POLAR BEAR

ALSO KNOWN AS:  Sea bear

SCIENTIFIC NAME:  Ursus maritimus

PHYSICAL CHARACTERISTICS AND ADAPTATIONS:
• Polar bears are survival specialists in an extreme environment—the Arctic, where winter lasts six months and temperatures average -30ºF.
• Nine-inch wide snowshoe-like paws spread the bear’s weight evenly over a large area, preventing it from sinking into the snow.
• Their large body size, layers of thick, hollow hair, and three to four inches of blubber provide insulation from the cold, in and out of the water.
• Although polar bear hair may look white, it is actually clear. It only looks white because it reflects the sunlight.
• Underneath its large, shaggy coat, the polar bear’s skin is black, perhaps to attract the sun’s heat.
• The bears’ streamlined shape, partially webbed forepaws, and buoyant layer of blubber help make them champion swimmers.
• The polar bear is a skillful predator of seals, with the help of a keen sense of smell, powerful paws, and sharp claws. The polar bear can sniff out its prey from over three miles away.
• A bear has several ways to snag a seal, including grabbing a seal as it comes up for air at a breathing hole in the ice, stalking and rushing a seal basking on the ice, or smashing through snow to snatch seals underneath.
• During summer, when the sea ice melts, bears come ashore and live off of their fat reserves for several months.

<table>
<thead>
<tr>
<th>Weight</th>
<th>Male – 775 to 1,500 lbs; Female – 330 to 650 lbs</th>
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<tbody>
<tr>
<td>Length</td>
<td>7 to 11 ft</td>
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RANGE:  Arctic Ocean and coasts of Canada, Alaska, Russia, Denmark, Greenland and Norway

HABITAT:  Arctic ice and coastal shores

DIET:
- Wild:  Primarily seals, some walrus, lemmings, lichens, mosses and carrion
- Zoo:  Meat, fish, fruit, and vegetables

REPRODUCTION & DEVELOPMENT:

<table>
<thead>
<tr>
<th>Mating season</th>
<th>Breed in April and May; birth in November and December</th>
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<tbody>
<tr>
<td>Mating system</td>
<td>Polygynous (one male, multiple females)</td>
</tr>
<tr>
<td>Length of gestation</td>
<td>8 months</td>
</tr>
<tr>
<td>Number of young</td>
<td>2</td>
</tr>
<tr>
<td>Weight of young at birth</td>
<td>1.3 lbs</td>
</tr>
<tr>
<td>Age at weaning</td>
<td>2.5 yrs</td>
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<tr>
<td>Reproductive age</td>
<td>Female - 4 to 5 yrs old</td>
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<tr>
<td>Lifespan</td>
<td>15 to 18 yrs in wild</td>
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Courtship behavior:
Males, which are twice the size of females, compete with each other for breeding rights. Breeding pairs stay together for up to two weeks to ensure successful mating.

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Raising young:
Cubs are born in a snow den with their eyes closed and just a light covering of hair. The female nurses her young until March or April when the cubs are large enough to emerge from the den and go out on the ice with her. Cubs stay with their mom for about 2.5 years.

SOCIAL BEHAVIOR:
Polar bears are generally solitary other than pairs coming together to breed and mothers raising their young. Groups of bears may gather together during summer when there is little competition for food or mates.

INTERESTING FACTS:
• Scientists put collars on polar bears that transmit satellite signals to track a bear’s movements. We can learn where the bear is spending its time, what route it travels, and how much time it spends in the water.
• Polar bears cover hundreds of miles in their pursuit of seals for food and other polar bears for mates. These huge ranges, and the severe cold of the Far North, make it difficult to keep track of all of the comings and goings of polar bears.
• The scientific name of the polar bear, *Ursus maritimus*, means sea bear, and polar bears are considered to be marine mammals.

CONSERVATION:
Status in the Wild: (IUCN—Vulnerable)
Conservation Action: Polar bears depend completely upon the sea for their existence, spending most of their time on the pack ice. As the climate changes rapidly in the Arctic, polar bears will have to adjust how they use the resources in their habitat. They may have to travel farther to find food, for example. In order to make decisions about managing polar bear populations, researchers need to have as much information as possible about the state of the polar bears.

What is the Cincinnati Zoo doing?
• The Zoo is spearheading reproductive research on polar bears and partners with Polar Bears International (www.polarbearsinternational.org) on educational initiatives to combat climate change.
• As a member of the Association of Zoos & Aquariums (AZA), the Zoo participates in a Species Survival Plan (SSP) for polar bears. The SSP is a managed breeding program through which zoos across the nation cooperate to maintain a healthy captive population.

What can people do to help save the polar bear and its habitat?
Conserve energy and burn less fossil fuels to curb climate change. Some simple steps include turning off lights and unplugging appliances when not in use, carpooling and combining trips, and recycling.

RESOURCES:
Encyclopedia of Mammals, David MacDonald, 2006

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