Warming Is Seen as Wiping Out Most Polar Bears

WASHINGTON, Sept. 7 — Two-thirds of the world’s polar bears will disappear by 2050, even under moderate projections for shrinking summer sea ice caused by greenhouse gases in the atmosphere, government scientists reported on Friday.

The finding is part of a yearlong review of the effects of climate and ice changes on polar bears to help determine whether they should be protected under the Endangered Species Act. Scientists estimate the current polar bear population at 22,000.

The report, which the United States Geological Survey released here, offers stark prospects for polar bears as the world grows warmer.

The scientists concluded that, while the bears were not likely to be driven to extinction, they would be largely relegated to the Arctic archipelago of Canada and spots off the northern Greenland coast, where summer sea ice tends to persist even in warm summers like this one, a shrinking that could be enough to reduce the bear population by two-thirds.

The bears would disappear entirely from Alaska, the study said.

“As the sea ice goes, so goes the polar bear,” said Steven Amstrup, lead biologist for the survey team.

The report was released as President Bush was in Australia meeting with Asian leaders to...
try to agree on a strategy to address global warming. Mr. Bush will be host to major industrial nations in Washington this month to discuss the framework for a treaty on climate change.

The United Nations plans to devote its general assembly in the fall to global warming.

A spokeswoman for the White House declined to comment on the report, saying it was part of decision making at the Interior Department, parent of the survey.

In the report, the team said, “Sea ice conditions would have to be substantially better than even the most conservative computer simulations of warming and sea ice” to avoid the anticipated drop in bear population.

In a conference call with reporters, the scientists also said the momentum to a warmer world with less Arctic sea ice — and fewer bears — would be largely unavoidable at least for decades, no matter what happened with emissions of heat-trapping gases like carbon dioxide.

“Despite any mitigation of greenhouse gases, we’re going to see the same amount of energy in the system for 20, 30 or 40 years,” said Mark Myers, the survey director. “We would not expect to see any significant change in polar conditions regardless of mitigation.”

In other words, even in the unlikely event that all the major economies were to agree to rapid and drastic reductions in emissions of carbon dioxide and other heat-trapping gases, the floating Arctic ice cap will continue to shrink at a rapid pace for the next 50 years, wiping out much of the bears’ habitat.

The report makes no recommendation on listing the bears as a threatened species or taking any action to slow ice cap damage. Such decisions are up to another Interior Department agency, the Fish and Wildlife Service, which enforces the Endangered Species Act. That decision is due in January, officials have said. The wildlife agency had to make a determination on the status of a threatened species because of a suit by environmental groups like Greenpeace and the Natural Resources Defense Council.

In some places, the bears have adapted to eating a wide range of food like snow geese and garbage. But the survey team said their fate was 84 percent linked to the extent of sea ice.

Separate studies of trends in Arctic sea ice by academic and government teams have solidified a picture of shrinking area in summers for decades to come.

A fresh analysis by scientists of the National Oceanic and Atmospheric Administration, to be published Saturday in the journal Geophysical Research Letters, says sea-ice coverage of the Arctic Ocean will decline by more than 40 percent before the summer of 2050, compared with the average ice extent from 1979 to 1999.

This summer the ice retreated much farther and faster than in any year since satellite tracking began in 1979, several Arctic research groups said.

John H. Broder reported from Washington, and Andrew C. Revkin from New York.