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CANADA LYNX INTERAGENCY NATIONAL SURVEY AND ENDANGERED SPECIES DATA COLLECTION

OVERSIGHT HEARING

BEFORE THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

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OVERSIGHT HEARING ON CANADA LYNX INTERAGENCY NATIONAL SURVEY AND ENDANGERED SPECIES DATA COLLECTION

Wednesday, March 6, 2002

U.S. House of Representatives

Committee on Resources

Washington, DC

The Committee met, pursuant to call, at 10 a.m., in room 1324, Longworth House Office Building, Hon. James V. Hansen (Chairman of the Committee) presiding.

The CHAIRMAN. The Committee will come to order. We are having a wee bit of a problem this morning, in that there is two important conferences going on, one with the Republicans and of course one with the Democrats, and because of that a lot of our guys are going to be late. If it is all right with the Committee, I think we are just going to wait for about 5 minutes and then we will start this hearing. Is there any objection?

Hearing none, that is what we are going to do. So if you want to go back and chatter for 5 more minutes, have at it, and we will be right back to you. But I did want to point out to you what we are doing. Second, we always like to start on time. We do appreciate our witnesses being here, and the many people that have had to come a long way to be part of this hearing today.

That said, we will, as they say in some areas, we will "saunter" for a while. But I would like to make one unanimous consent request. I ask unanimous consent that the gentleman from Washington, Doc Hastings, be allowed to sit on the dais and participate in the hearing. Is there objection?

Hearing none, so ordered. Doc is actually an ex officio member of this Committee anyway, and is on a leave of absence because of sitting on the Rules Committee, and anyone who is going to sit on the Rules Committee gets all the deference we can possibly handle. These guys have to meet at 2:00 in the morning when the rest of us go home, and Doc, we appreciate your perseverance. I wouldn't go on that Committee for all the tea in China.

But anyway, that said, we will wait for 5 minutes and then we will start.

[Recess.]

STATEMENT OF THE HON. JAMES V. HANSEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF UTAH

The CHAIRMAN. The Committee will come to order. We appreciate all of you being here with us at this time, and possibly more people will show up. It is a very difficult day for many of us.

Our hearing today is about the Canadian lynx, and I was very troubled this past December when I was informed that several Federal and State employees involved in the Canadian Lynx Interagency National Survey had submitted at least five unauthorized samples of lynx hair to the laboratory. Chairman McInnis and I requested that the Inspector General and the General Accounting Office (GAO) investigate these allegations. Today's hearing will focus on the result of these inquiries.

I would first like to thank the Inspectors General from both the Department of Interior and the Department of Agriculture for acting so quickly in response to our letter. I would also like to thank the GAO for their timely report, and look forward to discussing the reports with all three agencies today in this hearing.

We will attempt to answer some of the many questions that have been raised by concerned citizens, members of this Committee, and the scientific community. Did the actions of these seven individuals adversely affect the National Lynx Survey? How was this allowed to happen? What, if any, safeguards and checks and balances do these two agencies have in place now to keep this from happening again? Most importantly, what else has occurred that we do not know about yet?

While I served as Chairman of the Ethics Committee, my belief in integrity and personal accountability were reinforced daily. Public officials in any capacity, including employees of Federal and State agencies, should be held to the highest standards of moral and ethical conduct. We have the mantle of the public trust on our shoulders, and we must act accordingly. When we breach this trust, we must be willing not only to accept what we have done but also to pay the consequences of our actions.

In the issue before us today, this has not happened. In fact, while involved Forest Service employees received counseling, Fish and Wildlife Service scientists that submitted unauthorized samples actually received merit pay raises for their work on the lynx study. These seven scientists acted in direct violation of peer review agency protocol. Their actions were more than mere reflections of bad judgment.

Each of these individuals involved blatantly disregarded to the rules that governed the survey. In doing so, besides being unprofessional and unethical, they put the credibility of the entire survey on the line, and if we had not been notified and intervened, could have affected the management decisions in 15 States and 57 national forests.

Many of us have heard these types of allegations before. This situation was brought to light by a retiring Forest Service employee on his last day of work. I really wonder how many similar incidents have occurred without our knowledge. How many management decisions have been affected by results that were tainted by breaches of protocol?

Some of these scientists stated that they were only testing the system by submitting unauthorized control samples, making sure that the lynx hair could be identified. If this is true, it shows a fundamental mistrust that these scientists have for the very science they are using. This is troubling to this Committee, and we have oversight over these issues.

We need to make sure that this type of incident does not happen again. Poor decisions and bad judgment cannot be the basis for the management policy of our public lands. The agencies involved must institute checks and balances from within. Most importantly, all management decisions must be based on sound science.

I hope that many of our questions and concerns may be answered today, and I will look forward to discussion.

Mr. Inslee, are you the spokesman for the minority?

Mr. INSLEE. We are that far down the totem pole, Mr. Chair, I believe.

The CHAIRMAN. Well, we will turn to you if you have an opening statement for us, and then we will turn to Chairman Scott McInnis.

STATEMENT OF HON. JAY INSLEE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mr. INSLEE. I do. I appreciate that, Mr. Chair, as always, and appreciate the opportunity to have a few comments.

There has been a lot made about this instance, and perhaps it is not surprising, and perhaps it is not surprising, too, that there have been a lot of allegations made about this incident before the facts are known. So I think it is a good opportunity for us to really find out what did happen and what did not happen in this case, so I welcome this opportunity to have this hearing.

And I am not here, and I don't think anyone in this room is here to defend the actions of the biologists who submitted false hair samples, and I don't think anyone in this room will take issue with the suggestion that this is not a good way for science to be conducted. If nothing else, it allows people to create issues where we shouldn't have issues, and so it certainly is regrettable.

But what I do take issue with is any suggestion that this is somehow just the tip of the iceberg, that Federal scientists try to skew surveys on a regular basis with bad science, or that this case signals a need for dramatic reforms to the Endangered Species Act. With any of those suggestions, I very strongly disagree.

What we will find today, I think, is that neither the General Accounting Office nor the Interior Inspector General found any evidence that this is a common occurrence, none, and that all science that has been used in protecting endangered species is somehow suspect. We just simply aren't going to find evidence of that outside of this incident.

In addition, both Dr. Scott Mills and Mr. Tom Franklin will tell us in no uncertain terms that wildlife biologists nationwide, including Federal biologists, live by a code of ethics and standards for professional conduct that they take seriously. Indeed, in this instance, in this instance, although it is clear that the judgments were flawed by these biologists, of taking these steps without having a well-established protocol for testing the lab, I think it will be

very clear that in fact the motivations of these biologists were to test the accuracy of the lab because they were concerned that there were inappropriate findings that there had been lynx where in fact no lynx had existed.

So I think it is very interesting that the sort of political spectrum on this perhaps has misjudged this, that in fact the biologists acted of a motivation on the other side of the coin, trying to assure that we didn't get false positives on these lynx findings. Nonetheless, they were human and mistakes were made. There is no question about that.

But from today's hearing I think that there is no evidence that bad science is being used in the lynx survey to guide management decisions. Dr. Mills will testify that the data being produced by their lab for the lynx survey is sound, and should not be discounted as some have suggested. In fact, their survey contains so many controls and follow-up procedures that he and Kevin McKelvey have said "The probability of producing false positives is extremely low, and the probability that false positive results will trigger conservation responses is nonexistent."

In conclusion, there is no question that data falsification is a serious matter, regardless of whether we are talking about protection of the lynx, or the numbers of caribou calving in the Arctic National Wildlife Refuge. It is not common practice, however, and given that, I do not see this unfortunate incident as justification for amendments to the ESA under the guise of good science. Instead, it demonstrated that the system is already in place to weed out bad science before it is used in land management decisions.

And just one comment, too, in general. I do wonder why this incident warranted four different investigations, while we haven't had a similar focus on illegal logging of Ponderosa pines in the Bitterroot, or the fact that the Fish and Wildlife Service had to be sued three times before it actually listed the lynx, or the fact that the Forest Service in the Pacific Northwest violated environmental law after environmental law after environmental law until the courts of this land finally enforced the law.

And I think it would be helpful to our country if our Committee generated as much concern and outrage about the repeated, consistent, time over and over again that Federal agencies have failed to enforce known environmental laws, as they do about this incident. And thank you, Mr. Chair.

The CHAIRMAN. I thank the gentleman from Washington.

We are pleased to have with us a past member of the Committee and an ex officio member of the Committee, who will probably join us again when they kick him off the Rules Committee. Great to have Doc Hastings with us, and we will turn to him for an opening statement.

STATEMENT OF THE HON. RICHARD DOC HASTINGS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mr. HASTINGS. Thank you, Mr. Chairman. I want to thank you for your reference to my keeping my seniority on this Committee, and also for making reference to the fact that I am on the Rules Committee, because later on this morning we will be doing a rule

on legislation from this Committee, so I appreciate your keeping that in mind.

Mr. Chairman, time and time again Westerners and rural Americans have been forced to shoulder the burden of land policies based on questionable science. Unfortunately, today's hearing isn't even about questionable science; it is about an allegation of outright fraud.

The scandal involving the actions of the seven Forest Service and U.S. Fish and Wildlife Service employees studying the Canadian lynx in north central Washington illustrates the sad fact that amid claims of scientific integrity in Federal agencies, reliable evidence and sound scientific practices are at times abandoned for the personal agendas of agency personnel. This scandal shows a notable absence of checks to ensure that only sound science shapes policy, and it brings to light the ease by which Federal agencies can make decisions based on assumptions rather than hard scientific evidence.

It is no surprise that the trust central Washington's communities have for Federal agencies and their employees has been steadily eroding for many years. Considering that the Wenatchee and the Gifford Pinchot National Forests are literally in the backyards of many whom I represent, it is no surprise that this trust has just taken a dramatic turn for the worst. Let me give you just two examples in that regard.

A decade after the designation of the spotted owl habitat in that area that resulted in the end of harvesting for many of the forest lands in Washington, we have come to learn that much about the species is still unknown, including what habitat it prefers. Unfortunately, the decision to seal off massive tracts of valuable land that devastated nearby communities and cost thousands of jobs, nevertheless that happened and we are still feeling that. It appeared that the agencies acted on environmentalists' claims and demands before sound science could be considered.

And last summer irrigation water was shut off to farmers because Federal biologists assumed that a certain amount of water must remain in flow for fish. After this policy was enacted, the National Academy of Science issued a report declaring that there was not sufficient scientific evidence to support the Federal denial of water in the Klamath Basin.

The story of the lynx differs only slightly from these past experiences, but in a very significant way. In the case of the spotted owl, biologists are still debating over the best habitat years after the policy has shut down the forest. In the Klamath Basin, deficient science was discovered months after entire crops were lost due to a lack of water. In the case of the lynx, however, we learned immediately that fraudulent science had the potential—had the potential—to shape land use policy.

In my mind and the minds of many Westerners, many issues remain unknown in this example. For example, just how involved were the Forest Service and the U.S. Fish and Wildlife? Why, according to the IG, were the offending employees given bonuses before the scandal was exposed? Were the biologists willingly pursuing the expansion of lynx habitat in these national forests?

The GAO has now concluded its report, and I am hopeful today's hearings will get to the bottom of these questions. What is abundantly clear to the residents of central Washington and communities around the West is that the land use policies are too often void of sound science.

Judging from experience, it is clear that the void is far deeper than a handful of biologists in a lynx survey. And it is also clear that when Federal agencies carry out the Endangered Species Act, the line between scientific evidence, assumptions, and personal agendas blurs. This is totally unacceptable to me.

We have been told by the agencies that submitting fake hair caused no negative effect to the lynx survey? How can we be sure that this sort of deception is not systemic within the agencies? Federal agencies must not be allowed to hide breaches in science to be sorted out later, upon discovery.

The Forest Service and U.S. Fish and Wildlife make their land use policies in order to enforce the law, the Endangered Species Act. If you have witnessed the devastation of these policies, that these policies can have on entire communities, in the affected communities, then you realize the power of the law.

Enforcement cannot continue to be based on assumptions masquerading as scientific fact, nor should there be any room for ideological agendas. Every decision must be based on irrefutable hard evidence and sound science. When sound science is pushed aside because it is inconvenient or because employees want to pursue personal agendas, there must be consequences, because there certainly are consequences for the communities that are forced to bear the brunt of these decisions. Once again, Mr. Chairman, thank you very much for your courtesy in allowing me to join you today.

The CHAIRMAN. I thank the gentleman from Washington.

Now I would like to turn to the Chairman of the Subcommittee on Forests and Forest Health, Mr. Scott McInnis.

STATEMENT OF THE HON. SCOTT McINNIS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO

Mr. MCINNIS. Thank you, Mr. Chairman.

Mr. Chairman, let me begin my remarks by saying at the very onset that there is well-established protocol for the testing of the lab, and it is clearly outside the authority of field offices to be testing the laboratory. Any remarks in regards to a so-called excuse of testing the lab is nothing short of a cover for wrongdoing.

Today our Committee will take a much-needed look at the National Lynx Survey scandal, where seven Federal and State officials are said by investigators to have knowingly planted false data or evidence on at least three occasions on two national forests, in violation of the peer reviewed, scientifically valid species survey process. These allegations, which have been substantially borne out by at least two investigations, have stoked the worst fears and suspicions of a lot of folks in the West: namely, that select Federal land and resource management officials have a propensity to operate outside the bounds of sound science and good faith when

making enduring decisions about the future management of our Federal lands.

This unsettling string of events in Washington State underscores just how susceptible so-called "science" is to the whims of ill-guided decisionmakers. These incidents raise very weighty questions about the way we do business on our Federal lands, and for that reason I want to commend the Chairman for bringing the issue before the Full Committee today.

The essence of public service is best summed up in a single word: trust. It is kind of like a police officer. We don't expect a police officer to plant evidence, and we certainly should have those same kind of expectations of Federal employees.

For those of us who spend our professional lives making decisions that affect our neighbors, our communities, and the future of our country, credibility is our only currency. Integrity is key. Whether we are talking about a Member of Congress, your local police chief, or a Fish and Wildlife Service biologist, trust is the coin of realm in our line of work. Nobody expects perfection out of our public officials, but when the American people can't even expect good faith and pure motives out of their government, good decisions and constructive decisionmaking processes become difficult.

Based on the facts already before us regarding what transpired on these forests, it is objectively clear that the implicated biologists trampled the public trust when they chose to dump a peer-reviewed, scientifically authentic lynx survey protocol in favor of their own half-baked, pseudo science techniques. Their actions were plainly unethical, totally unprofessional, and in my estimation deserving of more than a token slap on the wrist. If credibility is in fact a public official's only currency, these people are broke.

For everyone and every agency involved, the implications of this incident have been far-reaching. In one fell swoop, the lynx survey seven blew a hole in the credibility of the National Lynx Survey, toppled public confidence in the Forest Service and Fish and Wildlife Service, and raised the specter that other similar "scientific" endeavors weren't really about science at all.

While there has been a great deal of public speculation about the motives of these ethically challenged individuals, in my estimation we will never fully understand the impetus behind these unauthorized actions until several key questions are answered.

For example, why did the Forest Service biologist who first blew the whistle on this whole affair wait until his last day of employment to do it?

If the Fish and Wildlife biologist who submitted the unauthorized lynx sample from the national forest was really just trying to "test the lab," why did he withhold that information from the lab until he was called out by investigators several months later?

Why, according to the field director of the National Lynx Survey, did the same Fish and Wildlife biologist go to great pains to "hide the fact that he sent in a control sample"?

Similarly, why did the implicated Washington Division of Fish and Wildlife biologists wait for an investigation before they informed the lab about submitting an unauthorized lynx sample?

Finally, and most importantly, why did all of the involved Federal and State biologists knowingly choose to violate a scientifically valid protocol when there were other legitimate means, other legitimate means, of exploring their concerns in a manner consistent with that protocol?

These are just a few of the many questions that must be answered before we can reach any definitive judgment on the motivation question. I hope the GAO will assist us with these issues today.

Beyond these important questions, though, there are also big questions about the way the agencies handled the incidents after they occurred. Why did regional Forest Service and Fish and Wildlife officials report these incidents to their superiors in Washington, D.C. only after a congressional inquiry into the matter some 15 months after the bogus planted evidence samples were submitted?

Given the potential scope of damage that these activities could have on lynx survey data, and given the blatant nature of this ethical lapse, why in the name of common sense weren't the implicated parties subject to punishment commensurate with the gravity of their deeds? Instead, they were given bonuses by the government for their performances. The idea that verbal counseling, whatever that is, amounts to a real form of punishment, is a joke.

Finally, if these unauthorized actions were in fact serious, as all of the agencies have repeatedly said they were, why were several of these biologists given merit pay raises and special commendations and bonuses, etcetera, shortly after intentionally breaching the lynx protocol by planting evidence?

The fact that these bureaucrats got this kind of recognition while engaging in this unethical conduct is out of line. At the end of the day, it says a great deal about the cultural mind-set of these agencies. What is more, this explains why a lot of folks in the West view these agencies with an increasingly skeptical eye.

I look forward to the hearing today, and Mr. Chairman, I thank you for the time.

[The prepared statement of Mr. McInnis follows:]

Statement of The Honorable Scott McInnis, Chairman, Subcommittee on Forests and Forest Health

The CHAIRMAN.

Today, the Resources Committee will take a much needed look at the national lynx survey scandal, where seven federal and state officials are said by investigators to have knowingly planted false data on at least three occasions on two national forests in violation of a peer-reviewed, scientifically valid species survey process. These allegations, which have been substantially borne out by at least two investigations, have stoked the worst fears and suspicions of a lot of folks in the West—namely, that select federal land and resource management officials have a propensity to operate outside the bounds of sound science and good faith when making enduring decisions about the future management of our federal lands. This unsettling string of events in Washington State underscores just how susceptible so-called "science" is to the whims of ill-guided decision makers. These incidents raise very weighty questions about the way we do business on our federal lands, and for that reason I want to commend the Chairman for bringing the issue before the full Committee today.

Colleagues, the essence of public service is best summed up in a single word—trust. For those of us who spend our professional lives making decisions that affect our neighbors, our communities and the future of our country, credibility is our only currency. Whether we're talking about a Member of Congress, your local Police Chief, or a Fish and Wildlife Service biologist, trust is the coin of the realm in our line of work. Nobody expects perfection out of public officials, but when the

American people can't even expect good faith and pure motives out of its government, good decisions and constructive decision-making processes become difficult.

Based on the facts already before us regarding what transpired on the Gifford Pinchot and Wenatchee National Forests, it is objectively clear that the implicated biologists trampled the public trust when they chose to dump a peer-reviewed, scientifically authentic lynx survey protocol in favor of their own half-baked, psuedo-scientific techniques. Their actions were plainly unethical, totally unprofessional and, in my estimation, deserving of more than a token slap on the wrist. If credibility is in fact a public official's only currency, these people are dead broke.

For everyone and every agency involved, the implications of this incident have been far-reaching. In one fell-swoop, the "lynx survey seven" blew a hole in the credibility of the national lynx survey, toppled public confidence in the Forest Service and Fish and Wildlife Service, and raised the specter that other similar "scientific" endeavors weren't really about science at all.

While there has been a great deal of public speculation about the motives of these ethically-challenged individuals, in my estimation we will never fully understand the impetus behind these unauthorized actions until several key questions are answered. For example, why did the Forest Service biologist who first blew the whistle on this whole affair wait until his last day with the Forest Service prior to retiring to do so? If the Fish and Wildlife Service biologist who submitted an unauthorized lynx sample from the Wenatchee National Forest was really just trying to "test the lab", why did he withhold that information from the lab until he was called out by investigators several months later? Why, according to the Field Director of the National Lynx Survey, did the same Fish and Wildlife biologist go to great pains to "hide the fact that [he] sent in a control sample"? Similarly, why did the implicated Washington Division of Fish and Wildlife biologists wait for an investigation before they informed the lab about submitting an unauthorized lynx sample? Finally and most importantly, why did all of the involved federal and state biologists knowingly choose to violate a scientifically valid protocol when there were other legitimate means of exploring their concerns in a manner consistent with that protocol?

These are just a few of the many questions that must be answered before we can reach any definitive judgment on the motivation question. I hope the GAO will shed some light on these issues today.

Beyond these important questions, though, there are also big questions about the way the agencies handled the incidents after they occurred. Why did regional Forest Service and Fish and Wildlife Service officials report these incidents to their superiors in Washington, DC only after a Congressional inquiry into the matter some 15 months after the bogus samples were submitted? Given the potential scope of the damage that these activities could have had on the lynx survey data, and given the blatant nature of this ethical lapse, why in the name of common sense weren't the implicated parties subjected to punishment commensurate with the gravity of their deeds? The idea that verbal counseling", whatever that is, amounts to a real form of punishment is a joke. Finally, if these unauthorized actions were in fact serious, as all of the agencies have repeatedly said they were, why were several of these biologists given merit pay raises and special commendations shortly after intentionally breeching the lynx protocol and the public trust?

The fact that these malfeasant bureaucrats got a pay bump and a pat on the back after engaging in totally unethical conduct is, in my estimation, a singular outrage. At the end of the day, it says a great deal about the cultural mindset of these two agencies. What's more, it explains why a lot of folks in the West view these agencies with an increasingly skeptical eye. I look forward hearing from the Administration witnesses to find out what their plans are to remedy this brazen mindset, and to head-off similarly scandalous conduct out in the future.

It is with that Mr. Chairman that I once again commend you for convening this hearing and I look forward to hearing from our distinguished panel of witnesses.

The CHAIRMAN. Thank you, Chairman McInnis.

Members of the Committee and our witnesses here, we would like to start with you, but if you will look back and see those two lights up on the wall, that means we have a vote on. I think it would probably be best at this point, with the conclusion of your statement, that we just go ahead and make that vote, then hurry back and we will turn immediately to our witnesses. Would that be all right with everyone?

I guess no one is going to object, so we will just go ahead and stand in recess.

[Recess.]

Mr. MCINNIS. [Presiding.] The Committee is going to come back to order. We will have members that will be coming back in here. We have another vote in less than an hour, so we are going to try and cover some territory here. For the rest of the members, we will go ahead and have you submit your opening statements for the record. We will go ahead and proceed with our panels.

As you noted, in our previous opening statements somebody had a mobile phone out there. If you have a cellular phone, turn it off now. That is a real interruption. We don't want that kind of interruption in this Committee room.

With that, we will go ahead with panel one. We have got Ron Malfi—is that how we do it?

Mr. MALFI. That is correct.

Mr. MCINNIS. Good, Ron. Patrick Sullivan, who is assisting him there, and I think they also have their counsel there. Ron, I know you have got an opening statement, but then this scenario is somewhat complicated so I would kind of—we obviously will have your testimony submitted for the record, but I really am looking to you to kind of walk us through the incident so we have an understanding of the logistical—you know, how it happened logistically. So, Ron, if you would go ahead, you may proceed.

STATEMENT OF RONALD MALFI, ACTING MANAGING DIRECTOR, OFFICE OF SPECIAL INVESTIGATIONS, U.S. GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY PATRICK SULLIVAN, ASSISTANT DIRECTOR, OFFICE OF SPECIAL INVESTIGATIONS, AND BOB KRAMER, ASSISTANT GENERAL COUNSEL

Mr. MALFI. What I would like to do is, I would like to read this statement, just to give an overview of how the investigation turned out, and then any questions that you have, or anybody else on the Committee, I will answer them for you.

Mr. Chairman and members of the Committee, we are here today to discuss the investigation you asked us to undertake concerning allegations that biologists with both Federal and State agencies submitted or participated in the submission of unauthorized hair samples reported from the Gifford Pinchot and Wenatchee National Forests in response to the National Interagency Canadian Lynx Survey. The report titled "Canada Lynx Survey: Unauthorized Hair Samples Submitted for Analysis" dated March 3, 2002, released today, details our investigation, and I ask that it be made part of the hearing record.

Accompanying me today is Assistant Director Patrick Sullivan and Assistant General Counsel Bob Kramer.

The National Interagency Canada Lynx Survey was designed to determine the presence of Canadian lynx through DNA analysis of hair samples recovered from scratch pads located in forests of the northern United States. Included in the survey were the Gifford Pinchot and the Wenatchee National Forests in Washington.

The survey covered a 3-year period from 1999 through 2001, was sponsored by the U.S. Forest Service, with the assistance of the

U.S. Fish and Wildlife and the Washington Department of Fish and Wildlife. The University of Montana's laboratory performed the DNA testing of hair samples collected under the survey. If the national survey had detected Canadian lynx in an area not previously recognized as a known lynx habitat, a follow-up survey would have been conducted in that area to determine whether or not a lynx population was present.

Beginning in January 2002, we investigated the facts and circumstances surrounding the submission of the unauthorized samples to the laboratory as part of the national survey, and focused the investigation on whether the biologists involved had communications about their submissions.

In summary, there were four instances in which unauthorized hair samples not obtained from the Wenatchee or Gifford Pinchot National Forests were submitted for DNA testing as part of the national survey for those forests. These included one submission of bobcat hair in 1999 and three submissions of lynx hair in September and October of 2000.

The Forest Service, Fish and Wildlife Service, and Washington Department of Fish and Wildlife employed the biologists who made these submissions. These biologists maintain that they submitted these samples to test the accuracy of the work performed by the laboratory, although they knew that the protocol for the national survey did not provide for such action. They also stated that they did not have the authority to make these submissions, and that they were aware that they had alternatives for testing the laboratory other than submitting samples as part of the survey.

The protocol under which the survey was conducted describes the method for detecting lynx, obtaining lynx hair samples, and submitting the samples to the laboratory for analysis. The protocol did not provide procedures to submit hair samples collected outside the survey to test the accuracy of laboratory results. Further, the director of the laboratory told us that there was no procedure whereby the biologists who submitted these samples would receive preliminary results so that they could subsequently notify the laboratory of their unauthorized submissions.

In 2000, one of the participants, a biologist with the Forest Service, notified the field coordinator for the national survey that a controlled sample had been submitted in connection with the survey for the Gifford Pinchot National Forest. However, he did not identify which sample was the control.

As a result, the laboratory and the Forest Service decided not to analyze the hair samples submitted as part of the 2000 survey for the region that included the Gifford Pinchot and the Wenatchee National Forests until the Forest Service completed an investigation and identified all of the unauthorized submissions. None of the other biologists who made unauthorized submissions disclosed their actions until after the Forest Service commenced its investigation.

After the unauthorized samples were identified, the laboratory completed its analysis of the 2000 survey samples, including the three unauthorized samples. These three samples were determined to be Canadian lynx, and were the only samples submitted for analysis for the Gifford Pinchot and Wenatchee National Forests that actually tested positive for Canadian lynx.

We found that some of the individuals who participated in the unauthorized submissions had discussions about submitting unauthorized samples both prior to and after the submissions. For example, a biologist with the Fish and Wildlife Service had prior discussions with two of the three biologists who made unauthorized submissions in 2000. The biologist did not make any submissions, but participated in the collection of hair collected from a captive lynx which was the source of the unauthorized samples submitted by both a Forest Service biologist from the Gifford Pinchot National Forest and another Fish and Wildlife Service biologist from the Wenatchee National Forest.

Further, the employees of the Washington Department of Fish and Wildlife who made the unauthorized submissions did not discuss those submissions in advance with persons outside their department. They did, however, subsequent to the submissions, discuss their actions with employees of both the Forest Service and the Fish and Wildlife Service, some of whom also made unauthorized submissions.

We also found that other employees in the Forest Service, Fish and Wildlife, and Washington Department of Fish and Wildlife, knew of and/or participated in the unauthorized submissions, including some supervisors.

Mr. Chairman, that completes my prepared statement. We would be happy to respond to any questions you or other members may have at this time.

[The prepared statement of Mr. Malfi follows:]

Statement of Ronald Malfi, Acting Managing Director, Office of Special Investigations, United States General Accounting Office

Mr. Chairman and members of the Committee:

We are here today to discuss the investigation you asked us to undertake concerning allegations that biologists with both federal and state agencies submitted or participated in the submission of unauthorized hair samples purportedly from the Gifford Pinchot and Wenatchee National Forests, in response to the National Interagency Canada Lynx Survey (National Survey).

The report titled, *Canada Lynx Survey. Unauthorized HairSamples Submitted for Analysis,* dated Mar. 3, 2002, (GAO–02–338R) released today details our investigation, and l ask that it be made a part of the hearing record. Accompanying me today is Assistant Director Patrick Sullivan.

The National Interagency Canada Lynx Survey (Protocol) was designed to determine the presence of Canada lynx through deoxyribonucleic acid (DNA) analysis of hair samples recovered from scratch pads located in forests of the northern United States. Included in the survey were the Gifford Pinchot and Wenatchee National Forests, in Washington. This survey covered a three-year period from 1999 through 2001, was sponsored by the U. S. Forest Service, with the assistance of the U. S. Fish and Wildlife and the Washington Department of Fish and Wildlife. The University of Montana's laboratory performed the DNA testing of hair samples collected under the survey. If the National Survey had detected Canada lynx in an area not previously recognized as a known lynx habitat, a follow-up survey would have been conducted in that area to determine whether or not a lynx population was present.

Beginning in January 2002, we investigated the facts and circumstances surrounding the submission of the unauthorized samples to the laboratory as part of the National Survey and focused the investigation on whether the biologists involved had communications about their submissions.

In summary, there were four instances in which unauthorized hair samples not obtained from the Wenatchee and Gifford Pinchot National Forests, were submitted for DNA testing as part of the National Survey for those forests. These included one submission of bobcat hair in 1999, and three submissions of lynx hair in September and October 2000. The Forest Service, Fish and Wildlife Service, and Washington Department of Fish and Wildlife employed the biologists who made those submissions. These biologists maintain that they submitted these samples to test the

accuracy of the work performed by the laboratory, although they knew that the Protocol for the National Survey did not provide for such action. They also stated that they did not have the authority to make these submissions and that they were aware that they had alternatives for testing the laboratory other than submitting samples as part of the survey.

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In 2000, one of the participants, a biologist with the Forest Service, notified the field coordinator for the National Survey that a control sample had been submitted in connection with the survey for the Gifford Pinchot National Forest. However, he did not identify which sample was the control. As a result, the laboratory and the Forest Service decided not to analyze the hair samples submitted as part of the 2000 survey for the region that included the Gifford Pinchot and Wenatchee National Forests until the Forest Service completed an investigation and identified all of the unauthorized submissions. None of the other biologists who made unauthorized submissions disclosed their actions until after the Forest Service commenced its investigation.

After the unauthorized samples were identified, the laboratory completed its analysis of the 2000 survey samples, including the three unauthorized samples. These three samples were determined to be Canada lynx, and were the only samples submitted for analysis for the Gifford Pinchot and Wenatchee National Forests that tested positive for Canada lynx.

We found that some of the individuals who participated in the unauthorized submissions had discussions about submitting unauthorized samples both prior to and after the submissions. For example, a biologist with the Fish & Wildlife Service had prior discussions with two of the three biologists who made unauthorized submissions in 2000. This biologist did not make any submission, but participated in the collection of hair collected from captive lynx, which was the source of the unauthorized samples submitted by both a Forest Service biologist with the Gifford Pinchot National Forest and another Fish and Wild Life Service biologist with the Wenatchee National Forest.

Further, the employees of the Washington Department of Fish and Wildlife who made the unauthorized submissions did not discuss those submissions in advance with persons outside their Department. They did, however, subsequent to the submissions, discuss their actions with employees of both the Forest Service and Fish and Wildlife Service, some of whom also made unauthorized submissions.

We also found that other employees of the Forest Service, Fish and Wildlife, and Washington Department of Fish and Wildlife knew of and/or participated in the unauthorized submissions, including some supervisors.

Mr. Chairman, that completes my prepared statement. We would be happy to respond to any questions you or other members of the Committee may have at this time.

Mr. MALFI. Excuse me, sir. I forgot one thing. We have charts here that we want to put up. Pat Sullivan will give you an explanation in regards to the time line that we have concerning this investigation.

Mr. MCINNIS. Mr. Sullivan, if you would go ahead and proceed us through with the charts.

Mr. SULLIVAN. Yes, sir. The first chart is a diagram of the State of Washington—

Mr. MCINNIS. Let's see, Mr. Sullivan. We have got part of the Committee over here, too. There you are. That is much better. Thank you.

Mr. SULLIVAN. —according to the State of Washington for this investigation. The line in the middle—

Mr. MCINNIS. Mr. Sullivan, again I apologize for the interruption, but for the panel's convenience, you do have his in your handouts, so it will make it a little easier for you to follow.

Thank you. You may proceed.

Mr. SULLIVAN. Mr. Chairman, the line in the middle is the crest of the Cascade Mountains. Three national forests played a role in this investigation: the Okanogan National Forest; the Wenatchee National Forest, which stretches all the way down to Yakima; and the Gifford Pinchot National Forest.

Etonville and Union Gap are significant. Etonville is the location of the Northwest Trek zoological park, and Union Gap is the location of a captured pet lynx which came into this case. The cites of Lacey, Vancouver, Yakima, and Wenatchee are locations where employees in this investigation were domiciled or where they worked.

We had unauthorized submissions from the Gifford Pinchot National Forest and the Wenatchee National Forest. The Okanogan National Forest had positive hits during 1999 and 2000, and that is a known lynx habitat area.

I will now proceed on the time line.

In 1998 was the Weaver study which included portions of Washington and Oregon, specifically the Wenatchee National Forest and the Gifford Pinchot National Forest. In March 1999, Dr. Weaver issued his preliminary results which showed positive DNA hits for lynx in Wenatchee and Gifford Pinchot.

July 1999, for Region 6 of the Forest Service there was a National Lynx Survey training session, in which the majority of the personnel in this investigation attended this training session.

Later on in 1999, in the Fall of '99, there was an unauthorized submission of a bobcat pelt hair by a Washington State employee we have identified as State employee No. 1, and that was from the Wenatchee National Forest.

Spring of 2000, the results from the 1999 survey were released by the lab, and it showed negative DNA hits for lynx for the Wenatchee and Gifford Pinchot National Forests.

We next move on to later on in the spring of 2000. The employee who submitted the unauthorized submission in 1999, the Washington State employee, informed a Forest Service employee from the Wenatchee National Forest and Fish and Wildlife service employee No. 1 of his unauthorized submission.

Moving on, in September of 2000 we had a trip to the Northwest Trek by Fish and Wildlife Service employee No. 2 and Forest Service employee No. 1, at which time they obtained hair from a captive lynx at the zoo there. There were subsequently three unauthorized submissions during the 2000 season.

The first submission took place by Washington State employee No. 2. He submitted hair from the pet lynx that was captured in Union Gap, Washington. September and October, unauthorized submissions by Forest Service employees with hair from the Northwest Trek, and a subsequent submission by a Fish and Wildlife employee with hair from the Northwest Trek.

On September 29th, Forest Service employee No. 1 telephoned the national coordinator, field coordinator for the national survey of the Forest Service in Montana, and informed him via voice mail that there were some control samples being submitted.

On October 2nd when the field coordinator received that voice mail message from the Forest Service employee, he notified his supervisors, and the lab and the Forest Service jointly made a decision to set aside all samples from Region 6, which included Wenatchee and Gifford Pinchot, until such time as the Forest Service could conduct an investigation and identify the unauthorized submissions.

Approximately spring to summer of 2000, they completed their analysis and determined that there were negative hits from all the samples from Wenatchee and Gifford Pinchot, with the exception of the three unauthorized samples, which by that time they had identified.

And to complete the cycle, in June of 2001 Dr. Weaver issued his final report from his 1998 survey, in which he acknowledged that samples he had collected from Wenatchee and Gifford Pinchot were in fact contaminated, and he invalidated his original results.

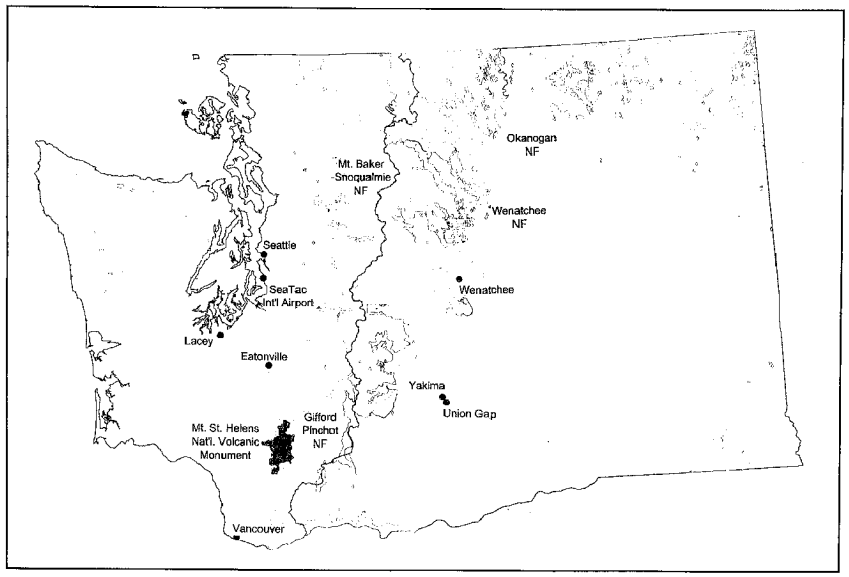
That completes my presentation, Mr. Chairman.

[The information referred to follows:]

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Office of Special Investigations

Lynx Hair Unauthorized Submission Investigation Washington



LYNX HAIR CONTROVERSY: INCIDENT TIMELINE & OVERVIEW IN BRIEF

September 29, 2000

On his last day with the Forest Service prior to retirement, a Gifford Pinchot National Forest wildlife biologist notifies the National Interagency Canada Lynx Survey (National Lynx Survey) Field Director that he and 2 other Forest Service biologists had submitted an unauthorized lynx sample to the Carnivore Conservation Genetics Laboratory (the lab analyzing hair samples collected as part of the National Lynx Survey), labeling the planted sample so as to appear it had been collected on the Gifford Pinchot National Forest. The false sample was knowingly submitted in violation of the peer-reviewed, multi-agency National Lynx Survey inventory process.

October 2, 2000

The Co-Leader of the National Lynx Survey notifies the Forest Service's Lynx Survey Regional Coordinator of the planted sample on the Gifford Pinchot National Forest. The Co-Leader of the National Survey informs the Regional Coordinator that all samples submitted from the Gifford Pinchot National Forest in 2000 would be set aside until the Forest Service spoke with the Gifford Pinchot National Forest biologist who first notified the laboratory about the false sample. The Regional Coordinator agreed to contact the implicated biologist in order to acquire more information about the Gifford Pinchot National Forest incident.

January 2001

Approximately four months after the impropriety was first reported, the Forest Service's Regional Coordinator of the survey speaks directly to the implicated Forest Service biologist for the first time. The Forest Service biologist informed the Regional Coordinator that three employees had been involved in submitting the false sample, two from the Forest Service and one from the United States Fish and Wildlife Service (USFWS). The Forest Service biologist said that the lynx sample had been taken from a captive lynx housed at Northwest Trek in Eatonville, Washington. He said that the biologists submitted a planted sample because "they had some concerns about how things were going with the survey (Lynch Investigation, p. 1)."

February 15, 2001

After preliminary investigations by the Forest Service Employee Relation and Natural Resource Office and Forest Service Law Enforcement and Investigation, the Forest Service Regional Office contracted with Stephanie Lynch of Gene Rouleau & Associates to conduct a misconduct investigation.

June 4, 2001

Lynch Investigation completed. Investigation confirms that, in addition to the false lynx samples submitted by the Forest Service from the Gifford Pinchot National Forest in 2000, phony samples were also planted on the Wenatchee National Forest by the Washington Division of Fish and Wildlife Service and the USFWS in 1999 and 2000 respectively.

According to the Lynch investigation, the lynx hair sample submitted by USFWS employees from the Wenatchee National Forest was collected at Northwest Trek by the same USFWS and Forest Service officials who collected the bogus sample eventually submitted from the Gifford Pinchot National Forest. The Lynch Investigation shows that at least three USFWS officials had prior knowledge about the submission of this false sample, all of whom later said that they were merely testing the lab to see if it was capable of identifying lynx DNA where present. None of the USFWS biologists implicated in the submission of the false sample from the Wenatchee National Forest provided any definitive indication as to when or whether they intended to notify the lab as to the presence of the fraudulent sample, which was ultimately unearthed by the Lynch Investigation triggered when the whistle was blown on the Gifford Pinchot National Forest incident. The Field Director of the National Lynx Survey told the Lynch Investigation that, with respect to the false sample submitted from the Wenatchee National Forest by a USFWS employee, "it appears that [he] was trying to hide the fact that he sent in a control sample."

Coordinators of the National Lynx Survey tell the Lynch Investigation that they were able to maintain the integrity of the overall lynx sampling effort by removing the three known false samples from the survey results. Survey officials further contend that they believe that additional falsification did not occur in conjunction with the effort. Those assertions notwithstanding, the Co-Leader of the National Lynx Survey told the Lynch Investigation that he was concerned about the residual implications of these three known unauthorized incidents, saying:

> "I am very disappointed that these individuals decided to submit totally unauthorized control samples to the lab. This type of activity jeopardizes the integrity of the survey in [Forest Service] Region 6 because it calls into question the integrity of all of the samples submitted by these individuals and possibly all of the samples submitted from the Wenatchee and Gifford Pinchot national forests (Lynch Investigation, p. 29)."

August 2001

On the heels of the Lynch Investigation report, implicated Forest Service biologists receive "verbal counseling" as punishment for submitting false

samples, in violation of the peer-reviewed interagency protocol. The implicated Forest Service employees were also barred from participating in the National Lynx Survey in the future.

December 2001

The Secretaries of Interior and Agriculture and the Washington Office of the Forest Service learn of the incidents on the Gifford Pinchot and Wenatchee National Forests for the first time, some 15 months after Regional Forest Service and USFWS officials were first notified. Senior officials within Interior and Agriculture learn of the situation only after Congressional Staff, acting on a tip from the field, requested a briefing on the lynx investigation. Absent this request by Congress, it is not clear whether the heads of the relevant Departments and Agencies would have ever learned of these clandestine activities.

At the behest of House Resources Chairman James V. Hansen and House Forests and Forest Health Subcommittee Chairman Scott McInnis, the Inspectors General at the Department of Agriculture and Interior begin their own investigation into the affair. Mr. Hansen and Mr. McInnis also request an investigation by the General Accounting Office's Office of Special Investigation (OSI). The OSI is the only investigative entity to examine each of the three implicated federal and state agencies.

March 6, 2002

The findings of the OSI's comprehensive investigation will be made public at a Resources Committee hearing entitled *Canada Lynx Interagency National Survey and Endangered Species Data Collection.*

Mr. MCINNIS. Thank you very much. We will go ahead and move on to questioning by the Committee. I will begin the questioning.

At the hearing—and Ron, I will direct this to you—at the hearing in front of the Washington State legislature earlier this year, State and Federal officials said that each of the incidents were isolated and that the three implicated agencies did not collude with one another during this process. Would you agree with that assessment? And also, how extensively did the agencies work with one another in submitting the unauthorized samples?

Mr. MALFI. There was communications between the individuals that were involved in the unauthorized samples. First, there was communication between the first State department, the Washington State Fish and Wildlife individual who sent in a sample in 1999. He told one of the U.S. Fish and Wildlife people that he submitted his sample in the year 2000.

That person had conversations with another Fish and Wildlife biologist, who also had conversations with a Forest Service biologist. The Forest Service biologist and the Fish and Wildlife biologist went up to get the samples from the lynx. They got them based on knowing that they were going to submit these to the lab as unauthorized submissions.

Basically, they had conversations about how these things were going to be sent in, whether they should be sent in as a sample or should they be sent in as part of the survey, and they have all basically agreed that they should be sent in as part of the survey. One of the Forest Service people that actually picked up the samples

gave it to another employee who actually did the submission, so there was communication among some of the individuals who were either involved in getting the samples or actually submitting the samples.

Mr. MCINNIS. And were the implicated biologists forthright and honest during your investigation? How were those interviews?

Mr. MALFI. On some of the interviews that I personally conducted, which were re-interviews, to go back to individuals to talk to them, they seemed to be very guarded in their comments that they made. The interviews lasted a period of time in order to try and elicit all of the facts that we were able to obtain.

Mr. MCINNIS. Were the biologists aware that their actions were in direct contravention of the protocol, and did they know there were other legitimate means of testing the laboratory, and that it was not within their authority to carry out this testing, so-called testing?

Mr. MALFI. Correct, and I will concentrate basically on the Federal employees. In our conversations with them, they all admitted that they knew it was not in the protocols, that they weren't allowed to do this. They all knew they had no authorization to do this, nor were they of the pecking order to actually test the laboratory.

They also stated that they knew that there was alternative methods to test the lab, as opposed to making it part of the survey. Two of the biologists that we spoke to, one with the Forest Service and one with Fish and Wildlife, really had no explanation as to why they made it part of the survey.

One Fish and Wildlife biologist did have an explanation in regards to why they felt it was imperative or was important to them to submit this as part of the survey, and they felt that if they submitted it as part of the survey, that it would be treated exactly like all the other samples; that if they flagged it as a sample, that possibly the lab would not conduct a test on it or that they would treat it differently. But they quantified that statement by saying that they realized that they could have sent in a bobcat hair or other type of hair in order to get the kind of same results in testing the lab.

Mr. MCINNIS. And did you identify any evidence that would point to the fact that Fish and Wildlife biologists would have notified the lab if not approached by investigators?

Mr. MALFI. Sir, could you repeat that question?

Mr. MCINNIS. The key I am trying to get here is, was there any evidence that these biologists would have come forward on their own, voluntarily, to tell you that there was planted evidence, Fish and Wildlife, that there was planted evidence, prior to the investigation commencing or prior to the whistle-blower? Did you come up with any evidence at all that "Hey, we're going to do a test this week, but we'll let them know next week that we put in this, we planted this test here, this sample."

Mr. MALFI. The one Fish and Wildlife biologist that was the connection between the Forest Service person and the other Fish and Wildlife biologist stated that they had no intentions of notifying the lab because they did not themselves, even though they picked up

samples, did not submit any samples. They felt that the Forest Service person was going to contact the lab.

That individual, the Forest Service person, told us that they always were going to contact the laboratory. But then we asked them why, if they were going to contact the lab and tell them that there was a false sample, "Why did you submit it as part of the survey?" And he said that the other people he spoke to, one of whom was the person who actually submitted the sample, decided they wanted to make it part of the survey.

And we asked him, you know, "Why would you allow one of your co-workers to submit this as part of the survey, when you knew that they had to falsify or make up documentation to accompany that survey, if you had intentions all along to contact the lab?" And basically he couldn't explain that away. He just stated that he always intended to contact the lab. And he was the fellow that in fact did contact the laboratory.

The 26th I believe those samples—the 19th of September the samples were picked up. The 26th I believe they sent them in. He contacted the lab on the 29th. He called, left a voice mail for someone who was the liaison for the lab, and I believe he retired the next day or so.

Mr. MCINNIS. But the Fish and Wildlife people didn't come forward. This wasn't—

Mr. MALFI. No.

Mr. MCINNIS. OK, and let me ask one final question, then we will move on. Once the unauthorized samples were submitted, was there a reasonable chance that the bogus samples could have worked their way into the survey's final data set? In other words, when these biologists sent their planted evidence in, what kind of control did they exercise over their sample? Could it have gotten into the final results?

Mr. MALFI. Well, based on the '99 submission that was sent in, that was an unauthorized submission, these were from a bobcat pelt and they could not identify it. It was "no qual" because of the DNA testing, I guess because of the tanning process that was used. And I am not a scientist, I am just giving you, reiterating what the people that we spoke to told us.

That survey, the "no qual" that came back on those samples, was in fact included in the 1999 survey. When I spoke to the director of the Montana lab, who was a co-director of the National Lynx Survey, he stated that he had heard that these people always stated that they were going to contact the lab once the submissions came in, and then they would notify, they were going to notify the lab and say that these certain submissions were, you know, unauthorized or control.

He said, "But the problem with that is, they had no vehicle to do that." He said that once these results were put together, that they would issue their survey, the results of their survey for that year, and it was like a draft was going to go to them and they would have time to make corrections and it would go back. He said there was no procedure, no vehicle in place for them to actually go back to correct that survey, so it would have been made part of the national survey.

Mr. MCINNIS. Thank you.

Mr. Inslee?

Mr. INSLEE. Thank you, Mr. Malfi. Obviously there is a great interest in knowing what the motivation for these individuals was. In other words, was it to try to boost the number of lynx samples that were identified falsely, or in fact was it in an effort to test the laboratory? And it seems to me that is very distinct motivation.

So let me just ask you some questions. I don't have a lot of time, so if you can keep your answers kind of short, I would appreciate it.

Did any of these people ever say anything like, "The reason I did this was because, you know, these lynx are there and I believe they're there, and we need to disclose it, and it's just a handy way to do it," did any of them give you any suggestion like that, that that was their motivation?

Mr. MALFI. None of the people that were involved in the unauthorized submissions ever stated anything other than the fact that they were doing this to test the lab.

Mr. INSLEE. Now, I'm trying to piece this together, but at least two of the people involved, as far as I can tell, did tell someone in the supervisory chain above them that they had done this, before Congress got involved. Is that right?

Mr. MALFI. There is some confusion in regards to that. Some individuals who basically, like one of the re-interviews we did of a Fish and Wildlife biologist who submitted an unauthorized sample, stated in his first interview that he had authorization or notified his supervisor. When we re-interviewed him, he changed that story to the fact that he told his supervisor, after the submissions, he had put them in.

Mr. INSLEE. Let me stop you on that. On that particular one, in other words, he said that he told his supervisor after he sent in the submission but before somebody in Congress raised a hue and cry about that. Did I get that right?

Mr. MALFI. I don't know. No, when he told her—well, before Congress go involved, the submissions were put in, so basically he would have told his supervisor. He submitted the samples in September, I mean October of 2000, so if he told her prior to that, it had to be sometime prior to October 2000. But he changed that as to telling her that he submitted these after he actually submitted them in.

And then other problems with the supervisor, that some did not know what the protocols were, so when they were told by one or two of these individuals that they were submitting a control sample, their supervisor didn't realize that that was not in the protocols. So they knew it, they didn't object to it, but they didn't know that this was not part of the protocol.

Mr. INSLEE. Well, maybe this is clear to everyone but me, but let me try another crack at this. My understanding is, most if not all of the individuals involved in this told somebody else that they had submitted or were going to submit a control sample before they learned of some investigation. Is that accurate?

Mr. MALFI. Oh, yes. There was discussions among certain of those individuals with others.

Mr. INSLEE. Right. Now, the reason I ask that is, and I think this is important because, you know, if these people were consciously

trying to phony up samples of lynx on this important issue, you know, that is sort of equivalent of homicide. And if they did it just to test the lab, it is something less than that, so this is an important issue to us on the Committee, I think.

It seems to me that if you were consciously trying to boost the numbers of lynx that were found, you wouldn't tell your supervisor about it. You wouldn't tell anybody about it. But these people apparently did. Would that suggest to you that they were trying to test controls as opposed to trying to boost the number of lynx?

Mr. MALFI. I can't account for what motivated these people, or being that no one told me anything other than they were trying to test the lab, I couldn't make a statement that there was other things involved. But looking at the evidence, one of the interviews that we conducted were with supervisors of some of the biologists, and there seemed to be a concern with the biologists, that the scientists were looking at the scope of the lynx habitat too narrowly, and that the biologists wanted to broaden the scope of the lynx habitat.

There was discussions about this, and the supervisors told a couple of the biologists—there was a few of them that were involved. We have one that was involved in collecting the samples up in the Northwest Trek, that was involved in producing—in this discussion, and there is some question about if there was the other person that was involved in the submission.

Mr. INSLEE. Just one more quick question, if I may, Mr. Chair.

Did one of these people keep notes, duplicate notes that disclosed that they were submitting a false or control sample? Did I read that somewhere?

Mr. MALFI. I am aware that one of the Fish and Wildlife Service biologists had a sheet. He had to falsify a sheet to submit with the unauthorized samples, so he had the original sheet which was actually part of—that he should have submitted in with the samples, because there was no hits I believe on them, and then he had another sheet that he wrote on, that said that it was a sample that he submitted.

Mr. INSLEE. Would that suggest to you that the guy kept notes showing it was false, it was a control, that in fact he was submitting it as a control, not to boost the lynx? I mean, if I was going to falsify this to try to boost lynx, would there be any reason I would keep notes showing that?

Mr. MALFI. There is two sides to that story. I mean, there is two sides to it. One is, he was the only person that was in control of those papers, and I specifically asked him that. I asked him how could he prove to me through some other person or through some other means that this was actually the intention that he had.

And in the conversation I said to him, "Hypothetically, as an investigator, how do I know you didn't prepare these papers after this investigation came up?" He couldn't respond to that. I'm not saying that he did do that. So that really doesn't clarify the situation to me.

Mr. INSLEE. Thank you.

Thank you, Mr. Chair.

Mr. MCINNIS. Ron, just real quickly before I move to the next one, I just want some clarification. If these samples would have

been accepted, then it automatically broadens the scope because it kicks into a second investigation, doesn't it, or a second opening of the lynx study?

Mr. MALFI. My understanding of the protocols, that if lynx appeared, lynx hairs appeared on scratch pads in areas where there were not known to have lynx, that a second phase of an investigation would kick off where they would do snow tracking, other types of investigation to try and reveal if in fact there was a lynx population in that area.

Mr. MCINNIS. Thank you, Ron.

Coach? I keep saying coach, out of respect.

Mr. OSBORNE. Thank you. Thank you, Mr. Chairman.

Let me clarify this a little bit. There were three agencies and seven employees involved, is that correct, directly?

Mr. MALFI. That is correct.

Mr. OSBORNE. Were there people beyond those seven who apparently either knew of, condoned, or somehow were involved in this whole activity?

Mr. MALFI. There were other people that basically were aware that the submissions had happened or were going to be sent in. They didn't actively take part in either the gathering of the hairs or the actual submissions. Some of them knew about it and didn't realize that this was not part of the protocols.

Mr. OSBORNE. Would you say that there were others who knew about it, who did know it wasn't part of the protocol?

Mr. MALFI. That is correct.

Mr. OSBORNE. And would you have a rough idea how many there would be?

Mr. MALFI. I know right off the top of my head of one who was a supervisor for the first—the Washington State was the first sample that was submitted in '99. That person's supervisor found out about that later on, and realized it was an unauthorized submission, but felt that basically due to the fact that it was bobcat hair that was sent in and it wasn't identified, that there was no problem in it.

Mr. OSBORNE. Well, I am kind of a stranger to government. I haven't been here very long. But it seems like most organizations I know about, and the past organization I was involved with, if you violated protocol or if you knowingly approved of someone or did not turn somebody in who violated protocol, you were directly implicated and you were responsible. I may be asking an unfair question, but do you feel there are others beyond these seven who bear some responsibility for what happened?

Mr. MALFI. Basically, we had a short time in which to do this investigation, and we concentrated on the issues at hand. We looked closely at the people that were involved in the submissions of these unauthorized samples and a little bit of the surrounding area. We didn't broaden the scope of this investigation to encompass everybody that was involved or to see how much involvement they had and what their motivations were, things of that nature.

Mr. OSBORNE. Would it be possible for you to provide a list of individuals that you felt were knowledgeable to the Committee, and not necessarily implicate them in terms of what their motivation

was, but simply people who were aware beyond the seven individuals? Would you be able to provide that to us?

Mr. MALFI. Yes, I believe that we could do that in private, yes.

Mr. OSBORNE. I would appreciate that. And again, you know, I guess in this politically correct society we are not supposed to pass judgment on anybody, but I can't imagine in corporate America—or maybe we can now with Enron—or even in college athletics, which sometimes has a black eye, that something of this type could be done and verbal counseling would be the only remedy. It is just incomprehensible to me, because in most areas that I know of this would be grounds for dismissal, regardless of motivation.

Let me just ask you one or two other brief questions here. What was the attitude of agency biologists toward the DNA lab at the University of Montana? Do you know what that was?

Mr. MALFI. Their feelings toward the lab in Montana?

Mr. OSBORNE. Right.

Mr. MALFI. Some of the field biologists that we spoke to, and the reasons that these people stated, that they gave for doing this, was that they felt that the lab may not be able to correctly identify lynx here. So I guess they felt that the lab would have a problem or wouldn't be able to accomplish what the survey was setting out to do.

Mr. OSBORNE. And one last question: Did any of the concerned employees, to your knowledge, attempt to contact the Montana lab or contact the U.S. Fish and Wildlife forensics lab in Ashland, Oregon to address their concerns?

Mr. MALFI. What I understand, this is from interviewing the director at the Montana lab, was that early on in the survey he had heard some rumors that some of the biologists may be suspect of some of his protocols or the ability of the lab to perform this function.

He said that he told the individual that, you know, if there was a concern, that he would walk anybody through and show them the protocols and explain to them how they did the testing. He says that individual never came back to them to take him up on his offer.

He also stated that he never heard from anybody of an official status, from either Fish and Wildlife or the Forest Service, that had a concern about that, you know, had a concern about the lab not being able to perform its job. And he said if someone would have come to him, he says he would have walked him through his protocols.

I mean, like I said earlier, I am not a scientist, but the individual I spoke to is. He is the director of that lab. And he said that he would have had no problems, you know, explaining these protocols, and felt that they would stand up under scientific scrutiny.

Mr. OSBORNE. Thank you, Mr. Chairman. I yield back.

Mr. MCINNIS. Mr. Gallegly?

Mr. GALLEGLY. Mr. Chairman, thank you for yielding. First of all, I apologize for getting back. I have just come from a meeting with the President of Luxembourg, or the Prime Minister of Luxembourg, as the Chairman of the Subcommittee on Europe. I concurrently have a markup in Judiciary. So I would ask unanimous consent that I have an opening statement placed in the record.

Mr. MCINNIS. Without objection, so ordered.

Mr. GALLEGLY. Thank you, Mr. Chairman.

[The prepared statement of Mr. Gallegly follows:]

Statement of The Honorable Elton Gallegly, a Representative in Congress from the State of California

Mr. Chairman, State and federal biologists committed fraud by submitting false hair samples as part of the National Interagency Canada Lynx Survey. Interior Department Inspector General Earl Devaney stated in a report last week that the Fish and Wildlife Service failed to provide "meaningful punishments" for the Fish and Wildlife employees who were involved in submitting the false samples.

Not only weren't they punished, they were rewarded with merit raises for their work on the survey. To make matter worse, a cash award was given to the employees involved. Mr. Devaney called this "an incredible display of bad judgment." I call it outrageous.

The scientists at the lab at the University of Montana had no way of knowing that the lynx hair samples they had received were not valid and the false data could have easily been included in the study's final conclusions. Consequently, this may have had an impact on the management of our federal lands.

The designation of habitat where none exists can have a significant negative impact on the lives of farmers, businesses, and families who depend on the land in the habitat area. In addition, it can have an even greater detrimental impact on the economy.

Mr. Chairman, the Endangered Species Act was meant to protect and restore threatened and endangered wildlife. However, it is clear that the act also empowers overzealous bureaucrats to violate scientific protocols to further their agendas and pay no penalty for it. In such cases, both the environment and the public's faith in the government suffers.

Mr. MCINNIS. Thank you. Mr. Udall?

Mr. TOM UDALL. Thank you, Mr. Chairman.

One of the issues here that I think that you have talked about and touched on a little bit, that I would like to explore with you, is if these samples were accepted as true samples, I want to explore with you a little bit of what the result would have been.

There is some suggestion out there that if they were accepted as true samples, that somehow this would have been an automatic shutdown of areas, that there were going to be very drastic consequences as a result of this. And so my question is, isn't it true that even if these samples were accepted, that what we are talking about in order to have any drastic land use actions taken is another two or 3 years of additional studies where you do a snow tracking study, you do a three-level study, you would do all of the things that really are necessary to make further determinations on whether a species is actually in the area?

Mr. MALFI. Yes, that is correct.

Mr. TOM UDALL. The other thing I want—

Mr. MCINNIS. Would the gentleman yield?

Mr. TOM UDALL. Well—

Mr. MCINNIS. I will give you some additional time.

Mr. TOM UDALL. Can you give me—OK—can you give me additional time?

Mr. MCINNIS. Yes, I will give you a few seconds, Mr. Udall.

Mr. TOM UDALL. Go ahead.

Mr. MCINNIS. Let me ask the question—

Mr. TOM UDALL. I have such limited time, Mr. Chairman, but if you are going to—

Mr. MCINNIS. Well, now you are taking away from your own time.

Ron, just to finalize that question, who conducts the additional study, that second stage of the investigation, for example? Could it go back to the same biologist that conducted the first investigation?

Mr. MALFI. That is correct, it possibly could, yes.

Mr. MCINNIS. Thank you.

You may proceed with your additional time, Mr. Udall.

Mr. TOM UDALL. And isn't it also true that by having additional study, that further levels of scientists and others could begin to look at that and have a review process on that, if some drastic actions like automatic shutdowns in an area were going to occur?

Mr. MALFI. I am really not the one to, because I am not an expert on what the follow-up protocols were going to be. The only thing I do know is what you said earlier was correct, that if these samples would have gone through, this would have kicked off the second phase of an investigation, and that they would have done some snow tracking and other things to, I guess, determine if there was a lynx population there. From what I understand, it could last maybe 2 years, they could go in in the winter, look for snow tracking. If they didn't come up with anything, or did, they would maybe put out the pads again. But we really didn't delve into, other than the fact that these samples, if they went through, would kick off another phase of an investigation.

Mr. TOM UDALL. OK. Thank you.

Mr. MALFI. You are welcome.

Mr. TOM UDALL. One of the, I think, very unfortunate results that has come out of this, and it is part of our system, when we have the press get into things and you look for the worst possible case. And we need to do that, and I think it is important to explore, but I think we are at the point now where we ought to be trying to make the record clear and seek the truth.

And it seems to me that to cast aspersions that all of the scientists in the government do this kind of thing, to talk about this being the tip of the iceberg, that this is something rampant throughout the Federal Government, did you see this as some kind of widespread problem throughout the Federal Government with its scientists, that you are telling us about here today?

Mr. MALFI. We looked at this one isolated investigation. We didn't broaden our scope to see if it was a system problem. We just concentrated on the issue, the investigation that we had at hand.

Mr. TOM UDALL. Was there anything that you saw in your investigation that would lead you to believe that this is a widespread problem?

Mr. MALFI. It is hard to reach that conclusion because I didn't do an investigation with that in mind. I basically did it to concentrate on the issue at hand.

Mr. TOM UDALL. But usually you are in a position, aren't you, when you do an investigation, to make some kind of determination like that so that an additional study, additional GAO study can be opened up, or others can follow paths and figure things out?

I would think that is a kind of a judgment. Although you don't make it in the conclusion, you would clearly, your group and your supervisors, if you thought there was a big problem out there,

wouldn't you be telling people that and saying, you know, this isn't an isolated incident, we believe it is a much bigger problem?

Mr. MALFI. In order to see if this is a systemic problem, we would have to do a lot more investigation and broaden the scope, not only of the lynx but into other practices in other studies, and we just didn't do that, based on the time constraint, and that wasn't what we were requested to do at that time.

Mr. TOM UDALL. OK. Well, I know, and I can understand that you don't want to speculate on that, and that we are at a part in this process where we have other witnesses that may well be able to talk about that. So thank you very much, and Mr. Chairman, thank you for the additional time. I very much appreciate it.

Mr. MCINNIS. Mr. Duncan?

Mr. DUNCAN. Mr. Chairman, first let me thank you and Chairman Hansen for calling this hearing, and I want to say that I agree with Chairman Hansen that this does raise into question other facts, reports, studies that have come out, that many people have felt have shown a very strong bias toward greatly limiting or restricting the public's access to many of our national parks and public lands of all types. And so I think this is a very important hearing, and something that we really need to look into.

And contrary to something that our friend Mr. Inslee said a few minutes ago, he said something to the effect that this showed that the system was working and that it was set up in a way that this would be brought out. I think it is just a fluke that we discovered this at all, because it apparently was reported by a man who was retiring the next day.

I believe that common sense tells that if he had not been retiring, and he would have faced ostracism or repercussions if he had reported this type of thing if he still had several years of employment left, it probably never would have been reported. We are just fortunate that he was near his retirement, I suppose.

But what really boggles my mind is the fact that some of these employees involved were given bonuses after this had come out. Coach Osborne mentioned about a violation of protocols, and that is the polite way to put it, but to falsify information of this significance, which could have led to some pretty drastic actions being taken, I think I agree with him when he said a lot more than verbal counseling should have taken place.

The Washington Times had an article this past Saturday, and the Inspector General for the Interior Department—or the story said the employees were given a salary bonus after it was discovered they had violated the study protocol, and the Inspector General said, "Awarding the involved employees with monies and specifically praising their work on the lynx study so soon after the incident is not only an incredible display of bad judgment, but also highlight's FWS's"—Fish and Wildlife Service's—"excessively liberal award policy and practice which the OIG has criticized in the past." And that is a statement by Earl DeVaney, the Inspector General of the Interior Department.

There seems to be—you know, the Federal Government has many, many, many good, dedicated, hardworking employees, but it seems to also have many employees who seem to feel or know that they can get away with almost anything, and that they don't suffer

repercussions as they would if they were in the private sector. And I think that a lot of us—that there needs to be a lot more concern about that.

I do have one question that the staff has asked that I ask, and I think it is an important question. What was the basis for the biologists not trusting the validity of the lab? Did they have some basis for mistrusting the lab?

Mr. MALFI. One of the things that seemed to be a common thread was the Weaver study. They felt that the fact that the Weaver study in '98 came out with hits in areas where there was never any lynx known to be before, supported their belief that there was probably lynx in that area. Then when they got their 1999 results back on the survey, which were all negative, I guess it started to raise some concerns about the—

Mr. DUNCAN. So they were going to do whatever they needed to do to support that earlier study.

Mr. MALFI. Well, I am not saying that.

Mr. DUNCAN. But I understand that Dr. Weaver later recanted or changed some of his opinions from his '98 study.

Mr. MALFI. Right. At the time when the results came out, were furnished to them, of their '99 survey, they didn't know at that time that the Weaver study was tainted, so they believed that it was an accurate study. How much concern? I have heard both sides of the coin on that.

Some said that there was—the Weaver study raised a lot of concern. I have heard the fact that when the results of the Weaver study came out, that that raised concern because everyone knew that there were supposedly no lynx there, and all of a sudden the Weaver study has it, so that drew some people's concern about the Weaver study.

The fact that the Weaver study had hits in it in '98, they didn't have hits in '99, raised concerns about their '99 survey.

Mr. DUNCAN. Mr. Chairman, my time is up. Let me simply say that we may need, if these agencies are not going to take appropriate action to reprimand people who falsify information and do other things that they definitely shouldn't do, perhaps we should include in legislation at some point requirements that these agencies discipline, in a significant, meaningful way, people who do things like this.

Thank you very much.

Mr. MCINNIS. Well, Mr. Duncan, they did take action. They gave them bonuses.

Mr. Walden?

Mr. WALDEN. Thank you very much, Mr. Chairman. I want to just put this back in focus on your report, make sure I understand it clearly. The people involved knew they did not have the authority to make these submissions, correct?

Mr. MALFI. Correct.

Mr. WALDEN. There were other alternatives for testing the lab and the protocols.

Mr. MALFI. They knew that there was other alternatives.

Mr. WALDEN. And they knew that, correct?

Mr. MALFI. Correct.

Mr. WALDEN. There was no procedure whereby the biologist who submitted the samples would receive preliminary data results back.

Mr. MALFI. From the lab?

Mr. WALDEN. From the lab.

Mr. MALFI. That is correct.

Mr. WALDEN. And so they, according to your report, they could never have known what happened to the data they submitted. Well, not never known. Let me rephrase that, because my point is, they submit this, it goes off into the lab and they don't get a preliminary report, so they don't know. They have sort of lost control of it at that point, haven't they?

Mr. MALFI. That is correct.

Mr. WALDEN. All right. And then you say none of the other biologists who made unauthorized submissions disclosed their actions until after the Forest Service commenced its investigation.

My question is this, because I am not here to apologize for their actions. I find it reprehensible what these people did and how the agency has conducted itself. It is almost akin to, I remember the old ABSCAM deal. Remember Judge Kelly, after he took the money, I think he was down in Florida, patted himself, said, "Does it show?" And then when asked, when he got caught, he said, "Oh, I was conducting my own investigation."

You know, it is equivalent to having Mohammed Attah, if he had gotten caught, say, "Oh, I was just checking airline security." I mean, isn't the criminal mind like that in a way? After you are caught, you suddenly have a different view of what you were doing?

You don't have to comment on that, but my question is this: What are the costs? How much have taxpayers spent for this fiasco? Did you look at any of that?

Mr. MALFI. No, we didn't look into the cost of it.

Mr. WALDEN. Is Dr. Weaver doing any other work for any other agency?

Mr. MALFI. That I don't know of.

Mr. WALDEN. Why are the names not public? Is that a prohibition somewhere? Do we know who these biologists are?

Mr. MALFI. Well, it has been a long-standing policy of GAO that we don't put names of individuals in the public domain.

Mr. WALDEN. Were there any laws broken by these individuals?

Mr. MALFI. I would have to look and see. I didn't look into that end of it, to see if there was criminal prosecution or if there was Federal laws that were violated.

Mr. WALDEN. Is that something the agency would look at?

Mr. MALFI. Yes, the agency would look into that. The IG's office.

Mr. TOM UDALL. Would the gentleman yield?

Mr. WALDEN. If I can get more time.

Mr. TOM UDALL. Mr. Chairman, just to clarify a point here, I mean, my understanding is, on the point you are asking, the Interior Department IG report was released on March 1, 2002, and stated that "We found no evidence of criminal intent and prosecution was declined by the Justice Department. However, we did uncover a pattern of bad judgment, an absence of scientific rigor, and several troubling policy issues. In addition, parts of the story told by the FWS biologists stretch credibility."

That is to give you a little information.

Mr. MALFI. Right. That helps. Thank you. I appreciate that, and I will, I will ask the agency about that.

I guess I get back to your map too showed just Washington State, but my understanding is as part of the proposed listing of the lynx as threatened species, they listed 16 States including my own in Oregon, even though in 96 years there have only been 14 sightings, potential sightings of lynx. And so this isn't necessarily something you are doing, but to make it appear as though we are not affected, I can tell you on the ground we are affected because of lynx habitat issues related to all this discussion about whether or not there is lynx.

Does the GAO have any further investigative ideas for us? Do you need to go further, based on what you found?

Mr. MALFI. I believe the issue area is looking to certain policies and procedure issues in regards to not just the lynx case, but certain policy and issues I think that are conducted by maybe the Forest Service and the Department of Interior. We are from the Office of Special Investigations. We were called in to look at a specific case.

Mr. WALDEN. I understand. I understand. All right.

Well, as you can imagine, Mr. Chairman, out in our part of the world, when you start with this base science, every decision from there on is predicated on it, and there is virtually no way to ever go back and check it unless you have outside peer review. And that is where I wish my colleague and friend from Washington were still here, Mr. Inslee, because if there was ever a case for having outside peer review of data, this is it, and the situation in the Klamath Basin screams for an independent peer review to catch things like this and the decisions that were made in the Klamath Basic, which the National Academy of Sciences has since said were not predicated on sound science.

Thank you, and thank you for the work your folks have done. Thank you, Mr. Chairman.

Mr. MCINNIS. Mr. Walden, I might add that I have the names of the individuals, which I would be happy to supply to you. I have received them from other sources outside the agency, and I intend to enter them into the record, commend them for their bonuses, maybe.

Mr. Tancredo?

Mr. TANCREDO. No questions, Mr. Chairman. I hope we can get to the agencies, for which I have many questions.

Mr. MCINNIS. Mr. Gilchrest?

Mr. GILCHREST. Thank you, Mr. Chairman.

Just briefly, do you have a sense—I am trying to wrestle with the issue. Being from Maryland, I don't get heavily involved in the issues that take place in the Western States, although I hope as we go through this process, as Mr. Walden has said, talking about peer review of a great deal of research, good peer review, so that we can figure out a way to preserve habitat for us and the lynx. I would hate to be the last generation to know that there were lynx somewhere out there in the distant past.

The samples that were submitted to the lab, from what you understand now, what was the purpose for submitting those samples to the lab?

Mr. MALFI. Of all the samples?

Mr. GILCHREST. The biologists submitted these unauthorized samples. The lab didn't know they were unauthorized, I guess.

Mr. MALFI. That is correct.

Mr. GILCHREST. What was the purpose of the biologists submitting the unauthorized samples to the lab?

Mr. MALFI. Well, we didn't uncover what their exact motivation was. They told us it was to test the laboratory. There are other factors that could lead to, you know, possibly the other side of the coin. We don't know what their motivation was. We just looked at the facts and tried to get the evidence together as to exactly what happened.

Mr. GILCHREST. You said earlier, at least I thought you said that the possible, one of the possible outcomes of these unauthorize submissions would have been an expansion of the study area for the habitat of the lynx.

Mr. MALFI. That is correct. From what I understand, the protocols for the National Lynx Survey is that if hairs were found in an area that there was no known lynx, that this would kick in the second phase of an investigation that would encompass things like snow tracking and other means.

Mr. GILCHREST. This might be a question for the next panel, but is there, if you don't find any hair samples, let's say, for example, and they did not or would not submit unauthorized samples to the lab, was there any other method that your are aware of that they could have expanded the study area for the habitat for the lynx without doing what they did?

Mr. MALFI. You mean, you are saying is there anything else that would kick the second phase of a larger investigation in, except for the—

Mr. GILCHREST. Well, not an investigation necessarily, and this might be for the next witness. I was just wondering, do biologists have an alternative approach to expanding an area for study, rather than finding samples of what they want to study there?

Mr. MALFI. I don't know that.

Mr. GILCHREST. Thank you, Mr. Chairman.

Mr. MCINNIS. Mr. Pombo?

Mr. POMBO. Thank you, Mr. Chairman. Just to follow up on Mr. Gilchrest's question, the area was being studied.

Mr. MALFI. That is correct.

Mr. POMBO. You know, they were studying the area. What they were doing was, they were attempting to justify that the lynx were there. I know you are not coming to that conclusion—

Mr. MALFI. Yes, I can't go to that conclusion.

Mr. POMBO. —but they were studying the area. It is not that they were just trying to be good soldiers and look at a different area. They were studying it.

Let me ask you this. You said that several or a couple of these guys told their supervisors that they had submitted false samples. Why did their supervisors not do anything about it at that point?

Mr. MALFI. From what I can remember, one of the supervisors felt that the '99 sample, it was bobcat hair, came back as "no qual," I guess in their mind they justified that it didn't really do anything

with the survey one way or the other, so they decided not to make it known.

Some of the other people that were at the time in a supervisory position did not know that—and these people didn't go in and ask for permission, like "Can I do this?" It was like, "I'm going to do this," and these people weren't familiar with the protocols or the survey, and they assumed that this was just—

Mr. POMBO. Let me stop you. Did they say, "I'm going to do this" or "I did this"?

Mr. MALFI. Well, in one of the cases the person, the supervisor, did not know when it took place. But in recounting her statements, what the fellow told her was that "I am sending these samples in," so you have to assume that maybe it was before he sent them in.

When we spoke to that person, they recanted and said, "I never asked for permission, and I told my supervisor after I sent them in." So we went back to the supervisor. They still were unclear as to when it took place. But the other person that stated that they advised their supervisor, that person didn't know about the protocols.

Mr. POMBO. They didn't know about the protocols, so from what you are telling me, I would assume that they weren't sure if it was OK to submit false data?

Mr. MALFI. That is correct. They didn't know—

Mr. POMBO. You are kidding, right?

Mr. MALFI. Excuse me?

Mr. POMBO. You are kidding, right?

Mr. MALFI. No, they did not realize that a false submission was not part of a protocol. Some protocols, from what I understand, have built in, at the beginning of the survey, ways that you can send in a control sample to the laboratory. Sometimes you can send them in, sometimes you can't, but whatever the situation is, from what I have been told, it has to be established up front.

Protocols for this survey, it was established that there were going to be no test samples sent in. Some other surveys may allow for test samples. The person that was in a supervisory position wasn't aware of the protocols, that you couldn't send them in, so therefore when they heard that the employee was sending it in, it didn't raise a red flag to them.

Mr. POMBO. I find that interesting, that the supervisors didn't raise a red flag when they said that they were submitting false samples. But as part of this you stated that you are not aware of any reason why they would have been testing the lab, that there were no problems that you are aware of with the particular lab that would lead them to believe that they should proceed with this kind of false sample.

Mr. MALFI. We didn't pull back all the layers concerning the lab itself. What we did was, we interviewed the people that were involved in these submissions and some of their supervisors, and we found that there was a tone amongst some of these biologists that they had some skepticism about the lab. When we spoke to the people at the lab, we raised this, and they were aware of it.

And they said, "Look, bottom line is, if anybody really had a problem, I would have walked them through the stages, put their concerns at ease. I have tested these things. I know that the proto-

cols are accurate. No one came to me and asked me to do this, nor did anybody officially from either agency come to me and say, hey, we hear there's a problem. Let us, you know, put this at ease and walk us through the system."

So were there any legitimate concerns about the lab being not able to do their work? We didn't look into that. We didn't look into, you know, how good they were able to do their job. This is based upon what people told us that were involved in the scenario.

Mr. POMBO. Thank you, Mr. Chairman.

Mr. MCINNIS. Thank you. Mr. Malfi, Mr. Sullivan, I appreciate the time you have given us today. In consideration of the quick period of time you had to put this investigation together, I think you have done a commendable job,so thank you for your testimony.

Mr. MALFI. Thank you.

Mr. MCINNIS. We will now call our second panel up. The Honorable Mark Rey, who is the Under Secretary of the USDA, Natural Resources and Environment; and Steven Williams, Ph.D., Director, U.S. Fish and Wildlife Service, Department of Interior. And by the way, for the panel's interest, Mr. Williams has been on the job for exactly 1 month, so this is probably his first appearance before our panel. I offered him some Tylenol but he thought he could handle it. They will also be accompanied by Tom Thompson, who is the Deputy Chief, National Forest System.

Mr. Rey, why don't you start us out, and then we will go to Mr. Thompson.

STATEMENT OF MARK REY, UNDER SECRETARY FOR NATURAL RESOURCES AND ENVIRONMENT, U.S. DEPARTMENT OF AGRICULTURE, ACCOMPANIED BY TOM L. THOMPSON, DEPUTY CHIEF, NATIONAL FOREST SYSTEM; AND STEVEN A. WILLIAMS, DIRECTOR, FISH AND WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR

Mr. REY. Thank you. Mr. Chairman and members of the Committee, and thank you for the opportunity to appear today along with Tom Thompson, to my left, and Dr. Kevin McKelvey, an research scientist at the Forest Service's Rocky Mountain Research Station. Dr. McKelvey will appear on a later panel, but he will also be available to assist us in responding to questions.

I would like to defer initially to Mr. Thompson to review the circumstances that bring us here today, and then I will offer a few brief concluding remarks prior to Mr.Williams, so as to not unnecessarily delay the expected horsewhipping. Before, however, we turn to Mr. Thompson, I suppose you were going to tell me you have got a vote here.

[The prepared statement of Mr. Rey follows:]

Statement of Mark Rey, Under Secretary for Natural Resources and Environment, U.S. Department of Agriculture

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to appear before you today along with Mr. Tom Thompson, Deputy Chief for National Forest Systems of the Forest Service and Dr. Kevin McKelvey, Research Scientist at the Forest Service's, Rocky Mountain Research Station. Dr. McKelvey will also offer testimony on a later panel.

I would like to defer to Mr. Thompson to review the circumstances that bring us here today. Then I will offer a few brief, concluding remarks so as to not unneces-

sarily delay the expected horsewhipping. Mr. Thompson, Dr. McKelvey, and I will be available to respond to questions.

The events described by Mr. Thompson have engendered considerable consternation. They present us with specific management challenges that we will meet. More broadly, however, they raise two serious questions which go beyond the facts of this particular event.

First, the events described by Mr. Thompson achieved such resonance because they apparently ratify a suspicion held by some about the use of scientific information in resources decision-making—that is, information is manipulated under the guise of dispassionate expertise to achieve desired, or even predetermined, outcomes. This did not occur in this instance, but the rush to judgment that it did should serve as a warning signal to us.

Second, these events highlight a myth that has grown up in the midst of natural resources decision-making. The myth is that "good science" can, by itself, somehow make difficult natural resource decisions for us, and relieve us of the necessity to engage in the hard work of democratic deliberations that must finally shoulder the weight of those decisions.

In the case of endangered species issues, this myth has been, in my opinion, carried to an extreme. There is a perception that a limited number of people, with similar or identical expertise, and without much outside scrutiny, use sometimes extremely limited scientific data—even though they may be the best data available—to render decisions. These decisions trigger legally automatic results that, increasingly, have sweeping social and economic impacts.

It would be counterproductive to dwell on the facts of this specific case without trying to learn how to use science more wisely in the complex political milieu that surrounds issues like endangered species recovery. Rather than meeting out punishment, the broader management challenge is to enlist biologists as partners in developing policy and gaining congressional and public support for federal land management decisions.

A second challenge is one that we must share—that is, to review and streamline the entire natural resources decision-making process, with scientific accuracy, accountability, accessibility, trust-building, and efficiency as our goals. This will also give higher value to the knowledge of scientists as we apply their expertise in real-time decisions.

These are problems that the Chief of the Forest Service and I have acknowledged before this committee, and are committed to working with the committee to resolve.

Thank you.

Mr. MCINNIS. Well, what we are going to do is, we don't have to leave for 10 minutes, but we have a 15-minute vote following the first vote, which means when we do leave we are going to be gone about 25 minutes. So if you could keep it within our 5-minute time allotment, we can cover both of you and then recess for 20 minutes or so, and then come back and start again. So if we can keep it as brief as possible, it is helpful.

Mr. Thompson?

STATEMENT OF TOM L. THOMPSON, DEPUTY CHIEF, NATIONAL FOREST SYSTEM

Mr. THOMPSON. Thank you, Mr. Chairman and members of the Committee, for this opportunity to appear before you today to talk about the National Canada Lynx Survey. My name is Tom Thompson, Deputy Chief, National Forest System, Forest Service.

In late September 2000, a Forest Service employee called the lynx survey coordinator to report that he and some co-workers on the Gifford Pinchot National Forest had sent an unauthorized hair sample to the survey coordinator. The stated purpose was to test the DNA process for detecting lynx.

A subsequent investigation by the Forest Service revealed that three of the agency's employees were involved. The investigation also determined that two additional unauthorized samples of lynx

hair were submitted by two U.S. Fish and Wildlife and two Washington State Department of Fish and Wildlife employees, and labeled as having come from the Wenatchee National Forest.

These actions have threatened the credibility of the Forest Service and other science-based agencies. Under the leadership of Chief Dale Bosworth, the Forest Service has acted aggressively to sort out what happened, to identify problems, to restore its integrity, and to assure that information associated with the National Lynx Survey is sound.

Because of its conservation status and a proposal to list lynx as threatened species in 1998, there was a group of internationally recognized scientists specializing in lynx biology and ecology that did an analysis and summarized the best scientific information about lynx. With their knowledge, they put together four separate documents, a Lynx Science Report, a Lynx Conservation Assessment, a Lynx Conservation Agreement, and Lynx Biological Assessments.

The Fish and Wildlife Service issued a final rule to list the lynx as threatened under the Endangered Species Act on March 24th, 2000. Primarily, this was because of the inadequacy of existing regulatory mechanisms, specifically the lack of guidance for lynx conservation in our Federal land management plans.

Since then, planning efforts have begun to incorporate the lynx conservation measures into forest plans. All the amendments and revisions propose management direction for lynx, and are based upon conservation measures recommended by the Lynx Conservation Assessment and Strategy.

The National Lynx Survey is being used to document current distributions of lynx, and will be used to refine habitat mapping, because we recognize that all potential habitat is not occupied. In 1999, the Forest Service began this 3-year nationwide survey of habitat to better identify the presence or absence of lynx or lynx populations. Dr. McKelvey will describe this effort on the next panel.

Following the Forest Service investigation, a number of actions have taken place. Forest Service employees responsible for submitting the unauthorized samples, except for the retired employee, have been made aware of the seriousness of their actions. None of the employees involved in submitting unauthorized samples from the three agencies have been allowed to participate in any more lynx survey efforts.

When Chief Bosworth became aware of the unauthorized samples, and in light of the continuing questions about the survey, he asked the USDA Inspector General to look more fully into the allegations of the unauthorized samples. That ongoing investigation, which is still ongoing, may ultimately indicate that further action is warranted by agency managers.

The Chief recently directed that the already existing Forest Service Code of Scientific Ethics be applied to all Forest Service employees, agency partners, and cooperators who participate in research funded with Federal research appropriations. The administration and the Congress have been adamant that information collected and used by the Federal Government should be top quality. The

importance of professional conduct and ethical behavior is being emphasized with employees at meetings and in training modules.

The research scientists did not include the unauthorized hair samples in survey data. Based on these factors, the research scientists believe that they can verify the scientific authenticity of the National Lynx Survey. Let me be clear: The unauthorized samples have been excluded from the survey.

In summary, Mr. Chairman, we know unauthorized samples were inappropriately submitted by employees. We know that the integrity of the National Lynx Survey has been questioned. However, the scientists believe that the study remains valid. No land management plans have changed because of the unauthorized lynx hair samples. The Forest Service Code of Scientific Ethics now applies to all Forest Service employees, partners, contractors, that work on Forest Service research.

We regret this incident and the actions of a few agency employees. Although the unauthorized samples were detected and did compromise the validity of the lynx survey, such situations call into question the Forest Service integrity. The Forest Service is a science-based organization, and any efforts to collect information and data and communicate that resource information must be conducted to professional and ethical standards of the highest order and within established scientific protocols.

Mr. Chairman, that concludes my statement.

[The prepared statement of Mr. Thompson follows:]

Statement of Tom L. Thompson, Deputy Chief, National Forest System, U.S. Department of Agriculture

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to appear before you today to talk about the National Canada Lynx Survey. My name is Tom Thompson, Deputy Chief National Forest System, Forest Service. Today, I am accompanied by Kevin McKelvey, Research Scientist at the Forest Service's Rocky Mountain Research Station, who developed protocols for the National Lynx Survey and who will testify on a later panel.

In late September, 2000, a Forest Service employee called the lynx survey coordinator to report that he and some co-workers from the Gifford Pinchot National Forest sent an unauthorized lynx hair sample to the survey coordinator. The stated purpose was to test the DNA process for detecting lynx. A subsequent investigation by the Forest Service revealed that three of the agency's employees were involved. The investigation also determined that two additional unauthorized samples of lynx hair were submitted by two U.S. Fish and Wildlife Service and two Washington State Department of Fish and Wildlife employees, and labeled as having come from the Wenatchee National Forest. A number of other employees of the three agencies knew about the activities but did not report them.

These actions have threatened the credibility of the Forest Service and of other science based agencies. Under the leadership of Chief Dale Bosworth, the Forest Service has acted aggressively to sort out what happened and identify problems, to restore its integrity, and to assure that information associated with the National Lynx Survey is sound. Today, I would like to give you background about the lynx, describe the lynx conservation efforts underway, and describe the design of the National Lynx Survey. Lastly, I will touch on the ongoing investigations and actions that have been taken to date.

Background

The Canada lynx is a medium sized member of the cat family, noted for having long ear tufts and large feet that are highly adapted for hunting in deep snow. Lynx feed primarily on snowshoe hares, a type of rabbit.

The historical range extends from Alaska across much of Canada, with the southern extensions into parts of the northwestern United States, the Great Lake states, and New England. Within the contiguous United States, the distribution of lynx is associated with subalpine coniferous forests in the West and primarily mixed conif-

erous/deciduous forests in the Great Lakes and East. Lynx habitat occurs primarily on National Forest System and Bureau of Land Management lands in the West, and lynx has been a rare species for several decades.

Lynx Conservation

Because of its conservation status, and a proposal to list lynx as a threatened species in 1998, land managers and scientists realized that there was a pressing need to know more about the ecology of the lynx. A group of internationally recognized scientists specializing in lynx biology and ecology did an analysis and summarized the best scientific information about the lynx. A team of Forest Service, Bureau of Land Management, Fish and Wildlife Service and National Park Service managers and researchers convened to identify how to better manage for the conservation of lynx on federal lands. The effort also included representatives of state fish and wildlife agencies. They reviewed the state of knowledge on lynx and developed a management strategy for federal lands based on the best available science. This effort has produced several important documents: the Lynx Science Report, Lynx Conservation Assessment and Strategy, Lynx Conservation Agreement, and Lynx Biological Assessment.

The Fish and Wildlife Service issued the final rule to list the lynx as threatened under the Endangered Species Act on March 24, 2000, primarily because of the inadequacy of existing regulatory mechanisms, specifically the lack of guidance for lynx conservation in federal land management plans. On February 7, 2000, and August 22, 2000, respectively, the Forest Service and the Bureau of Land Management signed conservation agreements with the Fish and Wildlife Service to guide interagency lynx conservation efforts through 2004. Among other actions, under the Forest Service–Fish and Wildlife Service Lynx Conservation Agreement, the Forest Service agreed that Forest Plans should include measures necessary to conserve lynx for all forests that have lynx habitat. Development of such measures would include consideration of the Lynx Science Report, the Lynx Conservation Assessment and Strategy and the Fish and Wildlife Service's listing decision. Any necessary changes in these plans would be made through amendment or revision.

Land Management Plans

Planning efforts have begun to incorporate the lynx conservation measures into Forest Plans. Forest Plan amendments or revisions are scheduled for national forests in Washington, Oregon, Idaho, Montana, Wyoming, Utah, Colorado, Minnesota, Michigan, Wisconsin, New York, Vermont, and New Hampshire, and for BLM units in Idaho and Utah. All of the amendments and revisions propose management direction for lynx and are based on the conservation measures recommended in the Lynx Conservation Assessment and Strategy.

The on-going amendments and revisions are at different stages. Most units have completed the initial public scoping and are preparing environmental documents. Draft analysis documents are being prepared for public review and comment. Some decisions are expected this year. The remaining forests and BLM units will likely begin amendment or revision in the next couple of years.

The National Lynx Survey is being used to document current distributions of lynx and will be used to refine habitat mapping, because we recognize that all potential lynx habitat is not occupied. The results of the survey will increase our knowledge about the current distribution of lynx but will not directly affect the ongoing plan amendment or revision process.

1999–2002 National Canada Lynx Survey

In 1999, the Forest Service began a three-year nationwide survey of habitat to better identify presence and absence of lynx or lynx populations. Dr. McKelvey will describe this effort in more detail in the next panel. This survey is based on peer reviewed and published research. The protocols included standards for training in field methods, standards for field data collection, and standards for the DNA analysis of hair samples to determine the hair was from lynx or from another species. The Carnivore Conservation Genetics Laboratory on the University of Montana campus in Missoula, Montana, developed the DNA protocols. Dr. L. Scott Mills, who will testify later today, heads the Missoula Lab.

The research scientists designed the survey protocols using a systematic approach described in the Lynx Science Report and in other peer reviewed journals. The first step is to ascertain current distribution by means of presence/absence surveys. If lynx presence is detected in an area, the next step is to find out what the presence means: it could be a pet, a fur-farm escapee, or a lone wild lynx passing through the area. To separate out these situations from those of a resident lynx population, research scientists follow-up by conducting intensive snow track surveys, designed and run by Dr. John Squires who is currently conducting a large radio telemetry

study of lynx in Montana. If the unauthorized samples had not been identified, the follow-up protocols would have been used to find out if lynx were present.

Lynx hairs have been found in only two areas where we did not know lynx occurred. These two areas were in the Boise and the Shoshone National Forests. As the survey protocols require, research scientists are doing follow-up intensive snow tracking in these areas to help determine the extent and significance of the lynx occurrences.

Forest Service Investigation of the National Lynx Survey and Follow-up Actions

Following the Forest Service investigation, a number of actions have taken place. Forest Service employees responsible for submitting unauthorized samples (except the now retired employee) have been made aware of the seriousness of their actions by their Forest Service supervisors. None of the individuals involved in submitting unauthorized samples from the three agencies has been allowed to participate in the 2001 and future portions of the 1999–2002 lynx survey effort.

When Chief Bosworth became aware of the unauthorized samples, and in light of continuing questions about the survey, he asked the USDA Inspector General to look more fully into the allegations of unauthorized samples. The Department of the Interior's Inspector General and the General Accounting Office (GAO) also are looking into this issue. The ongoing investigations may ultimately indicate that further action is warranted by agency managers.

The Chief recently directed that the already existing Forest Service Code of Scientific Ethics be applied to all Forest Service employees, agency partners, and cooperators who participate in research funded with Federal research appropriations. The Administration and Congress have been adamant that the information collected and used by the Federal Government be top-quality. The importance of professional conduct and ethical behavior is being emphasized with employees at meetings and as part of training modules.

The research scientists did not include the unauthorized hair samples in the survey data. They also reviewed the field notes for anomalies. Other than the Boise and Shoshone samples, no other lynx were identified outside known areas and, as mentioned earlier, follow-up survey protocols are being used. Based on these factors, the research scientists believe they can verify the scientific authenticity of the National Lynx Survey. Let me be very clear: the unauthorized samples have been excluded from this survey.

Summary

In summary, Mr. Chairman, we know unauthorized samples were inappropriately submitted by employees. The integrity of the National Lynx Survey has been questioned. However, the scientists believe the study remains valid. No land management plans have been changed because of the unauthorized lynx hair samples. Three investigations are underway. The Forest Service Code of Scientific Ethics now applies to all Forest Service employees, partners, and contractors that work on Forest Service research. I regret this incident and the actions of a few agency employees. Although the unauthorized samples were detected and did not compromise the validity of the lynx survey, such situations call into question the Forest Service's integrity. The Forest Service is a science-based organization, and ANY efforts to collect, analyze, display, communicate, and use species or other resource information must be conducted to professional and ethical standards and within established scientific protocols.

Mr. Chairman and members of the Committee, this concludes my statement. We would be happy to answer any questions you might have.

Mr. MCINNIS. It appears that we are going to push the clock too close, so Dr. Williams, we will come back. I am sorry we have to do that.

But, Mr. Thompson, let me just say I appreciate your strong statement, but I am still bewildered, and I will come back and ask you or Mr. Rey, but I am still bewildered why, when you say that this is an egregious act against the integrity of the Forest Service, that these employees received a lecture and a bonus, a pay increase. So we will come back to you, Mr. Rey.

Mr. REY. We will address that after we come back.

Mr. MCINNIS. OK. We will be in recess 15 or 20 minutes.

[Recess.]

Mr. MCINNIS. The Committee will come back to order.

Dr. Williams, we will go ahead and proceed with you, with your opening statement, and then we will go to questions. We will ask questions of the panel all at once.

Mr. REY. Mr. Chairman, with your indulgence, I was actually going to conclude the Forest Service statement, if that is all right.

Mr. MCINNIS. Well, we need to, I am trying to get it so the third panel can be heard from. If you can wrap it up in less than a minute, otherwise, I have got to move on because I would guess that this Committee is going to have to adjourn by 1 o'clock.

Mr. REY. Well, let me just wrap it up by saying this, that the events, the specific events described by GAO and reflected on by Mr. Thompson present us with specific management challenges which we will meet. But, more broadly, I think they raise some serious questions which go beyond the facts of the event. Those are included in my written statement for the record, and we can talk about those when you get to the questions. Thank you.

Mr. MCINNIS. All right, and Mr. Rey, I would like to talk about that. I would like you to continue that in the question and answer session.

OK, Dr. Williams, you may proceed.

STATEMENT OF STEVEN L. WILLIAMS, DIRECTOR, FISH AND WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR

Mr. WILLIAMS. Thank you, Mr. Chairman, and I appreciate the opportunity to appear before the Committee to discuss the submission of an unauthorized sample during population surveys for Canada lynx. This matter came to the attention of the Secretary of the Interior in December, and she immediately asked the Department's Inspector General to investigate the matter. The details have been provided to you, we all heard today, by the General Accounting Office.

I would say, though, that I have no first-hand knowledge of this matter, having taken office on February 6, 2002. I would, however, like to provide my first impression of the events surrounding this situation, based on a limited review of the report received from the Department's Inspector General and from a discussion with the General Accounting Office, which both occurred last Friday afternoon.

I first became aware of this situation in December, while in my previous position as Secretary of the Kansas Department of Wildlife and Parks, and while I was awaiting confirmation by the Senate. As a scientist and a natural resource manager, I was deeply concerned and disturbed by what I heard.

I am very aware of the critical importance of quality science as a foundation for the Service's activities and decisions, and as a Ph.D. biologist I am familiar with what constitutes quality science and proper research procedures. I am also deeply aware of the obligation of a public agency to be trustworthy in carrying out its responsibilities.

The submission of an unauthorized "test" sample was a breach of survey protocol and a demonstration of a lack of scientific rigor and professionalism by these two individuals, and therefore was inappropriate and unacceptable. While the actions of these individ-

uals have caused the public to doubt the overall credibility of the agencies' science, I do want to point out that this is not an example of bad science by the agencies. Instead, it is bad conduct by the individuals involved. This is a crucial distinction which we should keep in mind in evaluating this situation.

Because of the importance of science to both the perception and the reality of our activities, particularly with regards to the Endangered Species Act, the Fish and Wildlife Service has adopted a set of principles to guide the administration of ESA activities. These are detailed in my formal statement to the Committee. These policies have established a solid framework within which scientifically based decisions can be made under the ESA.

In recent past, the National Academy of Science has been asked to examine three Service scientific decisions under ESA. They validated the biological opinion on the Missouri River and the science behind the listing of the Atlantic salmon, but found a lack of scientific justification for a major element of the biological opinion on the operation of the Klamath project.

These evaluations show the Service does conduct sound science work and generally makes scientifically valid decisions. However, in this context "generally" is not good enough. Our goal must be "always." I want to share with you today my commitment as a new Director of the Fish and Wildlife Service to provide the leadership, training, resources, and discipline to ensure and enforce high standards of scientific integrity and ethics in addressing the Service's responsibility.

While the restoration of scientific credibility was not a challenge I anticipated when I accepted the President's offer to head this agency, it is the challenge now before me and it is top priority. In my first message to all Fish and Wildlife Service employees upon taking office, I stressed this issue, stating, "I am confident that the Service will be able to rise to the challenge of restoring its scientific credibility, which has been called into question by recent events. As a biologist, I know that sound natural resource management decisions must be based on sound science. At the Service, managers are required to rely on the best available science to administer the laws we are charged with upholding."

I have already taken a number of actions, and others are underway, again as detailed in my formal statement you will find on pages 4 and 5. On February 12th we issued a Director's Order which requires all employees who are involved in scientific studies or investigations to adhere strictly to established scientific protocols, and informing employees that acting outside of those protocols would result in disciplinary action, including termination.

We will bring external science expertise to bear on the design and conduct of our scientific studies as well as review of the final product. I will be asking the advice of respected Fish and Wildlife management professionals, from academia, from the States, and from the private sector.

Last, the Secretary and I must take the time to fully analyze the Inspector General's report which we received, as I mentioned, last Friday, March lst, and the report of the General Accounting office, before making determinations as to how best to implement the IG's recommendations, and whether actions beyond those I have de-

scribed here and in my formal statement are needed. We will report back to you on this in the near future.

With help from the Secretary and from Congress, including continuing oversight to ensure we perform as promised, I am confident we will improve the public's trust in the Fish and Wildlife Service as an objective and scientifically based steward of our Nation's natural resources.

This concludes my prepared remarks, and I would certainly be pleased to try to respond to any questions you might have.

[The prepared statement of Mr. Williams follows:]

Statement of Dr. Steven A. Williams, Director, Fish and Wildlife Service, U.S. Department of the Interior

Mr. Chairman, I appreciate this opportunity to appear before the Committee to discuss the role of Fish and Wildlife Service (Service) biologists in the incident involving the submission of unauthorized samples for genetic testing during population surveys for the Canada lynx in National Forests in Washington State.

As you know, this matter involves action by two Service biologists, three Forest Service personnel, and two State employees who submitted unauthorized lynx hair samples to the lab charged with analyzing those samples. This incident came to the attention of the Secretary of the Interior in December 2001, and she asked the Department's Inspector General to investigate the matter. The General Accounting Office and Inspector General of the Department of the Interior have provided the details to you.

Last Friday I received a briefing by the Inspector General's office and a copy of their report. I am relying on that briefing and report for information as to exactly what occurred. Having taken office February 6, 2002, I have no personal knowledge of this matter.

I am acutely aware of the critical importance of quality science as a foundation for the Service's activities and decisions. As a Ph.D. biologist, I am familiar with what constitutes quality science and proper research procedures. I am also deeply aware of the obligation of a public agency to be trustworthy in carrying out its responsibilities. The submission of an unauthorized "test" sample was not provided for in the survey protocol and, therefore, was inappropriate and unacceptable.

While the actions of these individuals have caused the public to doubt the overall credibility of the agencies' science, I want to point out that this is not an example of bad science by the agencies involved; instead it is bad judgment by the individuals involved. This is a crucial distinction which must be kept in mind in evaluating this situation. Therefore, I am reviewing the disciplinary actions that were taken against the employees and I am analyzing the Inspector General's recommendations for further disciplinary action.

Based on the information received from the Department of Interior's Inspector General and from a discussion with the General Accounting Office, here is my understanding of the events surrounding this situation. Certain biologists from the three agencies questioned the lab's ability to accurately identify species using DNA testing of hair found in the wild.

In 2000, these doubts led the two Service biologists to "test" the system by submitting unauthorized samples for DNA analysis. The survey protocol did not include provisions for the submission of "test" or "blind samples." Therefore, this decision was outside of the survey protocol, was not reviewed by supervisors of the survey, and was not approved by the survey field coordinator, and the lab conducting the DNA analysis. As I noted above, this is not bad science by the agencies. Instead, these were misguided actions taken by two Service biologists; a breach of survey protocol and a demonstration of a lack of scientific rigor and professionalism by these two individuals. In essence, there was a disconnect between the involved biologists in the field and the lab conducting the analysis.

The distrust or concern should never have occurred because the lab had verified its analysis at an independent lab prior to conducting its work. This information should have provided field biologists with confidence in the lab's ability to successfully identify species, obviating a need to secretly test the lab.

Irrespective of the poor judgement demonstrated by these biologists, the sample submission would not have altered land management decisions on the National Forest. The reason is that the "test" sample, which was secured from a captive lynx, was identified as having originated from an area within the Wenatchee National Forest previously identified as occupied by lynx. However, even if the "test" sample

were to have been identified as originating from an area not known to be occupied by lynx, further surveys and analyses conducted by interagency employees and input from the general public would have been conducted prior to delineating the area as "occupied."

Because of the importance of science to both the perception and the reality of our activities, particularly with regard to the Endangered Species Act (ESA), the following principles must guide the Fish and Wildlife Service's administration of ESA activities: ensure that our decisions are based on the best available science; seek independent peer review of our decisions where possible; provide for public participation throughout our decision process; and ensure that our decision process is understandable and transparent. These principles were published at various times in the federal register. I will provide you with copies of these notices at your request.

I can assure you that now that I have been confirmed, these principles and policies will be fully put into practice. Having spent 16 years working in state fish and wildlife agencies, I have a deep appreciation and respect for state employees who possess the scientific expertise and understanding of local issues.

These policies have established a solid framework within which scientifically based decisions can be made under the ESA. Recently, the National Academy of Science (NAS) was asked to examine three of our scientific decisions made as part of biological opinions under the ESA. The NAS validated the biological opinion on two of those decisions, but found a lack of scientific justification for a major component of the biological opinion on the operation of the Klamath Project. While these examples are too few to make generalizations about our accuracy rate, we believe that the Service generally uses sound science in its work and uses the products of that science to make scientifically valid decisions. However, in this context "generally" is not good enough; our goal must be "always." Where that soundness and excellence has been compromised, we will address it.

As stated earlier, due to the serious nature of the incident, the Secretary requested that the Inspector General conduct an investigation. The Inspector General completed his investigation and issued a report that recommends four actions:

1. That the Secretary ask the Department's Chief scientist to convene a workgroup consisting of internal and external scientists to (a) review and make recommendations on how to restore rigorous science to the Endangered Species Program and (b) to design and implement a DOI Scientific Code of Ethics;
2. That the Office of the Inspector General accelerate its scheduled review of DOI's conduct and discipline process;
3. That the Office of the Inspector General conduct a follow-up audit of FWS's monetary incentive awards program to determine if previous OIG recommendations have been implemented; and
4. That the Director of FWS revisit the issue of administrative action in this matter with a view towards considering (a) more meaningful punishment for those previously counseled, and (b) administrative action against additional FWS employees at the Region and Headquarters.

The Secretary and I will fully analyze the Inspector General's report, which was transmitted to us last Friday, and the report of the General Accounting Office, before making any determinations on how to best implement the Inspector General's recommendations.

Today, I want to share with you Secretary Norton's and my commitment to provide the leadership, guidance, training, resources, and discipline to ensure and enforce high standards of scientific integrity and ethics in addressing the Service's responsibilities.

While the restoration of scientific credibility was not a challenge I anticipated when I accepted the President's offer to head this agency, it is the challenge now before me, and it is my paramount priority.

In my first message to all Fish and Wildlife Service employees upon taking office, I shared my focus and commitment to science, stating in part:

> I am . . . confident that the Service will be able to rise to the challenge of restoring its scientific credibility, which has been called into question by recent events. As a biologist, I know that sound natural resource management decisions must be based on sound science. At the Service, managers are required to rely on the best available science to administer the laws we are charged with upholding.

I am in the first stage of this initiative, but it is one that will dominate my agenda as Director and my leadership of the bureau. I have developed a multi-faceted approach to address this issue. Key elements include:

PERFORMANCE AND CONDUCT STANDARDS

- We have developed personnel standards which specify disciplinary consequences for inappropriate or unacceptable behavior related to science. On February 12, a Director's Order was issued concerning "Disciplinary Action for Unauthorized Activities in the Course of Scientific Studies or Investigations." Key components of this Order include:
  * Requiring all employees who are involved in scientific studies or investigations to adhere strictly to established scientific protocols;
  * Requiring that any employee who questions the scientific methods being used in a study, including the quality assurance and quality control procedures for analysis, use appropriate channels to address their concerns with the Director of the research;
  * Stating that any measures taken outside of established study protocols to "test" any aspect of a study without the knowledge and consent of the principal investigator are always unacceptable; and
  * Informing employees that acting outside of established scientific protocols would be grounds for disciplinary action up to and including removal from the Service.
- As subsequently recommended by the Inspector General, we are also working with the Department's Science Advisor on a Code of Ethics to more broadly address the issues that have arisen here.

LEADERSHIP

- Personal commitment—I have met personally with Regional and field managers in 3 of our 7 Regions, and focused on the science issue in my public and private remarks. I will soon do the same with the remaining Regions in the near future.
- I will ensure that all our Regional Directors and Assistant Directors, both in our collective meetings and in their individual actions, focus on sound science as the foundation for decisions.

OPTIMIZE EXTERNAL RESOURCES

- We will fully utilize good science support, including bringing external science expertise to bear on the design and conduct of our scientific studies and evaluations, as well as review of the final product. I will seek advice from respected wildlife management professionals, academia, States, and the private sector.
- In cooperation with the Department, we are examining which Service products and processes would benefit by additional peer review. The findings of this review will be rapidly implemented.
- Whenever possible, I would like to utilize independent scientific expertise in our activities at the planning level.

TRAINING

- I have directed the Service's National Conservation Training Center to review the full range of its instructional programs to ensure that the importance of scientific rigor, scientific integrity and ethics in science is integrated into all of our technical curriculum, supervisory training, leadership development programs, and our current new employee orientation. It is a well-established axiom that an organization will apply the skills that it focuses on in its learning phase.
- All agency managers, supervisors, and leadership will be required to satisfactorily complete this training. It will be provided to all new employees as an additional part of standard existing new-employee training.
- I have further directed the National Conservation Training Center to make preparations for me to discuss this issue with the entire organization through the use of our interactive broadcast network. Additionally, I have directed that during this broadcast each employee personally receive a copy of my policy regarding scientific integrity and professional ethics to raise Service-wide awareness about this issue and to leave no doubt where I stand on this subject and the consequences awaiting any employee who violates this policy.
- Lastly, I have directed that instructional materials be prepared and made available to each Regional Director to enable them to conduct special local sessions with their employees about the topics of scientific rigor, validity, and integrity.

It is my commitment and priority to address the problem evidenced by the unauthorized activity in the lynx survey. I believe the steps I outline here provide long-term emphasis on professionalism and ethics. Most importantly, the emphasis on standards, training, leadership, and enforcement will support continued good work by the Service, and will avoid actions that would undermine those standards.

When it is appropriate under the law to exercise our discretion to account for economic and human impacts, we will do so. I am confident that the course of action outlined above will improve the public's trust in the Service as an objective and scientifically-based steward of natural resources.

This concludes my prepared remarks. I would be pleased to respond to any questions you may have.

Mr. MCINNIS. Thank you, Dr. Williams. We are going to go ahead and start with the questioning.

My first point, and I will start the questioning, not long ago in Los Angeles we had a police officer who planted evidence. As a result of that one particular case, they had to reopen every case that that officer was involved in and, as you, unfortunately they found that there were a number of cases that expanded beyond that.

My concern is that if these particular biologists, the Forest Service and the Interior employees, Fish and Wildlife employees, if they have been involved in other studies, have you tracked those other studies to see if their behavior has followed the same track that it did with this study? And what are the future conditions being placed on these employees as far as their involvement in further studies or job responsibilities where they might have again an opportunity to plant the evidence?

I can tell you that in my past history I have found that people tend to repeat their misdeeds. It just seems to be something dealing with human nature, despite the fact they promise they will never do it again, and oftentimes I have often found, even with my own children, that verbal counseling isn't necessarily successful.

So why don't you respond as to what we are doing to look at these specific employees and what other studies they are involved in, what we are doing in the future to monitor these employees. That would be question No. 1.

And then question No. 2, while we are on these employees, we have been doing some looking into this verbal counseling. Less than 3 months after receiving verbal counseling, we do have one of the Forest Service biologists received a commendation for their leadership. I mean, that is appalling. I can't believe these people are being commended. They have received "verbal counseling."

So that is good enough to get us a start. Let's start first with what we are doing about the history and what kind of conditions, what kind of oversight on these employees in the future. It is clear to me they are not to be trusted, by their behavior. And No. 2, if you want to answer why they got commendation for leadership and bonuses after this kind of behavior.

So whichever one of you wants to start, but I want to hear from the members of the panel. Go ahead, Mr. Rey.

Mr. REY. With regard to the first question, we have reviewed the projects that the Forest Service biologists have been involved in, as well as the projects that they are currently assigned to, and we are comfortable that those projects do not lend themselves to circumstances where we will have to worry about their motivations or their activities in the future.

The record should be clarified to note that upon learning of the problem, they were taken off the lynx project. That was one of the measures that was taken immediately.

We are not aware that any of the—and of course one of the Forest Service employees has retired, so that is no longer an issue in that particular case—we are not aware of any merit award increases that any of the biologists have increased, nor any commendations for leadership. We are aware of nonmonetary awards of a de minimis nature for their work on other projects unrelated to the lynx episode.

Mr. MCINNIS. Well, they may not have received money, but you say other awards. I mean, doesn't the fact, Mr. Rey, doesn't the fact that an employee has committed a misdeed in one area kind of shadow the rest of accomplishments they may have, No. 1?

And, No. 2, you have still not answered my question: What kind of monitoring is going to be placed on these employees for future involvement that they might have where there is a temptation or an opportunity to submit false evidence?

Mr. REY. The answer to the first question is that the award which was provided was nonmonetary in nature. It was a travel bag valued at under $200, for work on an unrelated project, and the award was presented before management in the Forest Service became aware of the lynx problem.

The answer to the second question is that we have taken them off the lynx project and put them on projects where we don't think we are going to need to monitor them, because the nature of what they are doing is dissimilar to this kind of work.

Mr. MCINNIS. Dr. Williams, do you have anything you would like to add?

Mr. WILLIAMS. Yes. To respond to your first question, in the IG's report there is a series of pages that looks at the two individuals who were involved in the submission and documents what you suggested, the history of their involvement in other surveys, and we will be taking a look at those surveys and their involvement.

As far as the future, just as with the Forest Service, the two individuals obviously are no longer working on the lynx survey. I can't report to you right now what the other individual is involved in, but that is something, again following the IG's report and analysis of that, that we will watch very closely.

As to the awards, honestly, when I looked over the report Friday and this weekend, that is a question in my mind. I would, though, make a distinction just to clarify, not as an excuse but as clarification, that at least one of the awards was—I should put it the other way—none of the awards were for their work on the lynx survey. But that is something that I am going to take a second look at.

Mr. MCINNIS. I point out to the panel that, I mean, you can be assured that the Los Angeles police officer that planted evidence in one case was not about to receive a commendation medal or some other kind of pat on the back in another case. It kind of dilutes the integrity of the process.

And then finally, to wrap it up, Dr. Williams, if you would submit, just let us know what your findings are, since you are in the investigatory stage, of other previous studies that these particular individuals were involved in, that would be helpful.

Mr. Inslee?

Mr. INSLEE. Thank you. Mr. Rey, I just read your written statement. I don't know if you testified about this, but your written

statement says, "First, the events described by Mr. Thompson achieved such resonance because they apparently ratify a suspicion held by some about the use of scientific information in resources decisionmaking—that is, information is manipulated under the guise of dispassionate expertise to achieve desired, or even predetermined outcomes. This did not occur in this instance, but the rush to judgment that it did should serve as a warning signal to us."

I want to focus just first on the part where you said this did not occur in this instance. Why do you say that? Why do you say that did not occur in this instance?

Mr. REY. Based upon our internal investigation, we are at this point working on the presumption that the actions of the Forest Service, and for that matter the other biologists, were not motivated by a desire to misrepresent data to expand lynx habitat, but rather by an ill-conceived action that amounted to a misjudgment, and that is that they were somehow responsible for testing the validity of the laboratory we were using to analyze those data. And that is the basis, so far, for that conclusion. That is also the basis that I think the agency rests the actions that have been taken so far with regard to those individuals.

What you heard from GAO in the previous panel, however, was some ambiguity about the underlying motivation, and that is why our own Inspector General is conducting a similar investigation, to see if we can shed some greater light and satisfy ourselves finally that the conclusions that we have reached preliminarily as a result of our initial investigation are in fact what we want to rest with.

Mr. INSLEE. And I assume you would agree that the agency's treatment of those employees should be dramatically different depending on what their motivation was?

Mr. REY. That is correct, and I would go a step further. As a response that the agency has taken to this particular instance, we have extended the application of our Code of Ethics for our researchers to anyone in the agency involved even collaterally in a research project. These biologists were not researchers. They were providing field assistance to a research project.

The Code of Ethics, which previously applied to our researchers, which now applies to all of our employees and contractors and cooperators involved in research, is that any misrepresentation of data is viewed as a serious offense, and the remedy will range from a letter of reprimand to dismissal.

So we won't in the future become involved with a long investigation about the motivation. The occurrence of a demonstrated misrepresentation will be enough in the future to trigger greater disciplinary action.

Mr. INSLEE. Do you have any reason to believe that this is a widespread problem in the agency?

Mr. REY. No. It is a widely held perception about the agency, and that is something that we are most interested in changing.

Mr. INSLEE. Do you think, you know, when you think about this, kind of looking at it the other way, it makes sense that you would challenge the finding of labs in some sense. It makes sense that the system have a control process where controls will be submitted blindly to a lab, unbeknownst to the lab, so that you test the accu-

racy of the lab, black or white, pro or con, up or down. To me, it really makes sense that you have such a challenging system.

So in a sense it makes sense that somehow that the laboratory was challenged, but this wasn't the way to do it, obviously. Do you think, is the agency considering any ways to either make the challenging, a protocol for a challenge more user-friendly to the various biologists, so that they trust it more? Is there some way you can make your challenge system more accessible, efficient? Are you considering that at all?

Mr. REY. Every time we design an experiment, we look at the protocols and the controls. In this case we had controls in place, so there was no need or cause for individual field biologists to do their own experiments, so to speak.

I think the breakdown here was in part one of confidence as well as information. One of the lessons from this is that when we enlist field biologists to assist in research, we are going to have to do a little bit better job of explaining to them the entirely of the research protocol, so that they understand where the controls are, and aren't feeling that it is their responsibility to make them up as they go along. But clearly we will have to do a better job of that.

Mr. INSLEE. I would second that motion. Thank you.

Mr. MCINNIS. Mr. Osborne?

Mr. OSBORNE. All right. Thank you, gentlemen, for being here today.

The district that I represent is 97 percent owned by private landowners, and it is largely rural, largely agricultural. So how you folks are perceived is really important, and right now the events in the Klamath Basin, this particular incident, and then one which I am about to read to you, I think have really led to some issues that are very damaging to your cause and to the landowners. Let me just explain this briefly.

In 1978, 56 miles of the Platte River in Nebraska was designated as critical habitat for the whooping crane, and subsequently this statement was made by someone from the Whooping Crane Trust, someone who works for them. It was not somebody that was a landowner.

They said, "From 1970 to 1998 there were no confirmed whooping crane sightings on the Platte River." This is critical habitat. No sightings during that period of time, 28 years, and still it is declared as critical habitat. "During 1981-1984, radio tracking of whooping cranes, 18 whoopers were tracked on three northbound and two southbound migrations. None of them used the Platte River."

And so the concern here is, we have got a whole bunch of people out there in Nebraska who are saying, "What in the world is Fish and Wildlife doing?" I mean, everybody seems to know that this designation was fallacious. It was not based on sound science. And now we are going to have another designation for the piping plover and the least tern, and they have not nested at any time on that stretch of the Platte River in the last 10 years.

And so what I am saying, I have seen it both ways. And Mr. Williams, I know that you are new, and I know that this is not your baggage, but what I am trying to tell you is that I have seen a couple of Fish and Wildlife people who have worked with the land-

owners. They have incorporated their cooperation. They have had a tremendous relationship, and some great things have happened as far as the wildlife and the species.

And on the other hand, I have seen an attitude of "My way or the highway. We have got the Endangered Species Act backing us up, and you guys get out of the way." And that has been very, very damaging. And of course this type of thing here, it seems to me like we are saying to some degree, "Well, no big deal. These guys may have had good motives. We don't know what their motives were, but they may have been well-intentioned."

But I can tell you from the standpoint of public perception, this is a big deal, and to let these people get by with a lecture is ridiculous. There is no place—and I don't care what their motivation was. In private industry, any other area of the country, if it is well run, you do not give them a lecture and allow them to continue to work for you.

And so what I am telling you is that, in trying to represent these people out there who are landowners, this had better be taken very seriously because it has really led to a real lack of credibility, and it makes your jobs much harder. I know that you mean well. I know that you are well-intentioned. I know you are trying to get a job done.

And so I just want to make that statement. I don't have any further question, but I think that there is an ethos that is involved with an organization, and if the prevailing atmosphere is that you can do something like this and you do not pay a price for it other than a lecture, that is very pervasive, and it sends a very powerful message to your employees. And so I am sorry that this has happened, but I really am very concerned about the response that has been given to this issue.

I yield back.

Mr. MCINNIS. Thank you, Mr. Osborne.

Mr. Tancredo?

Mr. TANCREDO. Thank you, Mr. Chairman.

Mr. Williams, do you have any idea of whether or not the department has a policy with regard to turn-around time after a congressional inquiry? A letter comes from a Congressman asking for specific information. Do you know when the Department of Interior says that that should be responded to?

Mr. WILLIAMS. I don't know specific time period. There may well be one. Certainly a timely and accurate response to congressional and any public inquiry is something that we need to shoot for.

Mr. TANCREDO. On December the 18th I sent the Secretary of both the Department of the Interior and the Department of Agriculture a letter, a copy of which I have here, in which I among other things requested—well, I say "It would suggest that it is incumbent upon all involved to revisit and reexamine the results of not only the lynx survey but of any other projects or studies that these individuals may have been in position to disrupt or sabotage over the course of their employment. I also encourage you to make the results of wholesale internal evaluation available to members of the Resource Committee."

I have not yet—and it goes on for a couple of pages here—but I have not yet heard a word back. Now I understand that investiga-

tions of course have been done. I believe Mr. Rey suggested that you are essentially in agreement with the results of the investigation up to this point in time, that there were no other issues that needed to be looked into.

Certainly I would appreciate it very much if you could find out why we have not, No. 1, received a response; and, No. 2, if you could get us a response, a written response to this request.

Also, I would like to ask, when you claim, and I believe it was Mr. Rey who said that you have no further concerns about the kinds of activities which these gentlemen were involved with in the past; that your investigation, your internal investigation, initial investigation, led you to believe that there was no other reason to be concerned.

Can I ask you if in that internal investigation, when these two gentlemen who are still in some way affiliated with the agency, when they told you that the reason why they did this was to in fact test the validity of the lab, the results or the work of the lab, what proof do you have? You heard the GAO inspector say that he had nothing else but their word on that. What proof do you have that led you to the conclusion that that was in fact why they did it?

Mr. REY. Let me take your questions in order, so that I can get all of them.

First of all with respect to your December 18th letter, as I am sure you can appreciate, much of our December mail is arriving or has been arriving over the last couple weeks in a slightly browned and more crispy fashion—

Mr. TANCREDO. As is mine, yes.

Mr. REY. —than it was originally sent, and that letter response will be to you shortly, although some of the issues that you raised are issues in the OIG investigation and they will be responded to in the course of that investigation.

Second, what I think I said, and I will try to say it more artfully, is that the results of the first investigation led us to some preliminary conclusions that we are now evaluating further in the second Office of Inspector General Investigation, and that one of the most—

Mr. TANCREDO. I heard that part, but you said you came to some preliminary conclusions. Stop right there for a second. Those conclusions to which you came led you to believe, if I remember your statement, that there was nothing else out there that you had to worry about in terms of other work that these people had been involved with.

Mr. REY. Right. We reviewed the projects that they had been involved in prior to this, and the nature of their activities didn't lend themselves to the opportunity to do this kind of action, and that is what led us to the conclusion that we weren't needing to be concerned about the validity of the projects they worked on previously.

Mr. TANCREDO. And did your original conclusion, I mean the conclusion to which you came after your initial study, also lead you to believe that their claim that they were doing this to test the lab was accurate.

Mr. REY. That was the conclusion of the initial investigator, and the question of motivation is sufficiently murky that that is an issue that we asked OIG to look into specifically.

The basis for the conclusion of the original investigator, because the Forest Service did undertake an investigation of its own with an independent investigator last fall, was based on how the actions were conducted compared to how you would have—how a reasonable person would have proceeded if their intention would have been to, by their actions, expand the habitat of the lynx.

And there are several things that don't seem to lend themselves to the conclusion that that would be a reasonable motivation. First, the fact that they told lots of people or a fair number of people what they were up to. Second, that they selected, they labeled their samples in a way which would not have immediately expand the lynx habitat.

One of the samples wasn't labeled as coming from the grid, which would have raised questions about what it was about before any subsequent field surveys would have been undertaken. A couple of the other samples were labeled from parts of the grid where we already knew lynx existed.

So if their intent was to expand the range of the lynx by virtue of their activities, their activities wouldn't have gotten them there. Third—

Mr. TANCREDO. I could give you, I think, a logical reason for doing the two things you have just described, anyway, and come to the conclusion that they still could very well be doing it for the purpose of expanding the territory.

First of all, it is very likely from everything I have heard, and certainly from everything we have read, that the culture within the agency is one in which it would not be unusual for people necessarily to describe this kind of activity with the assumption, perhaps justifiably, that their action isn't that unique, and that the people to whom they are or with whom they are communicating aren't necessarily inclined to be shocked by this kind of thing, and would be in fact somewhat proud of the fact that their colleagues had done this, it is possible.

It is also possible to suggest that even the way in which the samples were submitted, and from other, as you indicated, from other sections where you knew lynx were already in existence and were around, would be in a way a pretty smart move, to kind of add to the credibility of the action they were taking that was always designed for the purpose of expanding. I mean, it is so hard to believe the alternative to that.

I mean, there are really only two ways that you can think about this, it seems to me. One was that they were in fact trying to expand the area in which lynx could be identified, for obvious, again, purposes. Or that you believe them, that they were trying to test the lab. And you know, it is so amazing to me that that could be held up as a reasonable excuse for doing it, when there is absolutely not a shred of evidence that that is, you know, the case.

And so it just seems to me that to drop it there would say that you are more on their side than ours in trying to find the truth.

Mr. REY. Well, I don't think I am on anybody's side. I am interested in finding the truth, and we haven't rushed to judgment about the specifics here. We have initiated a second investigation to get to the question of motivation.

But based upon the disputes over the previous survey, the Weaver survey, it is not out of the range of credulity, but nevertheless well outside of the range of good judgment, for some of our field biologists to believe that this laboratory, by virtue of the fact that it wasn't showing the positives that the Weaver study did, was misanalyzing the samples that were being sent. It is not completely incredulous.

It is an area in which we are continuing to look. It is not an example, as best we can tell, of widespread agency behavior. It is something that is widely assumed by a large number of people, and that is something that together we have to address and deal with.

Mr. TANCREDO. Were you concerned about the fact that—I am sorry.

Mr. MCINNIS. Mr. Tancredo, I have allowed you an additional 5 minutes because I think it is very important, but I want to get this third panel on, in fairness to the third panel. I am going to conclude this panel.

Mr. Rey, what I would urge you to do is to read page 20 of the contract investigator that you had. Just very briefly, those comments are such that these control samples were not, did not stick out like a sore thumb. In fact, I think that it says, "While there were unusual circumstances concerning one of the samples, I note that if I had not been asked to examine the samples"—I am leaving some blanks here because these are names—"sent in pursuant to this investigation, I likely would have thought only that it was a careless error. In other words, it would not have occurred to me that that individual would have sent in a sample of hair not actually collected."

So take a look at that. I also would ask that you stay around for the next panel, where we have somebody from the lab there, because I don't want you chalking this up too early to some harmless error that obviously would have been found. These individuals admitted that they knew they were outside their authority, they knew that they were not authorized to do this, and so on.

Mr. REY. I don't think anybody has called it a harmless error. We don't believe it to be a harmless error. There is a question of what their intent was, how malicious it was, and what the appropriate remedy was, and all three of those questions are in our view still open.

Mr. MCINNIS. Good, and keep in mind also that the previous testimony was that it would kick in the second investigative stage, which would then come back to these individuals—

Mr. REY. That was incorrect. That was the only error in generally accurate GAO testimony.

Mr. MCINNIS. OK. Well, why don't you clarify that very briefly for us?

Mr. REY. The snow surveys would be done by a separate set of researchers, because the biologists involved at this stage of the survey did not have the training to conduct the snow surveys. And parenthetically, if there was malicious intent, at this stage of an investigation we would probably have uncovered additional activities, conspiratorial activities to try to rig the snow surveys, and we have seen none of that so far.

Mr. MCINNIS. But if an individual believed, in their heart they believed that the lynx was out there, and they believed that the scientists were too narrow, that it needed to be broadened, they could have kicked the broadening of it, even if it didn't come back to them, in hopes that by broadening it, that it would in fact find what they always believed to be true, and that was that lynx were in existence out there.

Mr. REY. They could have kicked in another round of survey, there is no question about that. They would not have done them themselves, though.

Mr. MCINNIS. I want to thank the panel, and I also want to specifically commend you for expanding, for example, your ethics code and so on. It is obvious to me that you take this seriously. It is clear we have got to avoid this in the future. Regardless of what side anybody is on, the integrity of the system is what is in question here, and that is what we have to preserve.

So I thank this panel and I would excuse the panel. Thank you very much for your testimony. We appreciate it.

Mr. REY. Thank you.

Mr. MCINNIS. And we will call the third panel up. On this panel we have Mr. McKelvey, Research Ecologist at USDA Forest Service; Dr. Mills, and Mr. Franklin. Why don't we begin with Dr. Mills and we will just go that direction. You may proceed with your opening statement.

STATEMENT OF T. SCOTT MILLS, ASSOCIATE PROFESSOR, WILDLIFE BIOLOGY PROGRAM, SCHOOL OF FORESTRY, UNIVERSITY OF MONTANA

Mr. MILLS. Thank you. Mr. Chairman and members of the House Resources Committee, I thank the Committee for inviting me to testify before you today. I am a wildlife biology professor in the School of Forestry at the University of Montana. My research and teaching expertise centers on understanding the population dynamics of wildlife species. To this end, my students and I use field studies, mathematical models, and genetic analyses to address questions and apply biology.

In 1998 I began to collaborate on issues related to lynx surveys with Dr. Kevin McKelvey, the lead scientist who developed and implemented the National Lynx Survey for the U.S. Forest Service. My role in the collaboration was to identify to species the hair samples collected, using a DNA-based species identification protocol developed in my laboratory and subsequently peer reviewed and published.

In developing this protocol, we tested it using 95 known samples collected across the range of the species involved, to make sure for example that a lynx was always identified as a lynx, a bobcat as a bobcat, and so on. Before the protocol was published or instituted as a diagnostic tool in the National Lynx Survey, we also conducted extensive blind tests on a total of 87 samples both within our lab and at an external lab. Species identification was correct in all 95 geographic range tests and all 87 blind tests.

The National Lynx Survey has relied on field personnel in 12 States to follow predefined, detailed, rigorous instructions devel-

oped by Dr. McKelvey and me to guide all aspects of initiating the survey, collecting the data, and sending us the samples.

The mislabeling of National Lynx Survey samples by a few field personnel was wrong, and cannot be defended on any scientific merit. That said, I believe that the National Lynx Survey retains integrity to inform land management and to provide credible scientific insights on lynx distribution. Although the mislabeled samples could have led us to report three false lynx detections, and the few mislabeled samples have created problems for perception of the project as a whole, two important components built into this study provide a firewall that protects the integrity of the study for evaluating lynx distribution.

First, the lead scientists, McKelvey and I, are population biologists whose training would lead us to interpret the results appropriately to the scientific community and to management. Although mislabeled samples could have led us to report false lynx detections on two national forests, we would have simultaneously noted that a detection is not the same as a population.

Second and most importantly, the hair collection in the National Lynx Survey was only the first step in evaluating lynx presence. As I am sure Dr. McKelvey will describe, follow-up snow tracking and trapping efforts are built into the study to separate actual lynx populations from transient individuals, fur farm escapees, or as we have discovered, mislabeled samples. Therefore, I do not believe that the scientific validity of this study to contribute to land management decisionmaking was compromised by the mislabeling of samples.

Finally, the question arises as to the motivation of those who mislabeled samples. I do not know those individuals, nor do I know their motivations. My experience throughout my career in working with hundreds of biologists and field personnel, including employees of U.S. Fish and Wildlife Service, U.S. Forest Service, National Park Service, State wildlife departments, private groups and several universities, is that they have exceptionally high ethical standards in their pursuit of knowledge. Although inappropriate actions may occur on an individual and rare basis, my opinion is that these instances do not invalidate the larger body of wildlife biology in the same way that inappropriate actions by a few physicians does not mean that we should shut down the practice of medicine.

In summary, I believe those few who mislabeled samples have no legitimate excuse for their actions. However, I also believe that their actions should not compromise the role of biological studies in policy decisionmaking. I hope that the actions of these few do not taint the excellent work of biologists across this country, who strive toward the highest ethical standards as they carry out a public mandate to understand the critical needs of wildlife species.

[The prepared statement of Mr. Mills follows:]

Statement of Dr. L. Scott Mills, Wildlife Biology Program, School of Forestry, University of Montana, (Representing myself and not any organization)

Mr. Chairman and Members of the House Resources Committee,

I thank the Committee for inviting me to testify before you today.

I am a Wildlife Biology Professor in the School of Forestry at The University of Montana. My research and teaching expertise centers on understanding the popu-

lation dynamics of wildlife species; to this end my students and I use field studies, mathematical models, and genetic analyses to address questions in applied biology (see attached abbreviated Biographical Sketch).

In 1998, I began to collaborate on issues related to lynx surveys with Dr. Kevin McKelvey, the lead scientist who developed and implemented the National Lynx Survey for the US Forest Service. This is one of numerous productive collaborations that I have had with research scientists of the Forest Service and other state and federal agencies. My role in the collaboration was to identify to species the hair samples collected, using a DNA-based species identification protocol developed in my laboratory and subsequently peer-reviewed and published (see Mills et al. 2000, attached). The heart of this species identification protocol involves polymerase chain reaction (PCR) amplification of short (about 400 base pair) segments of mitochondrial DNA found in the hair samples. We next use restriction enzymes to produce species-specific fragments of DNA. These fragments are consistent across the range of a species and are not shared by other species. Hair samples can be amplified via PCR (allowing a species determination) in approximately 80% of the samples.

In developing this protocol we tested it using 95 known samples collected across the range of the species involved, to make sure, for example, that a lynx was always identified as a lynx, a bobcat as a bobcat, and so on. Before the protocol was published or instituted as a diagnostic tool in the National Lynx Survey we also instituted extensive blind tests—whereby the technician performing the analysis did not know the identity of the sample "on a total of 87 samples both within our lab and at an external lab (USFWS National Fish and Wildlife Forensics Laboratory in Ashland, Oregon). Species identification was correct in all 95 geographic range tests and all 87 blind tests. We continue to obtain known samples to validate this and other species-identification protocols we have developed: to date we have analyzed 465 known-species samples including 151 blind test samples. These validation controls have provided 465 chances for us to obtain the wrong species identity, yet no samples have been misidentified. Furthermore, we consistently detect lynx in geographic areas where they are known to occur.

In addition to the validation procedure, we have other appropriate laboratory controls to minimize the probability of inaccurate species identification via either false positives (calling the source of a sample lynx when it is not) or false negatives (calling the source of a sample a species other than lynx when it is actually a lynx). Every set of samples we analyze includes "positive controls" to ensure that test conditions are appropriate for species identification and "negative controls" (pure water) to detect contamination. We also extract DNA from hairs in a separate building from where other laboratory activities occur to control against contamination.

We consulted extensively with the USFWS Forensics lab concerning preserving the chain-of-evidence associated with forensic samples. Records of all of the gels we have run are kept in lab books, all of the extracted DNA samples are preserved in 20-below-zero freezers, and all hair samples are held in sealed, dessicant-filled vials in locked cabinets in the hair extraction lab. If there are any issues associated with a specific sample, we can readily access the DNA analyses, extracted DNA, and the original hair sample.

The National Lynx Survey has relied on field personnel in 12 states to follow predefined, detailed, rigorous instructions developed by Dr. McKelvey and me to guide all aspects of initiating the survey, collecting the data, and sending us the samples. The mislabeling of National Lynx Survey samples by a few field personnel was wrong, and cannot be defended on any scientific merit (see correspondence items by Mills and by Buskirk on page 471 of the Jan. 31 issue of Nature).

That said, I believe that the National Lynx Survey retains integrity to inform land management and to provide credible scientific insights on lynx distribution. Although the mislabeled samples could have led us to report 3 false lynx detections, and the few mislabeled samples have created problems for perception of the project as a whole, two important components built into this study provide a firewall that protects the integrity of the study for evaluating lynx distribution. First, the lead scientists (McKelvey and I) are population biologists whose training would lead us to interpret the results appropriately to the scientific community and to management. Although mislabeled samples could have led us to report false lynx detections on 2 National Forests, we would have simultaneously noted that a detection is not the same as a population.

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In summary, I believe those few who mislabeled samples have no legitimate excuse for their actions. However, I also believe that their actions should not compromise the role of biological studies in policy decisionmaking. I hope that the actions of these few do not taint the excellent work of biologists across this country, who strive toward the highest ethical standards as they carry out a public mandate to understand the critical needs of wildlife species.

[An attachment to Mr. Mills' statement follows:]

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Technical note

Identifying lynx and other North American felids based on MtDNA analysis

L. Scott Mills[1,*], Kristine L. Pilgrim[1], Michael K. Schwartz[1] & Kevin McKelvey[2]
[1]*Wildlife Biology Program, School of Forestry, University of Montana, Missoula, MT 59812;* [2]*Rocky Mountain Research Station, U.S. Forest Service, Missoula, MT 59812 (*Author for correspondence: E-mail: smills@forestry.umt.edu)*

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As part of a program to identify the distribution of Canada lynx (*Lynx canadensis*) across the U.S. using hair snags, we have developed a protocol to distinguish among all four felid species of northern North America (lynx, bobcat [*Lynx rufus*], cougar [*Felis concolor*], and domestic cat [*Felis catus*]) using mtDNA. Our tests were designed to be time and cost-efficient, and applicable to low-quantity or degraded DNA samples. Although it is possible to identify species using microsatellite DNA (e.g. Ernest et al. 2000), we favor mtDNA because of the greater copy number and because allele size constraints limit interspecific ranges of microsatellite DNA, potentially leading to allele frequency overlap (Nauta and Weissing 1996).

Because mtDNA is highly conserved among tissue types within an individual, and because tissue samples amplify more consistently than hair, we developed and validated our protocol using both tissue and hair samples. For hair samples, 5–10 follicles with shafts were typically used in extraction, although in some cases we successfully used single hairs with or without follicles (see below). Genomic DNA was extracted using standard protocols for tissues (Dneasy tissue kit; Qiagen Inc.), with overnight incubation in lysis buffer and Proteinase K on a rocker at 60 °C. Elution of DNA was in 50 μl of buffer.

To distinguish felid species from one another and from other species, we used the Polymerase Chain Reaction (PCR) to amplify two portions of the mitochondrial genome (Figure 1). One region includes the control region, amplified using conserved, universal primers L16007 and H16498 (Kocher et al. 1989; Shields and Kocher 1991). Twenty-μl PCR reactions contained 50–100 ng DNA, 1× reaction buffer (Perkin-Elmer), 2.5 mM $MgCl_2$, 200 μM each dNTP, 0.3 mg/ml BSA, 1 μM each primer, and 1 U *Taq* polymerase (Perkin-Elmer). After initial incubation at 94 °C for 5 min, the PCR profile was 35 cycles of 94 °C for 1 minute, 55 °C for 1 minute, and 72 °C for 1.5 minutes. PCR products were run in a 2.0% agarose gel (Asubel et al. 1989).

The control region primers produced a PCR product of approximately 700 bp in all felid samples (Figure 1). This is the same region amplified by Foran et al. (1997a, b), except that primer L16007 results in a product 200 bp smaller, which we find amplifies with greater consistency. Felids have a 80–82 bp monomer within this region that may be heteroplasmic within individuals (Lopez et al. 1996), resulting in PCR products of approximately 700 bp, 780 bp, and 860 bp. However, while the PCR products from felid individuals may vary slightly (or have multiple products) the products are larger than that of other species (for example, the PCR product is 300–500 bp in mustelids, canids, ursids, and other species we analyzed).

As an independent mtDNA test, we amplified about 360 base pairs (bp) using 16S rRNA universal primers (Hoezel and Green 1992). Fifty-μl PCR reactions contained 50–100 ng DNA, 1× reaction buffer (Perkin-Elmer), 2.5 mM $MgCl_2$, 200 μM each dNTP, 1 μM each primer, and 1 U *Taq* polymerase (Perkin-Elmer). PCR profiles and gels were as for the control region, but with 50 °C annealing. We

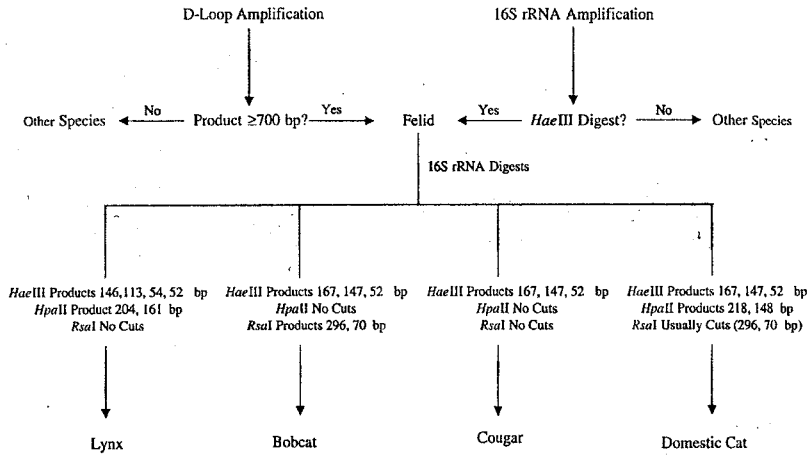


Figure 1. The approach used to genetically distinguish the felids from other species and from one another. Both tests of the D-loop region and 16S rRNA are used on all samples. Restriction digest analysis of 16S rRNA is conducted using all 3 enzymes to identify the four felid species.

developed restriction maps for the 16S rRNA region based on known sequences for lynx, bobcat, cougar and domestic cat (Johnson and O'Brien 1997). The restriction enzymes *Hae*III, *Hpa*II, and *Rsa*I digested the PCR products at 37 °C overnight, and fragments were visualized in a 2.5% agarose gel.

Like the control region, the 16S rRNA region with 3 restriction endonuclease digestions (*Hae*III, *Hpa*II, and *Rsa*I) separated felids from other species, but the 16S rRNA test also distinguished the four felids by species (Figure 2). Specifically, *Hae*III digested the PCR products from all four of the felids, but not any other species; there are three similar-sized products for the four felids, but lynx also produce a unique pattern of 113 bp. The restriction enzyme *Hpa*II does not digest bobcat or cougar PCR products, but causes unique product sizes for lynx and domestic cat. Finally, *Rsa*I digests PCR products from bobcat but not from lynx or cougar. This restriction site was polymorphic in domestic cats, with PCR products from 12 of 15 domestic cats tested cutting similar to bobcat.

We validated our protocol for identifying felids to species with a geographic range evaluation, a blind internal test, and a blind external test. The geographic range validation was intended to ensure that our protocol correctly identified cat species from many locations without being confounded by intra-specific polymorphisms. We successfully identified known samples of 34 lynx, 24 bobcat, 22 cougar, and 15 domestic cats from locations in Western Canada and 11 states across the U.S. The 'blind tests' assessed the reliability of the protocol both within our lab and in an independent lab (S. Fain, U.S. Fish and Wildlife Service Forensics Lab, Ashland, OR). Collectively, a total of 87 samples including 50 from felids (lynx, bobcat, cougar, domestic cat) and 37 from 18 other species (canids, ungulates, ursids, mustelids, rodents, lagomorphs, and humans) were correctly identified (felids to species and non-felids as 'other') 100% of the time.

Several species of *Felidae* contain mitochondrial-like sequences inserted into the nuclear genome (*Numt*; Lopez et al. 1996; Cracraft et al. 1998). However, the presence of *Numt* bands, which we have detected in approximately 20% of the 92 known lynx samples for which we have successfully amplified the control region segment, should not be a problem for species identification because the diagnostic mtDNA regions also amplify.

Following development and successful validation of the protocol, we have begun using hair snags (McDaniel et al. 2000) in a nationwide survey including 12 states across the northern U.S.

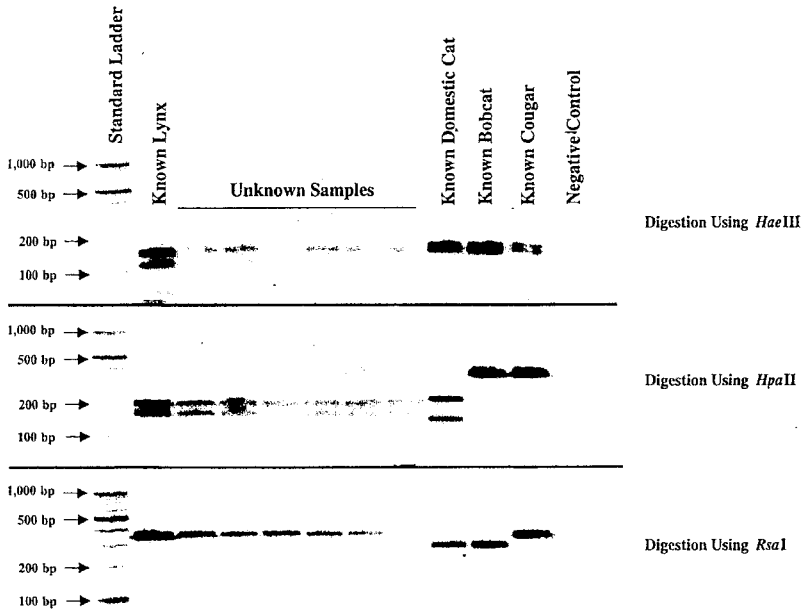


Figure 2. Agarose gel showing restriction digest analysis of the 16S rRNA region. The top panel shows PCR products digested using HaeIII, the middle shows PCR products digested using HpaII, and the bottom panel shows PCR products digested using RsaI. The first lane is a 1 kb size standard, followed by digested products from a known lynx. The next lanes are 4 hair samples and 2 blood samples collected in snow that were suspected to be from a lynx. The last three lanes are digested PCR products from a known domestic cat, bobcat, and cougar.

(McKelvey et al., in preparation). To date, 788 hair samples have been analyzed using the described protocol. We obtained DNA of high enough quality for amplification from 643 (82%) of these samples, and have detected all 4 felid species. Of the 643 samples that successfully amplified, 168 were single hairs; amplification was successful in 77% (46/60) of single hairs with follicles and 84% (91/108) without follicles. In short, our protocol conclusively identifies lynx and other sympatric felids (Figure 1) across geographic regions and across laboratories, even if samples are low quality or low quantity.

Diagnostic species identification using non-invasive hair sampling and mtDNA amplification leads to a remarkable set of tools for conservation. For the first time, geographic distribution across large spatial scales can be determined for many rare or elusive animals (such as Canada lynx, recently listed as Threatened in the contiguous U.S.). Furthermore, hair samples identified to species can in some cases be analyzed with the suite of emerging approaches for individual identification, phylogenetic analysis, and estimation of abundance and gene flow (Kohn and Wayne 1997; Schwartz et al. 1998; Taberlet and Luikart 1999; Mills et al. 2000).

Acknowledgements

Samples or other assistance were generously provided by: Ted Bailey, Howard Golden, Gary Hanvey, John Malloy, Mark Hebblewhite, Gordon Jarrell, Warren Johnson, Mark Klietz, Chris Kyle, Rob Mulders, Todd Shurry, Helen Slama, John Squires, Brian

Theroux. We appreciate lab help from Hope Draheim, Rachelle Owen, and Ann Riddle. Steve Forbes, Doug Emlen, David Tallmon, and Len Ruggiero provided insightful advice, equipment, and/or comments. We thank Steve Fain, JoAnn Shafer, Bonnie Yates, and Gina Harris at the USFWS Forensics lab for samples, conducting the blind test and discussing protocols for forensic identification of hair. We appreciate reviews from Pierre Taberlet, Harry Smith, and two anonymous reviewers. For funding we thank USDA McIntire-Stennis, the National Science Foundation (DEB-9870654 to L.S.M.), and US Forest Service Rocky Mountain Research Station. MKS acknowledges a University of Montana Bertha Morton PhD fellowship.

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Mr. MCINNIS. Thank you.
Dr. McKelvey?

STATEMENT OF KEVIN McKELVEY, RESEARCH ECOLOGIST, FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Mr. MCKELVEY. Mr. Chairman and members of the Committee, thank you for the opportunity to appear before you today and to talk about the National Canada Lynx Survey. I am Kevin McKelvey. I am a research scientist working for the Rocky Mountain Research Station of the USDA Forest Service. I am the scientist with responsibility of overseeing the National Lynx Survey effort, and today I would like to describe the background, objectives, survey methods, DNA analyses, and measures used to ensure quality and reliability associated with the National Lynx Survey. I would like to summarize my statement and enter the written remarks into the record.

In 1999, Dr. Keith Aubry, Yvette Ortega and I analyzed the historical distribution of lynx, but we did not have data to determine current distribution. Basic information about distribution, patterns of reproduction, and habitat use are needed to build an effective conservation strategy. The National Lynx Survey was designed as the first step in this process, with follow-up surveys in areas where lynx are detected as the second step.

The survey is based on peer reviewed and published research developed by the Rocky Mountain Research Station and the University of Montana. The National Lynx Survey is funded and chartered by the National Lynx Steering Team, an interagency oversight group.

Our research protocol used scent stations to collect hair and DNA analyses to determine species. After we detected lynx using hair snagging, we could then employ more intensive methods such as snow tracking to verify the detections and gain additional information regarding lynx populations.

The study was designed to detect lynx with high likelihood. We tested the probability of detection directly by implementing the survey in as many areas as possible in Montana, Washington, Wyoming, and Maine. We centered grids with transepts on large contiguous areas of designated lynx habitat, and specified that the survey be run in each location for 3 years.

To regularize methods and ensure consistency, we used common training and the same instructor, and provided a kit containing everything necessary to conduct the survey. An extremely detailed field manual was also included in each kit. The field protocol was simple, so that as long as there was sufficient supervisory control, crews of variable make-up and skills would not have difficulty following it.

Vials of collected hair were shipped to the Missoula lab. Additional written reports were sent to the Forest Service Regional Office in Missoula or to the Missoula lab.

For lab analyses, species identification methods were developed using extensive internal and external blind tests as well as geographic range tests to confirm that the DNA differences used to separate species were consistent. Positive and negative controls are included in each reaction. The results of all laboratory reactions in

the form of gel images are incorporated into lab books, along with species identification and associated notes.

We conduct follow-up surveys when we find a lynx sample in an area where prior to the study we did not know that lynx were present. We use an extremely intensive winter-long snow tracking protocol designed and tested by Dr. John Squires of the Rocky Mountain Research Station. This allows us to separate detections associated with pets, lone wanderers, fur farm escapees, and falsified or unexplained samples, from lynx detections associated with populations of conservation interest. We are running two such surveys this winter in the Boise and Shoshone National Forests, the only forests where we found positive lynx samples but did not otherwise know that lynx were present.

There are two potential errors that can affect our survey. First, the survey could falsely identify lynx in areas where they do not exist. The second is that the survey could fail to detect lynx in areas where they do exist.

The first error, false positives, is primarily controlled by the rigor of the lab work. The extreme reliability of these assays is the primary strength of the method and one of the primary reasons we chose DNA analysis. Even though we have processed more than 1,200 hair samples with sufficient DNA to amplify, we have only four samples of lynx from two locations where we were unaware of their presence prior to the survey. We believe that the use of well-tested DNA analyses, combined with intensive follow-up surveys, virtually eliminates the possibility of false positive results.

In summary, we can verify the scientific authenticity of the National Lynx Survey based on the reasons that I have cited: survey methods, DNA analyses, and measures used to ensure the quality and reliability associated with the National Lynx Survey. We believe the integrity of the overall survey has been maintained.

This concludes my statement, and I would be happy to answer any questions that you or other members of the Committee might have.

[The prepared statement of Mr. McKelvey follows:]

Statement of Kevin S. McKelvey, Research Scientist, Rocky Mountain Research Station, Forest Service, U.S. Department of Agriculture

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to appear before you today to talk about the National Canada Lynx Survey. I am Kevin McKelvey and I am a research scientist working for the Rocky Mountain Research Station of the USDA Forest Service. I am the scientist with the responsibility of overseeing the National Lynx Survey effort, including design, analysis, reporting and results publication. Today, I would like to describe the background and objectives, survey methods, DNA analyses, and measures used to ensure quality and reliability associated with the National Lynx Survey.

Background

In 1994, the Rocky Mountain Research Station was charged with evaluating the current state of knowledge concerning forest carnivores, including the Canada lynx. Their published findings (Ruggiero et al. 1994) indicated that knowledge gaps concerning forest carnivores, and lynx in particular were huge. In 1998, with the proposed listing of the lynx under the Endangered Species Act, the potential consequences of this lack of knowledge became critical. The Rocky Mountain Research Station was charged with collating and evaluating all of the knowledge concerning lynx, their prey, competitive interactions, and ecological context.

As a part of this effort, in 1999, Dr. Keith Aubry, Yvette Ortega, and I finished an analysis of the historical records for lynx in the contiguous United States.

However, these data are ambiguous concerning the current range of the species. To build an effective conservation strategy, we need to determine where extant populations of lynx are and where they are not. The first step is to determine where there are lynx, secondly, to determine numbers and look for evidence of reproduction- that is, residency in an area—and finally, to determine patterns of habitat use and conservation needs (Figure 1). The National Lynx Survey was designed as the first step in this multi-stage process, with follow-up surveys in areas where lynx are detected serving as the beginning of the second step.

Dr. LEONARD F. Ruggiero, Dr. John R. Squires, Gregory W. McDaniel and I at the Rocky Mountain Research Station developed and published the data collection methods used in the survey. Dr. L. Scott Mills, of the University of Montana, Kristine Pilgrim, Dr. Michael Schwartz, and I developed and published the DNA methods used to distinguish lynx from other species. The survey is based on peer reviewed and published research. The protocols included standards for training in field methods, standards for field data collection, and standards for the DNA analysis of hair samples to determine if the hair was from lynx or from another species. The National Lynx Survey is funded by and reports directly to the National Lynx Steering Team, an interagency oversight group headed by Kathy McAllister, Deputy Regional Forester for Region 1 of the USDA Forest Service. The National Lynx Survey has three primary leaders: James Claar, (Region 1, USDA Forest Service), Dr. L. Scott Mills, and me. I have general oversight and design of the entire survey effort. James Claar is responsible for coordinating with the field offices, distributing funds and materials, and training. Dr. Mills, Director of the Carnivore Conservation Genetics Laboratory, is responsible for the protocols associated with DNA analysis. This laboratory is jointly supported by the University of Montana, the Rocky Mountain Research Station, and Region 1 of the Forest Service. Because Dr. Mills is testifying at these hearings and will describe the DNA methods, I will limit my discussion of DNA protocols.

In order to be effective, we determined that the National Lynx Survey needed to have the following characteristics:

1) It had to produce unambiguous results. We didn't want to spend a lot of time doing extensive follow-ups in areas that contained no lynx.

2) It needed to cover large areas of land, and therefore needed to be compact and inexpensive. It was critical that the method not be so cumbersome that surveys would be largely confined to roaded areas.

3) It needed to be a method that worked in the summer. Winter methods cannot be applied in avalanche-prone or extensive roadless areas.

4) It needed to be effective enough that lynx populations can be reliably found. It is just as important to specify where lynx likely do not exist as to determine where they exist. These two understandings are required to define current distribution.

5) Because the survey was to be applied by a large number of people with various backgrounds, it had to be simple and straightforward, and not demand special skills. Field work had to be limited to data collection only.

These considerations led us to discount most of the current survey methods. The hair snagging method, however, used scent stations to collect hair and DNA analysis to determine species. It satisfied all the requirements for the survey. After we detected lynx using hair snagging, we could then employ more intensive methods, such as snow tracking, to verify the detections and gain additional information regarding lynx populations.

Survey Design

The goal of the National Lynx Survey is to detect lynx and help to define current range. It is a presence/absence survey. Therefore, the study has to be designed to detect lynx, if present, with high likelihood. If this goal is achieved, failure to detect lynx indicates their absence or extreme scarcity, allowing possible range delineation. We tested the probability of detection directly by implementing the survey in as many areas as possible where lynx are known to be present.

Detection testing in the contiguous United States is limited because we know of so few locations where lynx occur. In Northwest Montana, we know of approximately 20 lynx in the Clearwater drainage around Seeley Lake, Montana because our research group is conducting a large radio-telemetry study in the area. We know that lynx occur in the Okanogan National Forest in northwest Washington State, based on ongoing camera surveys. We know of a tiny group in Wyoming, probably no more than 5 individuals that exist in the northern portion of the Wyoming range. Lastly, we know that lynx exist in northern Maine. Additionally, there was evidence of lynx occurrence in Glacier National Park and in the Pioneer Range in Southwest

Montana. We placed surveys in all these locations and have currently run them for at least one year.

While extensive, the surveys could not cover the entire historical range of the lynx. We therefore centered grids with transects on large contiguous areas of designated lynx habitat. Additionally, we specified that the survey be run in each location for 3 years. We took a number of measures to regularize methods and ensure consistency. We used common training with the same instructor across the survey, and we provided a "kit" for each survey. The kit contained everything necessary to conduct the survey. Important components (hair snares, visual attractants, desiccant filled vials, lure etc.) were all produced at a central facility to ensure consistency. An extremely detailed field manual was also included in each kit.

Additionally, the field protocol was simple: people had to bait the lures as specified (we provided the measurement spoons), place the transects on a grid, set up each station as specified, collect hair 2 weeks later, place hair in the provided vials and the associated carpet pads in plastic bags (also provided), label the vials and bags and mail all vials and the associated pads to us. As long as there was sufficient supervisory control to assure that these steps were done properly, there is no reason that crews of variable make-up and skills could not successfully carry out the protocol.

DNA Analysis of Hair

Hair vials were shipped to the Missoula Lab in boxes or envelopes and were transferred unopened to our "hair lab," a facility on the University of Montana in a separate building from the lab in which we performed polymerase chain reaction (PCR) amplification.

Participants in the National Lynx Survey sent written reports to the Forest Service Regional Office in Missoula, or to the Missoula Lab. The written reports consisted of a set of maps showing the location of transects, vegetation forms, and a record of the stations from which hair had been collected. By matching information within the written reports with the vials and pads received at the Missoula Lab, we could detect any addition or deletion of samples that might have occurred. Additionally, we requested information concerning problems encountered in implementing the survey and ideas as to how the survey could be improved. These suggestions have led to a variety of minor changes in the field protocol.

The extracted DNA is then taken from the hair lab located on the University of Montana to the main laboratory located in the USDA Forest Service Forestry Sciences Laboratory, both in Missoula. Species identification methods were developed using extensive internal and external blind tests, as well as geographic range tests to confirm that the DNA differences used to separate species were consistent within the species and consistently different between species. Species identification of black bear and brown bear, coyote, wolf/dog, foxes, and mustelids, such as fisher, marten, or weasel is also performed. Additionally, other species are identified by sequencing the DNA and matching the derived base pair strings to data from Genbank, a database that serves as the primary international receptacle for DNA data. Positive and negative controls are included in every reaction. The positive control is a sample from a known organism of the target species. The positive control demonstrates that if a sample from the target species is present we are able to detect it. The negative control is water, and is used to test for the presence of contaminants in the reagents. The results of all laboratory reactions, in the form of gel images, are incorporated into lab books along with the species identification and associated notes.

We consulted extensively with the Fish and Wildlife Service Forensic lab in Ashland, Oregon concerning how to best preserve the chain-of-evidence associated with forensic samples. Records of all of the gels we have run are kept in lab books, all of the extracted DNA samples are preserved in 20-below-zero freezers, and all hair samples are held in sealed, desiccant filled vials, in locked cabinets in our hair extraction lab. If there are issues associated with a specific sample, we can readily access the DNA analyses, extracted DNA, and the original hair sample.

Follow-up Surveys

We initiate follow-up surveys when we identify a lynx sample in an area where, prior to the survey, we did not know that lynx were present. Where access permits (and it has so far) we utilize an extremely intensive winter-long snow tracking protocol designed and tested by Dr. John Squires to find lynx in preparation for trapping and subsequent radio-tracking. This allows us to separate detections associated with pets, lone wanderers, fur farm escapees, and falsified or unexplained samples from lynx detections associated with populations of conservation interest. We are running two such surveys this winter in the Boise and Shoshone National Forests,

the only heretofore unknown lynx locations associated with the National Lynx Survey to date.

Check-backs and Validation

There are 2 potential errors that can affect a survey. First, the survey could falsely identify lynx in areas where they do not exist. The second is that the survey could fail to detect lynx in areas in which they do exist (Table 1).

The first error, false positives, is primarily controlled by the rigor of the lab work. In this context, we demonstrated that the genetic assays we use for species identification are consistent across the ranges of all of the potential felids, and were diagnostic 100% of the time in rigorous double-blind tests. The extreme reliability of these assays is the primary strength of the method, and one of the primary reasons we chose DNA analysis.

Even though we have processed more than 1200 hair samples with sufficient DNA to amplify, we have only found 4 samples of lynx in areas where we were unaware of their presence prior to the survey. These occurred on the Boise and Shoshone National Forests. We are engaging in follow-up surveys of the types mentioned earlier in both areas this winter. We believe that the use of well-tested DNA analyses, combined with intensive follow-up surveys virtually eliminates the possibility of false positive results.

The second error, failing to detect lynx when they are, in fact, present cannot be entirely eliminated, but can be controlled through thorough field methods. To reduce the chances of failing to detect lynx, the survey employs a large number of approaches (Table 1). However, the real test of any survey is determined by directly testing its efficacy in the field. That is why we have placed so much emphasis on placing survey grids in areas in which lynx presence is known or strongly suspected.

Lynx Detections Not Associated With Lynx Conservation

There are lynx detections that occur within the National Lynx Survey that are not of conservation concern. For instance, lynx are domesticated both as pets and in fur farms, and may wander off or escape. Additionally, even though we have protocols to keep the lynx detection stations out of sight from roads or trails, and to limit the knowledge of their locations, people can, and have, planted lynx hair within our survey. To separate these occurrences from actual lynx populations, we rely on follow-up surveys. In these surveys, we look for evidence of multiple lynx, family groupings (the young-of-the-year travel together with their mother), and the spatial extent of the track data. Additionally, because we collect hair from the snow along all lynx tracks encountered, we may be able to evaluate the population more directly. As an example, on one of our test grids we obtained 12 hair samples associated with lynx, and 7 of these samples were from different individual lynx. If lynx hair were planted in areas that contain no lynx, in our follow-up surveys we would not find tracks, lynx hairs associated with the tracks, or other evidence of lynx such as scat. We, therefore, believe that the overall integrity of the survey is robust and will detect the presence of escaped pets, or willful data manipulation.

Summary

In summary, Mr. Chairman, we believe we can verify the scientific authenticity of the National Lynx Survey based on the reasons I have cited: survey methods, DNA analyses, and measures used to ensure quality and reliability associated with the National Lynx Survey. We believe the integrity of the overall survey has been maintained. This concludes my statement; I would be happy to answer any questions you or members of the Committee might have.

Literature cited not included in the attached National Lynx Survey

Ruggiero, L. F., K. B. Aubry, S. W. Buskirk, L. J. Lyon and W. J. Zielinski. 1994. The scientific basic for conserving forest carnivores: American marten, fisher, lynx, and wolverine in the western United States. USDA Forest Service General Technical Report RM–234.

[Figure 1 and Table 1 follow:]

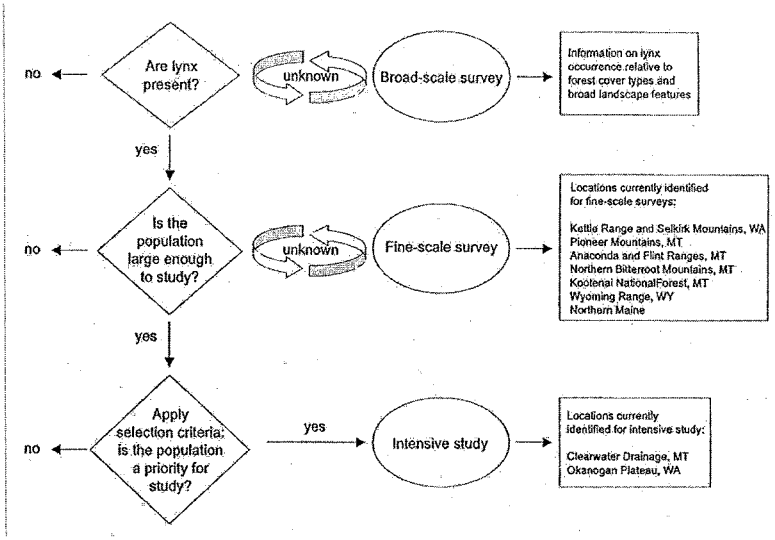


Figure 1. A schematic representation of the process for identifying areas where lynx can be studied, or conserved. The National Lynx Survey primarily answers the first question: are lynx present? From Aubry et al. (2000).

Table 1. Protocols in the National Lynx Survey designed to eliminate false positive results and to both increase and test the likelihood that the survey will detect lynx when present.

Avoiding false positive results	**Detecting lynx when present**
Geographic range tests of DNA methods Test results consistent Blind tests of DNA methods 100% success Quality controls in the lab Careful documentation of samples, reactions Positive and negative controls on each reaction Total separation between extraction and PCR Follow-up surveys for all lynx identifications outside of test grids	Use of a method that allows representative surveys of roadless areas. Testing the efficacy of the method In Kluane lynx detected on 45% of transects We use the best lure tested Saturation of the sample areas with 125 stations in 25 transects Conducting the survey for 3 years If protocol is not followed, the local survey doesn't count towards the 3 years Complete standardization of all materials and training used in the survey Geographic range tests of DNA methods Test results consistent Blind tests of DNA methods 100% success Multiple DNA extractions if PCR is unsuccessful About 80% amplification rate Positive controls on every reaction Running multiple test grids to directly evaluate survey efficacy

Mr. MCINNIS. Mr. Franklin?

STATEMENT OF THOMAS M. FRANKLIN, WILDLIFE POLICY DIRECTOR, THE WILDLIFE SOCIETY

Mr. FRANKLIN. Mr. Chairman, members of the Committee, my name is Thomas Franklin. I am Wildlife Policy Director of The Wildlife Society. Thank you for the invitation to appear before the Committee.

The primary point that I wish to make today is that The Wildlife Society, a professional society responsible for establishing codes of ethics and credentials for practicing wildlife biologists, has developed rigorous standards for persons engaged in wildlife surveys, management, and science.

Practicing wildlife biologists are highly educated professionals, most with graduate degrees, who are dedicated to excellence in natural resource management. They follow the scientific method. They understand that their career accomplishments depend on their credibility as biologists and scientists.

Do they occasionally make mistakes? Yes, of course. Every professional is subject to errors, whether they are biologists, physicians, engineers, teachers, or lawyers. However, professionals learn from their mistakes and avoid repeating them.

We do not know the identity of the individuals who were involved in the Canada Lynx Survey that is the subject of today's hearing, nor do we know whether their behavior was appropriate, so I shall not speculate about the lynx investigation or engage in hypothetical discussion. However, I am pleased to describe the Wildlife Society, its code of ethics, and its standards for professional conduct that are embraced by members of The Wildlife Society and certified wildlife biologists.

The Wildlife Society, founded in 1937, is the association of professional wildlife biologists and managers. We are dedicated to excellence in wildlife stewardship through science and education. The society's mission is to enhance the ability of wildlife professionals to conserve diversity, sustain productivity, and ensure responsible use of wildlife resources for the benefit of society. We have nearly 9,000 members who are employed by Federal, State, and local agencies, universities, nongovernmental organizations, the private sector, and some are students.

The Wildlife Society's members first adopted a code of ethics and incorporated it into the society's bylaws in 1963. Violations of the code of ethics by member may result in censure, or censure and suspension from membership of the society. All reported violations are reviewed by a Presidentially appointed board of inquiry, or by the council, which is the board of directors of the society.

The society adopted a program for certifying wildlife professionals, called the Certified Wildlife Biologist Program, in 1977. Since its inception, nearly 6,000 individuals have participated in the program. In addition to describing their education and experience, applicants must sign a pledge to uphold and conduct their activities in accordance with the code of ethics and standards for professional conduct. The standards for professional conduct express traditional norms for professional service.

Violation of either the code of ethics or standards of professional conduct is a serious matter, and reflects unfavorably on the entire wildlife profession. Accordingly, the certification program contains a formal process to investigate any charge of misconduct against anyone who as been certified, as well as disciplinary actions for those found in violation of standards.

The official code of ethics and standards for professional conduct are included in my prepared statement, but they are summarize succinctly in a 1987 paper on professionalism by wildlife biologist Dr. Jack Ward Thomas, who is a past president of The Wildlife Society.

They are, in Dr. Thomas's words: "Tell folks your primary responsibility is to the public interest, wildlife resource, and the environment. Don't perform professional services for anybody whose intent is to damage the wildlife resource. Work hard. Don't agree to perform tasks for which you aren't qualified. Don't reveal confidential information about your employer's business. Don't brag about your abilities. Don't take bribes, or offer them. Uphold the dignity and integrity of your profession. And, last, respect the competence, judgment, and authority of other professionals." Implied but not specifically mentioned is a requirement to simply tell the truth.

In conclusion, wildlife biologists are highly educated scientists who dedicate their careers to understanding ecological relationships and to managing wildlife following the scientific method. Wildlife biologists conduct their work ethically and professionally. If mistakes are made, they correct their behavior, as do persons employed in similar professions.

In the rare case when an individual may violate accepted standards, The Wildlife Society has established disciplinary procedures through our membership and certification programs to ensure that the credibility of the profession is maintained and that the public interest is served.

[The prepared statement of Mr. Franklin follows:]

Statement of Thomas M. Franklin, Wildlife Policy Director, The Wildlife Society

Mr. Chairman and Members of the Committee, my name is Thomas M. Franklin and I am Wildlife Policy Director of The Wildlife Society. Thank you for the invitation to appear before the Committee. The primary point that I wish to make today is that The Wildlife Society, the professional society responsible for establishing the code of ethics and credentials for practicing wildlife biologists, has developed rigorous standards for persons engaged in wildlife surveys, management and science. Practicing wildlife biologists are highly educated professionals, most with graduate degrees, who are dedicated to excellence in natural resource management. They follow the scientific method. They understand that their career accomplishments depend on their credibility as biologists and scientists. Do they occasionally make mistakes? Yes, of course. Every professional is subject to errors whether they are physicians, engineers, teachers, or lawyers. However, professionals learn from their mistakes and avoid repeating them. We do not know the identity of the individuals who were involved in the Canada lynx survey that is the subject of today's hearing. Nor do we know whether their behavior was appropriate. However, I am pleased to describe The Wildlife Society, its code of ethics, and its standards for professional conduct that are embraced by members of The Wildlife Society and Certified Wildlife Biologists.

The Wildlife Society is the association of professional wildlife biologists and managers. Our Society, founded in 1937, is a nonprofit scientific and educational organization dedicated to excellence in wildlife stewardship through science and education. The Wildlife Society's mission is to enhance the ability of wildlife professionals to conserve diversity, sustain productivity, and ensure responsible use of wildlife re-

sources for the benefit of society. The Wildlife Society encourages professional growth through peer-reviewed publications, technical meetings, certification, continuing education, professional development, and working groups.

We have nearly 9,000 members who are employed by federal, state and local agencies, universities, non-governmental organizations and the private sector, and students. Society members are dedicated to sustainable management of wildlife resources and their habitats. Ecology is the primary scientific discipline of the wildlife profession. The Society recognizes that humans, as well as other organisms, are dependent upon the environment. The Wildlife Society has a strategic document with goals that guide and direct our strategic emphasis. Those goals include:

1. Develop and maintain professional standards for wildlife research and management.
2. Enhance knowledge and technical capabilities of wildlife managers.
3. Advance professional stewardship of wildlife resources and their habitats.
4. Advocate the use of sound biological information for wildlife policy decisions.
5. Increase public awareness and appreciation of the wildlife profession.

THE WILDLIFE SOCIETY CODE OF ETHICS

The Wildlife Society's members first adopted a Code of Ethics and incorporated it into the Society's Bylaws in 1963. The following is The Wildlife Society's current Code of Ethics for members:

Each member, in striving to meet objectives of the Society, pledges to:

1. Subscribe to the highest standards of integrity and conduct;
2. Recognize research and scientific management of wildlife and their environments as primary goals;
3. Disseminate information to promote understanding of, and appreciation for, values of wildlife and their habitats;
4. Strive to increase knowledge and skills to advance the practice of wildlife management;
5. Promote competence in the field of wildlife management by supporting high standards of education, employment, and performance;
6. Encourage the use of sound biological information in management decisions; and
7. Support fair and uniform standards of employment and treatment of those professionally engaged in the practice of wildlife management.

Violations of this Code by a member may result in censure, or censure and suspension, from membership in the Society. All reported violations are reviewed by a presidentially appointed Board of Inquiry or by the Council of the Society.

CERTIFICATION

Since 1977 The Wildlife Society has had a program for Certification of Professional Wildlife Biologists. The Society has long sought to promote and strengthen professional standards in all activities devoted to wildlife resources. The certification program was developed to provide a voluntary peer evaluation of the education and professional experience of wildlife biologists. Since it's inception, nearly 6,000 individuals have participated in the program, which is open to members and nonmembers. In addition to describing their education and experience, applicants must sign a pledge to uphold and conduct their activities in accordance with a "Code of Ethics" and "Standards for Professional Conduct."

The Code of Ethics in the certification program adheres to the above code of ethics for Society members. The Standards for Professional Conduct express the intent of the Code of Ethics and traditional norms for professional service.

Under the Certification program, Associate and Certified Wildlife Biologists shall conduct their activities in accordance with the Code of Ethics and the following Standards for Professional Conduct as prescribed by The Wildlife Society outlined below.

STANDARDS FOR PROFESSIONAL CONDUCT

The following tenets express the intent of the Code of Ethics as prescribed by The Wildlife Society, and traditional norms for professional service.

Wildlife biologists shall at all times:

1. Recognize and inform prospective clients or employers of their prime responsibility to the public interest, conservation of the wildlife resource, and the environment. They shall act with the authority of professional judgment, and avoid actions or omissions that may compromise these broad responsibilities. They shall respect the competence, judgment, and authority of the professional community.

2. Avoid performing professional services for any client or employer when such service is judged to be contrary to the Code of Ethics or Standards for Professional Conduct or detrimental to the well-being of the wildlife resource and its environment.
3. Provide maximum possible effort in the best interest of each client/employer accepted, regardless of the degree of remuneration. They shall be mindful of their responsibility to society, and seek to meet the needs of the disadvantaged for advice in wildlife-related matters. They should studiously avoid discrimination in any form, or the abuse of professional authority for personal satisfaction.
4. Accept employment to perform professional services only in areas of their own competence, and consistent with the Code of Ethics and Standards for Professional Conduct described herein. They shall seek to refer clients or employers to other natural resource professionals when the expertise of such professionals shall best serve the interests of the public, wildlife, and the client/employer. They shall cooperate fully with other professionals in the best interest of the wildlife resource.
5. Maintain a confidential professional-client/employer relationship except when specifically authorized by the client/employer or required by due process of law or this Code of Ethics and Standards to disclose pertinent information. They shall not use such confidence to their personal advantage or to the advantage of other parties, nor shall they permit personal interests or other client/employer relationships to interfere with their professional judgment.
6. Refrain from advertising in a self-laudatory manner, beyond statements intended to inform prospective clients/employers of qualifications, or in a manner detrimental to fellow professionals and the wildlife resource.
7. Refuse compensation or rewards of any kind intended to influence their professional judgment or advice. They shall not permit a person who recommends or employs them, directly or indirectly, to regulate their professional judgment. They shall not accept compensation for the same professional services from any source other than the client/employer without the prior consent of all the clients or employers involved. Similarly, they shall not offer a reward of any kind or promise of service in order to secure a recommendation, a client, or preferential treatment from public officials.
8. Uphold the dignity and integrity of the wildlife profession. They shall endeavor to avoid even the suspicion of dishonesty, fraud, deceit, misrepresentation, or unprofessional demeanor.

Violation of either the Code of Ethics or the Standards for Professional Conduct is a serious matter that reflects unfavorably on the entire wildlife profession. Accordingly, the certification program contains a formal process to investigate a charge of misconduct against anyone who has been certified through a board of inquiry, as well as disciplinary actions for those found in violation of the Code of Ethics or Standards for Professional Conduct.

CONCLUSION

Wildlife biologists are highly educated scientists who dedicate their careers to understanding ecological relationships and to managing wildlife following the scientific method. Wildlife biologists conduct their work ethically and professionally. If mistakes are made, they correct their behavior, as do persons employed in similar professions. In the rare case where an individual may violate accepted standards, The Wildlife Society has established disciplinary procedures, through our membership and certification programs, to ensure that the credibility of the profession is maintained and that the public interest is served.

Mr. MCINNIS. Thank you, Mr. Franklin. I will begin the questioning. Mr. Franklin, I will start with you. Later on today or tomorrow I will put into the record the names of these individuals, and I think it is a good sample to send to your code of ethics board, the names of these individuals, and if in fact they are members—they may not be—if they are members, then I would assume that you would institute an investigation under your code of ethics, based on what you just said.

I think it is highly important that—first of all, I commend you on the ethics. I think that is what we are looking for. I think it is highly important that we not only put it out, that we also follow

through, and I would expect that you will probably do that once you get the names, which will be in the record,

Mr. McKelvey, let me ask you, I am a little alarmed. I read on page 6 of your testimony, and I will quote it—have you got it there? Look, I don't want to take you by surprise. You have got it memorized, probably.

"Additionally, even though we have protocols to keep the lynx detection stations out of sight from roads and trails and to limit the knowledge of their locations, people can and have planted lynx hair within our survey."

So I guess we need to know, you gave to me your checks and balances of DNA and so on, once you get the lynx hair.

Mr. MCKELVEY. Right.

Mr. MCINNIS. But apparently you have had people who have planted lynx hair. Now, how does your lab do the detection on that? Because the DNA is going to show it is a lynx, obviously. I mean—

Mr. MCKELVEY. We have been talking all day about, when I say we have had people plant hair on our sample, that is what we have been talking about all day. There is no—

Mr. MCINNIS. Are you referring to those specific people in your paragraph on page 6?

Mr. MCKELVEY. Yes.

Mr. MCINNIS. That is what you are referring to?

Mr. MCKELVEY. Yes, absolutely.

Mr. MCINNIS. These biologists?

Mr. MCKELVEY. Yes. I know of no others.

Mr. MCINNIS. OK.

Mr. MCKELVEY. Because that is one thing. Second, if we get samples from the woods that come back lynx, that sends us into protocol No. 2, which is we go out to that area. Now we don't have to worry about the whole Nation, we have to worry about a relatively small piece of land where the hit occurred, and we can go into that place and find out if there is anything there.

Mr. MCINNIS. And you do that through winter studies or tracking, winter tracking?

Mr. MCKELVEY. Yes. To date, we have used these winter tracking methods because they have been appropriate. If for some reason in some part of the country that wasn't going to work, we would move to other methods.

Mr. MCINNIS. OK, let's assume that these tests or these samples, the whistle-blower didn't blow the whistle and let us know what was happening, and your lab verifies that in fact the DNA, that these were lynx hairs.

Mr. MCKELVEY. Yes.

Mr. MCINNIS. And then when we go into this, I guess what has been referred—not guess, but what has been referred to as the secondary stage, give me an idea of what that involves, the time period that that involves.

And I will tell you what I am looking for. My suspicion is that some of these employees really believed that there were probably lynx out there, and disagreed with the science and disagreed with previous findings, and decided that anything they could do to extend the period or expand the study in hopes that, one, either a

lynx did exist or, two, it gave them more time to plant evidence, tell me what that secondary stage involves.

Mr. MCKELVEY. The secondary stage would go on for a winter, about 3 months, and at the end of the 3 months, we have experience now with running this protocol in areas where we have extremely low densities of lynx. It does seem to be able to pick them up quite reliably. If we don't get anything, and if it were a plant, we wouldn't, there would be no tracks there, then we would just say, "Well, we don't know what that was, but it definitely wasn't a population of lynx," and my recommendation would be that we would go back to the initial survey. We would have no evidence at that point that it was a plant.

Mr. MCINNIS. Would you have a firewall between the employees involved in the submission of the initial samples and going out on your secondary investigation? In other words, the people that submitted the first examples wouldn't know where you would be. You would be doing blind testing as to them. Is there some firewall in there that keeps them at arm's length?

Mr. MCKELVEY. To make sure that the same employees weren't on the winter survey?

Mr. MCINNIS. Well, that they weren't on it or they didn't know where your tracking might be, in other words, so it keeps them at arm's length from having any type of involvement in that secondary survey.

Mr. MCKELVEY. On the surveys that we have in place in Shoshone and the Boise, none of the employees that worked in the summer are in any way involved with those surveys, and therefore they would not know their day-to-day snow tracking routes or anything else.

Mr. MCINNIS. Well, on this specific case with the biologists that were involved here, the people that were involved here, I am a little confused. Maybe you have just answered it. If in fact the secondary investigation was kicked in, is there assurance that those people would not have been involved in any way whatsoever or had knowledge, inside information, so to speak, of what was being done to confirm the initial findings of lynx hair?

Mr. MCKELVEY. I can't—this was a hypothetical question.

Mr. MCINNIS. But it could have been very realistic if we had not had a whistle-blower.

Mr. MCKELVEY. That is true. Mark Rey stated that these people did not have the expertise to do the snow tracking. That is correct. We need to bring in different crews to do that. They have to have a lot of experience in looking at lynx tracks. They get trained on our lynx telemetry study in Montana—

Mr. MCINNIS. All right, but what protocol exists, keeping a firewall between the first set of employees and the second set, or the first set of experts and the second set of experts?

Mr. MCKELVEY. I don't believe there is a formal firewall at this time. That is something that certainly I think is a good idea, and I have been investigating our abilities to do that within hiring laws. I mean, there are certain things that we—we can't just not hire somebody, you know, for something, unless we have some reason to do so. So I have been looking into that possibility and I think it is a very good idea.

Mr. MCINNIS. Thank you.

Mr. Mills, I have run out of time, so I will make mine, just one question with you, very brief. With the laboratory and so on, would there be any reason at all, I mean, did you sense any weakness in the protocol that would be justifiable reason for a field biologist to go ahead on their own accord, to go ahead and start testing the lab? In other words, to give you a comparable example, is there anything recent at all for the janitor at the airport to start walking through the metal detector to test whether or not the metal detector was working?

That is kind of what I am looking for here. Did you sense any weakness in the protocol that would justify that kind of action by field biologists?

Mr. MILLS. No. In my opinion, there is no justification for the action that was taken by field personnel.

Mr. MCINNIS. Thank you.

Mr. Inslee?

Mr. INSLEE. Thank you.

Bottom line, I want to make sure I understand your testimony, can I tell my constituents that this incident or collection of incidents did not affect the validity of the lynx study in the State of Washington? Can I tell them that? Can I ask Mr. Mills and Mr. McKelvey.

Mr. MILLS. I would say that the integrity of the lynx study for the State of Washington is the integrity of the study is intact.

Mr. MCKELVEY. I would second that. Not only when we analyze the samples for that area, the only samples of lynx that showed up were, in fact, the plant. So we know, at least in 2000, that that was the extent of the tampering. So that is one thing, got to the bottom of it, took those people out of the system.

The second thing is that we have backups and follow-ups which ensure the reliability of the survey should this kind of behavior happen again.

Mr. INSLEE. Dr. Mills, let me ask you about the lab. I will just tell you kind of my flavor, what I think happened here. I think there were some lower level biologists or folks who were collecting samples that, for one reason or another, had doubt about the efficacy of the lab and took it upon themselves to test that, to challenge it. Would they, by necessity, would they have been aware of any other challenge or control system that the lab would be exposed to? Would those individuals have been aware of that?

Mr. MILLS. I don't know if they would or not. If they asked me, they certainly would have. If they had looked at the literature, they certainly would have, but I don't know what else they might know.

Mr. INSLEE. Could you describe, at least briefly, what that control system or challenge system how that works.

Mr. MILLS. Sure, in terms of before we instituted the test and before I submitted the paper for peer review and publication, we made sure across the geographic range of all of the species that always the known species corresponded to the appropriate identification via the DNA protocol.

We also imposed blind tests such that the technician running the test did not know the identity of the sample until after the test was done. We did that both internal to our lab, and we also did that

external to the lab, whereby I sent 20 vialed samples, labeled 1 through 20, to the Fish and Wildlife Service forensics lab in Ashland, Oregon, sent them the lab protocol that I developed and said, "Please use just this protocol and tell me the identity of these 20 vials." They did that with 100-percent accuracy.

Mr. INSLEE. But would your lab get samples that someone knew were misidentified to challenge your lab?

Mr. MILLS. That was what I just exampled. That is a continual, ongoing process that we continually get known samples, and we impose our species protocol on those to make sure that we do, in fact, get the correct identification.

Mr. INSLEE. Do you think it would help to make sure that everybody in this chain of evidence would be aware that you have got already blind samples? Do you think that would make sense to make sure everyone is advised of that before they participate anywhere in this chain to avoid this kind of problem?

Mr. MILLS. Clearly, in retrospect, with the knowledge we now know, that would be a good idea. However, in my opinion it should be sufficient to tell field personnel, here is the protocol, and that should be understood that you don't deviate from that protocol without informing the principal investigators.

Mr. INSLEE. Thank you.

Mr. PETERSON. [Presiding.] Mr. Walden?

Mr. WALDEN. Thank you very much, Mr. Chairman.

I apologize for having to be gone. I had a bill on the floor I had to carry, so if this has come out already, stop me.

Has there been any analysis or are you planning to do any analysis on what this set of shenanigans cost the taxpayers?

Mr. MILLS. I would not, personally. I think that that would be interesting.

Mr. WALDEN. I would agree, as perhaps an understatement. Because I think that is an important element. The one thing that I hear from my constituents when I go home, there is no accountability in this process. And when it comes out, and again I missed part of this, unfortunately, and I will get with Mr. Rey later perhaps, but about there is this report they got paid more, and they have been counseled. I cannot explain that to people that I represent how that behavior is allowed to go on.

These people, frankly, from my perspective, we ought to pass a law here that holds them personally accountable for the costs, since they tried to jury-rig the findings.

Do we know if these same people who submitted the false data have participated in other information-gathering, collection, analysis processes on other species?

Mr. MCKELVEY. I have no information about these individuals.

Mr. WALDEN. Would you be in a position to find that out or is that somebody else I need to address that to?

Mr. MCKELVEY. I would think that Region 6 would be the proper individuals. That is who they work for.

Mr. WALDEN. I intend to follow up because I guess when you see one of these, you say, "If they did it here, did they do it anywhere else?" And that is a question I have been asked all over Eastern Oregon because we are under that lynx habitat.

Dr. Mills, I find the question interesting from my—well, he is gone—my colleague from Washington that somehow I was getting to feel like, you know, blame the victim here because maybe these people should have been told there were these false samples, but the GAO report, have you had a chance to review that yet today?

Mr. MILLS. No, I haven't.

Mr. WALDEN. Because they say very clearly that the scientists knew that the protocol for the national survey did not provide for such action, the action they took, and that they did not have the authority to make these submissions, and they were aware that they had alternatives for testing the laboratory other than submitting samples as part of the survey.

So I find it incredible to somehow say we ought to have a different system here when, in fact, the people engaged in this action admitted to the GAO they knew what they were doing was in violation of the protocols and that there were other ways to test the system. I just share that with you.

I guess for the benefit of the Committee, going back to 1998, the Oregon Fish and Wildlife Office, Department of Fish and Wildlife, raised issues about the proposed Federal listing of the threatened species of the lynx in the Northwest, and they went through and commented on what was in the Federal Register. And they pointed out that there is no data that exists to support the idea that lynx ever bred in Oregon; even though somebody to tried to classify them as a fur bearer, they are not classified as such in Oregon; there is no evidence of a breeding population historically; no supportive evidence or reasons to list the lynx in Oregon when considering the listing criteria in Section 4 of the Endangered Species Act, and yet you know when all of this talks about lynx occurs, the habitat is huge.

What we tend to think of is that there may have been some that wandered down from the North when they were overpopulated some year, but they have never bred, they have never been native particularly to our region.

I guess the real issue for me is, as we learn about this potential falsification, well, the falsification of data, it really causes problems to the credibility of the Service and to the good people in the Service who are doing honest work, and I can't say that strongly enough, that I know there are a lot of, 99.9 percent are doing the right thing, following the protocols. And so when this kind of action happens, it just throws everything into question. It makes it very difficult to rely on the data.

With that, Mr. Chairman, I will yield back.

I understand that Mr. Rey would come back to the table if I would like those questions answered.

Mr. PETERSON. Yes, Mr. Rey, if you would like to just come back to either side, whichever side you are comfortable on, and take the first chair, you can sit at a member's chair there temporarily.

Mr. WALDEN. I apologize again for having—

Mr. PETERSON. That is all right there. That is OK. You are more comfortable there. I was going to give you a member's chair.

Mr. REY. There is too great a chance to get into even more trouble up there.

[Laughter.]

Mr. PETERSON. Please proceed, Mr. Walden.

Mr. WALDEN. I guess the question is are you going to pursue—I realize you inherited this. I understand you have not been on the job long, but this whole issue, what did this cost us, and what about accountability? And I was not here if you did talk about the so-called bonuses and all of that. Can you run back through that for me.

Mr. REY. First off, we can get you an estimate of what the investigations, both the Forest Service investigation, as well as the IG investigations, have cost the taxpayers. I don't have that information now. In fact, the IG investigation isn't complete, so we wouldn't be able to get you that information at the present time.

Mr. WALDEN. If I can interrupt you, I am not talking about just those two investigations. I am talking about if they falsified these data and a process occurred, a lab had to do an analysis, and then you had to back out of that, and those lab analyses are not cheap, I don't think.

Mr. REY. I think we can get you a rough estimate of what the total monetary costs of this have been so far.

Just for a basis of comparison, the 3-year cost of the survey to date is $1.6 million. So we have obviously had some additional costs as a consequence of the misrepresented data. I am guessing it will be a fraction of that. In addition, we will get you the amount of the investigators' costs as well.

With regard to the Forest Service, let me clarify the record. We did not provide monetary merit bonuses to any of the employees that were involved. One person is retired, so that was not an issue with that person. The only awards that were given were a nonmonetary, that is to say, nonmoney award for a different project, under $200 in value, and that was awarded prior to the information about the lynx survey coming to the fore.

Mr. WALDEN. OK.

Mr. REY. We have reviewed the projects that the three Forest Service biologists were involved in prior to the lynx survey, and we have reviewed the work that two of the three have been involved in since. The one that retired is obviously not any longer relevant in that respect.

We did take them off of the lynx project. That was one of the measures that was taken once this came to light. Neither of the projects that they were involved in previously, nor their work in the projects that they have been involved in subsequently, lend themselves, on the basis of the specific activities to which they were assigned, to cause us to call into question the integrity of the overall project they were involved in.

Mr. WALDEN. What about the issue of accountability?

Mr. REY. The issue of accountability is the subject of both the first investigation, as well as the second, and the key issue, as I see it, is the motivation of these individuals. The first investigation concluded that their motivation was, as it was described by GAO, simply to test the lab, although GAO was uncertain as to whether the evidence supported that conclusion. We have asked the IG to look more fully into that to satisfy ourselves that that was, in fact, their motivation or that there is no evidence to the contrary.

The subsequent issue of whether the remedies that have been applied thus far are sufficient to hold them accountable for their actions will I think have to await the completion of the IG's work.

Mr. WALDEN. I understand.

Mr. REY. Now, more broadly, since this issue has come to light, we have expanded the Code of Ethics developed by Forest Service researchers in 1998 to all Forest Service employees, and contractors, and cooperators involved in research projects. These biologists were not researchers. They were field assistance providing some assistance to a research project.

Under that Code of Ethics, as it would now be applied to all Forest Service employees involved in a research project, falsification of data would be something that would be responded to with a letter of reprimand or dismissal, even in the first instance, without regard to the motivation involved, and the rationale for applying that remedy is that credibility is easy to lose and hard to regain.

Mr. WALDEN. Yes.

Thank you, Mr. Chairman.

Mr. PETERSON. Thank you.

So if the motivation is pure, it is OK to ignore the protocol?

Mr. REY. No, that is not the case. It is not a question of whether their motivation was pure or impure, the actions were wrong-headed and wrong.

The question is was there maliciousness or conspiracy to expand the range of lynx habitat by these actions or was their motivation, as they said, a wrong-headed effort to test the voracity or the accuracy, I am sorry, of the lab results.

Mr. PETERSON. I don't buy that for a minute. I mean, that is a stretch, in my view.

Mr. REY. That seems to be a pretty widely held view, but at the same time, the difficulty in the lab results of the previous survey, not the one that you have just heard about, would provide at least some credence to the explanation that the failure to find positive results was something that these folks believed to be warranted a test.

Now, having said that, that doesn't excuse the action. The action was wrong. The question is was there a motivation which increased, which by its necessity should increase the penalties that are meted out, and that is a question that is still on the table to be resolved by the OIG investigation.

Mr. PETERSON. Thank you. Mr. Rey, while you are still here, we share the interests in reviewing and streamlining the entire natural resource decisionmaking process. Will this general review include a look at the credibility and ethics within the Agency?

Mr. REY. The credibility of the Agency is something that is at issue here and is tied into any changes we make in our management processes. The question of Agency employee ethics is one that I think, for at least the time being, we have achieved a resolution to, and we are eager to hear from anyone who believes the Code of Ethic, which was implied to all Forest Service employees involved in research exercises, is adequate. We think it is a pretty strongly worded and tightly written Code of Ethics.

Mr. PETERSON. Thank you very much.

Now I am going to switch to Mr. McKelvey. When do you expect to publish the final results?

Mr. MCKELVEY. We have one more year of the survey. That will give us 3 years of data on most sites. There may be a few that we don't have 3 years on, but at that point, we will evaluate the results, including the results from the test areas, which are areas where we know there are lynx. Based on those results, we can determine the efficacy of the survey at finding lynx, where they are, and thereby evaluate the results where they do not find lynx, and we will publish at that time.

Mr. PETERSON. What do you think the total cost will be when this is finished?

Mr. MCKELVEY. I believe the cost per year is about $700,000 to run the survey nationwide, and that includes all costs, including in-kind contributions from the Forest.

Mr. PETERSON. So it will be in excess of $2 million.

Mr. MCKELVEY. What?

Mr. PETERSON. In excess of $2 million.

Mr. MCKELVEY. I believe so.

Mr. PETERSON. Mr. Mills, were you ever contacted by anyone regarding concerns about the protocols?

Mr. MILLS. No.

Mr. PETERSON. Were concerns brought to your attention that the information you presented was not the same as the Weaver study result?

Mr. MILLS. Nothing formally. I heard rumblings that, wow, you got different results from the Weaver result, but I never got any formal, "This is a concern. Please tell me more."

Mr. PETERSON. Thank you.

Mr. Franklin, in your opinion, since Dr. Weaver's 1999 data has proven unverifiable, do you think that the Fish and Wildlife Service should take another look at the March rule on developing a Canadian lynx habitat?

Mr. FRANKLIN. I am not sure there is justification for reevaluating whether the Canada lynx habitat—no, I can't really make that statement here.

Mr. PETERSON. Thank you very much.

I want to thank the panel, and I want to thank the former panels.

I thank the witnesses on the third panel for their insights and the members for their questions. The members of the Committee may have some additional questions for the witnesses, and we ask you to respond to those in writing. The hearing record will be held open for 10 days for those responses.

If there is no further business before the Committee, I will thank the members of the Committee and our witnesses, and this meeting does stand adjourned.

[Whereupon, at 1:42 p.m., the Committee was adjourned.]

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