



Quarterly Conservation Impact Report Q1 2024

Thanks to the incredible support of this community, we had a busy and productive 1st quarter. Check out a few of our conservation highlights from the first three months of the year.

Science and Research Highlights

Maternal Den Studies

Impact of this work: Our den studies are helping us understand important aspects of denning behavior while also monitoring the condition of moms and cubs.

- Our long-term [den-monitoring project](#) in Svalbard continued in March of 2024 with one of the most successful field seasons to date. We deployed our custom-made den-monitoring cameras at 5 confirmed den sites. Thanks to on-the-ground tech support from partners, we were able to pinpoint den locations with even greater accuracy, helping to ensure excellent results when the families emerge later this spring.

Den-Detection Studies

Impact of this work: By developing technology to locate denning families under the snow, we can help protect them from disturbances.

- Following [successful pilot efforts in Svalbard](#) to test the ability of 2 different types of radar to detect denning polar bear families under the snow, we are awaiting opportunities to test the technology in Alaska, the region where it will be most useful in helping managers find and avoid disturbing denning families.
- The team is currently working on a paper on the Svalbard research to submit for peer-reviewed publication.

“Burr” on Fur Tracking Devices

Impact of this work: The new tags will enable scientists to follow adult male polar bears and young bears for up to 3 months, gaining valuable movement information on these less-understood groups; the tags will also provide scientists with a new tool for tracking bears that are relocated away from human activity if collars are not available.

- Prior to wrapping up research on our [“Burr on Fur”](#) tracking devices, we deployed one last set of refined tags at one of our [Arctic Ambassador Center](#) zoos. One of the designs tested there stayed on a bear for 75 days, the longest we’ve yet seen in zoo bears, indicating that

improvements made in response to feedback from partners has been very helpful in developing field-ready tags.

- A paper detailing the usefulness of these tags as an alternative to collars will be published soon. In addition, we plan to follow up with our zoo and aquarium partners to generate a publication describing our testing efforts in zoos and lessons learned.

Emerging Scientific Techniques

Impact of this work: By supporting these efforts, we're expanding our understanding of polar bear and Arctic ecology while also mentoring the next generation.

- **Genomics** - [Dr. Ruth Rivken](#), a postdoctoral fellow from the University of Manitoba, is leading our genetics research with partners. Quantifying the amount of genetic diversity contained in polar bear populations, along with the environmental factors that influence that diversity, is an important step in understanding how polar bears can adapt in the face of climate change. She currently has several papers in the pipeline.
- **Energetics Modeling** - [Dr. Louise Archer](#), a postdoctoral fellow from the University of Toronto, is leading our efforts in this area. She recently contributed to a paper connecting sea ice loss with energetics that will be published later this year. She is also supporting the first analysis of our den-monitoring data from Svalbard.
- **Disturbance and Viewing Distances** - Kamryn Dehm Allyson, a PBI-funded graduate student at the University of Miami, is summarizing what is known in the published literature about tourism-viewing distances and human disturbance. In addition, we are applying for grants to better understand the relationship between polar bear viewing distances and improved conservation behaviors of guests when they return home. This research will include exploring noninvasive methods of determining how far away bears are and studying at what point bears show a response to viewing.

Management, Policy, and Advocacy Highlights

Southern Hudson Bay Coexistence (Ontario, Canada)

Impact of this work: By helping communities live safely with polar bears, we'll allow both to thrive.

- Working with partners, we finalized plans to visit 2 additional [communities](#) this spring. Both visits will include training in the use of polar bear deterrents. We also plan to deliver deterrence supplies and 2 polar bear traps to help safely trap and relocate polar bears that venture too close to human activities.

Churchill Coexistence (Manitoba, Canada)

Impact of this work: By supporting the efforts of the Town of Churchill to become the world's first Polar Bear Smart Community, we can help develop a model for others to follow.

- The [Churchill Bear Smart Working Group](#) (CBSWG) recently added 2 additional community members to the task force. The group has started to make plans for hosting the 2nd Hudson Bay Science Symposium, scheduled for late August of 2024.
- To help foster the sharing of ideas and information related to coexistence, we're helping to coordinate an exchange involving leaders from Northern Ontario communities, CBSWG members, and colleagues from Svalbard, Norway.

“Detect to Protect” Radar (Bear-dar)

Impact of this work: By developing an early warning technology that can detect approaching bears, we can help reduce conflict between polar bears and people.

- We continue to make progress with [bear-detection radar](#). This spring, our team plans to move the “Bear-dar” mobile tower to the Assiniboine Park Zoo, one of our Arctic Ambassador Centers, where we can continue training the AI to discriminate between different targets, from people to polar bears to caribou. After further fine-tuning this spring and summer with our technology partner, we'll be able to train our staff on the software. By the fall of 2024, we should be prepared to deploy the system for a last year of testing in Churchill before considering the tool ready to share with communities and other end users.

Deterrence Testing

Impact of this work: Controlled testing of various technologies and techniques to deter polar bears will help communities select the most appropriate and effective tools for their unique situations.

- We are supporting an effort with partners in Alberta to conduct lab-based ballistic testing on a variety of contact deterrent rounds (e.g., rubber bullets) designed for 12-gauge shotgun deployment to determine overall safety for use and set more precise distances for users.
- We are finalizing plans to work with Brigham Young University and partners to begin testing other deterrent tools that are either novel, or that are in use but lack formal testing for efficacy. We plan to launch this project in the coming months.
- We're currently making plans for the [International Association for Bear Research and Management conference](#) in Edmonton in Fall 2024. There, we plan to present some of our work, convene with experts to discuss designing a safer live bear trap, take part in a workshop about using Indigenous Knowledge in polar bear management, and identify potential deterrent tools in need of further testing.

Policy and Advocacy

Impact of this work: By encouraging policies that support polar bear conservation and engaging the public in advocacy, we can help sustain the polar bears' future.

- Following [productive meetings](#) last fall at the Polar Bear Range States, the Arctic Circle Assembly, and COP28, our team continues to nurture relationships and engage in

constructive dialogue. These efforts include meeting with government officials in the U.S. and Canada.

- The advocacy team has also started making plans for a civic engagement campaign, one that goes beyond voting to include community-level projects and regular contact with elected officials on climate action and other conservation issues.
- We continue to work with partners in the advocacy realm to implement findings of the recent [paper led by Dr. Steven Amstrup](#) into U.S. policy across government agencies.

Education and Outreach Highlights

Education and Awareness

Impact of this work: Our outreach highlights the issues facing polar bears and inspires people to take climate action.

- We celebrated [International Polar Bear Day](#) on February 27, spanning the globe with our awareness event through our website, live chats, social media, and earned media. We enjoyed participation from 40 zoos and aquariums in our Arctic Ambassador Center network and from our partners, ambassadors, and sponsors.
- In January, for the 2nd time, we helped organize, facilitate, and present at the [International Polar Bear Conference](#), held this year at the Yorkshire Wildlife Park in England. Fifty-four participants from 26 different zoos and aquariums from 9 countries and 6 U.S. states gathered to share information related to polar bear care and conservation.
- After a successful 1st season with our interpretive “pop up” [Ice House](#) in Longyearbyen, Norway, last summer, we are planning to open the house for 3 weeks in April and to extend our summer season by a week. We’re grateful to our partners in Svalbard for helping to make this initiative possible.
- The growing [northern lights tourism season](#) in Churchill, Manitoba, Canada, led to an increase in visitor numbers at our interpretive center, [Polar Bears International House](#), this winter.
- We hosted our 1st annual free Winter Camp for kids in Churchill. Held on Louis Riel Day, 21 kids ages 5 to 13 joined us to learn about Metis culture from knowledge-keeper and PBI Advisory Board member [Katie de Meulles](#). They also enjoyed games and art projects and went on a special dog-sledding trip. The team is now in full planning mode for our 2nd annual Churchill summer camp.

Media Coverage

Impact of this work: By sharing accurate information on polar bears and the threats they face with a global audience, we help combat misinformation and inspire action.

- Our International Polar Bear Day coverage included 67 unique media pieces reaching 78.37 million people. Among the media outlets: Associated Press, CBC, IFL Science, Yahoo News, The Weather Network, Hindustan Times, Telemundo, and Sky News.
- Other media coverage in the 1st quarter focused on sea ice loss and polar bears, a new paper showing that terrestrial foods aren't the answer for polar bears, news of avian flu showing up in polar bears, and more. Media outlets featuring PBI included CBS News, ABC News, Business Insider, The Guardian, and more.
- And, in case you missed it, here is a [video recap](#) of our coverage from 2023.

To view previous quarterly impact reports, visit the [Publication & Reports](#) section on our website