U.S. House of Representatives
Committee on Science, Space, and Technology
Subcommittee on Investigations & Oversight

HEARING CHARTER

"The Endangered Species Act: Reviewing the Nexus of Science and Policy"

Thursday, October 13, 2011
10:00 a.m. – 12:00 p.m.
2318 Rayburn House Office Building

Purpose

On October 13, 2011, the Subcommittee on Investigations and Oversight will hold a hearing on the nexus of science and policy related to the Endangered Species Act (ESA)[1]. The purpose of the hearing is to highlight the combination of science and policy decisions that are made under the ESA. Numerous judicial disputes over ESA-related actions highlight the challenges in weighing best available science against other policy considerations, often under short deadlines. Congress has frequently considered changes to the ESA as a whole, and has also enacted species-specific ESA legislation, most recently with 2011 legislation concerning the grey wolf.[2]

Although the ESA is designed to protect species, its application is most visible when federally imposed plans to protect and recover a species restrict the actions of private citizens and other entities. For example, landowners may not be able to use their property in a manner they had planned and farmers may not be able to use as much of a river's water as they need. Since takings claims are rarely successful, the science used to make ESA decisions is critical.

Background

Enacted in 1973 and amended on several occasions, the Endangered Species Act is designed to ensure the continued existence of species of plants and animals that are at risk of extinction. The Act sets out a specific timeline for action by federal agencies and requires agency officials to make decisions based upon the best science available under specific deadlines. The timelines cannot be waived or extended in an effort to allow for the development of additional science related to a species in question.[3] This results in the focus of public and federal review primarily upon the science used by proponents for a particular action, typically a petition for a new listing.

[1] 16 U.S.C. §1531-1544.
[2] Title VII, Section 1713, of P.L. 112-10.
[3] 16 U.S.C. § 1533(b) (3).

Almost 1400 U.S. species of plants and animals have been listed under the ESA as threatened or endangered, resulting in the implementation of 1100 active recovery plans.[4] A small number of species have been delisted, either due to successful recoveries, extinction, or due to data errors in the original listing decision.[5] The majority of listed species have remained at their original listing level of endangered or threatened. The American bald eagle is viewed by many as the highest profile species to go through the Endangered Species Act process. After federal protections were enacted in 1940 prior to the enactment of the ESA, the bald eagle population of the lower 48 states was listed as endangered in 1967 under a precursor to the ESA, the Endangered Species Preservation Act of 1966, downlisted to threatened in 1995, and delisted all together in 2007.[6]

In a recent high profile action in April 2011, the President signed into law a provision that required the FWS to reissue an earlier final rule published on April 2, 2009 concerning the Northern Rocky Mountain population of the grey wolf as a distinct population segment.[7] The original rule delisted certain species of the grey wolf, but the rule was set aside as a result of federal litigation brought by several environmental groups.[8] The legislation required the FWS to republish its final rule and prohibited judicial review of the action. It is important to note that the FWS initially determined that the delisting decision was appropriate and the 2011 legislation did not override FWS decisions for this species.[9]

Although the focus of the ESA is preventing the further decline of species populations, significant societal impacts occur when a species is listed as threatened or endangered. Various uses of lands and waters identified as critical habitats for endangered species are restricted. These restrictions make the accuracy of science concerning the status of a particular species crucial to making appropriate policy decisions. If critical habitat designations are not appropriately sized or scoped, then either too much or too little protection for a particular species will be applied. If usage restrictions are too small in size and scope, this could result in additional losses to the species. If restrictions are too large in size and scale, users of a particular area such as home owners or farmers could have their usage of a resource overly restricted.

The process used to list and delist species

The Fish and Wildlife Service and the National Marine Fisheries Service are responsible for the ultimate listing of a species as threatened or endangered through the publication of a final notice in the Federal Register. Initial steps to determine whether a new listing is warranted or an existing listing should be modified can occur within these agencies for two reasons:

1. If federal scientists determine that the status of a species warrants review, or
2. In response to a petition filed with the agency by an outside group.

[4] The current number of endangered and threatened species can be found at http://ecos.fws.gov/tess_public/pub/boxScore.jsp.
[5] See http://ecos.fws.gov/tess_public/pub/delisting Report.jsp for the complete list.
[6] See http://www.fws.gov/migratorybirds/baldeagle.htm
[7] Section 1713 of P.L. 112-10.
[8] *Defenders of Wildlife et al. v. Salazar et al.*, 729 F. Supp. 2d 1207 (D. Mont.).
[9] "Final Rule to Identify the Northern Rocky Mountain Population of Gray Wolf as a Distinct Population Segment and To Revise the List of Endangered and Threatened Wildlife," *Federal Register* 74, (2 April 2009): 15123.

Upon receipt of a petition filed by an outside group or an internal decision that a listing review should be considered, the agency has 90 days to make an initial determination after publication in the Federal Register. Interested parties can submit additional information regarding a listing review and/or comment upon data included in the initial Federal Register notice. Within one year of publication in the Federal Register, the agency is statutorily required to make a final determination. Under existing statute, listed species are also subject to ongoing review of their status every five years without the need for petitions.

The FWS and NMFS have increasingly used their statutory authority to determine that the listing of a species is "warranted, but precluded."[10] This status means that the listing of a species is warranted based upon available science, but that other species have a greater priority for protection. No protections apply specifically under the Endangered Species Act for species determined to be "warranted, but precluded" although the Bureau of Land Management and the Forest Service provide additional protections for these species under separate statutory provisions applicable only to those agencies.[11] All "warranted, but precluded" determinations are subject to judicial review as are ongoing agency efforts to make a final determination for such species. Recent court litigation brought by environmental groups has focused on FWS actions, or lack thereof, to reduce the number of species identified as "warranted, but precluded".

Each species identified as "warranted, but precluded" is given a ranking number known as a "Listing Priority Number (LPN)" from 1 to 12 that the FWS and NMFS is supposed to use as a roadmap for identifying which species are listed first. The LPN is based upon three factors: magnitude of the threats to the species, immediacy as to when the threats will begin, and the importance of the species biologically. An annual Candidate Notice of Review identifies all status changes to listed species during the prior year and a ranking of "warranted, but precluded" species. The annual cumulative total of candidate listings identified as "warranted, but precluded" during the past six years have numbered:

- 2010: 251 species
- 2009: 305 species
- 2008: 251 species
- 2007: 280 species
- 2006: 279 species
- 2005: 286 species

Biological opinions

Section 7 of the ESA requires any federal agency that seeks to undertake an action such as issuing a permit or undertaking a project that may impact an endangered species to conduct a biological assessment to identify the likely impact of its action on an endangered species.[12] The Federal agency requesting formal consultation shall provide the Service with the best scientific and commercial data available or which can be obtained during the consultation for an adequate review of the effects that an action may have upon listed species or critical habitat.[13] FWS or

[10] This authority is found at 16 U.S.C. § 1533(b) (3) (B).
[11] The spotted owl is one example of a species that the Forest Service gave additional habitat protection. A review of Forest Service actions regarding the spotted owl can be found at http://www.fs.fed.us/pnw/pubs/marcot.pdf.
[12] 16 U.S.C. § 1536.
[13] 50 C.F.R. § 402.14(d).

NOAA will review the assessment and then issue its response in the form of a biological opinion, BiOP for short. Although the document is called an opinion, it is binding upon federal agencies and is subject to judicial review. Judicial disputes over an endangered species that do not concern the act of listing itself often focus on the contents of particular biological opinions. For example, recent judicial activity noted later in this memo regarding the Delta Smelt has been focused on the biological opinions concerning minimum water flows necessary to protect the species.

Issues

Recent DOI Settlement Agreements Concerning "Warranted, but Precluded" Species

In 2009 and 2010, WildEarth Guardians filed ten complaints in federal court seeking declaratory and injunctive relief alleging that the Secretary of Interior failed to comply with a statutory duty to make 12-month findings on petitions made by WildEarth Guardians to list 12 species as threatened or endangered under the ESA.[14] In a May 2011 settlement between the parties to resolve the case, FWS committed to a number of activities related to listing petitions under a set time frame as follows:

- 130 of 251 outstanding listing petitions will be resolved by September 30, 2013
- 30 more listings petitions will be resolved by September 30, 2014
- 40 more listings petitions will be resolved by September 30, 2015
- All 251 listing petitions will be resolved by September 30, 2016
- By September 30, 2013, the Distinct Population Segment for the Canada Lynx will be extended to include New Mexico
- Decisions regarding the New Mexico Jumping Mouse[15], the Greater Sage Grouse[16], and the Sonoran Desert Tortoise[17] will be made by specific dates
- Payment of an undetermined amount of legal fees to WildEarth Guardians

In 2010, the Center for Biological Diversity filed a similar complaint in federal court seeking declaratory and injunctive relief alleging that the Secretary of Interior failed to comply with a statutory duty to make 12-month findings on petitions made by the Center for Biological Diversity to list over 500 species as threatened or endangered under the ESA.[18] In a July 2011 settlement between the parties to resolve the case, FWS committed to a number of activities related to listing petitions under a set time frame as follows:

- The 90 day petitions for 477 aquatics species must be made by September 30, 2011
- The 12 month findings for 11 non-aquatic species must be made by September 30, 2011
- Seven specific listing petitions must be resolved by September 30, 2012
- 14 specific listing petitions must be resolved by September 30, 2013
- Seven specific listing petitions must be resolved by September 30, 2014
- Seven specific listing petitions must be resolved by September 30, 2015

[14] Cases Numbers 1:09-2290, 1:09-2997, 1:10-57, 1:10-169, 1:10-256, and 1:10-263. (D. Colo.); Numbers 1:10-0048 and 1:10-421 (D. D.C.); and Numbers 1:10s

[15] Zapus hudsonius luteus.

[16] Centrocercus urophasianus.

[17] Gopherus agassizii.

[18] Case Number: 10-0230.

- Two specific listing petitions must be resolved by September 30, 2016
- One specific listing petitions must be resolved by September 30, 2017
- Payment of an undetermined amount of legal fees to the Center for Biological Diversity

In contrast to 1400 total species listings under the ESA since its enactment in 1973, the two court settlements will require a review of 750 candidate species in only six years. The settlements assume that there will be no increase in federal funding to manage the sharply increased workload of reviewing approximately one petition per week for the next five years. Even if the agencies can meet the logistical challenge, there will be a limited amount of time available to review the research that accompanies each petition.

Shift to Outside Science

In the initial years of the ESA, outside petitions were rare. In recent years, most listing decisions have been initiated through public petitions submitted by outside entities such as WildEarth Guardians and the Center for Biological Diversity. Their submissions contain science conducted by non-government scientists. In cases where the scientific record is thin, decisions that could have a major financial or societal impact upon land owners and users are essentially being made upon the research of a few.

Distinct Population Segments

Under the 1976 amendments to the Endangered Species Act, the FWS is required to protect distinct population segments of vertebrate species. In practice, this means that a large subpopulation of a species facing minimal threats to its existence may not be listed under the Endangered Species Act while a smaller subpopulation elsewhere facing greater threats to its existence may be listed. Although determining distinct subpopulations is becoming easier due to the increased use of genetic testing, making such decisions are still a subject of vigorous scientific and policy debates.[19] Under guidance issued in 1996, the FWS and NOAA consider three criteria regarding the listing of a distinct population segment:

1. Discreteness of the population segment in relation to the remainder of the species to which it belongs;
2. The significance of the population segment to the species to which it belongs; and
3. The population segment's conservation status in relation to the Act's standards for listing (i.e., is the population segment, when treated as if it were a species, endangered or threatened?).[20]

Although increased usage of genetic testing can help answer the first criteria question, the second and third criteria are a combination of science and policy decision-making. For example, the Florida panther is listed as endangered with less than 200 animals found in the wild in southern Florida although genetic testing has shown that the genetic differences between the Florida

[19] Fallon, Sylvia, "Genetic Data and the Listing of Species Under the U.S. Endangered Species Act" Conservation Biology Volume 21 (2007), Pages 1186–1195.
[20] "Policy Regarding the Recognition of District Vertebrate Population Notice of Policy." *Federal Register* 61, (7 February 1996): 4722-4725.

panther and the other thirty species of cougars are minimal.[21] In this case, the science concerning genetic differences and population numbers are fairly certain, but the policy decisions are not.

Concerns over Agency Science

The scientific work and opinions made by federal scientists is given significant deference by federal courts. Federal scientists are considered independent experts in their specific field working on behalf of the United States and its citizens in contrast to scientists that either directly represent or have a connection to one or more specific entities. Disputing the decisions and testimony of federal scientists is therefore challenging.

In one recent example, on September 16, 2011 U.S. District Court Judge Oliver Wanger of California sharply criticized the work and testimony concerning the Delta Smelt Biological Opinion by two federal scientists, one from the Fish and Wildlife Service and one from the Bureau of Reclamation. Commenting upon the FWS scientist, Judge Wanger stated "I find her testimony to be that of a zealot." In further comments about the Bureau of Reclamation scientist, he stated

> "And I am going to make a very clear and explicit record to support that finding of agency bad faith because, candidly, the only inference that the Court can draw is that it is an attempt to mislead and to deceive the Court into accepting what is not only not the best science, it's not science."

Although Judge Wanger's comments were in reference to one specific case, they do highlight the concerns over the quality of science and the related federal actions that follow from relying upon that science. If the science used by Congress, federal agencies, and federal courts to make specific determinations is flawed or biased in some way, then the policies that result will similarly be flawed and biased.

In another example, a memo dated March 22, 2011 from the Solicitor General's office to the Acting Assistant Secretary for Fish and Wildlife and Parks found that National Park Service employees had failed to satisfy the Interim Code of Scientific and Scholarly Conduct regarding their actions concerning research on the impact of shellfish mariculture activities upon protected harbor seal populations.[22] Although no intent to deceive or scientific misconduct was found by the Solicitor's office, "this misconduct arose from incomplete and biased evaluation and from blurring the line between exploration and advocacy through research."[23]

Witnesses

- Mr. Gary Frazer, Assistant Director, Endangered Species, U.S. Fish and Wildlife Service
- The Honorable Craig Manson, General Counsel, Westlands Water District

[21] Whoriskey, Peter. "Plan to Protect Florida Panther Reopens Issue of Its Identity," Washington Post, 21 February 2006.
[22] The Solicitor's memo can be found at http://www.eenews.net/assets/2011/03/23/document_gw_05.pdf.
[23] Ibid. page 35.

- Mr. Douglas Vincent-Lang, Senior Biologist, Alaska Department of Fish and Game
- Dr. Neal Wilkins, Director, Texas A&M Institute of Renewable Natural Resources
- Mr. Jonathan Adler, Professor, Case Western Reserve University School of Law
- Dr. Francesca T. Grifo, Senior Scientist and Director, Scientific Integrity Program, Union of Concerned Scientists

Appendix A

Excerpt of Recent Comments by Federal District Court Judge Wanger from Court Transcript in the Delta Smelt Cases Concerning the Testimony of Two Federal Employees and a Finding of Agency Bad Faith by the Bureau of Reclamation

The Court believes that the testimony of Mr. Feyrer, Bureau of Reclamation's expert, and Dr. Norris, the Fish & Wildlife Service's expert, are -- and I'm going to be making findings that are going to be justified by specific factual instances. Their testimony is riddled with inconsistency. The Court finds that Dr. Norris' testimony, as it has been presented in this courtroom and now in her subsequent declaration, she may be a very reasonable person and she may be a good scientist, she may be honest, but she has not been honest with this Court. I find her to be incredible as a witness. I find her testimony to be that of a zealot. And I'm not overstating the case, I'm not being histrionic, I'm not being dramatic. I've never seen anything like it. And I've seen a few witnesses testify. Mr. Feyrer is equally inconsistent. Self and internally contradictory. I -- and most of you, some of you have been in these cases for 20 years. I have never seen anything like what has been placed before this Court by these two witnesses. And the suggestion by Dr. Norris that the failure to implement X2 at 74 kilometers, that that's going to end the delta smelt existence on the face of our planet is false, it is outrageous, it is contradicted by her own testimony, it is contradicted by Mr. Feyrer's testimony, it's contradicted by the most recent adaptive management plan review, it's contradicted by the prior studies, it is -- candidly, I've never seen anything like it.

I'm going to start with Mr. Feyrer, and I'm going to go issue by issue, point by point. Because, candidly, I'm going to be making a finding in this case of agency bad faith. There is simply no justification. There can be no acceptance by a court of the United States of the conduct that has been engaged in this case by these witnesses. And I am going to make a very clear and explicit record to support that finding of agency bad faith because, candidly, the only inference that the Court can draw is that it is an attempt to mislead and to deceive the Court into accepting what is not only not the best science, it's not science. There is speculation. There is primarily, mostly contradicted opinions that are presented that the Court not only finds no basis for, but they can't be anything but false because a witness can't testify under oath on a witness stand and then, within approximately a month, make statements that are so contradictory that they're absolutely irreconcilable with what has been stated earlier.

And the Court draws the inferences of knowledge and draws the inference of intent. Because those are intentional misstatements, they can't be anything else. And they're made for only one purpose, they're made for the purpose of attempting to influence the Court to decide in a way that is misleading, confusing and the detail and the factual complexity of this case obviously requires close scrutiny and great effort. And if anybody had been just, quite frankly, a little bit inattentive or a little bit less diligent than digging into and trying to get to the bottom of every one of these assertions, it would be very easy to simply accept these opinions with these record citations. And when the record says the opposite of what you cite the record for, or when the record doesn't say what you cite the record for, there's simply an absence of the data, then that is a further misleading of the Court. That is a further, if you will, distortion of the truth.