

# EXHIBIT G

Before the U.S. Department of the Interior

U.S. Fish and Wildlife Service  
Washington, D.C.

COLORADANS FOR WATER )  
CONSERVATION AND DEVELOPMENT )

COLORADO FARM BUREAU )

Challengers )

v. )

U.S. DEPARTMENT OF THE INTERIOR )

Agency. )

March 15, 2006

**Information Quality Act Challenge  
to U.S. Fish and Wildlife Service  
Dissemination of Information  
Presented in the King Study on  
Preble's Meadow Jumping Mouse**

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**CHALLENGE OF COLORADANS FOR WATER CONSERVATION  
AND DEVELOPMENT AND COLORADO FARM BUREAU  
PURSUANT TO THE DATA QUALITY ACT**

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To: Correspondence Control Unit  
Attention: Information Quality Complaint Processing  
U.S. Fish and Wildlife Service  
1849 C Street, NW Mail Stop 3238-MIB  
Washington, D.C. 20240

**I. Introduction**

The Coloradans for Water Conservation and Development ("CWCD") and Colorado Farm Bureau ("Challengers") hereby submit this Challenge for Correction of Information ("Challenge") pursuant to the Federal Information Quality Act, (44 U.S.C. §

3516) (“Data Quality Act” or “DQA”), the “Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information disseminated by Federal Agencies” issued by the Office of Management and Budget (67 Fed. Reg. 8452 (Feb. 22, 2002) (“OMB Guidelines”)), as well as the “Information Quality Guidelines” of the U.S. Department of the Interior (67 Fed. Reg. 50687 (Aug. 5, 2002) (“Interior Guidelines”)) and the U.S. Fish and Wildlife Service Guidelines *Available at* <http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf> (“FWS Guidelines”) collectively known as (the “Guidelines”). CWCD’s efforts have been designed to ensure that the U.S. Fish and Wildlife Service (“FWS”) adheres to its commitments to make Endangered Species Act (“ESA”) decisions on the best available science. This Challenge is the latest step in that regard.

The ESA, the DQA and the Guidelines require, respectively, that the FWS rely solely on the best available information and to correct or retract information that does not meet certain standards for quality, objectivity and integrity. Information disseminated by the FWS violates the ESA, DQA and the Guidelines. This Challenge seeks to correct, retract or supplement certain information disseminated by the FWS concurrent with its status review of Preble’s.

## **II. Executive Summary**

In order to ensure objectivity of information disseminated by the FWS, the DQA and the Guidelines state that information will be presented in an “accurate, clear, complete, and unbiased manner.” As explained more fully herein, the information disseminated by the FWS in the King study, the Proposed Rule and the proposed

Structured Decision Making (“SDM”) process was inaccurate, incomplete, and biased in violation of the DQA and the Guidelines.

This Challenge is directed toward: (1) dissemination of information by the FWS regarding the data used in a report conducted by Dr. Tim King of the U.S. Geological Survey (“USGS”) and issued to the FWS on January 27, 2006, the *Comprehensive Analysis of Molecular Phylogeographic Structure Among the Meadow Jumping Mice (Zapus hudsonius) Reveals Evolutionary Distinct Subspecies* (the “King study”); (2) the FWS’ failure to address significant distribution, abundance and trends (“DAT”) data from the CWCD and Wyoming petitions to delist in the *Proposed Rule to Remove the Preble’s Meadow Jumping Mouse from the Federal List of Endangered and Threatened Species* (“Proposed Rule.”) 70 Fed. Reg. 5404 (Feb. 2, 2005); and (3) the Structured Decision Making (“SDM”) process proposed by the Mountain-Prairie Region of the FWS to determine the listed status of Preble’s.

A. The King study Violates the ESA, the DQA and the Guidelines

Information disseminated by the FWS in the King study violates the requirements of the ESA, DQA and the Guidelines. CWCD and the State of Wyoming cited taxonomic and genetic work that has now been published as (Ramey et al. 2005) as additional support to the DAT conclusions that Preble’s was listed in error. (Ramey et al. 2005) underwent at least five (5) independent peer reviews and an additional four (4) peer reviews prior to its publication in the journal *Animal Conservation*. The FWS violated its own peer review policy by commissioning Dr. Tim King of the USGS to conduct, at public expense, yet additional review of (Ramey et al. 2005) outside of the comment period of the proposed listing.

In an Internet posting, Dr. King states that the five alleged subspecies are “weakly differentiated,” yet the King study inexplicably concludes that there is “strong genetic differentiation” between Preble’s and other purported subspecies. The King study relies upon less than one-half of one-percent of genetic variation to conclude not only that Preble’s is unique, but that it should be further split into additional subspecies (Preble’s north and Preble’s south).

The King study itself exhibits bias in sampling, contains significant inaccuracies, ignores crucial information and misrepresents findings. The conclusions of the King study are inconsistent with its scope. More importantly, the conclusions of the King study are inconsistent with its own findings. The King study ignores that there are no physical, behavioral nor ecological differences between Preble’s and other purported subspecies of meadow jumping mice and ignore the DAT data presented by CWCD and the State of Wyoming in their respective petitions to delist Preble’s.

Moreover, the underlying data behind the King study has not been released to the public such that it is capable of repetition and there is no evidence that the King study was subject to independent pre-dissemination review. As discussed herein, this is not the first time Dr. King and his laboratory have been at the center of controversy over the quality and integrity of their work related to subspecies designations and listing decisions.

B. The Proposed Rule violates the ESA, the DQA and the Guidelines

Challengers support delisting Preble’s, but certain information disseminated by the FWS in the Proposed Rule violates the requirements of the ESA, DQA and the Guidelines in that it ignored the majority of the petition to delist filed by the CWCD.

Approximately 99% of the 106 page delisting petition submitted by CWCD was dedicated to DAT data. *Petition to Remove Preble's Meadow Jumping Mouse (Zapus hudsonius preblei) from the List of Endangered and Threatened Wildlife*, (Dec. 17, 2003) (the "CWCD Petition to Delist"). As discussed herein, the expansive population and range of Preble's alone justifies delisting. Rather than address the substance of the petitions to delist, the FWS disseminated information in the Proposed Rule related almost exclusively to population genetics. Further, the disseminated information in the Proposed Rule ignored that there are no physical, behavioral nor ecological differences between Preble's and two other purported subspecies of meadow jumping mice.

C. The Structured Decision Making Process Violates the DQA and the Guidelines

As proposed, the SDM process regarding Preble's also fails to satisfy the ESA, the DQA and Guidelines. The FWS has solicited panelists for the SDM to "evaluate Preble's genetics and taxonomy" to assist the FWS in making a final listing decision. *Letter from Mike Stempel, Acting Deputy Regional Director, FWS, to Terry Cleveland, Director, Wyoming Game and Fish Department (Feb. 14, 2006)*. The FWS intends to employ two panels, one to review taxonomic issues and one to review purported threats and potential extinction risk. The FWS may not, as proposed, delegate its role to these panelists to "determine whether Preble's meets the legal definition of a 'species' under the ESA, or, if not, whether other potentially listable entities have been identified." *Id.*

There is no justification to limit the panelists to "currently active Federal, State or State university system employees." To avoid vested interests and the potential for bias, the FWS should not have solicited panelists from the USGS or other agencies within the Department of the Interior. That the proposed FWS decision-makers include four out of

six from the region where the controversy exists, as well as panelists from Colorado and Wyoming, is unacceptable.

Finally, it is impossible to conduct any meaningful review by the proposed dates of the SDM process (March 14-16, 2006). As discussed herein, the data behind the King study has not even been released. Even if qualified reviewers were available, and had access to this data, the SDM does not provide adequate time to prepare for the process.

This Challenge seeks correction of the information disseminated. Should the FWS fail to retract the King study, it must convene an independent, unbiased peer review of the King study by qualified, disinterested scientists outside of the U.S. Department of the Interior to comply with the ESA, the DQA and the Guidelines. This Challenge also seeks full consideration of the DAT data underlying the petitions to delist submitted by CWCD and the State of Wyoming. Finally, this Challenge seeks correction of the SDM process to include panelists outside of government and academia, and to avoid bias and conflicts of interests, and to provide a meaningful opportunity to review the King study and the data behind it. The FWS must correct the information disseminated by issuing a final delisting rule by August, 2006.

### **III. Where are the Department of the Interior's Conservation Priorities?**

The FWS must focus its efforts on listing actions that will provide the greatest conservation benefits to imperiled species in the most expeditious and biologically sound manner. *Final Listing Priority Guidance for Fiscal Year 2000*, 64 Fed. Reg. 57114 (Oct. 22, 1999). In FY2004, of the \$1.4 billion spent on species and land acquisition costs, more government resources were spent on the Preble's mouse than the blue whale, the greenback cutthroat trout and the snail darter combined. Available at:

<http://www.fws.gov/endangered/pubs/expenditurereports.html>. State and federal governments are spending more on the Preble's meadow jumping mouse than over 1,135 species of wolves, whales, bighorn sheep, trout, tortoise, squirrels, snakes, birds, beetles and butterflies. *Id.* Where are the Department of the Interior's conservation priorities?

#### **IV. ESA Requires Consideration of Best Available Science as well as Consideration of State and Local Efforts**

Listing decisions under the ESA must be based upon the best available science. 16 U.S.C. § 1533(b)(1)(A). Certain information disseminated by the FWS neither meets this standard nor the DQA or the Guidelines. The FWS is to consider the risk of extinction, i.e. whether a species is in decline or at risk of decline and whether current or future actions will assist or threaten the species' existence. *Policy for Evaluating Conservation Efforts When Making Listing Decisions*, 68 Fed. Reg. 15100, 15113 (March 28, 2003). Section 4(a)(1) of the Endangered Species Act states that the FWS must determine whether a species is threatened or endangered because of any of the five listing factors.<sup>1</sup>

The information disseminated by the FWS fails to properly consider the efforts of the States of Colorado and Wyoming and local governments within the range of Preble's. *See* 16 U.S.C. § 1533(b)(1)(A). The Interagency Cooperative Policy Regarding the Role of State Agencies in Endangered Species Act Activities, (the "Interagency Cooperative Policy") emphasizes the importance of the states in listing decisions. Prior to making listing decisions, the Interagency Cooperative Policy provides that the FWS will,

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<sup>1</sup> The five listing factors are: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. 6 U.S.C. § 1533(a)(1).

“[U]tilize the expertise and solicit the information of State agencies in determining which species should be included on the list of candidate animal and plant species . . . .” *Id.*

The FWS must also abide by an August 26, 2004 Executive Order which requires the Department of the Interior, as well as other Departments, to “implement laws relating to the environment and natural resources in a manner that promotes cooperative conservation, with an emphasis on appropriate local participation in Federal decisionmaking, in accordance with their respective agency missions, policies, and regulations.” *Exec. Order No. 13352.*

Both the States of Colorado and Wyoming have called for the immediate delisting of Preble’s. *Letter from Russell George, Colorado Department of Natural Resources, to Susan Linner, Field Supervisor, FWS (May 3, 2005); Letter from Dave Freudenthal, Governor of Wyoming, to Susan Linner, Field Supervisor, FWS (May 3, 2005).* And many local governments have also supported delisting. *See Letter from Jim Bensberg, Chairman, El Paso County Commissioners, to Susan Linner, Field Supervisor, FWS (April 25, 2005); Letter from Paul Kruse, Counsel, Counties of Albany, Converse, Goshen, Laramie and Platte, to Susan Linner, Field Supervisor, FWS (May 3, 2005).* Further, the FWS has ignored significant state and local land preservation efforts in its Proposed Rule. Should the FWS decline to delist by August, 2006, it will be in violation of the ESA, the Interagency Cooperative Policy and Executive Order No. 13352.

#### **V. Data Quality Act**

The Data Quality Act, Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L.106-554) provides few limitations on



the scope or types of information that are included.<sup>2</sup> The OMB government-wide guidelines impose three core responsibilities on the agencies:

- First, the agencies must embrace a basic standard of “quality” as a performance goal, and agencies must incorporate quality into their information dissemination practices. OMB’s guidelines explain that “quality” encompasses “utility” (usefulness to its intended users), “integrity” (security), and “objectivity.” “Objectivity” focuses on whether the disseminated information is accurate, reliable and unbiased as a matter of presentation and substance.
- Second, the agencies must develop information quality assurance procedures that are applied before information is disseminated.
- Third, the OMB government-wide guidelines require that each agency develop an administrative mechanism whereby affected parties can request that agencies correct poor quality information that has been or is being disseminated. If one is dissatisfied with the initial agency response to a correction request he or she may file an administrative appeal.

A. Agencies Must Meet Standards of Quality, Objectivity, Utility and Integrity

Both DQA and the OMB Guidelines require agencies to “ensure and maximize” the quality, objectivity, utility, and integrity” of information disseminated by federal agencies. DQA §515(a), OMB Guidelines, § 11(2), 67 Fed. Reg. at 8458. “Utility” refers to “the usefulness of the information to its intended users, including the public.” OMB Guidelines, § V(2). 67 Fed. Reg. at 8459. (emphasis added). The DQA and the Guidelines require agencies to issue guidelines ensuring and maximizing the “objectivity” of all information they disseminate. The OMB guidelines implementing the legislation define “objectivity,” and that definition includes a requirement that information be “unbiased” in presentation and substance. “Objectivity,” along with

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<sup>2</sup> OMB issued final government-wide guidelines on February 22, 2002. 67 Fed. Reg. 8452 (Feb. 22, 2002). Each Federal agency was also charged with promulgating its own Information Quality Guidelines. Both Interior and FWS have issued their own “conforming” Information Quality Guidelines, which specifically adopt OMB’s Guidelines by reference.

“unbiased,” is considered to be, under the OMB guidelines, an “overall” standard of quality. 67 Fed. Reg. 8452, 8458 (Feb. 22, 2002).

B. The Information Disseminated is Subject to the DQA and the Guidelines

The information disseminated in the King study, the Proposed Rule and the SDM process is subject to the DQA and the Guidelines. Moreover, as discussed herein, the information disseminated fails to meet the standards for quality and objectivity under the DQA and Guidelines as it is not accurate, reliable nor unbiased in presentation or substance. Disseminated information will be corrected upon consideration of the most recent or thorough information from stakeholders, the public and the scientific community. *Id.* This challenge constitutes the most recent and thorough information.

The OMB Guidelines define “Information Dissemination Product” as “any books, paper, map, machine-readable material, audiovisual production, or other documentary material, regardless of physical form or characteristic, an agency disseminates to the public. This definition includes any electronic document, CD-ROM, or web page.” 67 Fed. Reg. 8452, 8460 (Feb. 22, 2002). The information in the King study and the Proposed Rule was disseminated electronically by the Department of the Interior and the FWS on its web page. The information pertaining to the SDM was disseminated in letters from Acting Deputy Regional Director Mike Stempel to the Directors of the Wyoming Game and Fish Department and the Colorado Division of Wildlife on February 14, 2006. Accordingly, such documents meet the definition of “information dissemination product.”

OMB Guidelines define “Dissemination” as “agency initiated or sponsored distribution of information to the public.” 67 Fed. Reg. 8452, 8460 (Feb. 22, 2002). As

previously stated, the information in the King study and the Proposed Rule was disseminated to the public by the Department of the Interior and the FWS via the FWS web page.

The scope of the Guidelines is broad. It spans information related to regulatory, statistical, research, and benefits programs. It covers all Federal agencies subject to the Paperwork Reduction Act, including the independent regulatory commissions. OMB's guidelines define "information" as "any communication or representation of knowledge such as facts or data" in any medium. There are no statutory exemptions. In other words, the DQA applies to all information disseminated by federal agencies and neither OMB nor any federal agency has discretion to create any exemptions from the DQA requirements. Congress clearly intended the Guidelines to apply to all information that agencies in fact make public.

The FWS Information Quality Guidelines suggest that third party information endorsed, adopted, disseminated or relied upon, must meet the quality, objectivity, utility and integrity standards required by the Data Quality Act and should be subject to the DQA correction process. *Available at:*  
<http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf>.  
Here, the agency has used, relied upon, and endorsed third-party information (the King study) in its review of the status of Preble's to formulate or support a regulation, guidance or other decision or position (in this case, a 6-month extension of the final rule). *Notice of Six-Month Extension and Reopening of Comment Period for the Proposed Delisting of the Preble's Meadow Jumping Mouse (Zapus hudsonius preblei)* 71 Fed. Reg. 8556-8557 (Feb. 17, 2006).

Further, the FWS issued no disclaimers to explain that it did not or will not use, rely upon or endorse the information disseminated. The FWS, then, has the burden of ensuring that the information disseminated in the King study meets the quality, objectivity, utility and integrity standards required by the DQA and the Guidelines.

C. Challengers are Affected Person under the DQA and the Guidelines

The FWS Guidelines provide that "affected persons or organizations" which it defines as, "those who may use, be benefited by, or be harmed by the disseminated information" may challenge an agency pursuant to the DQA and the Guidelines.

*Available at:*

<http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf>.

The definition of an "affected person" is fundamental to the operation of the DQA because it determines who is eligible to file an administrative petition for correction of agency-disseminated information. The OMB Guidelines concluded that, "affected persons are people who may benefit or be harmed by the disseminated information. This includes persons who are seeking to address information about themselves as well as persons who use information." 66 Fed. Reg. 49718, 49721 (Sept 28, 2001). Such a definition provides the public with a right to agency-disseminated information that meets high DQA standards; and with a right to correct any publicly disseminated information that does not meet these standards.

Challengers meet the definition of "affected person or organization." Challengers are broad-based alliances of people and organizations interested in agriculture, water use and conservation in Colorado. As an associational entity, Challengers have used and relied upon information regarding Preble's DAT and genetic ubiquity with other

purported subspecies. Where the Preble's is located, how it disperses, and where it is distributed could have strict regulatory consequences, particularly regarding ESA section 7 consultation and section 9 take liability for Challengers and their membership.

Reliance on uncertainties, inaccuracies, bias and misrepresentation in the information disseminated could result in a negative final delisting decision. Such a decision would affect Challengers' members and their interests, as well as millions of acres of private, state and public lands. To avoid actual harm to the Challengers, the Western States, local governments, private landowners and stakeholders, the FWS must respond to this DQA challenge, retract statements and conclusions based on uncertainties, and correct bias and misrepresentation of the information disseminated by the date the FWS issues a final delisting decision (August, 2006).

D. The DQA and the Guidelines Apply to Information Disseminated in Rulemakings

That the information disseminated relates to a matter open for public comment does not excuse the FWS from compliance with the DQA and the Guidelines. Neither the DQA itself nor OMB's February 22nd agency-wide guidelines exclude rulemakings from coverage. The DQA and the Guidelines apply to listing decisions under the ESA. Not allowing a DQA challenge to correct this information before a decision on whether or not to promulgate a final delisting rule would violate OMB's Guidelines (and thus the Interior and FWS Guidelines). *See* 67 Fed. Reg. 8452, 8459 (Feb. 22, 2002).

The Department of the Interior guidelines also provide that its agencies will consider a DQA challenge on information which did not appear in the rulemaking or other action. The King study did not appear in the Proposed Rule to delist Preble's and is therefore subject to a DQA challenge. A DQA challenge may be undertaken separate and

apart from the challenger's comments in a rulemaking. James T. O'Reilly, *The 411 on 515: How OIRA's Expanded Information Roles in 2002 Will Impact Rulemaking and Agency Publicity Actions*, Section 54:2, Admin. L. Rev. 835 (2002). The agency has both an Administrative Procedures Act ("APA") duty to respond to comments and a duty to respond to challenges filed by any person under the DQA. *Id.* at 836. The DQA allows businesses, organizations, nonprofits, states, and other groups to check the [information disseminated by the agency] and to compel the agency to explain the errors in that data before the rulemaking is completed." *Id.* at 846 (Emphasis added).

Where, as here, non-compliance with the guidelines presents "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts," the agency may use existing rulemakings to remedy the situation. Available at <http://www.doi.gov/ocio/guidelines/515Guides.pdf> (DOI Guidelines). Accordingly, the FWS may correct the information disseminated by issuing a final delisting rule on Preble's no later than August, 2006.

E. FWS Must Act on this Challenge Prior to a Final Listing Decision

Setting an appropriate, specific timeframe for agency decisions on information correction petitions is necessary to fulfill one of the key purposes of the DQA amendments of the Paperwork Reduction Act ("PRA") – enabling parties to obtain correction of information. It is also required by OMB's guidelines. Because FWS may rely upon the King study in its final listing decision, and has already relied upon it in extending the deadline for a final delisting rule, the FWS must act upon this Challenge by no later than August, 2006.

**VI. The Proposed Rule Violates the DQA and the Guidelines in that it Ignores Distribution, Abundance and Trend Data**

The proposed rule is biased in that it fails to address the substance (99%) of the CWCD's petition to delist Preble's: namely that the distribution, abundance and trends of Preble's are overwhelmingly positive such that delisting is warranted. As a result, the information disseminated in the Proposed Rule does not meet DQA standards for objectivity and must be corrected. As the FWS stated, at the time of listing, "the primary threat to the Preble's was habitat loss and degradation caused by agricultural, residential, commercial and industrial development."<sup>3</sup>

But, as evidenced in the CWCD petition to delist, additional survey work on Preble's has resulted in the discovery of significant additional populations.<sup>4</sup> *CWCD Petition to Delist* at 22. Apart from the improper classification of Preble's as a subspecies, the DAT data alone merits delisting. Historically, the Preble's was found in 14 hydrologic units in eastern Colorado and southeastern Wyoming. When it was listed, the FWS could find Preble's in only nine hydrologic units. Since the listing, Preble's has been found in 17 hydrologic units, including all that were historically occupied and three where it had never been known to occur. *CWCD Petition to Delist* at 42.

Additionally, more populations of Preble's are now known to exist than at any time before. At the time of listing, Preble's was documented at only 29 sites. Today, it has been found at no fewer than 126 sites. *Id.* Moreover, Preble's have been shown to avoid live traps such that they can easily be missed or underestimated in trapping

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<sup>3</sup> *Proposed Rule*, 70 Fed. Reg. 5404, 5405 (Feb. 2, 2005).

<sup>4</sup> Even if Preble's numbers were in decline, annual fluctuations in population (up to 50%) do not necessarily equate to the need to list a species. See 69 Fed. Reg. 64889, 64892 (Nov. 9, 2004) (Where the FWS issued a negative 90-day Finding on the petition to list the white-tailed prairie dog).

surveys. (Boonstra and Hoyle 1986). Current surveys, which alone merit delisting, have likely underestimated the distribution and abundance of Preble's. In short, the DAT data on Preble's demonstrates ample populations throughout an expansive range. Even if Preble's was a valid subspecies, the alleged threats to the species do not occur over a significant portion of its range and are not supported by current DAT information. Accordingly, the Proposed Rule is in violation of the DQA and the Guidelines and requires correction.

A. Habitat Protected Irrespective of Preble's Listed Status

The information disseminated in the Proposed Rule purportedly links human actions to evidence that existing regulatory mechanisms are inadequate. 70 Fed. Reg. 5404. As discussed herein, there are no clear causal relationships between human actions and alleged declines in the Preble's in the Proposed Rule. In fact, as previously stated, Preble's range and populations far exceed estimates relied upon in the original and erroneous listing decision.

The habitat of Preble's is more than adequately protected irrespective of its listed status. In its lengthy June 1, 2004 comments to the FWS in favor of delisting the Preble's, the State of Colorado outlined extensive habitat conservation efforts underway, and ongoing, on the Front Range. *Letter from Russell George, Colorado Department of Natural Resources, to Susan Linner, FWS Field Supervisor, (June 1, 2004)*. The State of Colorado cited Great Outdoors Colorado estimates that over one-quarter of a billion dollars has been spent on land acquisition and preservation on Colorado's Front Range during the last decade. *Id.* Further, the USGS has stated, "it is likely that habitat suitable for *Z. hudsonius* (meadow jumping mice) is becoming increasingly available across



western parts of the Great Plains with the westward expansion of riparian forests and mixed-grass prairie.” (Cryan 2005).

Given the wide distribution of the species and large blocks of habitat, the present or threatened destruction, modification, or curtailment of the species’ habitat or range due to agricultural, residential, commercial and industrial development is not a factor that threatens or endangers Preble’s over all or a significant portion of its range. *Proposed Rule*, 70 Fed. Reg. 5404 (Feb. 2, 2005). Even if Preble’s was a valid subspecies, all U.S. cities and towns occupy only three (3) percent of the nation’s land,<sup>5</sup> and localized threats are insufficient to merit listing on such a far-ranging rodent. Nor do threats applicable to the other listing factors affect Preble’s. *CWCD Petition to Delist* at 69.

Numerous city and county land use codes and development standards prohibit development of habitat which includes wetlands, riparian areas or even grasslands. *Letter from Jerry Sonnenberg, President, CWCD to Susan Linner, FWS Field Supervisor (May 3, 2005)*. Preble’s generally inhabits riparian areas (Jones 1981) that are often unsuitable for development. Moreover, extensive regulatory mechanisms, irrespective of the listed status of Preble’s, continue to prohibit residential, commercial and industrial development in riparian habitat.

The information disseminated in the Proposed Rule violates the DQA and its implementing guidelines in that it fails to take DAT data into account and understates existing regulatory mechanisms. The Proposed Rule should be corrected to properly take into account that the Preble’s inhabits millions of acres of federal lands currently protected by a vast array of federal environmental and land management statutes and directives, including, but not limited to: the Federal Land Policy and Management Act

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<sup>5</sup> U.S.D.A. 1997 Natural Resources Inventory.

("FLPMA"), the National Forest Management Act ("NFMA"), the National Environmental Policy Act ("NEPA"), the Clean Water Act, the Sikes Act, the National Park Service and U.S. Forest Service Organic Acts, the Bureau of Land Management ("BLM") Manual and the U.S. Forest Service Sensitive Species List.

In addition to the significant restrictions on development on private land provided in section 404 of the Clean Water Act, the FWS has ignored significant regulatory mechanisms in place irrespective of Preble's listed status:

County	Land Use Regulations	Open Space Acquisitions
Adams <sup>12</sup>	<ul style="list-style-type: none"> <li>- National Resources Conservation Overlay (NCRO) District Map includes "important wildlife areas and associated riparian areas." [3-37-02]</li> <li>- "A site-specific Resources Review to determine whether land is included within the NRCO District is required, prior to review of the first development application for the land." [3-37-03-02]</li> <li>- "Development in significant wildlife habitat is prohibited except for essential facilities." [4-10-02-04-02]</li> </ul>	<ul style="list-style-type: none"> <li>- Since 2000 Adams County Commissioners have funded 72 projects to preserve nearly 2,616 acres of open space, rivers and creeks, wildlife habitat, farmland and new park development.</li> <li>- The County recently purchased up to 92 acres for preservation and protection of the South Platte Wildlife Corridor.</li> </ul>
Boulder <sup>6</sup>	<ul style="list-style-type: none"> <li>- Development shall avoid significant natural ecosystems or environmental features, including riparian corridors. [4-800]</li> <li>- All land use development applications shall be required to include a wildlife impact report whenever the property is located within a Critical Wildlife Habitat or a Riparian Corridor. [7-1700]</li> <li>- Wildlife impact report shall include</li> </ul>	<ul style="list-style-type: none"> <li>- Officials in the Parks and Open Space Department have said that approximately 55 percent of the Preble's mouse habitat in Boulder County is under open space protection.</li> <li>- In January 2004 the Boulder County Commissioners adopted the St. Vrain Trail Master Plan. The project is intended to facilitate riparian habitat and enhancement along the St. Vrain River corridor. According to the Colorado Natural Heritage Program,</li> </ul>

<sup>12</sup> Adams County Development Standards and Regulations (January 10, 2005), Adams County Open Space Funded Projects: [www.co.adams.co.us/services/department/open\\_space/funded\\_projects.html](http://www.co.adams.co.us/services/department/open_space/funded_projects.html)

<sup>6</sup> Boulder County Land Use Code (adopted on October 18, 1994), St. Vrain Corridor Master Plan (adopted January 2004)

	<p>an inventory of any Species of Special County Concern, an assessment of the proposed development's impact and a recommendation regarding whether the proposal can proceed without causing material adverse impact. [7-1700, B]</p>	<p>the corridor contains a "fair" occurrence of Preble's meadow jumping mice.</p>
Douglas <sup>7</sup>	<p>- Rural Site Plan provides an administrative site plan process for alternative 35-acre development that considers preservation of open space, rural landscapes, important wetland and riparian areas, and reduces environmental impacts. Criteria for approval consider protection and preservation of riparian areas and critical wildlife habitats. Rural site plans require permanent protection of either 50% or 67% of included land as open space by conservation easement or similar method. [Section 3-A]</p> <p>- Development District is designed, in part, to allow flexibility and promote layout, design, and construction of residential development that is sensitive to the natural land form and environmental conditions, such as riparian areas and wildlife habitat. [Section 15]</p>	<p>- The Division of Open Space and Natural Resources reports nearly 45,000 acres in acquisitions of open space. Of this, approximately 11,000 acres owned by Douglas County are designated for protection of natural resources and wildlife habitat among other purposes.</p> <p>- In 2000, Douglas County acquired North Willow Creek Ranch, a 694-acre parcel strategically located between Roxborough State Park and the Division of Wildlife's Woodhouse property. The parcel contains mixed grass prairie and riparian habitat along Little Willow Creek and provides a critical link for wildlife movement.</p> <p>- In July 2000 Douglas County purchased the 105-acre Snortland property adjacent to the JA Cattle Ranch which contains a portion of East Plum Creek and associated wetlands. The property provides habitat for the Preble's meadow jumping mouse.</p> <p>- In 2002 Douglas County purchased 475 acres on the Duncan Ranch. West Plum Creek passes through the property, providing habitat for mammals, bird and fish species and is an ideal habitat for the Preble's meadow jumping mouse.</p>
El Paso <sup>8</sup>	<p>- "It is the policy of the County that no land use be initiated which would... result in the increased destruction of wildlife habitats." [Chapter II, B]</p> <p>- Report shall include: 1) a narrative description of major lakes, streams, topographical features, and wildlife habitats affected by the proposal; and 2) Inspection of the proposal of such</p>	<p>- In 2003 the El Paso Parks, Trails and Open Space Master Plan identified Forest Lakes, Monument Branch and Black Squirrel as high priority conservation lands because of the presence of Preble's meadow jumping mice.</p>

<sup>7</sup> Douglas County Open Space Projects: [www.douglas.co.us/Open%20Space/PropertyChart.htm](http://www.douglas.co.us/Open%20Space/PropertyChart.htm)

	features and mitigation techniques, if necessary. [51.6]	
Jefferson <sup>9</sup>	<p>-Wildlife habitat shall be preserved as required by the Board. [13.1]</p> <p>- Plans of the area of investigation shall assure that wildlife and vegetation factors affecting the planning, design, and construction of the subdivision are recognized, adequately interpreted and presented for use in the subdivision development. The plans shall include the following: 1) The wildlife and vegetation habitat conditions which should be preserved or improved within the subdivision; and 2) Solutions and alternatives to preserve and/or improve the wildlife and vegetative habitat. [13.6]</p>	<p>- The county and various cities have acquired over 50,000 acres of open space purchased with bond and non-bond funds. In an effort to evaluate which lands should be considered for inclusion into the Master Plan, a set of values have been identified that support the Open Space mission and goals. For example, the City of Westminster plans to acquire land near Walnut Creek, in part to protect habitats for species such as the Preble's meadow jumping mouse.</p>
Larimer <sup>10</sup>	<p>- For proposed developments that will or may have an adverse impact on wildlife and wildlife habitats, an approved wildlife conservation plan is required. [8.4.5]</p> <p>- Criteria for adverse impact will include placement of structures in close proximity to nesting and feeding areas and species reliance on specific, unique habitat features, such as riparian areas. [ 8.4.6]</p>	<p>- In 2001 the Larimer County Commissioners adopted an Open Lands Master Plan. The plan called for the most important wildlife habitat, river corridors and wetlands to be identified and protected as open space.</p> <p>- With a \$3.1 million contribution from GOCO, Larimer County acquired 6100 acres of the Cherokee State Wildlife Area. The project preserves an important wildlife migration corridor in northern Colorado and protects habitat for the Preble's meadow jumping mouse.</p>

**Boulder 9-12-1 (c)**

“The city council finds that it is necessary for the city to ensure protection for wetlands by discouraging development activities in wetlands and those activities at adjacent sites that may adversely affect wetlands. When development is permitted and the destruction of wetlands cannot be avoided, the city council finds that impacts on wetlands

<sup>8</sup> El Paso County Land Development Code, El Paso Parks, Trails and Open Space Master Plan (2003)

<sup>9</sup> Jefferson County Land Development Code, Section 13

<sup>10</sup> Larimer County Land Use Code (adopted December 20, 2002), Open Space Master Plan (2001), GOCO information at [www.goco.org/program/wildlife.html](http://www.goco.org/program/wildlife.html)

should be minimized and mitigation provided for unavoidable losses.”

**Colorado Springs 7.3.508 (B)**

“All development plans submitted for review for property wholly or partially contained within the streamside overlay zone shall be consistent with the recommendations of the design manual and land suitability analysis and shall conform with the following additional review criteria: Has the project been designed to minimize impact upon wildlife habitat and the riparian ecosystem which exists on or adjacent to the site? Does the project design protect established habitat or any known populations of any threatened or endangered species or species of special concern?”

**Parker 13.10.220**

“Development shall be undertaken in a manner that will preserve the multiple functions and quality of the Town's streams and associated riparian areas, including wetlands. More specifically, it is the intent of these regulations to designate appropriate stream buffers that will . . . preserve critical wildlife habitat by ensuring that new development protects and sustains significant wildlife populations.”

**City of Fort Collins**

Requires developments to avoid “natural communities or habitats” including: rivers, streams, lakes and ponds, wetlands and wet meadow, native grasslands, riparian forest, urban plains forest, riparian shrubland and foothills forest. No fewer than 27 pages of standards related to project design, set-backs, buffer zones and other measures designed to protect wildlife, water quality, air quality, open spaces and ecological communities. Any development must also submit proof of compliance to the City with

“all applicable federal wetland regulations as established in the federal Clean Water Act.”<sup>11</sup> See *Letter from Jerry Sonnenberg, supra*.

For the reasons listed above, the Proposed Rule requires correction to account for DAT data and significant existing regulatory mechanisms. Such correction must be accomplished by issuing a final delisting decision by August, 2006.

B. Listings Do Little to Further Conservation

Listings under the ESA have been found to do little to further conservation. Listings often restrict the ability to manage for species and could even result in harm to the species. See Amara Brook, Michaela Zint, Raymond De Young, *Landowners' Responses to an Endangered Species Act Listing and Implications for Encouraging Conservation*, 17 *Conservation Biology* 1473, 1638 (Dec. 2003) (Where an extensive survey of landowners showed that many managed their land so as to avoid the presence of Preble's). According to Bureau of Land Management (“BLM”) and U.S. Forest Service (“USFS”) officials, the ESA creates “. . . a complex maze of processes and procedures, which field biologists and managers must attempt to negotiate on a daily basis in order to implement on-the-ground projects.”<sup>12</sup> In regards to the peregrine falcon, leading experts concluded, “despite having the authority for implementing the ESA, and a number of their biologists contributing importantly to the recovery program, as an agency the FWS had a limited role, and its law enforcement division, which was in charge of issuing permits as well as enforcing regulation, was regularly an obstacle to recovery actions.”<sup>13</sup>

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<sup>11</sup> City of Fort Collins, Division 3.4, Environmental, Natural and Cultural Standards, at Page 70-1.

<sup>12</sup> USFS and BLM, Improving the Efficiency and Effectiveness of the Endangered Species Act, (Dec. 15, 2003).

<sup>13</sup> (Burnham and Cade 2003b) (emphasis added).

The disseminated information in the Proposed Rule that suggests federal, state and local conservation efforts are insufficient to protect the Preble's requires correction or retraction. Again, such correction must be accomplished by issuing a final delisting decision by August, 2006.

C. The FWS has Violated the ESA, the DQA and the Guidelines by Disseminating Information that Preble's May Qualify as a Distinct Population Segment ("DPS")

In the Proposed Rule, the FWS has violated the DQA, the Guidelines and the FWS Policy Regarding the Recognition of Distinct Population Segments Under the Endangered Species Act, ("DPS Policy") by suggesting that Preble's may qualify as a DPS.<sup>14</sup> Congress directed the Secretary to exercise the authority with regard to DPS's "sparingly and only when the biological evidence indicates that such action is warranted."<sup>15</sup>

To recognize a DPS, the FWS must find a population is discrete, significant and meets the factors for listing under Section 4 of the ESA.<sup>16</sup> In regards to discreteness, a distinct population must be distinguishable from other representatives of its species.<sup>17</sup> Were discreteness not required, the ESA would be unmanageable.<sup>18</sup> Preble's fails the criterion for discreteness. To be discrete a population must be separated by international boundaries or "markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors."<sup>19</sup> There are no such factors here. The DPS Policy provides, "[Q]uantitative measures of genetic or

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<sup>14</sup> 61 Fed. Reg. 4722 (Feb. 7, 1996).

<sup>15</sup> Senate Report 151, 96th Congress, 1st Session.

<sup>16</sup> See Policy Regarding the Recognition of Distinct Population Segments Under the Endangered Species Act, 61 Fed. Reg. 4722 (Febr. 7, 1996).

<sup>17</sup> Id.

<sup>18</sup> Id.

<sup>19</sup> Id.

morphological discontinuity may provide evidence of this separation.”<sup>20</sup> In this case, DAT data, genetic, taxonomic and morphological work demonstrate just the opposite: that *Z.h. preblei* is not separate from at least two other alleged subspecies of meadow jumping mice.

Preble’s also fails the standard for significance. “The principal significance to be considered in a potential DPS will be the significance to the taxon to which it belongs.”<sup>21</sup> But Preble’s is not significant to the taxon. It occupies less than five (5) percent of the range of the meadow jumping mouse species, which covers approximately half of North America (Ramey et al. 2005). And the populations and range of Preble’s has been shown to have increased dramatically since the time of listing. Moreover, Preble’s have been shown to avoid live traps such that they can easily be missed or underestimated in trapping surveys. (Boonstra and Hoyle 1986). Therefore, it is likely that surveys which merit delisting have actually underestimated the distribution and abundance of Preble’s. The court in *National Association of Home Builders v. Norton*, for example, held that the FWS decision that Arizona pygmy-owl was a distinct population segment was arbitrary and capricious because the population was not significant to the species as a whole.<sup>22</sup>

By comparison, there is no evidence that suggests Preble’s listed as *Z.h. preblei*: inhabits a unique ecological environment, exhibits behavioral differences or is genetically distinct from two adjacent subspecies. There are no apparent natural barriers like those described in the cases of the Washington grey squirrel nor the Lower Kootenai River burbot, that separate *Z.h. preblei* or *Z.h. campestris* from *Z.h. intermedius*. In fact, the FWS’ own model demonstrates that the potentially suitable habitat for Preble’s is

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<sup>20</sup> Id.

<sup>21</sup> Id.

<sup>22</sup> 340 F.3d 835 (9<sup>th</sup> Cir. 2003).



connected throughout the range of the three alleged subspecies, and the FWS has historically accepted “potentially suitable habitat,” as identified in this model, as the standard for the identification of potential mouse habitat for Section 7 and Section 10 consultations. There is no evidence of an unsuitable habitat void between the historical ranges of the three alleged subspecies of mice. In fact, the USGS information review found a “relatively close proximity of these subspecies in the Northern Plains.” (Cryan 2005). Even if Preble’s is treated as isolated from other populations of meadow jumping mice, post-listing surveys have shown it to be widespread and ubiquitous.

As noted, *Z.h. preblei*, *Z.h. intermedius* and *Z.h. campestris* are physically, behaviorally, ecologically and genetically indistinct and should be synonymized, as they once were, as the prairie jumping mouse. The DPS Policy is meant to “avoid[s] the inclusion of entities that do not require its protective measures.”<sup>23</sup> Such is clearly the case here. Even if Preble’s, by some stretch of reason, could be considered discrete and significant, it would still have to merit listing under Section 4(a) of the ESA.<sup>24</sup> As previously mentioned, ample DAT data clearly demonstrate that Preble’s does not merit listing under the ESA and that alleged threats to its existence occur in only an insignificant portion of its range.

While some may argue that Preble’s is somehow significant because of its habitat, all species can be said to play roles of significance to the environment. The FWS has also recognized it has no authority to designate a potential DPS as significant on the basis of its role in the ecosystem in which it occurs.<sup>25</sup> To comply with the DQA and the

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<sup>23</sup> See 68 Fed. Reg. 11574.

<sup>24</sup> *Id.*

<sup>25</sup> See Policy Regarding the Recognition of Distinct Population Segments Under the Endangered Species Act, 61 Fed. Reg. 4722 (Feb. 7, 1996).

Guidelines, the FWS must decline to consider Preble's as a DPS and should issue a final delisting rule by August, 2006.

## **VII. The King Study Violates the ESA, DQA and Guidelines**

(Ramey et al. 2005) further confirms the DAT data that Preble's was listed in error. The King study was disseminated by the FWS on January 27, 2006. Based on the information disseminated in the King study the FWS has decided to extend the final listing determination by six months in order to conduct further analysis. The information disseminated in the King study fails to meet minimum standards of quality, integrity, transparency and reliability, among others, of the DQA and the Guidelines.

The King study and the Proposed Rule are replete with misstatements and misinformation. Can information disseminated be legitimate if it does not accurately interpret the literature cited? In numerous instances, facts and terminology were not presented correctly. Opinions in the King study should not be represented as fact or dictate decisions that need to be made on scientific data. The information disseminated by the FWS violates the DQA and the Guidelines in that it is fraught with uncertainty, bias and a lack of objectivity. This does not represent disseminated information based on the best available science as required by the ESA, nor the quality, objectivity, integrity and utility standards of the DQA and the Guidelines.

The data at issue are not presented in an "accurate, clear, complete, and unbiased" manner so as to satisfy the Guidelines' objectivity requirements. In short, the disseminated information fails the DQA and Guidelines' requirements for substantive objectivity to ensure "accurate, reliable and unbiased information." It fails to meet either the quality or objectivity standards discussed below. Moreover, there is nothing to

indicate that FWS subjected the King study to "pre-dissemination review" as required by the Guidelines.

A. King Study Exhibits Bias in Selective Sampling

The King study demonstrates fundamental violations of the basic scientific process. First, Dr. King provided no specific hypothesis at the onset of his research, and he subjectively interpreted his results. Can information from a research study that is disseminated be legitimate if the research study itself errs in the basic principles of the scientific process? The King study also exhibits great bias in selective sampling. It is widely accepted that in order to conduct a valid comparison of alleged subspecies that samples must be taken from across the range of variation. Instead of sampling from many locations, the King study cherry-picked samples from few locations and ignored variation in between thereby creating an artificial gap in the range of Preble's and other purported subspecies. The King study conducted no sampling in southern Wyoming at all. Similarly, no samples from northeastern Colorado were used. In fact, the King study ignored any samples of *Z.h. preblei*, *Z.h. campestris*, or *Z.h. intermedius* within 250 miles of Colorado's Front Range. Other samples Dr. King used were taken from as far away as 325 miles, 500 miles, and 600 miles respectively. As discussed herein, Dr. King has a history of obfuscating his data and analysis while making unwarranted and conclusory statements.

B. King Study Ignores Taxonomy and Ecology

The King study ignores the taxonomic and ecological uniformity of the alleged subspecies of meadow jumping mice. *King* at 4. The King study cites (Jones et al.

1983<sup>26</sup>) for habitat characteristics but ignores the conclusion of (Jones 1981) that there is no credible evidence for classifying meadow jumping mice as subspecies. Here, there is no evidence of unique ecological differences, discreteness or significance. In fact, a literature survey by the USGS in January of 2005 found no evidence of ecologic or adaptive differences. (Cryan 2005). Interestingly, the author of this literature survey (Cryan) is also listed as a co-author on the King study.

Based upon similar facts, the FWS declined to list the Douglas County Pocket gopher. *Notice of 90-day petition finding, Petition to List the Douglas County Pocket Gopher as Threatened or Endangered*, 71 Fed. Reg. 7715 (Feb. 14, 2006). In that case, petitioners identified five populations of roughly 500 to 1,000 individuals. But the best available scientific and commercial information suggested that there were at least 41 more colonies than identified in the petition. *Id.* at 7717. The proximity of these additional locations as well as the distance from other pocket gopher subspecies led the FWS to consider them additional colonies of the Douglas county pocket gopher. *Id.* at 7717.

Fundamental to the threats discussion is the need for substantial scientific or commercial information indicating that a reduction in range and/or population size has been, or is likely, occurring. *Id.* There, as here, existing taxonomy, based on pelage color and morphology alone, supported that variation between subspecies is often less than variation seen within a single subspecies. *Id. citing* (Culver and Mitton, *in litt.*, 2004).

In this case, the King study concedes that Ramey found no physical differences in skull measurements (a key, albeit false, distinction the FWS relied upon in the erroneous listing of Preble's). *King* at 4. The King study cites (Krutzsich 1954) at least twice for

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<sup>26</sup> King appears to have miscited Jones. The correct citation is (Jones 1981).

the proposition that Preble's is unique,<sup>27</sup> yet ignores Krutzsch's admission that (Ramey et al. 2005) invalidated Preble's as a subspecies.<sup>28</sup> This selective interpretation of the literature cited also points to bias in violation of the DQA and the Guidelines.

C. A "Troubling" Discrepancy?

In an Internet posting during the course of the King study, Dr. King states that the five alleged subspecies are "weakly differentiated." As stated herein, the King study then concluded emphatically that Preble's is unique based upon less than one-half of one-percent of genetic variation. But during the King study,<sup>29</sup> Dr. King was unclear on how to interpret his results. He had to post a question on the Internet to resolve a "troubling" discrepancy:

I have a question regarding the most appropriate calculation settings for the AMOVA routine under the Genetic Structure module of Arlequin (version 2.00). The data being analyzed are sequences for mtDNA control region (~350 bps) and cytochrome b (~1000 bps). Although the five subspecies of the target species are weakly differentiated, the results from our sequence analysis are unambiguous - no haplotypes for either DNA region are shared among the subspecies. The problem with the AMOVA results is that it is unclear to me which option I should choose regarding the distance matrix to be used in the AMOVA. I have run the analysis letting the software compute the distance matrix using the 1) pairwise difference option and 2) allowing Arlequin to use conventional F-statistics (testing haplotype frequency difference?). The former analysis indicates that approximately 90% of the variation is due to differentiation among subspecies ( $F_{st} \sim 0.9$ ). The latter comparison suggests that approximately 35% of the variation can be attributed to differences between subspecies. The results for the two mtDNA regions are consistent (attached) - but the large discrepancy depending on distance calculations is troubling. Can someone tell me which [the most appropriate calculation settings for the AMOVA routine] is the most appropriate with mtDNA sequence data?

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<sup>27</sup> In 1954, Dr. Philip H. Krutzsch created three new subspecies, *Z.h. intermedius*, *Z.h. campestris*, and *Z.h. preblei* based upon differences in the color of the pelts and measurements of the skulls (only three adult specimens of mice in the case of *Z.h. preblei*).

<sup>28</sup> Dr. Krutzsch, now professor emeritus of the University of Arizona, in a March 31, 2004 letter<sup>28</sup>, said, "[T]he study [Ramey et al. (2004) clearly invalidates *Z.h. Preblei* and demonstrates its relationship to *Z.h. campestris* . . . ." Krutzsch also pointed out that this kind of analysis could help ensure that science drives the decision-making process under the ESA rather than an agenda or a particular point of view.

<sup>29</sup> King posted the question on October 17, 2005.

Available at:

<http://www.rannala.org/phpBB2/viewtopic.php?t=503&view=previous&sid=c16734e1c2d84e7a2067a964be1cfcac>.

What Dr. King found a “troubling” discrepancy was the actual result of the King study: that the five alleged subspecies of meadow jumping mice mice are, in his own words, “weakly differentiated.” *Id.* Dr. King concedes, in the King study, and in this posting for help, that there is more variance among the alleged subspecies than between them. That he was “troubled” by such results, and that the conclusion of the King study is directly contrary to his own admission of such results, calls into serious question the accuracy, objectivity and reliability of the King study. Such action clearly violates the standards of the ESA, the DQA and the Guidelines.

D. Significant Questions as to Method and Protocol

While the King study is quick to criticize (Ramey et al. 2005) for using carefully preserved museum specimens as the basis for genetic testing, as discussed herein, its own protocols and methods have been seriously questioned. Moreover, museum specimens are commonly relied upon for countless genetic and morphologic studies that are regularly published in the *Journal of Mammology* and other scientific journals.

The King study presents no convincing evidence that adequate measures were taken to avoid cross-contamination in its ear punch samples. What protocol was used? Were ear punches taken by Dr. King or in the original sampling from 1996-2000? Was the punch adequately cleaned and sterilized? Was the inside of the punch or outside, or both, sterilized before taking another punch? Were the punches cleaned with alcohol (which could lead to DNA contamination) or did they flame sterilize or bleach? Were

different gloves used for each sample? Were gloves used at all? Why were ear punches, rather than voucher specimens, utilized for non-listed meadow jumping mice?

Given questions raised here, and previously, about the accuracy and reliability of the analysis of the King study, the analysis may be questionable at best. Given this uncertainty and lack of transparency, the accuracy and reliability of the King study is insufficient to meet the standards of the DQA and the Guidelines.

E. King Study Fails Transparency Standards of the DQA and the Guidelines

The King study's selective interpretation provides only the veneer of scientific rigor. The King study didn't follow its original proposal and provides no precise definition for what it termed "populations" or "subspecies." Because the data underlying the King study has not been released, it is neither independently verifiable nor reproducible. The King study provides no data sets, no list of specimens used, nor does it reveal where they were collected or where they are archived. The King study provides no table of allele frequencies, no link to any data repository where his microsatellite data can be found nor individual genotype data.

OMB explains that: "[i]n assessing the usefulness of information that the agency disseminates to the public, the agency needs to consider the uses of the information not only from the perspective of the agency but also from the perspective of the public. As a result, when transparency of information is relevant for assessing the information's usefulness from the public's perspective, the agency must take care to ensure that transparency has been addressed in its review of the information." OMB Guidelines, § V(2) 67 Fed. Reg. at 8459. Both the Interior and FWS Guidelines contain identical language. *See* Interior Guidelines, § VII(2); FWS Guidelines, § VI(2).

Here, the information disseminated in the King study violates the “objectivity” standard and the “utility” standard therein because they are not useful to the public because they are made without giving the public access to the data relied upon. The public has reason to be skeptical anytime an agency uses or relies on information it has not made available. And it is reasonable that public skepticism will be elevated when a pattern of violations of the transparency requirements becomes evident as is the case here. This prohibits the public from assessing the value and usefulness of the information. The Department of the Interior's Guidelines state that:

The department will ensure that information disseminated will be developed from reliable methods and data sources, and will otherwise ensure information quality at each stage of information development... Information released by the Department will be developed only from reliable data sources based on accepted practices and policies, utilizing accepted methods for information collection and verification. It will be reproducible to the extent practicable.

Interior Guidelines, § II.

Here, the King study violates the DQA and the Guidelines because it was based on selective sampling, does not identify whether data was based on accepted practices and policies, and did not use accepted methods for information collection and verification. Finally, the King study is nowhere near reproducible because certain underlying data have not been disclosed, let alone released.

The information disseminated in the King study, the Proposed Rule and the SDM is information of extreme importance. It qualifies under the Guidelines as substantive notices, policy documents, studies and guidance relied upon by the agency as it will influence a listing decision that could affect multiple federal and state agencies, local



governments, Tribes and private individuals in the West and on millions of acres of private and public lands.

This information is clearly “influential scientific, financial, or statistical information” that crosses state and agency boundaries and affects private and public decisions under the DQA and the OMB and agency guidelines. Influential Information, such as the King study, the Proposed Rule and the SDM, “must have a high degree of transparency regarding the source of information, assumptions employed, analytical methods applied, and statistical procedures employed.” *Available at* <http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf> (FWS Guidelines). Agencies must disclose “the specific data sources that have been used and the specific quantitative methods and assumptions that have been employed.” *See* 67 Fed. Reg. 8452, 8457 (Feb. 22, 2002).

Such was not the case here. Certain data underlying the King study, as well as the methods employed, have not been disclosed to the public. For example, the King study does not identify with particularity the identity and specific location of samples. The Department of the Interior Guidelines provide “where the public will not be provided full access to the data or methodology, the Department shall apply and document especially rigorous robustness checks” and that “[I]n all cases, Departmental guidelines require a disclosure of the specific data sources used and the specific quantitative methods and assumptions employed.” *Available at* <http://www.doi.gov/ocio/guidelines/515Guides.pdf>.

It is important to note, that this is not the first time that the FWS has failed to release data relied upon in a study conducted by Dr. Tim King of the USGS. As discussed herein, in December of 1999, the State of Maine filed Freedom of Information

Act (FOIA) challenges to obtain data that Dr. King relied upon to identify DPS's in Atlantic salmon. When the FWS failed to release the data, Maine filed suit. *Maine v. U.S. Department of the Interior*, 298 F.3d 60, 64 (1<sup>st</sup> Cir. 2002). Following an eventual court-ordered release of the data, Maine complained that the data had been "improperly altered" by Dr. King. Susan Young, *State contends U.S. altered salmon data*, *Bangor Daily News* (June 24, 2000). According to independent peer reviews of the King study on Atlantic salmon, Dr. King used a flawed sampling design and an outdated statistic approach. Additionally, Dr. King's conclusions were said to be "incredibly naïve," and "overstated hyperbole." The findings of the independent peer reviews of the King study in Atlantic salmon eventually led to a DQA challenge being filed against the FWS and the National Marine Fisheries Services ("NMFS"). *Available at* <http://www.fws.gov/informationquality/topics/FY2003/Atlantic%20Salmon/index.html>.

Here, the King study fails DQA standards for robustness and the FWS has insufficiently disclosed data sources and methodology in violation of the DQA and the Guidelines.

F. Previous King Studies show a Predisposition towards Subspecific Classifications

The objectivity standards of the Guidelines require that the FWS ensure that information disseminated is unbiased. Such is not the case with the King study. A review of Dr. King's previous work demonstrates a predisposition towards the classification of subspecies. And the King study goes so far as to infer that subspecies or population segments should be listed regardless of whether scientists can distinguish them by physical or ecological differences. *King* at 3 (Emphasis added). Congress must have foreseen opinions like Dr. King's as well as wasted conservation efforts (like the

Preble's listing) when it admonished the FWS to list subspecies and distinct population segments "sparingly and only when the biological evidence indicates that such action is warranted."<sup>30</sup>

Even carving meadow jumping mice into twelve (12) subspecies isn't enough for the King study. It concludes even Preble's should be split into smaller units (Preble's north and Preble's south) eligible for listing. *King* at 28. Should the King study be relied upon, every county in which any meadow jumping mouse resides could be subject to onerous restrictions based upon erroneous listings under the ESA. Is this the best use of scarce conservation resources? Shall the blue whale, greenback cutthroat, snail darter (and over 1,000 other species) languish in obscurity while funds are wasted on this most common of rodents?

This hair-splitting is best demonstrated by the incredible view of what constitutes a distinction in the King study. Amazingly, it labels a variance of less than one-half of one-percent as "strong genetic differentiation" and "high and significantly different." *King* at 16, 18. Yet its results are generally consistent with (Ramey et al. 2005) in that there is more variation within the alleged subspecies than between the alleged subspecies. *King* at 14. As with (Ramey et al. 2005), the mitochondrial DNA shows a split between *campestris*, *preblei* and *intermedius* on one branch and *pallidus* and *luteus* on another. **Nevertheless, the King study labels a variance of less than one-half of one-percent as "strong genetic differentiation," and concludes Preble's is unique, and should be further split into even more subspecies that are eligible for listing under the ESA (Preble's north and Preble's south).**

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<sup>30</sup> Senate Report 151, 96th Congress, 1st Session (Emphasis added).

And it appears Dr. King has never seen a subspecies he doesn't like. For example, Dr. King appears to have proposed four (4) subspecies or DPSs of horseshoe crab,<sup>31</sup> six (6) subspecies or DPSs of brackish water turtle,<sup>32</sup> several DPSs of California tiger salamander, and seems to support similar distinctions for brook trout,<sup>33</sup> spotted owls, piping plovers, snowy plovers, Micronesian kingfishers, Snake River steelhead, Atlantic salmon, Atlantic sturgeon, lake trout, torrent salamanders, spotted salamanders, wood frogs, and bog turtles. King et al., *Genetics and Molecular Tools: Setting the Standard for Biological Science in USGS* (December, 1999). In regards to Atlantic salmon, discussed more fully below, King said, "[W]e looked at 2,000 Atlantic salmon and they're all unique." Richard Degener, *Missing link may emerge from study of horseshoe crab populations, scientists hope*, The Press of Atlantic City (June 13, 1999).

#### G. King Studies Challenged Before

Dr. King has been known to change his positions and conceal his data from outside scrutiny. For example, in 1995, Dr. King was on record finding the Maine salmon shared too many of the same alleles with Canadian salmon to be considered a distinct DPS eligible for listing under the ESA. Malakoff, David, *Atlantic salmon spawn fight over species protection*, American Association for the Advancement of Science, Volume 279; Issue 5352 (Feb. 6, 1998). Subsequently, King flip-flopped and his own

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<sup>31</sup> Presented to the ASMFC Horseshoe Crab Management Board Prepared by the ASMFC Horseshoe Crab Plan Review Team: Tom Meyer, National Marine Fisheries Service Stewart Michels, Delaware Department of Natural Resources and Environmental Control Eric Schrading, U.S. Fish and Wildlife Service Braddock Spear, Chair, Atlantic States Marine Fisheries Commission July 2004.

<sup>32</sup> Tim King and his research associate found six DPSs or subspecies (regional metapopulations) within the species' range (from Massachusetts to Texas). Available at [http://www.gradschool.duke.edu/student\\_life/getting\\_acquainted/for\\_prospective\\_students/student\\_profiles/hart\\_kristen.html](http://www.gradschool.duke.edu/student_life/getting_acquainted/for_prospective_students/student_profiles/hart_kristen.html).

<sup>33</sup> East Coast Trout Management and Culture Workshop IV, Lock Haven University of Pennsylvania June 6 – 8, 2005, Technical Sessions – Management, 10:50 – 11:10 Conservation Genetics of Brook Trout (*Salvelinus fontinalis*): Phylogeography, Population Structure, Captive Breeding Management, and the Adaptive Significance of Observed Differentiation. Tim L. King (USGS-BRD) et al.

work was relied upon in listing the Maine Atlantic salmon as a DPS. After stating “[T]he reproductive isolation just isn’t there,” *Id.* Dr. King somehow found it easy to identify differences between European, Canadian and U.S. salmon. Young, Susan, *Genetics key in debate over salmon listing Scientists differ on heredity of wild fish*, Bangor Daily News. (March 25, 2000). Dr. King even found differences in fish from different rivers. *Id.* As previously stated, Dr. King has also said, “[W]e looked at 2,000 Atlantic salmon and they’re all unique.” Richard Degener, *Missing link may emerge from study of horseshoe crab populations, scientists hope, supra.*

Based in large part on Dr. King’s work, the FWS and the National Marine Fisheries Service (“NMFS”) concluded U.S. stocks of Atlantic salmon were distinct from stocks in Canada and Europe. *See Maine v. Norton*, 257 F.Supp.2d 357, 370 (D.Maine 2003). The State of Maine, among others, challenged the listing<sup>34</sup> of the Gulf of Maine Atlantic Salmon as a DPS under the ESA. *Id.* Dr. Irv Kornfield, a zoology professor at the University of Maine, reviewed Dr. King’s work and concluded such slight genetic variations in salmon could not be relied upon for Dr. King’s broad conclusions. Young, Susan, *Genetics key in debate over salmon listing Scientists differ on heredity of wild fish*, Bangor Daily News. (March 25, 2000).

As here, Dr. King’s questionable data on Atlantic salmon was not released. As here, only his conclusions, blessed by interested peers, were available for independent review. In December of 1999 Maine filed Freedom of Information Act (“FOIA”) challenges to obtain the King data. Young, Susan, *State contends U.S. altered salmon data*, Bangor Daily News (June 24, 2000). When the data was not released, Maine had to

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<sup>34</sup> In 1999, Defenders of Wildlife challenged the Services decision to withdraw the proposed listing of the Maine DPS. The Services agreed to list as an apparent compromise to end the litigation.

make a second FOIA request in 2000. *Maine v. U.S. Department of the Interior*, 298 F.3d 60, 64 (1<sup>st</sup> Cir. 2002). Maine then had to file suit to obtain the data. *Id.* at 68-69.

Maine's United States Senators, in attempt to facilitate the state's access to Dr. King's data, sent letters to the secretaries of Commerce and Interior stating, "[I]t is unconscionable that (the departments) have continued to block the efforts of outside scientists to review the very serious questions of the genetic integrity of these Atlantic salmon to determine if it meets the standard of a distinct population segment." Young, Susan, *Maine sues feds, requests salmon data genetics information demanded*, Bangor Daily News (Feb. 26, 2000).

Only upon a court order was sufficient data to review Dr. King's work eventually disclosed. *Id.* at 73. But Maine complained that the data eventually turned over was "improperly altered" by Dr. King. Young, Susan, *State contends U.S. altered salmon data*, Bangor Daily News (June 24, 2000). In an affidavit, Dr. Irv Kornfield stated that he was told by a NMFS employee that King had altered a template that Kornfield was to use to analyze King's raw data. *Id.*

Dr. King's work was so egregious that a commercial fishery filed a Data Quality Act challenge against the FWS and NMFS for their dissemination of King's work. *See* <http://www.fws.gov/informationquality/topics/FY2003/Atlantic%20Salmon/index.html>. The reliability and accuracy of Dr. King's work has been seriously questioned by his peers. The data that was eventually released showed Dr. King used a flawed sampling design and an outdated statistical approach. He was said to have problems in statistical analysis as well as shortcomings in data analysis and inference. Genetic instability between yearly samples at the same site raised "serious questions regarding genetic

discreteness and genetic significance.” Dr. King’s conclusions were labeled “incredibly naive,” and “overstated hyperbole.” The analysis, was said to “speak[s] volumes on the reliability of the quality control/quality assurance practices of Dr. King’s laboratory.” Atlantic Salmon Data Quality Act Challenge at 10-11. A member of Dr. King’s research team later conceded the scathing critiques by Dr. Irv Kornfield and Dr. John R. Gold of Texas A&M University were “technically valid.”<sup>35</sup> *Maine v. Norton*, at 394.

H. Commission of King study was in Violation of FWS Peer Review Policy

By spending taxpayer money on King’s additional review of (Ramey et al. 2005), the Department of the Interior violated its own Policy for Peer Review in Endangered Species Act Activities (“Peer Review Policy”).<sup>36</sup> The peer review policy limits peer reviews in listing and recovery actions to three expert opinions during the comment period. In this case, there was extensive review of (Ramey et al. 2005). The FWS solicited and received five (5) independent reviews and publication constituted an additional four independent reviews. The public comment period for the proposed rule to delist the Preble’s ended on May 3, 2005. Further review (clearly overkill to begin with) outside of the comment period violated the Peer Review Policy. It is ironic that the FWS has taken such an active interest in peer review of (Ramey et al. 2005) given that FWS relied upon unpublished studies that have never undergone review in the Preble’s listing decision: (Ryon 1995) and (Riggs et al. 1997).

To the extent the King study questions the results, methods or procedures of (Ramey et al. 2005), the FWS must consider their source and whether it withstands the scrutiny of the Office of Management and Budget Final Information Quality Bulletin for

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<sup>35</sup> Nevertheless, FWS and NFWS vigorously defended their listing decision and the court, citing agency deference, dismissed Maine’s legal challenges.

<sup>36</sup> 59 Fed. Reg. 34270 (July 1, 1994).

Peer Review (“OMB Peer Review Bulletin”) and the National Academies of Science, *Policy and Procedures on Committee Composition and Balance and Conflicts of Interest for Committees Used in the Development of Reports*. The OMB Peer Review Bulletin provides that federal agencies need not seek additional peer review where adequate review has already taken place.<sup>37</sup> Such is clearly the case here.

Moreover, the source of some criticism may be traced to a lack of subject matter expertise, financial interests, personal bias or conflicts of interest. Any review of (Ramey et al. 2005) by a Department of the Interior employee is inherently biased. Science done within the agency serves the needs of that agency. Given the significant questions raised regarding previous King studies, the FWS has violated DQA and the Guidelines as well as OMB standards on peer review in commissioning the Kings study.

In this case, there has been questionable peer review of the King study. Media reports have mischaracterized limited support from interested peers as “peer review.” An investigation of those whom provided the media with support for the conclusions of the King study shows that they have a vested interest in the listed status of subspecies, and even subspecies of mice. For example, both Michael Wooten and Hoki Hoekstra have an indisputable interest in the listing status of subspecies of beach mice and obtain substantial research funding as a result. Likewise, Sacha Vignieri has done extensive research in the identification of subspecies of Pacific jumping mouse.

It is not surprising that the invalidation of one questionable “subspecies” of mouse would cause concern to those vested in the listed status of other subspecies or populations of mice that, themselves, may be questionable. Eric Hallerman, another commenter, has

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<sup>37</sup> Office of Management and Budget, Final Information Quality Bulletin for Peer Review, M-05-03, at 37 (Dec. 16, 2004).



not only dedicated himself to classifying black bears as subspecies, but he seems to have supported subspeciation on several of the same creatures as Dr. King including, Atlantic salmon, brook trout, Horseshoe crab, and freshwater mussels. Even the USGS Leetown Science Center Research Documentation Manual (“USGS Standards”) require the selection of “independent, qualified scientists” for peer review. USGS Standards at 28. But the USGS Standards provide for peer review of study plans and proposals before implementation. *Id.* Where review of articles for publication is to take place, the USGS standards require that it be documented. *Id.* at 30. Here, there has been no data released nor documented review by qualified, independent scientists. The King study, then, has not undergone independent review consistent with the DQA, the Guidelines nor the OMB peer review standards. The reviews of interested parties, including reviewers of the original listing petition (Hafner and Armstrong) undertaken after the King study call into question the reliability and objectivity of all reviews of the King study.

#### **VIII. SDM Process Violates the ESA, the DQA and the Guidelines**

On February 14, 2006, Acting Deputy Regional Director Mike Stempel sent letters to the Directors of the Colorado Division of Wildlife and the Wyoming Game and Fish Department requesting recommendations for panelists for the SDM by February 21, 2006. As proposed, the SDM violates the DQA and the Guidelines in that it improperly restricts panelists to “currently active Federal, State or State university system employees.” *Letter from Mike Stempel, Deputy Assistant Regional Director, FWS, to Terry Cleeland, Director, Wyoming Game and Fish Department, supra.* The information disseminated in this letter qualifies as influential information under the DQA and the

Guidelines as the FWS solicited panelists for the SDM to “evaluate Preble’s genetics and taxonomy” to assist the FWS in making a final listing decision.

The FWS intends to employ two panels, one to review taxonomic issues and one to review purported threats and potential extinction risk. *Id.* The FWS may not, as proposed, delegate its role to these panelists to “determine whether Preble’s meets the legal definition of a “species” under the ESA, or, if not, whether other potentially listable entities have been identified.” *See* 16 U.S.C. § 1533. As previously stated, agency panelists and reviewers are inherently biased as to the agency’s interests. Accordingly, it is improper for the FWS to solicit panelists from agency personnel within the Department of the Interior. Further, that the proposed FWS decision-makers include four out-of-six from the region where the controversy exists, as well as panelists from Colorado and Wyoming, is unacceptable. The Mountain Prairie region of the FWS concedes that there is controversy over the listed status of Preble’s. *Letter from Mike Stempel, supra* at 1. For a transparent and independent SDM process, consistent with the DQA and the Guidelines, the FWS must utilize panelists and employees from outside of the Department of the Interior and the Mountain Prairie region of the FWS.

Finally, it is impossible to conduct any meaningful review by the dates proposed in the SDM process (March 14-16, 2006). As discussed herein, certain data behind the King study has not even been released. Even if qualified reviewers were available and had access to this data, the SDM does not provide sufficient time to prepare for the process.

As a result, the FWS must correct the SDM process. The data underlying the King study must be released to panelists and the public with sufficient time to conduct a

meaningful review prior to any SDM process. Panelists must not be arbitrarily restricted to government employees and academia, and agency employees have no place as panelists on an agency listing decision. Finally, the involvement of the Mountain Prairie region should be adjusted to account for the controversial nature of this process.

## **IX. Conclusion**

The FWS must focus its efforts on listing actions that will provide the greatest conservation benefits to imperiled species in the most expeditious and biologically sound manner. More government resources are spent on Preble's than the blue whale, greenback cutthroat trout and snail darter combined. Where are the Department of the Interior's conservation priorities?

Here, the States of Wyoming and Colorado, and many counties within Wyoming and Colorado, have called for the delisting of Preble's. There is no legitimate disagreement between the King study and (Ramey et al. 2005). It is the puzzling conclusions of the King study that differ markedly from (Ramey et al. 2005). Dr. Tim King's work, and previous criticisms of his work, raise serious questions about the reliability and objectivity of the King study. That the King study would label one-half of one percent of variance "strong genetic differentiation" sufficient to conclude not only that Preble's is unique, but that it should be split into additional subspecies is unconscionable. Taken with, among other things, clear sampling bias, misrepresentation of authorities, questionable protocols and the lack of meaningful thresholds, reliance on Dr. King's work on Preble's violates the DQA and the Guidelines and requires correction.

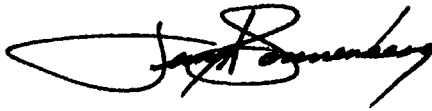
That previous work by Dr. King was disclosed, albeit in corrupt form, only after two FOIA requests and two lawsuits by the State of Maine is unacceptable in light of the heightened standards of reproducibility required under the DQA and the Guidelines for such influential information. Until all of the data underlying this King study has been released and independently reviewed, the proposed SDM process and its aggressive timeline provides for no meaningful review in violation of the DQA and the Guidelines. Further, the proposed SDM process must be corrected to avoid bias and conflicts of interest.

Finally, the Proposed Rule has not adequately addressed the substance of the CWCD petition to delist Preble's in that it has ignored DAT data that alone merits a delisting decision. At the time of listing, Preble's was documented at only 29 sites. Today, it has been found at no fewer than 126 sites. It is likely to be found in many more. In addition, the FWS has ignored significant existing regulatory mechanisms in place on federal and private lands throughout the range of Preble's.

Correction of the information disseminated in the King study, the SDM process and the Proposed Rule must be accomplished no later than August, 2006. The FWS should focus on species that do not have the benefit of the distribution, abundance and trends of Preble's nor the extensive regulatory protections already in place. In sum, it is time for the FWS to delist Preble's and redirect resources to species that are truly threatened and endangered.

Challengers respectfully request that you respond to this Challenge within 45 days in accordance with the FWS Guidelines. If you have any additional questions regarding this Challenge, please do not hesitate to contact Kent Holsinger at (720) 904-6000 or Jeani Frickey Saito, Executive Director, CWCD at (303) 813-9290. Thank you.

Sincerely,



Jerry Sonnenberg  
President  
Coloradans for Water Conservation and Development  
1301 Pennsylvania St., Ste 900  
Denver, CO 80203



Dr. Allan Foutz  
President  
Colorado Farm Bureau  
9177 E. Mineral Circle  
Centennial, CO 80112

