



At Home in the Arctic

A huge polar bear lies sprawled on the smooth sea ice, white on white. Only its black nose and eyes stand out. Blustery winds begin to ruffle its thick, shaggy fur. Ah, home, freezing home!

Polar bears thrive in all polar regions of the Northern Hemisphere, including Russia, Norway, Greenland, Canada, and Alaska. While you and most other animals might find living in the Arctic hard to “bear,” these amazing mammals have many **adaptations**, or features, that help them live quite comfortably in a frozen **habitat**.

Warm Coats

Their fur is an excellent natural coat. It is actually two layers. The inside layer is a woolly band of short hairs that provides **insulation**, or protection, against the cold. The outer layer is made up of long, clear hairs that reflect light and make polar bears appear white. White, of course, serves as **camouflage**, or a disguise, while hunting for **prey** in the snow.

Under all that fur, the skin is actually black. This helps to absorb the sun’s rays and keep the bears warm in temperatures as low as 50° below zero.



PHOTO: NORBERT ROSING

Built-in Snowshoes

Polar bears' broad paws (which are about 12 inches wide!) help them to walk on ice and packed snow. The paws work the way snowshoes would, by spreading out the bears' great weight. (Females can weigh around 600 pounds, and males can weigh up to 1,600 pounds. That's more than nine adult people put together!)

The soles of the polar bears' feet are covered with soft, small bumps and long hairs to create friction and make it easier to walk on slippery patches of ice.

Swim Gear

Polar bears are such super swimmers that their scientific name is *Ursus maritimus*, or "sea bear." They spend a lot of time in water, searching for food or swimming from place to place. Those large paws act like paddles in the water. A sleek shape, slick fur, and short tail and ears also make their bodies well suited for swimming. Their nostrils close up under water, and a thin, clear layer of tissue over their eyes acts just like goggles—it lets the bears keep their eyes open under water. Polar bears can swim more than six miles an hour for 10 straight hours.

Natural Hunting Tools

Polar bears are the largest **carnivores**, or animal eaters, on land. Their favorite food is baby ring seals. Polar bears have extremely sensitive noses and can smell a seal more than 20 miles away! Their powerful eyes can see one about 15 miles away. To catch a seal meal, a bear lies quietly at the edge of a hole in the ice and waits until a seal comes up for air. The bear then quickly grabs the seal and kills it with its sharp teeth.

From Season to Season

Most of the year, polar bears roam and hunt by themselves. But like many other animals, they do special things during certain seasons.

Spring. In early spring, males and females find each other, fatten up on seals, and mate. Feasting on seals lets polar bears add a thick layer of **blubber** for the rest of the year. Their bodies can live off this blubber when the seasons change and it becomes harder to find food. This four-inch layer of fat also keeps them warm.

Summer. When Arctic ice melts in summer, polar bears move inland and eat whatever they can find—rodents, eggs, berries, seaweed, or animals killed and left by other predators.

Fall. In October or November, pregnant females build **dens**, or caves, in the snowbanks and **hibernate** there through the winter. When polar bears hibernate, their heart rates slow down, and their body temperatures fall slightly, so they use less energy and can live off their stored blubber. Males and non-pregnant females



PHOTOS: FLIP NICKLIMMINEN PICTURES



△ **In the Swim.** Polar bears are super swimmers.

◁ **On the Prowl.** Big paws and long claws are “handy” tools for catching baby seals.

do not hibernate. They are on the move all through the winter, building temporary shelters only during big storms.

Winter. Females have their babies, or **cubs**, in December or January. They usually have twins. The cubs weigh only one pound when they are born and are only about a foot long. But they grow quickly from feeding on their mother’s milk.

By the time the mother leaves her den in late March or early April, the cubs weigh 30 pounds. This is also exactly the time when baby seals are born, and the mother can begin to hunt. Cubs stay with their mother for about two years,

The Bear Facts

Weight: Male, 800–1,600 pounds;
Female, 500–600 pounds

Length: Up to 10 feet

Favorite Food: Baby ring seals

Life Span: 15–18 years in the wild;
30–35 years in captivity

Home: Arctic shores, ice, and waters

Litter Size: 1–3

Enemies: Human hunters

COLD QUESTIONS

- 1 How have other Arctic animals adapted to the cold?
- 2 What type of adaptations would you need to survive in an Arctic habitat?
- 3 What do you think polar bears will do if there is less polar ice in the future?

learning how to hunt, hide, and survive in their cold habitat.

Less Ice Time?

For many years, humans widely hunted polar bears for their fur. During that time, bear populations began to drop greatly. Then in the 1970s, all countries with polar bears passed laws to protect them from being overhunted. Today, there are about 20,000 polar bears in the world.

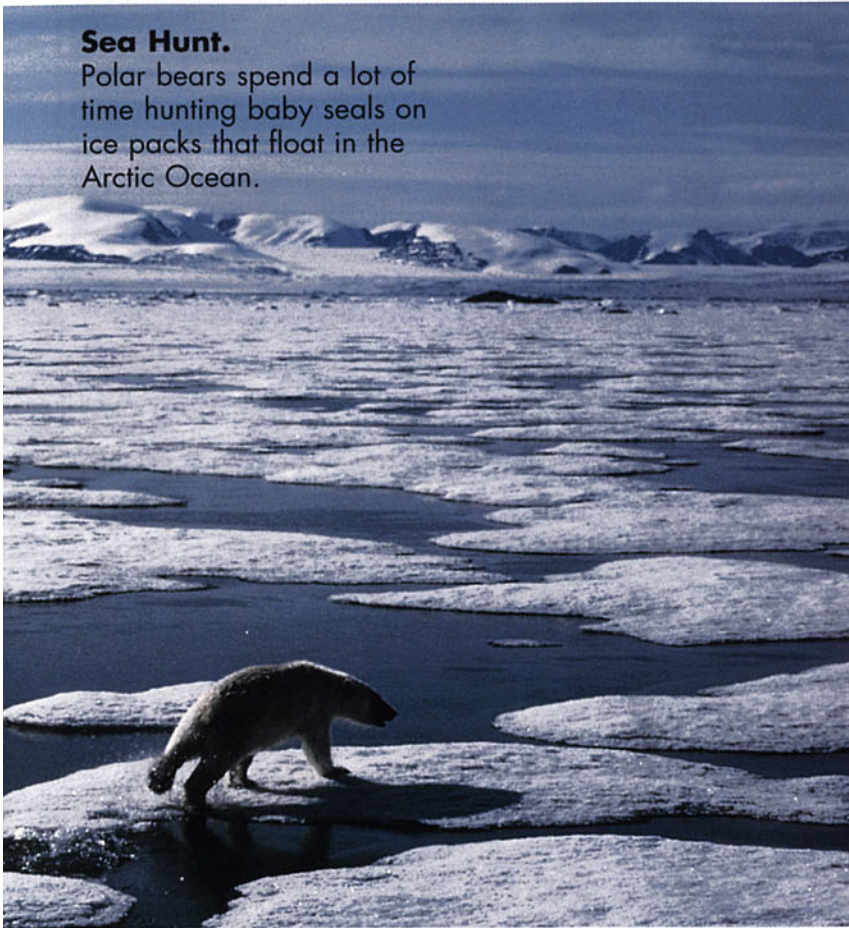
Now scientists worry that polar bears may be facing a new problem that is caused by **global warming**. Global warming is the gradual rising temperature of Earth due to the additional release of carbon dioxide by human activities.

Recently some scientists noticed that global warming was causing Arctic ice to melt earlier in the spring and form later in the fall. Because polar bears depend on ice to find seals, less ice time means they may not get enough to eat.

Energy burned to run cars, trucks, homes, and factories can produce a lot of carbon dioxide. You and your family can help slow global warming by using less of this energy. For example:

- Ride a bike instead of taking a car.
- Encourage your friends to carpool.
- Turn off lights when you're not using them.

Your energy-saving actions could help polar bears thrive in the Arctic for years to come!



Sea Hunt.

Polar bears spend a lot of time hunting baby seals on ice packs that float in the Arctic Ocean.

PHOTO: JAMES BRANDENBURG/MINDEN PICTURES

WebLink



Polar Bear Hotline

Check out www.polarbearsalive.org, the website of an organization dedicated to protecting polar bears.

Wordwise

adaptation: any feature that helps a living thing survive in its environment

blubber: a thick layer of fat under the skin

camouflage: a color or pattern that helps an animal hide in its environment

carnivore: an animal that eats another animal

cub: a young carnivore, such as a bear or fox

den: a place for resting or hiding

global warming: the rising temperature of the Earth due to increased carbon dioxide in the air

habitat: the place where something lives

hibernate: to spend the winter in a sleeplike state

insulation: something that prevents heat from passing through

prey: an animal that is hunted for food