

Polar Bear *Ursus maritimus*

Classification

Polar bears evolved from brown bears 1.8 million to 11,000 years ago, during the Pleistocene.

Class: Mammalia

Order: Carnivora

Family: Ursidae

Genus: *Ursus*

Species: *maritimus*

Distribution

The polar bear is found circumpolar in the northern hemisphere including Canada, Alaska, Greenland, Norway and Russia.

Habitat

Sea ice and waters along islands and coasts in the Arctic tundra

Physical Description

- Males are eight to 10 feet (2.4-3 m) long; females are six and a half to eight and a half feet (2.0-2.6 m) long.
- Males weigh 770-1400 pounds (346-630 kg); females average 385-660 pounds (175-300 kg).
- Their distinctive white fur covers their entire body except for their nose and footpads.
- They have narrower heads, smaller ears and longer teeth than other bears.
- Their large paws are partially webbed for swimming.

Diet

What Does It Eat?

In the wild: They feed primarily on seals. They may scavenge carcasses of walrus, caribou, and whales. In the summer when prey is scarce, they will eat small mammals, birds, eggs and some vegetation.

At the zoo: Prepared omnivore diet plus fresh fish. Treats include fruit, peanut butter, honey and seaweed.

What Eats It?

Other polar bears and humans prey on the polar bear.

Social Organization

Polar bears are solitary animals. They live and hunt alone except for mating pairs or a mother with cubs. When there is a large food supply they will tolerate other bears nearby.

Life Cycle

Females begin breeding at about four years of age, males are usually older; mating occurs in April, May and June. Delayed implantation of the fertilized ovum takes place until the bear has gained enough weight to survive hibernation as well as giving birth and caring for cubs. In December or January a litter of one to three blind, hairless cubs weighing one pound (450 g) are born. They remain dened with their mother until March or April when they weigh about 20 pounds (9 kg). The cubs stay with their mother for two to three years receiving hunting lessons and protection. Lifespan in the wild is 20-25 years and in captivity 25-30 years.

Adaptations

Brrr! It's Cold!

Polar bears are perfectly adapted for life in the Arctic. They have large bodies that hold heat, but their ears are small to avoid loss of heat. They also have a layer of blubber up to four inches thick to provide insulation. Long, hollow, water-repellent hairs cover the soft under fur that traps air and insulates the body, while their black skin absorbs heat. The only unfurred parts of the body are footpads and the tip of the nose.

Noses with Legs

Polar bears have an extraordinary sense of smell. They can detect a seal's breathing hole under three feet of snow or ice from more than half mile away. Their sense of smell is their most important sense for detecting prey on land. A polar bear can smell a seal on land 20 miles away.

A Deep Sleep

In some areas, female polar bears hibernate for up to six months. During that time they do not eat, drink or defecate. The females support themselves as well as their cubs on stored fat, which breaks down into carbon dioxide and water. Male polar bears do not hibernate.

Stealth Hunter

Polar bears may wait beside a breathing hole in the ice for hours until a seal comes up for air. They crouch low or stretch out flat on the ice to reduce their profile and avoid alerting the seal below.

With lightning speed the bear slaps at the seal, hooking it with the sharp claws on its 18-inch paw and pulling the seal through the hole onto the ice.

Conservation Connection

IUCN Status: Vulnerable.

Once hunted almost to extinction, polar bear numbers have increased since a 1973 agreement limiting hunting and protecting their habitat. Polar bears are a threatened species due to global warming that causes loss of sea ice, the oil industry, poaching and pollution.

Fun Facts

- Polar bears are the largest land carnivore in the world.
- The largest recorded polar bear stood 11 feet (3.3 m) tall and weighed 2200 pounds (990 kg).
- Polar bears can swim up to 60 miles without resting at an average rate of six miles per hour using only their front paws.
- Polar bears feed their cubs on milk that contains 31% fat, the richest milk of any bear species.
- Polar bear fur actually has no white pigment! The reflection of light causes the fur to appear white or yellowish white.

