



The den study cameras captured images of the polar bear mom and cub exploring the site after they left their snow den in spring.

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Mama Polar Bear and Cub Make It Through Denning Season Thanks to Collaborative Work

Remote den study cameras helped industry avoid disturbances

What happens when a female polar bear decides to den next to an active oil field production area in northern Alaska? What could have been a risky move for the mother bear turned out positively after Hilcorp Alaska, an oil and gas company, worked with the U.S. Fish and Wildlife Service to minimize disturbances to the denning bear.

The remote cameras used by Polar Bears International and Brigham Young University in a long-term [maternal den study](#) were put to good use during the process. They allowed Hilcorp staff to monitor the family's activities around-the-clock, halting traffic and other activity during sensitive time periods.

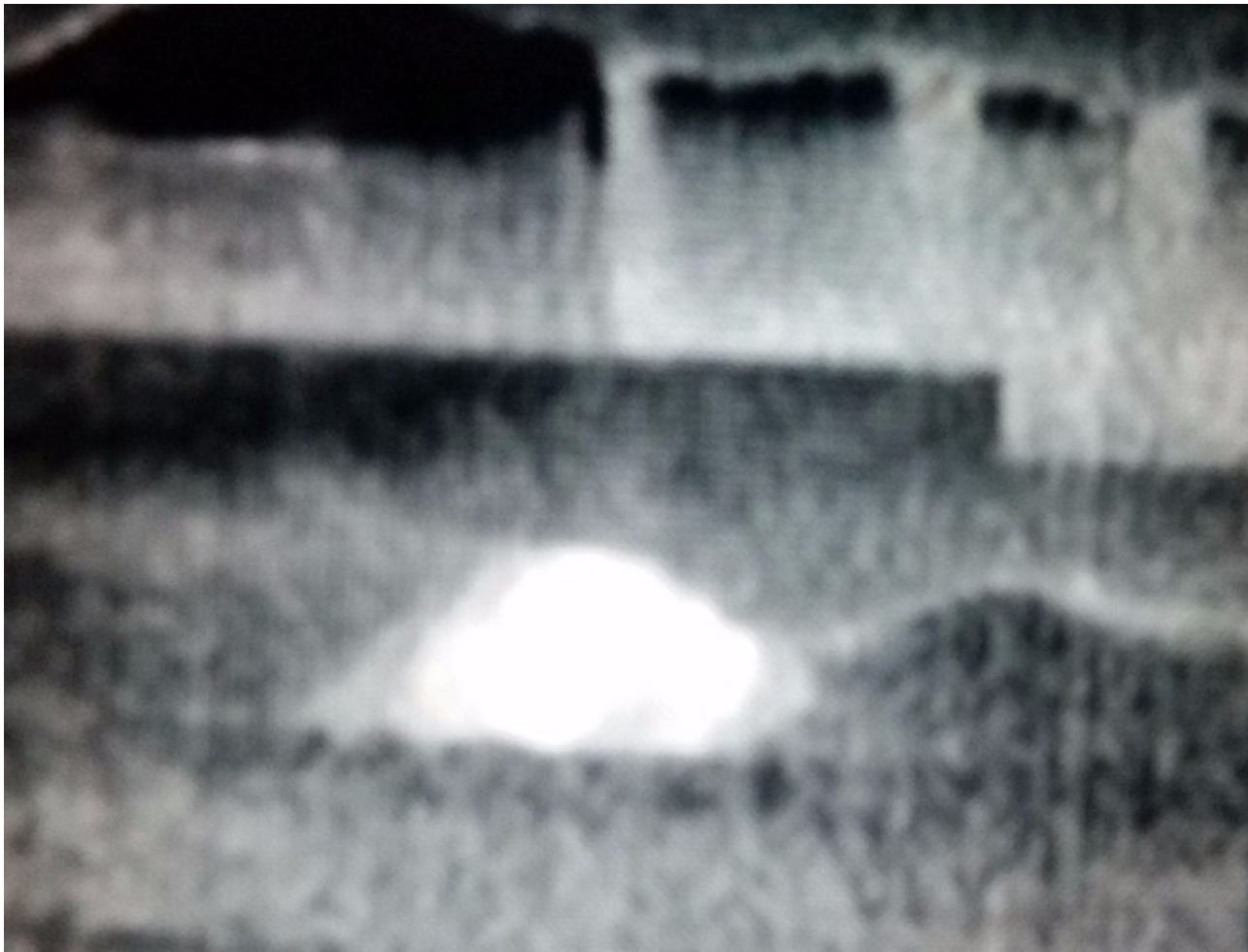
"We set up the cameras to give Hilcorp personnel the ability to see when the female emerged and when the family had left the den site," said Geoff York, senior director of conservation at Polar Bears International. "It was a success story all around and a good example of cooperative conservation."



The mother bear constructed her den in a snowdrift next to an industrial roadway used by Hilcorp Alaska, an oil and gas company. PBI and BYU's remote den study cameras helped Hilcorp monitor the site to avoid disturbing the mom and cub.

First sighting

The story began back in December when Hilcorp employees noticed a possible den entrance in a snowdrift under a bridge on an industrial roadway in Prudhoe Bay, Alaska. Using thermal camera technology, Hilcorp field staff confirmed the presence of a female polar bear under the snow. Workers immediately closed the road and worked in cooperation with the Service to develop a plan that allowed only essential traffic to pass.



Thermal camera technology detected the presence of a denning bear under the snow.

The initial period after a female polar bear enters her den is important because disturbance may cause her to prematurely abandon the den. Even more critical is the den emergence period in the spring when female polar bears come out of their dens with new cubs. A disturbance during the emergence period could cause a female polar bear to abandon the den site before the cubs are ready to survive out in the harsh Arctic climate.

Most of the dens that PBI and BYU have studied in the past are far from human activity and don't require real-time observation. This one required something new—live streaming from a remote camera approximately a mile from the den for around-the-clock monitoring.

24/7 monitoring

"The industrial location—adjacent to a bridge and within clear site of an active oil well and a full production facility—was quite different from the other sites we've studied," York said. "The episode will help us better understand polar bear denning behavior and sensitivity to disturbance, and that, in turn, will help managers within industry and the Service better protect denning bears."



The remote camera system let Hilcorp and the Service monitor the family from afar.

On March 18th, after months of no activity at the den site, the cameras captured the polar bear and her new cub as they popped out of their winter home into the bright spring sunshine. The new family spent two weeks around the den site before heading off to the sea ice to take advantage of peak spring seal hunting.



"Our goal was to ensure that the bears were able to stay at the den site as long they needed, and depart when they were ready," said Christopher Putnam of the Service. "Working together, we successfully accomplished that goal."

See more images and den location in this [Story Map](#) by the Service.

PBI wishes to thank Bering Time, the Columbus Zoo and Aquarium, Utah's Hogle Zoo, Hilcorp Alaska, and BP Alaska for supporting the maternal den study.

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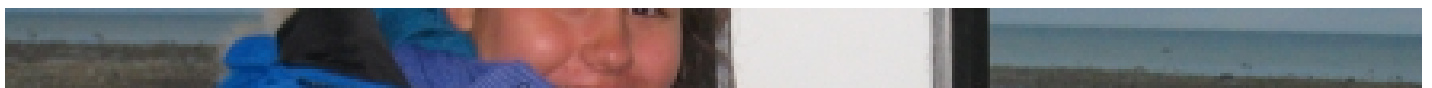
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Contact Us

Polar Bears International—US
PO Box 3008
Bozeman, MT 59772

Polar Bears International—Canada
PO Box 4052, 1155 Main Street, Station B
Winnipeg, MB R2W 5K8

Name

Email

Message