



Warming Is Seen as Wiping Out Most Polar Bears

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A polar bear on the Beaufort coast of Alaska. Federal scientists say Alaska could lose all its polar bears if summer sea ice shrinks.

By JOHN M. BRODER and ANDREW C. REVKIN
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WASHINGTON, Sept. 7 — Two-thirds of the world's polar bears will disappear by 2050, even under moderate projections for shrinking summer sea ice caused by greenhouse gases in the atmosphere, government scientists reported on Friday.

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The finding is part of a yearlong review of the effects of climate and ice changes on polar bears to help determine whether they should be protected under the Endangered Species Act. Scientists estimate the current polar bear population at 22,000.

The report, which the [United States Geological Survey](#) released here, offers stark prospects for polar bears as the

world grows warmer.

The scientists concluded that, while the bears were not likely to be driven to extinction, they would be largely relegated to the Arctic archipelago of Canada and spots off the northern Greenland coast, where summer sea ice tends to persist even in warm summers like this one, a shrinking that could be enough to reduce the bear population by two-thirds.

The bears would disappear entirely from Alaska, the study said.

"As the sea ice goes, so goes the polar bear," said Steven Amstrup, lead biologist for the survey team.

The report was released as President Bush was in Australia meeting with Asian leaders to

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try to agree on a strategy to address [global warming](#). Mr. Bush will be host to major industrial nations in Washington this month to discuss the framework for a treaty on climate change.

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A spokeswoman for the White House declined to comment on the report, saying it was part of decision making at the [Interior Department](#), parent of the survey.

In the report, the team said, "Sea ice conditions would have to be substantially better than even the most conservative computer simulations of warming and sea ice" to avoid the anticipated drop in bear population.

In a conference call with reporters, the scientists also said the momentum to a warmer world with less Arctic sea ice — and fewer bears — would be largely unavoidable at least for decades, no matter what happened with emissions of heat-trapping gases like carbon dioxide.

"Despite any mitigation of greenhouse gases, we're going to see the same amount of energy in the system for 20, 30 or 40 years," said Mark Myers, the survey director. "We would not expect to see any significant change in polar conditions regardless of mitigation."

In other words, even in the unlikely event that all the major economies were to agree to rapid and drastic reductions in emissions of carbon dioxide and other heat-trapping gases, the floating Arctic ice cap will continue to shrink at a rapid pace for the next 50 years, wiping out much of the bears' habitat.

The report makes no recommendation on listing the bears as a threatened species or taking any action to slow ice cap damage. Such decisions are up to another Interior Department agency, the [Fish and Wildlife Service](#), which enforces the Endangered Species Act. That decision is due in January, officials have said. The wildlife agency had to make a determination on the status of a threatened species because of a suit by environmental groups like [Greenpeace](#) and the [Natural Resources Defense Council](#).

In some places, the bears have adapted to eating a wide range of food like snow geese and garbage. But the survey team said their fate was 84 percent linked to the extent of sea ice.

Separate studies of trends in Arctic sea ice by academic and government teams have solidified a picture of shrinking area in summers for decades to come.

A fresh analysis by scientists of the National Oceanic and Atmospheric Administration, to be published Saturday in the journal *Geophysical Research Letters*, says sea-ice coverage of the Arctic Ocean will decline by more than 40 percent before the summer of 2050, compared with the average ice extent from 1979 to 1999.

This summer the ice retreated much farther and faster than in any year since satellite tracking began in 1979, several Arctic research groups said.

John H. Broder reported from Washington, and Andrew C. Revkin from New York.

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A dramatic decline in polar bears is already occurring in our lifetime, which, according to historical data, is but a very small fraction of the time these animals have roamed the vast seas of the Arctic. The main threat to the polar bears is the loss of their sea-ice habitat that is caused by global warming. As suggested by these animals's specific scientific name, *Ursus maritimus*, they are actually a species of marine mammals that spend a great deal of time at sea than they do on land. It is on the Arctic ice that the polar bears make their living, which is why rising temperatures of the Earth Related video: Global warming. On current trends, the study concluded, polar bears in 12 of 13 subpopulations analysed will have been decimated within 80 years by the galloping pace of change in the Arctic, which is warming twice as fast as the planet as a whole. There is not enough data for six others to make a determination as to their fate. "By 2100, recruitment" -- new births -- "will be severely compromised or impossible everywhere except perhaps in the Queen Elizabeth Island subpopulation," in Canada's Arctic Archipelago, said Amstrup. But that status may not be unique for long, and should be seen as a harbinger of how climate will impact other animals in the coming decades, the authors warned. There are approximately 25,000 *Ursus maritimus* left in the wild today. Polar bears are unable to find enough sustenance on land and rely on sea ice from which to hunt. They often stake out seal breathing holes in the ice, waiting hours for a blubbery meal to break the surface. Polar bears draw on energy reserves built up during the winter hunting season to make it through lean summer months on land or time spent on ice in unproductive waters. Though the bears are used to fasting for months, their body condition, reproductive capacity and survival will eventually diminish if they are forced to go too long without food. In Alaska's southern Beaufort Sea population, biologists have already seen polar bear numbers drop 25 to 50 % during low ice periods when the bears have been forced to fast for too long. Polar Bears Really Are Starving Because of Global Warming, Study Shows. New science sheds more light on recent controversy over how much the large carnivores are being impacted by melting sea ice. Video Player is loading. Millions have seen the heart-wrenching video of a polar bear clinging to life, its white hair limply covering its thin, bony frame. Turns out they are high-energy beasts, burning through 12,325 calories a day despite sitting around most of the time, according to a unique metabolic analysis of wild bears published Thursday in Science. "Our study reveals polar bears' utter dependence on seals," said lead author Anthony Pagano, a wildlife biologist with the U.S. Geological Survey (USGS). Polar bears will be wiped out if humans don't reverse the trend of global warming, according to a blunt report by the US government. In a draft recovery plan for polar bears produced by the US Fish and Wildlife Service, it says: "The single most important step for polar bear conservation is decisive action to address Arctic warming." "Short of action that effectively addresses the primary cause of diminishing sea ice, it is unlikely that polar bears will be recovered." Polar bears eat, mate and give birth on sea ice. Greenhouse gas emissions contribute to global warming, which is reducing the levels of summer sea ice in the Arctic. No sea ice means

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