



CHANGE THE FORECAST FOR WILDLIFE
SOLUTIONS TO GLOBAL WARMING

Protecting Species in a Hotter World

Global warming is by far the greatest threat currently facing wildlife and the ecosystems on which both wildlife and people depend. (“Wildlife” is used here in its broadest sense, including all wild species of animals and plants.) Even if concentrations of greenhouse gas (GHG) pollution were suddenly to stabilize, the GHG pollution already in the atmosphere, and the excess carbon already in the oceans, will inevitably cause substantial disruptions of ecosystems across the planet in the coming decades.

Some ecosystem disruptions have already been experienced. Surface air temperatures have risen 1.3 degrees Fahrenheit in the last 100 years, causing thermal expansion of the oceans and accompanying sea level rise of an average 0.07 of an inch per year since 1961. Even if sea level rise continues at the lower of the scenarios projected by the Intergovernmental Panel on Climate Change (IPCC), vital coastal habitats and human settlements will be destroyed or badly damaged. Along Florida’s gradually sloped shores, a 1-foot rise could translate into a horizontal advance of sea water inland by as much as 1,000 feet, on average.

Sea level rise is just one of many examples of damage and disruptions to wildlife and ecosystems caused by GHG pollution and global warming. Among the other noteworthy examples are:

- Melting polar ice caps
- Thawing permafrost
- Acidification of the oceans
- Sea-level rise
- Intensified storms
- Warming of rivers, streams, lakes and estuaries
- Declining snowpack on mountains and earlier runoff
- Drought
- Catastrophic fires
- Pest infestations
- Spreading pathogens and invasive species
- Changes in phenology (seasonal events) and distributions of wildlife populations, separating predators from prey and otherwise disrupting ecological communities.

About 20 to 30% of all plant and animal species face the risk of extinction if temperatures increase by 2.7 degrees. If the thermometer rises by 6.3 degrees, between 40 and 70% of species could disappear. [11/07 IPCC Summary for Policymakers - <http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-spm.pdf>]

Today's generation, which is responsible for a large share of global warming, has a moral obligation to act to stave off this mass extinction and to conserve abundant wildlife and healthy ecosystems for future generations.

The most important steps that can be taken to accomplish are:

1. **Promote changes in policy, corporate behavior, and personal lifestyles that contribute to substantial reductions of global warming pollution going forward.** National Wildlife Federation (NWF) and key partners are calling for 2% annual reductions of GHG emissions, leading to an 80% reduction from current levels by mid-century.
2. **Promote policy changes that strengthen the conservation of land, water and wildlife so that these natural resources can withstand the added stress posed by global warming.** Ensure that public officials take into account the services that ecosystems provide to both people and wildlife when making decisions on land use, water allocation, and other natural resources management. See NWF Fact Sheet *Helping Wildlife Survive Global Warming – A Framework for Wildlife Managers* at: <http://www.nwf.org/globalwarming/pdfs/WildlifeRecommendations.pdf>.
3. **Boost public funding that is dedicated to the conservation of wildlife and ecosystems threatened by global warming.** See NWF website page on *Wildlife Conservation Funding* at: <http://www.nwf.org/congressandglobalwarming/wildlifeconservationfunding.cfm>, and an analysis of Lieberman-Warner wildlife provisions in *Fair Funding for Wildlife – Investing in Our Commitment to Save America's Endangered Wildlife* at: <http://www.nwf.org/endangered/pdfs/FairFundingForWildlifeFullReport.pdf>, and also the above resource *Helping Wildlife Survive Global Warming – A Framework for Wildlife Managers*.

Who's doing it Already?

United States laws and policies place the primary responsibility for wildlife management in the hands of the states and certain federal agencies in the Department of the Interior. The work of America's fish and wildlife agencies has led to a miraculous recovery of many game species from the brink of extinction at the beginning of the 20th century. Despite these successes, many wildlife species continue to decline, as evidenced by the staggering number (more than 1000) species listed under the federal Endangered Species Act.

Each year, Congress and the President go through the process of appropriating federal funds to federal agencies and programs. During this process, some agencies receive a boost in funding for programs, some see major cuts to their budgets, and a few see programs completely zeroed out. Because there is a fixed pool of money, a boost to one agency's budget often means a cut to another's.

Currently, funds to sustain healthy fish and wildlife populations at the state level come from sales of hunting and fishing licenses and permits, as well as special excise taxes on hunting and fishing equipment. The U.S. Congress has provided some additional funding for state fish and wildlife agencies (\$73 million in 2008), but this is far short of what is needed to sustain fish and wildlife populations affected by global warming.

For links to wildlife agencies for all 50 states, see http://www.fishwildlife.org/where_us.html
To view Department of Interior wildlife management programs, see <http://www.doi.gov/>

Arguments Opposed

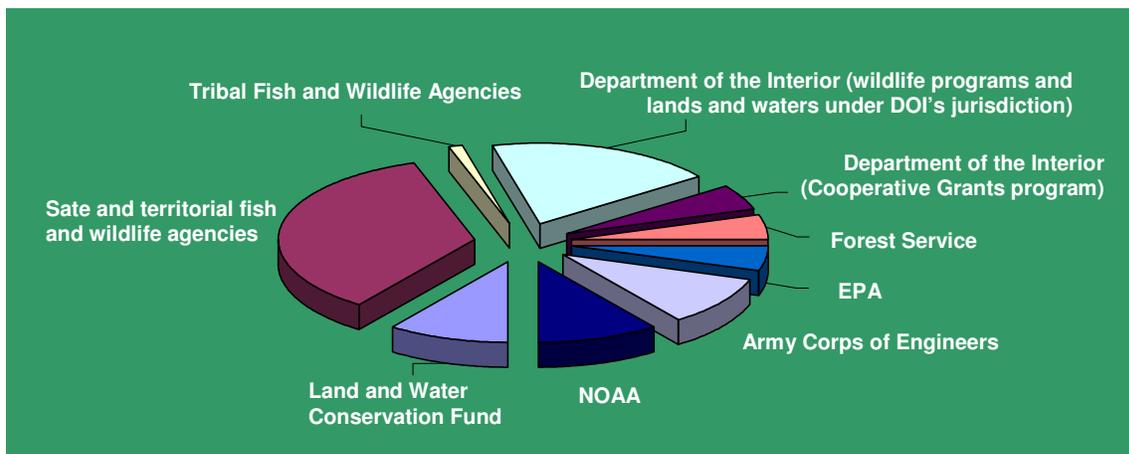
As the impacts of global warming become more visible and as we move closer to taking strong action to address these impacts, increasing demands will be placed on federal funding. Research for renewable and alternative energy technologies and assistance to upgrade low-income houses with technology that increases energy efficiency are two such examples. Because wildlife has no voice, it will become increasingly important for citizens and activists to remind members of Congress of the need for funding to protect wildlife in an increasingly warming world. Global warming is the most serious threat to wildlife and ecosystems in the U.S. and around the world.

Response to Opposition

The Lieberman-Warner Climate Security Act provides the best hope for saving wildlife at risk of extinction and for conserving ecosystems that support both wildlife and people. Under its carbon cap-and-trade system, global warming pollution would be capped at levels that enable U.S. to achieve 2 percent annual reductions through the middle of the century. Permits to release global warming pollution, known as allowances, would be auctioned annually. Revenues from these auctions would be dedicated to various public purposes, including conservation of wildlife and other natural resources at risk from global warming.

As shown below, the auction proceeds would be distributed to natural resource agencies already working to conserve ecosystems across the U.S. These agencies are best suited to handle the challenges of global warming and most have programs in place that can easily be updated, if provided proper funding and resources, to help wildlife and ecosystems survive global warming.

In recognition of the gravity of the threat and the costs of timely and effective action, the amounts provided would be substantial – an estimated \$175 billion during the first 19 years of the program. This represents an average investment of \$9.3 billion each year –an essential commitment to the conservation of our natural heritage for future generations.



Learn more:

- National Wildlife Federation: Global Warming in Your State Fact Sheets:
<http://www.nwf.org/globalwarming/statefactsheets.cfm>.
- National Wildlife Federation: *Chesapeake Bay and Global Warming – A Paradise Lost for Hunters, Anglers, and Outdoor Enthusiasts?*:
http://www.nwf.org/sealevelrise/pdfs/chesapeake_bay_final.pdf.
- National Wildlife Federation: *Sea Level Rise and Coastal Habitats in the Pacific Northwest – An Analysis for Puget Sound, Southwestern Washington, and Northwestern Oregon*: <http://www.nwf.org/sealevelrise/pdfs/PacificNWSeaLevelRise.pdf>.
- Other National Wildlife Federation Resources on Climate Change and Wildlife:
<http://www.nwf.org/globalwarming/globalwarmingresources.cfm>.
- The Heinz Center: *A Survey of Climate Change Adaptation Planning*:
http://www.heinzctr.org/NEW_WEB/PDF/Adaptation_Report_October_10_2007.pdf.
- The Wildlife Society: *Melting Under Pressure - The Real Scoop on Climate Warming and Polar Bears*:
http://www.biology.ualberta.ca/faculty/andrew_derocher/uploads/abstracts/Stirling_Derocher_Wildlife_Professional_PB_climate_2007.pdf.
- Sea Turtle Restoration Project: *Boiling Point: The Impact of Climate Change on Sea Turtles and the Urgent Need to Take Action*:
http://www.seaturtles.org/pdf/Boiling_Point.pdf.