



Union of Concerned Scientists
Citizens and Scientists for Environmental Solutions

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**Before the Committee on Natural Resources
U.S. House of Representatives**

**Hearing on “Endangered Species Act Implementation: Politics or Science?”
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This testimony is presented by Dr. Francesca Grifo, Senior Scientist with the Union of Concerned Scientists (UCS), a leading science-based nonprofit working for a healthy environment and a better world. The full testimony is submitted for the record. Dr. Grifo will summarize her statement for the Committee on the problem of political interference in the work of federal government scientists. This written testimony contains an overview of the problem of political interference in science, a summary of the UCS survey of U.S. Fish and Wildlife Service (FWS) scientists, a summary of documented abuses of science in Endangered Species Act decisions, and recommended government reforms needed to restore scientific integrity to the federal policy making process.

Chairman Rahall, Ranking Member Young, and Members of the Committee, the Union of Concerned Scientists appreciates the opportunity to testify today on an extremely important issue – the federal government’s implementation of the Endangered Species Act and whether the science used to enforce the law has been compromised.

In 1972, President Richard Nixon asked Congress to pass “a stronger law to protect endangered species of wildlife.”¹ But over the years, the law’s lofty goals have been compromised. Indeed, in March 2006, 5,738 biologists wrote a letter asking Congress to protect the integrity of science in the implementation of the Endangered Species Act.² “One of the great strengths of the Endangered Species Act is its foundation in sound scientific principles and its reliance on the best available science,” their letter states. The biologists urged that “objective scientific information and methods” should be used in listing species, that the habitat needs of endangered species are “scientifically well-informed” and that the Endangered Species Act standard of “best available science” must rely on “impartial scientific experts.”

“Losing species means losing the potential to solve some of humanity’s most intractable problems, including hunger and disease,” the biologists concluded. “The Endangered Species Act is more than just a law – it is the ultimate safety net in our life support system.”

¹ Michael J. Bean, “Endangered species, endangered act?” *Environment*, 1 Jan. 1999.

² “*Letter from Biologists to the U.S. Senate Concerning Science in the Endangered Species Act.*” March 2007. Available online: http://www.ucsusa.org/scientific_integrity/restoring/science-in-the-endangered.html.

Unfortunately, time and time again, when scientific knowledge has seemed to be in conflict with its political goals, the current administration has manipulated the process through which science enters into its decisions. At many federal agencies and departments, including the Department of Interior, this has been accomplished by placing people who are professionally unqualified or who or who have clear conflicts of interest in official posts and on scientific advisory committees; by censoring and suppressing reports by the government's own scientists, and by actually omitting or distorting scientific data.

Scientific Integrity

Successful application of science has played a large part in the policies that have made the United States of America the world's most powerful nation and its citizens increasingly prosperous and healthy.

Although scientific input to the government is rarely the only factor in public policy decisions, scientific input should always be weighted from an objective and impartial perspective. Presidents and administrations of both parties have long adhered to this principle in forming and implementing policies. Recent actions, however, threaten to undermine this legacy by preventing the best available science from informing policy decisions. UCS has compiled over seventy examples in its *A to Z Guide to Political Interference in Science*.³

The misuse of science has occurred across a broad range of issues such as childhood lead poisoning, toxic mercury emissions, climate change, reproductive health, and nuclear weapons. Experts at the Food and Drug Administration (FDA) charged with ensuring the safety of our food and drug supply, report being pressured to alter their scientific conclusions. Scientists nominated to serve on scientific advisory boards report being asked about their political leanings. And scientists studying climate change have been effectively barred from communicating their findings to the news media and the public.

Misrepresenting and suppressing scientific knowledge for political purposes can have serious consequences. For example, the FDA had pronounced the pain medication Vioxx safe, but as many as 55,000 Americans died before it was withdrawn from the market.⁴

This misuse of science has led Russell Train, the EPA administrator under Presidents Nixon and Ford, to observe: "How radically we have moved away from regulation based on independent findings and professional analysis of scientific, health and economic data by the responsible agency to regulation controlled by the White House and driven primarily by political considerations."⁵

On February 18, 2004, 62 preeminent scientists articulated these concerns in a statement titled "Restoring Scientific Integrity in Policy Making."⁶ In this statement, the scientists charged the

³ Available Online: <http://www.ucsusa.org/atoz.html>.

⁴ Dr. David Graham, Testimony to the Senate Finance Committee, 18 November 2004.

⁵ Russell E. Train, "The Environmental Protection Agency just isn't like it was in the good old (Nixon) days." www.girstmagazine.com, September 22, 2003.

⁶ Available Online: http://www.ucsusa.org/scientific_integrity/interference/scientists-signon-statement.html.

Bush administration with widespread and unprecedented “manipulation in the process through which science enters into its decisions.”

In the years since the statement was released, more than 12,000 scientists have signed on to the scientists’ statement. Signers include 52 Nobel laureates, 63 National Medal of Science recipients, and 195 members of the National Academy of Sciences. A number of these scientists have served in multiple administrations, both Democratic and Republican, underscoring the unprecedented nature of the current level of political interference in science. Individual scientists have been joined by several major scientific associations, including the American Association for the Advancement of Science, the American Public Health Association, the American Geophysical Union, and the Ecological Society of America, which have addressed the problem at society wide meetings and have begun to investigate how to defend science from political interference.

Voices of Fish and Wildlife Service Scientists

Political interference has been pronounced in those federal agencies tasked with implementing the Endangered Species Act.

In 2005, UCS and Public Employees for Environmental Responsibility (PEER) distributed a 42-question survey to more than 1,400 Fish and Wildlife Service (FWS) biologists, ecologists, botanists and other science professionals working in Ecological Services field offices across the country to obtain their perceptions of scientific integrity within the FWS, as well as political interference, resources and morale. Nearly 30 percent of the scientists returned completed surveys, despite agency directives not to reply—even on personal time.

The scientists reported that pressure to alter scientific reports for political reasons has become pervasive at the U.S. Fish and Wildlife Service. At field offices around the country, Fish and Wildlife scientists tell of being asked to change scientific information, remove scientific facts or come to conclusions that are not supported by the science.

I. Political Interference with Scientific Determinations

Large numbers of agency scientists reported political interference in scientific determinations.

- Nearly half of all respondents whose work is related to endangered species scientific findings (44 percent) reported that they “have been directed, for non-scientific reasons, to refrain from making jeopardy or other findings that are protective of species.” One in five agency scientists revealed they have been instructed to compromise their scientific integrity—reporting that they have been “directed to inappropriately exclude or alter technical information from a FWS scientific document,” such as a biological opinion;
- More than half of all respondents (56 percent) knew of cases where “commercial interests have inappropriately induced the reversal or withdrawal of scientific conclusions or decisions through political intervention;” and
- More than two out of three staff scientists (70 percent) and nearly nine out of 10 scientist managers (89 percent) knew of cases “where U.S. Department of Interior political

appointees have injected themselves into Ecological Services determinations.” A majority of respondents also cited interventions by members of Congress and local officeholders.

II. Negative Effect on Wildlife Protection

While a majority of the scientists indicated that agency “scientific documents generally reflect technically rigorous evaluations of impacts to listed species and associated habitats,” there is evidence that political intrusion has undermined the FWS’s ability to fulfill its mission of protecting wildlife from extinction.

- Three out of four staff scientists and even higher proportions of scientist managers (78 percent) felt that the FWS is not “acting effectively to maintain or enhance species and their habitats, so as to avoid possible listings under the Endangered Species Act;”
- For those species already listed as threatened or endangered under the ESA, more than two out of three scientists (69 percent) did not regard the FWS as effective in its efforts toward recovery of those listed species;
- Nearly two out of three scientists (64 percent) did not feel the agency “is moving in the right direction;” and
- More than two-thirds of staff scientists (71 percent) and more than half of scientist managers (51 percent) did not “trust FWS decision makers to make decisions that will protect species and habitats.”

III. Chilling Effect on Scientific Candor

Agency scientists reported being afraid to speak frankly about issues and felt constrained in their roles as scientists.

- More than a third (42 percent) said they could not openly express “concerns about the biological needs of species and habitats without fear of retaliation” in public while nearly a third (30 percent) did not feel they could do so even inside the confines of the agency;
- Almost a third (32 percent) felt they are not allowed to do their jobs as scientists; A significant minority (19 percent) reported having “been directed by FWS decision makers to provide incomplete, inaccurate or misleading information to the public, media or elected officials;” however,
- Scientific collaboration among FWS scientists, academia and other federal agency scientists appears to be relatively untainted by this chilling effect, with a strong majority (83percent) reporting they felt free to collaborate with their colleagues on species and habitat issues.

IV. Resources and Morale

While we cannot ascribe low staff morale to any one cause, the tenor of staff responses and their level of concern about a misuse of science are cause for concern.

- Half of all scientific staff reported that morale is poor to extremely poor and only 0.5 percent rated morale as excellent;
- More than nine out of ten (92 percent) did not feel that the agency “has sufficient resources to adequately perform its environmental mission;” and

- More than four out of five (85 percent) said that funding to implement the Endangered Species Act is inadequate.

In Their Own Words

As part of the survey, the scientists were also asked how best to improve the integrity of scientific work at Fish & Wildlife—two-thirds of respondents provided written responses. By far the concern mentioned most often was political interference. The scientists’ words paint a vivid picture of political misuse of science.

One scientist noted that “I have been through the reversal of two listing decisions due to political pressure. Science was ignored—and worse manipulated to build a bogus set of rationale for reversal of these listing decisions.”

Another remarked that “[r]ecently, DOI officials have forced changes in Service documents, and worse, they have forced upper-level managers to say things that are incorrect...” while a third explained that “As it stands, [fish and wildlife] regional headquarters, [the Interior Department] and White House leadership are so hostile to our mission that they will subvert, spin or even illegitimize our findings.”

One biologist wondered “Why can’t we be honest when science points in one direction but political reality results in [the agency] making a decision to do otherwise? Morale and credibility will improve if we are honest rather than trying to twist science to make politicians happy.”

These survey results illustrate an alarming disregard for scientific facts among the political appointees entrusted to protect threatened and endangered species. The ESA requires the best available science be used as the basis for listing and recovery decisions.

Abuse of Endangered Species Science

In our *A to Z Guide to Political Interference in Science*, the Union of Concerned Scientists has documented specific instances where endangered species data has been compromised.⁷ The following examples address two fundamental facets of the ESA: decisions to list a species as endangered or threatened; and designation of critical habitat.

Listing Decisions

Greater Sage Grouse

Julie MacDonald, the former Deputy Assistant Secretary for Fish and Wildlife and Parks at DOI, also interfered with the science behind the proposed listing of the Greater sage grouse, a highly threatened ground bird in the American west. A partial copy of Ms. MacDonald’s edits and commentary on a scientific review by agency biologists of the state of scientific knowledge of the bird and its habitat was obtained by the *New York Times*. Many of her comments challenged

⁷ Supporting documentation detailing these examples of political interference in science is available at: <http://www.ucsusa.org/atoz.html>.

specific statements made by biologists, questioned the methodology behind studies, and dismissed conclusions without providing a scientific basis for her criticism. Her baseless interference cast enough doubt on the status of the greater sage grouse that an expert panel recommended against listing the bird for protection.

Gunnison Sage Grouse

Gunnison Sage grouse have experienced significant declines from historic numbers; only 4,000 breeding individuals remain in southwestern Colorado and southeastern Utah. FWS biologists and field staff were prepared to list the Gunnison sage grouse as endangered and designate a critical habitat, when the ESA listing for this distinct species was abruptly delayed and eventually reversed by Julie MacDonald and other Department of Interior officials. These officials greatly edited the scientific reports of the scientists, reducing the substantial listing proposal to a mere outline of information, and finally concluded on a “not warranted” listing for this imperiled bird.

Gunnison’s Prairie Dog

The Gunnison’s prairie dog, a distinct species from the white-tailed prairie dog, had 90% of its historical range in Arizona, New Mexico, Utah, and Colorado, reduced by the combined pressures of oil and gas drilling, urban sprawl, sylvatic plague, and continued shooting and poisoning. Preliminary studies by FWS scientists showed that the Gunnison’s prairie dog was a candidate for ESA listing until explicit orders from Julie MacDonald reversed their decision and precluded further study.

Roundtail Chub

The Roundtail Chub of the lower Colorado River Basin was concluded to be a distinct population segment by the FWS scientists studying the fish from the field office of Arizona, but the pending decision was reversed by FWS officials. The extinction of this population segment, which is imperiled by a combination of non-native fish introductions and degradation of its stream and river habitat, would result in the species being eliminated from roughly a third of its range.

***Tabernaemontana rotensis*, a rare island tree**

Approximate thirty plants remain of the species *Tabernaemontana rotensis*, a medium-sized tree with white flowers and orange-red fruit that grows in the Northern Mariana Islands. In 2000, the FWS published a rule recognizing *T. rotensis* as a species and proposing to list it as an endangered species, but this decision was reversed by the Department of the Interior in April 2004. Documents show that DOI decision was influenced by comments from the Air Force, which manages the lands upon which *T. rotensis* is primarily found. This decision runs counter to the recommendations of the Pacific Islands office of FWS, the primary scientists that work on the species, and the peer reviewers of the proposed rule, who all supported listing, and to virtually all of the published literature.

Trumpeter Swan

According to documents released through the Freedom of Information Act, as well as testimony from consulting scientists, then FWS director Steve Williams based decisions concerning the status of rare trumpeter swans on a scientifically flawed report that lacked outside peer review

and seriously misrepresented another study. The attempt to list the imperiled trumpeter swans in Montana, Wyoming, and Idaho as a distinct population segment from the plentiful tundra swans of the same region would have forced the FWS to halt the popular swan hunting season in Utah. A formal complaint from PEER prompted director Steve Williams to convene a scientific panel to review the matter; the panel concluded that the FWS documentation was inadequate for use in a species determination. Williams overruled the panel's decision and continued to refuse protection to the trumpeter swan.

White Tailed Prairie Dog

The White-tailed prairie dog is suffering severe declines, having vanished from 92 percent of its historical habitat in higher-elevation grasslands across the western half of Wyoming, western Colorado, eastern Utah, and southern Montana. Documents show that then Assistant Secretary MacDonald directly tampered with a scientific determination by FWS biologists that the white-tailed prairie dog could warrant Endangered Species Act protection, and further, prevented the agency from fully reviewing the animal's status. Specifically, she changed scientific conclusions, and added erroneous scientific information, and ordered the finding to be changed from positive to negative.

Critical Habitat Designation

Bull Trout

Officials at the U.S. Fish and Wildlife Service deleted chapters detailing the economic benefits of protecting the bull trout, a threatened species in the Pacific Northwest, from an independent and peer-reviewed cost analysis of establishing a critical habitat for the species. The final published report included no material on the estimated \$215 million in economic benefits, and exaggerated the \$230 to \$300 million in costs estimated by the researchers. These costs would primarily fall on hydropower, logging, and highway construction. White House officials claimed that the methodology of including benefits with costs in a financial analysis was discouraged, despite having used the same methodology themselves to justify administration-supported policies.

Florida Panther

According to FWS biologist Andrew Eller, Jr., FWS officials have knowingly used flawed science in the agency's assessment of the endangered Florida panther's habitat and viability in order to facilitate proposed development in southwest Florida. Eller says agency officials knowingly inflated data about panther population viability by erroneously assuming that all known panthers are breeding adults, discounting juvenile, aged, and ill animals. They have also minimized assessments of the panthers' habitat needs by equating daytime habitat use patterns (when the panther is at rest) with nighttime habitat use patterns (when the panther is most active). An independent scientific review team has confirmed that the information disseminated by the FWS about the Florida Panther contains serious errors.

Marbled Murrelet

The Bush administration overruled the opinions of its own government scientists in deciding that the marbled murrelet in California, Oregon, and Washington was not genetically or ecologically distinct from bird populations in Canada and Alaska. These birds were listed as threatened under

the Endangered Species Act in 1992, as they were disappearing rapidly from the three northwestern states as their coastal forest habitat came under pressure from human development and logging. In a review of the bird's status, prompted by the trade group American Forest Resource Council, the regional offices of the FWS argued that the murrelet of the Pacific Northwest was ecologically distinct from its cousins in Canada. However, the federal FWS ignored these scientists and moved to reduce its protected habitat by 95% and eventually initiated plans to delist the bird.

Palid Sturgeon, Piping Plover and Interior Least Tern

In late 2000, a group of scientists that had been studying the flow of the Missouri river concluded a ten year, independently reviewed study recommending a river management system mimicking natural seasonal fluctuations. The scientists contended that such a river plan would comply with the Endangered Species Act by helping to protect two species of birds (the threatened piping plover and the endangered interior least tern) and one species of fish (the endangered pallid sturgeon). However, the Bush administration intervened by creating a new team of scientists who worked under incredibly short deadlines, contained only two of the original 15-member river review team, and eventually released an "amendment" to the original document which was not subject to peer-review. The conclusion of the new team greatly softened the recommendation for river flow, and also insisted that the changes in water level would only affect the sturgeon.

Red Frog

In April 2006, the FWS finalized plans to reduce by nearly 90 percent the critical habitat set aside for the protection of a rare species of California frog. According to FWS, a new analysis had shown that the cost of maintaining the original critical habitat for the red-legged frog was too high and would unfairly burden homeowners and ranchers. But the analysts who made the cost estimates argued that the numbers were skewed, since they were not permitted to factor in any monetary benefits of protecting the land.

Salmon

A panel of scientific experts found that there was a strong scientific basis for excluding hatchery-raised fish when measuring the size of wild salmon populations in the Pacific Northwest. Such population counts are central to determining protection status and habitat needs under the Endangered Species Act. This central recommendation was deleted from the final report of the advisory committee. As the panel's lead scientist, Robert Paine, put it, "The members of the panel were told to either strip out our recommendations or see our report end up in a drawer." The Bush administration subsequently released new determinations which combine hatchery and wild fish, thus inflating the population counts of several endangered or threatened naturally spawning fish. The removal of the extensive, up-to-date scientific record compiled by the advisory committee leaves these populations open to legal challenges calling for their delisting.

Strategies To Weaken The ESA

Just this year, the Administration has attempted to weaken the ESA in ways that undermined the original intent of the ESA as passed by Congress. In March 2007, for example, the Department of Interior's Office of Solicitor sent out a memo responding to questions raised by the FWS

about the definition of an “endangered species”—an issue that had been raised in a 2001 federal appellate court decision. The troubling memo concludes that when considering whether a species is endangered, government officials only have to consider its jeopardy in the current habitat it occupies, not its historical range.⁸

Thirty-eight biologists were so concerned about the potential impact of this memo that they sent a letter to Interior Secretary Dirk Kempthorne and warned that the memo’s conclusions “will have real and profoundly detrimental impacts on the conservation of many species and the habitat on which they depend.” The letter states, “Congressional intent about the act is clear: The Endangered Species Act is intended to allow species to be restored throughout large portions of their former range.”⁹

Systemic Problems Require Systemic Solutions

The problem of political interference in science will not be solved by a new Administration or the resignation of additional political appointees. There will always be pressure on elected officials from special interests—to weaken environmental laws. For that reason the Union of Concerned Scientists urges this committee to enact systemic reforms:

Transparency in Scientific Decisions

Scientists at the FWS recommended more transparency in the decisions making process. Said one FWS biologist, “Plac[e] much more scrutiny on the decision-making process between the draft scientific document and the final decision. The work is great until it hits the supervisory chain, and then things are dropped, changed, altered (usually without written record) and then finalized with dismissive responses to concerns.”

To ensure the work of federal scientists will not be subject to political manipulation, the Department of Interior should increase transparency in the decision-making process to expose manipulation of science and make other political appointees think twice before altering or distorting scientific documents. We make the following recommendations:

- The DOI should publish a statement explaining the scientific rationale for each listing decision and recovery plan. The statement should justify and defend how FWS staff reconcile scientific and economic data to make the final decision. The statement must include the scientific documentation that went into the decision and the names of the FWS employees and officers involved in the process.
- If FWS scientists have significant concerns with or criticisms of the decision, they must also be able to submit a statement explaining their disagreement. This would provide them with an opportunity to make their concerns public and provide FWS with an opportunity to explain how they have addressed the concerns or why they are not significant.

⁸ “The Meaning of ‘In Danger of Extinction Throughout All or a Significant Portion of its Range,” Memo to Director, U.S. Fish and Wildlife Service from the Office of the Solicitor, United States Department of Interior, 16 Mar. 2007.

⁹ Letter to Secretary Dirk Kempthorne regarding proposed changes to the Endangered Species Act, 30 Apr. 2007.

- DOI should establish a formal and independent scientific review board for agency policies and decisions.

Scientific Freedoms

Scientists should be allowed basic freedoms to carry out their work and keep up with advances in their field. One FWS scientist recommended, “Encourag[ing] scientists to keep abreast of scientific information (e.g. Membership in professional societies, pay for them to attend prof[essional] meetings) and allowing scientists to do their job-make sure they can focus on getting the science right before they are bombarded with the social, political and economic angles that come with each issue.”

- DOI scientists should be free to publish their tax-payer funded research in peer-reviewed journals and other scientific publications and be able to make oral presentations at professional society meetings. The only exception should be if the publication or presentation of the research is subject to Federal export control, national security, or is proprietary information.

Scientific Communication

Open communication among scientists is one of the pillars of the scientific method. For society to fully reap the benefits of scientific advances, information must also flow freely among scientists, policy makers, and the general public. The federal government must respect the constitutional right of scientists to speak about any subject, including policy-related matters and those outside their area of expertise, so long as the scientists make it clear that they do so in their private capacity, and such communications do not unreasonably take from agency time and resources. Scientists should be proactively made aware of these rights and ensure they are exercised at their agencies.

- DOI should adopt media and communication policies that ensure tax-payer funded scientific research is open and accessible to Congress, the media, and the public. The policy should:
 - Affirm that scientists and other staff have the fundamental right to express their personal views, provided they specify that they are not speaking on behalf of, or as a representative of, the agency but rather in their private capacity.
 - Create an internal disclosure system to allow for the confidential reporting and meaningful resolution of inappropriate alterations, conduct, or conflicts of interest that arise with regard to media communications.
 - Include provisions to actively train staff and post employee rights to scientific freedom in all workplaces and public areas.

Whistleblower Rights

In the past, scientists who have attempted to disclose political interference with science have been found ineligible for whistleblower protection. Under the Whistleblower Protection Enhancement Act, H.R. 985, which recently passed in House of Representatives, these disclosures are protected. Whistleblower protections for scientists who report abuse of science would help ensure that basic scientific freedoms of federal scientists are respected.

- Congress should pass the Whistleblower Enhancement Act, which would give federal scientists the right to expose political interference in their research without fear of retribution. The House has approved this measure, and it's time for the Senate to act.
- DOI scientists who provide information or assist in an investigation regarding manipulation or suppression of scientific research should be given adequate protection from retaliation.
- DOI should fully investigate any retaliatory actions against a scientist who expresses their concerns within or outside of the agency.

Immediate Actions

There are several immediate actions that the Interior Department and Congress should take to prevent political interference in science and reinforce the scientific foundation of the Endangered Species Act:

- Interior Department Secretary Dirk Kempthorne should send a clear message to all political appointees that substituting opinions for science is unacceptable.
- In light of the demonstrated pervasiveness of political interference in Endangered Species Act decisions during the past several years, the Interior Department should engage in a systematic review of all Bush administration decisions to ensure that the science behind those decisions was not altered or distorted. At the very least, Secretary Kempthorne should require an immediate reevaluation of decisions where political interference has been exposed.
- Given the number of recent attempts to undermine the scientific underpinnings of the Endangered Species Act by members of Congress and political appointees, congressional committees of jurisdiction must act to safeguard the role of science in protecting highly imperiled species.

Restoring Scientific Integrity Throughout Government

In the 109th Congress, the Union of Concerned Scientists strongly supported comprehensive legislation to protect fact-based information from distortion in order to give policymakers the best data on which to make decisions that affect each and every American.

The “Restore Scientific Integrity to Federal Research and Policymaking Act,” sponsored in the House by Representatives Henry Waxman (D-CA) and Bart Gordon (D-TN) drew 80 sponsors. The prime sponsor of its Senate companion was Sen. Richard Durbin (D-IL).

We look forward to working with the 110th Congress on comprehensive bipartisan legislation and other reforms to restore scientific integrity to federal policymaking.