

Global Warming Reduces Polar Bear Survival

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Researchers for the first time have shown a connection between global warming and decreased polar bear survival, says a University of Wyoming scientist.

Eric Regehr, a UW Ph.D. candidate in zoology and physiology and United States Geological Survey (USGS) employee, has spent the last two years analyzing polar bear data collected by the Canadian Wildlife Service in Canada's western Hudson Bay.

"These data provide evidence for a direct linkage between reduced sea ice coverage, presumably caused by climate change, and decreased polar bear survival in western Hudson Bay," Regehr says in the current edition of UWyo magazine.

The Canadian Wildlife Service study documents a 22 percent decline in the size of the western Hudson Bay polar bear population, from 1,194 in 1987 to 935 in 2004. Although researchers cannot determine the degree to which legal polar bear harvesting by Canadian Inuit has affected the population, they agree changing sea ice is partly to blame.

U.S. polar bears are found only in northern Alaska where, to date, USGS research has not linked global warming to changing population dynamics, according to Regehr and his colleague, George Durner, another UW Ph.D. candidate who has worked with the USGS on polar bear research for 14 years.

U.S. conservation groups already are using the information to urge federal regulatory agencies to consider regional ramifications if climate change does affect American polar bears.

Last February the U.S. Fish and Wildlife Service (USFWS) acknowledged a petition by the Center for Biological Diversity, Natural Resources Defense Council, and Greenpeace to seek federal protections for the polar bears. The petition is still under review, but has been validated by the USFWS, which says the petition contains enough research support to be given serious consideration.

Before protecting U.S. polar bears under the Endangered Species Act, the USFWS must seek specific information regarding population distribution, habitat, and effects of climate change on both the polar bears and their prey, along with the potential effects of development, contamination, and poaching threats. While a variety of polar bear research projects are consulted, the USGS will provide much of the information for the USFWS ruling, according to Durner.

Researchers say earlier melting of sea ice may also explain why in recent years there has been an increase in human interactions with polar bears in communities along the western coast of Hudson Bay, such as Churchill, Manitoba.

Source: University of Wyoming

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