



# Global Warming Impacts to Wildlife on U.S. Public Lands



**WATERFOWL:** The north central U.S. contains 1.3 million prairie ponds that provide habitats for 50-80% of North American waterfowl species. By 2060, between 500,000 and 800,000 of these ponds are expected to dry up, reducing waterfowl populations by more than half.

**CORALS:** Higher water temperatures upset the delicate biological balance within coral reefs, causing bleaching that inhibits adequate nutrition. Scientists estimate that 27% of the world's coral reefs had died from bleaching by late 2000, and predict that by 2030, 60% will be lost, and by 2100, most of the world's coral reefs will die. This will affect many species, as coral reefs are home to one-quarter of all marine life.

**GRIZZLY BEARS:** 90% of Yellowstone National Park's whitebark pine habitat may be eliminated within 50 years, decimating the grizzly bear, which relies on these forests for its diet of pine nuts and army cutworm moths.

**SHELLFISH:** Warmer ocean waters and heightened pollution from increased runoff will threaten the survival, distribution, and growth rates of shellfish. In addition, elevated temperatures will increase the incidence of red tides.

**FISH:** As temperatures increase, cold-water species, such as trout and salmon, will be replaced by warm-water species such as Pacific sardine and Atlantic menhaden. Warmer oceans will also cause declines in plankton populations, devastating species that depend on this food source, such as rockfish and squid. Higher river water temperatures will reduce oxygen to less than five parts per million, threatening the survival of most fish species.

**ELK:** As summer temperatures increase and droughts intensify, elk at Yellowstone National Park will be forced to venture out of the park to find adequate food.

**POLAR BEARS:** Changes in fish populations will result in serious food source problems for polar bears. Polar bears will also lose vital habitat as sea ice declines. Since the 1950s, Alaska has warmed by an average of 4°F, resulting in a 10-15% decrease in the Northern Hemisphere's spring and summer sea-ice.

**WHALES:** Changes in marine life will result in serious food availability problems for top-of-the-food-chain predators such as whales.

**CARIBOU:** Thawing permafrost and increased temperatures will impact the Arctic National Wildlife Refuge's porcupine caribou herd's precise migration schedule. Eviction from the calving grounds would throw the herd into a chaos from which it may never recover.

**SEALS & WALRUSES:** As top-of-the-food chain predators, seals and walruses will lose important food sources as marine food sources shift and decline with rising temperatures. They will also be affected by loss of sea ice—a vital habitat that will decrease in spring and summer with increased temperatures.

Ethanol is a renewable fuel that can replace or supplement gasoline and dramatically reduce greenhouse gas emissions. It can also protect water quality by providing an alternative to the octane and air quality benefits of MTBE—the toxic gasoline additive now banned in over 15 states.