



Wapusk
National Park

Wapusk News

The Voice of Wapusk National Park

Issue 8, 2015



A Classroom
for the World



A New Bear in
Wapusk National Park?



NATIONAL
CONSERVATION
PLAN



Parks
Canada

Parcs
Canada

Canada

Wapusk National Park

A classroom for the world

ISAMR students
looking at a quadrant
in Wapusk
National Park

Jessica C. Levine

When it comes to learning, nothing beats hands-on activity. Being immersed in the environment you are studying, particularly a unique and challenging environment like Wapusk National Park (NP), can lead to a richer, more memorable experience. In this context, Wapusk is much more than a national park—it is a classroom.

Students from the high school and university levels come to the park every year to learn. High school students conduct and assist with research activities through programs such as the Wapusk National Park Leadership Camp, the International Student-led Arctic Monitoring and Research (ISAMR) camp, and the Junior Canadian Rangers. Graduate students working on their Master's and Doctoral degrees conduct world-class research in the park for their theses.

From field courses examining arctic fox food webs, offered jointly by Dr. Jim Roth (University of Manitoba) and Parks Canada for the first time in 2014, to facilitated projects at both the Nester One and Nestor Two research camps, there are many opportunities for active learning in Wapusk NP.

Not only does this learning benefit the students, it also benefits Parks Canada. Our mandate is to protect and present national treasures like Wapusk NP. When people share what they have learned about the park, our staff are better able to communicate why it is so important to protect this special place for future generations.

Students also assist Parks Canada in building awareness and understanding of the parks throughout Canada, and beyond. Students who have had the chance to spend time in Wapusk NP often become ambassadors for the park in their communities. For people who aren't able to visit, Parks Canada brings the park to them through the Parks Canada website (www.pc.gc.ca) and through outreach programs elsewhere in Canada, such as at the Journey to Churchill exhibit at the Assiniboine Park Zoo in Winnipeg.

This issue of *Wapusk News* features stories and student reflections highlighting the various types of learning that takes place in this outdoor classroom. Please enjoy these stories of learning in Wapusk NP—you just might learn something yourself! □

Superintendent's Update

Robert Löken

Acting Superintendent

Wapusk National Park and Manitoba North National Historic Sites

It is my great pleasure to be writing to you this first time as the Acting Superintendent of Wapusk National Park (NP) and Manitoba North National Historic Sites.

In late September of 2014 I was thrilled to accept this opportunity to live and work in Churchill. I arrived in October and since then, I have had nothing but positive experiences. It took a few weeks to get myself up to speed on the files that I now lead, but by January, I was truly immersed into the work at hand.

On behalf of Parks Canada and the Wapusk Management Board, I am happy to share with you the following update:



Robert Löken

The Wapusk Management Board welcomes a new member, Jan Collins, representing the Government of Canada. Jan brings his extensive experience as Tourism Development Consultant for the Province of Manitoba to the board. The appointment of a new federal government representative means that John Williams' three-year term on the board has come to an end. I take this opportunity to thank John for his hard work and dedication to the Wapusk Management Board. I am looking forward to working with all of the board members on the future of Wapusk NP.

Management plans set the direction for national parks and national historic sites for a ten-year period. Two Parks Canada places in northern Manitoba are now in line for a management plan review. York Factory National Historic Site (NHS) management planning is currently underway. Consultations with First Nations, partners and stakeholders on the future of this site will be a key aspect of the process. Wapusk NP is also entering the preliminary stages of management planning. Although consultations

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ON THE COVER

A Classroom for the World — photo by Jessica C Levine.

A New Bear in Wapusk National Park? — photo by Manitoba Conservation and Water Stewardship



Wapusk
National Park

Wapusk National Park Leadership Camp



Heather MacLeod

Interpretive Coordinator
Wapusk National Park

Summer 2015 marks the sixth year that Parks Canada has offered an exciting combination of visitor experience training, interpretation and leadership skill development and an introduction to field work for Manitoba youth in Grades 11 and 12 at the Wapusk National Park Leadership Camp, held in the park. The camp began in 2009 with five students from Churchill, building to capacity in 2013 with 14 students. The range of communities from which the participating students come has also increased. Students from Churchill, York Factory First Nation and Fox Lake Cree Nation continue to be the primary focus for recruitment, but participation has diversified to include representation from other northern communities, as well as urban, rural, francophone and new Canadians.

Wapusk National Park Leadership Camp 2015 promises to be another enriching experience for Manitoba youth. New this year is that students will fly to Churchill instead of travelling by train, resulting in the benefit of extending the camp to six days. Participants will then be flown to Wapusk National Park (NP) where they



Top: Dr. Larry Dyke and Miguel Lopez collecting water samples

Above: Lateesha Redhead and Dylan O'Nabigon at Wapusk National Park Leadership Camp

will spend three nights at the Nester One research camp. When not camping in the park, students stay at the Churchill Northern Studies Centre, experiencing the atmosphere of this world-renowned northern learning and research facility.

Parks Canada staff, community experts and facilitators, including a First Nation representative, will provide a wide range of exciting programs and activities during

the camp, including hikes and presentations in Wapusk NP to learn more about the archaeology, wildlife and research taking place. The Churchill experience includes a visit to Prince of Wales Fort National Historic Site (including a beluga whale watching opportunity), a tour of the Eskimo Museum and a presentation by a Manitoba Conservation and Water Stewardship Natural Resource Officer about the Polar Bear Alert program.

Here, two past Leadership Camp participants from Winnipeg share their thoughts on the value of this experience...

Participating in the Wapusk National Park Leadership Camp in 2010 strongly impacted my perspective on sciences and the environment. I am currently in my third year of Engineering at the University of Manitoba specializing in Environmental Engineering. My experience at camp helped me to develop an appreciation for the various ecosystems this province has to offer as well as to look towards safe development and preservation in the future.

My experiences at the Leadership Camp helped shape my character and gave me the self-confidence to continue to try new things. While

at camp, I was treated with respect and trust and given responsibility that helped me realize that I could be independent and confident with my decisions.

— Katherine Meese

I had never been up north. Prior to attending the Wapusk National Park Leadership Camp in 2012, I had only a vague concept of Canadian longitudes above Winnipeg. Sure, I had travelled, but to this day no place has left me so profoundly impacted as Churchill and Wapusk National Park.

The Leadership Camp immersed me in the northern community. I learned about local culture from community members. I met scientists dedicated to their research based out of the Churchill Northern Studies Centre. I saw belugas and an abandoned rocket range; and I flew in a helicopter to a land that so few people have had the opportunity to set foot on.

These experiences impacted every participant in the camp positively. This program not only exposed me to aspects of our country I had never encountered, but also developed leadership skills that have followed me into other aspects of my life. Following the camp, I adopted a bigger leadership role in my high school and community. The camp was a major influence on my choice to leave home and study biology at Trent University. I don't know if it's the fact that I feel so privileged to have experienced a slice of northern life or if it's just that nothing seems as daunting after you've strolled through polar bear country, but I have been able to navigate my young adult life with confidence, which I largely attribute to having had these experiences. I've since hiked the Mantario trail, gotten a pine tree tattoo and spent as much time exploring outdoors as possible. These experiences continue to have an impact on me everyday and I couldn't be more grateful for having had them.

— Anais Giasson 

Superintendent's Update

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are not scheduled to begin until 2016, it is now time to establish the scope of work to be completed.

New visitor activities are an important component in enabling Parks Canada to connect with Canadians and to the public at large. Parks Canada has recently convened a working group to develop unique experiences only available in the North, to be promoted under the banner of *Northern Iconic Experiences*. The Parks Canada *Northern Iconic Experience* for Wapusk NP is a five-day visit that includes overnight stays at York Factory NHS, Wapusk NP and at Prince of Wales Fort NHS. During this trip, visitors will experience unique interpretive programs with First Nation storytellers at York Factory NHS, wildlife viewing while hiking in Wapusk NP, and sleeping in prospector tents at Prince of Wales Fort NHS.

Research is also a big part of the work done by Parks Canada and its partners. Wapusk NP ecologist Chantal Ouimet has completed and presented a new ecological integrity monitoring plan for the park. This plan lays out the foundation for monitoring and research for the next ten years in order to build upon the understanding of the different ecosystems that make up Wapusk NP. This plan will also help us build on an already positive relationship with our research partners.

These are but a few of the initiatives in place for this year. There are far too many to list here, so if you are interested in learning more about what Parks Canada is doing, please know that I am always interested in your comments on our programs, ideas for new offerings or suggested improvements. I can be reached at 204-675-8863 or robert.loken@pc.gc.ca. 

Did You Know?

Remote field cameras are being used in Wapusk National Park (NP) for both monitoring and research activities. Cameras are mounted at the Cape Churchill tower, Nester One Field Station, Broad River Camp and Owl River Camp to monitor the wildlife that move through the area.

Wapusk NP is working with Dr. Doug Clark of the University of Saskatchewan to determine if polar bears are attracted to these structures. Utah State University PhD student David Iles is using remote cameras in eider duck colonies to see which predators enter the colony and to determine the search patterns they use to find the duck nests. Dr. Jim Roth of the University of Manitoba has positioned cameras at fox dens to study fox behaviour. Over the next year, Parks Canada will be installing cameras at three remote weather stations to monitor snow depth and patterns.

Although Wapusk NP is well known for its polar bears, there are many other species that can be found in the area. All of these animals have been captured on camera...

© Dr. Douglas Clark, University of Saskatchewan



Wolf passing by the camera in Wapusk National Park

- polar bear
- grizzly bear
- black bear (including a cinnamon bear)
- moose
- wolf
- arctic hare
- caribou
- arctic fox
- red fox
- lemming
- wolverine
- snow goose
- Canada goose
- redpoll
- common eider
- sandhill crane
- herring gull
- raven
- ptarmigan
- golden eagle
- bald eagle 

Students on Ice

Evigheds Fjord,
Greenland



Heather MacLeod
Interpretive Coordinator
Wapusk National Park

Austin McPherson
Students on Ice Participant
Duke of Marlborough School, Churchill

In 2014 Parks Canada entered into a three-year agreement to sponsor student participation in *Students on Ice*, an award-winning organization offering unique educational expeditions to the Antarctic and the Arctic. *Students on Ice* provides students, educators and scientists from around the world with inspiring educational opportunities at the ends of the Earth and, in doing so, helps them foster a new understanding and respect for the planet. Through this initiative, Parks Canada is supporting youth and Aboriginal leadership development and building connections between northern and southern Canada.

The *Students on Ice Arctic Youth Expedition 2014*, a ship and land-based journey, explored the eastern Canadian Arctic and western Greenland for two weeks in July, involving 86 international students, ages 14 to 18, and a team of 49 world-class scientists, historians, artists, explorers, educators, leaders, innovators and polar experts.

Thirteen high school and university students from across Canada were chosen to represent Parks Canada as part of this two-part summer program. Each student was hired to experience Parks Canada as a summer employee, and also to represent a national park on an expedition to the high Arctic with the other international students. Representing Wapusk National Park was Austin McPherson, an 18-year-old student attending the Duke of Marlborough School in Churchill.

Austin met the qualifications for the position of Apprentice Polar Bear Monitor and worked throughout his employment under the supervision of Parks Canada Polar Bear Safety Attendant and firearms instructor Kevin Burke, helping to keep the staff and visitors at Prince of Wales Fort National Historic Site safe. It was a good year for an extra pair of eyes at the fort as there was a polar bear on site almost every day of the summer season!

The *Students on Ice* expedition portion of the program climaxed Austin's busy summer with Parks Canada. The international trip itinerary first took the students to Greenland and then to Canada's coastal Labrador to explore the magnificent Torngat Mountains National Park. Arrival day in the park was described by seasoned veterans of *Students On Ice* as one of the most beautiful days in the history of the

program with magical mountain views and mystical weather. It was the perfect "photo op" for Austin and the other students, resulting in some truly spectacular pictures capturing the beauty of the Arctic.

Each day travelling on board the *Sea Adventurer* vessel was filled with activities and workshops designed to encourage dialogue and learning on the many issues that surround the changing Arctic. The facilitators encouraged interaction with people in the community stops along the way. Cultural traditions were explored through music, dance, games, food and workshops.

This remarkable, once-in-a-lifetime experience for youth attracted much media attention. Austin proudly represented Parks Canada and Churchill as he participated in radio and newspaper interviews. He shares some of his personal reflections in the following article.

My name is Austin McPherson. I am an 18 year-old high school graduate currently living in Churchill, Manitoba. In early June of 2014, I was made aware of an incredible, once-in-a-lifetime opportunity to work for Parks Canada and to travel from northern Canada across to Greenland by boat, through a program called *Students on Ice*—an opportunity I was not going pass up! When I was accepted I was excited to hear more about the awesome summer job working for Parks Canada that would start after my expedition was over, which only added to the immense excitement I was feeling. Immediately after starting with Parks Canada I was excited to accompany staff to Cape Churchill in the northern end of Wapusk National Park. This was my first trip by helicopter and my first time at the Cape.

Later in July, the *Students on Ice* journey began with three days spent in Ottawa at Carleton University where we did some pre-expedition activities such as getting to know the staff and students with whom we would be spending the next two-and-a-half weeks on a boat. We learned about the Arctic environment and some of the wildlife we might encounter on our journey. We also had some fun doing team-building activities like zip lining and jumping off a 40-foot tower onto a giant airbag! After the few days in Ottawa, we were ready to begin our expedition. We flew from Ottawa to Kuujuaq, Quebec to board our expedition vessel, the *Sea Adventurer*, which was more like a luxury cruise ship than an expedition ship.

Once we boarded the ship, we were greeted by the amazing staff of the *Sea Adventurer*. They were some of the friendliest, most helpful people I have ever met who made an effort to try to get to know each and every one of us. After a few crew introductions and some safety demonstrations, we set sail.

Our first morning was incredible. We had a few workshops on the ship followed by an excursion in the Zodiac boats to the abandoned village of Port Burwell (Killinniq). It was a day of excitement as we took in the magnificent view and later, overwhelming sadness as we learned the story of the abandonment of Port Burwell. At the end of the day I was exhausted, but still wasn't able to sleep as I anticipated what the next day would bring. We had such an incredible first day; I couldn't wait to see what the next two weeks would hold!

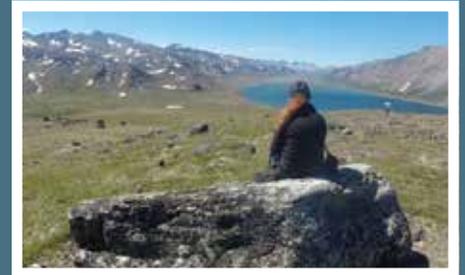
This trip had many, many memorable moments. One that I remember most clearly was probably the least exciting, yet one of the most unforgettable. It was our second day in the Torngat Mountains National Park. We had just spent about an hour-and-a-half hiking up a ridge. We split into three groups, each group with a varying climbing

pace. Choosing the slowest climbing group, I was able to take my time and enjoy the view. About two-thirds of the way up we decided to stop for a 20-minute break. We sat down and some people unpacked some snacks they brought, while others simply lay down to watch the clouds, conversing with people around them. I just sat there enjoying the amazing view. Mountains as far as the eye could see—360 degrees around me. Suddenly, at the corner of my eye, I was pleasantly surprised by a beautiful butterfly, covered in various shades of yellow and orange with some black spots. It fluttered around a bit, then landed on a leaf about two or three inches away from me. I sat there, motionless, just watching this beautiful creature. Our group leader called over to me to let me know we were going to start climbing again. I looked over to acknowledge what they said and when I looked back the butterfly was gone.

Every day was a new experience. We visited places few people in the world have ever been. We saw things most people could only dream of. But most of all, I got the chance to meet some of the most incredible people I will ever have the privilege of meeting. Everything about the trip was a life-changing experience. I hope to someday go on another expedition with *Students On Ice*.

A few days after I got back, I started my summer job at Parks Canada as an Apprentice Bear Monitor. I was trained by Kevin Burke, Parks Canada's Polar Bear Safety Attendant and firearms instructor in Churchill. My job was to keep an eye out for polar bears as the Parks Canada Heritage Presenters conducted tours at Prince of Wales Fort National Historic Site. I was outfitted with a pair of binoculars, a radio and a starter pistol which fired "screamer" and "bear banger" shells, both of which make a very loud noise to scare away bears that get too close. Thankfully, I never had to use the starter pistol.

Every morning, weather permitting, Parks Canada staff took a five-minute boat ride across the Churchill River to Prince of Wales Fort. Kevin Burke and I, on all-terrain vehicles (ATVs), checked the site for polar bears before the Zodiacs pulled up with visitors and the tours of the fort began. We drove a designated route around the fort site looking for polar bears that were sleeping or on the move. If one were too close to the fort or the kiosk (where people disembark from the boats) we would work to move the bear away from the area. Usually, once we got close on the ATV, the bears would "high tail" it the other way. If they refused to run, we would have to use bear bangers to scare them off. We would report any bears in the area, and once the site was cleared, the tours of the site



Top: Austin McPherson at Nachvak Fjord, Torngat Mountains National Park, Labrador

Middle: Komaktorvik Fjord, Torngat Mountains National Park

Bottom: Nachvak Fjord, Torngat Mountains National Park, Labrador

would commence. Most of the time I was posted on the wall of the fort, using binoculars to spot bears before they got close, as well as reporting any bears that were in the vicinity. At the end of each day we filled out a report stating how many bears we observed, where they were observed, the condition they were in (fat, skinny, etc.) and what they were doing at the time we spotted them. Most days we observed at least one bear which made for some memorable experiences for visitors to the national historic site.

The trip with *Students on Ice* and the exciting job with Parks Canada were the most enjoyable summer experiences I have ever had in my life. I'm extremely glad and grateful I was given that opportunity.

—Austin McPherson, Churchill, Manitoba □

Enjoy a video of the *Students on Ice* 2014 expedition at <https://youtu.be/iD63YccfGe4>

ISAMR – Summer 2014

A student’s reflections on Wapusk National Park

Cory Silver

The Park School of Baltimore
Baltimore, Maryland, USA

Waking up this morning in my warm, cozy bed, encased in a soft blanket, I realized I didn’t want to be here; I wanted to be somewhere else. I longed to wake up in the middle of the tundra under the wide open sky, in a tent that was whipping in the wind. I longed to be amongst my beautifully unique, newly found family, sitting down to a warm breakfast at Nester One. It seemed like a strange thought at first, but then I realized what an impact this past two week journey has had on me. I missed everyone and everything about the trip.

When people think of the Arctic, they think of what physically constitutes its landscapes: tundra, polar bears, or perhaps caribou and dog sleds. This trip gave me the opportunity to look

beyond the physical aspects of this region (although affording plenty of time to gasp in awe at the incredible topography and life of the north), and truly get in touch with the land, my peers, and myself. It was an opportunity to participate in authentic scientific research as a high school student. In the end, what I viewed as a research trip had become so much more.

I was blown away the moment I took my first step onto the tundra after getting off the helicopter in Wapusk National Park. I felt like I was entering a remarkable place, untouched by humans, and instantly felt honored to be there. At the same time, I felt connected to the land, and it seemed like you couldn’t get any closer to pure nature than this. It felt incredible to think that every time we set out on a hike, the path we chose may have never felt human footprints before. The land itself seemed alive, as it had center stage with no visual competition, aside from the majestic creatures that



Cory Silver in Wapusk National Park

ISAMR

What is ISAMR?

The International Student-Led Arctic Monitoring and Research program (ISAMR) is a coalition of high school students and educators from Canada and the United States who share the common goal of thoughtfully and respectfully monitoring the effects of global climate change as perceived through the flora and fauna of the greater Churchill/Wapusk Ecosystem. This international research team, co-founded by Dr. Ryan Brook and Julie Rogers, focuses primarily on permafrost and polar bears.

Annually, about 40 Canadian students from Winnipeg and Churchill, and ten American students from Baltimore, participate in the fieldwork and data collection aspects of the program in August, October and February while another 50 participate in weekly ISAMR meetings. During ISAMR meetings, students learn about Arctic ecology, analyze data, develop presentations for international scientific conferences, and prepare for each of the three field expeditions.



Did You Know?

- Domestic reindeer and wild caribou are considered to be the same species – *Rangifer tarandus*.
- Caribou make a distinctive clicking sound when they walk. This is the sound of the tendon slipping over the bones in the foot of the caribou.
- Both male and female caribou sport antlers which makes them the only animal in the deer family to do so. The males have much larger antlers with a distinctive shovel (also called a tine or plough) that grows out the front of the antler.
- The coat of the caribou is comprised of hollow hairs that trap the heat, making the fur very warm. Caribou fur is favoured for clothing among the Inuit. The hollow hairs also contribute to the buoyancy of the caribou, making swimming easier.
- The caribou population in Wapusk National Park is estimated to be 3,000 animals.
- During the summer season caribou can be spotted huddled in the ocean, attempting to escape from the biting insects which plague the herds in the warmest weeks. 



ISAMR is collecting data as part of a 30-year study on permafrost.

Jessica C. Lemme

roamed its terrain. In Wapusk, there was a certain harmony between our group and the environment around us, a balance difficult to find back in civilization. As the days passed, and we continued our research, I came to the realization that I understood this piece of earth better than I knew my own backyard.

Having the opportunity to do field work at this age really sparked my interest in pursuing the sciences beyond high school. I've always had a keen passion for my science classes in school, although I often felt intimidated (despite being very intrigued) by research done outside of the classroom. I was never certain if my love for science in the classroom would manifest in the field. However, now there are few things that can match my passion for the incredible research we do every August (and October). As a student scientist working in the field, I also realized that the information we were collecting, dissecting and analyzing not only helped answer our questions and helped us gain knowledge—it went beyond that: it advocated for something that couldn't speak for itself—the environment surrounding us. Our work was genuine and significant on more than one level.

One of, if not the most important aspect of ISAMR is the people who form it. The altruism between a group of people who didn't even know each other a few weeks ago is astounding. How can you not get close to the people around you when sharing such incredible daily, no, hourly, no, minute-by-minute memories together? Your peers become part of

these breathtaking moments, and we equally shared in the joy of seeing the majesty of a beluga whale swimming in the Churchill River, or the Aurora Borealis dancing above our heads. I don't think my eyes have ever been opened so wide for such a long period of time, and I didn't want to close them, not even for a second; I don't think anyone did. We opened up to each other as only people so tired, yet at the same time so alive can, and we became an intimate group that worked and played well together; we became a diverse family. I am so grateful for the adults who were willing and brave enough to take a group of high school students to such a remote (and remarkable) place. It took an amazing group of people to be part of this journey, and I felt very privileged to get to know them.

To end this reflection, there's one final point, however petty, that I feel is essential to this musing: The Arctic changed my definition of home. In the past, when I've traveled, no matter how deeply connected I've been to a place, home has always been Baltimore; I've always thought of house and home as synonyms. However, on our way back from Cape Churchill, after our second full day in Wapusk, someone asked how far we were from "home." It took everyone a moment to realize that Nester One was not "home" in the traditional sense. The fact a place can become "home" in a mere two and a half days truly shows the impact such an adventure and such a place can have. And now, as I write the last sentence sitting in the basement of my house in Baltimore, I long for home. 

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Caribou

Wapusk National Park Breathtaking!

Jessica C. Levine

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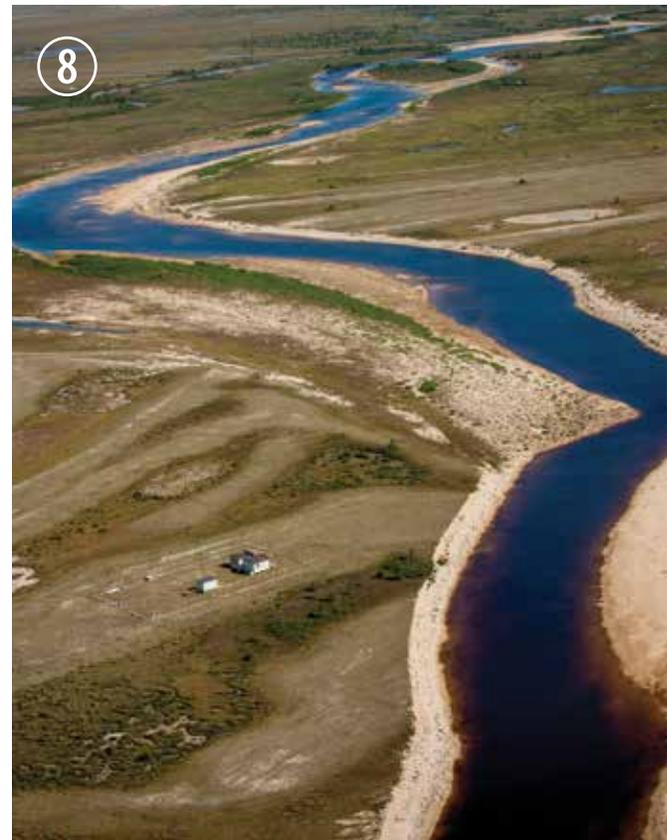


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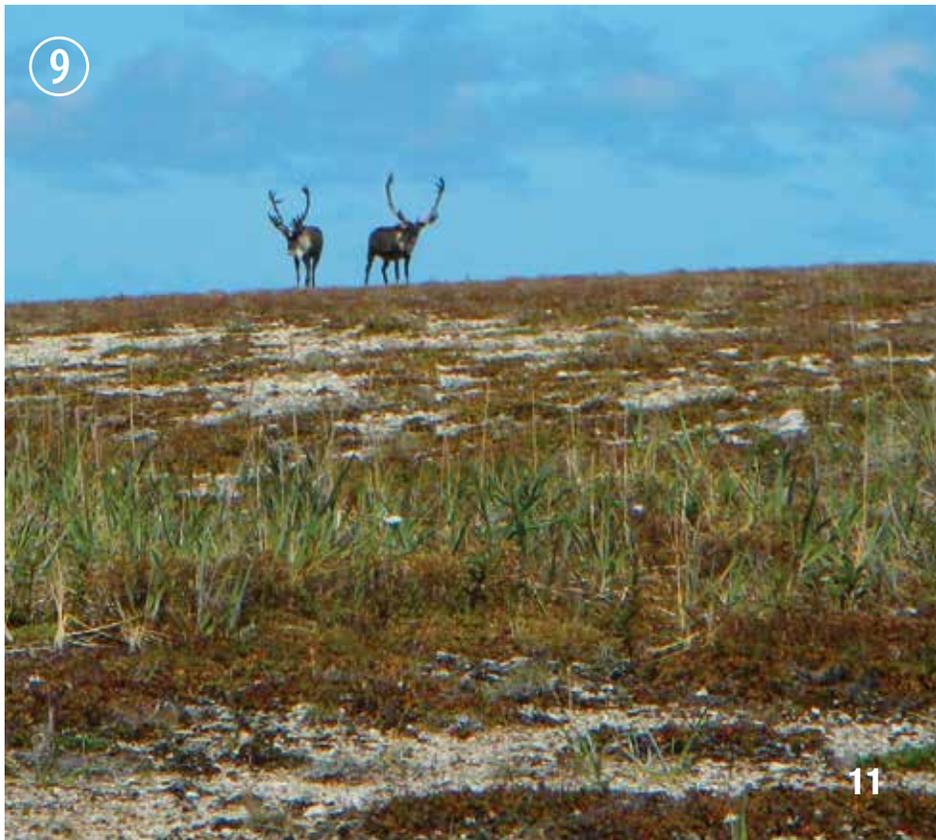
- ① ISAMR students relaxing
- ② Polar bear mother and cub
- ③ Alpine azalea
- ④ Labrador tea
- ⑤ Polar bears at sunset
- ⑥ Canoeing on the Broad River
- ⑦ Tundra ponds in Wapusk National Park
- ⑧ Camp at Broad River
- ⑨ Caribou



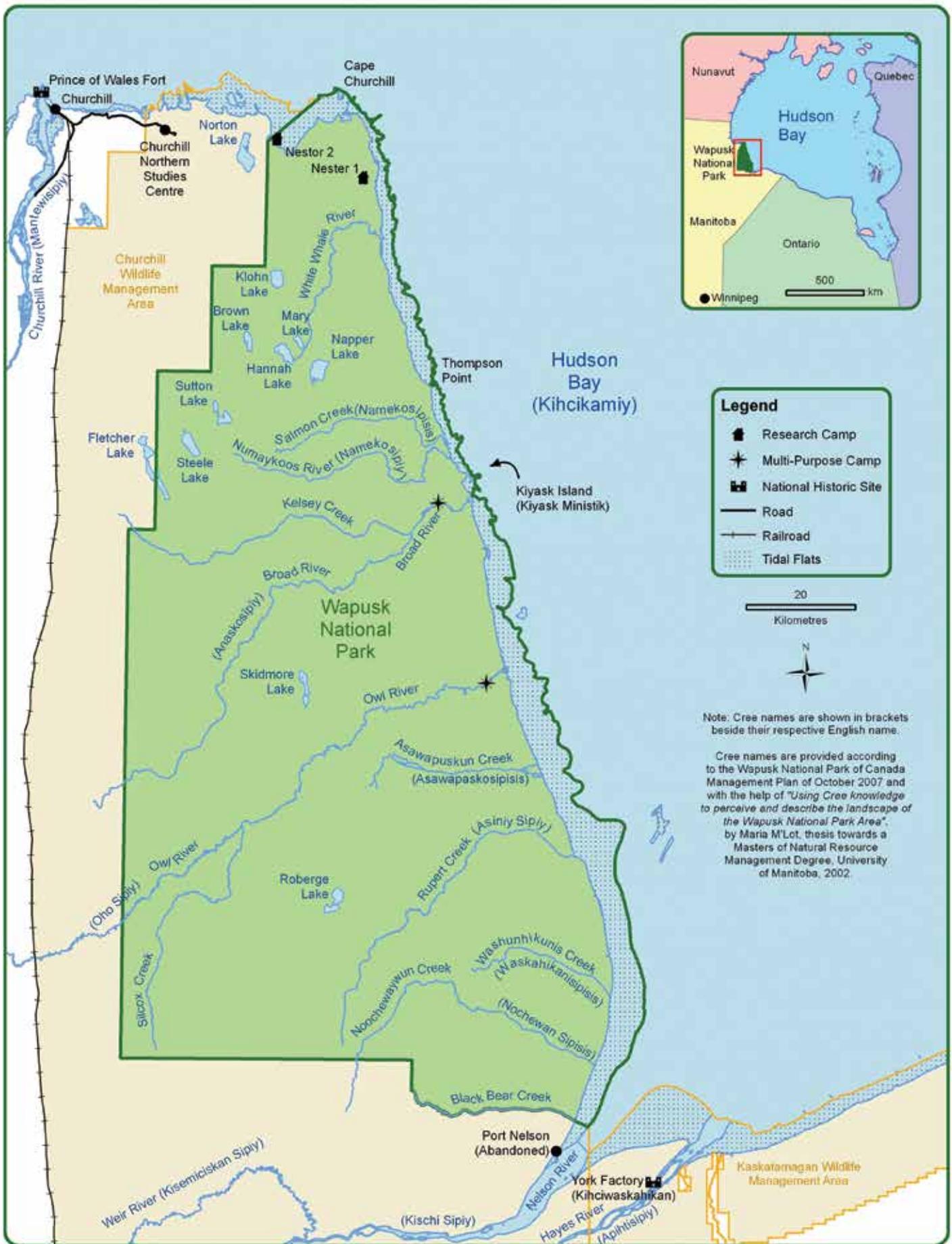
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8



9



Churchill Junior Canadian Rangers and ISAMR Work Together

Jill Larkin

Canadian Ranger Master Corporal

Leader of the Churchill Junior Canadian Ranger Patrol

In small communities like Churchill, many people wear more than one hat. In my case, I am both a Resource Management Officer for Parks Canada and a Canadian Ranger, a part of the Reserve Force of the Canadian Armed Forces. While on duty for Parks Canada, I enjoy working and travelling in Wapusk National Park (NP). The Canadian Ranger program allows me to explore the land surrounding Wapusk NP. As a Canadian Ranger, I have many exciting experiences, like running check points for the Hudson Bay Quest Dog Sled Race, working with search-and-rescue exercises, training the Army in wilderness survival and going on canoe trips in southern Manitoba. I am lucky to have two jobs where I spend a lot of time camping, canoeing, snowmobiling, shooting and hiking.

One of my most rewarding and interesting duties as a Canadian Ranger is leading the Junior Canadian Ranger (JCR) Patrol in Churchill. The JCR program is a community-based program open to youth ages 12 to 18 and led by members of the local Canadian Ranger patrol with support from the community and the Department of National Defence. We customize the program to teach locally-relevant Ranger, traditional and life skills. In addition to local activities and camping trips, the JCRs from patrols across Canada have opportunities to travel out of town for events, such as summer camp, shooting competitions and exchanges with other patrols across Canada.

The Churchill JCR patrol consists of approximately 25 youth, the majority



Junior Canadian Rangers Dania Meeko (second from left) and Jordan Bunka (second from right) whale watching on the Churchill River with ISAMR students and teachers

Jessica C. Levine

of whom are female in the 12-14 age group. Our patrol activities include shooting, sewing, hiking and learning survival skills. We also go out on the land for camping trips at least three times per year, usually in the winter by snowmobile. We have different themes for the trips, such as trapping, hunting, survival, ice fishing and recently, environmental and wildlife research.

The idea of involving the Churchill JCRs in research activities came about in August 2013 when I was tasked by Parks Canada to spend a week with a group of high school students doing permafrost monitoring at Nester One research camp in Wapusk NP. The group, known as the International Student-led Arctic Monitoring and Research (ISAMR) program, consisted of students and their teachers from Baltimore, Maryland (led by Julie Rogers from Park School) and Winnipeg (led by Dr. Ryan Brook from the University of Saskatchewan).

I soon realized that an ISAMR trip is much more than a summer camp or a field course. ISAMR's work goes beyond

“citizen science” because the students not only collect data, they direct the research, conduct the data analysis and submit papers to peer-reviewed scientific journals. In addition to their 30-year permafrost study, they assist Dr. Jim Roth (University of Manitoba) with fox research and participate in cultural activities. Like all researchers, ISAMR students present at various scientific conferences, where they are often assumed to be university students due to the high calibre of their work. (See Cory Silver's article on page 8 of this issue of *Wapusk News*.)

While I was at Nester One with this amazing group, I began to think about how the Junior Ranger patrol was missing out on an opportunity. Most Churchill youth have never had the chance to experience Wapusk NP, which is in their own backyard. With their skills on the land and local knowledge, there are many ways that the JCRs could contribute to the ISAMR team. It turned out that Julie was also interested in including local

continued on next page



Dr. Jim Roth



Churchill Junior Canadian Rangers

Top: Junior Canadian Rangers Nickia McIvor and Jordan Bunka taking measurements in a snowpit in Wapusk NP

Bottom: Junior Canadian Rangers Nickia McIvor, Khalee Palmer and Dania Meeko making bannock at Nester One research camp

continued from previous page

students in the ISAMR program, but did not know how to go about it. Before the end of our trip, she offered to include a couple of the Churchill JCRs on the Nester One trip in 2014.

Julie and I decided that the JCRs would travel to Nester One by snowmobile in the winter to collect snowpack data. The JCR Adult Committee and JCR Instructor Sergeant Danny Gosselin agreed to fully fund the trip as one of our official exercises. Dr. LeeAnn Fishback from the Churchill Northern Studies Centre (CNSC) and Dr. Steve Mamet from the University of Alberta, the local experts on snowpack sampling, supported our plans and offered us training.

The trip was set for April 18-21, 2014. Sergeant Danny Gosselin travelled to Churchill from Winnipeg to join the exercise, and Jackie Verstege,

a technician from CNSC, travelled with the JCRs to Nester One to help with the snowpack sampling. Dr. Jim Roth, who was planning to stay at Nester One at that time with three of his grad students doing fox research, was happy to share the camp with the JCRs and be part of the exercise.

It took about three hours to travel to Nester One. At the camp, the rock-hard snow was over 10 feet deep in places. It took 14 of us over four hours just to shovel out the doors of the kitchen building and the bunk house. Later, we enjoyed a supper of spaghetti with moose meat sauce, an evening snowmobile ride to Hudson Bay and finally, a well-earned rest.

The next morning was spent with Dr. Roth collecting data at three fox dens near Nester One. In the afternoon, we went to the three ISAMR permafrost monitoring sites to do the snowpack sampling. This went smoothly due to the field training the JCRs had done with CNSC staff. Our exercise was not only a science trip; we also did navigation training and explored the Cape Churchill area, which is about a one hour round trip from Nester One by snowmobile.

In August 2014, I travelled to Nester One with ISAMR for a second time, except this time I was on leave from Parks Canada and was working as a Canadian Ranger. I was chaperoning two JCRs, Jordan Bunka and Dania Meeko, who had been part of the winter snowpack trip in April. They had the opportunity to see Nester One in the summer, travel by helicopter and hike to the same fox dens that we had visited by snowmobile in April.

We hiked to Cape Churchill on a very hot day which took 12 hours for a return trip, compared to the one hour it took by snowmobile. Dania, Jordan and I cooked some Army rations for the ISAMR students to try. During the hike, we saw a couple of polar bears, as well as caribou, which typically don't come that close to town. When we returned, we ate frozen muktuk (beluga whale skin with

a layer of fat) and frozen moose meat dipped in soya sauce. Ironically, the vegetarians in the group really enjoyed the local meat and began referring to themselves as "cultural carnivores." Dania and Jordan were able to share their experiences with the students by giving a presentation on the April JCR snowpack sampling trip.

The JCRs were invited to participate in the fall ISAMR research project, Polar Bear Whisker Printing, based out of CNSC under the guidance of Dr. Jane Waterman. She has developed the methodology to identify individual polar bears using photographs of their whisker patterns. In October, we spent two days on a Tundra Buggy® photographing polar bears. In the evening, the students listened to presentations by Dene Elder Caroline Bjorklund, Métis Elder Myrtle DeMuelles and researchers. The JCRs gave a presentation about our program and JCR Antonina Kandiurin did a presentation on hunting and trapping in the Churchill area. On the last day we went to my cabin at Goose Creek to enjoy a feast of lake trout, goose and bannock. The students worked on sewing mitts and the JCRs toured the ISAMR students around the area by all-terrain vehicle.

Overall, 2014 proved to be a successful year for the JCR's participation in ISAMR. In fact, it was so successful that we were awarded a Promo Science grant from the Natural Sciences and Engineering Research Council for three more years of funding. Additionally, local student Jordan Bunka was invited to Baltimore in the fall of 2014 for the Association of Independent Maryland Schools annual conference to present our permafrost data with the other ISAMR students. Students also attended the Parks and Protected Areas Research Forum of Manitoba in Winnipeg in the fall of 2014 and ArcticNet, an international conference held in Ottawa in December 2014.

The JCRs and I are looking forward to a second year of our relationship with ISAMR and expanding the program! □

The Hudson Bay Coast Northern Field School

Wildlife and Ethnoecology of the Manitoba Coastal Region

The Hudson Bay Coast Northern Field School provides the opportunity for university students to immerse themselves in the Hudson Bay Lowlands ecosystem, meet people from the Churchill community and experience northern culture. Students participate in small research projects in Wapusk National Park (NP) and the Churchill area, as well as learn about the region, develop research skills and obtain real experience working in a national park.

This hands-on learning takes many forms. Practical skills are developed, including: collecting long-term monitoring data on permafrost and vegetation cover, as well as designing research projects on topics ranging from polar bear ecology, traditional knowledge of berry harvesting and caribou distribution, lemming burrow ecology and plant responses to soil moisture. Critical thinking skills are honed through group discussions and via interactions with local individuals and Parks Canada staff. Communication skills grow through giving presentations and sharing experiences, and through team teaching opportunities.

Since August 2004, this unique and engaging program has taken place annually. Dr. Ryan Brook, Assistant Professor in the College of Agriculture and Bioresources at the University of Saskatchewan, has organized and led the program since 2005, and has been conducting research in the greater



Wapusk eco-system since 1994. Joining him is Kristina Hunter, an Instructor at the University of Manitoba in the Department of Environment and Geography, who has been a co-instructor since 2008. Parks Canada staff play a vital role in the course from safety management to course content.

The students spend a week at the Churchill Northern Studies Centre, followed by a stay at the Nester One field station in Wapusk NP. One of the highlights of the trip is a hike from the Nester One base camp to Cape Churchill, a round trip of 32 km. The Cape is a distinctive feature within Wapusk NP—a series of beach ridges that extend well into Hudson Bay. During the fall this area is known for the congregation of polar bears awaiting the freeze-up of the Bay, and caribou are commonly seen as well. In 2014, students and facilitators were treated to several polar bear sightings on their journey to the Cape which made for some engaging back-country stories to tell around the campfire for years to come!

Students are asked to provide Parks Canada with their reflections on their time spent in Wapusk NP (*see inset*). This course clearly has a profound impact on each of the 157 (so far!) participants, with many commenting that the experience has been life-changing. Several course participants have gone on to careers in Parks Canada, and a few are even working in the Churchill area.

For more information contact: ryan.brook@usask.ca □



Top: Hudson Bay Coast Northern Field School participants at Cape Churchill, Wapusk National Park

Middle: Hudson Bay Coast Northern Field School instructor Kristina Hunter and students

Bottom: Dr. Ryan Brook teaching his students in the Wapusk National Park “classroom”

Personal Reflection, Wapusk National Park

Darian Weber

Above: colours of blue, red, orange, yellow, purple lit with clouds in sight

Below: arctic avens, bearberries, tufted bulrush, seeds in flight

There: polar bear, caribou, snow geese and more

Here: a nest, warm blankets, good company galore



Bringing Wapusk to Winnipeg

Linda Sutterlin-Duguid

Public Outreach Education Officer
Manitoba Field Unit

Helping people who live in Canada’s cities get in touch with distant places like Wapusk National Park (NP) is one of Parks Canada’s primary goals for public outreach education.

In May 2014 Parks Canada launched an enthusiastic outreach education team, which included several summer students, in Winnipeg. From the Assiniboine Park Zoo to the Manitoba Children’s Museum to Festival du Voyageur—Parks Canada staff brought stories of national parks and national historic sites in

Manitoba to eager urban audiences.

The new Journey to Churchill exhibit at the Assiniboine Park Zoo proved to be the perfect setting for introducing people to Parks Canada’s role in monitoring polar bears and protecting their denning areas in Wapusk NP. Throughout July and August, over 13,000 visitors learned about this fascinating park through fun activities such as the “Wapusk Polar Bear Quiz”. (How many of these visitors have now added Churchill to their vacation wish list?)

In November 2014 Parks Canada participated in the Science in Canada’s North event series at the Manitoba Children’s Museum in Winnipeg. Dr. Wanli Wu (Ecological

Dr. Wanli Wu, Ecological Monitoring Specialist, sharing stories about Wapusk National Park at the Manitoba Children’s Museum

Monitoring Specialist, Parks Canada) contributed his expertise to an interactive touch table about scientific research in Wapusk NP which included opportunities for families to learn more about polar bears, ringed seals, caribou and sea ice mapping. Visitors had fun trying on a polar bear tracking collar, sinking their fingers into plush caribou fur, watching wolves investigate field cameras at a remote research camp and observing an animated model of sea ice changes in Hudson Bay—to name just a few activities.

Thousands of visitors were virtually transported to Wapusk NP in February 2015 at Festival du Voyageur—western Canada’s largest winter festival. Through GreenScreen® technology, participants posed “on the tundra,” and had the opportunity to learn about caribou and polar bears in the process. The fun electronic photos were e-mailed to festival-goers to be shared with friends and family.

Zoos, museums and festivals can act as urban gateways to national treasures like Wapusk NP. These attractions are proving to be wonderful places to reach Winnipeg audiences in the thousands and share the stories of the park. □



Ancient hunting blind with orange “bird perch” lichen in Wapusk National Park

Did You Know?

- Wapusk National Park (NP) is home to approximately 300 lichen species. Lichens are found in forested areas as well as on the tundra and on rocks, trees, antlers and man-made structures within the park.
- Lichens are a fascinating combination of fungi and algae, a mutually dependent or “symbiotic” relationship, and therefore cannot be classified into any of the ordinary plant categories. According to recent estimates, approximately 18,000 different kinds of lichens grow world-wide.
- One of the lichens that is easy to spot in the park is the brightly coloured *Rusavskia elegans*, also called orange or starburst lichen. It is also sometimes referred to as bird perch lichen because it favours areas rich in nitrogen and phosphorus and is found in bird droppings. Look for this bright orange lichen in spots where birds frequently perch. In Wapusk NP these eye-catching, elevated perches stand out on the landscape and are used, even today, as navigational aids. □

A New Bear in Wapusk National Park?

Wapusk National Park (NP) is known for polar bears—in fact, *Wapusk* is Cree for “white bear.” But there is some evidence that a new bear may have moved into the park: the barren ground grizzly.

The barren ground grizzly is a slightly smaller cousin of the grizzlies that inhabit the mountains of western Canada, and its traditional range spans throughout the tundra of Nunavut and the Northwest Territories.

Since 1990, people have reported seeing barren ground grizzlies in Wapusk NP, with annual sightings since 2008. Over the past seven years, the number of sightings has been increasing and it is believed that at least two separate individual bears are spending time in the park. In fact, Parks Canada’s trail cameras captured photos of what appears to be a grizzly bear in the park in 2014.

Parks Canada and Manitoba Conservation and Water Stewardship are working together to find out more about these bears in the Churchill area. Parks Canada has purchased two radio tracking collars and, with Manitoba Conservation, whose Natural Resource Officers have expertise in capturing bears, hopes to collar a grizzly bear. The collars transmit a GPS location that will allow staff to see where the bears are travelling. The information from

the collars will be used to confirm that the bears are indeed barren-ground grizzlies, and more importantly, whether they are resident in the park and surrounding area, or merely passing through.

This information is important for park management purposes, and is significant as a permanent presence of grizzlies could impact the park’s ecology. This means that grizzly bears would likely be competing with wolves and polar bears for food and resources. Also, the potential exists for conflict between grizzlies and denning polar bears.

Did You Know?

Every autumn, large male polar bears gather at Cape Churchill in Wapusk National Park (NP) along the Hudson Bay coast, waiting for the sea ice to form. Polar bears depend on sea ice as a platform from which to hunt ringed seals, their main food source.

Polar Bears International and *explore.org* have placed a webcam at Cape Churchill in Wapusk NP to provide polar bear viewing on a live feed to thousands of viewers worldwide.

Frontiers North Adventures, authorized commercial tour operator in the park, also works with Polar Bears International and *explore.org* to offer two additional webcams from the Cape Churchill area.

From September through December, during the peak polar bear migration period, approximately two million “virtual” visitors experience the annual migration of the polar bears along the Hudson Bay Coast by clicking onto *explore.org* on their computers, tablets and smartphones. 



Top: Grizzly bear in Wapusk National Park

Above: Grizzly bear on Hudson Bay shoreline, Wapusk National Park

We know that there are grizzly bears in Wapusk NP, but confirming where they are travelling and whether or not they are denning will enable managers to make informed decisions and to address impacts their presence may have on the park and other wildlife that live there. 



Webcam image of polar bear at Cape Churchill

Safety in Polar Bear Country

Brady Highway

Visitor Safety and Fire Operations Coordinator

Wapusk National Park and
Manitoba National Historic Sites

Whether you are a long-time resident, a one-time visitor, or a newcomer to Churchill (like myself), this region is a wonderful place to witness the largest land-based carnivore—the polar bear—in its natural habitat. The chance to view this animal attracts people from all walks of life, people whose diversity of experience and approach to polar bear safety is often quite varied.

If you ask anyone who lives or works in the region, they will have a favourite bear story that they love to tell. These stories contribute to local folklore, and some of the lessons from these stories have made their way into educational materials and formal management plans that guide Parks Canada's daily operations. All people who visit and work in Parks Canada sites in northern Manitoba have a responsibility for safety. This can sometimes be challenging as people have different comfort levels when dealing with bears, and each encounter is unique.

We walk a bit of a fine line in Manitoba North, since on one hand, we must respect the space of the polar bear, and do our best to ensure that they do not become habituated to humans. On the other hand, we know that visitors enjoy seeing the animals on the ground and may, in their enthusiasm, pressure bear monitors and guides to facilitate that experience. The number of polar bear sightings can add to the pressure—in 2014 Parks Canada recorded 196 separate polar bear sightings while on the ground. This number would



Jill Larkin, Resource Management Officer, bear monitoring for researcher Daniel Giesbrecht in Wapusk National Park



Polar bear in Wapusk National Park

increase considerably if helicopter overflights and tundra vehicle sightings were added in. Each year, Parks Canada defines thresholds for dealing with bear encounters and implements a standard set of guidelines to ensure that no people, or bears, are harmed.

Parks Canada's work in protecting the species extends to our neighbours

and partners, and we have worked collaboratively with the Churchill Chamber of Commerce, the Town of Churchill and Manitoba Conservation and Water Stewardship (MCWS) to develop educational materials. Parks Canada staff contributed to the *Safety in Polar Bear Country* pamphlet, safety presentations and the development of town signage and hotel tent cards with specific safety messages for visitors and transient staff. We also worked with Polar Bear Alert who in 2014 experienced an early and busy season. Their first bear call occurred on June 8 and they handled their first bear on July 2. Parks Canada and MCWS tested the relocation of bears from their holding facility into Wapusk National Park with the hope that those (human habituated) bears do not wander into other towns further up the Hudson Bay coast.

Parks Canada is proud of the contribution it makes to the conservation of polar bears. As a new member of the community, I sincerely appreciate the leadership Parks Canada demonstrates in providing safe experiences to visitors, while maintaining the respect and space that bears need to survive. □

What's Happening! Programs and Events – 2015



*Canada Day Bay Dip –
A chilly race to the finish!*

Canada Day Bay Dip

The summer kicks off with some chilling on the beach with the ever-popular Canada Day Bay Dip! This fun (but frigid) team relay race challenge has participants taking the plunge into the waters of Hudson Bay. Prizes are awarded for the fastest team and best costume.



*All dressed up for Parks Day at
Prince of Wales Fort NHS*

Parks Day – July 18

Join Parks Canada staff for a full day of fun experiences at Prince of Wales Fort National Historic Site (weather permitting) in celebration of Canada's national parks and national historic sites. Boat transportation will be provided.



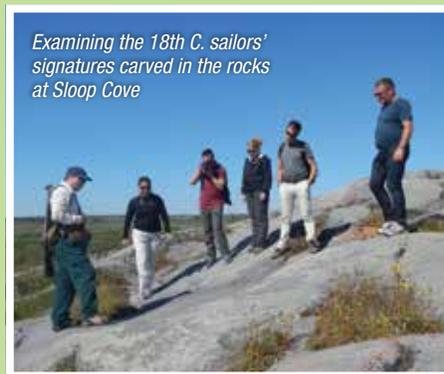
*Hands on History participants hard at
work at Prince of Wales Fort NHS*

Hands On History

Public Archaeology at Prince of Wales Fort National Historic Site

Returning for its second year! Parks Canada and the Churchill Northern Studies Centre (CNSC) are pleased to partner to bring this unique public archaeology experience to Prince of Wales Fort NHS.

As a member of the archaeology team, you will be working side-by-side with Parks Canada archaeologists to uncover the past and discover what life was like at the fort 250 years ago. You will be immersed in all aspects of archaeology field work, from excavation to working in a field lab identifying and cataloging artifacts. During your boat commute to the fort, it is not uncommon to be escorted by pods of beluga whales or catch sight of a polar bear resting on Eskimo Point. In the evenings at the CNSC you will be invited to participate in lectures on related topics and to interact with a diverse group of scientists who study many natural features of the region. The course will run from July 30 to August 6, 2015, and can be booked through the CNSC at www.churchillscience.com. Parks Canada will also be running public archaeology day programs on August 7 and 8.



*Examining the 18th C. sailors'
signatures carved in the rocks
at Sloop Cove*

Sloop Cove Hikes

Take a hike! Join Parks Canada staff for half-day hikes from Sloop Cove to Prince of Wales Fort National Historic Site. The hike is a four kilometre trip that begins once you have been dropped off by boat at Sloop Cove and ends at Prince of Wales Fort where you will be picked up once again by boat for the return trip to Churchill. Explore Sloop Cove where the Hudson's Bay Company dry-docked their ships and sailors carved their names into the rocks above the cove. Get an up-close look at the tundra and the shoreline ecosystem of the Churchill River estuary. Learn about the nearly 4,000 years of human history in the Churchill area by visiting some of the many archaeological sites. Contact SeaNorth Tours at 204-675-2195 or www.seanorthtours.com for times and to book your hike.



*Hudson's Bay Co. Depot at
York Factory NHS*

Northern Iconic Experience: A Northern Manitoba Adventure

Five days of exploration await you in Wapusk National Park and York Factory and Prince of Wales Fort National Historic Sites. Hiking on the open tundra of the park, you will be swept away by the vastness of the landscape and wonder at the plants and wildlife that can be found here. For all its wildness, this landscape has a human story as well. At York Factory and Prince of Wales Fort you will step back in time to the days of the historic fur trade when British traders and First Nations peoples conducted business on the shores of Hudson Bay. Hear how their hardships, joys, triumphs and defeats shaped them and the country that would become Canada. This is the place where the natural and human worlds are intertwined.



*A well-earned rest for hikers
in Wapusk National Park*

Hiking in Wapusk National Park

If you have always wanted to spend a day in Wapusk National Park, here's your chance! Parks Canada will be offering day trip hiking excursions into the park this summer. Accompanied by Parks Canada staff you will fly into the park to explore the remote tundra, wetlands, and beach ridges, investigate the rich plant and animal life, and hear the story about the thousands of years of human connection to this landscape. 

For more information about any of these programs: 204-675-8863 or e-mail: mannotn.nhs@pc.gc.ca

Wapusk Management Board Update

The Wapusk Management Board was established in 1996 to consider matters relating to the planning, management and operation of Wapusk National Park (NP), and to make recommendations on these matters to Canada's Environment Minister and Minister responsible for Parks Canada. Since the board was established, it has helped, with its advice to Parks Canada, to set the direction for one of the world's most unique places. The past year is no exception, as the board has been very active over the past few months.

Each year, the Wapusk Management Board meets to discuss the status of research applications for the park. This involves a review of the research applications to ensure that they meet the research priorities established for the park. For the 2014-15 season, five research permits were issued by the Superintendent following the recommendations of the board. The permit review is now complete and the management board has submitted recommendations for four permits for the 2015-16 season.

The board has also been very interested in the proposal by the Province of Manitoba to establish a provincial park that would border Wapusk NP.

Other topics that the board discussed over the past year include:

- trap lines within the park
- contribution agreements for research
- Aboriginal and local traditional knowledge
- new visitor experience opportunities
- polar bear management

The board will soon be turning its attention to the Wapusk NP management plan. This plan sets out the direction for the park for a ten year period. The formal planning process will begin in 2016 and the board will be advising the Superintendent on its expectations for the future of the park.

The Wapusk Management Board is taking this opportunity to thank a member for his hard work and dedication to Wapusk NP and to welcome a new colleague. John T. Williams has completed his three-year appointment as the Government of Canada representative to the board, during which time his knowledge and experience helped shape the advice of the board. His insights relating to wildlife conservation and management have been instrumental in helping to set park priorities. Thank you, John.

The board is pleased to welcome Jan Collins who has been appointed by the Honourable Leona Aglukkaq, Minister of the Environment and Minister for Parks Canada, as the new representative of the federal government on the Wapusk Management Board. Jan's experience with the Province of Manitoba as Tourism Development Consultant responsible for the development of resource-based tourism product across Manitoba provides him with a thorough understanding of the tourism industry as it relates to natural environment. We look forward to working with Jan on the future of the park. □



Learn more about Wapusk National Park and see past issues of **Wapusk News** online at www.parkscanada.gc.ca/wapusk

Wapusk News is produced by Parks Canada and the Wapusk Management Board.

We want to hear from you!

Parks Canada and the Wapusk Management Board would appreciate any comments about this issue of **Wapusk News**, or suggestions for future issues.

Send your feedback to:

Wapusk National Park
P.O. Box 127
Churchill, MB R0B 0E0

Telephone: 204-675-8863

You are also invited to bring your comments to the Parks Canada Visitor Centre in Churchill, Manitoba, or send us an e-mail at: wapusk.np@pc.gc.ca

The ten member Wapusk Management Board is made up of representatives of the Government of Canada; Province of Manitoba; Town of Churchill; Fox Lake Cree Nation; and York Factory First Nation. The work of the board reflects the philosophy, expressed in the Wapusk Park Establishment Agreement, that people are Keepers of the Land.



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