / winter range research. Between 1995-2005, had seen diminishing habitat quality. Still seeing some decrease in forage lichens (>2005), but not as drastic a change. Lichen mapping is important to decisions about where to suppress wild fires (to protect WAH food source).
 - BLM is monitoring active soil layer depth at 35 sites (related to changes in permafrost). The BLM Rapid Ecoregional Assessment (REA) program has maps of permafrost (http://www.blm.gov/wo/st/en/prog/more/Landscape_Approach/reas.html)
 - BLM will be contributing to the NEPA analysis of the proposed Ambler Road.
- Pollock Simon spoke to concerns about road impacts, and importance of fire suppression in caribou winter range.
- Question about reindeer grazing permits. A – (Bruce Davis, Reindeer Herders Association: There are seven reindeer ranges with reindeer on them; seven others are permitted but no reindeer at this time.)

NPS – (p. 151 in WG Binder) – Greg Dudgeon, Gates of the Arctic National Park & Preserve Superintendent, addressed the following:

- In 2015-2016, the park will continue to manage transporters through commercial use authorizations (CUA). CUA holders are authorized to transport hunters seeking caribou into specified areas in the western Noatak after September 15, unless authorized by the Superintendent to provide services earlier (based on the status of caribou migration). Noted that most of the herd migrated farther east of this zone in Fall 2015. NPS will reassess this zone in 2016.
- Noatak IRA has requested a right-of-way through NPS-managed lands to bring fuel to the community (proposing 17 trips/year).
- NPS received an application from the Alaska Industrial Development and Export Authority (AIDEA) for a right-of-way through Gates of the Arctic National Park and Preserve for the Ambler District Industrial Access Road. The Secretary of the Interior must respond within nine months.
- Recent published studies include: Noatak Traditional Ecological Knowledge, Noatak National Preserve Sport Hunter Survey (2010-2013), and Acoustic (sound) Monitoring in Noatak National Preserve (2013-2014).

- NPS hosted a youth archaeology camp near Nome in summer 2015. Archaeological work is continuing at Lake Matcharak on the upper Noatak River (begun in 2010).

In comments, Pollock Simon spoke to concerns about the Ambler Road and impacts on way of life on the Koyukuk River. Concern about public access for hunting, fishing, trapping. Tom Gray spoke to not wanting public access into Nome from this or future road.

Noatak's Enoch Mitchell said that the delayed entry zone has not worked well for the past few years. Would like to extend the State's Controlled Use Area (CUA) farther east, since caribou are migrating farther east. NPS's Greg Dudgeon reiterated commitment to working with Noatak on these concerns.

USFWS (p. 159 in WG Binder) – Susan Georgette, Selawik National Wildlife Refuge Manager, described the Refuge's activities and projects related to caribou (snow and climate monitoring; culture camps; communication about new GMU 23 caribou regulations; WG web page, Facebook, and newsletter), teacher training, meeting in Selawik regarding WAH population status, school presentations, Caribou Roundtable database (additions from 2013 WG meeting), funding support for the WG's annual meeting.

X. Business Meeting

Approval of Meeting Summary – December 2014 (p. 169 in WG Binder): MOTION to approve the complete minutes for the December 2014 WACH Working Group meeting, by Allen Barrette and seconded by Neil DeWitt. Motion carried unanimously.

Election of Vice Chair – Allen Barrette nominated Cyrus Harris to continue to serve as Vice Chair (for 2016-2018), with second by Tom Gray. MOTION by Tom Gray to close nominations, with second by Enoch Mitchell. With no objection, Cyrus Harris was reappointed Vice Chair and expressed his appreciation to the group.

Membership/Committees: The following actions were taken to update WG committees:

- Committees – Jan Caulfield reviewed the WG committee lists (p. 2 of WG Binder) to determine if any need for changes. The new members above will take their respective seats on the committees. The following committee changes were made:
 - Executive Committee – Allen Barrette assumed Phil Driver's seat on the Executive Committee. (Appointed by Vern Cleveland; no motion or WG action.)
 - Resource Development – MOTION by Neil DeWitt with second by Charlie Lean for Tim Fullman to serve as Chair; passed without objection. Enoch Mitchell to assume Phil Driver's seat. (Appointed by Vern Cleveland; no motion or WG action.)

Process to Fill Member Vacancies – Jan Caulfield reviewed the proposed process (p. 187 of WG Binder). This process does not require a bylaws change. Staff will use this process, in consultation with the Executive Committee, when soliciting new Working Group members. (No WG comments on or objections to this process.)

Bylaws Change, Executive Committee Quorum (p. 188 WG Binder) – MOTION by Neil DeWitt, second by Allen Barrette, to approve the bylaws change to establish a quorum for the Executive Committee. Passed unanimously.

Assignment – Staff update Update WACH WG Bylaws with change to Executive Committee quorum.

New Business – Comments on Board of Game Proposal 73 (p. 132 in WG Binder) – MOTION by Allen Barrette to adopt proposal 73, to establish a minimum caliber of .243 for ammunition for caribou. Second by Neil DeWitt. WG Discussion – Allen Barrette spoke against the motion, indicating that the proposal is not needed; it would impair hunters, especially along the Kobuk River. Hunters would have to purchase new rifles. Allen suggested that the Working Group not support the proposal and submit comments to the Board of Game. Vern Cleveland noted that the larger ammunition would damage the meat. Charlie Lean sits on the Northern Norton Sound Advisory Committee (AC), which came out strongly in opposition to this proposal. He noted that people customarily used smaller caliber ammunition. Cyrus Harris sits on the Kotzebue AC, which also opposed this proposal. Enoch Mitchell noted that people from Noatak usually use a 22, which causes less damage to the meat. Tom Gray sits on the federal Resource Advisory Committee (RAC), which also opposed this proposal. Neil DeWitt indicated that he would vote against the motion. Elmer Seetot said that .243 caliber ammunition mushrooms when it exits the animal (damaging the meat) and travels the longest distance; he opposes the proposal. Vote on the motion – None in favor; unanimous opposition to this motion (and to BOG proposal 73).

Assignment – Staff work with Chair to submit comment to BOG in opposition to proposal 73.

New Business – Comments on Board of Game Proposal 85 (p. 132 in WG Binder) – MOTION by Allen Barrette to adopt proposal 85, to delete the exception in 5 AAC 92.010(g) that allows the harvest of caribou without requiring a harvest ticket or harvest report for residents residing north of the Yukon River. Seconded by Neil DeWitt. WG Discussion – Allen Barrette spoke to the importance of having timely harvest data, in addition to the community harvest surveys. Neil DeWitt noted that requiring harvest tickets of all resident hunters would give better data (numbers, bull:cow), but understand it would be difficult for hunters not used to this requirement. Tony Gorn, ADF&G Area Biologist noted that the Department is recommending against this proposal at this time; they would like more time to think about how the system would work. There are numerous examples in rural Alaska of where using harvest tickets would be very challenging. Cyrus Harris spoke to the potential hardship on rural people. Charlie Lean spoke to his experience as a fisheries manager. It is hard to get good information from harvest reports; better to have a list of harvesters and then survey them. He recommends that action on the proposal be deferred. After discussion, MOTION by Neil DeWitt to Table the original motion until the next WACH WG meeting. Seconded by Allen Barrette. Motion to Table passed unanimously. (Noted that the BOG may take action on proposal 85 in the interim.)

Assignments: List of assignments made during meeting, see Attachment 4.

Next Meeting Date: MOTION by Tom Gray, seconded by Allen Barrette, to schedule next WG meeting on December 14-15, 2016 in Anchorage, with Technical Committee meeting on December 13. Motion carried unanimously. Vern Cleveland encouraged members to come on Day 2, even if they miss Day 1 due to weather or other travel impediments.

XIII. Closing Comments: WG members offered the following brief closing comments:

- Elmer Seetot – Caribou is within 20 miles of his village for the first time in 20 years. We have been very active with wolf management in my area. In order to protect our subsistence food, we need to harvest wolf.
- Tim Fullman – Thanks to all; looking forward to our work together in the future.
- Simon Pollock, Sr. – Good meeting; good work by the staff.
- Bill Bernhardt – Merry Christmas; be safe.
- Enoch Mitchell – Thank you. My first time, thank you for accepting me onto the group.

- Benedict Jones – Thank you.
- Charlie Lean – Thank you; will have a teleconference with his AC to share what we've heard here.
- Charles Saccheus – We will miss Jim Dau. Hope we take good care of our caribou.
- Steve Oomituk – Thank you; happy holidays; safe travel.
- Tom Gray – Thank you to agency staff who put together the presentations.
- Cyrus Harris – Good meeting; Welcome new members; Thank you for voting me in as Vice Chair.
- Vern Cleveland – Thanks to all for making the effort to come down here; thank you to agencies for reports and to staff for meeting organization.

XIV. Adjournment: Meeting adjourned at 4:43 p.m. on December 17, 2015.

Western Arctic Caribou Herd (WACH)

Working Group Meeting

December 16-17, 2015

8:30 am – 5:00 pm each day

Anchorage Marriott Downtown Juneau/Haines Room
820 West 7th Avenue, Anchorage, Alaska

DAY 1 – WACH Working Group, December 16

8:30 Call to Order

Invocation

WACH Working Group Roll Call / Establish Quorum

Introduction of Working Group members

Approval of Agenda – Preview Meeting Binder

New Member & Alternate appointments

Thank you's

8:50 Guest Elder – Mr. Roland Booth, Noatak

9:40 BREAK

10:00 Caribou Roundtable

- Small group discussions by region (60 minutes)
- Full Working Group open discussion – What have Working Group members noticed about caribou availability, harvest, and health in 2015? Other observations related to the herd or their habitat? (45 minutes)

11:45 – 1:00 LUNCH

1:00 Noorvik School Presentation (40 minutes)

1:40 Herd Summary Information

1:40 Population Status – Lincoln Parrett and Brandon Saito, Alaska Department of Fish and Game (ADF&G), Division of Wildlife Conservation (50 min)

2:30 Monitoring Caribou Movements and Distribution – Kyle Joly, National Park Service (20 min)

2:50 Technical Committee recommendation on herd status and management level, per the 2011 Cooperative Management Plan (Table 1) (20 min)

Note that the morning of Day 2 provides time for Working Group discussion of herd status and management level.

The 2011 Cooperative Management Plan (p. 17) states that each year, the Working Group “will review the Technical Committee’s recommendations [on herd management], consider traditional ecological knowledge and knowledge of all users, and seek consensus on the appropriate management strategy to recommend” for the herd (see Management Levels in Table 1 and Appendix 2 of the Plan).

3:10 Working Group Photo / BREAK

3:30 State & Federal Caribou Hunting Regulations and Proposals

The 2011 Cooperative Management Plan (p. 17) states the Working Group will develop recommendations for regulatory changes following the normal state and federal board processes involving advisory committees, regional advisory councils, and public review before board actions.

Current State and Federal Regulations (20 min)

State hunting regulations, *Brandon Saito and Lincoln Parrett, ADF&G*
Federal subsistence hunting regulations, *Chris McKee, FWS*

Proposals to Federal Subsistence Board (FSB) (20 min)

Caribou related proposals, *Chris McKee, FWS*
FSB Meeting: April 11-15, 2016

Proposals at Statewide Board of Game Meeting, March 2016 (15 min)

Caribou related proposals, *Tony Gorn, ADF&G*
Comment deadline: March 4, 2016

Call for Board of Game Proposals, Arctic & Western Regions, 2017 (5 min)

Meeting information, *Tony Gorn, ADF&G*
Proposal deadline: April 29, 2016

4:30 Working Group Discussion – Regulations, Proposals, Recommendations

5:00 ADJOURN DAY 1

Day 2 – WACH Working Group, December 17

8:30 Call to Order / Announcements

8:40 Community Harvest Assessments: Kotzebue, Shishmaref, Point Hope, Barrow, Anaktuvuk Pass, Nuiqsut - Nikki Braem, ADF&G, Subsistence Division (30 minutes)

9:10 Caribou Herd Management in the Future: WACH Cooperative Management Plan (2011) – Table 1

Working Group discussion of the potential to enter the “Preservative” Management Level, if the herd size continues to decline in the future. Discussion of potential effects on harvest, how to prepare, and how to communicate to the public.

10:15 BREAK

10:30 Continue Working Group Discussion of Future Management of the Herd

11:45 – 1:00 LUNCH

1:00 Working Group Committee Reports

1:00 **Executive Committee** (10 min) – Jan Caulfield

1:10 **Resource Development Committee** (10 min) – Tim Fullman

1:20 **Technical Committee** – (10 min) – Jan Caulfield

1:30 **Communication Committee** – *Caribou Trails*, website, other outreach efforts related to Cooperative Management Plan and caribou management issues – Kari Rasmussen, ADF&G (15 min)

1:45 Management Agency Reports regarding WAH-related topics

1:45 Alaska Department of Fish and Game – Steve Machida

2:00 Bureau of Land Management – Alan Bittner

2:15 National Park Service – Greg Dudgeon

2:30 US Fish and Wildlife Service – Susan Georgette

2:45 BREAK

3:05 Business Meeting

Approval of 2014 WG Meeting Summary

Election of Vice-Chair for 2016-2018 term

Committee Membership – Review & reconfirm

Draft Process to Fill Member Vacancies

Proposed Bylaws Change –Executive Committee Quorum

New Business (Action Items)

Assignments

Which WG Members want to receive flash drive with all meeting materials?

Next Meeting – Proposed December 14-15, 2016, Anchorage

4:40 Closing Comments – Working Group members

5:00 ADJOURN

2015 WACH WG Technical Committee Report

The Technical Committee (TC) met on December 15, 2015 at the Anchorage Marriott Downtown in Anchorage. Present were the Working Group (WG) Chair and Co-Chair, several other WG members, and agency staff to discuss technical issues related to conservation and management of the Western Arctic Caribou Herd. The following is a list of meeting highlights and TC recommendations for consideration by the WG.

Technical Committee Recommendations

1. Status and Condition of the Western Arctic Caribou Herd (WACH)

The 2011 WACH Cooperative Management Plan (p. 17) asks the TC to “*evaluate the status of the herd and develop recommendations on herd management level for the Working Group*”, based on Table 1 in the plan. On December 15, the TC discussed the following regarding herd status:

- The last herd census in July 2013 counted 235,000 caribou. The July 2015 aerial census was not successful due to weather and poor light conditions that hampered the quality of the photographs.
- The next census will be conducted in 2016.
- The herd experienced high mortality rates in the years 2011-2013. Based on observations, mortality rate has recently been lower.
- ADF&G’s current estimate for the herd size, based on available data and modeling, is approximately 200,000 animals.
- Observations from fall/winter 2015 are that caribou are fat and healthy. If they experience a favorable winter, biologists would expect more stability in the population number.

The herd size is at the low end of the “Conservative” Management population range (of 200,000-265,000), and is declining (see WACH Cooperative Management Plan 2011, Table 1, pg. 17).

While the population is at the low end of that population range, the TC recommends that it still be considered to be in the “Conservative” management range (rather than the “Preservative” range) because the recent mortality rate appears to be lower, and because we have not yet seen the population effects of changes in harvest regulations adopted by the Board of Game in 2015. The result of the 2016 census is very important and completing that count will be a priority.

The herd may drop to the “Preservative” Management and Harvest Level within the next several years.

ADF&G put collars on the caribou calves that were weighed at Onion Portage in September and will track them through the winter, to find out more about their winter mortality.

It is important to continue to educate the public about the herd status and to listen to the public about possible solutions. The agencies will continue with education and listening

sessions – and also recommend that the Working Group members communicate directly with local hunters.

Corrections to Table 1 (p. 17) – Table 1 in the Cooperative Management Plan contains some mathematical errors and rounding errors. The TC recommends that Table 1 be corrected in the on-line version of the plan, through an errata sheet when the plan's are distributed, and corrected in future printings. The corrected table is attached. Note that Table 1 provides general guidance for herd management, but the numbers in the table are not regulatory numbers and do not affect calculations of the harvestable surplus.

2. Weather and Climate Data

A TC subgroup has been meeting to consider effects of snow/weather/climate on the Western Arctic Herd. The group is looking at what weather data are being collected and analyzed in the herd's range, what key research questions and data needs should be addressed in the future, and whether modeling could help predict future conditions and effects. The Bureau of Land Management (BLM) is coordinating the work of this subgroup. It was suggested to the subgroup that local people could be contracted with to take more regular weather observations, read snow depth at stations, etc. It was also noted that during the yearly Caribou Roundtable session, Working Group members comment on weather/climate observations, and their responses are in a database posted on the Working Group's website.

3. Prioritize Top Research Needs related to WACH

The TC reaffirmed that the top priorities for research are the following (unchanged from the list identified in 2014):

- Continue to use satellite collars (or other improved technology) to collect data about the herd's movements
- Subsistence harvest information
- Snow/weather/climate data and effects of these factors on the herd
- Effect of predation on the herd
- Cumulative effects of roads and other infrastructure development on the herd and its habitat

4. WACH Research and Management Projects and Bibliography

At the request of the Working Group, the Technical Committee maintains a list of research and management projects related to the herd, and a bibliography of publications regarding the herd. These lists will be updated in January 2016 and posted to the WACH WG website.

5. Research Reports

The Technical Committee heard presentations about two research projects:

- Tundra in Transition: Unraveling the dynamics of western Alaska caribou tundra ecosystems – presented by Dr. Don Spalinger, University of Alaska Anchorage
- Persistence of Subsistence: Factors Affecting Wild-Food Harvests in Rural Alaska, 1982-2013 – presented by Jim Magdanz, University of Alaska Fairbanks

Plan Element 2: POPULATION MANAGEMENT

VERSION B

Table 1. Existing

| Management Level and Harvest Level | Population Trend | | |
|----------------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|
| | Declining | Stable | Increasing |
| | Low: 6% | Med: 7% | High: 8% |
| Liberal | Pop: 265,000+ Harvest: 18,550-24,850 | Pop: 230,000+ Harvest: 16,100-21,700 | Pop: 200,000+ Harvest: 16,000-21,600 |
| Conservative | Pop: 200,000-265,000 Harvest: 14,000-18,550 | Pop: 170,000-230,000 Harvest: 11,900-16,100 | Pop: 150,000-200,000 Harvest: 12,000-16,000 |
| Preservative | Pop: 130,000-200,000 Harvest: 8,000-12,000 | Pop: 115,000-170,000 Harvest: 8,000-12,000 | Pop: 100,000-150,000 Harvest: 8,000-12,000 |
| Critical Keep B:C ratio ≥ 40 Bull:100 Cow | <130,000 Harvest: 6,000-8,000 | <115,000 Harvest: 6,000-8,000 | <100,000 Harvest: 6,000-8,000 |

Table 1. Proposed Fixes

| Management Level and Harvest Level | Population Trend | | |
|----------------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|
| | Declining | Stable | Increasing |
| | Low: 6% | Med: 7% | High: 8% |
| Liberal | Pop: 265,000+ Harvest: 16,000-22,000 | Pop: 230,000+ Harvest: 16,000-22,000 | Pop: 200,000+ Harvest: 16,000-22,000 |
| Conservative | Pop: 200,000-265,000 Harvest: 12,000-16,000 | Pop: 170,000-230,000 Harvest: 12,000-16,000 | Pop: 150,000-200,000 Harvest: 12,000-16,000 |
| Preservative | Pop: 130,000-200,000 Harvest: 8,000-12,000 | Pop: 115,000-170,000 Harvest: 8,000-12,000 | Pop: 100,000-150,000 Harvest: 8,000-12,000 |
| Critical Keep B:C ratio ≥ 40 Bull:100 Cow | <130,000 Harvest: 6,000-8,000 | <115,000 Harvest: 6,000-8,000 | <100,000 Harvest: 6,000-8,000 |

Motions Acted Upon at WACH WG Meeting
December 16-17, 2015

Call to Order & Introductory Sections

- Approval of Agenda: Motion to approve agenda as presented, by Tom Gray, seconded by Allen Barrette. Motion carried unanimously.
- Member Appointment: Motion by Allen Barrette, second by Neil DeWitt, to accept nomination of the following Working Group Voting Chairs and Alternates: Seat 1 Neil DeWitt and Alternate Kenny Rodgers, Seat 7 Voting Chair Enoch Mitchell and Alternate Daniel Foster, Sr., Seat 13 Voting Chair Charlie Lean and Alternate Jacob Martin, Seat 14 Voting Chair Tim Fullman and Alternate David Krause, Seat 18 Alternate Julie Owen. Motion carried unanimously.

National Park Service Caribou Monitoring

- WACH Calf Mortality Study (Tabled) – Motion by Neil DeWitt, seconded by Tom Gray, to support NPS in going forward with a calf mortality study and bring the results back to the WG at its next meeting. After discussion, motion by Tom Gray, seconded by Cyrus Harris, to Table consideration of this motion. Motion to Table passed unanimously.
- WACH Calf Mortality Study - MOTION by Neil DeWitt to support NPS conduct of a calf mortality study for the WAH, seconded by Tom Gray. Motion carried 13:1.

Technical Committee Report

- 2011 WACH CMP, Table 1 – MOTION by Neil DeWitt, seconded by Bill Bernhardt, to approve the changes to Table 1 in the 2011 Western Arctic Caribou Herd Cooperative Management Plan. Motion approved unanimously.

Business Meeting

- Approval of 2014 Meeting Summary – Motion to approve the complete minutes for the December 2014 WACH Working Group meeting, by Allen Barrette and seconded by Neil DeWitt. Motion carried unanimously.
- Election of Vice Chair – Allen Barrette nominated Cyrus Harris to continue to serve as Vice-Chair (for 2016-2018), with second by Tom Gray. Tom Gray moved to close nominations, with second by Enoch Mitchell. With no objection, Cyrus Harris was reappointed Vice Chair.
- Resource Development Committee Chair – Motion by Neil DeWitt with second by Charlie Lean for Tim Fullman to serve as Chair; passed without objection.
- Bylaws Change, Executive Committee Quorum – Motion by Neil DeWitt, second by Allen Barrette, to approve the bylaws change to establish a quorum for the Executive Committee.
- New Business – Comments on Board of Game Proposal 73 – Motion by Allen Barrette to adopt proposal 73, to establish a minimum caliber of .243 for ammunition for caribou. Second by Neil DeWitt. Vote on the motion – None in favor; unanimous opposition to this motion (and to BOG proposal 73).

- New Business – Comments on Board of Game Proposal 85 – Motion by Allen Barrette to adopt proposal 85, to delete the exception in 5 AAC 92.010(g) that allows the harvest of caribou without requiring a harvest ticket or harvest report for residents residing north of the Yukon River. Seconded by Neil DeWitt. After discussion, motion by Neil DeWitt to amend the original motion to Table its consideration until the next WACH WG meeting. Seconded by Allen Barrette. Motion to Table passed unanimously.
- Next Meeting Date: Motion by Tom Gray, seconded by Allen Barrette, to schedule next WG meeting on December 14-15, 2016 in Anchorage, with Technical Committee meeting on December 13. Motion carried unanimously.

Assignments Made at WACH WG Meeting
December 16-17, 2015

Proposed Regulation Changes related to Wildlife Harvest and Management

- Staff to work with the Chair to submit comment to BOG in opposition to proposal 73.
- Staff to prepare errata sheet for Table 1, to insert in 2011 WAH Cooperative Management Plan. Post on website.
- Update WACH WG Bylaws with change to Executive Committee quorum.
- Use identified process (p. 187 of WG Binder, to fill vacancies (alternates for Lower Kobuk River, Point Hope/Point Lay, Upper Kobuk River, Ataqasuk/Barrow/Wainwright).

WACH Working Group Meeting Attendance - 2015

| List | First | Last | Organization |
|-------------|--------------|---------------|------------------------------------------------------------------------|
| Agency | Sam | Cotten | Alaska Department of Fish and Game (ADF&G), Commissioner |
| Agency | Drew | Crawford | ADF&G Commercial Fisheries Division |
| Agency | Nicole | Braem | ADF&G Subsistence Division |
| Agency | James | Simon | ADF&G Subsistence Division |
| Agency | Bruce | Dale | ADF&G Wildlife Division |
| Agency | Maria | Gladziszewski | ADF&G Wildlife Division |
| Agency | Tony | Gorn | ADF&G Wildlife Division |
| Agency | Ryan | Klimstra | ADF&G Wildlife Division |
| Agency | Steve | Machida | ADF&G Wildlife Division |
| Agency | Karen | Mitchell | ADF&G Wildlife Division |
| Agency | Lincoln | Parrett | ADF&G Wildlife Division |
| Agency | Kari | Rasmussen | ADF&G Wildlife Division |
| Agency | Brandon | Saito | ADF&G Wildlife Division |
| Agency | Patricia | Petrivelli | Bureau of Indian Affairs |
| Agency | Doug | Ballou | Bureau of Land Management (BLM), Anchorage Field Office |
| Agency | Casey | Burns | BLM |
| Agency | Jennifer | McMillan | BLM, Central Interior Field Office |
| Agency | Aliza | Segal | BLM |
| Agency | Bruce | Seppi | BLM, Anchorage Field Office |
| Agency | Laurie | Thorpe | BLM |
| Agency | Dave | Yokel | BLM, Arctic Field Office |
| Agency | Hannah | Atkinson | National Park Service (NPS) |
| Agency | Matt | Cameron | NPS |
| Agency | Greg | Dudgeon | NPS |
| Agency | Kyle | Joly | NPS |
| Agency | Peter | Kirchner | NPS |
| Agency | Randy | Larson | NPS |
| Agency | Jim | Lawler | NPS |
| Agency | Jeff | Rasic | NPS |
| Agency | Bud | Rice | NPS |
| Agency | Hillary | Robison | NPS |
| Agency | Bill | Carter | US Fish and Wildlife Service (USFWS), Selawik National Wildlife Refuge |
| Agency | Susan | Georgette | USFWS, Selawik National Wildlife Refuge |
| Agency | Brittany | Sweeney | USFWS, Selawik National Wildlife Refuge |
| Agency | David | Zabriskie | USFWS, Selawik National Wildlife Refuge |
| Agency | Myra | Harris | USFWS, Koyukuk/Nowitna/Innokko National |

| List | First | Last | Organization |
|---------------------------|--------------|-------------------|--------------------------------------------------------|
| Agency | Kenton | Moos | USFWS, Koyukuk/Nowitna/Innoko National Wildlife Refuge |
| Agency | Karen | Deatherage | USFWS, Office of Subsistence Management (OSM) |
| Agency | Tom | Evans | USFWS, OSM |
| Agency | Lisa | Maas | USFWS, OSM |
| Agency | Chris | McKee | USFWS, OSM |
| Agency | Eva | Patton | USFWS, OSM |
| Alaska Native Corporation | Elia | Gomez | NANA Corporation |
| Alaska Native Corporation | Lance | Kramer | NANA Corporation |
| Facilitator | Jan | Caulfield | Jan Caulfield Consulting |
| Local Govt | Harry | Brower | North Slope Borough |
| Local Govt | Mike | Pederson | North Slope Borough |
| Local Govt | Charlie | Gregg | Northwest Arctic Borough, Planning Dept. |
| Media | Casey | Restino | Arctic Sounder |
| Media | Yereth | Rosen | Alaska Dispatch |
| Organization | Bruce | Davis | Alaska Reindeer Council |
| Organization | Katie | Christie | Alaska SeaLife Center |
| Organization | Maggie | Massey | Alaska Wilderness League |
| Organization | Lindsey | Hajduk | Conservation Lands Foundation |
| Organization | Bonnie | Davis | Reindeer Herders Association |
| Organization | Lois | Epstein | The Wilderness Society |
| Organization | David | Krause | The Wilderness Society |
| Organization | Nicole | Whittington-Evans | The Wilderness Society |
| Public | Ron | Yarnell | |
| Public | Robert | White | |
| University | Jim | Magdanz | University of Alaska Fairbanks |
| University | Molly | Murphy | University of Alaska Fairbanks |

**WACH WG Meeting 2015
Caribou Roundtable Discussion
*Responses to Questionnaire on Observations about Caribou***

**WACH WG Meeting 2015
Caribou Roundtable Discussion
*Responses to Questionnaire on Observations about Caribou***

North Slope Region

Working Group members: Steve Oomituk (Point Hope)

Others providing local knowledge on these questions: Harry Brower (Barrow)

Facilitation/Notes: Lincoln Parrett (ADF&G), Ryan Klimstra (ADF&G), Dave Yokel (BLM)

Physical Environment

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

- Point Hope – Celebrate the first slush ice connecting to land, getting later into October-November. Froze up in mid-November 2015, whales tale celebration. Up river, should freeze in October, but it is occurring in November now.

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

- Point Hope – A lot of deep snow lately (drifting). Snow started October 31, 2015 this winter.

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

- Point Hope – High winds (generally) in 2015.

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

- Point Hope – Rains in January and February 2015. Temperatures were 30-40 deg. F, with rain. Rain made everything icy, up in mountains also. Maybe more rain during the summer and fall 2015 than previous.
- Barrow – A lot of rain in summer 2015. A lot of overflow in rivers inland.

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.)

- Point Hope – A good salmon berry year. Used to get them in August, but this year (2015) came in July. Spring came early, whales harvested in early April 2015. Ice lead, half mile out rather than 10-15 miles like normal. Ice very thin by late April and early May. Not safe for pulling up whale.

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?

- Point Hope – In 2015, caribou came to Point Hope later than early July (as was usual). In fall 2015, caribou were five miles out from town in late October and early November, so

that was great. Good fall season for Point Hope. First time hunters giving away their first catch. Been a long time (10 years or more) since caribou wintered around Point Hope. Caribou still hanging around right now (December 2015). Folks are up river right now ice fishing and able to get caribou right now.

- 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?**
- Point Hope – Lots of calves with the cows.
- 8. If you harvested caribou, how did the meat and skins compare with past years? What did you notice about fat? Parasites?**
- Point Hope – Caribou came by in November; were nice and fat. Very happy there was meat to eat. All kinds were harvested. No mention of parasites from community. Healthy animals!
- 9. Were there any other notable changes regarding caribou compared with past years?**
- No response.

Other Animals

- 10. What did you notice about bears and wolves in your area?**
- Point Hope – Catching a lot of wolves past several years, with 4-5 wolves taken maybe in a single trip. Seeing a lot of wolf sign. Few wolverines around as well.
- 10-A. How did these predators affect caribou in your area? (New question in 2013)**
- Point Hope – Possible that wolf harvest is allowing caribou to stay close to town or wolves are keeping caribou pinned down close to town. Still a lot of wolf sign around even though harvest is high.
- 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)**
- **Point Hope** – More and more moose showing up. Possible that fires from inland means more moose. There were some smoke issues this summer. Smelly and hazy. Often pushes animals towards the coast.

Other Comments

- 12. How do people in the communities use caribou, other than for meat (e.g., clothing)?**
- Point Hope – Mainly an ocean people, but rely on tutu for clothing and other uses. Fall time and winter time clothing.
- 13. What types of exploration and development or other activity have you noticed in the region that may be impacting caribou?**
- Point Hope – Concern that research activities on the North Slope are diverting some resources away from some communities.
- 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?**
- Point Hope – A lot of planes flying around in early July, August, September.

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

- Snow machines allowing folks to make more day trips for hunting rather than a two or three week trip. Machines are more reliable.
- Still an effort to teach young hunters the old ways, e.g., letting first group of caribou pass through.
- Climate change is affecting access to animals and areas.
- Local hunters are impacted by climate change, research activities, caribou decline, regulation change.
- Regulations:
 - Point Hope – Don't think about the regulations that much, because they have to get caribou when they are there.
 - Barrow – Regulations are a problem, specifically the bag limit. Hunters want to take more because sometimes the animals are only around for a limited time.

Seward Peninsula

Working Group members: Morris Nassuk (Koyuk), Charlie Lean (Nome), Tom Gray (Nome, Reindeer Herders Assn.), Charles Saccheus (Elim)

Facilitation/Notes: Kyle Joly (NPS), Matt Cameron (NPS), Tony Gorn (ADF&G)

Physical Environment

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

Winter 2014-2015 / Spring 2015

- No snow through most of winter 2014-2015. Finally got snow in the first week of March 2015. (ADF&G didn't get snow to do musk ox survey until first week of March.)
- Then, break-up began in April 2015.
- This makes three years in a row of short window of snow.

Winter 2015-2016

- Nome – Windier, stormier fall. Ocean ice hasn't set up yet this winter (as of December 2015). Seen a few recent pictures, but might not stick. Ice went out, then came back.
- Koyuk – Freeze up occurred the month of November 2015. Prior years, from what I can recall, it usually occurred late September to October.

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

- Southern Seward Peninsula – 62" average of snow per year. Late 2000's, average 80" of snow per year. But since then, it has been dismal. Remarkably little snow.
- Koyuk - Break up was in May for most of the years I can remember. This year (2015) for this time snow is deeper and icing or ice thickness may be not too thick - a foot and a couple inches.

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

- Stronger winds.
- October 2015 on was pretty windy.
- Koyuk - The winds were from the east and south for the most part. We had rainy weather and some strong east and southwest winds last 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.)

- There was rain in January 2015.
- Koyuk – Rainy fall in 2015, coming in from the east.
- Nome - Last 20 years has had rain mid-winter. Easterly side of mountains gets more snow than west, rain on snow with snow on top of it harder.

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.)

- Koyuk - Fires came early and seemed to me a little more spots here and there in the Norton Sound area.
- Koyuk - Willows seemed to bud earlier this year. Salmon berries and black berries hard to find in 2015. Used to be many salmon berries, but think they have moved south. Saw a bunch of cranberries. Saw blueberries, but not much.
- Nome – Last several years had good blueberry crop, but 2015 wasn't as good in Nome.

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?**
- Nome – Spring 2015 – Thousands of caribou above Bunker Hill in April 2015. Fall 2015 – Caribou in the flats now (December 2015). Usually when there's a big snow, that's where they stay the rest of the winter. As long as wolves don't harass them, they'll be there.
 - Koyuk – Spring 2015 – Some caribou seen up Koyuk River in April 2015. Fall 2015 - First caribou seen in early November 2015. This has been pretty consistent for the last six years.
 - Elim – Spring, 2015 – March 2015, 20 miles northwest of Elim, people catching caribou. Those weren't caribou, they were reindeer. Caribou were gone by then. They had Merlin and ear tags. Caribou leave in January, maybe it's the reindeer that are around. Fall, 2015 - First caribou in October 2015.
- 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?**
- Nome – Overwhelmed with Caribou this year. A few weeks ago (December 2015) still a lot. More so than in the recent past. Thousands and thousands. Fall 2015 had more caribou on the Nome road system than 2014. This year was the first year in memory of having so many caribou show up.
 - Koyuk – Biggest group Morris saw was a couple of hundred. Hunters said there were more dispersed small groups. The number of caribou in our area for me is hard to estimate. From what I seen and heard there seems to be about almost an equal or close to equal number of bulls and females and calves were around some females, not sure about percentage.
 - ADF&G survey observations (Tony Gorn) – Dec. 4-5, 2015, flew Game Management Unit (GMU) 22C. Saw caribou on doorstep of Casa, American Creek flows into GMU 22B, caribou there. Did not see thousands, but saw dozens at mouth of Casa. Group of six headed southwest and turned around at snow. Headed back and near Council runway. Didn't see thousands of thousands. Flew GMU 22C all day, didn't see many more. This seems like the time of year when they're not pushing further, they're pushing back.
- 8. If you harvested caribou, how did the meat and skins compare with past years? What did you notice about fat? Parasites?**
- Nome – Helped someone skin recently, most like jackrabbits. Only one had fat.
 - Nome - Caribou harvested this fall 2015 had a couple inches of fat, they were eating good before snow. No snow until late October, got to feed a lot.
 - Koyuk - Hunters said they had little fat, mostly lean. Just a little fat. Some hunters say some were lean and some said they got some with some fat. Not too much seen or heard of parasites to my knowledge.
 - No diseases or parasites mentioned.
- 9. Were there any other notable changes regarding caribou compared with past years?**
- Nothing mentioned.

Other Animals

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

Wolves

- Wolves are hard on the caribou. When snow is high, they get a bunch.
- ADF&G observation – Dec. 4-5, 2015 flight, saw wolves around Casa. People in Southern Penn (GMU 22) villages say they are seeing more wolves.
- Nome - Growing up didn't have resident wolves. As a kid, wolves were rare, dad didn't know what a wolf was when they saw it. Now they have wolves set up on the Seward Penn, resident wolves. Officially ok'd to kill young wolves. Someone near Council saw 18 wolves in one day.
- Shishmaref is similar – they are killing wolves.
- Southern villages have similar stories.
- Koyuk - More sign of smaller wolves, hunters reporting seeing more wolves. Recently coyote harvested. I saw wolf kills not too far from home and the wolf sign indicates that young wolves are in the pack of the predators here but not like the previous years where larger packs signs were seen. In my opinion the wolves keep the caribou on their hooves and ready to run with any noise.
- Elim - Someone got 5 wolves a day. Got a secret way to do it, but get 5 a day.

Bears

- Koyuk - There's a good number of bears. They're a part of caribou harvest too. In spring they saw two bears fight over a caribou carcass. In his opinion, the bears are at a good number for harvest, maybe 20-30 a year. Can't compare them historically.
- Koyuk - November 2015 was latest they saw bear tracks. Not sure on denning timing changes. March or May they come out. Saw a bear in 1980's come out at end of March.
- Elim – Saw bears out near Elim in November 2015 (as guide).
- Elim – Lots of bears at home. Eat salmon all summer long. Bears on the south side of the mountains eating berries as far as you could see. Counted 40 bears one time. Quit counting. Told story of helping a teacher shoot a huge bear up in the headwaters of a river. Bear was 7 ft tall, so old didn't have teeth, tons of scars.
- Seward peninsula generally – Seeing fewer and fewer bears now; 15-20 years ago would see 15-20 bears. Now only see one on a river float. In past, could get two bears in seven days; now, harder to make successful bear hunt. Don't think they have the bear numbers now that they did 20 years ago. Big skulls are less common. Now the bears are smaller. Thinks the road system has hurt the bears.
- ADF&G observation – Saw a brown bear during Dec. 4-5, 2015 over flight. Discussion of ADF&G brown bear surveys (with Tony Gorn): There is a difference between counting the bears that you see and *surveying* the bear population. What's a repeatable, reliable method to use to get an accurate population count? We have some areas where bears congregate, but we don't have enough data that we can base bear management decisions on. NPS biologists tried aerial surveys in Unit 22 and out of Kotzebue. This effort worked to teach them things, but it didn't produce an estimate for bear populations. Last year, ADF&G flew the middle third of the Seward Peninsula, north shore to south shore, and the technique worked. Biometrician said that from the first time it was surveyed for bears in the 1990's to last year's survey, the results show only a little increase in bear population. It may have Maybe it fluctuated in the time between these two survey counts, but we can't know.

10-A. How did these predators affect caribou in your area? (New question in 2013)

- No specific responses on effects of predation.

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)

- Elim - Pigeons. Come from Nome.
- Elim – Bowhead whale in front of Elim in first week of January 2015.
- Koyuk – Coyotes moving into their area. Unusual. Hunters have gotten several coyotes so far. (They use the meat for drying, frying, baking, stew, and uqaq.

Other Comments

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

- No comments.

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

- Nome – Always a new mine.
- Koyuk – Cell towers put up last year. Don't seem to impact anything. To date I don't think that any exploration or development impacted the caribou around our area yet.
- Elim – Worried about proposed road to the Ambler Mining District. Worried about effects on caribou migration if that road is constructed.

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?

- Nome – No conflicts.
- Koyuk – No user conflicts that he's heard of. I haven't seen or heard of foreign or domestic battles been fought over caribou yet.

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

Regulations

- Just wishes the Alaska Board of Game would be more subsistence friendly.
- Discussion and concern about the changes in bull regulation. People are upset about not being able to shoot bulls. People are getting cited for taking a bull; this is needless, since we are not in a critical management stage for the herd. Villages are saying that this is a big concern. It is a hard regulation to follow (hard to distinguish cow/bull in winter. Number of bulls typically harvested on Seward Peninsula (maybe 900?) is not enough to affect the population.

Change in how Caribou Roundtable is conducted?

- Would like elder historians to be a part of this discussion. They have stories of climate change and animal movements, and predators.

Koyukuk and Middle Yukon Region

Working Group members: Benedict Jones (Koyukuk), Pollock Simon, Sr. (Allakaket), Allen Barrette (Fairbanks).

Facilitation/Notes: Jennifer McMillan (BLM), Nikki Braem (ADF&G), Greg Dudgeon (NPS)

Physical Environment

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

- Fall 2015 - Freeze up was late this year. Ice froze smooth (like it used to be), not jumbled ice.
- Winter 2014-2015 was mild.
- Spring 2015 – Breakup was early. Very dry early on.

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

- Interior –Allakaket had snow early (September dump)... it didn't melt in Allakaket, as it did in Fairbanks. Got about a foot and half in Upper Koyukuk last week (December 2015).

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

- No comments about wind conditions.

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

- Rain in late January 2015, rained on snow, created sheet of ice, made travel difficult.
- Rained July, August, September 2015. Lots of rain, rivers high going into freeze-up.

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.)

- Temperatures not that high this summer at all. General observation that water temperature in Koyukuk River has risen over time.
- Lots of fires. 2015 significant fire year; 80,000 acre right by sand dunes, foothills of Nulato Hills; big fires around Hughes as well – possible long lasting impact to caribou habitat (food). Some talk about fire and the desire for protection of caribou habitat (food) through more fire suppression. Noted the need to know where the important lichen / food source areas are (e.g., studies to map lichen). (BLM staff noted that the agency is working on mapping.)

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?

- Haven't had caribou present in Upper Koyukuk or Alatna/Allakaket area for a decade, except for one year.
- There have been caribou within 50 miles, but difficult to get to. Cost of gas is very high.
- Prior to 1974, caribou were just a few miles out of Allakaket, but they don't come back anymore. (In 1974 the haul road was pushed north for the Trans-Alaska Pipeline; after completed, don't see anymore due to traffic on road; almost parallel to caribou migration route.)

- 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?**
- Some discussion of the Ray Mountain herd, which numbers less than 2,000 animals.
- 8. If you harvested caribou, how did the meat and skins compare with past years? What did you notice about fat? Parasites?**
- Noted that Hughes and Huslia are only communities that harvest.
 - Noted that caribou from tundra not as good, but ones from woodlands better.
 - Fairbanks (non-local) hunters (hunting not in the Middle Yukon area, but near Ambler, Dahl Creek, Kobuk River) came back with very good, very large caribou with good antlers and a lot of fat on hides.
- 9. Were there any other notable changes regarding caribou compared with past years?**
- Historic perspective on WAH - Late 1800's, guys working on steamboat, about 12 miles above Galena relayed story that the WAH was migrating in the thousands and crossing river. Steamboat had to tie up for one week, couldn't go. The steamboat then had to go back downriver and pick up more wood. By the time it came back 10 days later, the WAH had cleared out. They said that where the herd had been crossing the river, the trail was about 300 feet wide and 10 feet down.

Other Animals

- 10. What did you notice about bears and wolves in your area?**
- Seeing lots of grizzlies. Noted that grizzlies migrated from Canada within last 30 years; 50 years ago there were no grizzlies around. Brown bears didn't come to river area, stayed mostly in mountains. People used to hunt brown bear in late November, December, before they migrated (in Nulato Hills). This spring (2015) had a low harvest of bears, but when fall came, lot of grizzly bears. Bears that came in were in good shape, long hair, fat... even older bears were really good skins, large bears got killed this year.
 - Black bear that were hunted had no fat on them (Huslia area) and wouldn't have survived the winter.
- 10-A. How did these predators affect caribou in your area? (New question in 2013)**
- Predator control in the area has seemed to help with regard to moose population.
- 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)**
- Low insect year.
 - Rarely see coyotes, usually one or two a year on the haul road.

Other Comments

- 12. How do people in the communities use caribou, other than for meat (e.g., clothing)?**
- No response to this question.
- 13. What types of exploration and development or other activity have you noticed in the region that may be impacting caribou?**

- Some Working Group members expressed concern that the proposed road to the Ambler mining district will also impact caribou movement, as well as other subsistence and community lifestyle. Vehicle traffic will be a problem.
- Ambler Road would go east and west; concern with caribou crossing. Concern that historically roads have affected the big herds in Alaska.
- Some concerned that Ambler road would bring non-local people into the country; cause conflicts. tell us that we would get cheaper groceries and gas; but feel would have to sacrifice way of life for that, give up for cheaper groceries, gas.
- Others in group have a different view about the road – doesn't think that development has impacted caribou (even the Red Dog Road).

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?

- In past, hunters did not throw bones into the river.
- Concerned that sport hunters in Gates of the Arctic are changing the caribou migration, by disturbing the leaders of the migration (“chase them back west”). Very few caribou coming through Atigun Pass in recent years.
- Wildlife managers need to listen to elders.
- Don't leave caribou meat to rot or caribou won't come back through that way.

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

- All caribou herds are down in numbers.
- Moose numbers are down in numbers.
- Furbearers are down in numbers.
- Can't explain it all – think its habitat related.

Kotzebue Sound / GMU 23 Region

Working Group members: Vern Cleveland (Noorvik/Kiana), Cyrus Harris (Kotzebue), Enoch Mitchell (Kivalina/Noatak), Billy Bernhardt (Kobuk/Shungnak), Neil DeWitt (Anchorage)

Many other group participants (names not recorded)

Facilitation/Notes: Susan Georgette (USFWS), Hannah Atkinson (NPS), Brandon Saito (ADF&G)

Physical Environment

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

- Noorvik – Freeze up late. Just 2-3 weeks ago (late November 2015). Very difficult for hunters to go on ice. Would go on ice and it was thin. Different with climate change. Lost two guys this fall under the ice. Winters shorter, warmer than usual.
- Kotzebue - Along the coast it is freezing up later than normal, seems to start freezing at a normal time but then the weather changes to SE and warms up. This seems to be a trend these past few years at least. It seems to start cooling off on time and then it warms back up.
- Noatak - September 28th we pull our boats up. The river is pretty shallow. Freeze up was pretty early compared to the last three or four years in Noatak. This year it was early. But, conditions change quickly. Weather shifted quickly from hot to cold. Trout and white fish were present right before freeze up. Freeze up for two days and then warmed up again for a week.
- Kotzebue Sound – Warm, cold, warm, cold fall. Past five years it's been like that. It is effecting the way people hunt and the way animals come in.
- Kobuk - Fall was normal. I was up at camp and living there, we come back at freeze up.

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

- Noorvik - Finally got a little bit of snow a couple of weeks ago (late November 2015) with the storm that came in. Not much snow, after snow it rained, snow was hard in our area in Noorvik.
- Kotzebue- Too much snow up there so far this winter. Past five years we haven't had any snow. This is the first year. We have more SW wind, not quite a storm, blowing snow, constant southwest wind.
- Kotzebue - Still a bit of punchy snow, can't go to fast on snowmachine or you'll hit tussocks underneath.
- Kotzebue - Took video of the caribou and seals on November 10, 2015. It had frozen up and we thought we were done seal hunting and then the ice picked up and took it out and all the seals were out there and they caribou were wondering where's the ice? Got snow on top of ice and it insulated the ice so the ice isn't very thick right now, can't do night riders race, not safe for trucks. I'm trapping too, and the snow is blowing and drifting into willow valleys. Can't take trucks up the Noatak for the first time up the river because of the snow depth and drifts, first time in about five years.
- Noatak - It is snowing more; we had a couple of snowstorms. We usually have a big snowstorm right before Christmas. Last three four years we didn't have too much snow we couldn't use snowmachines, we used ATVs. Now everyone is using snowmachines. Ice is not that thick.

- Noorvik - Thought freeze up is going to be normal then you have extended periods of warm, and it causes ice to be really unsafe. One day you are driving on the ice and the next you have to stop because it's too warm.
 - Kobuk - It snowed again, been a good year for snow.
- 3. What were winds like in winter? In summer?**
- Kotzebue - Frequent SE and SW winds, but SE wind is bringing the storms.
- 4. Has there been any unusual weather this year? If so, what kind? (For example, strong winds, storms, much/little rain or snow, etc.)**
- Noatak - Hot to cold and too hot, and the berries aren't good.
- 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.)**
- Noatak – Berries weren't good.
 - Sisualik – It was a really dry summer in Sisualik, no water in the wells. Blueberries were in the trenches where there was wells, but outside of that the vegetation was really crunchy. But, blackberries at Sisualik were good.
 - Kotzebue – Blueberries, but no salmonberries
 - Upper Kobuk – Lots of lingon berries (low bush cranberries), but not other berries. It is because we had a warm May and then snow in June. And the June snow killed the berries.
 - Kobuk - We didn't have wildfires in 2015. It was smoky, not from a close fire, they were way off.

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?**
- Kotzebue – Coastal route, indigenous knowledge states that caribou camp out above Cape Krustenstern area until it really cools off. In fall 2015, they started moving when it cooled off, but they made a right hand turn to where they dead-ended by the NANA building in Kotzebue and they had to run around to go back to around Lockhart.
 - Kotzebue - First time in a long time they were by Francis Ballot slough and area by Sivu.
 - Kotzebue – USFWS took kids out hunting during the 4th week of September when we had snow and it was the first time in years when there were caribou around for the kids to hunt.
 - Noorvik got a lot of caribou. They were late. The ones that crossed on the road system, some of them went through the upper part of the village and the recent ones went up through the mountains.
 - Upper Kobuk - Caribou didn't make it up to Kobuk this Fall 2015 until after it snowed. At first, they couldn't cross the river and then – when it did freeze – we got caribou. Caribou were above Kobuk; crossing between Shungnak and Ambler. There are few caribou around right now (mid-December 2015) near the hot springs. All in all, the migration is later.
 - Upper Kobuk - There were not many caribou in Spring 2015.
 - Noatak - Caribou were pretty scattered this year. Got one up by the Aggie River on August 8, 2015. Got one up by camp September 1, 2015. Looked for one week for the main migration, but couldn't find it, had already passed by. When they closed Red Dog Road (in mid-September 2015), watched the caribou cross for hours. But, they didn't

reach Noatak. There's few that come down to the river. Don't get a five a day like we used to, getting two or three a day. It's getting worse. They used to cross closer to Noatak.

- Red Dog Road – They were a bit late by the Red Dog Road. This year the migration has been spread out. They are still coming; recently saw 3,000 down by Aqqaluk.

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?

- No response to this question.

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

- Noorvik - Caribou were fat. Never seen it except for this Fall (2015); they were very healthy caribou. Caribou are very healthy. Even in the Spring, when they were migrating back, they were very healthy.
- Kotzebue - Caribou conditions were really great this fall, hair was shiny, really good shape caribou.
- Bulls and cows were both fat and healthy.
- Upper Kobuk - Different in upper Kobuk, we don't get those good Spring caribou. In the Fall, by the time they get to the upper Kobuk they are damn skinny because they've been traveling a long ways.

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

Other Animals

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

- Noorvik - We have a lot of predators, a lot of wolves.
- Bears, wolves. Bears are predators for fish and caribou. Wolves are predators for caribou.
- Wolves, took a trip to Kotzebue on snowmachine was going to cross a creek on the river trail and stopped on the ridge and smelled wolves. Saw fresh wolf tracks where they veered into the woods.
- Our people used to hunt bears. They used to like to fall hunt bears. My uncles would go every fall during the night.

10-A. How did these predators affect caribou in your area? (New question in 2013)

- No response

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)

- Bumblebees in May when the ice was moving.
- Bad year for mosquitoes in Sisualik, never felt it in town.
- People aren't hunting beavers anymore.

Other Comments

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

- No response to this question.

13. What types of exploration and development or other activity have you noticed in the

region that may be impacting caribou?

- Shared information about closure of Red Dog Road from September 15-21. Early on this period, there was local disagreement whether road needed to be closed. A lot of elders and other hunters wanted it closed; group of young hunters were fighting it. Caribou were coming from the east side of Jarvis Mountain. Young hunters were shooting them on the north side of the road. Concerned that this made them avoid crossing and turn back to Jarvis Mountain.
- A lot more marine shipping traffic, more vessels in Kotzebue.

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?

- Concern about conflicts between local hunters on the rivers. In Fall 2015, there was a lot of combat hunting (was not as big a problem in 2014). Concern about wild shooting; safety issue. When you are out there with 20 or 30 boats in one area and a herd comes out all the boats are taking off. The main place is right above Kiana on the Kobuk River. Even gets boat from Noatak.
- Local combat hunting making noise and shooting first of caribou is just as bad as sport hunters. It is aggressive. People think that if you don't shoot the first caribou you are going to go hungry because someone else is going to shoot them.
- You can't blame it all on young hunters, it's everybody. Everyone wants to get enough to feed their families.
- Noorvik - A lot of non-local hunters in our area. We had one trespass hunter (on NANA lands). Nothing happened in terms of enforcement follow-up. They reported they were getting moose [moose carcasses with no horns].
- People are leaving meat out there. They are going to do it again this fall if we don't stop them.
- Discussion about native allotment holders letting people (in some cases, non-local hunters) hunt on their land.

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

- No response to this question.

Management Reports to the WACH Working Group, presented at the December 2015 meeting:

- Alaska Department of Fish and Game
- Bureau of Land Management
- National Park Service
- US Fish and Wildlife Service



ADFG Agency Report: Western Arctic Caribou Herd Working Group

- The Division of Wildlife Conservation (Region 5: Arctic/Western Region) within ADFG currently allocates about 30% of our operating budget for arctic caribou herd management and research. We have one full-time Wildlife Biologist based at Kotzebue who is assigned to conduct Western Arctic Herd (WACH) research and management activities. This position will soon be vacant and we are in the process of recruiting for new biologist. Biologists from our Nome, Kotzebue, Barrow and Fairbanks offices assist with the field work and data analyses. Region 5 also has one full-time Wildlife Biologist based at Fairbanks who is assigned to conduct research and management activities for the Teshekpuk Lake caribou herd on the North Slope. Earlier this year, we hired a new biometrician to assist with our caribou research activities, greatly enhancing our capacity for project design and data analyses.
- Field activities in our WACH program include a biennial photo census, fall composition surveys, spring recruitment surveys, caribou collaring at Onion Portage, animal collections for disease and body condition assessment, range-wide radio telemetry surveys and harvest assessment surveys. A review of this work is provided more in-depth in a separate report.
- Our Education Associate for Region 5 based at Nome is assigned to assist with WACH caribou wildlife education efforts. These include school visits, preparation of the Working Group newsletter and coordinating high school student participation at the Onion Portage collaring effort.
- A significant activity of our staff is providing comments to DOT, BLM and other agencies regarding the potential impacts that road and development projects may have on caribou movements and distribution.
- The next Region 5 Board of Game meeting is scheduled for January 2017. A more in-depth review of regulatory proposals will be covered in a separate discussion.

BLM Report to the Western Arctic Caribou Herd Working Group Winter 2015

Planning (Anchorage Field Office contact, Alan Bittner: 267-1246; Arctic Field Office contact, Donna Wixon: 474-2301; Central Yukon Field Office contact, Jeanie Cole: 474-2340)

- The proposed plan to change the administrative office boundaries in Northwest Alaska discussed at last year's meeting was finalized on January 9, 2015 by the BLM Washington DC Office. The BLM Anchorage Field Office has now assumed management responsibilities for lands around the Nulato Hills and within the NANA Corporation boundary.
- The Arctic Field Office has completed a Final Supplemental Environmental Impact Statement (EIS) for the Greater Moose's Tooth Unit 1 (GMT1) petroleum development in the National Petroleum Reserve (NPR) just west of Nuiqsut. This development would consist of a single drill pad and a road connection to the Alpine oil field facilities in the Colville River delta. The Record of Decision (ROD) was issued February 13, 2015. The impacts of the proposed development on the WACH ranges from none to negligible since the development is in the "outer range" of use by that herd. ConocoPhillips has also submitted an application for permit to drill a second oil and gas development called GMT2. Much like GMT1, GMT2 is located in the zone of overlap between the Teshekpuk and Central Arctic herds, and therefore this development is unlikely to impact the WACH. For more information on GMT1 please visit http://www.blm.gov/ak/st/en/prog/energy/oil_gas/npra/GMTU_proposed_dev_proj.html
- BLM is in the alternative development phase of two Resource Management Plans (RMP) for the Bering Sea/Western Interior (BSWI) and the Central Yukon (CYRMP) Planning Areas. These plans will provide for future management of approximately 27 million acres of BLM-managed public lands in western, central and northern Alaska. These lands include the Nulato Hills, Dalton Highway Corridor and lands in the central Yukon River and central Kuskokwim watersheds. We hope to present the draft alternatives to the public in the spring of 2015. Both plans are at the mid-point of the approximately four year process. There will be additional opportunities for public input as the plan progresses. For additional information please visit <http://www.blm.gov/ak/st/en/prog/planning.html> (Contact: Jorjena Daly: 267-1317 or jdaly@blm.gov for BSWI and Jeanie Cole: 474-2340 or j05cole@blm.gov for the CYRMP)

Reindeer Grazing (Anchorage Field Office contact, Laurie Thorpe: 267-1208)

- The Anchorage Field Office and the University of Alaska Fairbanks (UAF) Reindeer Research Program have completed installation of 23 range enclosure structures in the active grazing ranges of the Seward Peninsula on State and Federal lands. A long-range plan to monitor and read the enclosures is now in place and will future generate range health and climate change scientific information.
- The Anchorage Field Office, UAF and the Natural Resources Conservation Service (NRCS) developed a unified monitoring protocol to assess rangeland health for land managing agencies; this is being used at the new grazing enclosures and will provide useful information to reindeer herders for both short and long term range management needs. The data will also be valuable in assessing climate change dynamics on the tundra vegetation.
- The Anchorage Field Office is working with the UAF and reindeer herders to generate grazing management plans for the active reindeer ranges. These plans are currently under development as part of the High Latitude Range Management Curriculum at the UAF. A plan has been completed for the Davis range and a grazing management plan for the proposed Katcheak range in the Stebbins/St. Michael area is close to completion.

Bruce Davis has been elected as the new president of the Reindeer Herder's Association.

Wildlife (Anchorage Field Office contact, Bruce Seppi: 267-1282 or Aliza Segal: 267-1398; Arctic Field Office contact, Dave Yokel: 474-2314; Central Yukon Field Office contact, Erin Julianus: 474-2358 or Jennifer McMillan: 474-2308)

- The BLM continues to contribute to the monitoring of collared caribou in the Western Arctic Caribou Herd in cooperation with ADF&G, NPS, and USFWS.

- BLM biologist McMillan contributed to the annual collaring effort for the herd at Onion Portage in 2015. The collaring effort was completed in record time, three days, compared to the average of greater than one week. Eight students traveled from Noorvik to Onion Portage where they were able to spend three days with biologists and assist with the collaring project on the river. BLM secured funding for four students to attend the WACH Working Group annual meeting in December where they will share their field experiences with the Group.
- The most recent round of Western Arctic Caribou Herd (WACH) winter habitat monitoring was completed in July, 2013; habitat monitoring will occur again in ~4 years. Data archiving and preliminary analyses and reports are available and will be presented at this year's Working Group. The Anchorage Field Office has assumed responsibility for the WACH winter habitat monitoring (including data archiving, data management, field data collection, and reporting).
- The BLM has conducted scoping to inform the development of a WACH Caribou Winter Range Habitat Management Plan. The BLM is investigating additional research to aid in lichen/winter-range habitat identification to better inform the Habitat Management Plan.
- In 2015 CYFO assigned Jennifer McMillan to spear-head an Interagency Weather Subgroup (NPS, BLM, dedicated to addressing questions related to weather/climate; particularly the impacts of rain-on-snow events on caribou populations. The group met twice before the Working Group meeting and will verbally present the current status of their working knowledge and make recommendations on proposed future efforts to the Technical Committee.
- The BLM Anchorage Field Office continues to be a partner in the GMU 23 Working Group.

Fire

- *See handout* on fire perimeters within the WACH range.

Recreation (Central Yukon Field Office contact, Kelly Egger: 474-2242; Anchorage Field Office contact, Tom Sparks: 443-2177, Arctic Field Office contact, Donna Wixon: 474-2301)

- A draft Recreation Area Management Plan for the Squirrel River Special Recreation Management Area is being developed by Anchorage Field Office specialists. This draft should be available for public review and comment in 2016.
- Anchorage Field Office personnel conducted compliance inspections on over 20 outfitter/guide locations in September, 2015.
- The Anchorage Field Office renewed a total of 10 existing outfitter/guide and transporter Special Recreation Permits in 2015. The field office did not authorize any new permit applications and does not plan to do so until a final Squirrel River SRMA Plan is completed.

Mining (CYFO contact, Darrel VandeWeg: 474-2325, AFO contact, James Whitlock: 267-1284, Richard Tankersley: 267-1256)

- Notice level exploration continues at the Graphite One prospect on the Seward Peninsula north of the Kigluaik mountain range. No mining plan has been submitted.

Realty (Anchorage Field Office contact, Tom Sparks: 443-2177; CYFO contact, Robin Walthour: 474-2304)

- We are processing a right-of-way application from the GCI/Unicom Terra Yukon project to erect six (6) new towers connecting to their existing network.

National Park Service 2015 Agency Update



Noatak Delayed Entry Zone

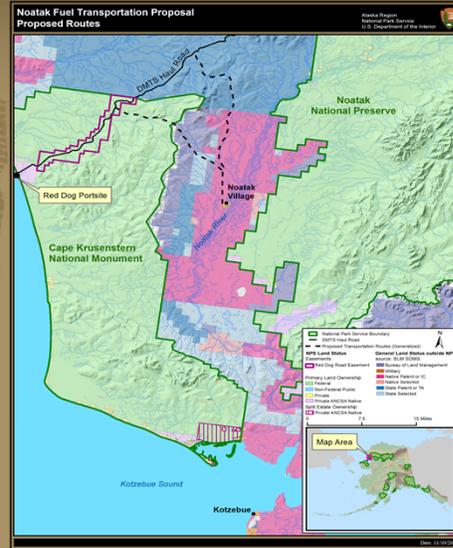
- In effect again for 2015/2016
- Most of the herd migrated the east of the zone
- NPS will reassess zone next year



EXPERIENCE YOUR AMERICA

Noatak Right of Way/Fuel Transfer

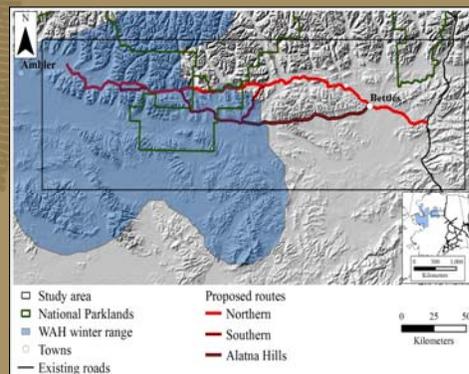
- Requested by Noatak IRA
- 50,000g per of fuel via DMTS from MS-6 to village via snogo route
- 17 round trips per year using Cat Log Forwarder
- NPS reviewing application



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Ambler Road Right of Way

- NPS received application from AIDEA in November
- NPS is reviewing the application
- Secs. of Interior & Transportation now have 9 months to determine most desirable route across Gates of the Arctic NPP
- NPS will recommend terms and conditions of right of way use



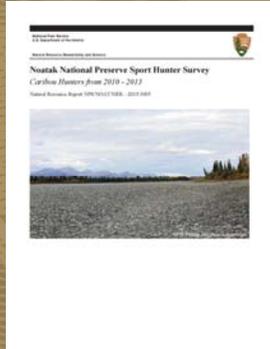
EXPERIENCE YOUR AMERICA

Noatak Studies Published & Available

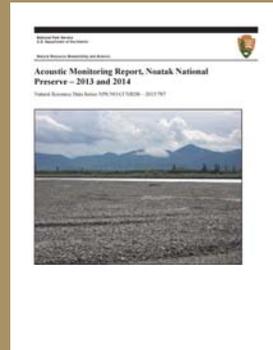
■ TEK Masters Thesis



■ Sport Hunter Report



■ Soundscape Report



EXPERIENCE YOUR AMERICA

Nome Archaeology Camp

Exploring science, traditional knowledge, and history with 11 students from the BSNC and NANA regions. July 19-26, 2015.



Students learned about prehistoric hunting techniques and practiced recording an archaeological site at a caribou drive line near Salmon Lake.

In partnership with Alaska Geographic, Kawerak Inc., Bering Straits Native Corporation, and the Carrie M. McLain Memorial Museum

EXPERIENCE YOUR AMERICA

Lake Matcharak Archaeological Site

This site, located at Lake Matcharak along the upper Noatak River, was excavated by NPS archaeologists in the summers of 2010, 2011, 2013 & 2014.

Preliminary analysis shows:

- Primarily occupied between 4000-6000BP
- Evidence of stone tool manufacture for hunting and processing animals
- Identified species include: Caribou, sheep, duck, grouse, ptarmigan, trout, burbot, pike, and whitefish.



EXPERIENCE YOUR AMERICA

U.S. Fish and Wildlife: Selawik National Wildlife Refuge
Agency Report to the Western Arctic Caribou Herd Working Group
December 2015

Refuge Personnel Changes:

- David Zabriskie is now our deputy refuge manager, arriving in Kotzebue in April from Tennessee.
- Brittany Sweeney has moved to the outreach specialist position, having spent 5 years as the environmental educator for Selawik Refuge.
- We are currently in the process of hiring the environmental educator position.

Refuge Activities and Projects related to Western Arctic Caribou Herd:

- Renewed efforts to monitor snow conditions on the herd's winter range (see attached)
- Installed NOAA Climate Reference Network station on refuge
- Produced and distributed fact sheet on new GMU23 caribou regulations in consultation with ADF&G and National Park Service (see attached)
- Produced a series of posts for the Selawik Refuge Facebook page on caribou and new hunting regulations (see attached)
- Supported Selawik Science-Culture Camp where students learn to hunt, butcher, and process caribou
- Assisted ADF&G with the Working Group's web page and newsletter
- Updated a database to record Working Group member's comments on the status of the herd with assistance from Marci Johnson, National Park Service
- Provided \$28K in funding for Working Group annual meeting



Selawik students work on a caribou during the Science-Culture Camp, Sept 2015.

Presentations and handouts distributed at the December 16-17, 2015, Working Group meeting (not included in meeting binder, but distributed to WG members at the meeting – and included in the Flash Drive sent to members in January 2016):

- Technical Committee Report (December 15, 2015) – See Attachment 2.
- PowerPoint presentation – Caribou Harvest Assessment Program: 2015 –Preliminary estimates of 2014 caribou harvest by the communities of Shishmaref, Kotzebue, Point Hope, Barrow, Nuiqsut, and Anaktuvuk Pass (Nikki Braem, ADF&G Subsistence Division, December 17, 2015)
- PowerPoint presentation – Household harvests in the range of the Western Arctic Caribou Herd (Jim Magdanz, University of Alaska Fairbanks, December 17, 2015)
- PowerPoint presentation – What Happens Next? Harvest and Regulations in the Future (Lincoln Parrett, ADF&G Wildlife Conservation Division, December 17, 2015)
- Handout – Resource Development Committee Update 2015 (Tim Fullman, WG Resource Development Committee Chair)