

# 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 are among the largest carnivores on the planet. 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 due to 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 a record low in 2012 and second-lowest in 2016. 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, eating birds and carrion. The extremes of Arctic habitat make it difficult to track polar bear population responses to climate change, **but declines have been observed in many of the better-studied populations, including a 22 percent drop in Canada’s Western Hudson Bay population and a decline in Alaska’s southern Beaufort Sea population from 1,526 bears in 2006 to 900 in 2010.**

### References

Bromaghin, J.F. et al. 2015. Polar bear population dynamics in the southern Beaufort Sea during a period of sea ice decline. *Ecological Applications* 25(3): 634-651. <https://doi.org/10.1890/14-1129.1>

Defenders of Wildlife. Polar Bears and Climate Change (webpage). <http://www.defenders.org/polar-bear/climate-change>

Polar Bears International. 2014. Polar Bear Status Report. <http://www.polarbearsinternational.org/about-polar-bears/essentials/current-status>



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