

Enrichment**LESSON 1**

Climate and Life

According to a study published by the World Wildlife Fund in 2000, global warming could alter one-third of the world's wildlife habitats by 2100.

Increasing temperatures are now melting the polar ice sheets of Antarctica and Greenland, resulting in a rapid acceleration of rising sea levels. One hundred glaciers have disappeared from Glacier National Park in the United States, and 2,000 Himalayan glaciers have melted in the last 100 years.

Polar Bear Habitat Loss

The ideal habitat for polar bears is floating slabs of ice, where there are plentiful fish and the bears' favorite food, seals. As global warming shrinks the area of Arctic sea ice, however, the habitat of the polar bear is melting.

In 2004, an aerial survey of the northern Alaskan coast documented dead bears floating in the sea. Some scientists concluded that the bears drowned because of the shrinking sea ice, which means that they have to swim longer distances between ice slabs.

According to a 2007 U.S. Geological Survey report, the polar bear population in Canada's West Hudson Bay declined

22 percent between 1987 and 2004.

These effects of global warming and the observation that the survival rate for polar bear cubs in Alaska has dropped significantly in recent years have contributed to some scientists' predictions that two-thirds of the world's polar bears will disappear by the middle of this century.

Rising Seas and Inuit Villages

More than 300,000 Inuits live in an area stretching from Alaska through the Siberian tundra and into northern Scandinavia, Greenland, and Canada's eastern Arctic islands.

Since 1970, temperatures have risen more than 2.5°C (4.5°F) in this area. In a village on the Beaufort Sea, people are saying that the winters are warmer, the mosquitoes are bigger, killer whales are in the harbor for the first time ever. They also say that 30 years ago, the ocean ice in June was still solid, but now in the first week of June, there is no ice at all. Elsewhere in the region, homes have been lost to the rising sea, and villages are being relocated to higher ground. In one village, the sea has moved 300 feet inland since 2000.

Applying Critical-Thinking Skills

Directions: Answer each question or respond to each statement.

- 1. Evaluate** the following statement: "We don't have to worry about the glaciers that are disappearing in the United States and the Himalayas because they are in the mountains and don't contribute to rising sea levels." Explain your answer.
- 2. Explain** why scientists are concerned about recent den surveys that have shown that more polar bears are spending summers on land. Why are they saying that land isn't the best place for the bears?