



CHANGE THE FORECAST FOR WILDLIFE
SOLUTIONS TO GLOBAL WARMING

Global Warming and FLORIDA

Florida is a world tourism destination, attracting millions of beachgoers, water lovers and outdoor enthusiasts each year. But global warming is threatening the state's 8,400 miles of tidally influenced coastline. The Intergovernmental Panel on Climate Change estimates that by 2100, average summer temperatures in the state could increase 4.95 degrees Fahrenheit if global warming continues unabated. If sea level rises as projected, coastal estuaries around the Everglades, Florida Keys, Indian River Lagoon and Apalachicola Bay will be drastically changed by salt water encroachment, impacting important habitat for recreational fish and other wildlife. Meanwhile, oil interests are chomping at the bit to place the state's offshore reserves on the auction block, threatening open waters with pollution and picture-perfect vistas with oil rigs. The key to protecting the state from both these threats lies in a common solution: reducing our dependence on fossil fuels. Through innovation, this goal can be achieved. We can solve global warming, reduce the need to drill for oil off Florida's coast, and revitalize our ailing economy by rebuilding America with clean energy.



Global warming effects on Florida wildlife

Florida is home to an incredible diversity of native wildlife species, including 386 birds, 86 mammals, 90 reptiles, 136 fish and 56 amphibians. Rising temperatures and sea level in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- Snook, redfish, grouper, billfish, pompano, permit and bonefish all have adapted over thousands of years to variations in climate. However if similar variations occur within a few decades, as projected with global warming, some of these fish might not fare so well.
- As much as 90 percent of the region's coral reefs are dead or dying due to a host of factors, including global warming. An increase in average sea temperatures over the past 30 years has caused widespread coral bleaching, where corals lose the colorful algae in their tissues that they need to survive.



Florida's coastal wetlands are home to large numbers of wintering ducks, including scaup, green-winged teal and ring-necked ducks, as well as resident mottled ducks and wood ducks. Continuing land development pressures combined with inundation from sea level rise will likely reduce waterfowl habitat in the coming decades.

Global Warming Pollution

Burning coal, gas and oil produces carbon dioxide, which is a greenhouse gas that warms the planet as it builds up in the atmosphere. Some of the carbon dioxide released today remains in the atmosphere after even 100 years, trapping more and more heat.

Since the mid-1800s, emissions of carbon dioxide have skyrocketed, causing global temperatures to rise by about 1° Fahrenheit in the last century. Earth has not experienced such a rapid change in temperature in thousands of years.

A Global Solution

The U.S. must lead the world by passing global warming legislation at home and working with other nations at the Copenhagen climate summit at the end of 2009 to sign a new climate treaty that keeps further warming below 2° Fahrenheit. With a global solution, we can avoid the worst impacts of global warming.



What's at stake for Floridians?

Changes from global warming threaten to not only degrade the natural forests and aquatic ecosystems of Florida, but also the health and economy of the state.

- Scientists project sea level along Florida's coast will rise about 18-20 inches by 2100, endangering houses, hotels and other development within 200-250 feet of the shoreline and leaving the areas more vulnerable to storm surges during tropical storms and hurricanes. It will also jeopardize the more than \$15 billion in revenue generated by Florida's sand beaches.
- Research from MIT shows that hurricanes and other major storms have increased in intensity and duration by about 50 percent since the 1970s and are linked to increases in average sea surface temperatures.
- Warmer ocean temperatures could cause longer, more intense algal blooms, damaging habitat and contaminating seafood.
- Scientists have found that warmer temperatures caused by global warming can lead to higher concentrations of ground-level ozone pollution, a leading cause of respiratory problems such as asthma.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, more than 7.2 million people spent more than \$7.9 billion on wildlife viewing, hunting and fishing in Florida. The industry in turn supported 120,612 jobs in the state.* (*Jobs are an average of 2001 and 2006 data.*)

“Global warming poses an overriding challenge to our responsibility to protect wildlife for our children's future. We must advance balanced solutions that work for people, wildlife and the economy to overcome this challenge.”—

Larry Schweiger
President, CEO
National Wildlife Federation

GLOBAL WARMING NATIONAL POLICY SOLUTION:

A federal legislative solution can drive American ingenuity, create millions of green jobs, and restore America's global leadership on global warming. Legislation should:

- * Include ambitious targets to reduce America's global warming pollution as swiftly and deeply as possible. Scientists say that developed countries as a whole need to reduce their global warming pollution by at least 80% from 1990 levels by 2050 to avoid the worst impacts of global warming.
- * Move America toward a 100% clean electricity future by maximizing energy efficiency, modernizing the electric power grid, expanding power generation from renewable energy resources, and investing in clean transportation infrastructure.
- * Invest in natural resources. Forests, coasts, wetlands, clean air and clean water are already being impacted by global warming. Funding is needed to safeguard the natural resources that are critical to wildlife populations and human health.
- * Lead a worldwide effort to finance clean energy technology, forest conservation, and adaptation to unavoidable impacts of global warming.

For more information, visit: www.nwf.org/globalwarming.



Steven Spencer (NREL)

Florida's solutions to global warming

Florida has the potential to be a leader in developing solutions to global warming.

- Numerous rebates and incentives are available for Florida homeowners and businesses to install solar energy systems. The Sunshine State is also on the cutting edge of photovoltaic research, with the largest state-supported renewable energy research institute in the U.S., the Florida Solar Energy Center.
- The U.S. Department of Energy estimates Florida can generate 13.9 billion kilowatt-hours of electricity using renewable biomass, organic material such as plant fiber and animal waste which can be converted into electricity and fuel. This would supply 16 percent of residential electricity needs annually.

Following some simple guidelines, you can cut your global warming pollution, become more energy efficient and give something back to nature.

- **Convert to compact fluorescent bulbs:** If every household in America replaced its next burned out light bulb with a compact fluorescent, we would prevent more than 13 billion pounds of carbon dioxide from being emitted.
- **Use a low-emission boat motor:** When purchasing your next boat, consider gas mileage and emissions. Boat engines such as a low emission, four-stroke motor pollute only one-sixth the amount of older two-stroke engines.
- **Become a Green Tag subscriber:** Many states now offer options for homeowners to buy electricity from clean, renewable sources such as wind, solar and biomass that produce little or no global warming pollution. Green energy can also be purchased through the National Wildlife Federation by visiting www.nwf.org/energy.

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