Rob Roy Ramey II, Ph.D.
Testimony
Before the Committee on Resources,
United States House of Representatives,
113th Congress
Hearing on:
H.R. 4315, (Hastings), "21st Century Endangered Species Transparency Act,"
H.R. 4316, (Lummis), "Endangered Species Recovery Transparency Act,"
H.R. 4317, (Neugebauer), "State, Tribal, and Local Species Transparency and Recovery Act," and
H.R. 4318, (Huizenga), "Endangered Species Litigation Reasonableness Act."

April 8, 2014

"There is, to begin with, the kind of secrecy that everyone deplores but that is fostered by institutional cultures of self-interest, both public and private - when scientific facts that the public has a right to know are intentionally hidden and knowingly withheld to preserve the economic or political standing of powerful organizations."

Sheila Jasanoff, John F. Kennedy School of Government, Harvard University.

The hearing today considers bills that seek to correct several long-standing issues with transparency and prioritization of conservation effort in administration of the Endangered Species Act (ESA). The bills would restore the public's *right to know* when it comes to ESA decisions; ensure cooperation with state, local, and tribal governments; and ensure that the public's funds go where they are needed most - to species conservation rather than into lawyers' pockets.

As a biologist who has dedicated a 34-year career to the conservation of endangered species, and who has risked life and limb on countless occasions to save endangered species in the wild, I support these bills. While the details of these bills may be discussed and debated, the need for them is unquestionable.

H.R. 4315, (Hastings), "21st Century Endangered Species Transparency Act."
The first bill, H.R. 4315, addresses a subject that I have written extensively about in scientific papers and in previous testimony before this committee, on August 1, 2013. I include a copy of that testimony as an attachment in support of my testimony today, however, let me reiterate several key issues and address several concerns raised by critics.

First, the ESA requires that decisions to list species as threatened or endangered, and enact regulatory actions to aid their recovery, be made *"solely on the basis of the best available scientific and commercial data."* However, federal agencies actually rely on

published and unpublished studies, and professional opinion, rather than the underlying *data* used in the studies. This means that many far-reaching ESA listing and regulatory decisions are being made without an opportunity for independent analysis and verification of the underlying data upon which the cited studies are based.

Second, when data are not publicly accessible, legitimate scientific inquiry is effectively eliminated as no third party can independently reproduce the results. Such secrecy does not further the goal of species recovery. Such secrecy also puts the evidentiary basis of some resource agency decisions outside the realm of science and in clear violation of the Information Quality Act. And finally, it has the effect of concentrating power, money, and regulatory authority in the hands of those who control access to the data.

Third, peer review is not a panacea. It is a useful but imperfect filter on information quality and not a substitute for public access to the underlying data that allows for an independent, third party review.

Fourth, there are precedents that support the archiving of data that is being proposed in this bill. Several publicly accessible data repositories exist on the internet, as well as traditional museum and library archives where data may be archived without charge. Additionally, a growing number of scientific journals require that the data be published with the paper or deposited in an online archive. As an example, data archiving and sharing policies that have been developed by the National Institutes of Health are straightforward and address many of the issues raised by critics for similarly requiring data archiving and sharing of data used as the basis of ESA decisions. (https://grants.nih.gov/grants/policy/data_sharing/data_sharing_faqs.htm#902).

And finally, as I was asked in previous testimony, "Are there situations where public access to data should be limited, such as revealing the locations of endangered species?" To that question I answered, "In most cases, this threat is overstated. However, in those situations where there is a legitimate concern (i.e., where poaching has been clearly documented), the risk should be weighed against the potential benefits of more effective management aiding species recovery. If the risk of disclosure is real, then the solution is to allow only "*narrowly drafted exceptions to the general rule of open access"* as *"broad exceptions tempt agencies and other decision-makers to shield their programs from criticism"* (Fischman and Meretsky 2001)." One widely used mechanism that allows for data sharing when disclosure has risk or data are considered proprietary, is the use of legally binding, non-disclosure/data sharing agreements. These are in widespread use in the medical research fields and examples can be downloaded from the websites of major research universities (i.e. MIT, Cornell, Yale).

As noted by Jasanoff (2006) "Important legislative expansions of the public's right to know and assess information used by the government include: the Freedom of Information Act, 5 U.S.C. § 552 (2000), the Federal Advisory Committee Act, 5 U.S.C. app. §§ 1–15 (2000), and the Data Quality Act, a rider to the Treasury and General Appropriations Act for Fiscal Year 2001, Pub. L. No. 106-554, § 515, 114 Stat. 2663 (2000)." To this list, I add the Shelby Amendment to the Omnibus Appropriations Act for

FY1999, Pub. L. No. 105-277, 64 Fed. Reg. 5684 (Feb. 4, 1999) which amended OMB Circular A-110 to require that Federal awarding agencies ensure that all data produced under an award are made available to the public through the procedures established under the Freedom of Information Act. H.R. 4315 is consistent with that legislative trend of openness and transparency.

H.R. 4317, (Neugebauer), "State, Tribal, and Local Species Transparency and Recovery Act."

The next bill, H.R. 4317, addresses a long-standing frustration experienced by state, local, and tribal governments I have worked with, at having their data and plans effectively ignored by the Fish and Wildlife Service (USFWS) unless the agency was forced to do otherwise (i.e. through litigation). We are currently seeing this issue play out on the lesser prairie chicken, that was just listed by the USFWS, as well as Gunnison and greater sage grouse, whose decisions are pending. In all of these cases, the data and the plans were developed with substantial expenditures of earnest effort. However, there is no guarantee that superior local data will be considered by the USFWS as best available scientific and commercial data in its decision making.

A poignant example comes from Dolores County, Colorado. It is the poorest county in that state and facing devastating economic consequences with a potential listing of the Gunnison sage grouse. That proposed listing has crippling economic consequences because most of the county, including the town of Dove Creek and most of its agricultural land, was mapped and proposed as critical habitat by the USFWS. The county commissioned an independent GIS analysis of critical habitat, which found (using higher resolution data) large areas of non-habitat mapped as critical habitat and submitted comments to the USFWS pointing out these problems. However, given the experience of other counties whose mapping efforts have been ignored, the County is not hopeful.

Commissioner Tom Jankovsky of Garfield County, Colorado can describe a similar situation there, where their sage grouse habitat is naturally fragmented by topography and vegetation, but the agencies treat it as if it were contiguous habitat, and have ignored the County's superior mapping efforts.

Perhaps even more disturbing is that fact that there is no mechanism for the USFWS to cooperate with state, local, and tribal governments in development of conservation plans and provide assurances that proposed conservation efforts will meet the standards of the Policy for the Evaluation of Conservation Efforts When Making Listing Decisions (PECE policy). Essentially, state, local, and tribal governments find out whether their hard work has paid off only at the time of a listing decision. That is a disincentive for investing conservation efforts. This bill could make a difference in providing a mechanism whereby greater assurance is provided in advance.

H.R. 4316, (Lummis), "Endangered Species Recovery Transparency Act."
I applaud the intent of H.R. 4316 to track the funds expended to respond to ESA lawsuits, including the number of employees dedicated to litigation, attorneys fees awarded in the course of ESA litigation and settlement agreements. To this I would add the requirement that these expenditures also be tracked by species, and that ESA expenditures at other federal agencies be tracked as well, so that the public can determine the total federal cost of implementing the ESA. Such data would go a long way towards setting priorities.

H.R. 4318, (Huizenga), "Endangered Species Litigation Reasonableness Act."
And finally, I have a few words to say about H.R. 4318, (Huizenga). In 1978, the U.S. Supreme Court interpreted language of the ESA to conclude that listed species must be protected *"whatever the cost."* However, I do not think the Supreme Court was referring to *"whatever the cost"* applying to exorbitant, run-away lawyer's fees. This bill will reprioritize expenditures so that they will do the most good for species recovery.

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Ramey, R.R. 2013. United States House of Representatives, Committee on Resources. Oversight Hearing on: *"Transparency and Sound Science Gone Extinct?: The Impacts of the Obama Administration's Closed-Door Settlements on Endangered Species and People*." (Provided oral and written testimony.) 1 August 2013.

Attachment A:

Rob Roy Ramey II, Ph.D.
Testimony
Before the Committee on Resources,
United States House of Representatives,
113th Congress
Oversight Hearing on
"Transparency and Sound Science Gone Extinct?: The Impacts of the Obama Administration's Closed-Door Settlements on Endangered Species and People."
August 1, 2013

"A democracy requires accountability, and accountability requires transparency."

Barack Obama (from *Memorandum For The Heads Of Executive Departments And Agencies*, on the subject of the Freedom of Information Act)

My qualifications.
I am an independent scientist with 33 years of experience in conservation, research and management of threatened and endangered wildlife. Having worked on many species, including peregrine falcons; California condors; desert, Sierra Nevada, and Rocky Mountain bighorn sheep; argali sheep of Asia; meadow jumping mice; sage grouse; delta smelt and African elephants, I am well aware of the scientific issues surrounding species listing and recovery. I earned a Ph.D. from Cornell University in Ecology and Evolutionary Biology; a master's degree from Yale University in Wildlife Ecology; and a bachelor's degree in Biology and Natural History from the University of California Santa Cruz, and postdoctoral experience included research at University of Colorado, Boulder and as a visiting scientist at the Center for Reproduction of Endangered Species at the San Diego Zoo. After five years as Curator of Vertebrate Zoology at the Denver Museum of Nature & Science, I served as a consulting Science Advisor to the Office of the Assistant Secretary of the Interior in Washington, D.C. I am member of the Caprinae Specialist Group at the International Union for the Conservation of Nature (IUCN) and serve as a science advisor to the Council for Environmental Science, Accuracy, and Reliability (CESAR). I consult on endangered species scientific issues and conduct scientific research with Wildlife Science International, Inc.

I bring to your attention two key transparency issues with the implementation of the U.S. Endangered Species Act. These are issues that undermine legitimate conservation efforts, waste scarce conservation dollars, and impose ineffective regulatory burdens on the public. In the worst cases, they can harm the very species they were intended to protect. I also provide potential solutions that I think both sides of the aisle may find agreement on.

Issue 1: Most ESA decisions are not based upon publicly available data.
The U.S. Endangered Species Act (US-ESA) requires the U.S. Fish and Wildlife Service (USFWS) make decisions to list species as threatened or endangered, and enact regulatory actions to aid the recovery of species, *"solely on the basis of the best scientific and commercial data available"* (16 U.S.C. 1531 et seq.)). Although referred to as *data*, the USFWS actually relies on published and unpublished studies, and professional opinion, rather than the underlying *data* the cited studies are based upon (see http://www.fws.gov/informationquality/ and the Department of Interior's Scientific Integrity policies (DOI 2011)). Despite having adopted the Office and Management and Budget Information Quality Guidelines which require transparency in studies used in regulatory decision making, currently, neither the USFW, nor the National Marine Fisheries Service have a requirement that data relied upon in decision-making be publicly available.

Resource agency reliance on the papers and reports which summarize results and contain the opinions of scientists, rather than the underlying *data*, as specifically required by the ESA, has created an untenable situation where:

1) Far-reaching ESA listing and regulatory decisions are being made without an opportunity to independently analyze the underlying data and assumptions upon which the cited studies are based.

2) Resource agencies have effectively replaced the scientific method in implementation of the ESA (i.e., data, hypothesis testing, and reproducible results) with the opinions expressed by the authors of the cited studies, especially when those opinions are erroneously represented as if they were rigorously tested against the data.

What are the effects of this lack of transparency on the public? When data are not publicly accessible, legitimate scientific inquiry is effectively eliminated as no third party can independently reproduce the results. This action puts the evidentiary basis of some resource agency decisions outside the realm of science and in clear violation of the Information Quality Act. Furthermore, it has the effect of concentrating power, money, and regulatory authority in the hands of those who control access to the data (Ramey 2012).

`That is neither transparent nor is it democratic; it relies on authority.

There are sound reasons to question such authority. Key studies used in decision making on the greater sage grouse, Gunnison sage grouse, boreal toad, Prebles meadow jumping mouse, coastal California gnatcatcher, delta smelt, desert bighorn sheep, and hookless cactus have one of more of the following: mathematical errors, missing data, errors of omission, biased sampling, undocumented methods, simulated data used when more accurate empirical data were available, discrepancies between reported results and data, misrepresentation of methods, arbitrarily shifting thresholds, inaccurate mapping, selective use of data, subjective interpretation of results, fabricated data substituted for

missing data, or no data at all. Clearly, the agency's scientific peer review process that should have caught these errors is not as effective as it is portrayed to be.

It has been my experience that when data has not been provided to the agencies, then obtaining access to data held by researchers, even after publication, can be difficult, if not impossible. As the following responses to data requests illustrate, seeking data can frequently resembles a shell game:

> *"It is very possible that this data set does not exist any longer."*
>
> *"The USFWS data was deliberately provided in a format that would not facilitate a detailed analysis by those unfamiliar with the manner in which it was collected."*
>
> "*Unfortunately we cannot provide you with the raw data you have requested at this time."*
>
> *"We categorically do not release this information to anyone including the United States Fish & Wildlife Service and the California Department of Fish and Game."*

While some researchers have been responsive to data requests, others simply ignore our data requests altogether. Some researchers apparently feel a need to control access to the data, determining if, when, and to whom it will be released, sometimes years after the data were collected. However, many of these studies were permitted and/or funded by the USFWS (or other source of federal funding) through grants, contracts, or cooperative agreements. Therefore, it follows that the data should be public, yet there is no consistent requirement from the USFWS that the data be public or provided to the agency.

This problem is more widespread than one might initially think. In a notable case, colleagues at the California Fish and Game (CDFG) had to track down and net-gun endangered desert bighorn sheep from a helicopter so they could manually download data from the GPS radio collars (that provide precise locations at regular time intervals). They were forced into this extreme course of action because a researcher had reset the access codes on the collars so only *he* could download the data remotely, and the researcher refused to share the data with the CDFG who needed it for management of the population (Dr. V. Bleich, CDFG retired and K. Brennen, pers. comm). Funding for purchase of the GPS radio collars was provided by the USFWS for use by the researcher.

In two other cases (coastal California gnatcatcher and desert bighorn sheep in the Peninsular Ranges) a court order was required to obtain the data.

Clearly, the public interest in having timely access to data overrides perceived ownership of data by some researchers. As noted by ESA scholars, Fischman and Meretsky (2001):

> *"In addition to the rapid responses often needed to recover endangered species, most research in conservation biology is also distinguished by a dependence on government resources. The funding for research; the scientific permits allowing*

researchers to collect, harass, or harm animals; the permission for access to public lands; and the regulation controlling activities to ensure continued existence of imperiled species all point to the pervasive public interest in the resulting information. This public claim for access countervails the customary control researchers exert over data they collect."

In my experience, recovery of threatened and endangered species is most effective when there is active scientific debate and discussion about the best courses of action to identify and ameliorate threats, and how to devise more effective conservation measures. Such urgency requires open and timely access to data.

A solution to this issue is neither difficult, nor costly. There are publicly accessible data repositories (i.e. GenBank for DNA sequences and Dryad for general purpose data archiving http://datadryad.org/), as well as traditional museum and library archives where data may be archived without charge. All that is needed is a requirement the data be archived prior to the agency relying on the report or paper in its decision making, and that the data (both raw and final data sets) and methods are provided in sufficient detail to allow third party reproduction.

Are there situations where public access to data should be limited, such as revealing the locations of endangered species? In most cases, this threat is overstated. However, in those situations where there is a legitimate concern (i.e., where poaching has been clearly documented), the risk should be weighed against the potential benefits of more effective management aiding species recovery. If the risk of disclosure is real, then the solution is to allow only "*narrowly drafted exceptions to the general rule of open access"* as *"broad exceptions tempt agencies and other decision-makers to shield their programs from criticism"* (Fischman and Meretsky 2001).

Issue #2: Peer review is not a panacea.

Peer review is a useful but imperfect filter on information quality. However, it is not a substitute for public access to the underlying data that allows for an independent, third party review.

Despite the best of intentions, there are no guarantees that peer reviewers will be provided access to data, or that if data is provided, it will be used in developing their review. As previously noted, peer reviewers do not always catch errors of significance. Moreover, as detailed in my previous testimony to the Committee (Ramey 2007), if there was a bias or selective presentation of information by the USFWS to peer reviewers, the outcome of the peer review can be less than objective. And finally, despite agency assurances, there is no guarantee that reviewers be will free of conflict of interest or will deliver an impartial assessment. The reasons for this are summarized in the following excerpt from my recent paper, *On The Origin of Specious Species* (Ramey 2012):

"The problems that lead to these issues [with peer review] *are three fold. First, the number of experts involved with a particular species is often limited. Whole careers*

are sometimes dedicated to the study of a species (or subspecies or population), and a listing can produce what is perceived as needed "protection" for that species under the ESA. Additionally, ESA listings can have the effect of putting these experts into positions of power, money, and authority, through their roles on Recovery Teams, Habitat Conservation Plans, and consulting as USFWS "approved biologists." Because few ESA-listed species are ever delisted, this guarantees a virtual lifetime of employment on one's favorite species. Thus, experts used in peer review may also be advocates, or have an emotional, ideological, or financial stake in the proposed listing. "

"Second, a network of individuals who work on a particular species (or issues common to several species) can form powerful "species cartels." These social networks can influence the peer review process, provide a united front to advocate for particular decisions, and repress the publication of information that does not agree with their positions." It has been my experience that the FWS and NMFS typically rely on species specialists, which exacerbates this problem.

"And third, the use of other federal biologists in peer review, especially those from the USFWS and the USGS-Biological Resources Division (USGS-BRD), cannot be viewed as conflict free. The increasing codependency of the USFWS and USGS-BRD, results in a growing and previously unrecognized conflict of interest in science used in support of ESA decisions and the use of USGS biologists as peer reviewers on information used in ESA decisions. This extends to the role of USGS biologists who serve as editors and reviewers for scientific journals, and who peer review highly influential scientific information used in ESA decisions."

To avoid the pitfalls of peer review described above, the solutions are relatively straightforward:

1) To ensure that peer reviews are transparent, conducted in an objective and consistent manner, that the underlying data are both available and analyzed by reviewers, and that potential conflicts of interest are clearly identified, accountability is required: make failure to comply with Information Quality Act an arbitrary and capricious action on the part of the agency.

2) Ensure that that all agency sponsored and administered peer reviews, including those conducted internally by biologists at the USGS, be public information if they are relied upon by the USFWS or NMFS.

3) Require that the USFWS and NMFS identify and make available online all information including contrary information that it has received.

Conclusions.

The American people pay for data collection and research on threatened and endangered species through grants, contracts, cooperative agreements, and administration of research

permits. They pay the salaries of agency staff who collect data, author, edit, and publish papers based upon those data. They, for the most part, are willingly regulated based on those data. It is essential that the American people have the right to full access to those data in a timely manner, as it is in the public interest. A requirement that data and methods be provided in sufficient detail to allow third party reproduction would raise the bar on the quality and reproducibility of the science used in ESA decisions and benefit species recovery. Failure to ensure this level of transparency will undermine the effectiveness of the very programs that the data were gathered for in the first place.

It should not take a subpoena (or intrepid, net-gun toting state biologists leaping from helicopters) to obtain data that should be public under the ESA.

Accountability is needed in the implementation of Information Quality Act, particularly in regard to public access to data and the peer review process.

Qualified third party reviews have the potential to reduce the workload of agencies, and improve the caliber of regulatory actions.

The ongoing "bio-blitzkrieg" of ESA listing petitions, lawsuits, and settlement agreements does a disservice to bona-fide conservation efforts. Every time another species is added to the list of threatened and endangered species, or a new deadline is imposed by litigants, the resources to recover species becomes more thinly spread. Throwing more money at the problem is not the solution, nor is allowing decision making by fiat. The solution is to ensure that the scientific evaluations are done properly the first time, and that means relying upon data and objective application of the scientific method, as required by the ESA.

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