



# BEAR NEWS

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## *A note from the Executive Director, Shannon Donahue*

As 2016 comes to a close and denning bears settle into their winter sleep, it seems an appropriate time to reflect. Here in Haines, a heavy snow is falling, cloaking the mountains and laying an insulating layer over the dens of black and brown bears fat from a season of blueberries and salmon. Meanwhile, on Hudson Bay, polar bears should be roaming freshly formed sea ice, but a glance at the latest ice imagery from the Canadian Ice Service (CIS) reveals that the bay is still stubbornly refusing to freeze. Twenty-five years ago, Hudson Bay would have normally been freezing over by the first week of November, according to CIS data. At the time of writing, in early December, ice is almost nonexistent in Hudson Bay, and the extended weather forecast for the Churchill area is relatively warm. If you're interested in keeping tabs on sea ice formation, and learning about recent sea ice trends, the Canadian Ice Service and the National Snow and Ice Data Center offer excellent maps, tools, and graphics that thoroughly analyze and interpret current and historic ice data, with seasonal outlooks and summaries (websites at the end of this article). A person could spend hours nerding out on sea ice data there.

GBF's board president, Frank Tyro, outreach & education coordinator, Elissa Chott, and I have recently returned from our fall field courses in Churchill. We saw above-freezing temperatures there, and even rain. Having only spent time in Churchill in the fall, I'd never seen the tundra there without snow cover, and I gained a new perspective on what the landscape looks like in the ice-free months. Where we normally take care not to get our vehicle stuck ("temporarily detained," as Frank says...) in snowdrifts, this year we were more concerned with soft ground and mud puddles. Frank was photographing bears with muddy paws. We didn't have to clear away snow on the tundra, caribou-style, to pick lingonberries and crowberries—they were right there at the surface, and some of the tundra plants were still green.

While we must be careful not to get alarmed about weather anomalies, long-term trends are showing later freeze-up and earlier break-up dates, warmer ocean surface temperatures, decreased ice thickness, and loss of multiyear ice (ice that remains frozen for five or more years). The 2016 arctic sea ice maximum extent, reached on March 24<sup>th</sup>, was the lowest maximum in the satellite record. The minimum extent, reached on September 10<sup>th</sup>, was the second lowest. According to the National Snow and Ice Data Center, the ten lowest minimum ice extents have occurred in the last 10 years, and minimum extent has been declining at rate of 13.4% per decade over the satellite record. This year's minimum was followed by a record low October extents and slower



Photo by Dr. Frank Tyro

than normal ice growth. Recent data shows abnormally warm air and surface temperatures over the last two months across the northern hemisphere.

And so, we bear witness to a changing North. At times, over the last ten years, I've wondered about having developed a personal connection to polar bears, and whether it might have been easier to allow them to exist as an abstract concept outside of my realm of tangible reality. Before traveling to Churchill for the first time, I didn't stay awake at night worrying about the sea ice. My concern about climate change was abstract and intellectual. It was a concern, but it was not a reality, even though I could see evidence of change all around me—the evidence closer to home was more subtle, and less immediately threatening. Despite a lifelong interest in the Arctic, it remained an abstract concept.

The irony, and the ecological cost, of traveling across the continent each year to see polar bears is not lost on me, and of course it troubles me. I don't pretend that the benefits of these trip—benefits that are more qualitative than quantitative—negate the carbon cost. But, when I consider the outcome of these trips, I have to think that they are worthwhile and important. Observing polar bears in their natural habitat is its own reward, and after ten years I can look back and see changes in my own understanding and appreciation of polar bears and their ecology and behavior. I can also see how that understanding has shaped my own life and choices, and has certainly inspired a lifestyle where I do my best to minimize my own impact, and a career path aimed at finding ways for bears and people to share the landscape, and the earth. My life and my days have been shaped by my personal connection to the polar bears and their world.

The real reward for me, though, is to

witness transformation in the people who travel to Churchill with us. People travel with us for different reasons and each with a different lens. Some people are there for the photographs, some just like to travel to new places, some have an interest in conservation, and some have a specific affinity for polar bears. Each person experiences the trip in a unique way, but for most of our travelers, there is some visible transformation. In some people, that transformation is deep and emotional, sometimes even spiritual, and it seems to result in a shift in the way they experience the world. I am one of those people, and I am moved and honored to witness similar transformations in other people over the course of five days in the presence of polar bears.

I always hope that our field course participants return home as ambassadors for polar bears and the Arctic, and make lifestyle changes to minimize their overall impact so that the carbon cost of travel is actually worth it in the long run. I know this will not always be the case. But I do believe the rewards of connecting to the natural world include a sense of stewardship, and when I witness people developing a personal connection to the polar bear, I see their perceptions of the world expanding to include the polar bear and the Arctic as real, immediate characters where cloudy abstractions existed before.

For that reason, a bear with muddy paws in November is perhaps the most significant image I've seen in 2016.

Keep tabs on what's happening with the sea ice at the National Snow and Ice Data Center: <http://nsidc.org/arcticseaicenews/> and Canadian Ice Service: <http://www.ec.gc.ca/glaces-ice/>.

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Shannon Donahue demonstrates an old polar bear research trap built by Chuck Jonkel on this year's Sharing Habitat with Polar Bears field course. Photo by Dawn North.



## 2016 Recap, Outlook for 2017

2016 kept us on our toes at the Great Bear Foundation, a year of growth and change. Most significantly, we lost two of our co-founders within the space of two weeks. Co-founder, Scientific Advisor, and President Emeritus of the Great Bear Foundation, Charles Jonkel passed away on April 12, leaving behind a legacy of international conservation achievements, groundbreaking bear biology, and countless lives touched, hearts warmed, and careers inspired. Two years ago, GBF staff cataloged and organized Jonkel's body of work to be archived at the University of Montana, to ensure future public access. Just days after Chuck's passing, co-founder, artist, and conservationist, Frank Ponikvar died of a heart attack, leaving a big hole in the art and conservation worlds. Our summer issue of Bear News paid tribute to these founders.

In happier news, the Great Bear Foundation northern office moved to the Southeast Alaska State Fair Grounds. We now have our own space in the former Malt House in "Dalton City", the original set for the 1991 movie *White Fang*. Dalton City is a quaint tourist attraction in Haines, and our new space offers a place where visitors and locals can drop in to learn about bears, get bear safety tips, check out our educational materials including black and brown bear hides, borrow bear-resistant food storage containers for camping trips, and buy merchandise to support our bear conservation and education projects. Our inventory includes Seat Belt bear spray holsters designed for runners and outdoor enthusiasts, quality books on bears for adults and children, post cards, grizzly paw magnets, and of course, *White Fang* DVDs. Next spring, we plan to launch a line of t-shirts and sweatshirts to support bear conservation. Our new

location at the fairgrounds offers a space for workshops and programs, as well as a higher profile during the summer tourist season and events like the Great Alaska Craft Beer and Homebrew Festival and the Southeast Alaska State Fair.

We expanded our Churchill, Manitoba polar bear ecology field courses this year with a new course offering, Sharing Habitat with Polar Bears, and with options to earn 3 undergraduate or graduate credits in Environmental Studies through the University of Montana School of Extended Credit and Lifelong Learning. By offering two fall sessions this year instead of one, we were able to keep our group sizes small for a more intimate experience. We also ran a summer field course in Churchill, timed to observe beluga whales with calves feeding on capelin in the Churchill River. In 2017, we will again offer three field course options, Belugas, Berries & Bears in August, and Intro to Polar Bear Ecology and Sharing Habitat with Polar Bears in November. University of Montana credit will be available for the fall courses, while Continuing Education Units (CEUs) from Salish Kootenai College are available for all three trips.

Our Bears & Apples project expanded to a new level this year as Outreach & Education coordinator, Elissa Chott began synthesizing data from Montana Fish, Wildlife and Parks on bear encounters, and mapping those incidents against fruit tree occurrence in the Missoula Area. We hope this will both help us to prioritize areas to focus our fruit gleanings and bear awareness education efforts, and offer insights for bear management. You can read more about this project in Elissa's article in this issue. You can also read about our exciting new partnership with Western Cider, making good use of the

apples we pick.

After a few years' hiatus, we revived our spring Bear Honoring events. This weekend of events offers educational programming, walks in bear habitat, and a celebration of the important cultural and ecological roles of the bear. Highlights this year included a Karelian bear dog demonstration by Wind River Bear Institute, and an invocation by poet and Salish Chief, Vic Charlo, who opened Bear Honoring by reading his poem, *First Polar Bear*, dedicated to Chuck Jonkel, and singing Walking Bear's Song, a Salish song passed down to him. Stay tuned for dates for Bear Honoring 2017.

After an eventful 2016, we have big plans for 2017. We are working to expand our Chilkoot River Brown Bear Project, monitoring brown bears' foraging success on the Chilkoot River in relation to human impacts and salmon abundance. Our goal is to raise funds to hire a dedicated field technician to increase our monitoring efforts and manage data. If we can raise sufficient funding, we hope to expand the project to include the spring eulachon run, to get a better idea of how bears make use of that early season food source, and if subsistence fishing activities coincide with brown bear activity. We are also exploring the idea of launching a social science research aspect to learn more about how people use the Chilkoot River, their attitudes towards bears, understanding of bear behavior, and their motivations. The goal of all these projects is to address challenging management questions on the Chilkoot River and other salmon streams that support multiple activities like sportfishing and bear-viewing. As the State of Alaska begins work building bear-viewing infrastructure on the Chilkoot River Corridor, 2017 will be a crucial year to monitor the bears' habitat use, foraging

success, and impacts from humans.

We're also raising funds to increase our staff time on the Bears & Apples project, both during apple season with fruit gleanings, and in the off-season continuing our mapping project. Additional staff time will help us to manage bear attractants and prevent human-bear conflict before it starts throughout the year.

Finally, we plan on further developing our new office at Dalton City into a bear resource center. We're looking forward to developing educational displays this spring, enhancing our lending library, and expanding our bear-resistant food storage container loaner program. Stop by and visit us this summer if you are in Haines.

All of these projects are funded with your support. We successfully secure grant funding each year to help with project costs, and have been graciously funded in recent years by Patagonia Environmental Grants, Yellowstone to Yukon Conservation Initiative, the Alaska Chilkoot Bear Foundation, and the Charlotte Martin Foundation. But the bulk of our financial support comes from membership donations and income from our polar bear ecology field courses in Churchill. This kind of funding is crucial to our success, and it pays for aspects of our programs that grants can't fund. We appreciate your support, and we ask you to remember us as the year draws to a close. You can help us to achieve our goals for 2017, benefiting bears, their habitats, and the people who care about bears, with a year-end gift to the Great Bear Foundation. Or, travel with us to Churchill, Manitoba next year, and experience polar bears in their natural habitat while also supporting our bear conservation projects.

Thank you for your continued support.

## GBF Partners with University of Montana on Field Courses

The Great Bear Foundation is pleased to announce a new partnership with the University of Montana School of Extended Credit and Lifelong Learning. Starting in fall of 2016, students can now earn three undergraduate or graduate credits in Environmental Studies from the University of Montana by successfully completing one of our fall polar bear ecology field courses and assigned work.

GBF offers two accredited field courses through the program, Introduction to Polar Bear Ecology, and, new in 2016, Sharing Habitat with Polar Bears. Both courses focus on experiential learning through field observations over the course of five days on Western Hudson Bay coast, complemented by evening lectures and guest speakers exploring topics like introductory polar bear ecology, the management challenges of coexisting with polar bears, impacts of tourism on bears and their habitat, and local and First Nations culture. Field Courses include round trip train travel between Winnipeg and Churchill, accommodations and meals in Churchill, and tuition.

While Intro to Polar Bear Ecology is not a necessary prerequisite for Sharing

Habitat with Polar Bears, it's a good jumping off point for experiencing the polar bear in its natural habitat, offering a broad overview of the life cycle and habitat requirements of the polar bear, its interactions with the land and seascape, and related conservation issues, as well as instruction on photography. This field course is suitable for all ages, but to receive credit, students must meet the admission requirements of the University of Montana School of Extended Credit and Lifelong Learning.

Sharing Habitat with Polar Bears looks specifically at how humans and polar bears coexist today, historically, and how that may change in the future. Like Intro to Polar Bear Ecology, we spend daylight hours in the field observing wildlife and exploring the landscape, but the difference is that we examine our experiences in the context of relationships between humans and bears. Evening lectures look specifically at the challenges and solutions to sharing habitat, and the Earth, with polar bears.

To earn credit for the field courses, students must complete assigned readings in advance of the trip and participate fully in activities and lectures while in Churchill. Undergraduate students must

complete a paper on a topic related to the course, while graduate students must complete a paper and an outside project such as a public presentation or an article or photo essay submitted to a publication. All coursework is due at the end of the University of Montana's fall semester in December.

In addition to polar bear ecology, conservation issues, and cultural history, field course participants learn strategies for observing and photographing wildlife while minimizing their impacts on the animals and their habitat. Students learn to read animal behavior for signs of stress, factors to consider such as interactions with other animals and elements of the environment, ensuring that the animal has adequate exit routes, and ways to minimize stress to the animal while maximizing the quality of wildlife-viewing opportunity. Students learn strategies that are relevant not only to polar bears and arctic wildlife, but that they can take elsewhere for positive wildlife-viewing experiences with minimal impact.

We time our fall field courses to coincide with the seasonal migration of polar bears to Cape Churchill, the point where Hudson Bay's first ice forms each fall, when fresh water ice flows down to

the bay from the Churchill River. This ice will form a shelf along the shore of Cape Churchill, from which the sea ice will extend. Bears congregate in this area in October and November waiting for the ice to form, so they can return to seal-rich areas of Hudson Bay.

Although we arrived in Churchill to unseasonably warm weather—above freezing at times, and even a bit of rain—and no signs of ice, the bears were roaming the tundra and taiga (northern extent of the boreal forest) just the same. Where most years we find crusty snow-covered tundra, icy ponds, and shelves of ice forming on the beach, this year we found soft ground, mud puddles, and some green vegetation still hanging on. Most of the bears we saw were in relatively good shape, considering that they'd been on land for four months or so with limited access to food, but at the time of writing, it appears that it could still be weeks before the bears can return to the ice.

In our November 2016 Sharing Habitat course, Churchill District Supervisor for Manitoba Conservation, Brett Wlock spoke to our group about polar bear management strategies in

*Continued on pg. 7*

## Citizen Science on Hudson Bay

By Elissa Chott

A lifelong love of animals and conservation spurred my interest in working for the Great Bear Foundation and pursuing a master's degree in Environmental Studies at the University of Montana. Traveling with Great Bear to Churchill, Manitoba as a child piqued my desire to learn more about this unique and threatened area. Mitigating and reducing the impacts of climate change is vital if we are to conserve species that have evolved to survive in areas dependent on ice packs and permafrost.

With a degree focus on polar bears and climate change, I am concerned most with polar bears' terrestrial behavior patterns and any adaptations they are learning due to reduced time on the ice packs where they hunt during winter and spring months. Using participants from our arctic ecology field courses in Churchill, MB from both summer and fall sessions, I am conducting a citizen science research project as a portion of my thesis to help in recording data and gauge perceptions of issues concerning climate change.

Citizen science provides opportunities for people interested in science and research to become involved in helping to gather data for research projects, regardless of if they have a background in science. This participation spurs a deeper connection to conservation efforts and provides field experiences. With my citizen science research, I am interested in perceptions of bear behavior and body condition of polar bears from our course participants. Using a 1-5 scale for body conditions, participants are asked to gauge the health of a bear, log behaviors such as foraging and interactions with people or other bears, and identify the ecosystem in which the bear is observed.

## Ancient Like the Glaciers

By Elissa Chott

*The summer issue of Bear News paid tribute to GBF's co-founder and President Emeritus, Charles Jonkel. In this issue, Elissa Chott reflects on her family's history with Jonkel, and how Elissa came to the Great Bear Foundation.*

I first met Chuck when I was about five. As a five year old, my perception was skewed, but Chuck always seemed ancient even as I got older. Not ancient as in old and frail, but ancient like the mountains, the seas, the glaciers.

Traveling to Churchill, Manitoba on the Great Bear Foundation's first kids' trip with my family in the summer of 1995, Chuck showed us secrets of the Arctic. We jumped on the edges of pingos, the springy tundra acting as nature's trampoline. Beluga whales spotted the bay with brilliant white. Chuck grumbled that we would look just like seals to a bear as we bobbed around in the river wearing wetsuits. The next year, my parents pulled my two sisters and me out of school to be part of the foundation's fall field course to Churchill, during peak polar bear season. It was an entirely different world: more bears, sideways snow, and our leader with his open jacket flapping in the wind acting like it was a mild 65°F instead of -10°.



Above: Chuck influenced the lives of many people. This contact sheet is from a photo shoot by arctic photographer, Fred Bruemmer, who worked for Chuck as a field tech in order to shoot the Arctic. It shows the part of the process of capturing and immobilizing a polar bear in the early research days. Photos used by permission.

Combining these observations with scientific research concerning adaptations of polar bears of Western Hudson Bay, I hope to have a more in depth and rounded view of what populations of polar bears are learning to adapt to land based food sources and the body conditions that can be expected with decreased access to their historic food sources.



Photo by Jeremy Patnick

My time with Chuck began to come full circle when I moved to Montana in the summer of 2011 to take the position of office manager and outreach coordinator of the Great Bear Foundation for the season. From botany to biology, geology to geography, politics to economics, Chuck's knowledge and foresight seemed endless. I was hooked. I came back the next summer, not only because I missed the mountains and working in bear conservation, but to soak up the vast amounts of knowledge Chuck had yet to share.

Some of my favorite memories come from sitting around the fire at night at Pine Butte and listening to him talk of growing up during the Great Depression. His stories always had humor, new knowledge, and valuable life lessons that I took to heart. He could connect with anyone, often using bears as the initial avenue.

He had this uncanny ability to know exactly where we were, even if he was asleep. While traveling, he could wake up pointing, and offer some bit of wisdom about the landscape we were driving through or how far under the ice we would have been 400,000 years ago.

Chuck's hearing progressively got worse the nearer to an international border

we traveled. At customs I would stop, wait for the green light, drive to the window and then relay questions from the official to Chuck in an absurdly loud voice for inside such a small cab. Chuck would lean towards me, one hand behind his ear, and a constant "huh" "what" or "louder" in response to everything I was attempting to clarify for him. The border official would quickly tire of me as a translator, stop asking questions, return our passports, and wave us through. Some of my fastest trips through customs were with a sage man hard of hearing, pretending to be nearly deaf.

He had no idea what met its end under his truck's tires after hearing a resounding double thunk one night on the East Front until I horrifyingly answered "a bunny" and he said, "oh, must've been a jack rabbit." It was. He was driving. Yet, while napping several months later he woke up as the pheasant I creamed on the outskirts of Arlee made an enormous thunk and ricocheted into the ditch with a "what was that, a pheasant?" I nodded a confirmation with one hand over my mouth, because really that thing came out of nowhere, and Chuck was just asleep so it made me wonder if he had the exact sound of a car hitting a pheasant committed to memory

or if his ability to know what was going on even while unconscious carried over to road kill. Chuck grumbled, "c'est la vie; ruined my little nap," and snuggled back into his seat to continue his afternoon bear snooze. It was a shame we couldn't take the pheasant across the border, because it happened to be Thanksgiving Monday, and a pheasant would have been a great addition to the wonderful meal and hospitality we enjoyed at the Hawk's Nest in Waterton, Alberta. Under any circumstances keeping us on the south side of the border, we'd have made a u-ey, picked up the pheasant, and he'd have eaten it for dinner. He always said I was unnatural for not eating meat.

Chuck, along with unconditional support from my family, inspired me to delve into the vast mysteries of the world and pursue a master's degree in Environmental Studies at the University of Montana. I get to walk the same sidewalks he did as both a student and professor.

Chuck, thank you for the wisdom, inspiration, and knowledge you bestowed upon me. I will forever be grateful to you for showing me the world through a bear's eyes. When autumn comes, may you find the most glorious ice pan to carry you out on the bay. I'll see you on the tundra.

## Research Roundup: What's Going on in Bear Biology

By Matt Gould and Jeff Stetz

Biologists Matt Gould and Jeff Stetz give us a glimpse into some of the interesting research taking place in bear biology.

Rachel E. Wheat, Jennifer M. Allen, Sophie D. L. Miller, Christopher C. Wilmers, Taal Levi. **Environmental DNA from Residual Saliva for Efficient Noninvasive Genetic Monitoring of Brown Bears (*Ursus arctos*)**. PLoS ONE 11(11): e0165259. doi:10.1371/journal.pone.0165259

Monitoring changes in bear populations has benefited greatly by the development of genetic methods to identify species, individuals, and to assess connectivity across large areas. For species that tend to inhabit remote areas and are often difficult to observe, the ability to collect a hair or scat sample left behind by a bear, and then determine who that bear was, has revolutionized both ecological and management-based research. A paper by Rachel Wheat and others has added a tool to the genetics toolbox by demonstrating that enough DNA can be pulled from partially-consumed salmon carcasses to know which bear was there and (within reason) when. Using techniques to extract extremely small amounts of DNA, referred to as environmental DNA, or eDNA, the authors were even able to determine the best spots to collect a sample, which include the salmon's braincase and margins of torn skin. Working right in the GBF's backyard, they collected bear scat and saliva swabs in the Chilkoot Valley during the summer of 2014. They found that collecting saliva from salmon carcasses was more efficient and reliable than scat samples, noting that it may even be possible to simultaneously monitor multiple species, including brown and black bears and wolves. Particularly when used alongside other collection methods, this is an exciting advancement that could contribute to more reliable information to help improve bear conservation.

L., 1758. Elena C. Gonzalez, Juan C. Blanco, Fernando Ballesteros, Lourdes Alcaraz, Guillermo Palomero, and Ignacio Doadrio. **Genetic and demographic recovery of an isolated population of brown bear *Ursus arctos***. PeerJ 4:e1928; DOI 10.7717/peerj.1928

One of just four small, isolated populations of brown bears in western Europe, habitat loss and conflicts with humans pushed bears in the Cantabrian Mountains of northwestern Spain to near extinction by the early 1990s, with <100 bears total. Further, human-caused mortality and development led to the population splitting in two during the early 20<sup>th</sup> century. Reductions to mortality in recent decades appear to have helped bear numbers grow, particularly in the western subpopulation. While this is good news, it is difficult for such small populations to recover without the introduction of additional animals from other populations as has been done in the Pyrenees region between France and Spain, and the Cabinet and Yaak Mountains of Montana. Nonetheless, this population, which has been isolated for roughly 500 years, may be on the road to

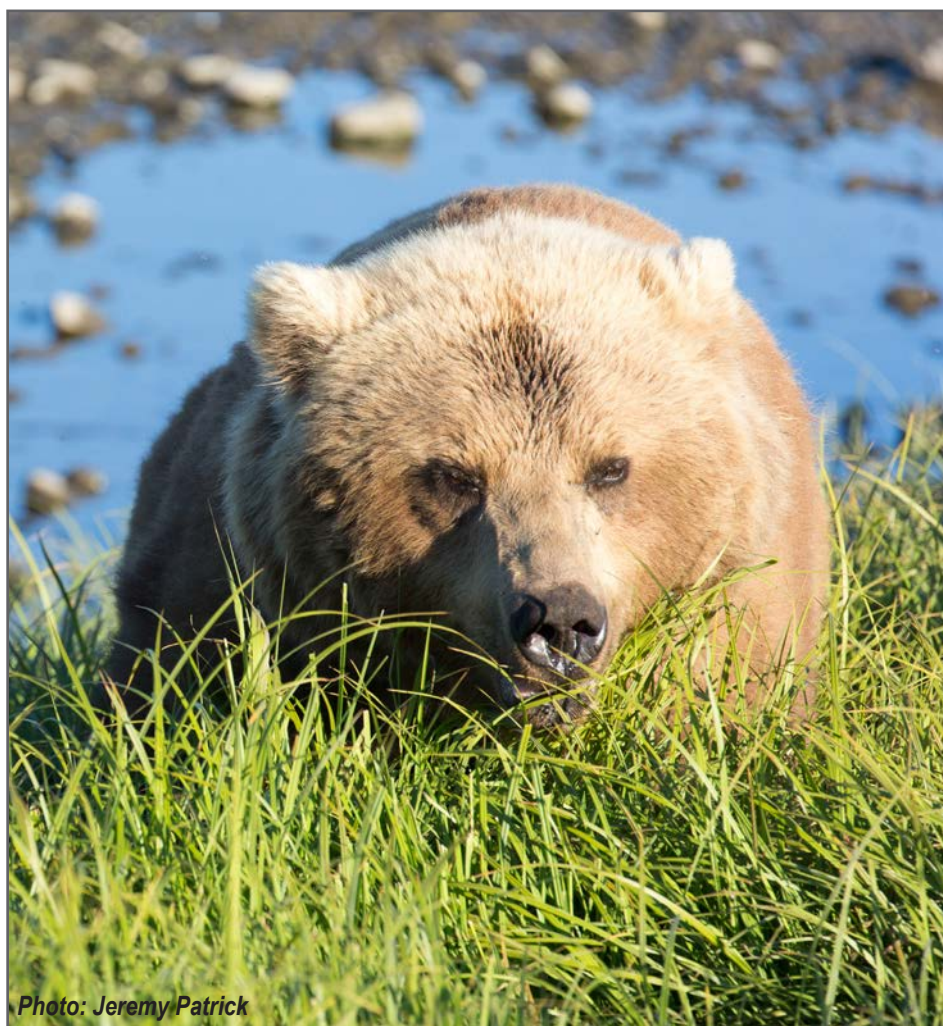


Photo: Jeremy Patrick

natural recovery. Ongoing research using genetic analyses of hair and scat samples has documented increased movement, and interbreeding, of bears between the two subpopulations. Further, observation data has found that the number of female bears with cubs continues to increase from a total of just 10 in 1993-1994, to 64 in 2013-2014. Although this is an encouraging indication of recovery, small populations like this will likely benefit more from active management efforts than from research.

Jones, RW, Lopez-Gonzalez, C. Varas, C., Gaona-Escamilla, L. 2016. **Black bears feed on harvestmen (Opiliones) in northwestern Mexico**. Journal of Arachnology 44:83-84.

Harvestmen (Opiliones) are an order of arachnids commonly referred to as "daddy longlegs." In Sonora Mexico, researchers collected 2 scats (out of  $n = 180$ ) from 2 separate individuals containing the fragments of 62 and 123 bodies of genus *Leiobunum*, respectively. Yet, because the benefit of searching for individual harvestmen is likely outweighed by the cost to do so, the two scats suggest that the two individual bears preyed upon two separate aggregations of the species. The researchers note that the defense compounds produced by the Opiliones are probably of little impact given the variety of animals bears eat that contain chemical defenses. In addition, they also note that if preying upon aggregations of Opiliones is a behavior that is perpetuated in the local bear population, then it would likely serve as an evolutionary pressure selecting for non-aggregation of the Opiliones. Consequently, more research is needed to determine the periods and locations of these aggregations and the frequency of predation upon Opiliones by black bears.

Piedallu, B. Quenette, PY, Mounet, C., Lescureux, N., Borelli-Massinés, M., Dubarry, E., Camarra, JJ, Gimenez, O. 2016. **Spatial variation in public attitudes towards brown bears in the French Pyrenees**. Biological Conservation 197:90-97.

The reintroduction of large carnivores inherently contains strife and unbridled emotion. As a result, human dimensions plays an essential role in the successful reintroduction and subsequent conservation and management of large carnivores. The attitudes towards wildlife populations are influenced by gender, age, scientific knowledge of the species' ecology, participation in wildlife activities, and involvement in farming or ranching. While much is known about spatial variation in public attitudes at a coarse scale little is known about spatial variation in attitudes at a fine scale. Therefore, researchers investigated how attitudes a small scale varied towards Pyrenees brown bears on the southwestern France and northeastern Spain border. Once down to 5 individuals, this population was demographically saved through augmentation in the late 1990s. Researchers mailed questionnaires to residents of 6 Pyrenean counties and 36 municipalities asking questions related to their views on brown bears in the area. These counties always, never, or just recently had bears residing within their boundaries. Question were related to the respondents' opinions on brown bears, past propositions related to brown bear management, and their knowledge of brown bear ecology. While public attitude was often explained by age, knowledge of the species, and whether the respondent lived in the Pyrenean county or not, the strongest explanation was the county of residence the respondent lived in. Those that showed a neutral attitude had no bears or never more than a few

during reintroductions. In addition, these counties also contained wolves, which are viewed as a larger threat to livestock than bears. Counties with a positive opinion of the brown bears contained the last few bears when the population was nearly extinct. This contrasts counties with a negative attitude who experienced high sheep depredation due to bears after they were augmented into the population. By investigating the spatial heterogeneity of public attitude towards Pyrenees brown bears, researchers are better able to understand where negative and positive attitudes exist on the landscape. Doing so may help guide where reintroductions should take place, where mitigation effort should be focused, and how educational messages and tools should be tailored to the population.

Liston, GE, Perham, CJ, Shideler, RT, Chevront, AN. 2016. **Modeling snowdrift habitat for polar bear dens**. Ecological Modeling 320: 114-134.

Despite their ability to live in the harsh and unforgiving Arctic, polar bears (*Ursus maritimus*) den each winter to counter the low availability of food resources. On Alaska's Beaufort Sea coast, many females choose to den by excavating accumulated snow on old, and thick drifting and land-fast sea ice, barrier islands, and on land in snow drifts. Yet, with warming temperatures due to climate change causing relatively thin and unstable sea ice, denning on land and barrier islands by female polar bears has increased. This trend has caused the potential for human-bear interactions to increase. To help reduce potential conflicts, researchers developed a model that incorporated snow physics, weather data, and digital elevation models to produce predictions of the timing, distribution, and growth of snowdrifts suitable for dens. From the  $n = 31$  den locations visited during the 1995-2012 winters, the model produced snowdrift conditions similar to 29 of the polar bear den locations. By doing so, researchers can now predict the current year's polar bear dens are on the landscape in order to reduce disturbance to the dens caused by winter recreational and industrial activities.



Photo: Jeremy Patrick

## Experiencing Change in Churchill: Reflections of a Polar Bear Season Volunteer

By Yasmin Bohak

I came to Churchill almost a complete novice to eco-tourism and polar bear conservation. Knowing only what I have read in a book about general bear history and a little about climate change and its link to polar bears, my experience in Churchill was a true eye-opener.

My name is Yasmin Bohak, I live in Israel, and for the last six weeks I have been volunteering at the Churchill Northern Studies Centre. I am currently taking a gap year in order to travel the world, and have decided to come to Churchill in order to see polar bears and learn more about global warming and its impact on the northern climate.

While volunteering at the research centre in Churchill, I had the good fortune to be able to join different groups touring the tundra around Churchill and to listen to different lectures given by esteemed lecturers.

It wasn't long before I started questioning whether eco-tourism and the proximity of the town to prime polar bear habitat weren't in fact harmful for the bears. Me being a tourist in Churchill myself, I felt an urgent need to answer the question: am I harming the bears I love by coming from the other side of the world to see them? As no immediate answer presented itself, I decided to keep my eyes and ears wide open, and keep an open mind so as not to make snap judgments.

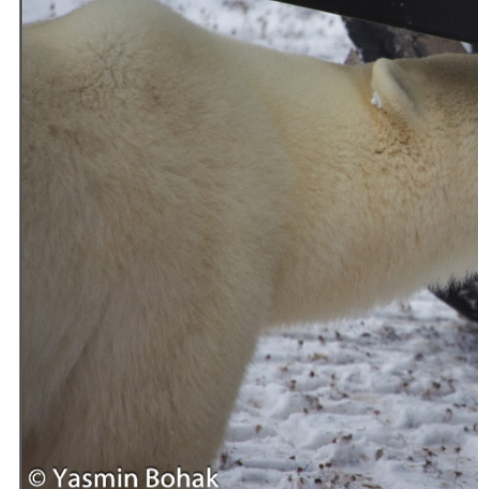
The first question I had to deal with was: which behaviours are harmful to the bears and which aren't?

Different groups touring the area did so in various ways, and followed different ethical codes: some groups went out of their vehicles while in the vicinity of bears, while others saw this as dangerous behaviour for bears and humans alike; some groups drove their vehicles as close as they could get to the bears while others kept their distance; some groups kept silent when they spotted a bear and others deemed this unnecessary. Tundra Buggies, Great White Bear buggies and other formal tours were restricted to driving in designated places only, but when I asked whether these restrictions included private vehicles I was told that they do not.

If we take a look at the past, it is clear to see that Churchill has come a long way. In the past bear baiting was common, feeding the bears was permitted and the outdoor dump encouraged bears to come close to town to scavenge for food. The tourist industry of Churchill at the time came to depend on these methods and as no formal restrictions existed they were widely used. These actions increased the potential for human-bear conflict as they encouraged bears to come closer to areas inhabited by humans. Another problem that arose was habituation of bears to humans: bears got used to humans feeding them and so started begging for food from the different vehicles. Since then new laws were instated prohibiting the feeding and baiting of bears in Churchill and a fine was introduced. In 2004 the dump was replaced by an indoors facility. The polar bear jail (formally called the polar bear holding facility) was introduced in 1982 helping to reduce cases which endangered bears and humans. The number of tundra vehicles were restricted.

Touring Churchill for the past six weeks, it was clear to see that tourism as well as the town itself, aren't as harmful to bears as they used to be, but is that enough?

In my opinion- it is still early days, and as such, determining whether the way things are currently done is harmful or not is not yet possible. With extensive research of the tourism in the area and suitable inspection I believe that with time we will find ways to make Churchill even less harmful to bears than it is today.



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Should we keep away from the bears? Would it be better for the bears if we did? Honestly I believe it would be better for the bears if we did. So why did I fly to the other side of the world to see polar bears? Because I believe that eco-tourism in the longer run has an important role to play in the conservation of bears, a hidden benefit it has that can be a game changer.

One of my strongest childhood memories is from a school trip to a zoo when I was seven or eight years old. During that trip I saw a lot of animals and amongst them a light brown furry bear. I remember admiring the bear while the guide explained that this is a Syrian bear and that even though it used to live here in the wild it was now extinct in Israel because of human actions. Seeing that bear is one of the things that got me interested in bear conservation.

In my six weeks staying in Churchill I met many people who sincerely care about polar bears and that made me hopeful for the future. I strongly believe that when people start caring they can make a difference. I am going to start change today; I am currently composing a list of things that I can do to further minimise my impact on the environment in my day-to-day life and thinking of different ways in which I can share my experiences with others.

Now the only question remaining is: What will you do?

Today one of the biggest challenges polar bears are facing is loss of sea ice (their habitat, hunting ground and in some cases denning area). Throughout the history of our planet the amount of sea ice greatly varied but the rapid loss of sea ice in the last few decades strongly suggests that global warming caused by human activity is to blame.

There is a big difference between knowing something is true in theory and actually acting upon that knowledge. Seeing the polar bears in Churchill has changed something in the way I feel about global warming: from an issue to discuss with opinionated friends looking for exiting topics to explore, it has now turned into a reality of everyday life. A reality that is already happening. Seeing the polar

feeding the bears was permitted and the outdoor dump encouraged bears to come close to town to scavenge for food. The tourist industry of Churchill at the time came to depend on these methods and as no formal restrictions existed they were widely used. These actions increased the potential for human-bear conflict as they encouraged bears to come closer to areas inhabited by humans. Another problem that arose was habituation of bears to humans: bears got used to humans feeding them and so started begging for food from the different vehicles. Since then new laws were instated prohibiting the feeding and baiting of bears in Churchill and a fine was introduced. In 2004 the dump was replaced by an indoors facility. The polar bear jail (formally called the polar bear holding facility) was introduced in 1982 helping to reduce cases which endangered bears and humans. The number of tundra vehicles were restricted.

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## When Something Seems “Off” in Wildlife Media, It Probably Is

Recently a video appeared on the internet featuring a large and apparently well-fed polar bear appearing to “pet” a dog the way a human would. The dog is on a short chain and gets up to try to move away from the bear, but can’t move beyond the end of the chain. The video struck a chord with a number of people who were looking for something cute and lighthearted amid a flood of negative news stories and ugly political tensions, and it soon went viral. People with limited understanding of animal behavior are not armed with the knowledge and experience to see that this situation is potentially harmful to the bear, the dog, and humans alike. The CBC and other news outlets and internet click-bait sites picked it up, offering some back story, but not enough to really explain the context of the video. Soon, however, more of the story started to emerge—the part where, around the same time, a polar bear killed and ate a sled dog in the same yard.

The phenomenon of polar bears interacting with dogs around Churchill, Manitoba, where these events occurred, is not new. *National Geographic* published Norbert Rosing’s photographs of a polar bear interacting in what appears to be a playful manner with Brian Ladoon’s chained dogs in 1994. Ladoon raises Canadian Eskimo Dogs at what he calls the “Mile 5 Dog Sanctuary” on Crown land that he leases outside of Churchill, though the use of the term “sanctuary” in this case can seriously be questioned. Visitors to Churchill pay to tour the dog yard and photograph polar bears interacting with the dogs. Images and videos of polar bears “playing” with Ladoon’s dogs flood the internet and frequently appear in stories of “unlikely animal friendships” along with similarly problematic images of a captive chimpanzee bottle-feeding a baby tiger in Thailand. Of course, there is always more to the story.

In 1996, as documented in *Outdoor Photographer Magazine*, over the course of three nights, several of Ladoon’s dogs were killed and wounded by polar bears at Mile 5 Dog Sanctuary, and Ladoon

responded by shooting and killing an adult male polar bear. In November of 2008, a female polar bear with a cub walked through the yard and attacked three dogs, eviscerating and killing at least one. The grim reality of the sometimes-fatal consequences of allowing, and even encouraging, interaction between dogs and polar bears rarely accompanies the photos of polar bears “playing” with Ladoon’s dogs. While conservation officers have removed bears from Ladoon’s dog yard on occasion over the last few years, Ladoon’s tourist attraction has been largely tolerated.

This time, something has changed. The day after the CBC picked up the latest video of the bear petting the dog, they updated the story with breaking news: the same week, a polar bear had killed and eaten one of the dogs at Ladoon’s sanctuary. Ladoon admitted to the CBC that he feeds the polar bears at his sanctuary on a regular basis, and that the attack occurred on the “only night” they didn’t feed the bears. Feeding polar bears is prohibited under the Manitoba Endangered Species and Ecosystem Act. Keeping dogs outside without shelter is also prohibited by Manitoba’s Animal Care Act. A Manitoba Sustainable Development spokesperson confirmed

that conservation officers removed three bears from the sanctuary that week, amid concern about the bears’ behavior, and allegations that they were being fed. Renowned polar bear biologist, Ian Stirling went on record in the CBC article saying, “Any situation that brings bears in to feed in an unnatural situation in association with human beings, I think, should not take place at all,” adding “It’s basically a death sentence for the bears.”

The BBC picked up the updated story, and the Washington Post ran their own extensive article with insights from polar bear biologist, Tom Smith, suggesting that bears gain information tactically, and the bear may have been “petting” the dog to size it up and explore it before preying (no evidence has been released to suggest that the specific bear and dog in the video were the same animals involved in the predatory incident). Soon, the dark side of the polar bear-dog story became widespread across the internet and media outlets.

Aside from the 1996 print article in *Outdoor Photographer Magazine*, which likely gained attention mainly because the story tangentially involved celebrity Canadian folk singer, Sylvia Tyson, this is the first time “the rest of the story” has been covered in major media outlets.



Photo by Dr. Frank Tyro. Ladoon advertises his roadside polar bear attraction as the “Polar Bear Resting Area” with the image of a dog and bear interacting.

## The Coolest College Course Ever

Ron Mitchell

After watching the terrain change from farmland to tundra during the two-night train ride from Winnipeg, the small town of Churchill greets us with 30 degree Fahrenheit temperatures. “Welcome to balmy Churchill,” says Shannon Donahue, director of the Great Bear Foundation. “I’m so glad that you guys decided to take our Polar Bear Ecology Field Course!”

About ten of us pile into a yellow school bus. Rows of small bench seats bring back distant memories of school days for Mare and I. Then, it’s off to our first day of polar bear class at the Churchill Northern Studies Center, whose mission is “to understand and sustain the north.”

A brief orientation teaches us how to function at the Studies Center, which is full of scientists and operates as a sustainability leader in water and energy savings. Let’s unpack in our dorm rooms

(more cool school day memories), bundle up, and head out to the tundra and spot some polar bears!

Our bus bounces and twists over ice and snow covered roads. Shannon and Frank fill us with expert information about polar bears and the ecology, as well as how we should act when we see a bear.

Ever try to spot a polar bear in a snowstorm on a vast, unforgiving tundra? Well, it’s not as hard as you might think. At least not in this part of the world. Somewhere around 1,000 polar bears gather here each year to wait for the shores of the Hudson Bay to freeze. They need ice to hunt for ringed seals. Eating seals is crucial to their survival.

These magnificent creatures descended from grizzly bears around 250,000 years ago. This time of year, their metabolism duplicates that of a

hibernating brown bear, but they don’t sleep. They saunter around until the ice forms. That’s when they come fully to life, and lose tolerance for each other’s proximity.

“Bear at three o’clock!” someone in our small group yells. Frank turns off the engine. We jockey for position by the windows. “Hush!” We try to be quiet, but have difficulty containing the oohs and ahhs during this first sighting. We don’t want to bother the bear, nor do we want to entice it to approach us. Those actions generally culminate in a sad ending for the bear.

During future sightings, the only sound we make comes from clicking cameras. Watching these bears, just being bears in their natural environment, puts tears in Mare’s eyes, while I’m paralyzed

Perhaps this is due to the higher profile Ladoon has earned over the last few years. In 2012, Ladoon gained a large following outside of Churchill when Costa Botes released a documentary on him, *The Last Dogs of Winter*, winning an award at the Toronto Film Festival. In 2015, Ladoon became a reality television star in Canada, appearing as a main character on Outdoor Life Network’s *Polar Bear Town*. With a twinge of synchronicity, *Polar Bear Town* debuted with a splash in the US on Smithsonian Channel the same week the video of the polar bear petting the dog went viral.

With Ladoon’s recent television fame, and having admitted to the CBC that he regularly feeds polar bears, can this activity continue? Suddenly, the eyes of the world are on Churchill in an embarrassing way. The public can weigh in, and pressure Manitoba Conservation to put an end to Ladoon’s polar bear attraction by enforcing the prohibition on feeding bears. Viewers can contact OLN Canada and Smithsonian Channel to pressure them to stop glorifying Ladoon’s actions, and to tell “the rest of the story.”

### WANT TO DO SOMETHING ABOUT THIS?

#### WRITE OR CALL THE FOLLOWING:

Outdoor Life Network Canada:  
Dave Grunier, Original Programming  
Dave.Grunier@rci.rogers.com

Smithsonian Channel:  
contact@smithsoniannetworks.com  
(844)-764-8488.

Manitoba Sustainable Development:  
Wildlife Branch  
Box 24, 200 Saulfeaux Crescent  
Winnipeg MB R3J 3W3  
(204) 945-7775



## Summer Field Course Offers Unique Perspective on Polar Bears & Belugas

By Elissa Chott

Great Bear Foundation offers low-impact and ethical summer field courses to Churchill, Manitoba to observe polar bears in their natural habitat, watch beluga whales in the river and bay, explore the unique ecosystems and town, and learn about the history of the region. Churchill is a two-day train ride from Winnipeg that provides a gradual introduction to the Arctic as trees grow smaller, deciduous forests disappear, and tundra appears. We stay at the Churchill Northern Studies Centre, a research facility for scientists and educational groups about 30 kilometers from town. Evening programs by Great Bear Foundation’s instructors and guest speakers give an overview of mammal biology, history, and discussions about climate change and the effects we can see in the Arctic. We spend our days looking for wildlife and enjoying the opportunity to explore ecosystems that are critical to preserve because of the ever-warming global climate.

The weather was cool and rainy for the majority of our ecology field course in August, but that didn’t stop us from having a great time. Thanks to the rain the mosquitoes were kept at bay, even at

Twin Lakes where thick swarms will often follow participants back into vehicles.

A few days before our arrival, a beluga whale carcass washed ashore north of the Churchill River providing much needed sustenance for up to thirteen polar bears at a time. We were unable to see the bears feeding due to the location and how quickly the bears finished the blubber and meat. As ice packs continue to melt and leave bears landlocked for greater periods of time, food sources such as whale carcasses, molting geese, and vegetation will become increasingly important for the bears. The summer season is referred to as walking hibernation since polar bears hunt ringed seals during the fall and winter months on the ice packs, and eat very little during the summer. As ice packs break up earlier and bears’ access to seals is decreased, polar bears will have to rely on supplementing their diets during a season when fat stores have historically carried them through until autumn freeze up.

We enjoyed a blustery and rainy boat trip with Sea North Tours in the Churchill River estuary and Hudson Bay. The one-of-a-kind Sea North II boat is

jet propelled, keeping the whales and other sea animals safe without a moving propeller to potentially injure sea life. Hundreds of small pods of beluga whales could be seen in the bay making their way to the river in the choppy water in search of capelin and other fish. Belugas are born gray before turning white as they mature, and we spotted many calves of the year keeping close by their mothers. A hydrophone lowered overboard allowed us to listen to the clicks and whistles of the whales communicating with each other just below us in the water.

A Friday afternoon venture by a 1960s-era plane wreck known locally as “Miss Piggy” offered our first bear sighting. A healthy polar bear popped up from behind a cluster of rocks, looked at us, and disappeared into the spruce trees. We were able to spot it again after returning to the bus and driving along the road where the bear was making its way towards the beach.

A second story deck off the back of the studies centre provides a great view of the tundra and sky, or for those who prefer a bird’s eye view, the aurora bubble is an observation dome on the roof of the centre

that gives you a spectacular 360° range. Friday evening cleared off just in time for a spectacular sunset that could be seen from the aurora bubble on the roof of the studies centre. Skies continued to clear, and by midnight the aurora was putting on quite the show! Green was the most prevalent color, but for a few minutes around the 3am mark light pink appeared along the bottom of the curtains of green.

Sandhill cranes were out by the dozens in the Saturday morning sunshine. Most of the group took a Zodiac to go whale watching again, spotting whales and three more bears along the beach on the north side of the Churchill River and Button Bay. This area is a safe location for bears, as human traffic is limited and the bustle of town lies several kilometers away.

The return train trip was beautiful as always, with an abundance of beaver dams visible from the tracks, dim and fleeting views of the aurora through the windows at night, and the sway and clickety-clack of the train to rock us to sleep.

For more information on our field courses, please visit [greatbear.org/field-courses](http://greatbear.org/field-courses).

## Mapping Missoula’s Applescape: What’s New with Bears & Apples in 2016

By Elissa Chott

Our annual Bears and Apples program gives the majority of our ecology field course in August, but that didn’t stop us from having a great time. Thanks to the rain the mosquitoes were kept at bay, even at Twin Lakes where thick swarms will often follow participants back into vehicles. A few days before our arrival, a beluga whale carcass washed ashore north of the Churchill River providing much needed sustenance for up to thirteen polar bears at a time. We were unable to see the bears feeding due to the location and how quickly the bears finished the blubber and meat. As ice packs continue to melt and leave bears landlocked for greater periods of time, food sources such as whale carcasses, molting geese, and vegetation will become increasingly important for the bears. The summer season is referred to as walking hibernation since polar bears hunt ringed seals during the fall and winter months on the ice packs, and eat very little during the summer. As ice packs break up earlier and bears’ access to seals is decreased, polar bears will have to rely on supplementing their diets during a season when fat stores have historically carried them through until autumn freeze up. We enjoyed a blustery and rainy boat trip with Sea North Tours in the Churchill River estuary and Hudson Bay. The one-of-a-kind Sea North II boat is jet propelled, keeping the whales and other sea animals safe without a moving propeller to potentially injure sea life. Hundreds of small pods of beluga whales could be seen in the bay making their way to the river in the choppy water in search of capelin and other fish. Belugas are born gray before turning white as they mature, and we spotted many calves of the year keeping close by their mothers. A hydrophone lowered overboard allowed us to listen to the clicks and whistles of the whales communicating with each other just below us in the water. A Friday afternoon venture by a 1960s-era plane wreck known locally as “Miss Piggy” offered our first bear sighting. A healthy polar bear popped up from behind a cluster of rocks, looked at us, and disappeared into the spruce trees. We were able to spot it again after returning to the bus and driving along the road where the bear was making its way towards the beach. A second story deck off the back of the studies centre provides a great view of the tundra and sky, or for those who prefer a bird’s eye view, the aurora bubble is an observation dome on the roof of the centre that gives you a spectacular 360° range. Friday evening cleared off just in time for a spectacular sunset that could be seen from the aurora bubble on the roof of the studies centre. Skies continued to clear, and by midnight the aurora was putting on quite the show! Green was the most prevalent color, but for a few minutes around the 3am mark light pink appeared along the bottom of the curtains of green. Sandhill cranes were out by the dozens in the Saturday morning sunshine. Most of the group took a Zodiac to go whale watching again, spotting whales and three more bears along the beach on the north side of the Churchill River and Button Bay. This area is a safe location for bears, as human traffic is limited and the bustle of town lies several kilometers away. The return train trip was beautiful as always, with an abundance of beaver dams visible from the tracks, dim and fleeting views of the aurora through the windows at night, and the sway and clickety-clack of the train to rock us to sleep. For more information on our field courses, please visit [greatbear.org/field-courses](http://greatbear.org/field-courses).

New this year, we conducted a survey with homeowners that included what motivates people to contact us for gleaning services, if they have had bears in past years or current, and bear attractant identification. The top motivation for contacting Great Bear was to keep wildlife from coming into town – the core of our Bears and Apples program. While most residents recognized fruit trees, chickens, garbage, compost, animal feed, and barbecue pits as bear attractants, petroleum products were not thought to be an attractant. Petroleum products can and do attract bears. Any substance or object with a smell has the potential to lure bears, making it crucial that garage doors stay closed at all times. Survey participants were given the option of entering a drawing for a Great Bear Foundation gift box, and we are happy to announce the winner is Jaime M! Congratulations and thank you for using our gleaning service to mitigate bear and human interactions!

Our fruit tree and bear activity mapping project started this past spring allowed us to assess which corridors and neighborhoods experience the most bear activity. This season we were able to do preemptive gleaning in areas we knew would be used first by bears, especially along the streets directly

bordering Greenough Park. The bears follow Rattlesnake Creek from higher elevations, leading them to emerge into neighborhoods about a mile from public lands where they would be able to return to the hills surrounding Missoula. We will continue to plot new addresses gleaned from this season as well as bear activity from Montana Fish, Wildlife, and Parks’ records to create a long-term projection of where our gleaning efforts are needed most.

### GBF Field Course Partnership,

*Continued from p. 2*

Churchill, including the world-renowned Polar Bear Alert program that successfully mitigates, prevents, and reduces conflicts between polar bears and people by identifying boundaries around the Churchill townsite where bears will not be tolerated, and removing bears from that area with active patrols, hazing, and when necessary, capturing bears and transporting them to the Polar Bear Holding Facility (locally known as “Polar Bear Jail”) to be released when sea ice forms.

Both course sessions took a field trip to the site of Dene Village outside of Churchill, where a memorial pays tribute to the many lives lost when the Canadian government forcibly relocated Sayisi Dene people from their traditional home at Little Duck Lake to a series of uninhabitable locations near Churchill, where they were unable to hunt to sustain their families. Following the field trips, Caroline Bjorklund, a Sayisi Dene elder who survived the relocations and residential school, shared her courageous and inspiring personal story of survival

and redemption through embracing her culture and learning to take pride in who she is. Bjorklund taught the groups about how Sayisi Dene people of Little Duck Lake thrived on the northern landscape with a subsistence-based lifestyle that centered on hunting caribou until the relocation in 1956. Students later watched the film, *Nihoniyyeh: Our Story*, in which Sayisi Dene people tell the story of the relocation, the tragic losses, and how a core group has successfully returned to traditional lifestyles on the land and established their own community at Tadoule Lake, a remote location 250 miles north of Churchill.

Highlights of our 2016 field courses included lengthy opportunities to watch female polar bears with their cubs, red foxes hunting lemmings and other small rodents on the tundra, and a few nights of spectacular aurora borealis.

To register for our 2017 fall field courses, contact the Great Bear Foundation or visit our website at [greatbear.org/field-courses](http://greatbear.org/field-courses). All proceeds fund our bear conservation projects.



### Cider for Conservation: GBF Announces Partnership with Western Cider



Great Bear Foundation is proud to announce our partnership with Western Cider, Montana’s first cidery opening this winter in Missoula. The founders of this for-profit company are supporters of bear conservation and were so inspired by our Bears and Apples program they approached us with the idea of creating a partnership. Apples gleaned from our program are used for brewing community batches of cider, with a percentage of the proceeds to return to Great Bear and directly support our Bears and Apples program. Local food, local companies, local conservation.



*Continued on p. 8*

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### Coollest College Course, *Cont. from p.6*

methods to deal with bear/human interaction.

Instructors present different topics each evening, from photography tips to climate and environmental challenges for bears and humans. A guest speaker, who is a First Nation Dene woman, describes the area's history and native culture from her firsthand, heart-wrenching experience. We have plenty of time for discussion after each topic.

Nobody wants to knowingly engage in behavior that harms bears, and we believe that most folks want to learn how to do the right thing. Course study such as this can reduce incidents of "bad behavior," by people and bears, thereby increasing the likelihood of survival for both.

Speaking of bad behavior, polar bears who misbehave in Churchill get sent to Polar Bear Jail. No kidding. A specially converted holding facility provides an alternative to killing a bear who might happen to get too close to humans in its quest for food. Bears are tranquilized with a dart, and then transported to a bear cell. They are held there without food, so as not to habituate them (associate humans with food). Understandably, these bears are not on display for viewing. Eventually, they place each bear in a very large net and transport them via helicopter miles away onto a place where ice has formed. Yes, they do have somewhere around a sixty percent recidivism rate – repeat offenders! Still, this is an excellent alternative to euthanizing these beautiful bears.

Let's break things up with a dogsled ride. Dave Daley is the top dog at Wapusk Adventures. He loves each of his dogs, and

gets to know their strengths, psyche, and motivations. If a dog misbehaves, he bites it on the nose. Then he gives it positive reinforcement within a minute. He takes us around the "Ididamile" track. What a thriller for us, as well as exercise for the run-loving dogs!

Back on the bear spotting trail, a mother with two cubs shows herself to us in temperatures of 10 degrees Fahrenheit. It's starting to feel more like polar bear weather around here. Hopefully, the ice will not take too long to form, as it seems to take a little longer each year.

As if seeing polar bears and foxes cavorting in the snow isn't enough, how about finishing the evening with a grand showing of the Aurora Borealis? We are exhilarated and grateful for this educational opportunity in what seems like a different planet. We learn about bears and beyond in one of the most amazing settings on earth. Mare and I have no need to accept the college credits for this accredited course. Shoot, I don't even care if I passed or not. That's pretty cool.



Photo: Jeremy Patrick

Bear News is the newsletter of the Great Bear Foundation, a member-supported non-profit 501(c)3 founded by Dr. Charles Jonkel, Frank Ponvikar, Lance Olsen, and Bill Callaghan in 1982 to conserve and educate about the world's eight bear species and their habitats worldwide.

You can help us conserve bears by renewing your membership with a tax-deductible donation to GBF via paypal on our website, [www.greatbear.org](http://www.greatbear.org), or sending a check to:

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P.O. Box 1616, Haines, AK 99827  
(907) 766-2024

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