

THE HEAT IS ON

Species feeling the effects of climate change



Polar Bear

Ursus maritimus

Region:

Arctic

Area affected:

Alaska, Canada

Climatic change:

Warming temperatures

Impact:

Loss of sea ice

ABOUT THIS SPECIES

Polar bears, among the largest carnivores on the planet, are currently found in 19 populations across the Arctic. They are classified as marine mammals because they spend more time on ice than on land. With a body built for swimming and fur and blubber to help them withstand extreme cold, they are uniquely adapted to life on the sea ice, which is a surprisingly bountiful habitat. Each spring long trains of algae grow beneath the ice, anchored to its edges and taking advantage of the long periods of sunlight through the Arctic summer. The abundant algae form the base of a food chain that includes krill, pteropods, fish and—most important for polar bears—seals. The bears primarily eat ringed seals and bearded seals, which they hunt at airholes in the ice surface. Although they are excellent swimmers, polar bears have trouble catching and eating seals in open water, so they need the ice as a platform for hunting. Female polar bears also frequently give birth in snow dens on thick, stable pack ice.

DESCRIPTION OF IMPACT

The polar bear is rightly considered the “poster child” of climate change. With rising temperatures melting its icy habitat, the bear was among the first species listed under the Endangered Species Act because of the threat of climate change. Since the late 1990s, the extent of Arctic sea ice has been below the long-term average nearly every year, with the average for the 2010s almost a third lower than in the 1980s. In recent years, harrowing stories have emerged of bears drowning in the open ocean miles from the ice edge or starving to death while trying to subsist on land, on a diet of birds and carrion. Many polar bears struggle to find enough prey as resources become scarcer. **If global carbon emissions continue on their projected path, almost all populations of polar bears will disappear by 2100.**

References

Gautier, A. 2022. Arctic sea ice maximum at tenth lowest in satellite record. National Snow & Ice Data Center. <https://nsidc.org/arcticseaicenews/2022/03/arctic-sea-ice-max-tenth-lowest/>

Osborne, N.E. & Jacquemain, M. 2021. Polar Bears Live on the Edge of the Climate Change Crisis. Smithsonian Magazine. <https://www.smithsonianmag.com/science-nature/polar-bears-live-climate-change-crisis-180976995/>

Rosane, O. 2020. Polar Bears could be nearly gone by 2100, study finds. World Economic Forum. <https://www.weforum.org/agenda/2020/07/polar-bears-extinction-2100-new-study-climate-crisis/#:~:text=A%20new%20study%20has%20found,habitats%20to%20sustain%20themselves%20on.>



DEFENDERS OF WILDLIFE

1130 17th Street, NW
Washington, DC 20036-4604

For more information on other wildlife affected by climate change, visit our website at www.defenders.org/climatechange