



CHANGE THE FORECAST FOR WILDLIFE
SOLUTIONS TO GLOBAL WARMING

Hurricanes and Global Warming

Recent scientific papers are reporting that over the past 30 years the intensity and duration of hurricanes have increased significantly due to global warming. Warm sea surface temperatures are the primary source of energy fueling hurricanes. Since 1970 sea surface temperatures have increased by 1 degree F, thereby fueling more intense hurricanes that last for longer periods of time.

Global warming is also causing sea levels to rise due to melting ice caps and expansion of water as it warms. The combination of rising sea level and increased hurricane intensity is making coastal areas more vulnerable to flooding from storm surges, such as the storm surge which devastated portions of Louisiana in 2005.

The record-breaking 2005 Atlantic hurricane season brought with it the wrath of Hurricane Katrina, the most destructive and expensive natural disaster ever to strike the United States. This unprecedented hurricane season resulted in 27 named storms, including 14 hurricanes. In 2006, National Oceanic and Atmospheric Administration (NOAA) scientists are predicting a hurricane season with even more intense and frequent hurricanes.

If global warming is allowed to continue unabated, tropical storms and hurricanes are likely to continue growing in intensity and destructiveness.

U.S. Climate Action Report

The Bush administration's 2002 U.S. Climate Action Report summarized the scientific consensus – hurricanes will be more severe and damage worse due to higher storm surge from sea-level rise.

•“Warming is likely to alter coastal weather and could affect the intensity, frequency, and extent of severe storms.” (p. 103)

•“Hurricanes that do develop are likely to have higher wind speeds and produce more rainfall.” (p. 101)

•“Coastal communities will be at greater risk of storm surges, especially in the southeastern United States.” (p. 82)



Not Just A Natural Cycle:

-- In June 2005 the Association of British Insurers analyzed NOAA hurricane data revealing that the average number of hurricanes in the current "up" cycle is higher than during the previous upswing – an indication that global warming is boosting the effects of the natural variation in hurricane activity. "We're going up a natural cycle, and it's being exacerbated by global warming," said Judith Curry, a climatologist at Georgia Tech. "We're only partway up the cycle and we're already 50 percent higher (in numbers and intensity of storms) than the peak of the last cycle."



Increased Intensity and Duration:

-- An August 2005 Massachusetts Institute of Technology study shows that major storms spinning in both the Atlantic and the Pacific since the 1970s increased in both duration and intensity by about 50 percent. The lead researcher, Kerry Emanuel, determined that increases in duration and intensity are closely linked to increases in the average temperature of the ocean's surface, which corresponds with increases in global average atmospheric temperatures during the same period. Climate models project that tropical storms will continue to increase in intensity due to global warming.



NASA

Insurers Pass Along Higher Costs

Robert Hartwig, chief economist at the Insurance Information Institute:

“Expect a continuation in the increase in (insurance) premiums that was already underway in the Southeast in the Gulf Coast zones. In Florida, our rates over the past year have been rising by 15 to 30 percent on average.

“Insurers are of the mind that these storms are likely to become more frequent and more intense over the next several decades. That's what the best minds in meteorology are telling us.”

Nationwide stopped writing homeowners insurance policies in Florida, along with 7 other insurance companies, after the 2004 hurricane season. Since hurricane Katrina hit the Gulf Coast last summer, Allstate, the industry's second-largest company, has stopped writing homeowners policies in the region. More than 20 other firms in the region have sought approval for rate increases.

In Addition...

A Risk Management Solutions study announced that increases in hurricane landfall frequencies will increase insurance losses by 40 percent on average across the Gulf coast, Florida, and the Southeast.

-- A September 2005 Georgia Institute of Technology study reveals that “the number of Category 4 and 5 hurricanes worldwide has nearly doubled over the past 35 years. The shift occurred as global sea surface temperatures increased over the same period.” The study examined the intensity, duration and number of hurricanes worldwide from 1970 through 2004. In March 2006, the same scientists at Georgia Tech found that sea surface temperatures were the most significant factor influencing the increase in global hurricane intensity.

-- According to January 2006 findings by the Geophysical Fluid Dynamics Laboratory at NOAA, an organization that previously did not acknowledge a link between global warming and hurricane activity, “the strongest hurricanes in the present climate may be upstaged by even more intense hurricanes over the next century as the earth's climate is warmed by increasing levels of greenhouse gases in the atmosphere.”



Malia Hale

Enhanced Storm Surge:

-- The Intergovernmental Panel on Climate Change (IPCC), comprising the world's preeminent climate scientists, in 2002 assessed that sea levels rose by between 4 and 8 inches during the 20th century. The rise in sea level has been accelerating as glaciers and ice caps melt, and as water expands due to warmer temperatures. Higher sea levels increase the flooding and damage caused by hurricane storm surge.

-- The Bush Administration's own U.S. Climate Action Report predicted that sea-level rise caused by global warming could swallow sizable chunks of the coastal United States in the coming century. In a worst-case scenario 23,000 square miles of land along the Gulf and Atlantic coasts could disappear, thereby erasing vital wetlands, swamping barrier islands, and otherwise removing the natural protections our shorelines provide against the storm surge that threatens people and wildlife.

For more information
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