

Climate Facts



Polar Bears on Thin Ice

Perfectly at home in one of the world's most forbidding environments, most polar bears drift along the Arctic on large chunks of floating ice, finding mates and hunting for seals. Without these thick rafts of sea ice, the world's largest bear will not survive. Yet at this moment, the polar bear's Arctic habitat is literally melting away beneath it due to global warming. The polar bear is also under pressure from industrial development and toxic chemicals. Over-hunting and commercial trade in polar bear body parts are making these threats worse. The international community must take swift action to protect the polar bear from global warming and commercial trade.

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The polar bear could become the first mammal to lose 100 percent of its habitat to global warming. Scientists at the National Snow and Ice Data Center predict that, if the current rate of global warming continues, the Arctic could be ice-free in the summer by 2030. The impact of global warming on polar bear habitat is already apparent; in September 2007, the average sea-ice extent was the lowest on record, shattering the previous record for the month set in 2005 by 23 percent, opening the fabled Northwest Passage. These impacts will be devastating to polar bears. Even without taking into account the 2007 record loss of sea ice, the U.S. Geological Survey conservatively predicted that the world's polar bear population is likely to decline by over 70 percent within the next 45 years because of habitat loss.

Over-hunting and commercial trade in polar bear parts is an additional stress to many threatened populations. Over half of the 19 recognized populations likely suffer from over-hunting or experience substantial annual harvest in the absence of scientifically derived population estimates. Nonetheless, in the last ten years, nearly 9,000 polar bear specimens were exported for commercial purposes. In recent years, Canada has been the main exporting range state, killing approximately 300 bears per year for international trade and trophy hunting. And while Canada claims that greater international protections are not needed, the populations it shares with its neighbors (the United States and Greenland) are over-hunted. Banning the international trade in polar bear parts and placing greater controls on polar bear trophy hunting are critical to ensure that the polar bear's long-term survival is not further jeopardized by international trade.

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"The continued decline of summer sea ice is likely to push the populations of polar bears... toward extinction in this century."

THE ARCTIC CLIMATE IMPACT ASSESSMENT

Range State	Current Polar Bear Protection	Challenges	New or Proposed Actions
United States	Listed as threatened under the U.S. Endangered Species Act (ESA) and protected by the U.S. Marine Mammal Protection Act. Both statutes aim to maintain or restore healthy population levels and ban importation of polar bear parts from Canada.	Trophy hunters are challenging in court the protection of the polar bear under the ESA. Current federal regulations prevent the government from using ESA to help control global warming pollution – the biggest threat to polar bears.	In October 2009, the U.S. proposed reclassifying the polar bear as an Appendix I species under the Convention on International Trade in Endangered Species (CITES).
Canada	Committee on the Status of Endangered Wildlife (COSEWIC) designated the polar bear as a species of "Special Concern" in 2002 and renewed this designation in 2008.	Does not provide protection of the polar bear or their habitat. Allows the killing of 300 bears a year for international trade and trophy hunting, despite evidence that over half of its populations may suffer from overharvest.	Declined to list the polar bear on Canada's Species At Risk Act in 2008. Manitoba listed the polar bear as threatened under the Manitoba Endangered Species Act in 2008, banning the harvest of the bears for recreational or commercial purposes in the province.
Norway	Under the Svalbard Environmental Protection Act, polar bears are protected from harvest and from disturbance that would expose either bears or humans to danger.		
Denmark / Greenland	The Greenland Home Rule Government introduced quotas for the first time in 2006 under the Executive Order on the Protection and Hunting of Polar Bear.	Greenland plans to introduce sport hunting in the near future.	The Greenland Home Rule Government issued a temporary ban on the export of polar bear parts and specimens in April 2008. The ban will be lifted if and when Greenland makes a determination that the export of polar bear products is non-detrimental to its polar bear populations.
Russia	Hunting has been banned since 1956. Polar bear populations are listed in Russia's Red Data Book as "rare," "uncertain status," and "rehabilitated and rehabilitating."	Illegal poaching poses a serious threat to the populations and the existence of a legal international market for polar bear parts may exacerbate poaching.	In September 2007, Russia and the United States ratified a bilateral agreement on the conservation and management of shared polar bear populations.



Polar Bears' High Risk of Extinction Is Recognized Internationally

There are 19 polar bear populations throughout the Arctic region and across the United States, Canada, Denmark/Greenland, Norway, and Russia. The total number of polar bears is thought to be between 20,000 and 25,000. Over 40 percent of the 19 populations have already been classified as "declining" by the International Union for Conservation of Nature (IUCN). The U.S. Geological Survey has conservatively estimated that the total polar bear population will decline by more than 71 percent over the next 45 years, with 10 of the 19 populations completely disappearing in Norway, Russia, and the United States. The dwindling number of polar bears and the threat from global warming led the United States to list the polar bear as threatened throughout all of its range under the U.S. Endangered Species Act in 2008 and the IUCN to formally classify polar bears as a "vulnerable species," defined as a species at "high risk of extinction in the wild in the medium-term future." And according to the Arctic Climate Impact Assessment, scientifically reliable studies have shown that with the onslaught of global warming, "polar bears are unlikely to survive as a species."

Threats to Polar Bears Are Increasing

Global Warming: Early retreat of summer ice due to global warming reduces the bears' hunting time, while fragmentation and reduction of sea ice makes it more difficult for polar bears to travel and den. Polar bear prey, such as the ringed seal, are also negatively affected by the decline in sea ice, decreasing the amount of food available to the bears. The extent of decreased ice also forces polar bears in some populations to swim longer distances between land and ice, leading to drownings during storm events. And as the overall sea ice available to polar bears shrinks, polar bears are forced to spend longer periods of time on land, leading to more interactions with humans and potentially increased mortality.

Over-Harvesting: In 2001, the IUCN's Polar Bear Specialist Group (PBSG) found that mean annual kill exceeded sustainable kill in seven populations. Five years later, the U.S. Fish and

Wildlife Service found that four populations were still subject to unsustainable kills. Today, 10 of the 19 recognized populations likely suffer from current or historical over-hunting or experience substantial annual harvest in the absence of scientifically derived population estimates. With limited information on the size of many populations, it is difficult to know where to set hunt limits. Nonetheless, harvest for commercial trade and trophy hunting continues in Canada, with 300 bears killed each year, despite the fact that in 2009 the IUCN PBSG found that 7 of the 13 populations found in Canada are declining.

Toxic Chemicals in the Food Chain: Because they are at the top of the food chain, polar bears have accumulated considerable amounts of industrial chemicals and pesticides in their bodies. Persistent pollutants such as PCBs and DDT may harm the bears' hormonal systems and their reproduction and immunological functions.

Oil Development Encroaching on Habitat: Polar bears are sensitive to disturbances to their denning sites and may even abandon the den and their young. Oil development increases the amount of disturbances, with ship traffic and ice-breaking vessels, and any accidental oil spill would directly affect the bears and their prey.

Strong Scientific Evidence Shows Polar Bears Are Threatened by Extinction

The United States' Endangered Species Act listing and the growing concerns among other range states are based on scientific evidence that polar bears are increasingly threatened with extinction. Studies based on conservative models of future sea ice estimate that the global population of polar bears will decline by more than 70 percent in the next 45 years, with 10 of the 19 recognized polar bear populations extinct. Wild polar bears live only in the Arctic and are totally dependent on Arctic sea ice for all of their essential needs, including locating mates, finding food, and raising their young. Polar bear populations are already feeling the negative impacts of global warming and overharvest and are considered threatened; eight of the 19 populations are deemed to be in decline already.

Recent Evidence of Polar Bear Decline

1987-2004: According to the IUCN PBSG, the polar bear population in the Arctic's Western Hudson Bay declined from approximately 1,200 bears in 1987, to 1,100 bears in 1995, and then to fewer than 950 bears in 2004, due in large part to ice loss.

September 2004: U.S. Minerals Management Service survey of an area in the Beaufort Sea documented the drowning of at least four polar bears when the sea ice retreated a record 160 miles (257.5 kilometers) off the northern coast. The U.S. Fish and Wildlife Service found that as many as 27 bears may have drowned during the event.

Spring 2007: The U.S. Geological Survey predicted that the world's polar bear population is likely to decline by more than 70 percent within the next 45 years because of habitat loss.

October 2007: The U.S. National Snow and Ice Data Center (NSIDC) reported that Arctic sea ice in September 2007 was the lowest on record, shattering the previous record for the month set in 2005 by 23 percent, opening the fabled Northwest Passage. Scientists from NSIDC said that the Arctic could be ice-free in summer as early as 2030.

Summer 2009: The IUCN PBSG noted that there is evidence that polar bears in Baffin Bay are suffering from significant habitat change and substantial overharvest and polar bears in the Chukchi Sea are declining because of illegal harvest in Russia and one of the highest rates of sea ice loss in the Arctic.

Polar Bears on Thin Ice

We Can Do More to Protect the Polar Bear from Global Warming and Overharvest

Act now to reduce global warming pollution:

Global warming is not only the biggest threat to polar bears, but it is also the leading environmental threat to our planet as a whole. It is imperative that states set mandatory limits on global warming pollution, while promoting energy efficiency and renewable energy usage.

Protect the polar bear under CITES: Support the U.S. proposal to move the polar bear from CITES Appendix II to CITES Appendix I (species threatened with extinction). The transfer of the polar bear to Appendix I would ban international trade in polar bear parts and put dual controls in place for polar bear trophy

hunting. This action is critical to ensure that the bears' long-term survival is not further jeopardized by an international market for polar bear parts that creates an incentive for unsustainable overharvest.

Enhance protections across all range states:

Defend and strengthen listing of polar bears under the U.S. Endangered Species Act and list the polar bear under the Canadian Species at Risk Act.

Implement the 1973 International Agreement on the Conservation of Polar Bears including thorough development of a range-wide

polar bear conservation plan: The treaty implementation should meet current needs by focusing on habitat conservation and threats from global warming.

Polar Bears' Connection to the Arctic's People

The polar bear has great significance for Aboriginal Peoples in the Arctic region. Aboriginal Peoples have traditionally engaged in environmentally sustainable hunting of polar bears for cultural and subsistence purposes, and more recently to help support their economies through sport hunting enterprises.

However, the modern world now poses major threats to the survival of polar bears, and polar bear hunting has put significant pressure on some polar bear populations. Inuit traditional knowledge is also witnessing rapid and major changes to both sea-ice habitats and polar bear behaviors—exactly in line with scientific

data on ice and polar bears. Increased protections for polar bear from modern threats such as global warming can help preserve the ability of Aboriginal Peoples to continue to engage in environmentally sustainable hunting.



More Polar Bear Resources

NRDC: www.polarbearso.org

IUCN/SSC Polar Bear Specialist Group (PBSG): <http://pbsg.npolar.no/>

- Overview of meetings of the IUCN/SSC Polar Bear Specialist Group: <http://pbsg.npolar.no/en/meetings/>
- IUCN Red List of Threatened Species, Polar Bear Assessment Information: <http://www.iucnredlist.org/apps/redlist/details/22823/0>

Arctic Climate Impact Assessment: <http://www.acia.uaf.edu/>

- Arctic Climate Impact Assessment: Impacts of a Warming Arctic, 2004: <http://amap.no/acia/>
- Arctic Climate Impact Assessment Scientific Report, 2005: <http://amap.no/acia/>

U.S. Fish and Wildlife Service:

- Final Rule Determination of Threatened Status for the Polar Bear (*Ursus maritimus*) Throughout Its Range, May 15, 2008: http://alaska.fws.gov/fisheries/mmm/polarbear/pdf/Polar_Bear_Final_rule.pdf
- Range Wide Status Review of the Polar Bear, USFWS, December 2006: http://alaska.fws.gov/fisheries/mmm/polarbear/pdf/Polar_Bear_%20Status_Assessment.pdf

U.S. Geological Survey:

- Projections of Habitat and Populations, and Forecasts of Range-wide Status: http://www.usgs.gov/newsroom/special/polar_bears/
- New Knowledge of Polar Bear Status:http://www.usgs.gov/newsroom/special/polar_bears/