Caribou Trails

News from the Western Arctic Caribou Herd Working Group

Summer 2014 Issue 14

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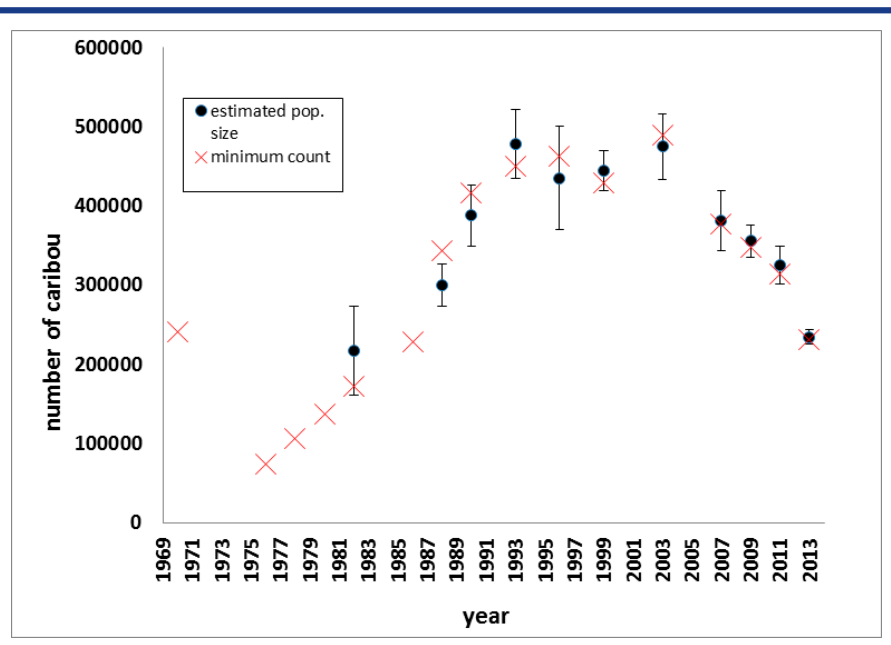
Western Arctic Herd Declines

Working Group Recommends Reducing Harvests

The Western Arctic Herd (WAH) numbered about 235,000 animals as of July 2013, according to the most recent census completed by the Alaska Department of Fish and Game (ADF&G). That's down from 325,000 caribou in 2011, a decline of 90,000 caribou over the past two years.



The black dots are estimated population size based on collared caribou; vertical black bars reflect precision. Each red 'X' represents the number of caribou counted on census photographs.

This herd now numbers less than half of its peak size of 490,000 caribou in 2003. This is a dramatic decline, but not surprising given recent trends in adult cow mortality and calf survival.

The 2013 census was conducted under excellent conditions: 99 percent of the collared caribou were present; all animals were tightly bunched in a few groups and moving very little when photos were taken. The light was good, the photos were clear, and there were no problems associated with counting the caribou in the photos.

If trends in adult mortality and calf survival continue, the herd will further decline and it may become necessary to reduce harvests. The management categories developed Western Arctic Caribou Herd Work Group (Working Group) as outlined in the WAH Cooperative Management Plan (2011) will inform the Board of Game (BOG) and the Federal Subsistence Board (FSB) discussions on the regulatory changes needed to reduce harvests.

If so, these would be the first subsistence harvest restrictions implemented for the WAH in over 30 years. In the meantime, The Working Group is asking people to help the herd by voluntarily reducing the harvest of both bulls and cows. Hunters can reduce their impact on this herd by substituting other sources of meat for caribou whenever possible and taking care to not scatter groups of caribou (to avoid separating cows and calves) when hunting by boat and snow machine.

For indigenous people, the herd is both a vital link to their cultural heritage and a staple source of food. The WAH is also important to visiting hunters, and is an important source of income for commercial operators who provide hunting and transport services. Given its large size, the biological importance of the WAH to northwest Alaska is significant.

The long-term health of this herd is of utmost importance. Due to declining bull:cow ratios along with increased adult cow mortality, reducing harvest on bulls and especially cows may help stabilize this herd.

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Listening to our Elders

Tuttu (caribou in Inupiaq) are known as the great wanderers. They deserve the name.

Josephine Woods from Shungnak spoke to the Working Group at their annual meeting this past December. Speaking in her native language, with her daughter Hilda Haas translating and also accompanied by another daughter Helen Mitchell, Joshephine shared stories about her life. She said many years ago, when she was little, there were not very many caribou in the Shungnak area. Unlike today, people had to travel long distances to the Noatak River to hunt caribou.

Josephine Woods at home in Shungnak (above). Hilda Haas and Josephine at the 2013 Working Group Meeting (below).

In fact, during the late 1800s, caribou were so scarce in Northwest Alaska that reindeer were brought from Russia and Lapland to establish herds in Alaska. This worked so well that the Canadians wanted some too.

Josephine's husband, Wesley Woods, was part of a great journey to deliver reindeer to Canada. "I want to talk about when my husband went with the reindeer herds to Canada. They traveled for five years. When they first started, they were on skis and walked with reindeer." The trek was led by a Laplander, Andrew Bahr. They often ran into bad weather and Andrew showed Wesley, then a young boy, how to make a snow shelter and to survive out in wilderness. They traveled together for so long that Wesley and Andrew became very good friends and learned each other's language. Up until the day he died, Wesley sang songs to his family that he learned from Andrew. Wesley accompanied his parents Nelly and Thomas Wood (now Woods) on the journey to Canada. Wesley's young sister, Mary Foster from Ambler, was born on the journey in Canada. At one time, the U.S. government wanted to send her back to Canada. She had difficulty becoming a U.S. citizen and even a NANA shareholder. Along the way Wesley lost his parents. They are buried somewhere along the trail, and no one really knows the exact location of their graves. Eventually, the reindeer were successfully delivered to Canadians near the McKenzie River delta. Wesley then took an airplane to Bettles and eventually on to Shungnak. Wesley shared all of these stories with their kids. "It was better than watching any movie," said Hilda. There are a couple of books that describe this journey. One is *Arctic Exodus* by Richard North and the other is the *Great Trek* by Max Miller.

Wesley was an excellent hunter and adept in the outdoors. He taught his family many of his skills. Josephine and Wesley would take their infant daughter out trapping and caribou hunting. "I am now an old lady and not able to provide for my family. Medical issues keep me from helping my family much, but I am grateful to be here to help them out and tell them about the old ways."

Josephine is 84 years old and has ten children. "I have so many grandchildren, I can't count them," she says. When someone asks her what her secret is for a good, long life, Josephine says, "I never drink liquor. That is why I have lived so long. No smoking either. Even though I am an old woman, caribou is still important to me and my family. I learned from my grandparents and I am teaching my grandchildren. We use caribou for food, clothing, and for everything."

Leave the Leaders Alone, and the Rest will Follow

"Let the lead caribou pass" is likely the most common advice given to inexperienced caribou hunters throughout the range of the WAH. From centuries of hunting and observing caribou, Alaska Natives have learned that the first caribou in the migration "set the trail" and others behind follow. If the lead caribou are spooked toward another area, the caribou coming behind them will follow that trail away from traditional hunting areas. Iñupiaq elders say that the first caribou leave a scent trail with their hooves.

Iñupiaq elders also say that cows with calves are typically in the front of the caribou migration, followed by bulls. Biologists share this view as well, based on data collected from collared caribou.

Allowing the first caribou to pass unharmed is not unique to northwest Alaska or the WAH. It is also a traditional hunting practice for indigenous people in the Yukon and Northwest Territories of Canada who hunt the Porcupine Caribou Herd (PCH). Reindeer herders throughout the world use "lead animals" to help manage and move their herds.

Protecting caribou leaders is a hunting practice passed down through generations of Alaska Native hunters. It is a deeply-held ethic among subsistence hunters, one repeatedly told to younger hunters. A few years ago at the beginning of the fall migration on the upper Kobuk River, Shungnak hunters waited patiently at home until a local elder gave the word over the VHF radio that the lead caribou had safely crossed the river and that hunting could now begin.

Caribou hunters outside of Kotzebue.

Honoring this tradition is essential for all who hunt or travel near caribou during the migration. Every year subsistence hunters voice concern about others not heeding this advice and diverting the caribou migration. It is important to continue to educate both visitors and local residents about appropriate behavior for caribou hunting in northwest Alaska. This will go far towards promoting a successful hunting season for everyone.

Counting Caribou in Alaska

Four North Slope Caribou Herds Counted in One Summer

The summer of 2013 marks the first time all four caribou herds that calve on the North Slope were counted in one year. Unusually warm summer weather across the state and especially on the North Slope meant buggy days, and caribou grouped together for relief from insects. The conditions were so consistent across the North Slope (and even into Canada) that ADF&G biologists were able to take census photographs of the WAH, Teshekpuk Caribou Herd (TCH), Central Arctic Herd (CAH), and PCH (Figure 1).

The caribou herds were photographed during the summer, and staff counted the caribou in the photos in the fall and winter. Results range from good, to bad, to messy.

The Good:

The Porcupine Herd was photographed on July 14, 2013. Caribou were widely distributed, with a large number in the Richardson Mountains in Canada, and the remainder in the eastern Brooks Range. The estimate for the PCH was over 197,000, which is the highest ever observed for that herd.

The Bad:

For the WAH, the slow decline from 2003 to 2011 transitioned to a more rapid decline. Similarly, the TCH was estimated at approximately 32,000 caribou, which is also less than half of the highest count of 68,000 in 2008. Although the reasons behind the declines are not easily identified, poor calf production, poor calf survival, and spikes in adult female mortality are contributing to the declines in both herds. Poor nutrition appears to be playing a stronger role in the TCH than the WAH, based on differences in pregnancy rates and trends in calf and yearling weights.

The Messy:

To the east, the population trajectory for the CAH is less certain. In July of 2013, over 70,000 caribou were counted, which is similar to their peak of 70,034 in 2010. Despite good numbers, ADF&G biologists are not confident about the trend of this herd, because some collared caribou from the PCH were present in the groups that were photographed during the CAH census.

Mixing and Emigration

Caribou herds mix, especially during the fall and winter. Genetic studies show that of the four North Slope caribou herds, only the WAH and PCH, the western- and easternmost of the four herds, show genetic differentiation. This is not surprising considering that the ranges of these herds overlap during breeding season, or rut. In recent years the degree of mixing appears to be increasing, and many caribou that are mingled in the winter end up migrating with a different herd in spring. In the summer of 2013, almost 20 percent of the collared TCH wintered in parts of the WAH range, and were with the WAH during the WAH photocensus.

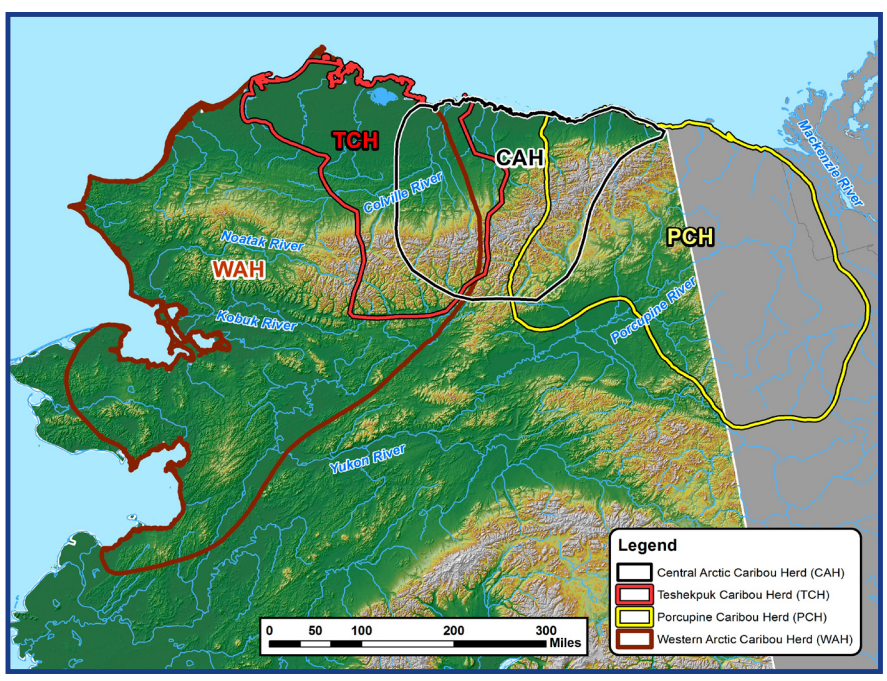

Figure 1: Herd ranges and overlap for the WAH, TCH, CAH, and PCH caribou herds.

WAH caribou tightly bunched during the 2013 photocensus.

Similarly, the 70,000 caribou that were counted during the CAH photocensus included ten PCH collars, which could represent as many as 20,000 caribou.

How does Mixing affect Population Trends and Herd Management?

Counting caribou can be difficult. In addition to the annual challenges of weather and logistics, mixing of herds has been problematic lately. As of last summer, in all four herds, there were a little over 500,000 caribou using the North Slope at some point in the year. That is still a lot of caribou, but far less than a decade ago.

Despite the recent decline, the WAH is still large. Although its numbers were boosted by 5,000-6,000 caribou from the TCH, those few thousand caribou only represent about 3 percent of the total number of caribou counted in the WAH. That difference makes little or no difference in how this herd will be managed.

The TCH is a much smaller herd, and a few thousand caribou is a much larger percentage of its total size. Biologists aren't sure if the TCH caribou that mixed with the WAH will come back to the TCH, and it may be difficult to tell if they do.

The number of caribou counted in the CAH was similar to the last count in 2010. However, if the ten PHC collars that were found with the CAH mean that 20,000 caribou from the PCH were present during the count, then the CAH has declined by over 20 percent from the last count. It's not as large a decline as the WAH or TCH, but certainly significant. Herd managers continue to watch this situation closely.

During the early 2000s, the number of caribou summering on the North Slope peaked at over 700,000 animals, perhaps the highest number since at least the 1970s. At that time, it was relatively rare for caribou to mix or migrate with other herds, either permanently or temporarily. If the large number of caribou in the late 1990s and 2000s had a negative impact on their ranges through overgrazing, caribou may be searching for new areas, increasing the degree of mixing between herds. Perhaps mixing will decrease as herds become smaller, but for now it is a significant issue that affects estimates of caribou abundance. What is clear is that the overall number of caribou in at least two of the herds, the WAH and TCH, has declined dramatically and may continue to do so.

Counting the Future

Because of its continued large size and the high cost – in terms of staff time and money – required to census the WAH, the next scheduled attempt will be made in the summer of 2015. However, if the 2015 census shows that the WAH continues to rapidly decline, ADF&G will attempt to census this herd every year. Managers are unlikely to conduct another photocensus on the PCH until the summer of 2015, because that herd appears to be increasing and the 2013 photocensus was of high quality. ADF&G will attempt to photograph the CAH and TCH in July 2014 if conditions are favorable. ADF&G's ability to count caribou in future surveys will be vastly improved with the use of new high resolution digital camera equipment.

Telling the Story- It's not Just the Population Number

Estimating the population size or number in a herd of caribou often receives all the attention. However, it is not the only number that tells you how a population is doing. In addition to herd size, biologists use a combination of assessments to determine the status, trend, and direction of change in a population.

Caribou Habitat

One thing biologists look at carefully is the condition of caribou habitat. Alaska, barren-ground caribou, such as those of the WAH, prefer treeless tundra and mountains; however, they also use forested areas, especially during winter. Calving occurs in the northern foothills of the De Long Mountains and the herd uses the same area each year. Caribou eat lichen as a primary winter food source; however in the summer they eat their fill of nutrient-rich green grasses, sedges, willows and flowering plants. Habitat condition and available forage can influence migratory routes and areas where caribou choose to winter. Caribou eat lichens during winter and, if there are not enough lichens or other vegetation to support them, caribou may starve before making a long-distance trek to another area. The Bureau of Land Management (BLM) has documented changes in lichens vs. grasses and shrubs on WAH winter range, but the body condition of caribou suggests that these changes are not yet limiting the size of this herd.

Body Condition and Malnutrition

The body condition of caribou also provides important clues in understanding the health of a herd. Body condition is influenced by both the quantity and quality of food on its range. Biologists assess body condition through the thickness of fat on the rump, by looking at the fat present in bone marrow, and also by measuring weights of calves. Every three to five years, they also collect caribou for a veterinarian to do detailed laboratory tests to assess their health and condition. The combination of these studies indicates how habitat may be impacting caribou health and helps explain if herd size is increasing, remaining stable, or decreasing. Caribou from the WAH have generally maintained good body condition even after the current population decline began, and the proportion of skinny caribou during fall has even decreased during recent years.

Calf: Cow Ratios

Calf: cow ratios indicate the number of calves in a population compared to the number of cows. When calf survival is low and recruitment into the herd doesn't keep place with adult mortality, herd size will decrease. Current studies indicate that calf: cow ratios, as measured during the spring following their birth, are indeed declining.

Jim Dau

Jim Dau

Adult Cow Mortality

Adult cow mortality can strongly affect caribou population size and trend. Most cows probably produce only six or seven calves during their life, and many die before becoming reproductively mature. The proportion of young and old individuals in the herd can indicate whether a population is likely to increase or decline in the future. If many cows are dying at an old age and few young cows are being added to the population, herd size will likely go down. Studies indicate that the WAH adult cow mortality has gone up since the late 1990s. If the herd falls below its Intensive Management objectives, ADF&G will assess with the BOG the feasibility of predator control activities as required by State Law.

Bull: Cow Ratios

The bull: cow ratio is the number of bulls in a population compared to the number of cows. The Working Group, in consultation with State and Federal managers has suggested maintaining at least 40 bulls for every 100 cows to ensure there are adequate bulls in the population to breed with available cows, and to provide for harvests. Not having enough bulls in the population can lead to some cows being bred late. Late breeding results in calves that are born late. These late-born calves have less time to grow before winter, and may be less likely to survive the winter. Studies indicate that the bull: cow ratios have been declining since the early 1990s.

Hunting Pressure

What about hunters? Harvest records indicate that people who live within the range of the WAH have taken an average of approximately 14,000 caribou each year. Hunters who live outside the range of the WAH have taken an average of 600 animals per year. This is the reported harvest only -- there is likely some unreported harvest as well, bringing the harvest number higher. Hunter harvest can have a negative impact on a population in terms of overall numbers, and in terms of bull:cow ratios. Reducing harvests based on Working Group guidelines will become necessary to conserve the herd and prevent further declines.

What Does all this Tell us about the WAH?

We know that the overall trend for the WAH has been declining over the past decade. This decline is consistent with poor calf and adult cow survival at the end of each year. Combined with stable harvest levels, this decline may at least partly explain the decline in bulls. Even with caribou appearing in good body condition and calves being produced at high rates similar to previous years, the lack of surviving cows and calves coupled with harvests are contributing to the herd decline. Reducing harvests as recommended in the WAH Cooperative Management Plan are likely to become necessary to conserve the herd.

Ancient Caribou Hunting

New Archaeological Sites Document Ancient Caribou Hunting

Aerial view of the Lake Matcharak site, a 4,000 year old caribou hunter's camp in the upper Noatak River valley.

Caribou have been a subsistence staple in northwestern Alaska for as long as long as there have been people living in the region. But details about ancient caribou hunting are poorly known because animal bones, the main source of archaeological information about early subsistence practices, are rarely preserved in sites older than 1,000 years.

Recent archaeological discoveries at Lake Matcharak in the upper Noatak River valley, however, are providing new perspectives on the relationship between people and caribou over the millennia. Two archaeological sites, dated to about 4,000 and 6,000 years ago have yielded thousands of well-preserved animal bones and stone tools used to harvest and process these animals. The remarkable preservation is due to the fact that the bone and other refuse were quickly buried by blowing silt from the Noatak River bottom, and were later encased by permafrost. The bones were thus frozen and preserved for up to 6,000 years until they were recently exposed by lake edge erosion. National Park Service (NPS) archaeologists have conducted excavations at these sites to salvage information before it is lost to erosion and thawing permafrost, and to learn more about the prehistoric people who occupied these sites.

The prehistoric menu was rich and included sheep, porcupine, ground squirrel, marmot, ptarmigan, ducks, grayling, burbot, and pike. But caribou were, overwhelmingly, the most important food and made up more than 90 percent of the diet. At least 25 caribou were found from the 4,000 year old camp, indicating that hunting likely occurred from spring through fall targeting males, females, and juvenile caribou, using stone-tipped arrows. The 6,000 year old camp contains the oldest archaeological caribou bone in the Central Brooks Range. Investigations at this site are just beginning and will continue in the summer of 2014.

Reference: Tremayne, A. H. (2011) An Analysis of Faunal Remains From A Denbigh Flint Complex Camp at Matcharak Lake, Alaska. Arctic Anthropology 48:33-53.

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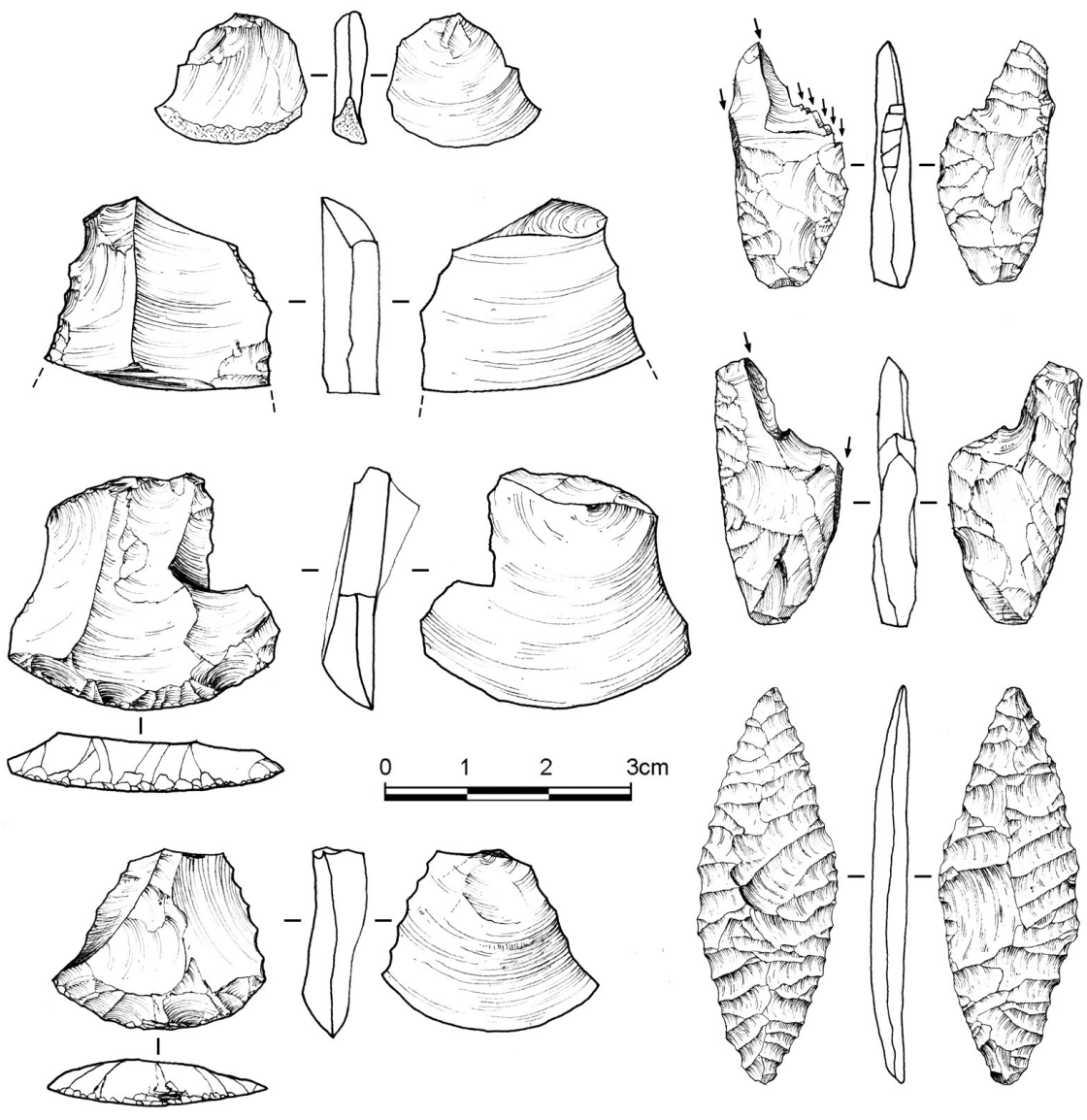
Learn more at: nps.gov/gaar



L-R: A series of stone tools from Lake Matcharak that includes skin scrapers, engraving tools and an arrow point. A caribou bone found at the site dated to about 4,000 years ago. Obsidian Microblade. All photos on this page are courtesy of NPS.

Working Together to Manage the Herd

Western Arctic Caribou Herd Working Group

The Working Group was created in 1997. It consists of 20 voting chairs representing communities and user groups dependent on the WAH. Subsistence hunters from rural villages, non-local hunters, conservationists, hunting guides, reindeer herders and hunter transporters are represented. All have a stake in the conservation and management of the herd, and all share in decision-making.

The Working Group is not a management or regulatory body. It is a forum for sharing information and making regulatory or policy recommendations to the state and federal regulatory boards. Recommendations were made by the Working Group on recent BOG decisions (such as those listed in the green box to the right). Recommendations are also made to the FSB and other land and wildlife managers. The mission of the Working Group is to work together to ensure the long-term conservation of the WAH and the ecosystem on which it depends, and to maintain traditional and other uses for the benefit of all people now and in the future. The Working Group meets annually in Anchorage Alaska and the public is invited and encouraged to attend.

Working Group members (L_R) Phil Driver, Tom Gray, Morris Nassuk, Vern Cleveland Sr., Cyrus Harris, and Allen Barrette at the 2013 meeting.

Recent BOG Decisions for WAH Caribou

- **Proposal 177: Allow use of snow machines for harvest of caribou, wolf and wolverine.** A strong desire to modify the current regulations for hunting from snow machine in GMU 23 in Northwest Alaska had a lot of local support and backing. As a result, the BOG passed the proposal making it legal to use a snow machine to position caribou, wolf, and wolverine for harvest and they may be shot from stationary snow machines.
- **Proposal 29: Allow the sale of caribou antlers from WAH Caribou.** The BOG did not approve a proposal that would have made it legal to sell caribou antlers.
- **Proposal 23: Set Amount Necessary for Subsistence (ANS) for Western Arctic and Teshekpuk Caribou.** The BOG decided to combine the ANS for the WAH and the TCH for an ANS of 12,000 animals.

Caribou Subsistence Surveys in NW Alaska

WAH caribou are an important part of the subsistence way of life in communities across Western, Arctic and Interior Alaska. Subsistence harvest surveys help ADF&G estimate subsistence harvests of caribou (and other subsistence resources) and understand the role of subsistence in local economies.

Each year since 1999, ADF&G's Division of Subsistence has gathered big game harvest information in selected Kotzebue and Norton Sound area communities. In 2013, the division collected caribou harvest information in a "big game" survey in Kotzebue and through comprehensive harvest surveys in six other communities within the range of the herd (Ambler, Golovin, Kobuk, Noorvik, Shungnak, and Point Lay).

Total caribou harvest estimates for the 2012-2013 study-year varied from 64 in Golovin to 1,804 in Kotzebue – but this range reflects differences in community size, location within the herd's range, and general subsistence patterns. Per capita (per person) harvests ranged from 0.4 caribou per person in Golovin to 2.4 per person in Ambler. Survey questions ask the amount of game a household harvested in a 12-month period, the sex of the animal(s), where they were harvested and when, and if the animals were shared as a subsistence resource. All information collected is confidential and ADF&G calculates a harvest estimate for the entire community for the study period. The results of this year's surveys will be available online later in 2014 at the Division of Subsistence website listed below.

The Kotzebue big game survey was accomplished with funding from ADF&G's Divisions of Subsistence and Wildlife Conservation. Surveys in Point Lay, Noorvik, and Golovin were funded with qualified outer continental shelf oil and gas revenues by the Coastal Impact Assistance Program (CIAP), US Fish and Wildlife Service (USFWS), and US Department of the Interior. Surveys in Ambler, Kobuk, and Shungnak were funded through a reimbursable services agreement with the Alaska Department of Transportation and Public Facilities (ADOT&PF).In addition, a special thanks to the USFWS Selawik Refuge and BLM Kotzebue field office for use of their facilities during fieldwork.

As always, a hearty "thank you" to our local surveyors and community members who participate in research efforts. See you next year!

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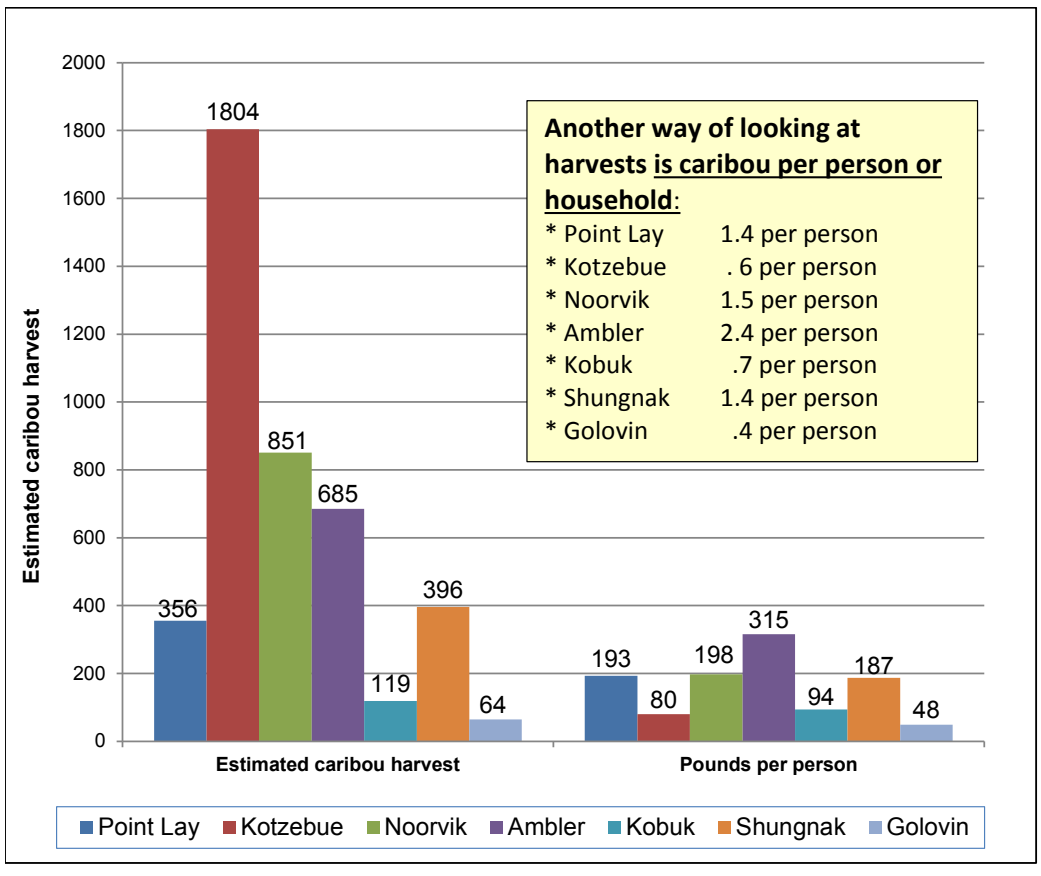
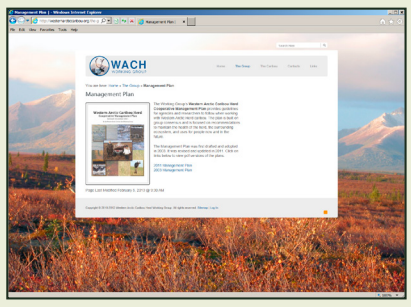


Traditional Knowledge is Science

The project to gather traditional knowledge about caribou, caribou movements, and user conflicts from the village of Noatak is in its second year. Twenty elders were videoed documenting their stories about caribou and hunting. Videos were given to each elder and also given to the local school, the Native Village of Noatak, and the Northwest Arctic Borough. A survey of 60 caribou hunters of Noatak was also undertaken. Data from those interviews are now being analyzed. Twenty additional interviews were conducted with local caribou experts. The interviews were videotaped to capture audio and respondents' interactions with area maps. Interviews with "historians" of WAH management were completed. Gabriela Halas and Gary Kofinas (both from University of Alaska Fairbanks) have made multiple presentations to Noatak and the Working Group. Presentations about the project were presented at the North American Caribou Workshop, Whitehorse, YT and the International Association of Arctic Social Science conference in Prince George, BC. Researchers hope to provide final results in the next issue of *Caribou Trails.* For more information contact Kyle Joly: Kyle_Joly@nps.gov

Noatak resident participates in UAF/NPS caribou TEK project by helping to map caribou hunting grounds and river crossing locations.

www.westernarcticcaribou.org



Looking for more information regarding the Western Arctic Herd or the Working Group? Visit us at our website!

On the site you can find information regarding the herd, users, meeting updates, digital copies of ***Caribou Trails*** and much more.

Learn more about this study and many others on our website!

The Acronym Alphabet

A few terms you may hear or see at a caribou meeting or in *Caribou Trails* -cut this out and tape it to your binder and use it in your next meeting!

ADF&G- Alaska Dept. of Fish & Game

ADOT&PF- Alaska Dept. of Transportation and Public Facilities

AIDEA- Alaska Industrial Development and Export Authority

ANCSA- Alaska Native Claims Settlement Act

ANILCA- Alaska National Interest Lands Conservation Act

ANS- Amount Reasonably Necessary for Subsistence

BELA- Bering Land Bridge National Preserve

BLM- Bureau of Land Management

BOG- Board of Game

C&T- Customary and Traditional

CAH- Central Arctic Herd

CAKR- Cape Krusenstern National Monument

CUA- Controlled Use Area

FAA- Federal Aviation Administration

FSB- Federal Subsistence Board

GAAR- Gates of the Arctic National Park and Preserve

GIS- Geographic Information System

GMU- Game Management Unit

KOVA- Kobuk Valley National Park

NOAT- Noatak National Preserve

NOVA COPPER- Company responsible for the Amber Mining District

NPRA- National Petroleum Reserve Alaska

NPS- National Park Service

NRCS- Natural Resource Conservation Service

PCH- Porcupine Caribou Herd

TCH- Teshekpuk Caribou Herd

UAF- University of Alaska Fairbanks

USFWS- United States Fish and Wildlife Service

USFWS OSM- United States Fish and Wildlife Service- Office of Subsistence Management

USDOI- Department of the Interior

USGS- United States Geological Survey

WACH WG or (Working Group)- Western Arctic Caribou Herd Working Group

WAH- Western Arctic Caribou Herd

Caribou Roundtable: Reports from Caribou Country

Observations of caribou, habitat, and hunting reports are shared at each Working Group meeting during the "Caribou Round Table". The group reported region-by-region, with some common themes (below) reported by all for 2013.

- Unusual late freeze-up: Water started to freeze and then warmed up again before ice was safe to travel on.
- Caribou migration was later in the fall. Spring break-up was later in early 2013 as well.
- Hunters reported harvested caribou were healthy and in good condition. Many reported a good year for berries too.
- Roads – both existing and proposed – were named as a concern by many. Many Working Group members compare caribou observations in their home areas from before roads were built to today. Several members stated that fewer caribou came to communities with roads nearby, or that migrations had been impacted.
- Other wildlife – members said that many wolves and bears are being seen in most places. Several reported lynx in unusual areas. Some commented on decreased populations of rabbits and muskrats compared to past years.
- In addition to food the use of caribou hides is widespread. Hides are valued as winter mattresses that "last a long time if you take care of them."

Jim Dau

NANA Region

Late rain and a windy fall, compared to decades ago (when ice was usually solid between Kotzebue and Sisualik by the end of October). Most hunters in this region were happy with the fat caribou they were able to harvest this year, despite being delayed by a later migration. Wide agreement that they are seeing more brown bears than in the past.

North Slope Region

Wainwright has access to caribou almost year-round, and hunters have had successful harvests. More grasses and sedges seem to be growing in the surrounding area. There have not been problems with conflicts between hunters in this region, but there were reports that helicopter noise is becoming more prevalent in the Brooks Range.

Seward Peninsula

Caribou are using this area differently than in past decades; less use of the Nulato Hills and more caribou seen farther west. Even though "storms are not unusual anymore," residents noted late rain and wind held off freeze-up for a long time in 2013. This corresponded to a lack of snow in the early winter.

Koyukuk & Middle Yukon Region

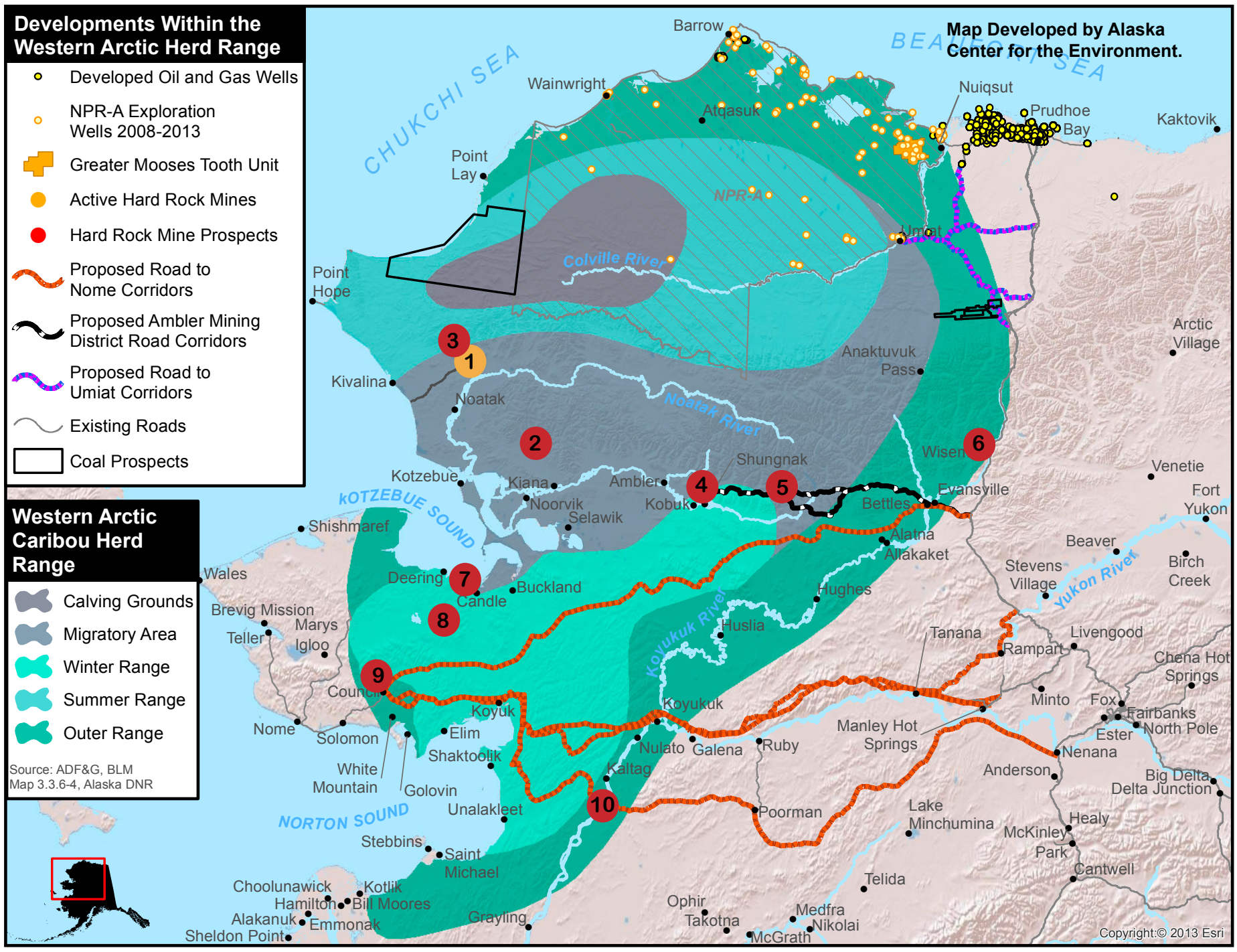
In this area, some were still running boats in November. Elders indicated climate change is affecting habitat, and they have seen impacts on fur animals, bird migrations, muskrats, and salmon. One member noted that he still lives much the same way as his grandfather and father did, and wants to preserve that lifestyle: "That's why we come to meetings like this."

Siikauraq Whiting

Denali Whiting helping the family process meat.

Join the conversation! Have you seen something you think others need to know about? The Working Group values your input. You can connect with a Working Group member or agency representative in your region directly – all names are listed on the back of this newsletter. You can attend the Working Group's annual meeting advertised on the website at: www.westernarcticcaribou.org. You can also participate through "social media" like the Selawik National Wildlife Refuge's and ADF&G **Facebook** pages. Please report wanton waste and other actions that disrespect our laws and values to the Alaska Wildlife Trooper hotline at 1-800-478-3377. Law enforcement is more effective if information is gathered right away including: the date, time, location, activity observed, aircraft tail numbers (if applicable), and photos or videos.

Developments in the Range of the WAH



As the State of Alaska explores ways to develop remote oil and mineral deposits, there is concern among many Working Group members about how roads and mines within caribou habitat and migration corridors could affect the health and abundance of caribou. There is also interest in knowing the benefits and costs of development on subsistence economies. In the Cooperative Management Plan, the Working Group has recommended that cumulative impact analysis be done on all new development actions to ensure that enough habitat is protected.

Toward this goal, wildlife biologists and other researchers have been trying to understand how the WAH responds to the Red Dog Mine Road (see Caribou Trails Newsletter for 2013) and which areas provide the best habitat in each of the four seasons. Some of the factors determining whether a caribou will be deterred from crossing a road or moving through a developed area include presence of traffic, hunting pressure, timing of migration, if a caribou has a calf or if they are trying to escape insects.

By analyzing this information, biologists can provide guidance on how Alaska's resources can be developed without harming caribou and other wildlife.

Road corridor considerations to the Ambler Mining District. One route through the National Park and another going around it.

Route considerations to the Nome road system.

1 Red Dog Mine-Teck Resources and NANA Regional Corp
Largest lead and zinc mine in the world. Exact size unknown
*Operating Mine

2 Baird Mountain-Tintina Resources
Zinc, lead, and copper 80,600 acres
*Prospect

3 Lik Mine-Zazu Metals and Teck Resources
Zinc, lead, and silver 5,500 acres
*Prospect

4 Upper Kobuk Mineral Project-Nova Copper and NANA Regional Corp
Copper, zinc, gold, silver 445,000 acres
*Prospect

5 Sun Mine-Andover Ventures
Zinc, copper, lead, silver, gold
45,920 acres
*Prospect

6 Nolan Creek-Silverado Gold Mines
Gold, antimony
Size unknown
*Prospect

7 Anugi Mine-NANA Regional Corp
Zinc, lead, silver
Size unknown
*Prospect

8 Kugruk Mine-Tintina Gold
Copper, iron, gold
177,280 acres
*Prospect

9 Council Gold Mine-Millrock Resources, Bering Straits and Council Native Corporations
Gold 73,000 acres
*Prospect

10 Silver Chalice-Next Gen Metals, Anglo Alaska Gold Corp.
Silver, gold 5,000 acres
*Prospect

Jim Dau

Quyanna - Taiku - Bassee' - Thank You

Roy Ashenfelter, former Chair of the Working Group, has left a legacy behind advocating for subsistence in northwest Alaska.

Roy is retiring after over a decade of service with the Working Group as a member, vice-chair, and chair. Roy has also moved on from many other public service positions to enjoy time with his family and live the subsistence lifestyle he has worked so hard to maintain.

Roy has dedicated considerable time to the subsistence and wildlife resources in the Norton Sound region, and is known for being actively engaged with the communities and agencies he serves. In addition to the Working Group, Roy was chair of the Northern Norton Sound Advisory Committee, a member of the Seward Peninsula Muskox Cooperators Group, and participates in the Circum-Arctic Rangifer Monitoring and Assessment group out of Canada. He also attends the North Pacific Management Council annual meetings.

Peter Bente, ADF&G Management Coordinator for the Western and Arctic Region and Agency Representative to the Working Group, says, "Roy had the extraordinary ability to retain 'common man' values, while guiding the actions of the group so that it became a strong, powerful voice of the caribou people when decisions affecting the herd were being made in meetings at far-away places."

Roy was an outstanding member of the Working Group. In early years he was active in supporting the group, encouraging dialogue between hunters and biologists, conveying (to agencies and managers) the value of the herd to local (rural) people. In leadership roles, he was very efficient in planning and conducting meetings, was willing to discuss sensitive issues, and worked very hard to make sure the Working Group commented on agency resource management plans affecting the herd. He invited industry representatives to meetings and facilitated respectful dialogue while also focusing on holding a firm line of conserving the herd. He valued guidance from elders and brought that emphasis to the Working Group at each meeting.

Tony Gorn, Nome Area Biologist for ADF&G, said "he always looked to Roy as a voice of reason on controversial issues. Roy always listened carefully and worked very hard to understand the biology behind management decisions. He respected Department staff and used biological data to propose solutions that support the resource."

Under Roy's leadership the Working Group's discussions were thoughtful, logical, and sought appropriate solutions for a wide variety of users, while always putting subsistence first. Roy understands that you can't protect subsistence if you don't first protect the resource. Roy's contributions to the Working Group will be missed, but his tenure will be appreciated for decades to come.

USFWS

Lee Anne Ayres, one of the most effective behind-the-scenes advocates for the Working Group, retired last October as manager of the Selawik National Wildlife Refuge. During her 30-year career in northwest Alaska, Lee Anne consistently worked to foster cooperation, build relationships, and ultimately earn trust. She understood that these human elements were critically important to achieving conservation goals. Lee Anne brought together agencies, local and tribal governments, university researchers, Iñupiaq elders, non-profit organizations, and others to work towards a promising future for the region's resources and residents.

Lee Anne was a strong supporter of the Working Group since its beginning in 1995. She worked tirelessly on the routine tasks of maintaining the Working Group. She devoted considerable time and effort to the 2011 revision of the group's Management Plan. Lee Anne and her staff helped to organize the Working Group's comments and edits, and brought it back to the group for review, ultimately contributing to the successful completion of the plan.

Lee Anne championed the importance of the Working Group to other agencies and organizations. She made sure the group was widely known and recognized. For all these contributions, the Working Group would like to deeply thank Lee Anne for her years of service and support and for her belief that management groups like ours can make a big difference for our resources and our communities.

Caribou Education: Sharing Knowledge

The Working Group strives to increase understanding and appreciation of the WAH through use of scientific information, traditional ecological knowledge of Alaska Native users, and knowledge of all others users, while recognizing that education is a relationship between state and federal agency staff and users. The group also strives to develop programs to share traditional ecological and scientific knowledge about the herd. ADF&G, BLM, NPS and USFWS staff spend time in communities and schools across the range of the herd to implement caribou lessons, activities, and teaching kits that include traditional and scientific information with a multicultural approach. The Working Group and agencies continue to support student and community involvement in field studies. Agency staff works hard to support the education goal of the Working Group by developing materials, updating the website, and using social media to connect with the public and makes a concerted effort to talk about regulations and changes in the caribou population with communities.

Working with Students

Classroom visits, field projects, culture camps, hunter education, summer programs and field trips are just a few ways that educators with the state and federal agencies within the range of the herd reach students and children. Youth learn about WAH migration patterns, population growth and change, harvesting and regulations, natural history, physiological adaptations of caribou and play fun games!

Teaching the Teachers

Teachers traveled to Kotzebue to learn about WAH caribou in winter 2014. Topics included migration, mapping, habitat, adaptations and hands-on interdisciplinary place-based lessons for taking home to their students. Teachers were able to take home curriculum and materials to help connect their students with the local caribou herd and Alaska's abundant natural resources.

Public Participation

Newsletters, community programs, meeting attendance, radio programs, community caribou presentations, flyers and posters are just a few of the ways the public is involved in learning about the status of WAH caribou.

Keep an eye on flyers and an ear to your local radio, managers are doing their best to visit villages and attend meetings within the range of WAH. Meetings will discuss the population decline, health of the herd, current trends, and regulations and receive input from communities and stakeholders on the future of this herd.

Educational Resources

Whether you are a formal educator or simply interested in caribou educational materials, there are a number of valuable resources available to you. Interactive curriculum materials are aligned to the Alaska State Standards and appeal to a variety of learning levels. Educators with the ADF&G, NPS, USFWS, and University of Alaska (UAA/UAF) have lots of ideas and materials to share. Educators may also be available to come and teach in your school, offer workshops in your community, or direct you to a variety of educational resources. Contact educators at the agencies listed on the back of this publication for more information.

Western Arctic Caribou Herd Working Group

Working for you and Caribou!

Contact your local representative or one of the agencies to share comments, concerns or become involved.

Voting Chairs	Representatives	Alternates
Anchorage Fish & Game Advisory Committee	Grant Klotz	George Jacoby
Buckland, Deering, Selawik	Ron Moto	Percy Ballott
Anaktuvuk Pass & Nuiqsut	Isaac Kaigelak	Esther Hugo
Elim, Golovin, White Mountain	Charles Saccheus	Morris Nakaruk
Fairbanks Hunters	Allen Barrette	Rod Arno
Hunting Guides	Phil Driver	Bob Hannon
Kivalina & Noatak	Raymond Hawley	Mike Adams
Kotzebue	Cyrus Harris (Vice-Chair)	Willie Goodwin
Koyukuk River (Huslia, Hughes, Alaskaket, Bettles, Weisman)	Pollock Simon Sr.	Jack Reakoff
Lower Kobuk River (Noorvik & Kiana)	Vern Cleveland Sr.(Chairman)	Robert Sampson Jr.
Middle Yukon River (Galena, Koyukuk, Nulato, Kaltag)	Benedict Jones	Micky Stickman
Point Hope & Point Lay	Ted Frankson	Steve Oomittuk
Nome	Vacant	Ralph Anungazuk
Conservationists	Wendy Loya	Darcie Warden
N. Seward Peninsula (Teller, Brevig, Wales, Shishmaref)	Elmer Seetot Jr.	Christine Komanaseak
Reindeer Herders Association	Tom Gray	Alfred Karmun
S. Seward Peninsula (Koyuk, Shaktoolik, Unalakleet, Stebbins, St. Michael, Kotlik)	Morris Nassuk	Leo Charles Sr.
Transporters	Jared Cummings	Judy Jespersen
Upper Kobuk River (Ambler, Shungnak, Kobuk)	Sally Custer	William Bernhardt
Atqasuk, Barrow & Wainwright	Enoch Oktollik	Oliver Peetok

The following agencies support the Working Group, but are not voting members:

Alaska Dept. of Fish & Game, Steve Machida,
1-907-267-2100 or 267-2421, steve.machida@alaska.gov

US Bureau of Land Management, Fairbanks, Shelly Jacobson,
1-800-437-7021 or 474-2200, s05jacobso@blm.gov

US National Park Service, Kotzebue, Frank Hays,
1-800-478-7252 or 442-3890, frank_hays@nps.gov

US Fish & Wildlife, Kotzebue, Tina Moran
1-800-492-8848 or 442-3799, tina_moran@fws.gov

Please bring questions regarding the Working Group to:
Vern Cleveland, Chair, 907-636-2261, vern_cleveland75@hotmail.com
Cyrus Harris, Vice-Chair, 907-442-7914, charris@maniilaq.org
Peter Bente, ADF&G, Agency Rep. 907-443-2271, peter.bente@alaska.gov

Please send questions regarding Caribou Trails to:
Meghan Nedwick, ADF&G, 442-3420, meghan.nedwick@alaska.gov

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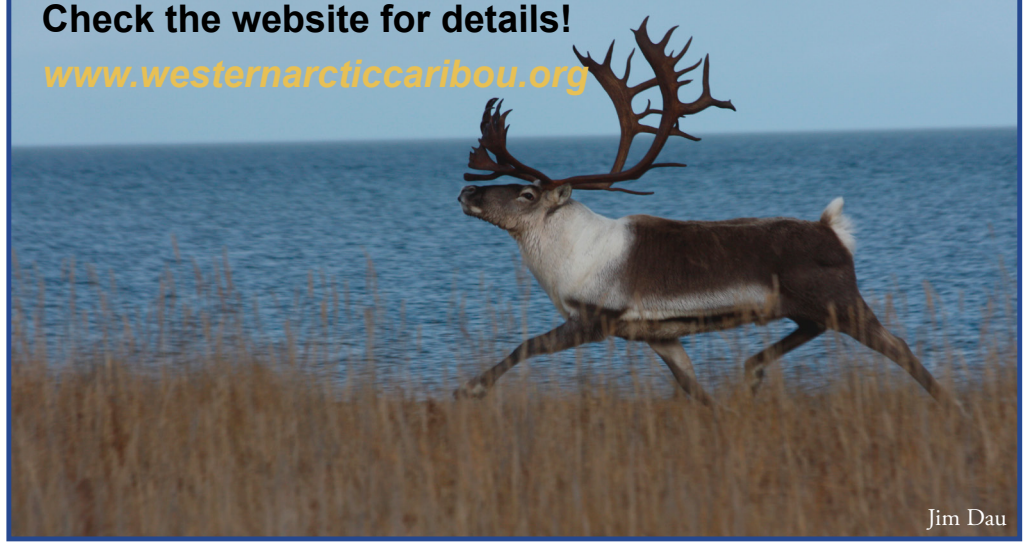
- To Report Violations call:
- 1-800-478-3377

Run on Down to the Next Caribou Meeting:

December 17 & 18, 2014
Anchorage, Alaska
Check the website for details!
www.westernarcticcaribou.org