



*Threatened and Endangered Species*

# Polar Bear

*(Ursus maritimus)*

Polar bears are long-lived carnivores with relatively low rates of reproduction and natural mortality. They are the largest member of the bear family, with the exception of Alaska's Kodiak brown bears, which can equal polar bears in size. Male polar bears can be up to 11 feet long and typically weigh 600 to 1,200 pounds, but may weigh as much as 1,500 pounds. Females can be up to 8 feet long and typically weigh between 400 and 600 pounds. Polar bears have a longer, narrower head and smaller ears than other bears. Their white coat helps them blend in with the snow-covered environment, which is a useful hunting adaptation.

### Status

On May 15, 2008 (Federal Register, vol. 73, p. 28212), the U.S. Fish and Wildlife Service (Service) listed polar bears as threatened under the Endangered Species Act (ESA) because of observed and forecasted evidence that circumpolar warming is melting sea ice, the polar bears' primary habitat. Critical habitat was designated on December 7, 2010 (Federal Register, vol. 75, p. 76086).

### Habitat and Habits

Polar bears' primary habitat is sea ice, which they depend on as a platform for hunting ice seals (their primary prey), seasonal and long-distance movements, travel to terrestrial maternal denning areas, resting, and mating. Polar bears are not evenly distributed throughout the Arctic, nor do they comprise a single nomadic population, but rather occur in 19 relatively discrete subpopulations throughout the ice-covered marine waters of the northern hemisphere. The U.S. contains portions of two subpopulations: the Chukchi Sea (CS) and the Southern Beaufort Sea (SBS) subpopulation, shared with Russia and Canada, respectively. Although a precise population estimate does

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not currently exist for polar bears in Alaska, the SBS population is estimated to be approximately 1,526 bears; the size of the CS population is unknown. Globally, the total polar bear population is estimated to be 20,000 to 25,000.

### Threats

The main threat to polar bears is the loss of their sea ice habitat due to circumpolar warming. Recorded declines in sea ice have been correlated with declines in polar bear body condition, survival rates, and population size in portions of their range. The extent and duration of sea ice is projected to continue to decline into the foreseeable future. Polar bear populations also are susceptible to other human-caused disturbances, such as offshore development, habitat alteration and human-caused mortality.

### Management and Protection

In the U.S., polar bears are a federally protected species under the Marine Mammal Protection Act of 1972

(MMPA) and the ESA. The MMPA prohibits hunting of polar bears by non-Natives, although Alaska Natives are allowed to harvest some polar bears for subsistence and handicraft purposes. The Service is the Federal agency responsible for managing polar bears in the U.S.

An international conservation agreement for polar bears signed in 1976 by the U.S., Russia, Norway, Canada, and Denmark (Greenland) calls for cooperative management of polar bears. Another treaty, the Agreement between the Government of the United States of America and the Government of the Russian Federation on the Conservation and Management of the Alaska-Chukotka Polar Bear Population (U.S.-Russia Agreement), covers the shared CS population of bears. Notably, the treaty calls for the active involvement of Native people and their organizations in polar bear management programs. It also enhances long-term cooperative efforts such as conservation of



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ecosystems and important habitats, sustainable harvest allocations, collection of biological information, and increased consultation and cooperation with State, local, and private interests.

A number of protective measures have been taken to reduce human activities along the coast in polar bear denning areas, as the animals are most sensitive to outside disturbances while denning. For example, oil and gas activities have been modified to avoid these areas. The Service also provides expertise to industries on how to minimize conflicts with bears while conducting their operations.

The Service's overall conservation goal is to adaptively manage Alaska's polar bears in the face of projected climate change impacts so they remain a healthy, resilient component of the CS and SBS ecosystems. In 2010, we initiated a collaborative planning process with our conservation partners to develop a Conservation and Management Plan (Plan) for polar bears, as mandated by the ESA and MMPA. The Plan will include prioritized research and monitoring actions to address key uncertainties and build upon existing baseline data. For example, although we predict that polar bear populations will suffer at a global level from loss of sea ice, the specific response of polar bears at the subpopulation level is less clear.

We are also crafting collaborative management actions to effectively address identified threats, including a strong outreach component to build on our existing partnerships with international and domestic government agencies, Alaska Native organizations, industry, and non-government organizations. We continue to implement conservation actions to support our biological objective. Those actions include engaging with international partners in Russia and Canada to manage shared populations; working with the Alaska Native community to implement sustainable harvest management strategies; and coordinating with industry to minimize take associated with oil and gas operations in Alaska. For example, the Service has recently:

- Worked with State and local entities, oil and gas companies, non-profit organizations, and others to reduce human-bear conflicts by providing polar bear safety and deterrence training, developing community-based guidelines for bear viewing/tourism, and creating standardized curriculums for both polar bear deterrence and den detection survey methods.
- Helped negotiate a first-ever harvest quota in the CS of 58 polar bears per year to be shared between Natives in Alaska and Russia under the U.S.-Russia Agreement.

- Worked with the Alaska Nanuq Commission to develop a draft shared harvest management plan that balances Alaska Native subsistence needs with polar bear conservation in the CS region.
- Worked with the North Slope Borough and Canadian Inupiat/Inuvialuit commissioners to recommend a reduction in the SBS harvest quota from 80 to 70 bears in recognition that the SBS population may be declining due to reductions in the quantity and quality of sea ice habitat.

We recognize that addressing the primary threat of climate change offers the most hope for ensuring polar bears remain a healthy part of the Arctic ecosystem. Through continued cooperative management with our partners, we hope that these great marine mammals, and the unique Arctic environment on which they depend, can be protected for generations to come.

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