



National Action on Climate Change Needed to Protect Florida's Unique Habitats and Birds



Florida is on the front lines of global climate change. Our unique habitats, diverse birds, and wildlife are vulnerable to rising sea levels, increasing ocean temperatures, acidification, and more intense weather events. Our cities and towns are also exposed to these impacts. Nearly 95 percent of our 18 million residents live within 35 miles of the state's more than 1,300 miles of coastline.¹

One of the most important strategies to confront and avoid the worst impacts of global warming is to set national policy to significantly reduce our greenhouse gas emissions, the key driver of global climate change. As the third largest energy consuming state in the nation, Florida has an obligation to lead the way to a sustainable future. But more than just mitigating the effects of global climate change, Florida has much to gain by being part of the solution. The sooner the US Congress acts to pass legislation to reduce greenhouse gas emissions, the sooner Florida can more fully benefit from the economic opportunities of innovative technologies and actions. The state will also be able to better protect its natural lands, and rich abundance of birds and other wildlife, which make Florida such a special place to live and visit.

Audubon of Florida has worked for more than 100 years to protect birds and wildlife, to manage and restore forests and wetlands, to conserve coastal habitats, and to ensure water resources remain clean and abundant. We permanently manage an old-growth cypress forest at the 11,000-acre Corkscrew Swamp Sanctuary. And we are a leader in advocacy to restore America's Everglades, which cover six percent of Florida's land area and is home to important wading birds, such as the roseate spoonbill and wood stork. Our science and advocacy have contributed to the success of Florida's statewide and local land conservation programs as well as protection of beach and coastal habitats for shorebirds and billions of birds from across the Americas that rely on Florida's as a stopover on their annual migrations.

In Florida, climate change contributes to:

Sea level rise. Sea level rise poses a serious threat to south Florida's water supply through salt water incursion. Additionally as sea levels rise, coastal and wetlands habitats are seriously altered and flooding risks increase.

All of these special places and the wildlife that depend on them for survival are put at great risk unless we act quickly to mitigate and adapt to global climate change and its impacts. It is the most urgent challenge of our time and has the potential to negatively reshape our world if we do not take action soon.

Increased hurricane and tropical storm intensity and storm surges. Scientists worldwide have found that "based on a range of models, it is likely that future tropical cyclones (typhoons and hurricanes) will become

¹ Florida, *Serious Risk, Boundless Opportunity*, www.theclimategroup.org

more intense, with larger peak wind speeds and more heavy precipitation associated with ongoing increases of tropical sea-surface temperatures.”² A scientific and economic study by the Organization for Economic Cooperation and Development (OECD) ranked the city of Miami among the top ten most vulnerable metropolitan areas worldwide in terms of assets exposed to 1-in-100 year storm-related flooding event today and estimates economic losses of approximately \$416 billion.³

Extreme weather patterns, including droughts and heat waves.

Lake Okeechobee and the Everglades have been experiencing a record-setting drought since 2006 and heat waves in south Florida have broken records this year. Should Florida and the nation follow a business-as-usual scenario, and fail to decrease global warming pollution, “Florida’s average annual temperatures will be 5°F higher in 2050 than today and 10°F higher in 2100.” This means that by the end of the century, “the average “heat index” (temperature combined with humidity) in summer could be 15–20 percent higher in much of the state, and Florida cities could likely experience daily highs exceeding 90 degrees nearly two-thirds of the year.”⁴

The Everglades are unique in the world and protecting and restoring this diverse ecosystem is critical if we are to adapt to the impacts of climate change, protect our water supply and Florida’s diverse birds and wildlife populations.

Algae blooms and associated impacts, including seagrass and fish species die-off. Warmer ocean temperatures contribute to the occurrence of algae blooms, such as the blooms that have plagued Florida Bay since 2006, which cause die-off of seagrass and fish populations.

Coral reef bleaching and destruction from rising ocean temperatures. Already stressed by human pressures, Florida is home to the largest living reef system in America and the third largest barrier reef in the world. This system, rich in biological diversity, is already ongoing severe coral bleaching events, which weaken corals ability to ward off disease and cause serious mortality. Concerned with these impacts, the Florida Keys National Marine Sanctuary Advisory Committee passed a resolution in May 2007 stating that any and all actions should be taken to reduce or eliminate sources of human-caused global climate change that are causing significant harm to the resources of the national marine sanctuary.⁵

Continued degradation of wetlands. Development pressures and human water supply demands have already seriously degraded the Everglades and other wetlands systems, and the impacts of climate change add an additional stress to our already beleaguered wetland habitats. Protecting and restoring these systems is more critical than ever.

A vast majority of scientists say that we must take serious steps now in order to avoid the worst impacts of global warming. The average global temperature has increased by approximately 1.4 degrees Fahrenheit since pre-industrial times, and scientists have warned that we must limit an overall rise in warming to no more than 3.6 degrees Fahrenheit.⁶ If we maintain a course of business as usual and fail to limit a significant increase in average global temperatures, we run the risk of losing up to 40 to 70 percent of the species on our planet, enormous human health and economic impacts, massive displacement of human populations, and more.⁷ In order to avoid this fate, we must reduce overall greenhouse gas emissions by 80 percent by 2050.

Support National Action on Climate Change

Congress has been considering national policy for some time to decrease US greenhouse gas emissions. One of the best tools and one being applied internationally is called a cap and trade system. Under this system, a gradually decreasing national emissions limit is established and a cost is assigned to each ton of carbon dioxide—and other greenhouse gas, called a carbon-dioxide equivalent—emitted by a given sector or company. Emissions allowances are then distributed or traded in a carbon market, stimulating increased economic opportunity, innovation and incentives for clean energy technologies, and incentives for protecting and restoring forests that draw carbon dioxide out of the atmosphere and store it in plants and soils.

The leading bill in Congress is S.2191, or the Climate Security Act, introduced by Senators Joe Lieberman (I-CT) and John Warner (R-VA). It was passed by the Senate Environment and Public Works Committee in December 2007 and is expected to come before the Senate in mid 2008. While the legislation does not yet contain the full cap of 80 percent emissions reductions urged by scientists worldwide, it contains many important provisions and is a beginning to tackling this urgent challenge.

Given the state’s vulnerability to the effects of climate change and the economic opportunities presented by technological innovation, the Florida Congressional delegation is faced with a tremendous obligation and opportunity. By voting in favor of strong national cap and trade system, our representatives will help level the playing field for the private sector; stimulate innovation and economic opportunities; and in doing so, provide additional resources to help the state protect its natural lands and wildlife from devastating impacts of global warming.

For more specifics on climate change legislation, such as the Warner-Lieberman bill, and to support Audubon’s work to achieve climate solutions, visit www.audubonofflorida.org.



² *Climate Change 2007: Synthesis Report*, An Assessment of the Intergovernmental Panel on Climate Change, available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf. nal Action on Climate Change

³ *Ranking of the World’s Cities Most Exposed to Coastal Flooding Today and in the Future*, Executive Summary, Extract from full report: OECD Environment Working Paper No.1 (ENV/WKP(2007)1), OECD 2007, at <http://www.oecd.org/dataoecd/16/10/39721444.pdf>.

⁴ *Florida and Climate Change: The Costs of Inaction*, Tufts University, November 2007, at http://www.ase.tufts.edu/gdae/Pubs/rp/Florida_lr.pdf

⁵ Resolution of the Florida Keys National Marine Sanctuary Advisory Committee in support of local, state and national actions to reduce the causes of climate change, passed unanimously on May 22, 2007. Available at http://floridakeys.noaa.gov/sac/agendas/res_climate.pdf

⁶ Union of Concerned Scientists, *How to Avoid Dangerous Climate Change: A Target for U.S. Emissions Reduction*, September 2007.

⁷ *Climate Change 2007: Impacts, Adaptation and Vulnerability*, published on April 6, 2007 by the Intergovernmental Panel on Climate Change at <http://www.ipcc.ch>.