



SEA BEAR UNDER SIEGE:

Polar Bears and Climate Change in Alaska

Arctic National Wildlife Refuge Essential to Iconic Marine Mammal's Survival



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CLIMATE CHANGE has had such a dramatic impact on polar bear populations that our children could be the last generation to see polar bears on U.S. shores.

Nowhere is the warming of our planet more apparent than in the Arctic, where the sea ice polar bears depend on is melting. This loss of multi-year sea ice is transforming the region and affecting every facet of the polar bear's life, from hunting seals to raising cubs.

On this, the 50th anniversary of the Arctic National Wildlife Refuge, Defenders of Wildlife takes a comprehensive look at the status of the polar bear throughout its range in Alaska, and details the ongoing threats posed by a changing Arctic to the world's only marine bear, in a new report, *Sea Bear Under Siege: Polar Bears and Climate Change in Alaska*.

THE NUMBERS

There are now fewer than 20,000 polar bears left on Earth. The Arctic National Wildlife Refuge is home to one of only two polar bear populations in the United States, the Southern Beaufort Sea population of roughly 1,500 bears that relies on the refuge for survival.

SURVIVAL THREATENED BY CLIMATE CHANGE

The declining status of polar bear populations in Alaska and elsewhere is underscored by dire predictions of accelerated sea-ice loss, and growing evidence that polar bears worldwide are already experiencing more difficulty surviving in their melting environment. With their selective diet of ice-dependent seals, specialized sea-ice habitat and low reproductive rate, polar bears already live on the edge. Climate change is pushing them over it.

Polar bears in the Arctic refuge are particularly susceptible to

changes related to shrinking multi-year sea ice. The refuge is the most important onshore maternal denning habitat for polar bears in the United States. Females give birth and raise their cubs in dens dug into snow drifts on the refuge, where the young bears stay until they are ready to venture out onto the ice to hunt and live. Many other polar bears congregate along the coast of the refuge in their travels, which can cover hundreds of miles as the bears follow the sea-ice edge as it moves toward land in winter and retreats away from the coast in summer.

As the distance between sea ice and land grows in summer and fall, polar bears on the refuge and elsewhere in Alaska will have two choices: stay on land or go out to sea with the ice. Bears that go out with the ice could eventually face the catastrophic loss of all summer sea-ice, leading to the potential drowning of great numbers of polar bears in one disastrous event. But bears that stay on land will find it hard to find food. In search of new food sources, they may enter areas of human habitation only to be killed as "problem" or "nuisance" bears.



COURTESY OF JOAN CAMBRAY

SURVIVAL THREATENED BY CONGRESS

America's insatiable thirst for oil has threatened the Arctic National Wildlife Refuge for decades. Willing to sacrifice this pristine wilderness, home to polar bears and the famous Porcupine caribou herd, Big Oil's lobbyists have repeatedly pushed to open the refuge to drilling. So far, Arctic supporters have managed to fend off these attacks. But that doesn't mean that the threat won't arise again. The 112th Congress, which will bring a number of climate-change deniers to Washington, could also bring renewed efforts to drill in sensitive Arctic habitats.

This could be catastrophic for polar bears. Most experts agree that the greatest direct risk to polar bears from oil and gas development is major oil spills, because there is still no proven method of cleaning up oil in broken sea-ice conditions. Oil spills would not only directly harm polar bears, but would also deplete their prey and contaminate their habitat. Even without an oil spill, some level of pollution from oil and gas activities is inevitable with expanded development and the associated increase in operational discharges of contaminated processing waters, cuttings and drilling mud into the Arctic Ocean from offshore platforms. The additional noise and infrastructure could also frighten off seals, making it more difficult for polar bears to hunt.

WHAT CAN BE DONE?

Sea Bear Under Siege offers an extensive list of actions that should be undertaken to assist these iconic Arctic animals. Several of these recommendations are particularly relevant as the Arctic National Wildlife Refuge celebrates its 50th anniversary and prepares for the future:

- The U.S. government should vigorously enforce the laws that protect those areas of the Arctic National Wildlife Refuge recently designated as critical polar bear habitat under the Endangered Species Act.
- The Arctic National Wildlife Refuge should continue to be off-limits to energy development to protect this important habitat for the bears.
- Careful oversight of ecotourism in the Arctic National Wildlife Refuge is needed to ensure that well-meaning wildlife viewers don't cause additional disturbance to the bears.
- Monitoring, research and development of conflict reduction and conservation strategies must be continued to help the sea bear navigate an uncertain future.

In addition to pushing for protection of the Arctic refuge, Defenders of Wildlife is working on the ground to save polar bears. Considering the dire forecast for polar bears, Defenders is exploring extraordinary measures to keep these sea-ice dependent marine mammals from disappearing in Alaska.

Among the greatest challenges is to keep bears and people safe as the loss of sea-ice and associated prey forces polar bears to spend more time searching for food on land near coastal communities. Residents of Alaska Native communities have traditionally used ice-cellars to store their food. With hungry polar bears increasingly staying on land, these communities are searching for secure ways to store their food that will not attract bears into their communities. Defenders of Wildlife is providing support with World Wildlife Fund for a polar-bear-resistant food-locker pilot program in the coastal community of Kaktovik.

While Defenders is finding ways to discourage polar bears from accessing food in coastal communities, we are also exploring safe ways to feed polar bears on land. Defenders is working in partnership with the U.S. Fish and Wildlife Service to host a workshop of science experts in June 2011 to consider supplemental and diversionary feeding and ways to replicate and build on other methods of reducing human/polar bear conflicts. The results of the workshop will shape the important decisions regarding polar bear management in Alaska.



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