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On Thinning Ice

Photographing declining polar bears on Hudson Bay

Lisa Densmore Ballard



ON'T LOCK YOUR DOOR!" ADMONISHED RANDY DUVALL, owner of the Kaska Goose Lodge, a seasonal outpost used mainly by goose hunters and located about a mile inland from the southwestern shore of Hudson Bay in Manitoba. "You never know when you might need to get quickly inside." And we should look around before stepping out, he added. It was early September, and one never knew when a polar bear might wander through the small enclave perched above the Kaskattama River.

Seeing a live polar bear in the wild has always on my "bucket list." An encounter outside my bedroom door wasn't exactly what I had in mind. I preferred a little more space between me and the bear.

We had just arrived at the lodge's "international airport," a grass strip 600 miles north of Winnipeg. The chance to photograph polar bears, as well as other Arctic flora and fauna, was a major reason for the trip, plus the opportunity to simply visit Hudson Bay. I was there at the invitation of Shel Zolkewich, an outdoorsy Ukrainian with bright brown eyes and an infectious laugh who worked for Travel Manitoba.

The first thing I noticed as our Cessna landed was the flatness of the terrain. From the coastline, gravelly sand turned to tundra, to taiga, and then to boreal forest without gaining more than a couple of feet in elevation, yet the flora were similar to that growing atop New Hampshire's Presidential Range. Alpine summits such as Mount Washington have absurdly short growing seasons, but they have double the days of summer compared with Hudson Bay. In an odd case of seasonal overlap, the wild blueberries, bearberries, gooseberries, and lingonberries (mountain cranberries) ripened in the sun though the ground cover was already aflame in autumn reds and oranges. At the 58th parallel, just below the Arctic Circle, nature rushes through its annual growing cycle in a mere six weeks. Despite the abbreviated summer, the Hudson Bay Lowlands are a mecca for Arctic wildlife. Thousands of snow, Ross's and Canada geese stage here before heading south for the winter. The lowlands are also home to ducks, ptarmigan, Arctic fox, wolves, moose, caribou, polar bears, and—a surprise—black bears.

I knew the ranges of polar bears and grizzly bears overlapped in Alaska and that the two species have hybridized. Some biologists speculate that polar bears, a poster-mammal for the negative effects of climate change, are crossbreeding with grizzlies as an adaptive response to loss of habitat. Others

Summertime is hibernation time—sort of—for polar bears on the Hudson Bay. They dig beds, have their young, and hang out on the beach. LISA DENSMORE BALLARD

disagree. DNA samples taken from bear remains show that polar bears and grizzly bears mated before the twentieth century.

No grizzly bears live on Hudson Bay. But lots of black bears make their homes in the expansive boreal forests. Both white and black bruins frequently saunter past the Kaska Goose Lodge and its handful of small cabins and storage sheds because of its location at the edge of the forest, hence Randy's warning to leave the doors unlocked, allowing a quick escape if a guest sees a bear of either color.

The local black bear population interested me for the bear's large size. Bergmann's Rule—the farther north, the larger the animal—was definitely in effect. I spotted one hefty boar raiding the lodge's garbage pit that easily weighed over 500 pounds. Impressive until Randy pointed out the average male polar bear in the area weighed 1,000 pounds more! He casually pointed to the dented rain gutter and several deep lines in the trim above the door to the dining room, compliments of a polar bear that stood more than eight feet tall.

"WANT TO GO TO THE BEACH?" ASKED SHEL, AFTER WE UNPACKED.

The lodge has two modes of transportation across the tundra: by Argo, an eight-wheeled all-terrain vehicle, and by helicopter. At \$3,200 per hour for the helicopter, the Argo would be my chariot.

We bounced our way across mudflats toward a line of sand dunes that marked the coast, parked, then walked to the top of the dunes. One of the lodge's guides, who drove the Argo, accompanied us, a shotgun slung over his shoulder in case a bear took interest in us. Polar bears, the most carnivorous of all bear species, rarely harm humans, partly because there are very few people where they live, but if a hungry bear thought one of us an easy meal, he would not hesitate to attack.

I would never have put the notion of going to the beach in the same context as Hudson Bay. In fact, an endless strand stretched in both directions punctuated by a few pieces of driftwood and a half-dozen abandoned bear beds. Craters really. The beds had been dug by non-hibernating polar bears as a way to stay cooler.

As the ice melts on Hudson Bay, the bears come ashore to await the fall freeze-up and the return of the seals. The bears hunt seals, their main source of food, from the ice. Counter-seasonal to black bears and grizzly bears, polar bears "hibernate" during the summer, sort of. Pregnant sows den to give birth, but the others hang out on the beach, digging craters in the sand or

wandering into the nearby willow bushes to nibble on vegetation and to stay cool. To a polar bear, 40 degrees Fahrenheit feels tropical. In a lazy state of semi-torpor, they occasionally kill easy prey.

What polar bears eat and how they den to give birth are at the heart of the discussion among scientists, conservationists, governments, and indigenous peoples over the plight of this iconic beast that presides at the top of the Arctic food chain. The polar bear, *Ursus maritimus*, or the sea bear, is considered a marine mammal by the United States, Norway, Greenland, and Russia. The only other country with a polar bear population, and the largest number of polar bears, is Canada, which classifies *Ursus maritimus* as a terrestrial mammal. Polar bears are listed as threatened under Manitoba's endangered species legislation.

In 2014, the International Union for Conservation of Nature's Polar Bear Specialist Group, an international consortium of experts on polar bears, estimated 25,000 polar bears in the world in nineteen subpopulations. Of those groups, three were declining, six were stable, one was increasing, and nine had insufficient data. The Hudson Bay bears, who live in the southernmost range, were among the declining populations because of the gradual decrease in duration of ice on the bay. For the bears, that means less time to hunt seals. Fewer seals means less fat in their diet, which in turn means lower fat reserves in their bodies, critical for long-term health in some of the coldest weather on the planet.

During the winter, temperatures can hover at –50 degrees F for multiple days, but with healthy amounts of seal blubber in their diets, polar bears have no problem handling frigid conditions. Under their two layers of fur and skin lies a thick layer of fat. Interestingly, polar bear fur is not really white. It only looks white from the reflections of the snow and sun. It's actually clear. When it gets dirty, it can take on a yellowish tinge. Though worn by the Inuit and other northern First Nations, the commercial fur trade never prized polar bear fur. Its hollow shafts are not as luxurious (to a human) as the Arctic fox's coat, but it insulates effectively. The bear's fat layer provides needed calories and warmth when its fur is wet. What's more, polar bears have small ears and a tiny tail to lessen heat loss. They are so adapted to cold weather that, though they can run as fast as 25 miles per hour, they will overheat if they run very far, even in the middle of winter.

Although seals are a polar bear's preferred and most efficient means of nourishment, bears in the southern part of their range, including Hudson Bay, have shown the greatest flexibility in their diet, probably because the

number of days with ice on the bay is decreasing by about a day per year. Using bear scat to study what foods they eat, scientists have found hungry polar bears will eat dead whales, seaweed, sea ducks, mussels, sea urchins, moss, grass, berries, and willows. And some will gorge on goose eggs.

The discovery that polar bears feed on geese and their eggs excited conservationists at the prospect of the Arctic bruins helping to curb the overpopulation of snow geese who have decimated large tracts of tundra. However, a recent study published in *Frontiers in Ecology and the Environment* (April 2015) debunks the notion. Using motion-sensing cameras, only 30 bears, a small percentage of the bear population, were observed eating eggs, not enough to make a dent in the number of white geese. What's more, the eggs are not high-calorie enough to create the fat reserves required by a healthy polar bear. As the ice has declined, so has the average weight of the Hudson Bay polar bear—almost 100 pounds per bear during the last couple of decades. Despite their ability to feed on terra firma, the survival rate of polar bears, especially females and cubs, is directly correlated to the condition and duration of sea ice, and thus the amount of sea blubber in a bear's diet.

Standing on the beach, I stared across the endless stretch of water. Waves gently lapped against my rubber boots. I imagined what Hudson Bay would look like in another two months. Frozen, wind howling, it would be unfit for humans, but polar bear heaven. I was grateful for the present day, sunny and 55 degrees F, and wondered where the polar bears were.

My trip to Hudson Bay lasted only four days. After three days, I had still not seen a polar bear despite two trips daily across the tundra to various blinds. "Want to take a ride in the helicopter this afternoon?" Randy asked at lunch on the last day, "Shel said she would cover it."

Ecstatic at the prospects of riding in the helicopter and finally seeing a polar bear, I grabbed my camera gear.

"Get in the front seat," whispered Tony, the pilot. "It's the best spot for seeing wildlife."

We buckled in, put on our headsets, and took off. The helicopter was instantly traveling along the coast. I looked down. Thousands of geese lifted off as we passed over. Like swarms of 20-pound mosquitos, they filled the air, then settled back to their roosts.

Tony pointed toward a grove of black spruce. A woodland caribou stirred in its bed beside the edge of the trees. As we hovered above the grove, an enormous bull moose burst from the bushes and charged ahead of us annoyed by the helicopter.



From a helicopter that steered away soon after, Lisa Densmore Ballard saw this large group of polar bears lounging on a beach along Hudson Bay. LISA DENSMORE BALLARD

Tony banked the aircraft, pointing to the remains of a cabin 200 feet below us. The ruins of several more buildings came into view among the trees and grassy clearings. "That's York Factory," announced Tony over our headsets. "It's an old Hudson's Bay Company trading post."

Old indeed. When the Hudson's Bay Company was founded in 1670, a factory was not a place of manufacturing. The chief factor, or boss of the trading post, ran the factory, the place where trappers congregated to trade pelts for flour, tea, booze, and ammo. Three hundred years ago, York Factory, named for the Duke of York, was one of three major depots with water access to Hudson Bay where pelts could be loaded on ships bound for London, England. It operated as a fur trading post until 1957. It's now an Arctic ghost town and a national historic site. The largest building there was erected in 1831 and is the oldest and largest wooden structure in Canada on permafrost. In the 1960s, the original owner of the Kaska Goose Lodge moved one of the warehouses from York Factory to the lodge's current location where it's now the kitchen.

The helicopter banked again. Within moments, we were traveling down the seashore.

"Look there!" said Tony, pointing toward the dunes. More than 40 polar bears were strung out along the humps of sand, lounging or wandering lethargically here and there. My heart leapt with excitement. My wish to see a polar bear had been granted!

Rather than hover, Tony adeptly steered the aircraft up the coast, circling back a couple of times and varying his elevation to give me the best view while disturbing the bears as minimally as possible. It was a remarkable sight. Some of the bears slept on their sides, legs stretched out as if sunbathing on the beach. A couple of young males play-wrestled. One rolled into a willow crushing the woody shrub as if it were grass. Another bear sat on a mound licking its forepaw. Several bears walked up the beach seemingly without purpose. The scene could have been any beach in the Lower 48, except the beachcombers were 1,500-pound polar bears rather than 150-pound humans.

Traditional Inuits believe the spirits of people and polar bears are comingled and that polar bears in their dens shed their skins to reveal a human form. The belief may be based on the fact that polar bears can stand and sit like people and that a skinned carcass looks human-like, but as we swooped down for one last look, the thought passed. Polar bears are unique in the animal kingdom, the rulers of the Arctic. I put them back on my bucket list. I sincerely hope for the chance to see them again.

A longtime member of the Appalachian Mountain Club, LISA DENSMORE BALLARD is an award-winning writer, photographer, and filmmaker. She splits her time between Red Lodge, Montana, and Chateaugay Lake, New York, when she's not exploring a wild part of the world. www.LisaDensmore.com.

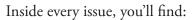
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