

**Responses to “questions for the record by Republican Members” on the May 9
hearing in the House of Natural Resources on the “Endangered Species Act
Implementation: Science Or Politics?”**

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I would like to thank the members of the Committee for the opportunity to respond to these follow-up questions from the hearing. My responses to each question are set out below. In general, a number of the questions appear to raise issues of a legal nature. While I am not an attorney, my testimony before the Committee was offered as a conservation biologist and scientist. Nonetheless, I have attempted to respond to the Committee’s questions to the best of my ability.

(1). What role should the states have in protecting endangered species? Do you agree with Ms. Rodd that the Fish and Wildlife Service should not devolve management responsibilities to the states? States control road building, energy development, including alternatives, and home development which could affect listed species.

Response: The Endangered Species Act is a federal environmental law. It already recognizes an appropriate role for the states in a number of places explicitly in the following provisions: (1) 16 U.S.C. § 1531(a)(5) finds that encouraging state involvement in species protection is important to the success of the Act; (2) § 1531(c)(2) recognizes a congressional policy of cooperation with states to resolve water resource and endangered species issues; (3) § 1533(b)(1)(A) directs the Fish & Wildlife Service to consider state efforts to protect species in making listing decisions; (4) § 1533(b)(1)(B) directs the Fish & Wildlife Service to consider in making listing decisions species identified by states as in need of protection; and (5) § 1535 generally establishes a program for cooperation with states in species conservation. The ESA also implicitly recognizes cooperation with the states as, for example, 16 U.S.C. § 1532(13) includes officers, employees, agents, departments, and instrumentalities of states as “persons” generally subject to all applicable requirements of the Act. One of the reasons we need a nation-wide law for threatened and endangered species is because many species cross state lines or are subjected to impacts that come from outside a particular jurisdiction. Because the ESA is a federal law, any role for the states in protecting listed species should be consistent with the purposes of the ESA and should comply with its provisions.

(2). Many endangered species are located on private property. Do you believe that the agency should not weigh the effects of proposed listings on land owners in their deliberations to list a species?

Response: Section 4 of the ESA sets out the factors the Fish & Wildlife Service may consider in determining whether a species should be listed as threatened or endangered (see 16 U.S.C. § 1533(a)(1)(A) – (E)). These factors are appropriately focused on sources of biological threats to a species because the question of whether a species faces a sufficiently imminent risk of extinction to warrant listing is fundamentally one of biology. The ESA also appropriately allows consideration of the effects of a listing on

private property owners and others in provisions other than the listing criteria of section 4 (see, for example, 1533 U.S.C. § (b)(2) which allows the Fish & Wildlife Service to exclude specific areas of habitat critical to a species from designation as critical habitat for economic reasons so long as the exclusion will not result in the extinction of the species). This separation of the biological question of whether a species should be listed as threatened or endangered from other issues about how to respond to a listing is logical and well-founded. From a scientific perspective, the effect of a listing on a land owner is not germane to the biological question of the degree of risk the species faces.

(3). When the agency designates critical habitat doesn't the law allow the balancing of scientific findings with economic and other considerations?

Response: Section 4(b)(2) of the ESA specifically provides that: “*the Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such areas as critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned*” (see also 50 C.F.R. §§ 424.12 to 424.21 - regulations that govern designation of critical habitat recognizing role of economic impacts and other considerations in final habitat designations). Thus, it would appear that the ESA and its implementing regulations already allow the consideration of economic issues in making a critical habitat determination under specific circumstances and standards. In my view, this approach adequately allows the balancing of scientific findings with economic and other considerations.

(4). As a biologist, have you ever been in a position where there were other scientists that did not agree with a position you took based on research?

Response: Many apparent disagreements among scientists arise at first because they are addressing different but related issues, working from different assumptions, collecting different data, or using different methodologies. When they compare assumptions and data and analyze them objectively to determine which are most appropriate and reliable, areas of disagreements are usually reduced or eliminated. It is for this reason that focusing on science and relying on the best available scientific and commercial data -- as the ESA does -- provides the best foundation for reliable decisions about species and their conservation.

In addition, while it is certainly not unusual for scientists to disagree over research findings, these disagreements are best resolved through the peer review process of which I have participated throughout my 20-year career. Peer review is the gold standard by which quality science is objectively judged. When disagreements over published articles occur, they also may be resolved through point and counter point articles and additional research. In this manner, scientists benefit by rigorous, independent review and exchange of ideas, and decision makers benefit by having the best science available to make informed policy choices.

As subject editor for two scientific journals, *The Natural Areas Journal* and *Conservation Biology*, I have overseen the peer review process using a refereed and independent (blind) peer review process. This is the best standard we have for resolving scientific debate. My own research, which includes over 150 published articles, has gone through this type of rigorous, independent peer review.

(5). What do you think of Mr. Horn's testimony where he describes making policy decisions after receiving differing scientific recommendations? Do you agree that in those cases it is necessary for a policy person to make decisions that not all scientists would agree with?

Response: There is a legitimate and appropriate difference between science and policy. Scientific issues depend on detailed observations, objective analysis of data, and carefully drawn conclusions based on the facts and analysis. Policy issues often reflect other values, including societal ones. The key, however, is for policy makers to explain their policy choices in light of scientific findings and articulate their basis for following or setting aside such findings where they choose to do so. Only with such clear and careful articulation of the grounds for policy choices can the public and others evaluate whether a policy choice is appropriate in light of the broader policy choices and standards set forth in our laws.

Agency officials or decision-makers sometimes choose to ignore scientific findings in making policy choices. In these cases, the foundation on which those decisions were made is undermined with the likely outcome of a poor and risky decision. For this reason, it is important that decisions by policy persons are made in an open and transparent manner so that consequences can be appropriately weighed by society. Far worse, however, are the cases in which decision-makers seek to manipulate, distort, overturn, or suppress scientific findings in order to make them comport with their policy preferences. There were numerous examples given by witnesses at the May 9 hearing that point to an unprecedented manipulation of science by agency officials in this administration. These efforts essentially rely on subterfuge to deprive the public and the Congress of any ability to evaluate the soundness of decisions. In my view, this is an inappropriate approach to the intersection between science and policy that I have tried to focus in on one particular instance – the preparation of a draft recovery plan for the Northern Spotted Owl – in my testimony to the Committee. Indeed, under the Endangered Species Act, the overriding policy of the Fish & Wildlife Service must be “*to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species....*” 16 U.S.C. § 1531(b). In the case of the spotted owl recovery plan, preconceived outcomes got in the way of sound science.

(6). Would you agree that science is never clear cut, that two scientists could research an issue and come up with different results or opinions?

Science is often quite clear cut, especially where there is sufficient information to draw reliable conclusions. In cases where it is not, scientists lack enough information to draw

reliable inferences. Even in these situations, however, scientists often have methods of analysis that can provide useful and reliable insights in the face of uncertainty and risk assessment and most often couch these statements in probability terms. Where scientists do “research an issue and come up with different results or opinions,” as I noted above, it often involves different assumptions, analytical methods, and so on. For that reason, these apparent differences can usually be resolved – if not immediately then over time – by scientists working together, comparing their results, refining their analyses, and stating their confidence limits. The idea – suggested by the question – that there is no such thing as a right answer in science, is resolvable through peer review and statements of confidence in the findings.

In addition, reputable scientists would not reach hasty conclusions when the facts are largely unknown or in dispute. The risks to endangered species, and society, go up when policy decisions are based on scientific uncertainty (e.g., findings that have low confidence levels or have limited application) and poor choices. This is especially troubling when the science is outright ignored, manipulated, or interfered with in order to support preconceived outcomes. To illustrate this point, I would like to discuss a particular case where hasty or incorrect policy decisions could lead to more costly measures or, even worse, changes that are impossible to reverse.

In the case of threatened Northern Spotted Owl, there is a scientific consensus that the owls’ survival depends on protecting old-growth forests from logging. This is based on more than two decades of research (see Anthony et al. 2006). The draft spotted owl recovery plan, however, falsely concluded that the owl does not need a high proportion of old-growth forests to survive. This conclusion was based on just two studies (Franklin et al. 2000, Olson et al. 2004) in the southern portion of the owls’ range where owls were reported using a mixture of forest age classes (not just old growth). However, a third study (Dugger et al. 2005) by some of the same researchers in a nearby study area could not confirm these findings. When a small number of studies produce results that are inconsistent with a larger body of work, the proper scientific approach is to treat these with great caution and work to 1) confirm whether they are correct or not, and 2) if correct, how far can they be reliably extrapolated? The following statements from these researchers underscore my concerns:

- “...we do not recommend that forest managers use our modeling results as a prescription for managing habitat either within the Oregon Coast Range or elsewhere until other similar studies have been conducted.” (Olson et al. 2004).
- “I have repeatedly noted that the monograph (Franklin et al. 2000) represents just a first approximation of these relationships, which form the basis for future studies, but in itself should not be considered definitive.” (Dr. Alan Franklin in a November 21, 2006 letter to Paul Phifer, Fish & Wildlife Service, which was forwarded to the recovery team).

Unfortunately, these warnings were ignored by Fish & Wildlife Service which instead chose habitat provisions for the owl that low-ball old-growth protections based on false interpretations of the two studies. This is a clear-cut example of making hasty decisions

that could result in premature delisting of the owl, or even worse, continued and irreversible habitat losses. In this case, science was misapplied and statements of scientific uncertainty ignored in order to support a preconceived outcome dictated by the Washington Oversight Committee as detailed in my testimony.

Because conservation science is the science of “crisis management,” especially in the case of endangered species, prudent decision making should be based on the precautionary principle. Old growth habitat once logged takes many decades to re-grow. Because the owl requires old growth over most of its range, as most owl biologists have concluded, logging these forests pushes the species closer to extinction and could trigger an up-listing to endangered status, resulting in decisions more costly socially and economically. Most notably, the owl is an indicator species of old-growth forests, which contain a broad suite of values widely supported by society. These were considered in the Northwest Forest Plan, and any action that weakens the Plan has implications that reach beyond the fate of the Northern Spotted Owl.

Literature Cited

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