Falling Out of the Ivory Tower

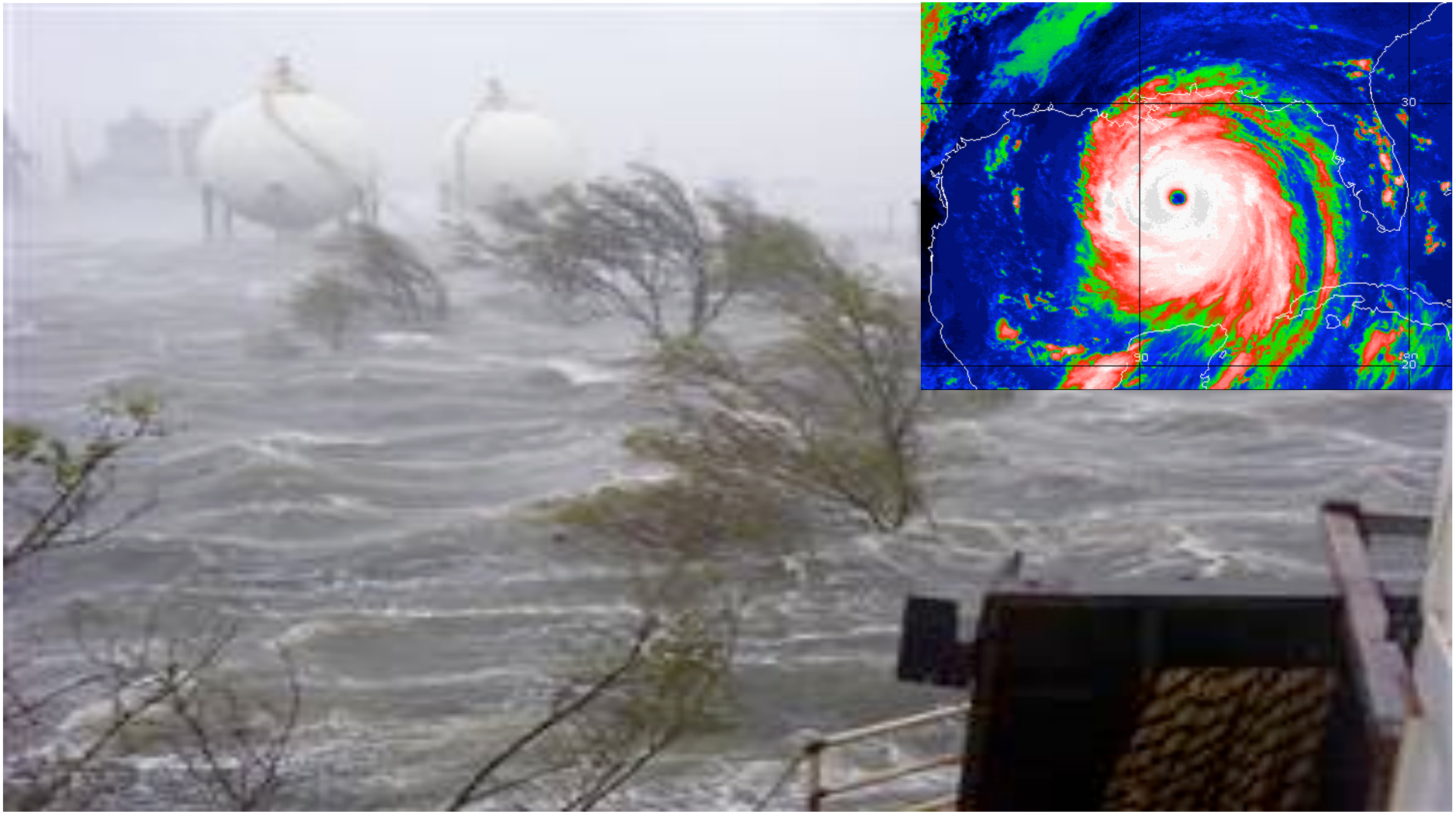
Reflections on mixing politics & climate science

Judith Curry
Georgia Tech

Hurricane Katrina

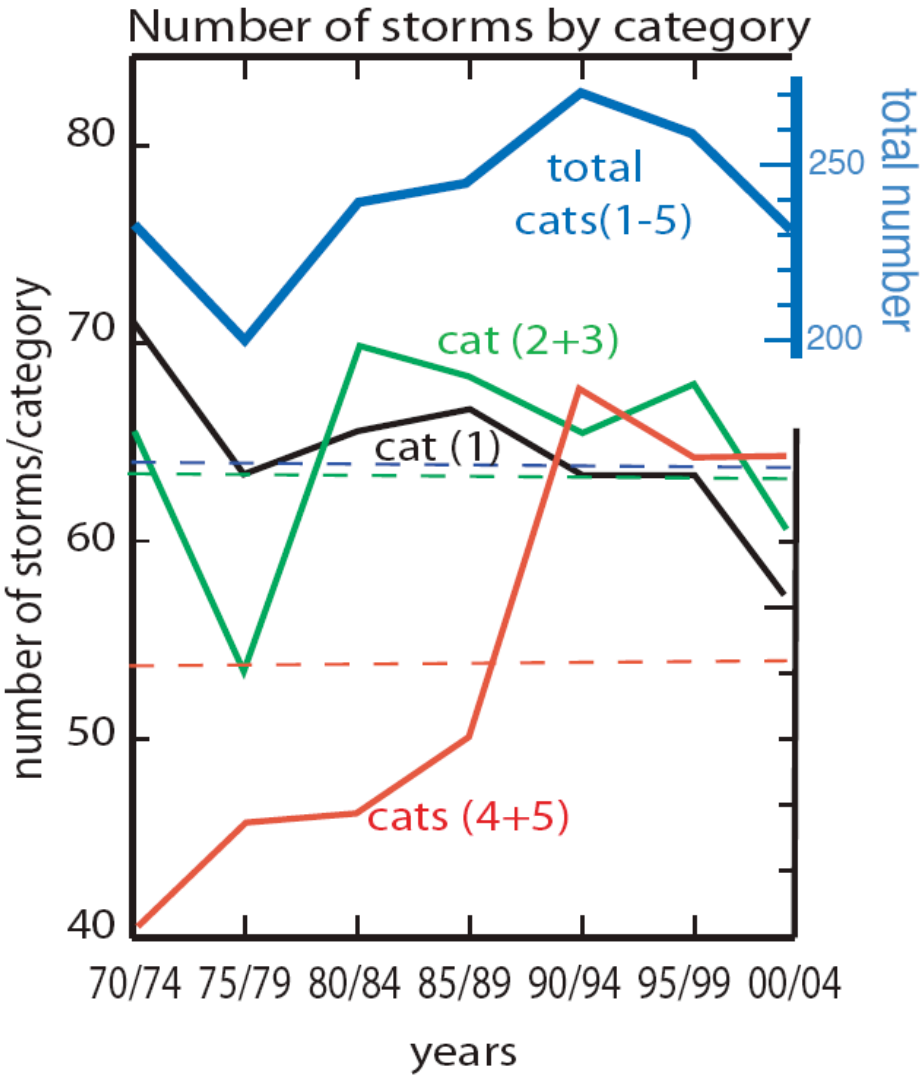
August 29, 2005

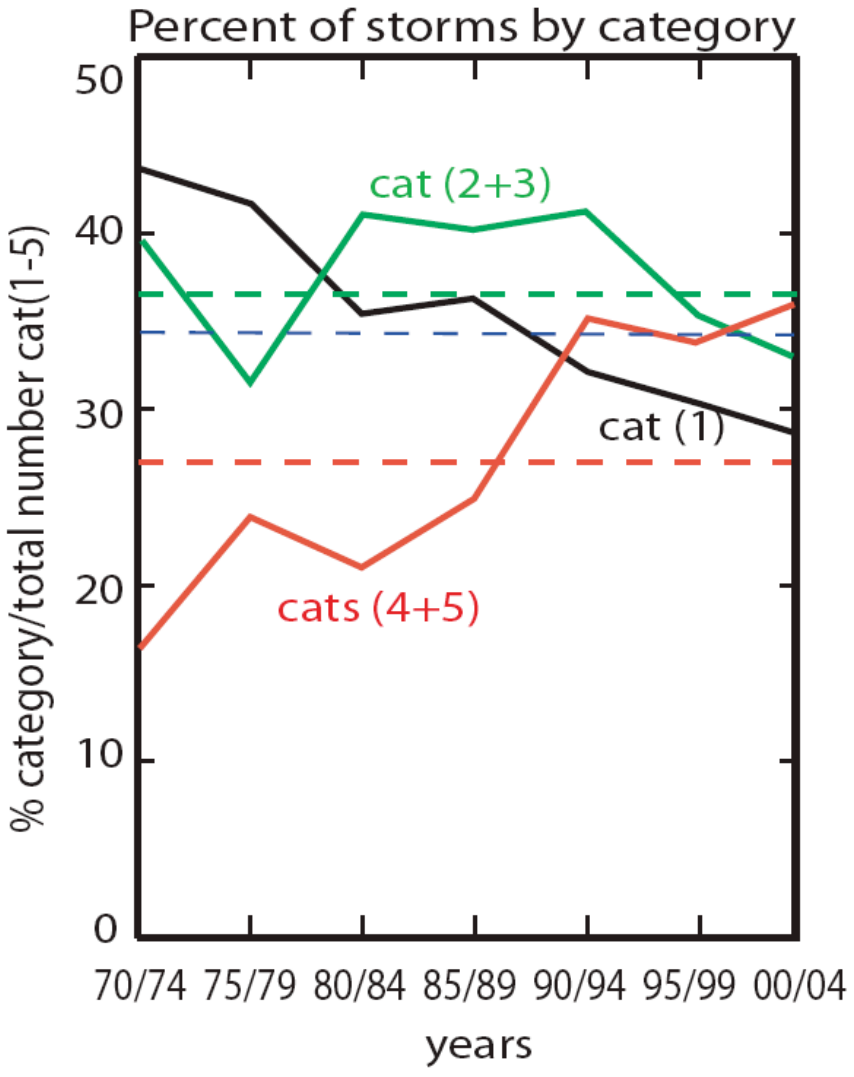
- > $100B damages
- ~2000 lives lost



Global hurricane intensity

Webster, Holland, Curry, Chang (2005) *Science*
September 16, 2005





Katrina as a “political” hurricane:

1. Risks to rebuilding New Orleans may be underestimated if global warming is causing hurricanes to increase in intensity

2. If global warming is causing increasing hurricane intensity, then the lack of U.S. policy designed to address global warming becomes politically and economically untenable.

Both issues are political “hot potatoes”

Wall Street Journal

February 2, 2006

Cold Front

Debate Shatters Civility of Weather Science

Hurricanes Worsened by Global Warming?

Spats are so tempestuous,
sides are barely talking

Charge of “brain fossilization”

Mixing Politics and Science in Testing the Hypothesis That Greenhouse Warming Is Causing a Global Increase in Hurricane Intensity

BY J. A. CURRY, P. J. WEBSTER, AND G. J. HOLLAND

This complex hypothesis has been muddied frequently in recent public debate, yet can be clarified by laying bare the underlying causal chain and potential approach to verification.

BULL. AMER. METEOROL. SOC. AUGUST 2006

Motivations for writing the BAMS article

Warning to climate researchers: we are ill prepared for mixing politics, science & media; bad things happen to good people

- Ad hominem and appeal to motive attacks
- Misquotes by the press
- Vilification in the blogosphere

Increase the rhetorical effectiveness of our arguments:

- Address issues that people actually care about (rather than focus on obscure scientific arguments)
- Clear, logical arguments that are easily understood
- Sort out the credible arguments from fallacious attacks

Reflections on the integrity of climate science

Our field has not yet adapted to its high policy relevance

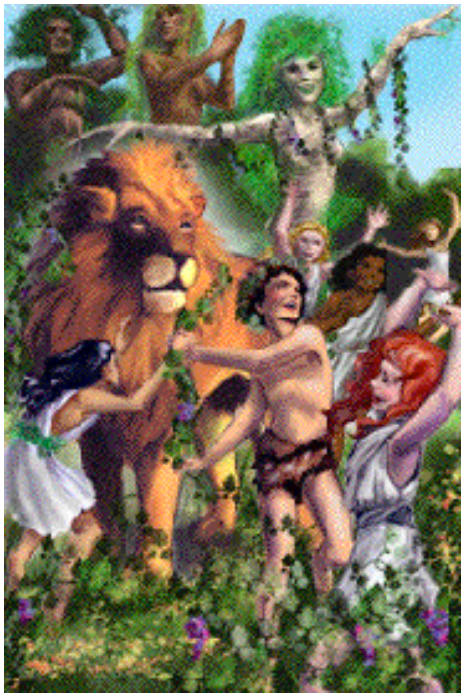
In spite of the integrity of the individual denizens of the ivory tower, the climate research enterprise when considered as a whole is perceived by the public and policy makers to have a credibility gap

Source of the credibility gap:

- highly visible (albeit small) group of skeptics
- “balance as bias” in the media
- inadequate assessment and communication of uncertainty
- turf battles and appeal to authority
- muddy relationship between climate research and policy

Strategies for engaging skeptics

1. Retreat into the ivory tower
2. Circle the wagons/point guns outward
   - ad hominem/appeal to motive attacks
   - appeal to authority
   - isolate the enemy through lack of access to data, peer review process



3. Take the high ground
   - engage the skeptics on our own terms (conferences, blogosphere)
   - make data/methods available/transparent
   - clarify the uncertainties
   - openly declare our values

Most scientists believe that they have a responsibility to communicate their research and its social and ethical implications, but may choose not to engage because:

- dislike of the “blood sport”
- concern about impact on their scientific reputation
- perceived lack of effectiveness in public communication
- engagement takes time away from research
- lack of understanding of the policy relevant aspects

Challenges to scientists engaging in the policy process

(1) Scientists are often accused of “having an agenda” simply by virtue of publishing a relevant paper.

(2) Delicate balance between acknowledgement of personal values and avoiding interjecting a personal political agenda

(3) Effective framing of the science requires understanding the social and ethical implications, policy options and the policy process

Institutional challenges: professional societies, universities, gov't labs, funding agencies

- Provide media training upon issuing a press release and resources to improve public communication skills
- Support development of interdisciplinary education programs to prepare scientists for engaging in the policy process
- Provide recognition/rewards for scientists engaging the public and contributing to the policy process
- Insure publicly accessible data and transparent methods
- Engage in strategic framing of the issues
- Provide an environment where an honest and open exchange of scientific ideas can take place

A plea for more active engagement by scientists:

"You have nothing to lose but your irrelevance"
- Chris Mooney