AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

H.R. 3558, THE SPECIES PROTECTION AND CONSERVATION OF THE ENVIRONMENT ACT

JOINT LEGISLATIVE HEARING

BEFORE THE

SUBCOMMITTEE ON FISHERIES CONSERVATION, WILDLIFE AND OCEANS

AND THE

SUBCOMMITTEE ON NATIONAL PARKS, RECREATION, AND PUBLIC LANDS

AND THE

SUBCOMMITTEE ON FORESTS AND FOREST HEALTH

OF THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

March 14, 2002

Serial No. 107-95

Printed for the use of the Committee on Resources

Available via the World Wide Web: http://www.access.gpo.gov/congress/house
or
Committee address: http://resourcescommittee.house.gov

U.S. GOVERNMENT PRINTING OFFICE

78-207 PS WASHINGTON : 2002

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2250 Mail: Stop SSOP, Washington, DC 20402–0001

COMMITTEE ON RESOURCES

JAMES V. HANSEN, Utah, *Chairman*
NICK J. RAHALL II, West Virginia, *Ranking Democrat Member*

Don Young, Alaska,
Vice Chairman
W.J. "Billy" Tauzin, Louisiana
Jim Saxton, New Jersey
Elton Gallegly, California
John J. Duncan, Jr., Tennessee
Joel Hefley, Colorado
Wayne T. Gilchrest, Maryland
Ken Calvert, California
Scott McInnis, Colorado
Richard W. Pombo, California
Barbara Cubin, Wyoming
George Radanovich, California
Walter B. Jones, Jr., North Carolina
Mac Thornberry, Texas
Chris Cannon, Utah
John E. Peterson, Pennsylvania
Bob Schaffer, Colorado
Jim Gibbons, Nevada
Mark E. Souder, Indiana
Greg Walden, Oregon
Michael K. Simpson, Idaho
Thomas G. Tancredo, Colorado
J.D. Hayworth, Arizona
C.L. "Butch" Otter, Idaho
Tom Osborne, Nebraska
Jeff Flake, Arizona
Dennis R. Rehberg, Montana

George Miller, California
Edward J. Markey, Massachusetts
Dale E. Kildee, Michigan
Peter A. DeFazio, Oregon
Eni F.H. Faleomavaega, American Samoa
Neil Abercrombie, Hawaii
Solomon P. Ortiz, Texas
Frank Pallone, Jr., New Jersey
Calvin M. Dooley, California
Robert A. Underwood, Guam
Adam Smith, Washington
Donna M. Christensen, Virgin Islands
Ron Kind, Wisconsin
Jay Inslee, Washington
Grace F. Napolitano, California
Tom Udall, New Mexico
Mark Udall, Colorado
Rush D. Holt, New Jersey
James P. McGovern, Massachusetts
Anibal Acevedo-Vila, Puerto Rico
Hilda L. Solis, California
Brad Carson, Oklahoma
Betty McCollum, Minnesota

Tim Stewart, *Chief of Staff*
Lisa Pittman, *Chief Counsel/Deputy Chief of Staff*
Steven T. Petersen, *Deputy Chief Counsel*
Michael S. Twinchek, *Chief Clerk*
James H. Zoia, *Democrat Staff Director*
Jeffrey P. Petrich, *Democrat Chief Counsel*

SUBCOMMITTE ON FISHERIES CONSERVATION, WILDLIFE AND OCEANS

WAYNE T. GILCHREST, Maryland, *Chairman*
ROBERT A. UNDERWOOD, Guam, *Ranking Democrat Member*

Don Young, Alaska
W.J. "Billy" Tauzin, Louisiana
Jim Saxton, New Jersey,
Vice Chairman
Richard W. Pombo, California
Walter B. Jones, Jr., North Carolina

Eni F.H. Faleomavaega, American Samoa
Neil Abercrombie, Hawaii
Solomon P. Ortiz, Texas
Frank Pallone, Jr., New Jersey

SUBCOMMITTEE ON NATIONAL PARKS, RECREATION, AND PUBLIC LANDS

GEORGE P. RADANOVICH, California, *Chairman*
DONNA M. CHRISTENSEN, Virgin Islands *Ranking Democrat Member*

Elton Gallegly, California
John J. Duncan, Jr., Tennessee
Joel Hefley, Colorado
Wayne T. Gilchrest, Maryland
Walter B. Jones, Jr., North Carolina, *Vice Chairman*
Mac Thornberry, Texas
Chris Cannon, Utah
Bob Schaffer, Colorado
Jim Gibbons, Nevada
Mark E. Souder, Indiana
Michael K. Simpson, Idaho
Thomas G. Tancredo, Colorado

Dale E. Kildee, Michigan
Eni F.H. Faleomavaega, American Samoa
Frank Pallone, Jr., New Jersey
Tom Udall, New Mexico
Mark Udall, Colorado
Rush D. Holt, New Jersey
James P. McGovern, Massachusetts
Anibal Acevedo-Vila, Puerto Rico
Hilda L. Solis, California
Betty McCollum, Minnesota

SUBCOMMITTEE ON FORESTS AND FOREST HEALTH

SCOTT McINNIS, Colorado, *Chairman*
JAY INSLEE, Washington, *Ranking Democrat Member*

John J. Duncan, Jr., Tennessee
John E. Peterson, Pennsylvania, *Vice Chairman*
Mark E. Souder, Indiana
Michael K. Simpson, Idaho
Thomas G. Tancredo, Colorado
J.D. Hayworth, Arizona
C.L. "Butch" Otter, Idaho

Dale E. Kildee, Michigan
Tom Udall, New Mexico
Mark Udall, Colorado
Rush D. Holt, New Jersey
Anibal Acevedo-Vila, Puerto Rico
Betty McCollum, Minnesota

C O N T E N T S

	Page
Hearing held on March 14, 2002	1
Statement of Members:	
Christensen, Hon. Donna M., a Delegate in Congress from the Virgin Islands	6
Gilchrest, Hon. Wayne T., a Representative in Congress from the State of Maryland	1
Prepared statement of	2
McInnis, Hon. Scott, a Representative in Congress from the State of Colorado, Prepared statement of	89
Otter, Hon. C.L. "Butch", a Representative in Congress from the State of Idaho	5
Rahall, Hon. Nick J. II, a Representative in Congress from the State of West Virginia	3
Underwood, Hon. Robert A., a Delegate in Congress from Guam	4
Letters and statements submitted for the record	52
Statement of Witnesses:	
Bartuska, Ann M., Ph.D., Executive Director, Invasive Species Initiative, The Nature Conservancy	36
Prepared statement of	37
Chavarria, Gabriela, Ph.D., Director of International and Special Programs, National Fish and Wildlife Foundation	31
Prepared statement of	32
Eldredge, Dr. Lucius G., Department of Natural Science, Bishop Museum, Hawaii	40
Prepared statement of	42
Kaiser, Janette, Acting Associate Deputy Chief, National Forest System, Forest Service, U.S. Department of Agriculture	7
Prepared statement of	10
O'Keeffe, John, Adel, Oregon, on behalf of the National Cattlemen's Beef Association and Public Lands Council	76
Prepared statement of	77
Riley, Dr. Terry Z., Director of Conservation, Wildlife Management Institute	80
Prepared statement of	81
Shannon, John T., State Forester of Arkansas, on behalf of the National Association of State Foresters	71
Prepared statement of	73
Tate, Dr. James, Jr., Science Advisor, U.S. Department of the Interior	11
Prepared statement of	13
Van Putten, Mark, President and CEO, National Wildlife Federation	21
Prepared statement of	23

JOINT LEGISLATIVE HEARING ON H.R. 3558, THE SPECIES PROTECTION AND CONSERVATION OF THE ENVIRONMENT ACT

Thursday, March 14, 2002
U.S. House of Representatives
Subcommittee on Fisheries Conservation, Wildlife and Oceans, joint with the
Subcommittee on National Parks, Recreation, and Public Lands and the
Subcommittee on Forests and Forest Health
Committee on Resources
Washington, DC

The Subcommittee met, pursuant to notice, at 10:10 a.m., in room 1334, Longworth House Office Building, Hon. Wayne T. Gilchrest [Chairman of the Subcommittee] presiding.

STATEMENT OF THE HON. WAYNE T. GILCHREST, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MARYLAND

Mr. GILCHREST. Good morning, everyone. The Subcommittee will come to order.

We are holding a joint legislative hearing this morning on H.R. 3558, the Species Protection and Conservation of the Environment Act. This legislation is sponsored by the Resources Committee Ranking Democratic Member Congressman Nick Rahall. Congressman Robert Underwood, the ranking member of the Fisheries Subcommittee and I are original cosponsors. It is a long overdue attempt to deal with a serious and growing problem.

Mr. GILCHREST. Nuisance non-native species are a threat to every corner of the United States and its territories, from microbes to mammals. This issue crosses State and national jurisdictions to affect us all. The magnitude of this problem is enormous. Non-native species inflict tremendous economic and environmental harm. Business, agriculture, fisheries, and most importantly our native species suffer as they are outcompeted, displaced, preyed upon and, in far too many cases, eradicated by those invaders.

My own congressional district, the First District of Maryland, is adversely impacted by a multitude of invasive species. Of particular concern are nutria, large semi-aquatic rodents native to South America, which is not in my testimony, jet skis.

[Laughter.]

Mr. GILCHREST. I just throw that out. They disrupt and fragment the habitat like the nutria do, actually. Nutria were introduced during the 1940's to bolster the fur industry, but have established wild populations which cause severe ecological damage. This is also not in my testimony, but may be we should introduce some black panthers to my district, which they have in South America, that reduce the population of nutria, but that is not in Nick's bill. Due to their prolific breeding and voracious appetite for wetland plants, these animals destroy thousands of acres of migratory bird wetland habitat every year. In the Black Water refuge, there has been about 7,000 acres of habitat for migrating water fowl have been destroyed, not to mention the other species that live there, including muskrat, by these nutria.

I suspect that each Congress district across the country has horror stories about the impact of invasive species, and it is for that reason that I was pleased to co-sponsor this bipartisan bill. H.R. 3558, the so-called SPACE Act, provides grants for the planning and implementation of eradication efforts on and adjacent to Federal lands. This program also provides a fund for eradication projects using innovative technologies in our National Wildlife Refuge System and for the establishment of a rapid response capability so that newly introduced species can be effectively eliminated before they become established.

I look forward to hearing from our distinguished panel and our witnesses on this most pressing issue. This legislation is appropriately named because we are entering a new frontier. Failure to act is not an option because it may well doom various ecosystems throughout the country for centuries to come.

[The prepared statement of Mr. Gilchrest follows:]

Statement of The Honorable Wayne T. Gilchrest, Chairman, Subcommittee on Fisheries Conservation, Wildlife and Oceans

Good morning, today the Subcommittees on Fisheries Conservation, Wildlife and Oceans; National Parks, Recreation and Public Lands; and Forests and Forest Health will be holding a joint legislative hearing on H.R. 3558, the Species Protection and Conservation of the Environment Act. This legislation is sponsored by the Resources Committee Ranking Democratic Member Congressman Nick Rahall. Congressman Robert Underwood the Ranking Member of the Fisheries Subcommittee and I are original cosponsors. It is a long overdue attempt to deal with a serious and growing problem.

Nuisance non-native species are a threat to every corner of the U.S. and its territories. From microbes to mammals—this issue crosses state and national jurisdictions to affect us all. The magnitude of this problem is enormous. Non-native species inflict tremendous economic and environmental harm. Businesses, agriculture, fisheries, and, most importantly, our native species suffer as they are out competed, displaced, preyed upon, and in far too many cases eradicated by these invaders.

My own Congressional district, the first district of Maryland, is adversely impacted by a multitude of invasive species. Of particular concern are nutria, large semi-aquatic rodents native to South America. Nutria were introduced during the 1940s to bolster the fur industry, but have established wild populations which cause severe ecologic damage. Due to their prolific breeding and voracious appetite for wetland plants, these animals destroy thousands of acres of migratory bird wetland habitat every year.

I suspect that each Congressional district across the country has horror stories about the impact of invasive species. It is for that reason that I was please to cosponsor this bipartisan bill. H.R. 3558, the so-called SPACE Act, provides grants for the planning and implementation of eradication efforts on and adjacent to Federal lands. This program also provides funds for eradication projects using innovative technologies in our National Wildlife Refuge System and for the establishment of

a rapid response capability so that newly introduced species can be effectively eliminated before they become established.

I look forward to hearing from our distinguished panel of witnesses on this most pressing issue. This legislation is appropriately named because we are entering a new frontier. Failure to act is not an option because it may well doom various ecosystems throughout the country.

I am pleased to recognize the distinguished ranking democratic member of the Fisheries Subcommittee, Congressman Underwood.

Mr. GILCHREST. At this point, I am pleased to recognize the gentleman from Guam, Mr. Underwood.

Mr. UNDERWOOD. Why don't I go ahead and yield to the ranking member of the Resources Committee.

Mr. GILCHREST. Mr. Rahall?

STATEMENT OF THE HON. NICK J. RAHALL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WEST VIRGINIA

Mr. RAHALL. Thank you, Mr. Chairman.

Mr. Chairman, ranking distinguished member, Mr. Underwood, harmful, nonnative species or invasive species, as they are more commonly called, do represent one of our Nation's most critical environmental challenges. According to the National Invasive Species Council, approximately 4,200 nonnative species are responsible for a $137-billion drain on the national economy. Additionally, costs to the natural environment have not been estimated, but could be even higher.

At present, the Federal Government, mostly through the Department of Agriculture, spends roughly $1 billion annually to implement a variety of invasive species programs. Unfortunately, these existing problems are either marginally effective, too narrowly focused or of no direct benefit to fish and wildlife resources. If anything, despite these programs, the condition of our native fish and wildlife resources continues to deteriorate as a result of habitat loss, competition, and predation by these space invaders. The status quo is not working. A new approach is desperately needed or we risk losing our fish and wildlife heritage which is enjoyed by millions of sportsman and outdoor enthusiasts.

That is why I introduced H.R. 3558, the Species Protection and Conservation of the Environment Act or, as the Chairman has said, SPACE Act, along with our distinguished Chairman, Mr. Gilchrest, and our distinguished ranking member, Delegate Robert Underwood.

This legislation reflects an entirely new approach which incorporates many of the objectives found in the National Invasive Species Management Plan. The plan was developed by the National Invasive Species Council, as directed by a 1999 Executive Order.

At its core, the SPACE Act seeks to promote partnerships designed to bring together Federal and other public and private landowners to promote efforts to control the infestation and migration of invasive species across the landscape. The bill would provide vital grant funding and make progress on the ground where it counts. This legislation also represents the scientific and professional input of the National Invasive Species Council of the U.S. Fish and Wildlife Service and other State and nongovernmental

fish and wildlife conservation organizations which was provided through many hours of discussion, and I thank each of them.

The numerous letters of support concerning the SPACE Act reaffirms that this legislation is a new idea with merit and a true prospect for success. After today's hearing, I believe that members of the Subcommittee and the Full Committee will come to a similar conclusion.

Again, I thank you, Mr. Chairman, for your valuable input and cosponsorship, as well as our distinguished ranking member, Mr. Underwood.

Thank you.

Mr. GILCHREST. Thank you, Mr. Rahall.

I was going to yield to Mr. Otter, but he is in the back of the room right now.

I yield to Mr. Underwood.

STATEMENT OF THE HON. ROBERT A. UNDERWOOD, A DELEGATE IN CONGRESS FROM THE TERRITORY OF GUAM

Mr. UNDERWOOD. Thank you, Mr. Chairman, and good morning, all of you. Thank you for holding this very important hearing on H.R. 3558, the Species Protection and Conservation of the Environment Act.

I would like to thank the leadership of the Resources Committee ranking Democrat, Mr. Rahall, as well as the work of Fisheries Subcommittee Chair, Mr. Gilchrest. Their collaboration on the SPACE Act demonstrates a truly bipartisan approach to these very serious issues.

The legislation will help protect our Nation, our communities, and our environment against the impacts caused by the introduction and spread of harmful nonnative species. This bill would also provide us with the tools necessary to address the threats to native species and disruptions to the native ecosystems brought about by the invasions of harmful, nonnative species.

Many in the environmental and scientific communities and the general public are familiar with the problems my home Island of Guam has faced with the brown tree snake. Brought to the island after World War II, the snake has been responsible for the extinction of 9 of the 11 species of native birds, half of the native lizard species and two native bat species over the last 40 years. And apart from the damage to Guam's ecological system, there are also economic and social implications associated with the snake, which is responsible actually for many power outages on the island.

In order to address this problem, however, I am dissatisfied with the manner in how Federal funding has been distributed and coordinated by the Department of Interior. Funding should not be coming from the Office of Insular Affairs, which has one of the smallest budgets in Interior, but rather from Fish and Wildlife Service. There is double-digit unemployment rates in the territories, including 20 percent in Guam. Funding for the brown tree snake and other nonnative species should be better coordinated within the Federal Government to ensure that funding streams are properly identified.

I know that the concern about nonnative species is shared by many members of the Resources Committee and from others across

the country, including those testifying today. The coast of California has been plagued with the European green crab. Hawaii's forest habitat is battling miconia. West Virginia has had problems with mile-a-minute vines, and in Maryland, nutria have become problematic.

I recommend, Mr. Chairman, you find a more menacing name for nutria. It sounds like a nutrition supplement.

[Laughter.]

Mr. UNDERWOOD. Island environments are particularly vulnerable to the devastating effects of nonnative species. In 1993, the Federal Office of Technology Assessment declared Hawaii's alien pest species problem the worst in the Nation. Due to the evolutionary isolation of islands from continents, endemic species are especially vulnerable to extinction when nonnatives invade. This is the same thing that happened to Native people when Westerners first came. Those of us with knowledge of the peril that Pacific Islands face have a responsibility to preserve these environments for future generations and to prevent homogenization of the world's biodiversity.

The SPACE Act allows for funding efforts at the local level, where it is immediately needed. The bill encourages territories, States, Indian tribes and others to form partnerships and to confront the problems nonnative species are causing and to come up with legitimate assessments and priorities of how to deal with these harmful and nonnative invaders.

Funding this act authorizes for the control, the eradication of, and the rapid response to harmful nonnative species has been shown both to be currently lacking and historically justified. The dollars spent today on State assessments and pilot programs within the National Wildlife Refuge System have the potential to save tenfold the amount spent simply by preventing problems before they are out of control.

I encourage my colleagues to fully support this measure for both the sake of the environment and the economy. The Federal Government must show support of local efforts to control harmful nonnative species, which is not just a problem of territorial or State Governments, but is truly a national problem.

Thank you. Thank you for your time, Mr. Chairman.

Mr. GILCHREST. Thank you, Mr. Underwood.

Mr. Otter, any opening statement?

STATEMENT OF THE HON. C.L. "BUTCH" OTTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IDAHO

Mr. OTTER. Thank you, Mr. Chairman, I do have an opening statement that I would like to submit for the record, but I would like to just make a few comments, without objection.

Mr. GILCHREST. Without objection.

Mr. OTTER. Idaho is inundated with all kinds of invasive species, and as a result of that, we are starting to lose some of our Native species, including the Otter, I would say, in Idaho, but some of them are now starting to come from the West Coast. The metal form problem that we are getting in most of our natural lakes, and deep lakes as well, the zebra mussel, which is starting to invade our waterways, and in our running waterways, in our river and

stream systems, purple loosestrife from false indigo are starting to choke down those streams, and of course they are not habitat for anything known to man. Nothing will eat them, although we are trying to I think develop some bugs that will eat them, and what are the bugs going to do to the rest of the environment? We have a problem with that.

But the most frustrating thing, and I think both of the members that have talked prior to me have already mentioned the genesis, the seed beds for most of that happens to be out of control of the State, out of control of local Government, out of control of the private property owners because it is under the nature and the character of ownership and control that is generally Federal waterways or Federal lands, and in a State like Idaho, where 65 percent of the State is federally owned, either through the Forest Service or the BLM, the Park Service or the Bureau of Reclamation, it is very frustrating to know that we try to keep up with the invasive species that we have in plants in Idaho and then only to find out when the next harvest season comes for wild seeds, the seeds blow from the Federal lands onto the private grounds and onto the State grounds.

So I would like to see us get into a very aggressive program, where we could suppress that continued seeding, if you will, of private and State property from the Federal property. So I would encourage those folks that come forward before us today to present some opportunities for us to join together in a good partnership that can be effective in stopping the invasive species.

Thank you, Mr. Chairman, and yield back the balance of my time.

Mr. GILCHREST. Thank you, Mr. Otter.

Ms. Christensen?

STATEMENT OF THE HON. DONNA M. CHRISTENSEN, A DELEGATE IN CONGRESS FROM THE VIRGIN ISLANDS

Mrs. CHRISTENSEN. Thank you, Mr. Chairman. I just want to thank you for holding this hearing. In our Subcommittee on Parks and Public Lands, we just reported out Congressman Hefley's bill on invasive weeds, but we did that realizing that this Committee hearing was going to take place, and indeed it was a larger issue than weeds, and so we appreciate having this hearing and look forward to the testimony.

Mr. GILCHREST. Thank you.

Mr. Acevedo-Vila?

Mr. ACEVEDO-VILLA. No.

Mr. GILCHREST. Mr. Inslee?

Mr. INSLEE. No.

Mr. GILCHREST. We did report Mr. Hefley's bill, which is, to a great extent, through my discussion with Mr. Hefley, is a companion bill to Mr. Rahall's bill, and we will pursue a strategy as we move forward with both of these bills that will ensure the effectiveness and success of both of these bills. Whether they are joined together or whether they remain separate, they both have their place.

Our first panel is Dr. James Tate, Jr. Oh, before I do this, there are some extra seats up here, for people in the back, if you want

to sit on the lower dais, you are welcome. Just don't sit where Ms. McCollum is and J.D. is, I guess, in case he comes in. I think there may be enough for everyone. If the folks in the back want to come up and sit down, you may.

There are still five seats left up there.

[Laughter.]

Mr. GILCHREST. I mean, you can come on up if you want to. I think they want to leave early. That may be why they want to stay back there.

[Laughter.]

Mr. GILCHREST. Dr. James Tate, science adviser to the Secretary of the Department of Interior, and Ms. Janette Kaiser, acting associate deputy chief, National Forest System, U.S. Forest Service. Welcome, Ms. Kaiser, Dr. Tate.

Ms. Kaiser, you may begin.

STATEMENT OF JANETTE KAISER, ACTING ASSOCIATE DEPUTY CHIEF, NATIONAL FOREST SYSTEM, U.S. FOREST SERVICE

Ms. KAISER. Thank you for the opportunity to appear before you today. I am Janette Kaiser, acting associate deputy chief for National Forest Systems, USDA Forest Service.

My comments today represent the views of USDA on H.R. 3558, the Species Protection and Conservation of the Environment Act.

First, I would like to commend the Subcommittees for recognizing harmful, nonnative, invasive species as a significant threat to our Nation's ecosystem health. Nonnative invasive species alter ecosystem functions and reduce biological diversity by eliminating native species which, in turn, can lower the water table, increase soil erosion and runoff or increase fire frequency and intensity. Nonnative invasive species also change the plant community used by domestic livestock, wildlife and recreationists. These changes in ecosystem often result in eliminating or restricting use of our wildlands and urban areas and increase management costs.

Populations of nonnative invasive plants in the United States are expanding annually by 7 to 14 percent. We face a daunting challenge in managing nonnative invasive species, but the Department is committed to working with the administration and the Congress to identify solutions. USDA is in a strong position to address this issue because of the broad authorities supporting nonnative invasive species management. Various field operations in the Department include prevention, detection, control, monitoring and restoration, research and technology development, technical assistance to States, tribes and private landowners, financial assistance, including cooperative agreements and grants and international collaboration.

Although USDA supports the objectives of H.R. 3558 to address the problem of nonnative invasive species, we do, however, have concerns. The Department has numerous programs and delivery systems already in place under existing statutory authorities to address nonnative invasive species management. Within the Forest Service in particular, there is a full range of existing authorities to support an integrated program of research and development,

management of nonnative invasive species on public land, and technical assistance to private landowners.

These programs focus on invasive insects, such as the Asian longhorn beetle and gypsy moth, invasive pathogens such as Sudden Oak Death Disease and invasive plants that grow after a fire, such as starthistle. The programs that are implemented on National Forest System lands emphasize management of nonnative invasive species, the same focus areas that are in H.R. 3558.

For reasons I will detail in my testimony, USDA strongly supports the concept of controlling nonnative invasive species at the local level, with support provided by a multitude of partners. However, H.R. 3558 raises a number of questions to USDA. The Department would like to engage the Committee in more detail regarding, first, compatibility with existing authorities in USDA; second, implementation and accountability; and, last, the establishment of demonstration projects.

I will address compatibility with existing authorities in USDA first.

Currently, within USDA there are six agencies that have a leadership role in dealing with the introduction and spread of nonnative invasive species, and are involved in research, regulation, operations, partnerships, technical and financial assistance and education.

USDA's Animal and Plant Health Inspection Service, commonly known as APHIS, is the front line of prevention, dealing with interdiction at borders, interstate movement, detecting and mitigating disseminations, and providing eradication of new introductions.

The USDA research agencies, the Agriculture Research Service, Cooperative State Research, Education and Extension Service and the Forest Service provide information on the basic ecology of nonnative invasive species, as well as detection, monitoring and control methodologies and technologies. The Forest Service has a broad range of authorities to address the nonnative invasive species issue and to coordinate with other Federal agencies with corresponding responsibility.

The Forest Service, the Natural Resource Conservation Service, APHIS and the Farm Service Administration provide technical and financial assistance, consultation, technology transfer, prevention, and landscape restoration following an invasion or to prevent an invasion following a disaster. The nonnative invasive species program in these agencies will run both independently and collaboratively.

The National Invasive Species Council that was created by Executive Order 13112 is an example of a collaborative effort among Federal agencies. The Council is an interdepartmental council cochaired by the Departments of Agriculture, Commerce and Interior.

Another program involving Federal agencies is the Pulling Together Initiative Steering Committee, sponsored by the Federal Interagency Committee for Management of Noxious and Exotic Weeds that are known as FICMNEW. The Pulling Together Partnership Initiative has been ongoing since 1996 and is a multi-agency effort that provides Federal matching grants through the National Fish and Wildlife Foundation for local and regional weed prevention and control projects.

Federal agencies involved in this effort includes the Forest Service, the Bureau of Land Management, the Fish and Wildlife Service, the Bureau of Reclamation, the National Park Service, the Department of Defense, as well as APHIS. Funds allocated from agencies involved with the Council or FICMNEW could be affected by funding allocated for H.R. 3558.

Let me address implementation and accountability. Section 5 of H.R. 3558 provides that a qualified project must be conducted on lands or waters under the control of the eligible applicant and on adjacent lands or waters of a Federal agency. The bill should be clarified to provide that the Federal agency must approve any qualified project on land under its jurisdiction. The Department believes these decisions should remain within the jurisdiction of the Federal land managers.

Section 5 of H.R. 3558 establishes two programs and a demonstration project for the Fish and Wildlife Service within the Department of Interior, which can be enhanced by current programs in USDA, thus avoiding any potential redundancy.

USDA also notes two aspects of administration in Sections 4, 5, and 9 of H.R. 3558 for which it would be helpful to have more information. First, H.R. 3558 delegates the coordination of the projects to the Invasive Species Council. However, the Council staff is not involved in program administration.

Second, H.R. 3558 allocates 5 percent of the funding for administrative expenses. USDA is concerned whether this applies to the preparation of an environmental document, as the percentage may not be sufficient for what is needed to conduct an environmental analysis.

Last, let me address the establishment of demonstration projects.

H.R. 3558 addresses the implementation of demonstration projects on National Wildlife Refuge System lands. The Department believes National Forest System lands could also serve as a site for a demonstration project to conduct field tests and demonstrate applied research activities which are vital components and essential for success of management goals.

USDA has found that research and technology development is critical to successful land management, including cooperative efforts with State and local partners. Similarly, restoration actions, following nonnative invasive species treatment, are often key to sustaining control and ecosystem health over the long term. Options are needed for supporting applied field tests, technology development and restoration actions when these are essential components of an effective, on-the-ground management strategy.

The Forest Service National Forest System, Research and Development and State and Private Forestry mission area could implement a demonstration project.

In conclusion, nonnative invasive species threaten forest and rangeland sustainability and ecosystem viability. Although there are points of concern related to this bill, the Department believes this bill is a commendable effort to address nonnative invasive species management on public and private lands. The Department would like to work with the Committee to review existing authorities and determine if there is a need to amend those authorities.

This concludes my testimony, and I would be happy to answer any questions that you might have.

[The prepared statement of Ms. Kaiser follows:]

Statement of Janette Kaiser, Acting Associate Deputy Chief, National Forest System, Forest Service, U.S. Department of Agriculture

To the Chairmen and members of the subcommittees, thank you for the opportunity to appear before you today. I am Janette Kaiser, Acting Associate Deputy Chief, National Forest System, USDA Forest Service. My comments today represent the views of USDA on H.R. 3558, the Species Protection and Conservation of the Environment Act.

First, I would like to commend the subcommittees for recognizing harmful nonnative invasive species as a significant threat to our nation's ecosystem health. Nonnative invasive species alter ecosystem functions and reduce biological diversity by eliminating native species, which in turn can lower the water table, increase soil erosion and runoff, or increase fire frequency and intensity. Nonnative invasive species also change the plant community used by domestic livestock, wildlife, and recreationists. These changes in the ecosystem often result in eliminating or restricting the use of our wildlands and urban areas and increase management costs. Populations of nonnative invasive species in the U.S. are expanding annually by 7 to 14 percent. We face a daunting challenge in managing nonnative invasive species, but the Department is committed to working with the Administration and the Congress to identify solutions. USDA is in a strong position to address this issue because of the broad authorities supporting nonnative invasive species management. Various field operations in the Department include prevention, detection, control, monitoring and restoration; research and technology development; technical assistance to States, Tribes and private landowners; financial assistance including cooperative agreements and grants; and international collaboration.

Although USDA supports the objectives of H.R. 3558 to address the problem of nonnative invasive species, we do however have concerns. The Department has numerous programs and delivery systems already in place under existing statutory authorities to address nonnative invasive species management. Within the Forest Service in particular, there is a full range of existing authorities to support an integrated program of research and development, management of nonnative invasive species on public land, and technical assistance to private landowners. These programs focus on invasive insects such as the Asian longhorn beetle and Gypsy Moth, invasive pathogens such as Sudden Oak Death Disease, and invasive plants that grow after a fire such as starthistle. The programs that are implemented on National Forest System lands emphasize management of nonnative invasive species, the same focus areas that are in H.R. 3558.

For reasons I will detail in my testimony, USDA strongly supports the concept of controlling nonnative invasive species at the local level with support provided by a multitude of partners. However, H.R. 3558 raises a number of questions for USDA. The Department would like to engage the Committee in more detail regarding (1) compatibility with existing authorities in USDA; (2) implementation and accountability; (3) and establishment of demonstration projects.

Compatibility with Existing Authorities in USDA

Currently, within USDA there are six agencies that have a leadership role in dealing with the introduction and spread of nonnative invasive species and are involved in research, regulation, operations, partnerships, technical and financial assistance, and education. USDA's Animal and Plant Health Inspection Service (APHIS) is the front line of prevention, dealing with interdiction at borders, interstate movement, detecting and mitigating disseminations, and providing eradication of new introductions. The USDA research agencies, the Agricultural Research Service, the Cooperative State Research, Education, and Extension Service, and the Forest Service, provide information on the basic ecology of nonnative invasive species, as well as detection, monitoring and control methodologies and technologies. The Forest Service has a broad range of authorities to address the nonnative invasive species issue and to coordinate with other Federal agencies with corresponding responsibilities.

Forest Service, Natural Resources Conservation Service, APHIS and Farm Services Administration provide technical and financial assistance, consultation, technology transfer prevention, and landscape restoration following an invasion or to prevent an invasion following a disaster. The nonnative invasive species programs in these agencies run both independently and collaboratively.

The National Invasive Species Council that was created by Executive Order 13112 is an example of a collaborative effort among federal agencies. The Council is an inter–Departmental Council, co-chaired by the Departments of Agriculture, Commerce, and the Interior. Another program involving federal agencies is the "Pulling Together Initiative Steering Committee" sponsored by the Federal Interagency Committee for Management of Noxious and Exotic Weeds (FICMNEW). The Pulling Together Partnership Initiative has been ongoing since 1996, and is a multi-agency effort that provides federal matching grants through the National Fish and Wildlife Foundation for local and regional weed prevention and control projects. Federal agencies involved include the FS, BLM, FWS, Bureau of Reclamation, NPS, Department of Defense, and APHIS. Funds allocated from agencies involved with the Council or FICMNEW could be affected by funding allocated for H.R. 3558.

Implementation and Accountability

Section 5 of H.R. 3558 provides that a qualified project must be conducted on lands or waters under the control of the eligible applicant, and on adjacent lands or waters of a Federal agency. The bill should be clarified to provide that the Federal agency must approve any qualified project on land under its jurisdiction. The Department believes these decisions should remain within the jurisdiction of Federal land managers.

Section 5 of H.R. 3558 establishes two programs and a demonstration project for the Fish and Wildlife Service in the Department of the Interior, which can be enhanced by current programs in USDA, thus avoiding any potential redundancy.

USDA also notes two aspects of administration in Section 4, 5, and 9 of H.R. 3558 for which it would be helpful to have more information. First, H.R. 3558 delegates the coordination of projects to the Invasive Species Council; however, Council staff is not involved in program administration. Second, H.R. 3558 allocates five percent of the funding for administrative expenses. USDA is concerned whether this applies to the preparation of an environmental document, as the percentage may not be sufficient for what is needed to conduct an environmental analysis.

Establishment of Demonstration Projects

H.R. 3558 addresses the implementation of demonstration projects on National Wildlife Refuge System lands. The Department believes National Forest System lands could also serve as a site for a demonstration project to conduct field tests and demonstrate applied research activities, which are vital components and essential for success of management goals. USDA has found that research and technology development is critical to successful land management, including cooperative efforts with State and local partners. Similarly, restoration actions following nonnative invasive species treatment are often key to sustaining control and ecosystem health over the long-term. Options are needed for supporting applied field tests, technology development and restoration actions, when these are essential components of an effective on-the-ground management strategy. The Forest Service National Forest System, Research and Development, and State and Private Forestry mission areas could implement a demonstration project.

In conclusion, nonnative invasive species threaten forest and rangeland sustainability and ecosystem viability. Although there are points of concern related to this bill, the Department believes this bill is a commendable effort to address nonnative invasive species management on public and private lands. The Department would like to work with the Committee to review existing authorities and determine if there is a need to amend those authorities.

This concludes my testimony. I would be happy to answer any questions that you may have.

Mr. GILCHREST. Thank you very much, Ms. Kaiser. That was very helpful.

Dr. Tate?

STATEMENT OF JAMES TATE, JR., SCIENCE ADVISOR TO THE SECRETARY, U.S. DEPARTMENT OF THE INTERIOR

Dr. TATE. Thank you, Mr. Chairman. I am Jim Tate. I am the science advisor to the Secretary of Interior, and on behalf of the Secretary, we appreciate the opportunity to appear before your Committee to present our views on the Species Protection and Conservation of the Environment Act of 2001.

The Department of Interior commends Congress for recognizing this serious threat to the United States that is posed by invasive species. We are particularly concerned about invasive species with respect to the health of our natural resources, for which we have great trust responsibilities in Interior, and of course for the strength of our national economy because they affect both very strongly.

The Department of Interior programs on invasive species need your support in order to help build the partnerships at the State and local levels for managing invasive species on our lands and waters, that is, those that we are responsible for and those of our neighbors. These cooperative efforts will make otherwise limited programs effective by allowing us to work with partners who have adjacent lands and adjacent waters, and that is one of the strengths that you present to us here.

We have to recognize that in the wake of September 11th that we have to identify the possible costs of everything we do, everything that comes before us. We must ask how anything that we are funding new that we might approach would affect the current budget climate, the priorities reflected in the President's budget, and the priorities of our Nation as a whole.

A few comments that I think support your ideas. Mr. Rahall mentioned earlier that $137 billion had been identified as a cost to our economy. That is the study done at Cornell by David Pimentel and others. We know that invasive species degrade the habitats for native fish and wildlife. They disrupt the equilibrium of plant and animal communities across the country, an equilibrium that has been established on a broad and long scale, longer than the scale of time that invasive species have been such an issue, and in regard to our environmental law, the Endangered Species Act, we have linked invasive species to the decline of more than a third of all of the threatened and endangered listed species in our country. That is David Wilcove's study that made that correlation.

Managing invasive species is, in fact, a priority for our Department. The National Invasive Species Council just referred to is co-chaired by the Secretary of Interior, along with the Secretaries of Commerce and Agriculture. We coordinate the invasive species efforts of 10 different Federal departments and agencies to ensure our actions are effective and efficient.

In addition to our economy and our natural resources, it is also clear that our Nation's abundant natural resources can be threatened at the drop of a shoe by invasive species, something of great concern to us.

The Department of Interior's program investment in invasive species is second only within the Federal Government to that of USDA. In fiscal year 2000, we spent $31 million, which was 5 percent of the total Federal invasive species expenditures, and spending has accelerated significantly from $17 million in 1999 to $41 million in 2002. We do propose to spend about $40.8 million in 2003.

At the Department of Interior, the Invasive Species Council is our guest. We are the host to the Council itself. The Invasive Species Advisory Committee works directly with, and advises the Council, and that advisory committee directly builds stakeholder

involvement in collaboration between Federal agencies and non-Federal partners, which is one of the strengths of your bill.

We also support the management principles embodied in your legislation. We strongly support the need to promote strong partnerships. We recognize that Federal land management agencies in Interior, such as the U.S. Fish and Wildlife Service, the National Park Service, the Bureau of Land Management, and the U.S. Bureau of Reclamation play key roles in managing invasive species, particularly at the local level where communities are struggling with means to protect their environment, maintain sustainable agriculture and continue economic stability.

The concepts in your bill represent several mechanisms where the Federal sector could better cooperate and consult with its potential partners. We also applaud the Committee's interest in utilizing the Fish and Wildlife Service's National Wildlife Refuge System for demonstration projects to develop new techniques and procedures to restore and manage invasive species issues.

We have identified several concerns with the bill. They are minor concerns. I don't think I need to outline them here at this time. They can be found in my written comments, but we do appreciate the opportunity to appear before this Committee, and I wish to thank you on behalf of Secretary Norton for your efforts to address these important issues. Secretary Norton's stated principle of communication, consultation and cooperation apply to the invasive species issue as well as any of the issues, and we applaud your efforts for conservation in this regard. Thank you.

[The prepared statement of Dr. Tate follows:]

Statement of Dr. James Tate, Jr., Science Advisor, U.S. Department of the Interior

Mr. Chairmen, my name is Jim Tate, and I am the science advisor to the Secretary of the Interior. Thank you for the opportunity to appear before your Committee to present the views of the Department of the Interior on H.R. 3558, the Species Protection and Conservation of the Environment Act of 2001.

The Department commends Congress for recognizing the serious threat to the United States posed by invasive species, particularly with respect to the health of the environment and the strength of our national economy. Our programs on invasive species need the support of the Congress to in order to help build capacity at State and local levels for managing invasive species on our lands and waters and those of our neighbors, especially in pursuit of cooperative conservation goals. We are encouraged by this bill and others introduced in prior sessions of the Congress that emphasize streamlined efforts to focus efforts on-the-ground projects. However, we need to identify more clearly the possible costs of this proposal and how it would be funded within the context of the current budget climate and the priorities reflected in the President's budget.

Researchers at Cornell University estimate that invasive species are costing Americans approximately $137 billion per year (Pimentel et. al. 2000). Invasive species degrade habitats for native fish and wildlife, disrupt the equilibrium of plant and animal communities across the country, and have been linked to the decline of more than a third of all threatened and endangered species. (Wilcove, D.S., et. al. 1998, "Quantifying Threats to Imperiled Species in the United States" BioScience 48: 607–615.) The U.S. Fish and Wildlife Service estimates that $29,000,000 of the Tier 1 projects identified in the Refuge Operations Needs is attributed to increasing impacts from invasive species. Managing invasive species is a priority for the Department. The National Invasive Species Council, which is co-chaired by the Secretary of the Interior, together with the Secretaries of Commerce and Agriculture, coordinates the invasive species efforts of ten different Federal departments and agencies to ensure that our actions are efficient and effective. We look forward to the opportunity to work with Congress to strengthen our nation's ability to identify, control, and eradicate these incipient invaders.

The Department of the Interior's program investment in invasive species is second only to USDA. In fiscal year 2000, DOI spent $31 million, approximately 5 percent of the total Federal invasive species expenditures (U.S. General Accounting Office 2000). Spending accelerated significantly from $17M in fiscal year 1999 to $41M in fiscal year 2002. The Department proposes to spend $40.8 million in 2003:

(1) to fight invasive plants and animals on National Wildlife Refuges, National Parks (including Exotic Plant Management Teams under the Natural Resources Challenge), BLM lands (including removal of weeds contributing to unnatural wildfire cycles and post-fire restoration), and waters under the jurisdiction of the Bureau of Reclamation;

(2) to stem the onslaught of aquatic nuisance species such as the sea lamprey, Caulerpa alga, Eurasian ruffe, Giant Salvinia water fern, and the Asian swamp eel primarily through the Fish and Wildlife Service (FWS), BOR, and USGS;

(3) to build partnerships with private landowners to eliminate harmful alien species and to restore native plant and animal communities (FWS Partners for Fish and Wildlife and the Pulling Together Initiative of the National Fish and Wildlife Foundation); and

(4) to provide research and information sharing tools for monitoring, prevention, and control and accountability in the U.S. Geological Survey.

The Department provides support for the National Invasive Species Council and the Invasive Species Advisory Committee to build direct stakeholder involvement and collaboration between federal agencies and non-federal partners fighting accelerating bioinvasions. Interior plays a major role in invasive species activities: leadership and coordination, prevention, early detection and rapid response, control and management, restoration, international cooperation, research, information management, and education and public awareness.

We support the conservation principles and findings embodied in this legislation, and strongly support the need to promote strong partnerships among Federal, State, Tribal, local, and private landowners. We recognize that Federal land management agencies such as the U.S. Fish and Wildlife Service, the National Park Service, the Bureau of Land Management, and the U.S. Forest Service play key roles in managing invasive species, particularly at the local level where communities are struggling to find support for protection of the environment, sustainable agriculture, and economic stability. The concepts included in H.R. 3558 represent several mechanisms where the Federal sector could increase the amount of support it has to offer. The bill also expands invasive species prevention and control on public lands by increasing the capacity of Federal landowners to manage native systems by reducing the impacts of invasive species. We applaud the Committee's interest in utilizing the National Wildlife Refuge System for demonstration projects to develop new techniques and procedures to restore native fish and wildlife habitats through the control of invasive species. We support the bill's objective of enhancing the cooperative efforts between the public and private sectors in the battle against invasive species.

H.R. 3558 establishes Federal cost-share grant programs similar to other invasive species management bills sponsored in both the House and the Senate over the past year, including H.R. 1462 on which I testified during the last session. The Department has identified several concerns with the bill. I will outline these concerns and several clarifying modifications briefly in this statement. It is our understanding that other Federal agencies may have additional concerns.

H.R. 3558 expands invasive species prevention and control partnerships through four grant programs. The first establishes a mechanism to develop State assessments, or plans, which identify State priorities for controlling invasive alien species. The bill details a Federal cost-share program that will fund States to help build the capacity of individual, local, State, and Federal landowners to restore, manage, or enhance native fish or wildlife and their habitats through control of invasive species, including aquatic species. Providing technical and financial assistance for the development of State assessments on aquatic invasive species is an important role of the U.S. Fish and Wildlife Service. H.R. 3558 recognizes this role and provides such assistance. We point out that Section 4 of this bill provides a different mechanism for the development of State/Interstate Management Plans than those being developed under the authority of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (NANPCA) reauthorized as the National Invasive Species Act (NISA).

Under NANPCA, plans developed by the States must follow specific guidelines and are submitted to the Task Force for approval. Once approved, States can receive funding from the U.S. Fish and Wildlife Service to implement the State plans. Although H.R. 3558 allows the Director of the U.S. Fish and Wildlife Service to accept plans developed prior to the enactment of this bill, the development of plans under Section 4 should complement and not conflict with existing programs. In addition,

the process for developing and implementing these plans would need to be transparent and easy for States to follow, possibly through guidance that provides the necessary detail to allow for the submission of comprehensive and consistent plans.

The second grant program authorized by H.R. 3558 promotes greater cooperation among Federal, State, local, and private landowners to prevent and control invasive species through a voluntary, incentive-based financial assistance program, known as The Aldo Leopold Native Heritage Program. This program provides additional financial support for needed on-the-ground management activities. We note that similar cost-share programs are currently supported by the Department of the Interior in concert with the National Fish and Wildlife Foundation, such as "Seeking Common Ground", "Bring Back the Natives", and, particularly, the "Pulling Together Initiative." The "Pulling Together Initiative" is a grant program for private, State, and Federal entities that leverages funds to conduct on-the-ground invasive plant management. The "Pulling Together Initiative" is also supported by the Departments of Agriculture and Defense. The program has grown to nearly $19 million per year, including matching funds from states that participate in the program. We view the requirements and grants established by this bill as complementary to existing programs such as "Pulling Together" and other native fish and wildlife habitat restoration cost-share programs.

While we applaud development of State assessments to set priorities and increase accountability, we are concerned that many otherwise eligible participants in the Aldo Leopold Native Heritage Program may not qualify for funding until the assessments are completed. This may limit the program's effectiveness, particularly if the State assessments take years to complete. In the case of State invasive species plans developed under NANPCA, only nine State/Interstate Aquatic Nuisance Management Plans have been developed over the past 10 years. One of the key elements of a successful invasive species management program includes the ability to respond rapidly to new or small infestations. We are concerned that there may be a significant number of private landowners, local organizations, and other partners prepared to conduct scientifically-sound invasive species control projects, but whose projects will not qualify for grants because of the restrictions in Section 5 of H.R. 3558. Language that would lift this restrictive requirement, while continuing to require accountability and effective coordination of projects funded under Section 5, would address this concern.

Section 5 of the bill also requires projects to have objectives that have no negative impact on the bioregion in which they are carried out. Although we agree with this concept, it may prove difficult to ensure that no negative impacts will occur, depending upon the scale on which the impacts are measured. Minor, short-term negative impacts may be a necessary phase of a science-based native fish and wildlife habitat enhancement project that has a long-term goal of restoring a bioregion. It would be helpful to clarify this point, and to amend the term "bioregion" to correspond to the ecoregions of the United States as determined by the U.S. Department of Agriculture.

Additionally, Section 5 of H.R. 3558 requires that projects must be conducted in partnership with a "Federal Agency." The term "Federal Lands", as defined in Section 3 of the bill, is limited to all lands and waters owned and administered by the Department of the Interior or the National Forest Service or held in trust by the Federal Government for an Indian tribe. We are concerned that limiting the definition of "Federal Lands" in Section 3 may conflict with the Federal Agency requirement in Section 5, particularly in the case of partnerships to restore native fish and wildlife habitats on military lands and waters. Expanding the definition of "Federal Lands" to include military and other Federal lands and waters, or developing a definition of "Federal Agency" which would include agencies within the Department of Defense, Department of Transportation, Department of Commerce, and other agencies involved with the National Invasive Species Council would help strengthen this section.

Section 5 of H.R. 3558 states that projects must be conducted on Federal lands and adjacent non–Federal lands or waters. Since many invasive organisms spread easily through the watercourses within a watershed, the term "adjacent non–Federal lands'should be defined broadly to allow for projects anywhere in the same watershed. This would allow for projects to be conducted in remote locations that can reasonably be expected to act as a source for invasive species on Federal lands and in waters adjoining Federal lands.

Section 5 of H.R. 3558 also details the contents of a 2-year report required to be submitted by the grantee. We are concerned that several of the requirements entail extensive biological sampling that could be very expensive, time consuming, and may limit the number of partners that are interested in taking part in the program. We are also concerned about the administrative burden of compiling and analyzing

the monitoring data. Clarification that the Council could delegate duties to the appropriate agency, if necessary, while maintaining an oversight role would address this concern. We believe this Section should be modified to achieve accountability goals that facilitate the collection of useful data, yet prevent the expenditure of excessive resources on reporting that may limit on-the-ground accomplishments, and to develop inventorying and monitoring criteria that would meet the intent of the bill while using the best available science.

The third initiative in H.R.3558 establishes a demonstration program, utilizing the National Wildlife Refuge System, to develop new technologies and methods to restore native fish and wildlife habitats by controlling aquatic and terrestrial invasive alien species. This program will complement a new fish and wildlife research demonstration program underway in the National Wildlife Refuge System. We note that other Federal bureaus and agencies may wish to implement similar demonstration programs on Federal lands and waters, thus expanding the role of all Federal land and water management agencies in the development of new strategies for invasive alien species prevention and control. Appropriate modifications to this section of the bill would facilitate such implementation.

The fourth program authorized by H.R. 3558 would provide financial assistance to States for conducting rapid response activities to eradicate and/or prevent the spread of new infestations of harmful non-native invasive species. We are encouraged by the desire of the Committee to improve the capacity of the States to respond rapidly to new invasive species infestations and conduct preventative response efforts to control the spread to new locations. The bill could be modified to require the Secretary to coordinate with existing early detection and rapid response programs and other Federal agency programs that deal with invasive species. Additionally, the bill could also be strengthened by including language to allow the responsible agency to enact administrative polies for the cost-share program.

H.R. 3558 appears to us as though it may interfere with other authorities and laws not related to acquisition of lands and waters or interests therein. Language should be included that would prevent such interference.

Finally, the Administration has additional concerns, such as appropriate cost share amounts and grant award criteria that would benefit by further clarification to sharpen its focus on priorities and performance.

I appreciate the opportunity to appear before this Committee to discuss the issue of invasive species and I wish to thank you, Representative Rahall, as well as Chairman Gilchrest and Representative Underwood, for your efforts to address this issue. We support the mutual goal of assisting States, Tribes, and private landowners to prevent, control, and manage non-native invasive species while recognizing the need to maintain a strong partnership with neighboring federal lands and waters.

This concludes my formal remarks. I would be happy to answer any questions that you may have.

Mr. GILCHREST. Thank you very much, Dr. Tate.

Ms. Kaiser and Dr. Tate. I have a few questions. I know the questions that most of us ask here today, each response, based on the complexity of the science could be quite lengthy. But because we have a limited amount of time, sometimes a yes or no answer would be fine.

[Laughter.]

Mr. GILCHREST. And we will read your testimony fully as we progress through this process and take your recommendations into serious consideration.

Ms. Kaiser, Dr. Tate, is this problem of invasive species beyond our control nationwide, worldwide?

Dr. TATE. Let me say that in some instances we have gone so far with the invasive species that being able to manage them will be most difficult. We do want to restore equilibrium in our plant and animal communities that allows for sustainable use of those communities, and invasive species in some cases are a major challenge.

Ms. KAISER. I would answer yes and no. We have demonstrated the ability in many cases to be able to manage invasive species on

a case-by-case basis. But there is the larger question of what is the long-term effect, so I will stand with yes or no.

Mr. GILCHREST. Is there a system of priorities where you have hot spots in certain areas of the country that need the most attention and then other areas where they are not too bad, but if you pay attention to them right away, they can be fixed on an ongoing basis? Do zebra mussels, for example, making their way from the Great Lakes to Lochsa River or Moose Creek in Idaho—I think that is probably a priority—but also I would say is there something we can do with brown tree snakes in Guam?

But let me move on. I asked Mr. Underwood, if he gets elected to Governor of Guam if he would hire me to be the principal eradicator of the brown tree snake, I would move down there.

[Laughter.]

Mr. GILCHREST. Are existing programs working, and if they aren't, is it because of lack of funding, lack of coordination? Will this legislation move us in the direction we need to go?

Dr. TATE. We have funding as identified in the budget to do many of the things that you are asking for. What we need and what your bill provides is authority to work especially with some of our partners on private lands, and is one of the things we support strongly in your bill.

Mr. GILCHREST. Thank you.

Ms. KAISER. I think the key to success for any of these programs is being integrated and collaborative and working with both public and private sectors together. I think that our delivery mechanisms are working because of increased attention for this issue, and the technology and the capabilities we are able to bring to the table.

Mr. GILCHREST. Ms. Kaiser, you recommended that not only there be a demonstration project with the refuge system, but also with National Forest, which I think that is only appropriate because that sends it over to another committee, the Agriculture Committee, but I think maybe they would waive their jurisdiction if we included that.

Would either one of you recommend somewhere in the country a demonstration project such that Mr. Otter suggested earlier, where the demonstration project would be specific to let's say where a refuge or a national forest butts up against private property where there is a spillover problem with invasive species?

Dr. TATE. We absolutely support the demonstration project portion of what you are suggesting here, but frankly, there is not a refuge in the country that is not affected by adjacent or nearby lands or waters, that we could almost pick any refuge you want and get the results you need.

Mr. GILCHREST. Thank you.

Ms. KAISER. Within the Forest Service I think there are so many opportunities I would recommend that we would work with either your Committee or other mechanisms that we have to collaborate, so your Committee or any of the other arenas and identify some of those opportunities.

Mr. GILCHREST. Thank you. The last question—and I probably shouldn't have said keep your answers short, because it seems like you are holding back, so you can make them as long as you want for the rest of the members.

[Laughter.]

Mr. GILCHREST. Dr. Tate, I think you said $137 billion cost to the economy with invasive species.

Dr. TATE. Yes, sir.

Mr. GILCHREST. There is 31 or 40 some million dollars from Interior spent on invasive species, and I would guess a little bit more than that with the Forest Service, but I would also guess that it is well under $100 million that we spend nationally on invasive species. Now I am sure throughout the entire Federal Government there is maybe a little bit more than that, but considering $137 billion cost to the economy by invasive species, what in your background, history, experience, engagement in this problem, have you ever thought about would be an appropriate amount to make a dent or begin to overcome this problem? Can you give us a figure? Not a practical figure politically or a pragmatic figure politically, but the figure you think you know between your heart and brain would be a figure that would solve the problem?

Dr. TATE. The short answer is no, I can't give you that figure, but the longer answer, let me explain what I mean by that.

When David Pimentel and the others examined the situation and found $137 billion, this is a matter of economists and scientists looking at the impacts on our economy under a situation once up a time a few years back. Things have changed drastically in all regards since then.

Here is what we are doing. We have initiated, late last year, a budget crosscut examination, looking at what money is spent not only in Interior but in Agriculture, Commerce and all the people trying to deal with the invasive species cost issue. And the results of that project, when they come out—and I predict not a long time, in time for the next budget cycle is what we are hoping for—that we will be able to answer you better where money is truly being spent on invasive species and where we can find economies, and we can find new opportunities for leveraging Federal dollars, and working with partners so that we actually are spending our money and their money most effectively.

The other part of the question, are there hot spots, are there places where we should be spending our attention, directing our attention? A lot of it appears in the management plan. These are very optimistic goals in here, many of which we have already missed because of long transition and things of that nature, but the kinds of things that are here are an organized examination of what the concerns are and a prioritization to some degree. We are going to improve on the prioritization, and hopefully we can give you the numbers you ask for very soon.

Mr. GILCHREST. Thank you very much.

Ms. KAISER. I would just add that I don't have a figure for you either. If I had to guess for the Department, it would be somewhere in the $100 million range, but that is a very broad guess.

But I would like to comment. Any funding that you look at needs to be long term and sustained because these issues won't be resolved short-term. And we should also look at it in the context that it is a pay-me-now pay-me-later issue. The quicker we engage the costs will be much less. The longer we wait, the costs will be much higher.

Mr. GILCHREST. Thank you very much. And your comments and recommendations have been very helpful.

Mr. Underwood?

Mr. UNDERWOOD. Thank you, Mr. Chairman.

And thank you very much for your testimonies this morning. They, and understandably so, reflect a great deal of concern about the way the legislation would actually impact the organization of the agencies that you work with, yet at the same time that we draw attention to them, I guess the real import of the legislation for us here is to make the case, and I think some of the studies help us make that case that the problem of invasive species is so pervasive that we have to triangulate and develop new structures to deal with it, that cut across various agencies, that try to organize and get us to better understand the amount of resources that we are devoting to this and to comprehend whether those resources are up to the challenge.

In line with that, I am just interested, Dr. Tate, in terms of the $137 billion figure on economic impact, is there any—I know you have probably thought about this a lot. Is there any element of that estimate that you take issue with?

Dr. TATE. I wouldn't use the term "take issue with." There is one area of it in which I believe we have not focused as strongly, and that is in the Department of Interior's Natural Resource trust responsibilities. Our natural resources are subject to tremendous challenges from invasive species on all fronts. While we have programs in place that deal with the various interfaces, for example, agriculture and natural resources, they tend to emphasize areas other than the natural resource side of our great riches here in the United States.

An example might be appropriate so that you know what I am talking about. There is a disease in deer and elk called chronic wasting disease. It is related possibly to or caused by a similar circumstance as mad cow disease and a syndrome that occurs in humans. That disease is now endemic in a portion of the Colorado/Wyoming border. It extends, we discovered recently, over to Nebraska, and it extends west to Rocky Mountain National Park. That is both good news and bad news that it is in Rocky Mountain National Park. The good news is now we have Department of Interior resources focusing on it more and more than we did before. Department of Agriculture has responded to chronic wasting disease very effectively and moved forward. I should let them describe it, but they have moved forward by trying to take care of certain captive elk herds that are infected with it.

But my point is that the natural resource side would be, could be better supported because it would be terrible to have to say that we would have to remove all of our wild deer and elk because of the possibility of controlling this disease, and that is my example of the kinds of things we would have to do with our current technologies.

Mr. UNDERWOOD. I wish there were a way to infect the brown tree snake with that disease, and then would solve a number of other problems.

[Laughter.]

Dr. TATE. Emerging technologies is your answer there.

Mr. UNDERWOOD. In prefacing your remarks you drew some attention, and you gave the sense that concern over nonnative species, the way the bill outlines it and proposes a funding level, you gave the sense that this would bump up against other priorities, and that is pretty standard when we are talking to administration representatives. I know you live in a different world in terms of trying to identify resources for your own activities. But would you say that this is too generous a bill?

Dr. TATE. The bill is too generous in what regard?

Mr. UNDERWOOD. In terms of the kinds of funding that is proposed and outlined.

Dr. TATE. What we have discovered that we really like is your help in creating partnerships, in leveraging what funding we have, in leveraging what programs we have, by making it possible for us to reach to other communities and other stakeholders, and in terms of funding we have turned in our budgets and we will continue to develop our budgets with this in mind. And I can't tell you beyond that where we would go with it, but I do know that you have given us new opportunities to make taxpayers money go further.

Mr. UNDERWOOD. Ms. Kaiser, in your testimony you indicated that you wanted to see USDA included in the pilot project, and I think it is something that—I think you also mentioned it, Dr. Tate, in your testimony, that you wanted to consider including a whole number of Federal agencies since this is an issue that cuts across all of these agencies. Yes, Ms. Kaiser, in your testimony, you—I mean I expect that you would be proud of the work of USDA in what you are doing, but the question that the Chairman asked I think was very appropriate to begin with, was are nonnative species out of control? And you answered both yes and no, but in your testimony you gave us the sense that there is a lot of activity that is devoted to this and a lot of resources in various parts of USDA. It seems to me that they are out of control, and it would seem to me that it would call for this kind of legislation and this kind of approach which would cut across all of the agencies.

Ms. KAISER. We applaud the effort to address this issue on a broad basis. When I said yes or no, it was, is there any hope; are we so out of control that there is no hope or that kind of thing. We have been very successful in—I would just suggest that there are delivery mechanisms in place in a variety of organizations, and some within, many within USDA, that can deliver on issues such as research and development, technology transfer, land management activities, best management practices, a variety of those things. And I would think that the type of funding you are talking about would be a great complement to the existing opportunities that we have, the existing delivery mechanisms within the Federal Government today, and I would encourage you to look at those.

Mr. UNDERWOOD. OK. Well, thank you, and I also look forward to seeing a precise accounting of what kind of resources are used to combat nonnative species, if indeed, we are able to figure out the economic costs associated with this we ought to be able to at least figure out how much resources we are spending to combat it.

I did just want to make a brief statement, Mr. Chairman. I believe we only received these testimonies yesterday, and I remember in my previous four terms we heard repeatedly about how tardy

administration officials were in submitting their testimony, so I hope that we can speed that up a little bit.

Mr. GILCHREST. I think the administration officials realize how busy Members of Congress are, and we probably wouldn't look at it until the night before anyway.

[Laughter.]

Mr. GILCHREST. I am not sure if that is the comment my staff wanted me to make.

[Laughter.]

Mr. UNDERWOOD. Well, that is right. That is the comment that my staff gave to me.

[Laughter.]

Mr. GILCHREST. Dr. Tate and Ms. Kaiser, thank you for your testimony. We appreciate you coming down here today and we look forward to working with you as the bill moves through the process. Thank you very much.

Ms. KAISER. Thank you.

Mr. GILCHREST. Our next panel is Mr. Mark Van Putten, President, National Wildlife Federation; Dr. Chavarria, Director of International Special Programs, National Fish and Wildlife Foundation; Dr. Ann Bartuska, Executive Director, Invasive Species Initiative, The Nature Conservancy; Dr. Lucius Eldredge, Department of Natural Sciences, Bishop Museum.

Thank you very much for coming today, ladies and gentlemen. Mr. Van Putten, you don't have any Russian ancestry?

Mr. VAN PUTTEN. No, sir, I am a Hollander and it is Van Putten.

Mr. GILCHREST. Maybe Mr. Putin has Holland ancestry. And it is Van Putten?

Mr. VAN PUTTEN. Yes, sir.

Mr. GILCHREST. Thank you very much. Thank you for coming this morning. We look forward to your try, and, Mr. Van Putten, you may begin, sir.

STATEMENT OF MARK VAN PUTTEN, PRESIDENT, NATIONAL WILDLIFE FOUNDATION

Mr. VAN PUTTEN. Thank you, Mr. Chairman, and members of the Committee. My name is Mark Van Putten. I am President of National Wildlife Federation, and I appreciate the opportunity to testify this morning on H.R. 3558.

National Wildlife Federation is America's largest not-for-profit conservation, education and advocacy organization with more than 4 million members and supporters. We also are a federation of state and territorial organizations, and we were founded in 1936.

Mr. Chairman, I would like to request that my written testimony be included in the hearing record.

Mr. GILCHREST. Without objection, so ordered.

Mr. VAN PUTTEN. The conversation of our Nation's natural ecosystems in a healthy and abundant state provides innumerable and irreplaceable benefits to society. To conserve these ecosystems and realize these benefits, there are many complex issues to be addressed, including human population growth, pollution, sprawling development, unsustainable agricultural processes, and global climate change. All of these are important issues and we work on all of them, but another pernicious threat that has been too often over-

looked is the subject of today's hearing, the harm brought upon our natural ecosystems by invasive and nonnative species.

That threat has been recognized by the delegates to the National Wildlife Federation, who set our policies. And I have appended to my testimony the two resolutions that have been passed by our delegates in recent years, addressing the issue of invasive nonnative species. And I would associate myself with Dr. Tate's response to the question about the need for increased emphasis on the impacts that invasive nonnative species have on natural ecosystems as well as the impact that they have on agriculture and in other situations.

After habitat loss itself invasive nonnative plants are the second greatest threat to native species. At least 5,000 nonnative species, including more than 2,100 exotic plants and 2,000 insects have invaded North America since the arrival of European explorers. And many of these species have been harmful to wildlife and ecosystems. They overwhelm native species and out compete them for food, space, water and other needs, and in some cases, they prey on native species and directly alter their habitat.

In my written testimony I have cited two very compelling examples, the examples of melaleuca in the Everglades, and the Great Lakes experience, and I will not in my oral remarks go into any further detail, but they are two very compelling examples of the impacts on native ecosystems.

The answer to this includes the remedies in this legislation and a broader public education, and the National Wildlife Federation has been dedicated to educating the broader public about the threat of invasive nonnative plants.

For example, our Backyard Wildlife Habitat Program, through which we have helped homeowners and certified over 30,000 backyards as Backyard Wildlife Habitat, emphasizes the use of native plants in landscaping, and our various activities on the World Wide Web similarly provides people with information on how they can use native species and the advantages of using those native species.

The National Wildlife Federation strongly supports H.R. 3558 and commends its authors and this Committee for that legislation, and looks forward to working with you as we proceed.

I would, however, like to identify two concerns that we have in addressing the issue of nonnative invasive species. First of all, the ultimate test of Congress and our collective commitment to dealing with this problem will be appropriating the funds necessary to deal with it. Unless adequate funds are appropriated, the problem of invasive nonnative species will continue to grow unchecked, and I would also associate myself with the comments of the Representative of the Department of Agriculture, that is, either pay now or pay later, and it will be cheaper to pay now.

Second, we have a concern that we need to be sure that the cure is not worse than the disease, that some of the techniques that are used to control or remove nonnative species need to be carefully assessed to ensure that those techniques are host specific and nonharmful to other species and to our natural ecosystems. We are concerned about the need to minimize the use of pesticides, herbicides and other chemicals, and to be very careful as we evaluate proposed solutions.

The list and examples of invasive nonnative species destroying native communities is long and growing. H.R. 3558 will help address this problem by encouraging cooperation among affected parties including private and Government interest and authorizing funding to initiate needed programs. We strongly support this bill and look forward to working with the Committee as it moves through the legislative process.

Thank you very much.

[The prepared statement of Mr. Van Putten follows:]

Statement of Mark Van Putten, President and CEO, National Wildlife Federation

On behalf of the National Wildlife Federation (NWF), I would like to thank the Chairman, Ranking Minority Member and Committee members for this opportunity to testify on the Species Protection and Conservation of the Environment Act (H.R. 3558). Thank you Representatives Rahall, Gilchrest and Underwood for authoring H.R. 3558.

I am Mark Van Putten, President and CEO of the National Wildlife Federation. We are the nation=s largest not-for-profit conservation education and advocacy organization with more than four million members and supporters, and nine natural resources centers throughout the United States. National Wildlife Federation's family also includes forty-six state and territorial affiliate organizations, including the Utah Wildlife Federation and West Virginia Wildlife Federation. Founded in 1936, the National Wildlife Federation works for the protection of wildlife species and their habitat, and for the conservation of our natural resources.

Mr. Chairman, I request that my full written testimony be included in the hearing record.

The conservation of our nation's natural ecosystems in a healthy and abundant state provides innumerable and irreplaceable benefits to society. To conserve these ecosystems and realize their benefits for all of us, we must address many complex issues, including human population growth, pollution, sprawling development patterns, unsustainable agricultural practices and global climate change. All of these are important issues and the National Wildlife Federation is actively working on each of them. However, another pernicious threat too often overlooked and the subject of today's hearing is the harm brought upon our natural ecosystems by invasive non-native species.

H.R. 3558 addresses this threat by authorizing cost-share grants to states for projects consistent with state plans; creating the Aldo Leopold Native Heritage Grant Program for implementing effective control programs; encouraging demonstration projects on national wildlife refuges where ecologically sound methods of controlling invasive non-native species can be tested; and promoting the development of a rapid-response capability. This latter measure will help us address urgent threats before they become ecological disasters beyond our control. Each of these measures is a necessary and vital step in tackling the problem of invasive, non-native species. The National Wildlife Federation therefore strongly supports H.R. 3558.

The National Wildlife Federation's affiliated organizations across the United States adopted a position statement on invasive non-native species in 2000, a copy of which is appended to my testimony. Our concern is that invasive non-native species can so radically change an area's physical and biological environment that the habitat requirements for native plants and animals no longer exist. After habitat loss, invasive non-native plants are the second greatest threat to native species. At least 5,000 non-native species, including more than 2,100 exotic plants and 2,000 insects, have invaded North America since the arrival of European explorers. Many of these species have been harmful to native wildlife and ecosystems. They overwhelm native species for food, space, water, and other needs. In some cases these species prey on native species and alter their habitat.

Hawaii, perhaps more than any other state, has suffered severe impacts from introduced species. At least 23 native bird species have become extinct and another 32 bird species endangered in the last 200 years in Hawaii. The non-native Indian mongoose, roof rat and feral cat are the primary reasons for this devastation of native fauna.

The impacts of invasive non-native species are not confined to our natural ecosystems. Agricultural and rangelands can be severely harmed by the spread of invasive non-native species such as cheat grass and Russian thistle, which absorb

valuable nutrients and deplete soil moisture. Navigation on many of our nation's waterways has been hampered by dense growths of aquatic invasive non-native plants such as hydrilla and water hyacinth. Industry also has suffered due to the spread of invasive non-native plants and animals into equipment and piping.

The harm to natural ecosystems caused by invasive non-native species is illustrated by two well-known species, melaleuca and the zebra mussel.

The Everglades and Melaleuca

Invasive non-native plants have become rampant in Florida in the last thirty years. According to the U.S. Department of Agriculture (USDA), just one species—melaleuca, a non-native tree introduced from Australia—is invading the greater Everglades ecosystem at a rate of about 11 acres per day. Melaleuca has already infested hundreds of thousands of acres in South Florida creating monocultures that destroy native plant diversity and provide little benefit to native wildlife species. Furthermore, the dense stands of melaleuca transpire enormous quantities of water, contributing to lowering of the water table in the Everglades, further expanding their impact on the natural wetlands that define the Everglades. The insidious spread of melaleuca and other invasive non-native plants like Brazilian pepper represent a serious threat to Florida's natural ecosystems and the habitat of endangered species such as the Florida panther, all at a time when we are embarking on an unprecedented effort to restore the greater Everglades ecosystem from decades of environmental mismanagement.

Once an invasive non-native species takes hold, it is often very expensive, if not impossible to eradicate. It has taken more than a decade to find a natural predator of melaleuca that will not threaten native flora and fauna. The USDA is now releasing melaleuca leaf weevils from Australia to control the spread of the tree, reducing the need to use potentially hazardous chemical controls.

The National Wildlife Federation has been educating people in the greater Everglades watershed about the threat of invasive non-native plants. Our Backyard Wildlife Habitat ", and Keep the Wild Alive—educational programs have sponsored events focusing on habitat. NWF has shown people how to identify invasive non-native plants, especially melaleuca, replace them with natives in their own communities and take part in restoration activities in rural and wilderness areas. One event we co-hosted with the USDA last year took Boy Scouts out into panther habitat to collect weevils from one area of forest and release them into another forest currently being invaded by melaleuca.

The Great Lakes and Zebra Mussels

For decades, the National Wildlife Federation has worked to protect the biological integrity of the Great Lakes from numerous environmental threats. One of the most alarming threats to the Great Lakes, however, comes from invasive non-native plants such as Eurasian water milfoil, non-native fish such as the Eurasian ruffe and round goby, and the zebra mussel. These and other species were introduced into the Great Lakes from ballast water discharged by foreign ships using our coastal and inland waterways. Native to the Balkans, Poland, and the former Soviet Union, the zebra mussel is spreading across North America at an astounding rate. Dense zebra mussel colonies grow in pipes and on other hard surfaces, severely impacting water flow at power plants, water treatment systems and other facilities. Although the full biological impact of zebra mussels is not entirely known, it is clear that where zebra mussels invade, native mussel species quickly decline.

So great is the problem of invasive non-native species in the Great Lakes, that just last Friday, March 8, 2002, the National Wildlife Federation's affiliated organizations adopted the resolution "Protection of the Great Lakes from Exotic Species." In this resolution, which I have appended to my testimony, we identify the need for additional federal and state legislation requiring the treatment of ballast water in ships entering the Great Lakes.

Legislation

The Species Protection and Conservation of the Environment Act (H.R. 3558), is an important component of what should be a broad and diverse effort to minimize the impact of invasive non-native species, control their spread and prevent their introduction in the first place. The problem of invasive non-native species is so widespread and pervasive that no single program or action can address it comprehensively. This is particularly true where the spread of invasive species may be exacerbated by other environmental problems.

For example, last month National Wildlife Federation published a book entitled, Wildlife Responses to Climate Change, North American Case Studies. This book explores how global climate change has the potential to significantly increase the rates, intensities, and extent of species invasions and could correspondingly worsen

the impacts of invasions on ecological systems throughout the United States. A summary of the study as it relates to invasive species is included with my written testimony.

Thousands of non-native plant and animal species, all with their own unique life history characteristics, have the potential to severely impact our natural ecosystems, not to mention agriculture and industry. Invasive non-native species are of concern on both public and private lands and water features, and will thus require private and public cooperation, including local, state, regional and federal agencies, to effectively address the problem.

Already, encouraging efforts are under way. On February 3, 1999 President Clinton signed Executive Order 13112 "Invasive Species" which established the National Invasive Species Council (Council). The Council helps coordinate the activities of 10 federal agencies with respect to invasive non-native species, including research, management and monitoring. H.R. 3558 takes a positive step forward by assigning the Council important consultation functions as grant programs authorized by the bill are designed and implemented.

The National Wildlife Federation would also look favorably on federal legislation permanently establishing the National Invasive Species Council and providing it with adequate funding. Such legislation would help ensure the continuity of programs and sustain focus during changing administrations, and therefore would help in effectively controlling invasive non-native species.

We are also encouraged by the introduction of other legislation to address the invasive non-native species problem. Specifically, I am referring to the Great Lakes Ecology Protection Act (S.1034). This legislation would finally close the loop hole which exempts ships entering the Great Lakes declaring that they have no ballast on board from regulation under the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990. Experience has shown that these exempted ships can still transport invasive non-native species to the Great Lakes and other areas.

Although we embrace legislation authorizing funding for the control of invasive non-natives, two precautionary notes are in order. First, the ultimate test of Congress's commitment to controlling invasive non-native species is in the annual appropriations process. Unless adequate funds are appropriated, the problem of invasive non-native species will continue to grow unchecked.

Second, programs to control and manage invasive non-native species must be developed and implemented in such a manner that they are not harmful to our natural ecosystems. The introduction of non-native species to control other non-native species must be vigorously screened to ensure the species is host specific and non-harmful to other species and our natural ecosystems. Furthermore, all control methods should seek to minimize the use of pesticides, herbicides and other chemicals. In the few cases where use of chemicals may be appropriate, this use must be tightly regulated and carefully monitored to avoid harming non-target native species. All projects and programs addressing invasive non-natives should be evaluated according to their success in implementing appropriate environmental controls.

Conclusion

The list of invasive non-native species destroying our native communities is already too long and is still growing. H.R. 3558 will help address the problem by encouraging cooperation among affected parties, including private and government interests, and authorizing funding to initiate needed programs. We strongly support H.R. 3558 and look forward to working with this committee as H.R. 3558 moves through the legislative process.

Again, thank you for the opportunity to testify. I would be happy to answer any questions that Members may have.

National Wildlife Federation
Resolution Number 1
2000

INVASIVE SPECIES

WHEREAS, some non-indigenous invasive plants, animals and other organisms have an adverse impact upon indigenous communities by reducing available light, water, nutrients, and space and can cause other long term changes in the area's hydrology, soil chemistry and erodibility, and the frequency of fires; and

WHEREAS, some introduced non-indigenous plants, animals and other organisms are highly invasive, capable of rapid reproduction and/or growth resulting in the dis-

placement of indigenous species, and can radically change an area's physical and/or biological environment so that the habitat requirements for indigenous plants, animals and other organisms no longer exist; and

WHEREAS, non-indigenous invasive plants, animals and other organisms by nature are easily spread from one area to another; and

WHEREAS, the impact of non-indigenous invasive species threatens regional biodiversity in a manner that is not easily quantified; for example, the loss of an indigenous plant community to non-indigenous invasive species may mean the loss of an insect, animal or indigenous plant dependent upon that community; and

WHEREAS, according to the National Park Service, invasions of non-native plants are the second greatest threat to native species after direct habitat destruction; and

WHEREAS, the U.S. Fish and Wildlife Service stated, "an estimated 42% of the nation's endangered and threatened species have declined as a result of encroaching exotic plants and animals"; and

WHEREAS, the problem of non-indigenous invasive plants is widespread and, according to federal and other accounts, now extend into more than 1.5 million acres of national park land and are spreading at a rate of 4,600 acres per day into federally owned land; and

WHEREAS, it is "estimated that in the 20th century, just 79 introduced plant and animal species have cost the U.S. economy $97 billion in losses to such industries as forestry, ranching, fisheries, tourism, and utilities"; and

WHEREAS, research is required to establish best management practices to control and prevent the spread of non-indigenous invasive species; and

WHEREAS, international trade agreements and rules, regulations, and protocols related to international transportation and trade can significantly affect the possible transportation of non-indigenous invasive species into the United States and other countries;

NOW, THEREFORE, BE IT RESOLVED that the National Wildlife Federation in its Annual Meeting assembled March 16–18, 2000, in Seattle, Washington, supports the President's efforts in establishing the Invasive Species Council to integrate efforts of federal agencies to combat the problem and to prepare and issue the first edition of a National Invasive Management Plan that shall "detail and recommend performance-oriented goals and objectives and specific measures of success for federal agency efforts concerning invasive species"; and

BE IT FURTHER RESOLVED that the National Wildlife Federation supports increased federal funding for non-indigenous invasive species management in National Parks and on other federal lands and/or waters, and the continued funding of the Wildlife Habitat Incentives Program (WHIP) that, in part, provides cost sharing for private initiatives to control non-native (invasive) plants from natural ecosystems; and

BE IT FURTHER RESOLVED that the National Wildlife Federation encourages state and federal agencies, universities and other groups to work together to identify and list the highly and potentially invasive non-indigenous species specific to that state, and to promote that the list be used as an educational and managerial tool; and

BE IT FURTHER RESOLVED that the National Wildlife Federation calls upon state and federal agencies to carefully formulate regulations to control, reduce, or, if necessary, prohibit the introduction, transportation, propagation, sale, or distribution of non-indigenous plants known to be harmful or otherwise undesirable; and

BE IT FURTHER RESOLVED that the National Wildlife Federation encourages state and federal agencies, universities, and other groups to work with the nursery industry to establish policies to control and prevent the further introduction and spread of non-indigenous invasive species, and to promote a list of alternative, preferably native plants, that can be the basis of educational programs that will benefit growers, the public, and the environment; and

BE IT FURTHER RESOLVED that the National Wildlife Federation encourages state and federal entities engaged in research and development involving management of vegetation to intensify their studies of ecology and control of invasive non-indigenous plants; and

BE IT FURTHER RESOLVED that the National Wildlife Federation urges monitoring of areas that have endangered or threatened species and/or are relatively free of non-indigenous invasive species and encourages careful management practices to be used in the removal of non-indigenous invasive species; and

BE IT FURTHER RESOLVED that the National Wildlife Federation urges the Congress and federal agencies to ensure that the United States' international trade obligations, including the World Trade Organization and its Sanitary and Phytosanitary Agreement, are formulated and implemented to provide sufficient

flexibility to allow for regulations to control and prohibit intentional or unintentional introduction of non-indigenous invasive species and other organisms into the United States and other countries; and

BE IT FURTHER RESOLVED that the National Wildlife Federation urges the Congress of the United States to recognize the high environmental and economic costs associated with non-indigenous invasive plants, animals and other organisms and to appropriately fund efforts to control this enormous national environmental crisis through educational programs, research, and cost-share incentives to restore native habitats.

National Wildlife Federation
Resolution Number SC–2
2002

PROTECTION OF THE GREAT LAKES AND OTHER WATERS FROM EXOTIC SPECIES

WHEREAS, our Great Lakes, estuarine habitats, coastal and inland waters continue to be invaded by exotic (non-native) aquatic organisms and pathogens transported from foreign waters; and

WHEREAS, these organisms arrive in the ballast water discharged by ships using our estuarine, coastal and inland waterways; and

WHEREAS, previously introduced exotic species, such as Eurasian ruffe and round gobies, are being carried in ballast water from one Great Lakes port to another; and

WHEREAS, once introduced and established, these non-native aquatic organisms are expensive to control and almost impossible to eliminate; and

WHEREAS, the impact on sport and commercial fisheries is immense and disrupts the aquatic diversity of the Great Lakes, estuarine habitats, coastal and inland waters; and

WHEREAS, moreover, shoreline communities in the Great Lakes region alone are being forced to spend an estimated $500 million annually on control measures to protect drinking water, power plants, and recreational facilities; and

WHEREAS, some of these aquatic organisms, such as zebra mussels and Eurasian water milfoil, are now making their way into inland lakes and streams across the United States where they are displacing native animal and plant species; and

WHEREAS, the ballast water that harbors these invaders is used to maintain the stability of cargo vessels when they are empty or only partially loaded and is pumped in or out of large holding tanks, as needed, before the ships enter or leave port; and

WHEREAS, although U.S. and Canadian laws currently require ships entering the Great Lakes to exchange their ballast water at sea, ship design makes it impossible to eliminate all of the ballast water; and

WHEREAS, the majority of ships entering the Great Lakes do so with "No ballast on Board" and ships in this condition are commonly referred to as NOBOBs; and

WHEREAS, ships in the NOBOB condition still carry sediment in their ballast that can harbor exotic species; and

WHEREAS, the average ship retains 42,000 gallons of ballast water and sludge when entering the Great Lakes or moving between ports; and

WHEREAS, exotic organisms are flushed into the lakes as ships take on and discharge residual ballast water in the course of their voyages; and

WHEREAS, ships in the NOBOB condition are currently exempt from requirement to exchange their ballast under federal law; and

WHEREAS, federal laws as they are currently administered have clearly failed to prevent exotic species in this residual ballast water from reaching the Great Lakes, estuarine habitats, coastal and inland waterways; and

WHEREAS, in the 106th Congress a bill was introduced that would have amended the Non-indigenous Aquatic Nuisance Control and Protection Act of 1990 and require ships traveling in and out of the Great Lakes, estuarine habitats, coastal and inland waters to replace or purify their ballast water or certify that any discharge or exchange within U.S. waters will not introduce any non-indigenous organisms; and

WHEREAS, the National Wildlife Federation believes the ultimate control has to come from the Federal government working in concert with Canada; and

WHEREAS, the National Wildlife Federation and many other organizations recognize the threat posed to the Great Lakes, estuarine habitats, coastal and other in-

land lakes and streams of the United States by the continued introduction of non-indigenous aquatic organisms carried in the ballast water of ocean going vessels.

NOW, THEREFORE, BE IT RESOLVED that the National Wildlife Federation, at its Annual Meeting assembled March 7–9, 2002 in Stone Mountain, Georgia, support the enactment of federal legislation to protect the Great Lakes, estuarine habitats, coastal and inland waters from undesirable exotic species and pathogens, by requiring treatment of ballast water of all ships entering or moving between the Great Lakes, estuarine habitats, coastal or inland ports, including ships with no ballast on board (NOBOBs) to eliminate viable exotic organisms without damage to the environment; and

BE IT FURTHER RESOLVED, that the National Wildlife Federation encourages the development, funding, and use of environmentally sound technologies that prevent the introduction of exotic species into the aquatic environment by minimizing or eliminating the uptake of organisms into ships' ballast tanks; and

BE IT FURTHER RESOLVED, that the National Wildlife Federation supports equally effective state legislation to regulate ballast water, including ships in the NOBOB condition in individual state waters to provide interim protection until such time as federal legislation is enacted to adequately protect all our Great Lakes, estuarine habitats, coastal and inland lakes and rivers.

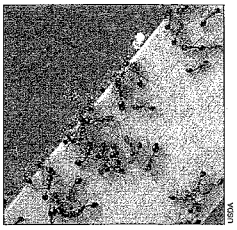
NATIONAL WILDLIFE FEDERATION® www.nwf.org™

Wildlife Responses to Climate Change

Invasive Species

Climate change has the potential to significantly increase the rates, intensities, and extent of species invasion and could correspondingly worsen the impacts of invasions on ecological systems throughout the United States. Erika Zavaleta and Jennifer Royval, of Stanford University, reviewed some of the factors that have slowed expansion of a number of invasives at the edges of their ranges, and have concluded that many species are limited by climatic variables such as temperatures and moisture availability.

They conducted case studies of two species, the red imported fire ant (a species native to Brazil that was introduced into this country 80 years ago and has spread throughout the Southeast), and *Tamarix* (a plant species that was introduced in the 16th century as an ornamental shrub and windbreak and has since spread rapidly into perennial riparian drainages through arid and semi-arid regions in the West). Both species have been harmful to native wildlife. Fire ants, for example, are a competitor to native ant species. They are also aggressive general predators, eating other insects (such as monarch butterfly larvae). Moreover, their sting can kill small animals and, occasionally, people. *Tamarix* is a high water consumer, and it can reduce water availability and dry ponds and streams in riparian regions it invades. It also does not provide good habitat for many species because it lacks palatable seeds, harbors few insects, and forms dense stands. Both species are expected to benefit from projected changes in climate associated with increasing concentrations of greenhouse gas emissions in the atmosphere and will likely expand into states that are currently free of the species.



Red imported fire ants

Background

At least 5,000 nonnative species, including more than 2,100 exotic plants and 2,000 insects, have invaded North America since the arrival of European explorers. Many have been harmful to native wildlife and ecosystems: they outcompete native species for food, space, water, and other needs; they prey on native species; and they alter habitat. Threats from invasive species are a significant reason for listings under the Endangered Species Act. Because invasive species have competitive dominance over a range of residents and have rapid dispersal ability, they are particularly likely to capitalize from climate change. Published studies show that climate change is expected to contribute to range size increases for at least 37 harmful species in the United States, including fish, amphibians, plants, insects, and human diseases.

Approach

To illustrate some of the mechanisms that may underlie future positive responses of harmful invasives to warming and precipitation changes, Drs. Zavaleta and Royval looked at two cases: the red imported fire ant (RIFA) and *Tamarix* shrubs. These species were chosen for several reasons: 1) their impacts on native wildlife are well-studied; 2) there is reasonably detailed information on their distribution throughout the United States; 3) they are representatives for different geographic regions; 4) they are representatives of contrasting taxonomic groups with contrasting modes of impact on wildlife; and 5) they have already been noted by scientists as likely to have naturalized distributions in the United States limited by cold temperatures and moisture availability, two climatic variables expected to change as atmospheric concentrations of carbon dioxide increase. The researchers used spatial analysis software to develop range maps for the species and compared them with climate maps to analyze relationships between species distributions and measures of temperature and moisture. Based on these relationships, they generated predictions of future range shifts under scenarios of +1, +2, +3, and +4 degrees C to mean minimum and maximum temperatures throughout the United States and decreases in western regional precipitation of 50mm/year. (over)

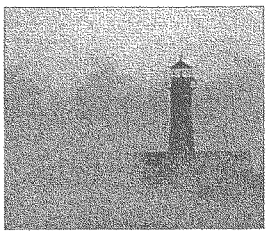
Contact:
Patty Glick, NWF Climate Change and Wildlife Program Coordinator, 202/797-6898 or glick@nwf.org

Climate Change and the Susceptibility of U.S. Ecosystems to Biological Invasions: Two Cases of Range Expansion Erika Zavaleta and Jennifer Royval, Stanford University, Stanford, California Published in: Schneider, S.H. and T.L. Root, eds. 2002. *Wildlife Responses to Climate Change: North American Case Studies,* Island Press, Washington, D.C.: 277-341.

Findings

In both cases, the researchers concluded that climate change is likely to contribute to an expansion in their range.

The primary factor that has limited the spread of RIFA beyond its current range is minimum winter temperatures (they are not freeze-tolerant, and cool weather slows their feeding and brood development). They also like higher humidity, although they are apparently becoming more tolerant of drier areas. Modeling potential changes in temperatures associated with climate change, the researchers found that the number of counties infested by RIFA will increase by approximately 150 with each additional 1 degree C of warming. With 1 degree C increase, they



could begin to move into parts of Tennessee and Virginia. With 2 degrees C, they are likely to go into moister parts of Texas, Oklahoma, Virginia, and coastal Maryland. With 3 degrees, they could move into all of Tennessee, Virginia, Kentucky, Oklahoma, Texas, and southern Illinois and New Jersey. With 4 degrees, they could double their current range. [Note: the most recent study by the Intergovernmental Panel on Climate Change estimates suggest that temperatures could increase between 1.4 and 5.8 degrees C this century.]

For *Tamarix*, projected changes in climate in the western United States associated with increasing concentration of CO_2 in the atmosphere will contribute to increasing temperatures and a decline of 15-40 percent in annual precipitation projected for some regions. These changes are expected to allow the species to spread to areas currently too moist for it to invade, including California, Oregon, eastern Texas, Oklahoma, Kansas, Nebraska, South Dakota, and Arkansas.

Mr. GILCHREST. Thank you, Mr. Van Putten.

Dr. Chavarria.

STATEMENT OF GABRIELA CHAVARRIA, DIRECTOR OF INTERNATIONAL AND SPECIAL PROGRAMS, NATIONAL FISH AND WILDLIFE FOUNDATION

Ms. CHAVARRIA. Thank you, Mr. Chairman.

Mr. Chairman, members of the Committee, my name is Gabriela Chavarria, and I am Director of International Programs at the National Fish and Wildlife Foundation. The Foundation is pleased to testify before you today as you address the silent spread of invasive and noxious plant species as one of the greatest threats to the biological diversity, ecological stability and the economy of an increasing number of areas in the United States and the world.

Impacts from exotic invasive species are second only to direct habitat loss as a factor in the decline of fish, wildlife and plant diversity. Of the 5,000 introduced plant species established in the United States, 476 are scientifically recognized as pests with aggressive and invasive characteristics. Experts estimate that invasive and noxious plants have infested well over 100 million acres and the area affected continues to increase by 8 to 20 percent annually. These plants have encroached upon millions of acres, supplanting native plants, disrupting ecosystem structure and function, and infecting agricultural crops, causing billions of dollars in lost revenue.

In 1996 the Foundation, along with the Bureau of Land Management and the USDA Forest Service, created a private/public partnership to aid in the prevention, management and/or eradication of invasive and noxious plants, and to increase public awareness of the adverse impacts. This partnership is called the Pulling Together Initiative or PTI. This initiative has served as an implementation program to the National Strategy on Invasive Noxious Weeds produced in 1996—and you have a copy of this—and is now part of the National Invasive Species Management Plan. You also have a copy of that.

We represent demonstration projects that go on every day. Over the past 6 years this program has become a joint effort between the Foundation, the U.S. Fish and Wildlife Service, the Bureau of Land Management, the Bureau of Reclamation, the National Park Service, the USDA Forest Service, the USDA Animal, Plant and Health Inspection Services, and the Department of Defense.

To date, 220 grants have treated invasive species in 36 States and 2 U.S. possessions. The program has provided over $7 million in Federal funds that have been leveraged by over $30 million in non-Federal funds for a total of over $21 million for on the ground projects.

The program promotes greater cooperation among the various stakeholders to implement ecologically based strategies to eradicate, mitigate and control harmful nonnative plant species through a voluntary and incentive-based financial assistance grant program. This program helps in the development of long-term weed management projects within the scope of an integrated weed management strategy. Projects range from pulling yellow star thistle in Idaho to releasing biological control agents on leafy spurge in

Colorado, to selective spraying of giant salvinia in the lower Colorado River.

Our program provides support on a competitive basis for its public/private partnership through the formation of local weed management area partnerships nationwide. This is critical in that it serves to engender public awareness and increase interest in further eradication efforts to protect, enhance, restore, and manage native habitats for native fish and wildlife.

We recognize limits on Federal resources and build into our program a 5-year plan of funding for individual projects. This 5-year plan gives the grantee important startup monies to leverage with a myriad of local resources. These local resources range from volunteer labor to chemical donation to neighborhood sharing of equipment.

These projects are not selected by the Foundation alone. They are selected by a national steering committee, which is comprised of 22 invasive weed species experts from the Federal, private and corporate sectors.

The PTI success remains rooted in the principle of public/private partnerships at the national and local levels. Bringing a national presence to the invasive species issue, we empower local weed management entities to fight the battle at a landscape level. This approach also focuses resources on the important component of public outreach and awareness. As the general public learns more of the ecological and economical threat, they become engaged in preventing the establishment of these invasive species in their communities. Attention such as this at every level is a key precursor to a successful fight against invasive weed species.

We commend this Committee for taking action and introducing legislation that is a much-needed step in the right direction.

Thank you, Mr. Chairman, and members of the Committee for the opportunity to testify before you today. This concludes my remarks, and I will be happy to answer any questions.

[The prepared statement of Ms. Chavarria follows:]

Statement of Gabriela Chavarria, Ph.D., Director of International and Special Programs, National Fish and Wildlife Foundation

The National Fish and Wildlife Foundation (the Foundation) is prohibited from testifying on behalf of specific legislation but appreciates the opportunity to submit this statement as it relates to the growing problem of invasive species on both public and private lands.

The Foundation is a private, non-profit, 501(c)3 tax-exempt organization, authorized by Congress in 1984 to conserve fish, wildlife, and plants, and the habitats on which they depend. We have funded nearly 5,000 projects and leveraged over $175 million in federal dollars for more than half a billion dollars in funding for on-the-ground conservation, conservation education, and organizational capacity building. The Foundation is non-partisan and does not support lobbying, political advocacy, or litigation. The Foundation's primary conservation ingredient is its grantees and other partners—the hundreds of federal, state, tribal, corporate, and private organizations that have leveraged federal dollars, identified the worthy projects, and conducted the conservation projects. In particular, our core federal agency partners provide vital matching funds through its appropriations and budgets, and invaluable program direction and technical assistance. The U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, USDA–Forest Service, Bureau of Land Management, Bureau of Reclamation, Agency for International Development, Environmental Protection Agency, and USDA–Natural Resource Conservation Service are the eight core agencies providing this support.

The Foundation's conservation investments have resulted in over 20 million acres of restored wildlife habitat—an area nearly equal to the State of Indiana, and over

11,000 miles of restored streams and waterways. We have helped develop new models for private land stewardship, created new hope for countless species, and built educational programs that nurture the next generation of stewards.

The Foundation commends Congress on its efforts to recognize the silent spread of invasive and noxious plant species as one of the greatest threats to the biological diversity, ecological stability, and the economy of an increasing number of areas in the U.S. and the world. Impacts from exotic invasive species are second only to direct habitat loss as a factor in decline of fish, wildlife, and plant diversity. Of the 5,000 introduced plant species established in the U.S., 476 are scientifically recognized as pests with aggressive and invasive characteristics. Experts estimate that invasive and noxious plants have infested well over 100 million acres and the area affected continues to increase by 8 to 20 percent annually. These plants have encroached upon millions of acres, supplanting native plants, disrupting ecosystem structure and function, and infesting agricultural crops, causing billions of dollars in lost revenue.

In 1996, the Foundation, along with the Bureau of Land Management and the USDA–Forest Service, created a private/public partnership to aid in the prevention, management, and/or eradication of invasive and noxious plants and to increase public awareness of the adverse impacts. This partnership is called the Pulling Together Initiative (PTI). PTI has served as an implementation program to the National Strategy on Invasive Noxious Weeds produced in 1996 and is supported by over 100 private, federal and corporate organizations, and is now part of the National Invasive Species Management Plan.

Over the past six years, PTI has become a joint effort between the Foundation, the U.S. Fish and Wildlife Service, the Bureau of Land Management, the Bureau of Reclamation, the National Park Service, the USDA–Forest Service, the USDA–Animal Plant and Health Inspection Services, and the Department of Defense. Since weeds do not respect boundaries, our agency partners recognized the need to form partnerships without borders.

To date, 220 grants have treated invasive species in 36 states and two U.S. Possessions. The PTI program has provided $7,279,174 million in federal funds that have been matched by $13,777,922 million in nonfederal funds, for a total of $21,057,096 million for on-the-ground projects. A map showing the distribution of the projects is enclosed for your review (Attachment A).

PTI promotes greater cooperation among the various stakeholders to implement ecologically based strategies to eradicate, mitigate, and control harmful nonnative plant species through a voluntary and incentive-based financial assistance grant program. This program helps in the development of long-term weed management projects within the scope of an integrated pest management strategy. An integrated pest management strategy is significant in that it includes mechanical, chemical, and biological control.

Projects range from pulling yellow star thistle in Idaho, to releasing biological control agents on leafy spurge in Colorado, to selective spraying of leafy spurge in remote areas in North Dakota.

PTI provides support on a competitive basis for its public/private partnership through the formation of local weed management area (WMA) partnerships nationwide. The significance of the WMA is to ensure that implementation of the integrated pest management approach is understood from acre to acre, parcel to parcel, state to state. These partnerships are critical in that they serve to engender public awareness and increase interest in further eradication efforts to protect, enhance, restore, and manage native habitats for native fish and wildlife.

PTI recognizes limits on federal resources and builds into its program a five-year plan of funding for individual projects. This five-year plan gives the grantee important startup monies to leverage with myriad local resources. These local resources range from volunteer labor, to chemical donations, to lending a tractor.

PTI has been effective in initiating working partnerships, demonstrating successful collaborative efforts, and building on those successes to develop permanent funding sources for the maintenance of WMAs from the involved parties.

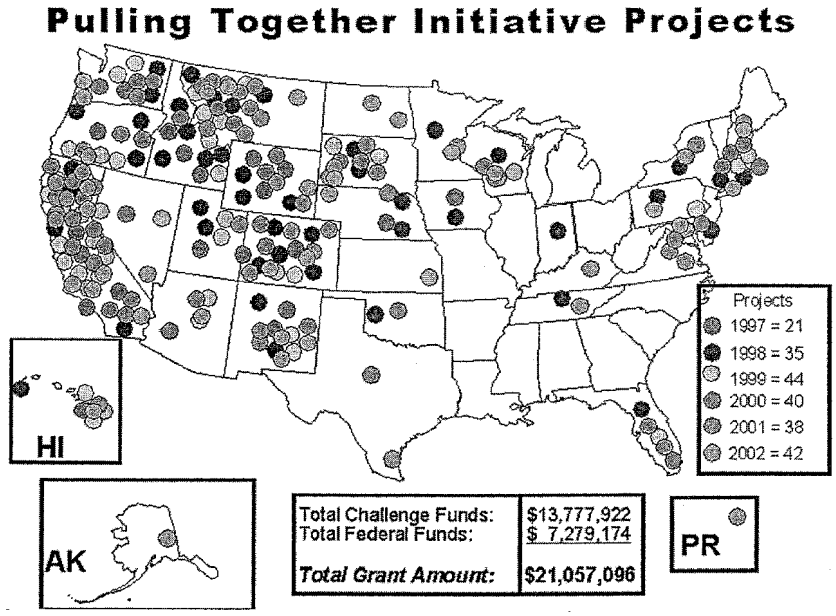
PTI projects are not selected by the Foundation alone. They are selected by a National Steering Committee, which is comprised of twenty-two invasive weed species experts from the federal, private, and corporate sectors. A list of these members is attached as attachment B.

After six years, the success of PTI remains rooted in the principle of public/private partnerships at the national and local levels. Bringing a national presence to the invasive species issue, PTI empowers local weed management entities to be successful in their partnership efforts to fight the battle at a landscape level. With this national local backing, PTI also focuses resources on the important component of public outreach and awareness. As the general public learns more of the ecological

and economical threat, they become engaged in preventing the establishment of these invasive species in their communities. Attention such as this at every level is a key precursor to a successful fight against invasive weed species.

We appreciate the opportunity to appear before this Committee to discuss the issue of invasive species. We would like to thank you, Mr. Chairman, and Members of this Committee, for your efforts to address this important issue. This concludes my remarks and I am happy to answer any questions that you may have.

Attachment A



Attachment B

Pulling Together Initiative National Steering Committee

Tom Loggins Georgia Forestry Commission 5645 Riggins Mill Rd. Dry Branch, GA 31020 Tel. (478) 751-3480 Fax (478) 751-3465	**Tim Playford** Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268 Tel. (317) 337-4789 Fax. (317) 337-4880	**Gina Ramos** Bureau of Land Management 1849 C Street NW, (MS 314LS) Tel. (202) 452-5084 Fax. (202) 653-5279
Alan Tasker USDA-APHIS Nat'l Noxious Weed Program Coordinator 4700 River Road, Unit 134 Riverdale, MD 20387-1237 Tel. 301-734-5708 Fax (301) 734-5992	**Deborah Hayes** USDA Auditor's Building, 3 South 201 14th. Street, SW Washington, DC 20250 Tel. (202) 720-5827 Fax (202) 205-1096	**Ladd Johnson** Resource Management, Inc. 300 Academy Street, Ste 201 Cambridge, MD 21613 Tel. (410) 228-3755 Fax (410) 228-3238 and (202) 737-5031 Rmiladd@shorenet.net
Gary Smith USDA-Forest Service 333 SW 1st Ave Portland, OR 97204 Tel. (503) 808-2914 Fax (503) 808-2469	**Lee Otteni** Bureau of Land Management 1235 La Plata Highway Farmington, NM 87401 Tel. (505) 599-8912 and (505) 599-8910 Fax (505) 599-8940	**Jeanne Wade/ Dick Lindenmuth** USDA-Forest Service Rangeland Stewardship Sidney Yates Building, 3 South 201 14th Street, SW Washington, DC 20250-1103 Tel. (202) 205-1454 Fax (202) 205-1096
Fred Nibling/ Alberta Maez Bureau of Reclamation Denver Federal Center Building 67 P.O. Box 25007 Denver, CO 80225-0007 Tel (303) 445-3639 Fax (303) 445-6690/6465	**Gabriela Chavarria** National Fish and Wildlife Foundation 1120 Connecticut Ave. NW, Suite 900 Washington, DC 20036 Tel. (202) 857-0166 Fax (202) 857-0162	**Gary Johnston** U.S. Dept. of the Interior National Park Service (NPS) Natural Systems Management Office Room 3223-MIB 1849 C Street NW Washington, DC 20240 Tel. (202) 208-5886 Fax (202) 208-4620
Terry Riley Wildlife Management Institute 1101 14th St., NW Suite 801 Washington, DC 20005 Tel. (202) 371-1808 Fax (202) 408-5059	**Alison Dalsimer** DOD, Legacy Program ODUSD(ES) EQ-LP 3400 Defense Pentagon Rm 3E791 Washington, DC 20301-3400 Tel. (703) 604-1774 Fax (703) 607-3124	**William P. Greg/Randy Westbrooks** US Geological Survey (USGS) 12201 Sunrise Valley Dr. Reston, VA 20192 Tel. (703) 648-4067 Fax (703) 648-4039
Herb Manig North Dakota Farm Bureau 1101 First Avenue Fargo, ND 58102 Tel. (701) 298-2200 Fax (701) 298-2210	**Mike Ielmini** U.S. Fish and Wildlife Service National Invasive Species Coordinator 4401 North Fairfax Drive-Room 612 Arlington, VA 22203 Tel. (703) 358-1744 Fax (703) 358-1929	**Rob Hedberg** Director of Science Policy National & Regional Weed Science Societies 900 Second Street, NE, Ste 205 Washington, DC 20036 Tel (202) 408-5388 Fax (202) 408-5385
Russ Shultz Weed Control Office 444 Cherry Creek Road Building B Lincoln, NE 68528 Tel. 402-441-7817 Fax 402-441-7148	**John Randall** The Nature Conservancy University of California, Davis Davies, CA 95616 Tel. (530) 753-6622 Fax (530) 752-4604	

Mr. GILCHREST. Thank you very much, Dr. Chavarria.

Dr. Eldredge, welcome. I am sorry, I got my names mixed up. Dr. Bartuska. Thank you. You may begin.

STATEMENT OF ANN M. BARTUSKA, EXECUTIVE DIRECTOR, INVASIVE SPECIES INITIATIVE, THE NATURE CONSERVANCY

Ms. BARTUSKA. Good morning. My name is Ann Bartuska. I am the Executive Director of the Nature Conservancy's Invasive Species Initiative. And I would like to thank the Chair and the Committee for inviting the Conservancy to testify before you today on H.R. 3558.

I would like to submit my full testimony to the record and just briefly summarize my remarks.

Mr. GILCHREST. Without objection.

Ms. BARTUSKA. Thank you.

The Nature Conservancy is fully dedicated to preserving plants, animals and natural communities that represent the diversity of life on this earth. We are trying to do that with our presence in 50 States and 28 countries worldwide.

And our concern on invasive species has really become critical, especially after we surveyed our member organizations nationwide and internationally last year, and determined that 75 percent of our units have identified invasive species as the No. 1 critical threat to achieving our mission. Because of that, we feel we can't ignore the whole invasive species issue, and appreciate the opportunity today to talk about H.R. 3558 and the role that might play in contributing to the fight against invasives.

What I would like to do today is just summarize a few of our comments that we have about the bill, and also to identify some areas that we think could be further improved or analyzed as the discussions continue about this bill, and then to conclude with some remarks on future opportunities, always taking advantage of an opportunity like this to put some new things on the table.

We believe that any program that provides mechanisms to work across land ownerships, Federal, State and private, to deal with the invasive threat is a very positive step forward, and we commend the members of the Subcommittees for putting this together as part of H.R. 3558. We think it does bring some valued attention to the invasive species issue and does provide some opportunities among all land ownerships to address the problem. We also support the idea of looking at all taxa, looking at plants, animals, insects, diseases, the full array of invasives that we have out there and not limiting to any particular threat as part of the overall package in the long run.

In terms of some of the areas that we support, providing resources to the areas of greatest need I think is one thing that is identified in the bill that really helps get resources at the local level to where we have the greatest threat. Being able to have local entities make those decisions and to utilize the full information available through the Federal and State programs will certainly help us to address the problem where it exists. We also believe that the fact that the bill allows us to address prevention, eradication, rapid response and control and management, all encompass a very powerful way of looking at invasive species.

Second, the emphasis in the bill on prevention and rapid response is a much-needed effort, and I think really highlights those areas where you do get the biggest bang for the buck, getting out early, taking care of a species infestation before it becomes a significant threat, before it becomes an established population is something that is a very high priority for all of us. We have seen that with fires, where if you address fires before they get established, your investment is much lower and your success rate is much higher.

And then last, the idea of capacity building for the Fish and Wildlife Service to help support the backlog of invasive species management opportunities on the refuges is something that we support just generally in addressing Federal lands and getting ahead of the invasive species problems. So we continue to encourage that kind of an outcome in addressing the invasives problem.

There are a few areas that we feel need to be further addressed, the areas of the State management plans. There is some opportunities for confusion in comparing what is in H.R. 3558 with what has been identified through the Aquatic Nuisance Task Force, under NISA for the Co-op Forestry Assistance Act with the Forest Service on their Insect and Disease Management. So a more comprehensive look at State plans I think could be very beneficial.

We also would like to encourage that the allocation to refuges or to Federal lands not be limited by adjacencies, that again, you go to where the greatest need is based on priority setting.

And we are also concerned about the cost of monitoring. A question came up earlier about adequacy of resources. We believe that the dollars authorized for monitoring are probably not adequate to address the full needs of monitoring out there.

The last point I would like to raise is with regard to the National Invasive Species Council. We are glad to see that that body has been given fuller authority to provide some oversight for the bill, but we believe that there are greater opportunities to give the National Invasive Species Council full statutory authority to be able to provide more oversight and accountability among the Federal agencies in terms of both the allocation of resources and the accountability measures.

And I know my time is up. I have one other comment I would like to include, and that has to do with rapid response. I really would like to just comment for the members of the Committee to take a look at what authorities we have for rapid response to build upon the GAO report that identified some areas of weaknesses within the Federal sector on rapidly responding and to further bolster that particular part of the battle on invasives, both early detection and rapid response.

So I thank you very much for the opportunity to provide comments, and of course, I am available for questions.

[The prepared statement of Ms. Bartuska follows:]

Statement of Ann M. Bartuska, Ph.D., Executive Director, Invasive Species Initiative, The Nature Conservancy

Mr. Chairman, and members of the Committee, I appreciate the opportunity to submit this testimony for the record on H. R. 3558, Species Protection and Conservation of the Environment Act. In particular, the Nature Conservancy is grateful to the Committee for introducing H.R. 3558 which is helping to bring needed atten-

tion to the serious harm caused by invasive species to our biological heritage and economic resources.

The Nature Conservancy is dedicated to preserving the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. The Conservancy has approximately 1 million individual members and over 1,900 corporate donors. We currently have programs in all 50 states and in 28 nations. To date our organization has protected more than 90 million acres in the 50 states and abroad, and has helped local partner organizations preserve million acres in other nations. The Conservancy itself owns more than 1,390 preserves—the largest private system of nature sanctuaries in the world. Our conservation work is grounded on sound science, strong partnerships with other landowners, and tangible results at local places.

Why is The Nature Conservancy concerned about invasive species?

- An internal survey of the Conservancy found that approximately 75% of the operating units believe invasive species are a killer threat preventing the accomplishment of our conservation strategies.
- Up to 46% of the plant and animal species listed as endangered in the United States have been negatively impacted by invasive species—In this regard, invasive species are a threat second only to habitat loss.
- The economic costs to the people of the United States alone are estimated at $137 billion annually. Damages by invasive plants has led to annual losses in agricultural productivity of $20 billion. Globally the costs are much higher.
- Taking action on invasive species provides powerful common ground with our partners—public and private, national and international.

Comments on H.R. 3558

There is no question that invasive species—both aquatic and terrestrial—pose a huge problem to the natural resources of the United States. In addition, Federal and state agencies and private landowners face a management challenge with inadequate resources—personnel, management options, and funding. Any program that provides mechanisms to work across land ownership to solve the challenge of invasive species management is a positive step forward. HR. 3558 contributes to the further implementation of the National Invasive Species Management Plan, and enhances the capacity of private, State and Federal entities to manage invasive species. We commend the members of the Committee for raising the awareness regarding the significant impacts of invasive species of all taxa to our environment, and ultimately to our economy.

1. Providing resources to areas of greatest need. The prevention, eradication, control and restoration of invasive species are, to a significant extent, a matter of local management. We believe it is important to provide mechanisms that stimulate local stakeholders to take action and the resources to see the action to a successful conclusion. H.R. 3558 makes an important effort to stimulate local action through its provisions addressing assessment, planning, monitoring and subsequent action on private, state and Federal lands. The legislation greatly expands the public/private model of invasives action presented by the "Pulling Together Initiative". This model for action has been used successfully by the Conservancy and many others throughout the country.

2. Prevention and rapid response. The emphasis in the bill on prevention and rapid response highlights very constructively those management activities that most effectively minimize the establishment of invasive species. Natural resource managers need sufficient resources to eradicate incipient populations of invasive species wherever possible. The need for enhanced rapid response capability associated with non-agricultural lands is clear. This capacity must be matched, however, by sufficient resources to implement an early detection system that is the triggering mechanism for the response.

3. Capacity building for Fish and Wildlife Service. As with many of the Federal agencies, there is a growing gap between the need to manage invasive species and the resources available for even the highest priority management activities. The backlog in invasive species management on the National Wildlife Refuge System is a serious threat to fish and wildlife habitat. The implementation of demonstration projects in the refuge system could contribute to reducing this backlog and help test new management tools.

Areas of concern:

1. State management plans. There is the potential for confusion between the goals and target groups of the grant programs within this bill and the "Partners for Fish and Wildlife" program managed by the Fish and Wildlife Service. Similarly, state management plans are called for through the Aquatic Nuisance Species Task Force

under the authority of the National Invasive Species Act (NISA) which is scheduled for re-authorization in 2002. Through the Forest Service implementation of the Cooperative Forestry Assistance Act, States also are called upon to develop plans to address forest insects and disease, including non-native invasive species like gypsy moth. The National Invasive Species Council should be required to develop guidance which leads to comprehensive and consistent state plans for invasive species management

2. Scope of lands covered by grants. Language relevant to the Aldo Leopold Native Heritage Program suggests that projects on State and private lands are currently limited to those adjacent to Federal lands. However, invasives know no boundaries and federal funds should be directed to where the greatest resource needs are located. We recommend language that allows the use of federal funds on either federal, state, or private lands, or some combination of these lands, depending on where the greatest resource need is in a particular area.

3. Costs of monitoring. It has become standard practice to include statements that call for monitoring of projects and program implementation. However, insufficient resources and accountability for monitoring are all too often provided for this purpose. We recommend increasing the funding level authorized to a level commensurate with the need for monitoring.

4. Federal versus local focus. Success in the fight against invasives requires to a great extent cooperation among federal, state and private stakeholders. It is important to stimulate as much activity in organizing local stakeholders to fight invasives as possible. We would like more of the focus of decision making regarding funding of projects to involve local stakeholders, and less of the decision making to be made at the headquarters level.

5. Implementation through the National Invasive Species Council. The Council is a potentially powerful mechanism to harmonize, standardize and integrate the actions of all federal agencies who deal with invasive species. Authorizing the Council to implement activities within H.R. 3558 will significantly contribute to coordination among agencies and Departments.

Future Opportunities

The Nature Conservancy would like to take this opportunity to identify several areas not covered by H.R. 3558 which we believe must be addressed in the future to more effectively use Federal and State processes and programs:

1. Authorize the National Invasive Species Council. The Council was established through an Executive Order in 1999 and has been given the broad responsibility for implementing the Executive Order and the components of the National Invasive Species Management Plan. We believe the full potential of the Council—administratively and legislatively—will not be achieved until it is codified and provided more permanent status.

2. Encourage the development and support for a cross-cut budget to implement the National Invasive Species Management Plan. Until a cross-cut budget is deployed, federal and state efforts to address invasive species will continue to be fragmented and inconsistent and ultimately will not lead to the performance outcomes we should expect from federal funding. Congress can boost the development of such a budget through appropriations language and other communications with the Administration.

3. Bolster Rapid Response. Rapid response, by definition, means the rapid deployment of people and resources to eradicate a plant or animal population prior to establishment. On Federal lands, rapid response is hampered by procedural requirements associated with the National Environmental Policy Act (NEPA). While TNC fully supports the use of NEPA as an important tool in achieving conservation goals, we also believe that new and creative solutions in the application of NEPA requirements is essential. NEPA streamlining is one area of opportunity being explored through the National Fire Plan and more recently by NISC staff, and we support expanding these efforts to include rapid response to invasive species.

4. Establishment of a permanent fund. We also encourage the establishment of a permanent fund to fight invasive species. The annual appropriations process, coupled with the inability of Federal agencies to maintain funds for invasive species management across fiscal years, is a serious limitation to Federal and non–Federal rapid response capabilities. While APHIS has the broadest authority currently to address invasive species, this authority has generally been used only for agricultural systems. The GAO identified other barriers to a comprehensive Federal rapid response effort in a June 2001 report entitled "Obstacles Hinder Federal Rapid Response to Growing Threat." We believe their recommendations have merit.

In summary, The Nature Conservancy believes HR 3558 is consistent with the needs identified in the National Invasive Species Management Plan and provides for

important support to States and to private landowners to increase their capability in prioritizing and managing invasive species. We look forward to working with the Committee to make further improvements to H.R. 3558 and other legislation on invasive species.

Mr. GILCHREST. Thank you very much, Ms. Bartuska.

And the gentleman from Hawaii, who gets the most miles traveled award, a free trip to—well, you name it—Dr. Eldredge. Thank you very much, sir, for coming, and give us your expertise.

STATEMENT OF LUCIUS G. ELDREDGE, DEPARTMENT OF NATURAL SCIENCES, BISHOP MUSEUM

Mr. ELDREDGE. Mr. Chairman, members of the Committee, thank you for the opportunity to testify on H.R. 3558.

Let me introduce myself. I am Dr. Lu Eldredge. I have lived in the Pacific Islands of Hawaii and Guam for more than 40 years, and have seen many, many changes brought about by nonnative and invasive species. I have also worked very closely through the University of Guam with the South Pacific Regional Environment Program which looks at the 27 countries of the Pacific and helped them develop their technical program and their plans and strategy. I have been at the Bishop Museum at this time for 13 years. Many of you don't know, the Bishop Museum is 113-years-old. It has 24 million specimens and objects. It is the largest collection of material on Hawaii and the Pacific in any one place in the Pacific area and probably outside the Smithsonian, the largest place.

The major staff members at the museum have been working with biodiversity and conservation, and almost every staff member has some aspect of working with introduced and nonnative species, from snails to fish to plants and seaweeds.

The Hawaiian Islands, by virtue of their geographic isolation and rich volcanic soils, and enormous topographic and climactic diversity, have produced a highly endemic flora and fauna, which includes many of the world's outstanding examples of adaptive radiation. The biota includes more than 23,000 species. Hawaii accounts for only two-tenths of a percent of the land area of the United States, but it has 31 percent of the Nation's endangered species and 42 percent of its endangered birds. Of the 1,072 species of native flowering plants, 73 are down to 20 or fewer individuals in the wild, and 9 are down to 1 individual. Nearly one-third of the more than 8,000 insects in the Hawaiian Islands are nonnative. Almost 75 percent of the historically documented extinctions of plants and animals in the United States have occurred in Hawaii. Not only is Hawaii the extinction capital of the world, the Hawaiian Islands are also the introduced species capital of the world with 5,047 species. Approximately 22 percent of the biota of the Hawaiian Islands is nonnative.

These figures have been pulled together through our activities of the Hawaii Biological Survey which was created by the State Legislature in 1992 to develop and maintain and disseminate information on the biota of the Hawaiian Islands. The Bishop Museum is also the coordinating activity for the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, which is the second largest coral reef ecosystem in the world. We are assembling information

on literature and will be convening a symposium on past and present research of the Northwest Islands.

Very few figures like this are available for other places in the Pacific other than 63 percent of the flowering plants of Guam are considered to be nonnative. The problems with nonnative plants and animals, land plants and animals have been fairly well recognized. We have all watched the brown tree snake expand and so forth. There are other examples, but the freshwater ecosystems have not shared this extensive study. The U.S. mainland fresh waters, zebra mussel, purple loosestrife and so forth have attracted much attention, but the Pacific Islands, there have been very little known about the nonnative freshwater species. Most fish introductions have been the result of aquaculture through escape or intentional release. A total of 86 freshwater fish species have been introduced in the Pacific Islands. Not all of them have been successful. 72 species have been introduced to the Hawaiian Islands and 59 have become established. Papua New Guinea has received 30 species of which 19 have been established. Guam and Fiji, each have received 24 species, of which 17 and 12 species have been established, respectively

The flora and fauna of the coastal ecosystems is the least known. Nonnative marine species are difficult to distinguish. Through a series of established criteria, that is, sudden appearance, association with other nonnative species in harbors and docks and pilings, and disjunct distributions, like an animal has been found in Norway, the Panama Canal and Pearl Harbor, is an indication that these are perhaps introduced or cryptogenic, which means not demonstratively native or introduced. Really don't know.

The majority of these marine species are dispersed by ships either in ballast water or attached to hulls, anchors, chains. Fouling organisms are also attached to drilling platforms, drydocks, buoys and so forth. Fisheries and marine aquaculture, including stock enhancement are major pathways by escape or intentional release.

Numbers of nonnative marines species in Hawaii include 343 species, which is more than San Francisco Bay has at this point. Of these, 287 are invertebrates, 24 algae, 20 fish and 12 flowering plants. 212 or or more than 70 percent of these animals and plants are thought to have arrived through hull fouling. The majority of the species are from the Western Pacific and the Philippines, but an amazing 10 percent are from the Caribbean, more than 10 percent from the Caribbean.

In Hawaii, our biggest problems at the present time are marine algae. The first to be recognized arrived on a cement barge, on a hull of a cement barge from the Philippines in 1950. It is an now displacing much of the native algae all along the coastal areas. Three other species were introduced intentionally in the 1970's for potential commercial reasons. These have grown extensively and are now covering over areas as Kaneohe Bay and almost an entire single-phase species from a complex coral reef species to a single-phase algae species. There is a proposal in to work some sort of eradication on that project at the present time.

Another species has invaded Waikiki and is covering up most of the coral reefs and the whole area of the community is changing tremendously.

Mr. GILCHREST. Excuse me, Dr. Eldredge, the species you are talking about are species of algae, the last two?

Mr. ELDREDGE. Yes, yes. Algae that were all introduced, intentionally introduced, and have escaped from their culture ponds.

Approximately 20 species of marine fish are nonnative to the Hawaiian Islands. They were introduced in the 1950's from French Polynesia in a stock release, and at least three of those species are now competing with local native fishes on an extensive basis.

And, of course, we also have the salt-tolerant tilapia that is coming out on the reefs and eating coral polyps.

In various harbors and embayments in Hawaii, the percentage of nonnative species is quite high: for Pearl Harbor, we say 23 percent nonnative; 17 percent for Honolulu Harbor; much lower, 1.5 percent and 1 percent for Midway and Johnson Atoll. We are currently studying areas in Kaneohe Bay and Waikiki, and we find about 7 percent are nonnative. These percentage figures can be misleading. The zebra mussel in the Great Lakes is less than 1 percent of the fauna, so the percentages are kind of a tricky thing to talk about.

The only similar comparative figures we have is that from Guam approximately 6.5 percent of the invertebrates surveyed were considered nonnative.

We very much support the directives of H.R. 3558. We feel that the first line of defense is prevention followed by early detection and rapid response. We are actually now in the process of developing with NOAA, the National Ocean Service, a marine species early detection system, and by having protection and early detection, we can perhaps keep the coastal waters of Hawaii, of the mainland to a lower minimum number of species.

We fully support the components of the bill, and the activities fall under our Hawaii Biological Survey at Bishop Museum, and we would be glad to do what we can do to help.

I thank you. This concludes my testimony, and if you have any questions, I would be glad to answer them.

[The prepared statement of Mr. Eldredge follows:]

Statement of Dr. Lucius Eldredge, Department of Natural Science, Bishop Museum, Hawaii

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to present testimony on H.R. 3558 "Species protection and conservation of the environment".

Please let me introduce myself: I am Dr. Lu Eldredge. I have lived in the Pacific islands of Oahu and Guam for more than 40 years and have observed many changes in the environment during these times. First arriving in Hawaii in August 1959, I attended the University of Hawaii where I received a Ph.D. in Zoology in 1965. Following that I was a professor at the University of Guam for 22 years. I assisted in the development of the University Marine Laboratory and was very active with the South Pacific Regional Environment Programme, which allowed me to participate in many activities throughout the Pacific islands. I was a member of the SPREP Invasive species advisory group and participated in the development of SPREP's invasive species technical review and regional strategy. I have been at the Bishop Museum in Honolulu for the past 13 years. Bishop Museum has been the foremost museum in the Pacific during its 113 years, and with its 24 million specimens and objects contains one of the largest collections of Hawaiian and Pacific material in the world. As a leader in biodiversity and conservation in the region, the Museum's staff includes a major core group, studying nonindigenous and invasive species throughout the Pacific.

The Hawaiian Islands, by virtue of their geographic isolation, rich volcanic soils, and enormous topographic and climatic diversity, have produced a highly endemic flora and fauna, which includes many of the world's outstanding examples of

adaptative radiation. The biota includes more than 23,000 species. Hawaii accounts for only about 0.2% of the land area of the United States, but has 31% of the nation's endangered species and 42% of its endangered birds. Of the 1072 species of native flowering plants, 73 are down to about 20 or fewer individuals in the wild, and nine are down to one. Nearly one-third of the more than 8000 insect species are nonnative. Almost 75 % of the historically documented extinctions of plants and animals in the United States have occurred in Hawaii. Not only the "extinction capital of the world", the Hawaiian Islands are also the "introduced species capital of the world" with 5047 species of the total of 23,150 being introduced. Approximately 22% of the islands' biota is nonnative.

These figures have been compiled through the activities of the Hawaii Biological Survey at the Bishop Museum. The Hawaii Biological Survey was established by the Hawaii State Legislature in 1992 to develop, maintain, and disseminate information on all the biota of the Hawaiian Islands. The Bishop Museum is also coordinating activities in the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve through assembling information on the literature and specimens from the Northwestern Hawaiian Islands and will be establishing standardized monitoring techniques as well as convening a symposium on past and present research activities to develop priorities for future study.

Similar figures are not known for the other U.S.-affiliated islands in the Pacific. On Guam approximately 63% of the flowering plants are thought to be nonnative. All these islands need much more study.

The problems of nonnative land plants and animals are fairly well documented. For more than 20 years I watched the brown tree snake spread on Guam from the harbor area northward. When we first arrived on Guam, the Guam rails would carry out their courtship dances in our children's sandbox, and the cardinal honeyeater would sip the red hibiscus just outside the front door. Now these species are extinct, at least in the wild, having been preyed upon by the brown tree snake.

Many other examples could be enumerated. The aquatic (freshwater and marine) ecosystems have not shared in this extensive study. In U.S. mainland freshwaters the zebra mussels, purple loosestrife, round blenny, and others have attracted much attention and much research has been carried out on them. In the Pacific islands very little is known about nonnative freshwater species. Most fish introductions have been the result of aquaculture, either by escape or intentional release. A total of 86 fish species have been introduced into fresh (and some brackish) waters in the Pacific and Hawaiian Islands; not all have been successful. Seventy-two species have been introduced to the Hawaiian Islands, 59 have been observed or established since 1982. Twenty of these 59 species resulted from aquarium releases. New Guinea has received 30 species with19 being considered established. Guam and Fiji each have 24 introduced species; 17 species established on Guam and 12 species established in Fiji.

The flora and fauna of the islands' coastal ecosystems is the least known. Nonnative marine species are more difficult to distinguish. Through established criteria'sudden appearance, association with nonnative species in artificial (harbors, docks, pilings, etc.) sites, disjunct distributions (i.e., Norway, Panama Canal, Pearl Harbor)'their status can be determined as either introduced or cryptogenic (not demonstratively native or introduced).

The majority of marine species are dispersed by ships either in ballast water or attached to the hull, anchors, chains, or to floating cargo as fouling organisms. Fouling organisms are also attached to drilling platforms, dry docks, buoys, and so forth. Fisheries and marine aquaculture, including stock enhancement, are major pathways either by escape or intentional release. The ornamental pet industry and public aquaria have been responsible for accidental or intentional releases.

Numbers of nonnative marine species in Hawaii include 343 species—287 invertebrates, 24 algae, 20 fish, and 12 flowering plants. Two hundred twelve or 90% are thought to have arrived through hull fouling. The majority of species had their origin in the western Indo–Pacific and Philippines; the origins of many are unknown or worldwide in distribution. More than 10% have originated in the Caribbean region.

In Hawaii, five species of marine algae have become very invasive. The first to be recognized arrived on the hull of a cement barge from the Philippine Islands in 1950. This species, Acanthophora spicifera, has displaced native species. Hypnea musciformis, intentionally introduced for commercial reasons has been recorded to accumulate beach drift of 20,000 pounds per week at coastal Maui. Two additional species were deliberately introduced for potential commercial development and currently cover much of the coral reef in Kaneohe Bay. Gracilaria salicornia has invaded several reef areas overgrowing most of the reefs at Waikiki. All of these species are undergoing a community phase shift overgrowing a complex reef community

and changing it to a single species algal community. Such rapid shifts (on the order of months) further demonstrates that these ecosystems are highly susceptible to changing physical and biological conditions.

Approximately 20 species of marine fish are nonnative to Hawaiian waters. Three species, intentionally introduced from French Polynesia in the 1950s for stock enhancement, have become well established and may be competing with local native fishes. Salt-tolerant tilapia is feeding on coral polyps.

In harbors and embayments in Hawaii the percentage of nonnative species increases greatly—23% for Pearl Harbor, 17% for Honolulu Harbor, but 1.5% and 1.0% for Midway Island and for Kahoolawe, respectively. Current studies in Kaneohe Bay and Waikiki show about 7% nonnative species. Percentage figures can be misleading, since an example like the zebra mussel, less than 1% of the fauna of the Great Lakes, has caused the greatest amount of damage.

The only comparative figures are for Guam where about 6.7% of the total number of invertebrates surveyed are considered to be nonnative.

In order to further the directives of H.R. 3558, more studies need to be conducted in the coastal areas of the United States. There is a great need to further understand the pathways and dispersal mechanisms of nonnative species. The first line of defense is prevention, followed by early detection and rapid response. Through these the coastal waters of the United States be able to keep the introductions of nonnative species to a minimum.

I fully support all the components of H.R. 3558. All these activities fall under the purview of the Hawaii Biological Survey at Bishop Museum and its information gathering and dissemination activities, and its activities with the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve.

Thank you, Chairman and Members of the Committee.

Mr. GILCHREST. Thank you, Dr. Eldredge.

Mr. Underwood said he has served with you in some capacity in the past.

Mr. ELDREDGE. Well, we were both at the University of Guam on the faculty at the same time, and Dr. Underwood was very helpful in organizing, help us organize the Pacific Science Inter-Congress last June on Guam.

Mr. GILCHREST. Robert may want to talk to you later about a consortium for sea grant.

[Laughter.]

Mr. GILCHREST. He needs some support on that issue.

Dr. Eldredge, could you tell us, where do most invasive species come from?

Mr. ELDREDGE. In marine and estuarine areas, they are mainly from the Western Pacific, for Hawaii, Western Pacific and the Philippines. They have mainly come in on ship hulls as fouling organisms. But we still have 10 percent coming in from the Caribbean.

Mr. GILCHREST. Are most of the introductions of invasive species up to this point accidental?

Mr. ELDREDGE. Yes. A few have been intentional releases for stock enhancement and for fisheries, but primarily, more than 90 percent are accidental. Just in the last month or so, we have had two new ones that we have found: a soft coral and Kaneohe Bay that is covering over the corals that have never been seen before, and a very small, stinging cubomedusa in Waikiki that hasn't been seen before. It is a nighttime swimmer.

Mr. GILCHREST. And that is an invasive—

Mr. ELDREDGE. Right. Western Pacific forms.

Mr. GILCHREST. I am going to mispronounce your name again, Dr. Chavarria.

Ms. CHAVARRIA. No. You said it correctly.

Mr. GILCHREST. Oh, did I? So most invasive species that reach either Hawaii or Guam or the Great Lakes or Florida or Colorado come in through some type of trade, would you say, on a ship?

Ms. CHAVARRIA. The majority of them. I mean, a lot of them can come terrestrially. People carry them. But in the case of Hawaii, the majority come through trade.

Mr. GILCHREST. It is through trade or the movement of people.

Ms. CHAVARRIA. Yes.

Mr. GILCHREST. Unaware of what they are bringing in.

Ms. CHAVARRIA. Exactly.

Mr. GILCHREST. If that is the case—and I am looking at the bill that we are trying to move through our system—is there something we can do in the legislation to help more clearly identify those agencies or NGO groups or local governments, or whoever, to be a greater, more efficient front-line defense?

Ms. CHAVARRIA. I believe there are a lot of groups already doing a lot of work, a lot of really good work, and it is probably just a matter of getting all of us together and increase our efforts. And we don't need to duplicate a lot of the efforts.

The National Wildlife Federation has wonderful programs. The Nature Conservancy is a great implementer in a lot of these issues. So we just need better collaboration. We need to also make a lot of the agencies, the Federal agencies that are not aware of these issues, how can they help, because they are probably indirectly already doing something.

Mr. GILCHREST. Federal agencies seem to be unaware of this issue?

Ms. CHAVARRIA. Exactly.

Mr. GILCHREST. Could you name one of them, or two?

[Laughter.]

Ms. CHAVARRIA. Well, particularly in our program, for example, we would love to see the Department of Transportation being part of our program, and NOAA, the National Oceanic and Atmospheric Administration.

Mr. GILCHREST. The Corps of Engineers I guess could be—

Ms. CHAVARRIA. Yes, well, we work already with the Department of Defense. We would love to see the Corps per se working in this effort because they are already doing a lot on the ground.

Mr. GILCHREST. So the number of species that are released or become invasive, we can move to an understanding of a collaborative effort to be a front-line defense for accidental introductions of invasives, to the extent that that is possible.

Is there any effort in the international arena, for example, when a number of different countries around the world begin finding out that salmon or tilapia or striped bass, or whatever, might be good for fish farming because they can make large sums of money, is there any effort to help the international community understand the potential for a nonnative species to escape into the wild and the damage it could do?

Ms. CHAVARRIA. Well, the international community right now, there is a consortium called the Global Invasive Species Program that is a consortium of many organizations in the world, governments of the world, all working right now at the level of creating awareness, because a lot of the countries are not aware that

invasive species are a problem. So if these countries don't realize that they do have a problem and they are importing this problem somewhere else, we can't do anything.

So right now I think the major emphasis should be in awareness. We are doing a really good job within the United States, but also how can we do that internationally? But Global Invasive Species is doing that. I believe the State Department also has been actively engaged in that effort.

Mr. GILCHREST. Dr. Bartuska?

Ms. BARTUSKA. If I could just add to that comment or to that response, there is another set of groups that are trying to look at multilateral approaches, and that is the plant protection organizations, which historically have been more agriculture based but increasingly places like the North American Plant Protection Organization, the European Plant Protection Organization are going beyond just an agricultural focus to a natural resource focus. In this country, APHIS has been playing a fairly significant role in that, and that is a very positive sign in looking at it from a regulatory standpoint and having those kinds of dialogs between countries.

Mr. VAN PUTTEN. May I add to the list also?

Mr. GILCHREST. Yes.

Mr. VAN PUTTEN. You asked in terms of Federal agencies, and I would add the U.S. Trade Representative. Your initial line of questioning was very astute. If you look at the resolution passed by our delegates in 2000, appended to my testimony, you will notice there is a section specifically talking about international trade and how critical it is that the World Trade organization, and particularly the sanitary and phytosanitary agreement associated with it, specifically allow as trade agreements are negotiated or as countries look at the importation of a particular kind of product, allow the invasive species issues to be considered and recognize that as a legitimate basis on which a country might want to restrict or prohibit the importation of not only a product but the packing materials, as we have seen, or I think it is the Asian longhorn beetle which came in in packing materials.

In our trade environment program, this has become an increasing concern about the need to integrate concern with invasive species. And as my colleagues on this panel have noted, prevention is the most cost-effective approach. And so the USTR should be added to the list of Federal agencies that need to be part of addressing this.

Mr. GILCHREST. Thank you. Excellent suggestion.

I have one more question, and I guess each of you could answer in your different capacities.

Dr. Bartuska, in the Nature Conservancy, you deal with, I would suspect, the private sector and local governments in numerous ways. And it seems to me we have discussed the idea that $137 billion economic damage done by invasive species, give or take a few billion, whatever number you want to look at, a very tiny amount of resources are directed between Federal and State governments and the private sector, toward understanding and trying to fight the invasives problem. And much of that effort is very fragmented across the country.

The Nature Conservancy, in particular, do you see—well, actually, everybody on the panel. It seems to me that with the limited resources that are available, a collaborative effort is fundamental and absolutely necessary if we are going to even begin to make a dent into this global problem, a collaborative effort between the international community, the trade czar of the United States, his or her counterpart around the world, the myriad of Federal programs that are out there, and State programs. But to a great extent—I was looking at, Dr. Chavarria, the map that shows zebra mussels in 1988 and zebra mussels in 1999 on page 46 of "Invasive Species Challenge." I am not sure. Was that your back, this book, on page 46?

The point is, unless we involve the decisionmakers of land-use practices right down to the local jurisdiction, it is going to be very difficult to resolve this issue. We can do what we can at the borders. Fish and Wildlife, USDA can do what they can to keep zebra mussels off boats traveling from Michigan to Washington, or whatever.

In your efforts, do you have a policy, do you see the need for a policy to go to the planning and zoning commission of each town or county to explain these issues to those people?

Ms. BARTUSKA. I think you have hit on one of the major challenges we have through invasives because there are so many different components to it. Trying to get those all together in a more organized way to take some action across jurisdictions is fundamental. And I guess what I would suggest is let's look at what has been done with the fire programs. Nationwide and internationally through several decades of always being able to not work together, there are now statutes in place that force the integration at the Federal, State, and local level, and to try to work across jurisdictions through some common standards and some common approaches. I think that is a model for us in the invasives community to begin working toward not necessarily just a top-down approach, but having at the local level understanding of what that issue is, why there is a commitment, but also having the carrots and the sticks to make sure that the working together occurs.

The concern I would have, if you limit it to any one jurisdiction, is that invasives do know no boundaries. You could very rapidly have a gypsy moth infestation in the middle of the woods in Washington State that came into a harbor in Los Angeles because containers have moved at that great distance very rapidly. How do you get a handle on that unless you have multi-jurisdictional, cross-boundary collaboration?

Mr. GILCHREST. I think you do need cross-boundary collaboration regionwide, nationwide. But you talk to those cousins of the county commissioners that are appointed because they are a cousin to the planning and zoning commission at the local level about the region, nation, international problem. There seems to be a vast army out there of volunteers, different groups ready to go out and cut down that purple loosestrife that happens to be local or the—I can't remember the name of that vine that started in the southern part of the United States.

Ms. BARTUSKA. Kudzu.

Mr. GILCHREST. Kudzu. It is now all over the place. People are craving to look for projects to do in their local level.

I know this is broadening this, and it might be beyond the scope of what anybody can do in this particular room. But it is an area that seems to a large extent is untapped, but it is an area that is almost necessary if we are going to deal with these kinds of problems.

Ms. BARTUSKA. I think that is at the heart of a really good early detection and rapid response system, to mobilize all those people who do have interests out there to be looking for organisms according to some protocols, and to then mobilize that incredible workforce to address the problem. That is something that the Conservancy has a very strong interest in, local action and trying to promote that at the local level. But I would also put that within the context of a much more integrated, more standardized approach so that we have the experts at the table who can help that early detection. That to me is the real critical link, once we get past the prevention side, which is the best approach, but is probably not foolproof.

Mr. VAN PUTTEN. May I speak to that point, sir?

Mr. GILCHREST. Yes, sir.

Mr. VAN PUTTEN. Your use of the zebra mussel example is a good example of where some of the answers lie. In that instance, it is anglers and boaters often who have helped transport it. So broad public education is necessary to enlist people who care about and enjoy our natural resources as allies in preventing the spread.

Second, we have seen through our affiliates and our regional offices tremendous interest in volunteers getting involved in controlling invasive species. In fact, we have a volunteer team at our headquarters in Reston, Virginia, that maintains native species and controls the invasive species.

Third, with respect to local governments, I think you have really hit on something important in terms of outreach education and enlisting them, because what we have seen across the country in a number of instances with our backyard wildlife habitat program is homeowners who are landscaping with native species, violating local weed ordinances. And you actually see local governments with outdated ordinances that favor, you know, nonnative type, lawn-looking species, and those who are trying in their own backyards to be part of the solution are actually in violation. We have actually filed friends of the court briefs in cases around the country to try and help educate local officials on the need to update those kinds of ordinances and to encourage it.

We see in the West homeowner associations with new large developments that include the use of nonnative species that require watering, a lot of water. So there are tremendous advantages to enlisting local governments to update those kinds of ordinances and to encourage the use of native species.

Mr. GILCHREST. Thank you very much. Don't give up on that.

I will yield to Mr. Underwood.

Mr. UNDERWOOD. Thank you, Mr. Chairman, and thank you very much for all of your testimonies. They, of course, were all, I guess, roughly on the same side of this issue. I don't know anyone who is going to speak on behalf of invasive species today.

But just trying to sort out some issues, I think the Chairman has touched on this a little bit at length, and all of you have as well; and, that is, trying to understand what the relationship is between all the various agencies that are involved, whether they go down to the city and county level or whether they are at Customs or they are at agricultural inspection stations. I have a lot of personal experience with trying to deal with the issue of pests. I try to bring betel nut into Hawaii, as I go through Customs in Hawaii, and there are always a few challenges with that. I have killed a couple of brown tree snakes this year already, so there is a lot of personal experience in this.

I am trying to figure out what is the best system for dealing with this. It seems that the complexity of all the governments that are involved, if we want to—and I think in the legislation we pay particular attention to that, where we want to make sure that everything we do is incorporated or will be consistent with relevant State plans. And we want to make sure that we honor that because States have a great deal of authority over pest control. And perhaps they have a particular point of view on that.

I just want to get your assessment across the board briefly on the panel. Are States up to the challenge in dealing with invasive species? Can you make some general characterizations about that based on your experience?

Ms. CHAVARRIA. Not all the States are up to the challenge. Some of them are more advanced than others. And we have seen through our program, through the Pulling Together Initiative, that we work so at the local level, but some States, some counties are really up to speed, and they are moving into other counties, and they are expanding the program.

The idea of having these State plans is really, really good, but at the same time, within the legislation it worries me that a lot of these local efforts might feel a little bit left alone when a lot of these plans start to be implemented. And maybe through a lot of these local levels, the States, a lot of the States that don't have a State plan, can buildup on their State plan.

Mr. ELDREDGE. I would like to comment about Hawaii. Each of the island groups has an invasive species committee, Oahu Invasive Species Committee, Maui, Big Island. And each one of those, they all are grass-roots operations started by people who got together on their own as individuals to go work on invasive species problems. There are major volunteer efforts to go collect miconia and other things.

There is also at a city government level the Coordinated Group on Alien Pest Species, referred to as CGAPS. CGAPS and the invasive species committees now all have some minor support from the State legislature to do programs, hire people, get field workers going out, and doing things in the field. And it seems like a very logical way of getting all the island groups within the islands and then coordinated among all the islands. We have a list server and so forth. So there is a lot of information that goes among all of the groups.

Mr. VAN PUTTEN. If I might respond to that, I think that is a critically important question, and it is a question that implicates not only the adequacy of resources at the State level or their

awareness of the problem, but also how do the States across their agencies coordinate the management.

You heard Dr. Tate refer to chronic wasting disease. At the National Wildlife Federation we have been very concerned with that, with brucellosis in bison, with sylvatic plague in prairie dogs as we see exotic diseases in wildlife populations. We are very concerned, as Dr. Tate alluded to, that the natural resource side of this needs to be considered as well as the agricultural side. We are concerned sometimes when the immediate response, particularly to the wildlife disease situation, is eradicate the wildlife because of concerns about agricultural implications or deny public lands to native wildlife as a result of concerns for what it might mean for cattle that graze there.

So the coordination particularly at the State level between State veterinarians, State agriculture agencies, and bringing to the table the State natural resource, the State fish and wildlife agencies, to be sure as we look at how we respond in this area that the concerns about native ecosystems and fish and wildlife populations are also considered as response strategies are developed.

So it is a very finely textured question, and it really gets to the integration of management at the State level as well as at the Federal level.

Mr. UNDERWOOD. Go ahead, and I have a point I would like to make after that point, Dr. Van Putten.

Ms. BARTUSKA. I would just like to add to my colleagues' comments, which I think are right on point. As a resource, you may want to look at the Environmental Law Institute's upcoming report where they looked at the State authorities and capabilities on invasive species in quite detail. In particular, they are setting up three standards, not ascribing them to any particular State, but three standards of how might a State be structured to address invasive species so that a State could then look at how those standards match up to what they currently have and decide if that, in fact, is the way they want to operate for invasives.

So I think it gives us some basis for how would States be operating and how might they respond to the overall invasives problem.

Mr. UNDERWOOD. Well, thank you for those answers, and also, thank you, Dr. Eldredge, for pointing out about the importance of community involvement. I am always amazed that if you get a few community people involved, a few high school students, a couple of organizations on Guam—Marine Mania, Kids for Coral—they really do make a difference in terms of public perception and public involvement.

Going back to the point about how States intersect with this and the emphasis given to agriculture, a lot of that obviously is driven by the economic impact. And that is why I think the figure of $137 billion still comes back, trying to figure out how real that figure is and how important that impact is, because that is the only—I think it is one of the strategies that is available for us involved in this effort to try to gain the kind of public attention and institutional attention that this issue deserves. And, you know, there has been a couple—and I don't want to overburden the Committee with examples from brown tree snakes, but, you know, there was a period of time when the Discovery Channel ran a series of programs

on the brown tree snake. The Discovery Channel departed from their usual scientific basis for their programming and said that brown tree snakes were hanging like spaghetti from trees and made really a lot of assertions about it which were not founded, were not true. You know, I would expect that—and I did get that one time in a supermarket in Hawaii when I was going through the line. I saw there was a National Enquirer article that said there were 750,000 snakes per square mile in Guam. And so I was calculating, how do I even get to my car in the morning?

[Laughter.]

Mr. UNDERWOOD. So I expected that from the National Enquirer, but I didn't expect that from the Discovery Channel. But the point being that in order to get the kind of attention you want, you need to make a dramatic case. You obviously don't want to stretch it, and if you did a paper search, any kind of documentary search on Guam today, you will see countless articles about the brown tree snake, because that seems to attract a lot of attention. But I am not sure it is attracting the right kind of attention. But the point being that the $137 billion impact is a real basis upon which we can make the case that you pay now instead of paying later. That is an important part of this puzzle that we need to get out. I think it is in combination with the kind of grass-roots efforts and educational efforts which we all know are necessary, so that all of our assertions are scientifically based and based on real knowledge and based on real facts and figures.

But when you think of the attention, immediate attention that is given to the Mediterranean fruit fly because of the enormous impact on agriculture and on people who have money. But there is nothing like that, you know, in terms of our own efforts.

So I think we really have to hone in on that as a policy issue. I think we have to rely on the kinds of expertise this panel brings to the table in terms of understanding that and in order to help us make the case.

Thank you.

Mr. GILCHREST. Thank you, Mr. Underwood.

Ladies and gentlemen, thank you for your testimony, and we appreciate your help in this issue. Have a safe trip home.

Mr. GILCHREST. Our third panel: Mr. John Shannon, State Forester, Arkansas Forestry Commission, on behalf of the National Association of State Foresters; Mr. John O'Keeffe, National Cattlemen's Beef Association; Dr. Terry Riley, Director of Conservation, Wildlife Management Institute.

Welcome, gentlemen.

Mr. UNDERWOOD. Thank you for your indulgence, Mr. Chairman. I would like permission to submit for the record these letters of support for the proposed legislation, H.R. 3558, from the following organizations: Audubon, American Fisheries Society, National Wildlife Federation, Trout Unlimited, Western Governors' Association, Wildlife Society, American Plant Alliance, and Chair of the Department of Land and Natural Resources, State of Hawaii.

Thank you.

Mr. GILCHREST. Without objection, so ordered, Mr. Underwood.

[The letters and statements referred to follow:]

1901 Pennsylvania Ave., NW
Washington, DC 20006
Tel: 202-861-2242
Fax: 202-861-4290
www.audubon.org

March 6, 2002

The Honorable Nick J. Rahall II
Committee on Resources
United States House of Representatives
Washington, DC 20515

Dear Ranking Member Rahall:

On behalf of the National Audubon Society's one million members and supporters nationwide, I write in support of H.R. 3558, the Species Protection and Conservation of the Environment Act (SPACE Act), designed for the protection, conservation, and restoration of native fish, wildlife and their natural habitats. National Audubon Society appreciates your leadership in addressing a major threat to the imperiled National Wildlife Refuge System, a major threat to endangered species, and a major cause of habitat destruction threatening birds and wildlife throughout the nation.

Last year, you showed great leadership and support of bird and wildlife conservation by highlighting the many problems faced by the Refuge System in its current state of crisis and, along with Fisheries Subcommittee Chairman Wayne Gilchrest, calling for an unprecedented increase in funding for the Refuge System. Your support has helped to address the threats of limited water supplies, water pollution, habitat loss, harmful public uses, and invasive species that imperil the Refuge System and its birds and wildlife. National Audubon Society commends the SPACE Act's specific focus on the Refuge System, particularly through its authorization of $10 million to complete demonstration projects on wildlife refuges to address the threat of invasive species.

Again, we commend you for introducing historic legislation to authorize the protection, conservation and restoration of native fish, wildlife and their natural habitats. We look forward to working with you and your staff to secure swift passage of H.R. 3558.

Sincerely,

Lois Schiffer
Senior Vice President, Public Policy

Cc: The Honorable Wayne Gilchrest
The Honorable Robert A. Underwood
Secretary Gale A. Norton

THE WILDLIFE SOCIETY
5410 Grosvenor Lane • Bethesda, MD 20814-2197
Tel: (301) 897-9770 • Fax: (301) 530-2471
E-mail: twe@wildlife.org

13 March 2002

The Honorable Nick Rahall
Ranking Minority Member
Committee on Resources
U.S. House of Representatives
1324 Longworth House Office Building
Washington, DC 20515-6201
Fax: 202-225-4273

RE: The Species Protection and Conservation of the Environment Act (HR 3558)

Dear Representative Rahall:

The Wildlife Society supports the Species Protection and Conservation of the Environment Act (SPACE Act), HR 3558. The Wildlife Society is the association of professional wildlife biologists and managers dedicated to excellence in wildlife stewardship through science and education. We are pleased to offer our perspective on the problems associated with invasive exotic species and suggest some improvements. These comments are adapted in part from an article that appeared in the Wildlife Society Bulletin (Franklin et al. 1999).

The SPACE Act addresses an insidious and growing problem. Millions of acres of wildlife habitat on public and private lands are rapidly undergoing the greatest long-term degradation in their recorded history. The cause of this change is the expansion of invasive non-indigenous plants. The impacts of their spread can destroy wildlife habitat as well as diminish forest regeneration and production, render rangelands and family farms unsuitable for grazing, increase soil erosion, degrade streams and lakes, and reduce recreational opportunities such as hunting, fishing, hiking, camping, and boating.

Wildlife professionals recognize that exotic species are a serious problem facing wildlife management. The Wildlife Society's position statement "Introductions of Exotic Species" recognizes that "the introduction of exotic flora or flora into new ecosystems often has been more detrimental than beneficial. The Society urges responsible agencies to ensure that intentional introductions of exotic species be beneficial and that accidental introductions be prevented. This responsibility relates not only to the protection of human health and livelihood, but also to the maintenance of ecological integrity" (The Wildlife Society 1992). Invasive exotic plant management is a serious concern of wildlife managers. Wildlife professionals are engaging in efforts already underway in many private, county, state and federal agencies, to help stem the loss of wildlife habitat.

The federal government acknowledges the serious problems associated with the proliferation of exotic species. President Clinton recognized the threat of invasive species in Executive Order 13112, signed February 3, 1999 (Clinton 1999). He ordered the use of relevant programs and authorities to: (i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; (v) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and (vi) promote public education on invasive species and the means to address them. The Executive Order prohibits actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless such actions clearly outweigh the potential harm caused by invasive species. An Invasive Species Council (Council) was established with an advisory committee. The Council shall prepare and issue a National Invasive Species Management Plan.

Why is so much attention focused on weeds? The following examples illustrate the severe problems that have been encountered. In Montana, spotted knapweed (*Centaurea maculose*) increased from a few plants in 1920 to 5 million acres today; in Idaho rush skeletonweed (*Chondrilla juncea*) grew from a few plants in 1954 to 4 million acres today; in northern California yellow starthistle (*Centaurea solstitialis*) increased from 1 million acres in 1981 to 15 million acres today; and in Florida tropical soda apple (*Solanum viarum* Dunal) grew from a few plants in 1988 to 1 million acres today.

The impacts on wildlife are illustrated in examples such the Chinese tallow tree (*Sapium serbiferum*). The Chinese tallow tree continues explosive growth from North Carolina to Texas with new starts in California. The endangered Attwater's Prairie Chicken requires open prairie but unfortunately the tallow tree has taken over the open prairies where the last remaining Attwater's Prairie Chickens currently survive. The Chinese tallow tree is also invading wet areas that are critical habitat on the Aransas wildlife refuge and adjacent lands in Texas where the endangered Whooping Crane lives during winter months.

Recognizing that wildlife habitat in hundreds of public land watersheds is undergoing the most severe degradation in its recorded history, and that this massive problem is accelerating rapidly, it is essential that field biologists and wildlife managers get actively involved in addressing the problem.

In the eleven Western states alone (outside of Alaska) there are about 70 million infested acres providing weed seed for other private, state, and federal land. Therefore, with such an enormous source of weed seed moving by people, livestock, wind, water, wildlife, and equipment, the primary key to weed management is keeping relatively uninfested land from becoming seriously infested. Since weeds prefer disturbed areas such as roadsides, overgrazed areas, campgrounds, trails, and wildlife concentration areas, well-managed land is the best defense against the spread of weeds. Good land management plans must include preventative measures. Prevention includes:

1. Education within all agencies, organizations, public land users, and the general public
2. Prevention of weed spread as through weed free feed requirements, National Environmental Policy Act review and compliance to avoid spreading weeds or causing the likelihood of weed establishment through action conducted or proposed to be implemented
3. Organized systematic detection (including surveys and mapping)
4. Quick control of new/small infestations

Unfortunately, it has become evident recently that weeds also may invade relatively undisturbed communities; therefore, prevention alone will not solve the entire problem. Detection is another key to combating weed invasion on public and private lands. Again, wildlife professionals can help with detection. Several exotic, noxious perennial weeds, including spotted, diffuse and Russian knapweeds (*Centaurea repens L.)*, leafy spurge (*Euphorbia esula*), and yellow starthistle are moving into excellent condition stands of native vegetation (Harris 1991). Tyser and Key (1988) reported that spotted knapweed invaded and reproduced in rough fescue communities in Glacier National Park. Forcella and Harvey (1983) documented Eurasian weeds dominating relatively undisturbed grasslands in Montana. Several exotic weeds will invade undisturbed climax communities and can become significant components of a community (Bedunah 1992).

The technology is available and some local people know how to cooperatively keep relatively non-infested land from becoming seriously infested. Cooperation is the key, and that is why cooperative weed management areas are needed urgently. Agencies and all resource specialists/biologists need to work on weeds and work together regardless of land ownership. This provides synergy and a more unified approach. There also is a need to use common terminology as we sign trailheads, develop weed reporting and mapping procedures.

The magnitude of this problem may seem overwhelming. Weeds are degrading wildlands at an alarming rate. On western public lands alone they are increasing

at about 4,800 acres per day. Fortunately, outstanding opportunities exist to protect wildlife habitat. For example, of the approximately 350 million acres of Bureau of Land Management, Park Service, Forest Service and Fish and Wildlife Service lands in the west (outside of Alaska), about 90% of those lands are not significantly infested - yet!

The greatest loss from the accelerating spread of invasive exotic weeds is perhaps accruing to wildlife habitat. Future generations of Americans deserve to inherit healthy productive native habitats; not vast landscapes infested with exotic species that damage wildlife habitat. Curtailing the spread of invasive exotic plants will benefit wildlife habitat. Wildlife professionals should help resolve the problem.

The SPACE Act addresses many of these challenges by providing:

- Financial assistance for the <u>development of State assessments</u> of the presence and distribution of harmful non-native species;
- <u>Grant funding for cooperative, locally-driven, Federal/State/local partnerships</u> to implement environmentally sound projects to control, mitigate or eradicate all types of harmful non-native species, not just noxious weeds;
- <u>Establishment of monitoring requirements and standards</u> to be able to assess effectiveness both quantitatively and qualitatively;
- <u>Authorization of a pilot program</u> utilizing the National Wildlife Refuge System to demonstrate the efficacy of this approach and address a critical operational liability in the Refuge System
- <u>Creation of a rapid response capability</u> in the Department of the Interior to provide financial assistance to address immediately new outbreaks and infestations before they become widespread

Comments on HR 3558

We have several comments on the SPACE Act that we believe would improve the legislation.

1. There should be recognition of the state Aquatic Nuisance Species Task Forces. The various states involved in Aquatic Nuisance Species Panels and engaged in state plans to control ANS species are counting on funds being made available by the re-authorization of the Non-Native Invasive Species Act in 2002. How will these efforts be funded or coordinated under the National Invasive Species Council?

2. The legislation depends upon the Council, which was formed and authorized via a Presidential Executive Order that could be rescinded by

the current or future Administrations. This legislation should authorize NISA.

3. The section on Rapid Response is important. Funds are needed to establish and measure the damage done by invasive exotics. However we are concerned that this act would only fund projects on species with known capacity to cause environmental or economic damage. There is very little known about most exotic species, many of which may cause problems. A research component of the legislation may be desirable to study these species.

Thank you for the opportunity to provide the views of wildlife professionals on this important conservation legislation. Please enter these comments in the hearing record.

Sincerely,

Thomas M. Franklin

Thomas M. Franklin
Wildlife Policy Director

Literature Cited

BEDUNAH, D. 1992. The complex ecology of weeds, grazing and wildlife. Western Wildlands 18:(2).

CLINTON, W.J. 1999. Invasive Species. Executive Order 13112. The White House. Washington, DC. 4pp.

FORCELLA, F., and S. HARVEY. 1983. Eurasian weed infestation in western Montana in relation to vegetation disturbance. Madrono 30(2):102-109.

FRANKLIN, T.M., J.A. ASHER, and E. BARCLAY. 1999. Invasion of the aliens: exotic plants impact wildlife. Wildlife Society Bulletin 27(3):873-875.

HARRIS, G.A. 1991. Grazing lands of Washington State. Rangelands 13:222-227.

THE WILDLIFE SOCIETY. 1992. Conservation policies of the Wildlife Society. 24pp.

TYSER, R., C. KEY. 1988. Spotted knapweed in natural area fescue grassland: An ecological assessment. Northwest Science. 62:151-160.

NATIONAL WILDLIFE FEDERATION®
People and Nature: Our Future Is in the Balance

Office of the President

March 12, 2002

The Honorable Nick J. Rahall II
The Honorable Wayne Gilchrest
The Honorable Robert A. Underwood
House Resources Committee
1324 LHOB
U.S. House of Representatives
Washington, DC 20515

Dear Representatives Rahall, Gilchrest, and Underwood:

I am writing on behalf of the National Wildlife Federation, the nation's largest conservation education and advocacy organization, to express our strong support for H.R. 3558, the **Species Protection and Conservation of the Environment Act.**

Invasive non-native plants pose enormous threats to our nation's wildlife and ecosystems. At least 5,000 non-native species, including more than 2,100 exotic plants and 2,000 insects, have invaded North America since the arrival of European explorers. Many of them are overwhelming native species in competition for food, space, water, and other needs. In some cases these species prey on native species and alter their habitat.

H.R. 3558 addresses this threat by authorizing cost-share grants to states for projects consistent with state plans; creating the Aldo Leopold Native Heritage Grant Program for implementing effective control programs; encouraging demonstration projects on national wildlife refuges where ecologically sound methods of controlling invasive non-native species can be tested; and promoting the development of a rapid-response capability. This latter measure will help us address urgent threats before they become ecological disasters beyond our control. Each of these measures is a necessary and vital step in tackling the problem of invasive, non-native species.

I am pleased to be able to convey the support of the National Wildlife Federation of H.R. 3558, and I look forward to working with you and other members of the Resources Committee to move this legislation through Congress.

Sincerely,

Mark Van Putten
President & CEO

JK/jk

11100 Wildlife Center Drive • Reston, VA 20190-5362 • Tel: (703) 438-6000 • Website: www.nwf.org

Steve Moyer
Vice President for Conservation Programs

January 17, 2002

The Honorable Nick J. Rahall II
2307 Rayburn House Office Building
United States House of Representatives
Washington, DC 20515

RE: Species Protection and Conservation of the Environment Act (H.R. 3558)

Dear Representative Rahall:

Trout Unlimited strongly supports the Species Protection and Conservation of the Environment Act (H.R. 3558), which you, along with Representatives Gilchrest and Underwood, have recently introduced. Thank you, as well as Representatives Gilchrest and Underwood, for exercising leadership on this critical issue. While harmful invasive species are much in the news as a looming threat, few have been willing to actually create approaches for dealing with them. Your leadership is much appreciated.

Harmful nonnative species pose a significant problem for Trout Unlimited, as we seek to maintain and restore healthy populations of native fish and wildlife and their habitats. H.R. 3558 will help us work with states and the federal government on projects that are directly affected by harmful nonnatives. We understand and support the cooperative and incentive-based approach you have chosen to take.

Thanks again for good work in introducing the bill. We look forward to working with you in the legislative process and look forward to the day when the bill is signed into law.

Very truly yours,

Steve Moyer

Steve Moyer
Vice President for Conservation Programs
Trout Unlimited, Inc.

Trout Unlimited: America's Leading Coldwater Fisheries Conservation Organization
Washington, D.C. Headquarters: 1500 Wilson Boulevard, Suite 310, Arlington, VA 22209
(703) 522-0200 • FAX: (703) 284-9400 • http://www.tu.org

WESTERN GOVERNORS' ASSOCIATION

Jane Dee Hull
Governor of Arizona
Chairman

Judy Martz
Governor of Montana
Vice Chairman

James M. Souby
Executive Director

Headquarters:
1515 Cleveland Place
Suite 200
Denver, Colorado 80202-5114

303-623-9378
Fax 303-534-7309

Washington, D.C. Office:
400 N. Capitol Street, N.W.
Suite 388
Washington, D.C. 20001

202-624-5402
Fax 202-624-7707

www.westgov.org

March 14, 2002

The Honorable James Hansen
Chairman
Committee on Resources
1324 Longworth HOB
Washington, DC 20515

The Honorable Nick Rahall
Ranking Minority Member
Committee on Resources
1329 Longworth HOB
Washington, DC 20515

The Honorable Wayne Gilchrist
Chairman
Subcommittee on Fisheries
Conservation, Wildlife and Oceans
188 Ford HOB
Washington, DC 20515

The Honorable Robert Underwood
Ranking Minority Member
Subcommittee on Fisheries
Conservation, Wildlife and Oceans
H2-186 Ford HOB
Washington, DC 20515

Dear Congressman Hansen, Rahall, Gilchrist, and Underwood:

On behalf of the Western Governors Association (WGA), we are writing to commend you for introducing H.R. 3558, the Species Protection and Conservation of the Environment Act ("SPACE Act"). The SPACE Act authorizes new grant programs that would assist states, territories, local governments and non-governmental organizations in the conservation of habitat and the control of harmful non-native species. This bill addresses a matter important to the WGA and we thank you for allowing us to provide our comments and concerns on the harmful non-native species issues.

On September 26, 2001, nineteen Western Governors signed a letter to the Committee on Resources requesting that invasive species issues be made a priority and that additional federal resources be made available to help our communities tackle these problems. These are issues that impact our ecosystems and our economics — it is estimated that invasive species have an economic impact of over $137 billion a year. In our letter, the Western Governors noted that better coordination, new resources and new options were needed in order to effectively control and eradicate invasive species.

The SPACE Act authorizes $20 million for the State Native Species Protection Assessment Grant Program, $50 million for the Aldo Leopold Native Heritage Grants, $10 million for the Refuge System Demonstration Project Grants and $10 million for Rapid Response Capability. These grants are important to our state and territorial efforts and the new programs authorized are appropriate means for better coordination between federal and local authorities in the control and eradication of harmful non-native species.

H.R. 3558 is a significant start in the process of focusing federal efforts on invasive species. There are a number of issues raised in the Western Governors letter that are not addressed in H.R. 3558 and we hope that the Committee on Resources would consider some of our suggestions to improve this bill prior to markup. The Western Governors Association commends the members of the Committee on Resources for your efforts to improve the federal response to harmful non-native species.

Sincerely,

Jane Dee Hull

Jane Dee Hull
Governor of Arizona
Chairman

Carl Gutierrez
Governor of Guam
Co-Lead Governor

Enclosures: September 26, 2001 WGA Letter

WESTERN
GOVERNORS'
ASSOCIATION

Jane Dee Hull
Governor of Arizona
Chairman

James M. Souby
Executive Director

Headquarters:
1515 Cleveland Place
Suite 200
Denver, Colorado 80202-5114

303-623-9378
Fax 303-534-7309

Washington, D.C. Office:
400 N. Capitol Street, N.W.
Suite 388
Washington, D.C. 20001

202-624-5402
Fax 202-624-7707

www.westgov.org

September 26, 2001

The Honorable James Hansen
Chairman
Committee on Resources
1324 Longworth HOB
Washington, DC 20515-6201

The Honorable Nick Rahall
Ranking Minority Member
Committee on Resources
1329 Longworth HOB
Washington, DC 20515-6201

The Honorable Wayne Gilchrist
Chairman
Subcommittee on Fisheries
Conservation, Wildlife and Oceans
188 Ford HOB
Washington, DC 20515-6201

The Honorable Robert Underwood
Ranking Minority Member
Subcommittee on Fisheries
Conservation, Wildlife and Oceans
H2-186 Ford HOB
Washington, DC 20515-6201

Dear Congressmen Hansen, Rahall, Gilchrist, and Underwood:

We support the enactment of an Invasive Species Act during the 107th Congress, an issue of critical importance to our communities.

Invasive plant and animal species present unique challenges to states and territories in protecting our fragile ecosystems. Beyond the ecological harm of invasive species – which is considerable – some studies estimate that the economic impact of invasive species exceeds $137 billion per year. In addition, 46 percent of the plants and animals federally listed as endangered species have been harmed by invasive species.

The Western Governors' Association believes that the current federal approach to this important issue could be better organized and coordinated and assured of adequate funding. We support a comprehensive and coordinated federal strategy that will provide greater assistance and priority to helping states and territories control and eradicate invasive species.

We believe enactment of an Invasive Species Act with the following principles would represent a significant public policy advance and enjoy widespread support:

- Consolidate statutory authority for invasive species research, control and eradication on federal lands;

- Provide authorization for increased funding for activities related to management plan development, research, control and eradication of invasive species;
- Provide authorization for funding of public education on the existence, threat, control and prevention of invasive species;
- Make decisions on land and resource management through local partnerships when formulating management plans. Provide special attention to local participation by the citizens of the three Pacific territories;
- Enhance current programs for invasive species control on federal lands within the Departments of Interior and Agriculture;
- Coordinate federal and state activities for invasive species research, control and eradication;
- Establish guidelines for invasive species control and eradication on federal lands;
- Create new options under the Endangered Species Act when the threat to a species is primarily caused by an invasive species;
- Address issues related to the introduction of invasives by commercial marine aquaculture operations that are harmful to native marine species; and
- Encourage and support consistent state programs that regulate vessel ballast water and interstate recreational boat inspection programs.

The Western Governors' Association looks forward to working with you on this critical issue.

Sincerely,

The Honorable James Hansen
The Honorable Nick Rahall
The Honorable Wayne Gilchrist
The Honorable Robert Underwood
September 26, 2001
Page 3

Carl Gutierrez
Governor of Guam

Tony Knowles
Governor of Alaska

Tauese Sunia
Governor of American Samoa

Jane Dee Hull
Governor of Arizona

Gray Davis
Governor of California

Bill Owens
Governor of Colorado

Benjamin J. Cayetano
Governor of Hawaii

Dirk Kempthorne
Governor of Idaho

Judy Martz
Governor of Montana

Mike Johanns
Governor of Nebraska

The Honorable James Hansen
The Honorable Nick Rahall
The Honorable Wayne Gilchrist
The Honorable Robert Underwood
September 26, 2001
Page 4

Kenny C. Guinn
Governor of Nevada

Gary E. Johnson
Governor of New Mexico

John Hoeven
Governor of North Dakota

Pedro P. Tenorio
Governor of Northern Mariana Islands

John A. Kitzhaber, M.D.
Governor of Oregon

William J. Janklow
Governor of South Dakota

Michael O. Leavitt
Governor of Utah

Gary Locke
Governor of Washington

Jim Geringer
Governor of Wyoming

American Fisheries Society
Organized 1870 to Promote the Conservation, Development and Wise Utilization of the Fisheries

GHASSAN N. RASSAM
Executive Director

KENNETH L. BEAL
President 2001-2002

FRED A. HARRIS
President Elect

IRA R. ADELMAN
1st Vice President

BARBARA A. KNUTH
2nd Vice President

CARL V. BURGER
Past President

March 12, 2002

Via FAX 202-225-4273

The Honorable Nick Rahall
Ranking Minority Member
Committee on Resources
186 Ford HOB
Washington, DC 20515-6201

Dear Representative Rahall,

We would like to express our strong support for the principles behind H.R. 3558, the Species Protection and Conservation of the Environment Act.

The American Fisheries Society is the oldest scientific society for fisheries scientists and managers. As such, we are quite concerned about harmful non-native species of plants and animals that are carrying widespread damage to indigenous fish and wildlife.

Sincerely,

Ghassan N. Rassam
Executive Director

GNR:jpg

5410 GROSVENOR LANE, SUITE 110 • BETHESDA, MARYLAND 20814-2199
(301) 897-8616, 897-8621 • FAX (301) 897-8096 • E-MAIL main@fisheries.org

Testimony of Gilbert S. Coloma-Agaran
Chairperson, Department of Land and Natural Resources
State of Hawaii

Before the House Committee on Resources,
Joint hearing of the Subcommittee on Fisheries Conservation, Wildlife and Oceans; the Subcommittee on National Parks, Recreation, and Public Lands; and the Subcommittee on Forests and Forest Health

In support of H.R. 3558 "Species Protection and Conservation of the Environment"

March 14, 2002

Thank you for the opportunity to present written testimony on H.R. 3558. My apologies for not being able to attend the hearing and testify in person. I provide testimony as the Chairperson of the Department of Land and Natural Resources on behalf of the State of Hawaii and also offer observations that pertain to natural resource management throughout the Pacific. It is clear that Hawaii and the other insular U.S. possessions in the Pacific, Guam, America Samoa, and the Commonwealth of the Northern Mariana Islands, share common problems caused by harmful nonnative species and welcome common solutions that this bill provides.

The Impact of Harmful Nonnative Species

The presence of harmful nonnative (invasive) species in Hawaii impacts every part of our State's economy and environment. Hawaii is the most geographically isolated island chain on the planet and yet an average of 100 harmful nonnative organisms become established on the islands every year through both intentional and accidental introductions. These pests range from the fruit flies that prevent the export of Hawaiian fruits to Californian and Japanese markets to Miconia, an invasive tree species that threatens the forest habitat of many of Hawaii's 379 endangered species. Over the past few years, State, federal and private entities spent millions of dollars dealing with control, containment or eradication of Miconia, Caribbean tree frogs (Coqui), fountain grass, gorse, giant salvinia, banana polka, mosquitoes, mongoose, and rats, all of which are harmful nonnative species in Hawaii. Our Pacific neighbors are likewise plagued by harmful nonnative species like the brown tree snake, black drongo, and crown of thorns starfish. Those that are lucky not to have these plagues, live in fear that with the greater mobility of people and cargo, it is just a matter of time until they too suffer from these ills. Many of these pests are directly responsible for the endangered status of our native species.

There are national programs that respond to pests that threaten agricultural products, but there is generally a lack of programs and coordinated response when pests attack our natural environment. Many cases start out as small-localized problems that are not attacked until it is to late for an effective early response to keep the problem from expanding to a regional or national level. Many of these invasive species caused environmental problems that do not directly affect a single industry or organized and vocal segment of the population, but affect us all through loss of trust resources such as native birds and plants, degradation of forests, watersheds and rangelands, and fouling of rivers and streams. The Pacific Islands have a greatly

disproportionate share of the nations endangered species – 29%, most the result of harm caused by nonnative species.

The problems in responding to harmful nonnative species that affect our environment are typically 1) inadequate information on distribution, status and relative threat of nonnative species, 2) unclear or overlapping jurisdiction - nonnative species can be detected on federal, state, local government or private property and all parties need to respond, 3) a lack of species specific control tools, and 4) inadequate rapid response capabilities and funding. HR 3558 will address these common deficiencies and be of immense help in establishing a national program to combat harmful nonnative species that attack our environment.

Hawaii as an Example of How this Bill can Work

Many of the concepts and approaches proposed in this bill are being successfully tried on a small scale in Hawaii.

Section 4, State Native Species Protection Assessment Grant Program provides federal support for State assessments and local capacity building to develop statewide coordinating bodies to effectively deal with invasive species problems. This need was recognized in Hawaii where natural area managers realized that different islands kept encountering the same nonnative problem species affecting native species. The Cooperating Group on Alien Pest Species was formed and consisted of administrators from the State Departments of Agriculture, Land and Natural Resources, Transportation, Health, Visitors and Convention Bureau, the University of Hawaii, The Nature Conservancy, US Postal Service, US Customs Service, APHIS, NPS, the armed services and other groups to begin addressing gaps in the State's program and discuss statewide strategies. Some of the limitations that have hindered this effort are lack of dedicated staff and funding to develop a comprehensive statewide plan. Section 4, State Native Species Protection Assessment Grant Program would support this group and accelerate its work.

Section 5, the Aldo Leopold Native Heritage Grant Program will fund projects in partnership with a Federal agency to control nonnative species to benefit native species and habitat on federal and nonfederal lands. Federal support of coordinated, regional landscape scale control programs is where these problems can best be addressed. To do this, Hawaii has established Invasive Species Committees on each of the main islands. These island committees bring together local, State, and Federal agencies and private groups to control invasive species across property boundaries. The estimated statewide need to control harmful nonnative species is $52 million dollars for all cooperating private, county, state and federal groups. Currently, local efforts have raised $1.6 million dollars. The effects of this shortfall can be measured in the number of people that will be exposed to dengue fever spread by nonnative mosquitoes, the number of acres of native forest lost to infestations of the tree Miconia, and continued loss of endangered species to uncontrolled pests.

Section 6 of this Bill establishes a Refuge System Demonstration Project. This program would contribute to the overall efforts to control harmful nonnative species. National Wildlife Refuges suffer from the same woes that beset their neighbors in regard to invasive species. Funding the testing and development of new techniques and strategies will aid the collective goal and enable

the National Wildlife Refuge System to become a leader in research and development of control techniques. National Parks and other federal lands could also be useful participants in this program.

Section 7 of this Bill provides federal support for Creation of a Rapid Response Capability to Harmful Nonnative Species. This program is the most cost effective and urgently needed of those proposed. Most states have examples of lost opportunities. In Hawaii, the Caribbean Tree Frog (Coqui) was known to occur at only 8 locations on the Island of Hawaii in 1998. Today, it has spread to four islands and over 200 populations. Miconia was identified as an isolated problem in the 1970s but coordinated regional control was not begun until the late 1990s. It now occurs on 20,000 acres on Hawaii, 12,000 acres on East Maui, and is also found on Oahu and Kauai. Organization and funding could have stopped or controlled these now established pests. This program is critical to deal with new incipient populations of invasive species before they become chronic and costly long-term control problems with adverse impacts on native species and economies.

Regarding funding levels of the various programs, the planning assessment funding levels seem high when compared with other parts of bill. Funding for invasive species risk assessments to help guide control and rapid response is more critical than the native species assessments at this time. Overall, we would suggest fewer dollars for planning and more funding for on the ground action such as rapid response. The funding of early detection and rapid response are critical to address the invasive species issues.

The Species Protection and Conservation of the Environment Act would provide four programs to deal with the ever-growing problem of harmful nonnative species in the nation. Federal support is needed at all stages in these efforts - planning, implementation of control programs, development of techniques and rapid response. Stable long term funding is needed to develop and maintain this program. The risk of new introductions will continue as long as ships, airplanes, people and cargo continue to arrive.

Thank you for the opportunity to provide testimony on the Species Protection and Conservation of the Environment Act. The Department would be happy to work with your Committee Staff to further refine this Bill and provide State perspective on the proposed programs and their administration. The Department would welcome additional hearings on invasive species issues and would like to invite the members of the House Resources Committee and staff to hold field site hearings here in Hawaii. The Department contact for invasive species programs is Mr. Michael Buck, Administrator of the Division of Forestry and Wildlife, and he can be reached at (808) 587-0166 to assist the committee in their work.

Aloha,

/s/ Gilbert S. Coloma-Agaran

GILBERT S. COLOMA-AGARAN
Chairperson

Statement of American Lands Alliance
in Support of H.R. 3558
The Species Protection and Conservation of the Environment Act
14 March, 2002

Faith T. Campbell, Ph.D.

American Lands Alliance applauds Representatives Rahall, Gilchrest, and Underwood for introducing the Species Protection and Conservation of the Environment Act. We strongly agree with the sponsors that invasive species are a major threat to biological diversity -- native fish, wildlife, and plant species and their habitats -- and urge prompt passage of the legislation.

Furthermore, it is indisputable that insufficient resources have been allocated to efforts to prevent the introduction and spread of invasive species and to minimize the damage caused by established bioinvaders. Overall federal expenditures in FY 2001 were $996.6 million -- still only 0.7% of the $137 billion in annual losses calculated by Pimentel *et al.* (2000).

What resources are available are heavily skewed toward invaders that threaten agricultural resources -- as contrasted with wild species and their habitats. The USDA Animal and Plant Health Inspection Service (APHIS) received eighty percent of federal funds for invasive species programs in FY 2001 ($798 million). The Fish and Wildlife Service received only $9.5 million, the Bureau of Land Management $8.9 million, and the Forest Service $35.5 million. The Coast Guard, which shares responsibility for preventing introductions of ballast water organisms, had less than $3.6 million. At least some of these agencies would suffer funding cuts or diversions under the President's proposed budget for FY 2003.

While APHIS in theory is responsible for preventing introduction of all types of plant pests and weeds, its focus remains on plant pests that threaten agricultural crops. In 2000, APHIS devoted just 10% of its "rapid response" funds to pests threatening forests; nearly all of that was spent on Asian longhorned beetle eradication (GAO 2001).

The unfortunate result is neglect of weeds, invertebrates, and vertebrates that threaten primarily native fish, wildlife, and plant species and their habitats. If enacted and funded, H.R. 3558 would help to slow the spread of invasive species within the United States, minimize their impacts, and restore native habitat.

Since invasive species do not recognize jurisdictional boundaries, all stakeholders need to work together in developing and carrying out prevention and control programs. The Species Protection and Conservation of the Environment Act establishes a useful program to encourage cooperation across jurisdictional boundaries in both planning and control efforts.

American Lands welcomes several other components of the Species Protection and Conservation of the Environment Act, including its nationwide scope and the inclusion of strong standards or criteria guiding review of both the plans and grant applications. We are pleased that the bill's activities are closely linked to the National Invasive Species Council, the national invasive species management plan, and the National Fish and Wildlife Foundation (which implements an existing weed control grants program).

American Lands urges the Committee on Resources to consider approaching the invasive species problem more broadly so as to address the catalysts favoring the spread of invasive species. Among these contributing factors are livestock grazing, off-road vehicle use, logging, and the deliberate planting or stocking of invasive species. If these facilitating activities are not addressed, programs aimed at containing or controlling bioinvaders will be stymied.

We direct the Committee's attention particularly to the actions carried out or sanctioned by federal agencies that result in the transport and release into the wild of many types of invasive species. Among the participants in such activities are the resource agencies under this Committee's jurisdiction, as well as the Agricultural Research Service and -- at least until recently -- the Natural Resources Conservation Service, as well as the Federal Highway Administration. For example, the ARS has developed a cold-hardy form of buffelgrass (*Cenchrus ciliarus*) -- an exotic grass that is valued for pastures but that is highly invasive in National parks and National Wildlife refuges across the border states from Texas to California. The Committee could hold hearings to explore agencies' use of invasive species and steps those agencies and the National Invasive Species Council could take to curtail this practice.

Many invasive species are sold by the private sector. For example, more than 250 plant species invasive in natural ecosystems across the country are sold by the nursery trade. Currently, no legislation addresses this problem. The Plant Protection Act, adopted in 2000, restricts APHIS' authority to regulate interstate movement of noxious weeds to those species that are "new to or not known to be widely prevalent in" the United States. In December, representatives of nursery owners, landscape architects, and botanical gardens adopted draft voluntary codes of conduct aimed at curbing the use of invasive plants. This represents exciting progress. Nevertheless, the Congress should consider what role it should play in minimizing the introduction and spread of invasive species through the nursery, seed, pet, aquarium, and other trades. The Committee on Resources should explore amending the Lacey Act to strengthen controls on introductions of vertebrate animals and institute restrictions on the interstate movement of plants that invade natural systems.

Adoption of broader legislation addressing these problems would be useful in achieving one of the principal goals of the Species Protection and Conservation of the Environment Act: creation of a rapid-response capability targetting exotic species that threaten wildlife or habitats. At present, few of the species that threaten natural systems have received any kind of official designation by a federal agency. The absence of an agreed-upon inventory of species of concern would hamper implementation of this vitally important component of the program. The Committee on Resources might explore ways to compile such a list. One approach might be for the resource agencies, in consultation with non-governmental experts on bioinvasion, to develop the inventory.

For further information: Faith T. Campbell, 202-547-9120; email: phytodoer@aol.com

Sources:

Pimentel, D., L. Lach, R. Zuniga, D. Morrison. Enviromental and Economic Costs Associated with Non-Indigenous Species in the United States. Bioscience Vol. 5 No. 1 (January 2000).

United States General Accounting Office 2001. Invasive Species: Obstacles Hinder Federal Rapid Response to Growing Threat. August 2001. GAO-01-724

American Lands Alliance is dedicated to the protection and recovery of North American native forest, grassland, and aquatic ecosystems; the preservation of biological diversity; the restoration of watershed integrity; and the promotion of environmental justice in connection with these goals. We accomplish this mission by strengthening grassroots conservation networks throughout North America; by providing advocacy services and other assistance to local, statewide and provincial conservation organizations; and by helping to improve communications and coordination among these groups and other societal institutions.

American Lands Alliance has had an active project addressing invasive exotic species since 1997. In addition, American Land's expert, Faith T. Campbell, is a member of the federal Invasive Species Advisory Committee and the on the board of the Mid-Atlantic Exotic Pest Plant Council.

Mr. GILCHREST. Gentlemen, thank you very much for coming, I guess this morning still. Mr. Shannon, you may begin, sir.

STATEMENT OF JOHN T. SHANNON, STATE FORESTER, ARKANSAS FORESTRY COMMISSION, ON BEHALF OF THE NATIONAL ASSOCIATION OF STATE FORESTERS

Mr. SHANNON. Yes, sir. I guess we have the Irish brigade ready to mop up your testimony this morning.

Mr. GILCHREST. Shannon, O'Keeffe, Riley. That is right.

[Laughter.]

Mr. GILCHREST. Are there any Scots out there?

Mr. SHANNON. You will get the truthful and helpful testimony now, Mr. Chairman.

Mr. GILCHREST. Thank you very much. I knew we could.

Mr. SHANNON. Thank you, Mr. Chairman.

Mr. GILCHREST. We could sing an Irish tune.

[Laughter.]

Mr. GILCHREST. I am sure you all know a couple, but we will do that a little bit later over lunch.

Mr. SHANNON. Thank you for inviting the State foresters to come and testify today. We appreciate it very much.

I listened to the Chairman's introductory comments and those of several other members, and it is right on the button. Plainly, we all agree that invasives are harmful, there is a problem, and we need to do something about it.

I think 3558 is a good step in the right direction. I want you to know the State foresters support this bill. We like the bill. We have submitted written comments. What I would like to do is just talk to the Committee for a few minutes and very briefly give you a few of our suggestions on how to improve the bill.

Mr. GILCHREST. We will submit the comments to the record.

Mr. SHANNON. Thank you, sir.

We have six suggestions for improving the bill:

No. 1, State foresters think we should expand the scope of the bill. The bill ought to protect native plants in addition to game and fish species. USDA ought to be involved. You have heard this before. The U.S. Forest Service has a really crackerjack team of forest health protection specialists, and the Animal and Plant Health Inspection Service has experience in rapid response to invasives. We need to get them involved. They ought to be helping us meet the objectives of this bill.

The demonstration projects are currently limited to the National Wildlife Refuges, and since the problems exist on all Federal lands, we think all Federal lands ought to be eligible for the demonstration projects.

The last expansion of the scope includes going from strictly native habitats to including agricultural lands. The bill plainly is concerned about environmental harm and economic harm, and if you really want a fuller assessment of the economic harm, I think we need to take a look at what invasives are doing to agricultural land.

The second suggested change to the bill, let's really emphasize the role of the States. Mr. Chairman, the State foresters are on the ground. We have employees in every forested county in the United

States, so we know all these county commissioners you were talking about. We know all of these forest landowners. I really think we could help make a difference on the ground. And I would suggest that the State foresters or State game and fish officials become involved right from the start, and that includes drafting the grant applications and reviewing the grant applications and help deciding priorities for the grants.

The third suggestion, for 3558, no matter how much money you pour into it, it is not going to protect a single acre or kill one of these brown tree snakes I have heard about. You need people to apply for grants, get the money, and do the work on the ground. You need folks on the ground making the efforts, and what that means is, please make the administration as simple as you possibly can and still be accountable.

For instance, if the grant application comes to us and it is the size of a small-town telephone book, you know, we have got a problem. You are scaring away people who want to help with the problem.

In the Aldo Leopold grants, there is a requirement for a Federal partner. In some parts of the country, that requirement is pretty artificial, particularly in the South where the private lands that have real problems with invasives are miles and miles away from the nearest Federal landowner. So we want partnerships, but I think there should be some flexibility in the Leopold grants to have partnerships with the Nature Conservancy or local forest landowners associations, for instance.

On this next suggestion, I may differ a bit with an earlier witness today. Definition number 7 in the bill speaks to environmental soundness, and 7(B) I think pretty directly suggests that using chemicals is environmentally unsound. And I think that is incorrect. And if it is environmentally unsound, you are virtually out of luck trying to get a rapid response grant. So I am suggesting to the Committee that if, after a real scientific review, there is a decision to apply chemicals in strict accord with label instructions, that is scientifically sound and we ought to allow the use of chemicals. We need to keep our eyes on the prize, Mr. Chairman. We are going after these invasive plants. When we go after gypsy moth in Arkansas—and it has been a pretty successful eradication effort—I am glad we are able to use chemicals.

Finally, State foresters, since we do live pretty close to nature, we like to get stuff done. So I hope—we are not asking for more money, but I hope with the amount of money available we can shift it, to the extent science and accountability allows, away from assessments and more to work on the ground, things that are measurable: the Leopold grants, the rapid response grants, and the demonstration projects.

The staff of the National Association of State Foresters is delighted to work with the Committee staff on any language that may need to be revised, and I thank you so much.

[The prepared statement of Mr. Shannon follows:]

Statement of John T. Shannon, State Forester of Arkansas, on Behalf of the National Association of State Foresters

INTRODUCTION

On behalf of the National Association of State Foresters (NASF), I am pleased that Chairman Gilchrest and Chairman McInnis have asked us to testify on this bill. NASF is a non-profit organization that represents the directors of the State Forestry agencies from all fifty states, eight U.S. territories, and the District of Columbia. The State Foresters manage and protect state and private forests across the U.S., which together encompass two-thirds of the nation's forests.

I am representing NASF in my role as Chairman of the Forest Health Protection Committee. The spread of harmful non-native species is an important issue to the State Foresters, private landowners, and our partners. NASF applauds the efforts undertaken in this bill to address the pervasive problem of invasive species on both public and private lands. We support the bill, and believe that it can be strengthened even more.

In this testimony, I would like to address the topics you raised in your invitation to testify: (1) the need for the measure; (2) whether it can become an effective mechanism to deal with the growing problem of invasive species on public and private lands; (3) if the proposed funding levels are adequate to address this problem; and (4) our recommendations on any proposed changes that could improve this proposal.

NEED

There is clearly a call for measures to control, mitigate, and eradicate invasive species on forestland and elsewhere. Invasive species are a growing concern among foresters and other land managers. Indeed, addressing the spread of exotics is one of the objectives of the NASF Forest Health Protection Committee, and it is of high priority for the Committee this year. We agree with the inclusion of U.S. Territories and Tribal lands in the definition of "state" as these lands have specific needs for control of nonnative invasive species.

EFFECTIVENESS

This bill provides an important mechanism to deal with the growing problem of invasive species, and we believe it can be strengthened in several critical ways.

EMPHASIZE ROLE OF STATE AND LOCAL GOVERNMENT

State forestry and other state and local agencies play key roles in invasive species management. State forestry agencies, in particular, have longstanding relationships with private landowners and federal partners, and we can assist in the development of priorities and selection of grantees. Our technical experts on the ground, who interact daily with private landowners, have first-hand understanding of local needs and solid relationships with landowners and local government officials. This places state forestry agencies in an ideal position to help ensure that on the ground management stemming from this bill will be effective in dealing with invasive species when and where they threaten forested habitats.

EXPAND INVOLVEMENT OF FEDERAL AGENCIES

If we are to successfully tackle the problem of invasive species, we need to devote resources to those federal lands and programs where the greatest progress on the ground can be made. Most importantly, the bill must include the U.S. Department of Agriculture (USDA), specifically the U.S. Forest Service (USFS) and the Animal and Plant Health Inspection Service (APHIS), as key partners. The USFS, one of our traditional partners, has an excellent Forest Health Protection Unit that deals with invasive species issues on forested land. The USFS is also home to Cooperative Forestry, a vital link between private landowners and cost share assistance that funds management on private land. Invasive species remain core management issues for the National Forest System and Research and Development within the USFS, as well. Likewise, APHIS, which has a rapid response program in place, has the capacity to quickly detect and respond to exotic pests that threaten agricultural crops and natural habitats. In addition to the National Wildlife Refuge System, there are other lands managed by the Department of Interior, and also Department of Defense lands, which contain habitats threatened or affected by invasive nonnative species. It is essential to identify these federal agencies as partners in this legislation.

Building upon existing federal programs that deal with invasive species issues, and encouraging agencies that control large amounts of public land to participate, will most effectively address harmful nonnative species across public and private lands. We need the flexibility to detect and rapidly respond to invasive species when

and where they occur, and limiting the demonstration projects to wildlife refuges, which is a small geographic subset of federal lands, may not ensure that our limited federal dollars will be spent in the most effective and efficient manner.

KEEP GRANTS ACCESSIBLE / KEEP ADMINISTRATION SIMPLE

The process of applying for, reviewing, and administering grants must be as simple as possible. If grants are too demanding, key applicants will not apply for these much needed funds. Our experience has shown us that some states, especially in the South, lack adequate staffing and other resources necessary to participate in the programs identified in this bill. In order to achieve the greatest good on the ground, the requirements of the bill must provide accessibility to all partners.

In addition, we believe the Aldo Leopold Native Heritage Grant Program would be more effective if the requirement for a federal partner were expanded to allow projects with either state or federal partners. Quick and aggressive action on state and private lands could actually prevent the spread of invasive species to federal lands. The requirement that grants may only be issued for projects with adjacent federal lands or waters may disqualify important projects.

BROADEN SCOPE OF STATE ASSESSMENTS

NASF recommends broadening the State Native Species Protection Assessment Grant Program to allow and encourage the states to assess the impacts of invasive species on the broad range of sectors that contribute to their own states' economy and the national economy, rather than just impacts to native habitats. Our experience at both the state and national level has shown that a broad range of sectors (e.g., agriculture, tourism, and transportation) contribute to the propagation and spread of invasive species. These sectors hold the promise for innovative and incentive-driven solutions, and these constituents should be at the table in developing state, regional, and national assessments and solutions. The preparation of statewide assessments will help identify strategic regional approaches to priority invasive species. This will also bring more public support for the investments needed to tackle invasive species problems over the long run—all of which will help native habitats. State assessments will be helpful to states and regions that have not already conducted assessments. However, to effectively address the protection of natural habitats and processes, a broader assessment of the risk from invasive nonnative species is needed, which may include altered habitats such as reservoirs or other lands and waters that are no longer in a natural condition.

EXPAND DEFINITION OF ENVIRONMENTAL SOUNDNESS

Defining "environmental soundness" as only projects that emphasize non-chemical measures may restrict the control and eradication of some invasive species, especially plants. It is important to recognize that, in some cases, chemicals provide the most effective and environmentally sound technique for control and eradication.

RECOGNIZE INVASIVE SPECIES ARE LONG TERM PROBLEMS

Long term programs with ongoing funding are needed if we are to successfully control, mitigate, and eradicate harmful nonnative species on public and private lands. The two to four year limit for grants, along with the 2008 sunset for the Act, do not provide the levels of continuous public investment that are needed to fully address these problems. This is due to both the extended survival or dormancy of seeds and the continuous threat of new species introductions from overseas.

FUNDING

NASF believes this bill will improve efforts to take action on the ground in areas where the problems of invasive species are most prevalent, if we can focus primarily on rapid action. When management actions are hampered by assessment processes, the problems associated with invasive species intensify. The successful management and control of invasive species requires the ability to quickly and aggressively respond to emerging threats. We would like to see a greater proportion of funding directed towards the Rapid Response Program and the Aldo Leopold Grants Program, where on the ground management happens.

RECOMMENDATIONS

In summary, NASF believes that this bill provides an effective mechanism for dealing with the growing problem of invasive species on public and private lands and waters, and it will be strengthened through the following recommendations:

- Emphasize the important role that state and local government can play in setting priorities and selecting grantees.

- Expand the involvement of federal agencies within the U.S. Department of Agriculture that have expertise and programs in invasive species management to include the USFS and APHIS.
- Expand the involvement of federal agencies and departments controlling large acreages of public land, including the Bureau of Land Management and other land management agencies in the U.S. Department of Interior, the USFS in the U.S. Department of Agriculture, and the U.S. Department of Defense.
- Keep the requirements for the programs as simple as possible, which will encourage the participation of states and other key partners.
- Broaden the scope of state assessments to include the impact of invasive nonnative species on states' economies and altered lands that are no longer in a natural condition.
- Expand the definition of "environmental soundness" to include the use of chemicals where needed to control and eradicate invasive species.
- Along with considering reauthorization of the bill in 2008, we encourage you to extend grants beyond the two to four year limitation currently detailed in the bill.
- Shift the balance of funding towards on the ground management, particularly the Rapid Response program. There is value in being ready to handle outbreaks of invasive species before they occur.

CONCLUSION

NASF looks forward to the opportunity to work with the Subcommittees and the sponsors to develop and carry out an effective program to address the spread and control of nonnative species. We commend representatives Rahall, Gilchrest, and Underwood for your work on this important legislation. We are willing to work with you to refine specific language as the bill progresses, and we appreciate the opportunity to provide testimony and answer your questions today.

Mr. GILCHREST. Yes, sir. Thank you very much.

I had a problem with bagworms on some evergreen trees. Quite a few of them.

Mr. SHANNON. There are still lots of them.

Mr. GILCHREST. This was about 10 years ago when my kids were teenagers, and I gave them a penny for every—well, they were younger than teenagers. I gave them a penny for every bagworm.

Mr. SHANNON. Perhaps they should apply for a grant.

Mr. GILCHREST. Well, they thought they had a grant.

[Laughter.]

Mr. GILCHREST. But I was running out of money, and we weren't affecting those bagworms at all. So we did have to use some chemical application, according to the label, and it worked.

We have a vote on, and what I would like to do, the Committee will take about a 15-minute recess, and then we will come back and continue. Thank you very much.

[Recess.]

Mr. GILCHREST. The Subcommittee will come to order. Thank you very much for your immense tolerance and patience of the democratic system here in Washington, where we don't stop for breaks or lunch except in very erratic, sporadic ways. So we appreciate your indulgence. We will work through this, and I would hope that all of you will go have a very pleasant, relaxed lunch when this is over.

Mr. O'Keeffe?

Mr. O'KEEFFE. Thank you—

Mr. GILCHREST. Do all of you know where your heritage is in Ireland?

Mr. O'KEEFFE. County Cork.

Mr. SHANNON. County Cavan.

Dr. RILEY. Tralee.

Mr. GILCHREST. Tralee. The Rose of Tralee.
Mr. O'Keeffe?

STATEMENT OF JOHN O'KEEFFE, NATIONAL CATTLEMEN'S BEEF ASSOCIATION AND PUBLIC LANDS COUNCIL

Mr. O'KEEFFE. Thank you. Mr. Chairman, distinguished members of this Committee, on behalf of the National Cattlemen's Beef Association and the Public Lands Council, thank you for your interest in my comments concerning invasive species. My wife and I, our two sons, and my mother operate our family ranch in eastern Oregon. We run our cow-calf operation on about 16,000 private deeded acres and lease about 120,000 acres from the BLM and Forest Service. Therefore, I have a vested interest in my own land as well as the management of Federal lands surrounding my private acreage.

NCBA and PLC appreciate the attention the Committee has directed to invasive species issues and also appreciate the opportunity to speak to the joint Subcommittees on H.R. 3558. We all know the economic and environmental harm caused by invasive species and have urged the Federal Government to recognize invasive species as a priority issue and to develop a national effort to address the problem. We support the Executive order on invasive species and the efforts of the National Invasive Species Council. We have also worked with the Congress through appropriations and other legislative processes to direct resources to and focus attention on invasive species issue.

H.R. 3558 is important legislation, as it elevates the significance of invasive species and underscores the need for Congress to focus more attention on this issue. It strengthens the ability for Federal, State, and private entities to develop partnerships and to coordinate activities and also emphasizes rapid response to outbreaks of harmful nonnative species. We are encouraged by the efforts of this Committee to provide mechanisms for States and private landowners to manage all invasive species.

However, we are concerned that H.R. 3558 duplicates current programs and competes with ongoing efforts that direct resources to problem areas not adequately addressed. There are at least six programs within the Department of Interior that offer grants or funding to Federal agencies, States, or private landowners to protect, conserve, or restore fish and wildlife habitats. Current funding levels do not come close to addressing the noxious weed problem on public and private lands.

For instance, for 2003, BLM plans to treat 245,000 acres for weeds. This acreage is the same as last year and 7,000 acres less than in 2001. I find it interesting that, for an agency managing 264 million acres of Federal land, nearly one-eighth of our country's land mass, only one acre out of every 1,100 acres will be treated.

Current estimated annual loss to the productivity of agricultural lands are as high as $20 billion. New money should be directed to a program that gives States maximum flexibility to direct funds where they can be utilized by local decisionmakers most effectively. Federal red tape and administrative requirements must be minimized to ensure that the dollars are getting to the ground where they are needed most.

For Federal lands, we also need a programmatic environmental impact statement so the agencies can deal with all weeds at all times rather than one at a time.

I have been fighting weeds on our ranch all my life, but my individual efforts are not enough. If more effort, particularly Federal funding, is not devoted to combat invasive species, we are all fighting a losing battle, and rural communities such as my own will face severe economic crisis.

The best method of fighting these invasions is to act locally. Currently, we have a limited amount of resources. We need to have additional funding diverted to the local level to assist those who know best how to manage land and treat the problem. I feel H.R. 3558 fails to devote adequate resources to the local level and burdens any effort with red tape and bureaucracy. Also, H.R. 3558's call for a State assessment front-loads work on an issue that has already been defined by local weed management groups. These groups ask that Congress provide Federal funding while streamlining the process. We simply just need more Federal dollars reaching the local level.

In closing, we support the goals of H.R. 3558 and the effort of this Committee to address invasive species issues. However, we are concerned that H.R. 3558 will not adequately address the invasive species problems, particularly noxious weeds. Nonetheless, we look forward to working with the Committee to ensure that our efforts to manage and control these harmful species are targeted in the most efficient manner possible.

Thank you for the opportunity to testify before your Committee. I will gladly answer any questions you may have.

[The prepared statement of Mr. O'Keeffe follows:]

Statement of John O'Keeffe, Adel, Oregon, on behalf of the National Cattlemen's Beef Association and Public Lands Council

Chairman Gilchrest, Chairman McInnis, Chairman Hefley and Distinguished Members of the House Resources Committee:

On behalf of the National Cattlemen's Beef Association (NCBA), the trade association of America's cattle farmers and ranchers, and the marketing organization for the largest segment of the nation's food and fiber industry, and the Public Lands Council (PLC), a non-profit organization representing over 27,000 federal grazing permittees, thank you for your interest in my comments concerning invasive species.

I am a member of NCBA, the PLC and the Oregon Cattlemen's Association (OCA). I also chair the Public Lands Committee of the Oregon Cattlemen's Association and PLC's Sage Grouse Committee. My wife and I, our two sons and my mother operate our family ranch in south central Oregon. We run our cow-calf operation on about 16,000 private deeded acres and lease about 200,000 acres from the Bureau of Land Management (BLM) and the United States Forest Service (USFS). Therefore, I have a vested interest in what happens on my own land as well as how federal lands surrounding my private acreage are managed.

NCBA and PLC appreciate the attention the Committee has directed to invasive species issues and also appreciate the opportunity to speak to these joint subcommittees on H.R. 3558, the Species Protection and Conservation of the Environment Act. We have long been aware of the economic and environmental harm caused by invasive species and have urged the Federal Government to recognize invasive species as a priority issue and to develop a national effort to address the problem. We support Executive Order 13112 on Invasive Species. We support the National Invasive Species Council (NISC) that was established by the Executive Order and provided input into the preparation of "Meeting the Invasive Species Challenge" (the national management plan developed by NISC), through participation in the Invasive Species Advisory Council. We have also worked with Congress through the appropriations and other legislative processes to direct resources to, and focus attention on, invasive species issues.

Our priorities for invasive species legislation are perhaps easier to articulate than they are to implement, but we nonetheless believe that every effort needs to be made to provide a strong foundation for efficient distribution of federal funds, strive to avoid duplication, coordinate activities between Federal and State agencies and private landowners, and provide the flexibility for decisions to be made locally where the problems arise.

H.R. 3558 is important legislation, as it elevates the significance of invasive species and underscores the need for Congress to focus more attention on this issue. It strengthens the ability for Federal, State, and private entities to develop partnerships and coordinate activities, and also emphasizes rapid response to outbreaks of harmful nonnative species. We are encouraged by the efforts of this Committee to provide mechanisms for States and private landowners to manage all invasive species.

We do have several concerns with the legislation that I will summarize below:

H.R. 3558 is designed to provide grants to States for activities to protect, conserve, and restore native fish, wildlife, and their natural habitats on Federal lands. We are concerned that the legislation duplicates current programs and competes with on-going efforts that direct resources to problem areas not adequately addressed. Federal dollars are appropriated every year to fund programs that protect, conserve, and restore fish and wildlife and their habitats. For example, the Partners for Fish and Wildlife program directs funds for wildlife habitat restoration and we are concerned that H.R. 3558 may be duplicative of these efforts. Another example is the Department of Interior's Landowner Incentive Program (LIP). For fiscal year 2003, the Department budgeted an additional $10 million over last year's budget for a total budget request of $50 million. The LIP provides landowners with technical and financial assistance to private landowners for habitat protection and restoration. Yet another example is the Cooperative Conservation Program, proposed funding for this program is $50 million. This program offers grants to states for habitat protection, wetlands restoration and riparian area protection. Other examples where H.R. 3558 essentially duplicates current efforts of Department of Interior programs (and proposed funding amounts in the Department's fiscal year 2003 budget request) include programs such as the North American Wetlands Conservation Fund ($43.56 million), Cooperative Endangered Species Conservation Fund ($91 million), and the National Wildlife Refuge Fund ($14.558 million). All these programs offer grants or funding to states, private landowners or federal agencies to protect, conserve or restore fish and wildlife habitats.

However, existing sources of funds for addressing invasive weeds do not come close to addressing the needs we are facing on public and private lands. There currently is no existing independent federal fund to address these needs. In BLM fiscal year 2003 budget request, the agency plans to treat 245,000 acres. This acreage is the same as last year and 7,000 acres less than 2001's total acres. I find it interesting that for an agency responsible for managing 264 million acres of federal land—or nearly one-eighth of the country's landmass—only one acre out of every 1,078 acres will be treated. To me, this number is shocking. More federal dollars need to allocated for treating more acreage. While the cattle industry recognizes the threats posed by all invasive species and supports all efforts to manage them, our primary concern is the threat posed by invasive weeds. Weeds are also the invasives where I have the most personal experience, as reflected in this testimony.

The Federal Interagency Weed Committee has estimated that annual losses in the productivity of agricultural lands are as much as $20 billion. These losses are personal to cattle producers—so each of us has a vested interest in the health of the land that we own or manage and in minimizing financial impacts caused by invasive weeds. New money should be directed to a program that gives states maximum flexibility to direct funds where they can be utilized by local decision makers most effectively. Federal red tape and administrative requirements must be minimized to ensure that the dollars are getting to the ground where they are needed most. For federal lands, we also need a programmatic environmental impact statement so the agencies can deal with all weeds at all times, rather than one at a time.

I have been involved with fighting non-native species, particularly noxious weeds, for about 20 years now. I helped organize our county's weed board, the Lake County Weed Board. In fact, I am still serving as vice chairman. The principle function of the weed board is to advise our county commissioners on weed management and what can be done to help fight the struggle. About five years ago, I also helped establish the Warner Weed Working Group. I still serve as the chair of this group. This group seeks to target weed control and eradication through cost-share efforts, education and awareness. My involvement also includes assisting landowners and other cattle producers by commenting on federal land management proposals to en-

sure non-native invasive species, such as noxious weeds, are adequately addressed in the proposed action.

As I stated earlier, I have been fighting weeds on my own land for over 20 years. I spray, learn what I can about control and management and even break out the shovel to eradicate weeds such as the Canadian thistle. But my individual efforts are not enough. In my area, we are currently facing invasions of whitetop, perennial pepperweed and Russian knapweed. If more effort, particularly federal funding, is not devoted to combat invasive species, we are all fighting a losing battle and rural communities such as my own will face severe economic crises.

If there is one thing I have noticed in all my years of fighting these non-native species is that if something is not done fast we will lose a lot of land that will never be recovered. For instance, fighting cheatgrass is a lost cause. One might as well try to empty the ocean with a bucket. Cheatgrass is a prime example of what can happen if proactive measures are not taken immediately.

The best method of fighting these invasions is to act locally. Currently, we have a limited amount of resources. In order to maximize resources, I have found that resources are best utilized by those who intuitively know the geography and flora of an area—for instance, those who have been running up and down fields and ditches like myself and other members of my weed board and weed working group. Furthermore, we need to have additional funding diverted to the local level to assist those who know best how to manage the land and treat the problem—whether the land is federal or private.

I feel H.R. 3558 fails to devote adequate resources to the local level and when H.R. 3558 provides resources to the local level, any effort is burdened with red tape and bureaucracy—two things I find totally unnecessary in the fight against invasive species. In particular, for a project to qualify under Section 5(e), objectives include establishing a science-based restoration of fish and wildlife habitats. I am not a wildlife biologist but I feel this section requires expertise beyond my capability. My expertise comes from living on the land, working on the land, and nurturing the land in order to reach its highest sustainability. In other words, application of common sense local know how.

H.R. 3558 expands bureaucracy and red tape with the state assessment requirements of Section 4 and places an additional burden on states. Many states currently have weed management programs and directs state dollars to local weed management boards. My own state of Oregon customarily follows this practice. My basic thoughts are we do not need more bureaucracy or red tape, or more government for that matter. What we need is more federal funding to get more money on the ground, using local folks, to attack the problem effectively.

Because invasive species know no boundaries, any Federal program must allow for funds to be directed where they are most needed. H.R. 3558 appears to limit use of funds to only those projects on State and private lands that are adjacent to Federal lands and also requires there be a Federal partner to be eligible for a grant under the Also Leopold Native Heritage Grant Program. NCBA and PLC believe that our limited Federal dollars should be directed to projects that hold the most promise for success, whether they are on Federal lands, State lands or private lands, or any combination thereof.

One provision of H.R. 3558 I am particularly interested in is Section 7, the Rapid Response Capability to Harmful Non-native species. When it comes to fighting invasive species such as noxious weeds, I feel we need to attack the problem as if it were a wildfire, move resources into the problem area, eradicate the problem and don't leave until the threat is eliminated.

In closing, the National Cattlemen's Beef Association and the Public Lands Council support the goals of H.R. 3558 and support the efforts of this Committee to address invasive species issues. However, we are concerned that H.R. 3558 will not adequately address the non-native invasive species problems, particularly noxious weeds. Nonetheless, we look forward to working with the Committee to ensure that our efforts to manage and control these harmful species are targeted in the most efficient manner possible. Thank you for the opportunity to testify before your committee. I will gladly answer any questions you may have.

Mr. GILCHREST. Thank you, Mr. O'Keeffe.

Mr. Riley?

STATEMENT OF TERRY Z. RILEY, DIRECTOR OF CONSERVATION, WILDLIFE MANAGEMENT INSTITUTE

Dr. RILEY. Thank you, Mr. Chairman, for inviting the Wildlife Management Institute to speak before this Committee on noxious weeds and House bill 3558. I am not going to read my comments today. We have been over a lot of the stuff already, and if you will, I please ask that my written comments be submitted for the record.

Mr. GILCHREST. Without objection.

Dr. RILEY. We have talked a lot about how many millions of acres and maybe hundreds of millions of acres are impacted by noxious weeds and other invasive nonnative species throughout our country. However, just looking at the invasion rate, how fast things are deteriorating from the state we are right now, the estimate, as best we can determine, is about 10,000 acres per day.

Now, 10,000 acres a day may seem big to some people, and perhaps to Mr. O'Keeffe 10,000 acres isn't an awful lot to graze on out in Oregon. But a lot of people might have trouble with understanding what 10,000 acres is. But if you think about a football field, within the bounds of a football field, that is about an acre. So 10,000 of those lined up is about the rate that weeds spread each year. Now, 10,000 football fields lined up in a row equals approximately 567 miles in length. It would take an 11-man team quite a long time to score a hit in that field, obviously, because that is a tremendous amount of area. And that is the issue. Just holding the invasion rate so that it is not increasing any throughout a year, it takes that kind of an effort, which requires an awful lot of money.

This is such a big problem that nobody can get their arms around it very well, and it is perplexing to anybody out there who is dealing with recreation, with ranching, with farming, with all the other impacts that this has, including fish and wildlife habitats that are, again, almost immeasurable. We don't know what impacts these are having on all the native species we have in the country. But we do know species like ground nesting birds have experienced the longest long-term decline of any species of birds in North America. Nearly 180 species of birds are declining fairly rapidly, and eventually these birds, particularly those that nest on the ground, are being impacted so severely that many will have to be listed as threatened or endangered within our lifetimes, if we don't somehow have a system or process to treat noxious weeds and other invasive species.

Now, obviously H.R. 3558 takes the most important first step, and that is to organize from a national level a process that we can go out and actually begin to treat this with a coordinated effort throughout the entire country. The next phase, as you have done with this bill, is to empower the States to coordinate effort among their agencies and all the stakeholders within the State to begin to identify where those areas are located, where the hot spots occur, and what the real problems are. Then hopefully, those State efforts will prioritize where the money needs to go.

If we just throw the money up in the air and hope it lands in the right spot, we are going to do what we have been doing for years and years and years. We have heard other people say, well, we think we might be able to control it here or there. But I can

guarantee you, anybody who has actually treated noxious weeds on the ground—and I was a certified pesticide applicator for 5 years in South Dakota in one of my previous jobs with the Forest Service, and I can tell you, all the years that we worked there putting 10,000 pounds of Tordon down every single year on that district, we did not stop the spread of those weeds. Ten thousand pounds of Tordon every single year on that district did not stop it.

So it is going to take a major effort to get this stopped. And the only way we are going to know the cost of that is to go out and pull together the State planning efforts, conduct an assessment of what problems they have, and then let the States empower the local watersheds, the local counties. We have 3,000 counties in this country right now that need to be working toward addressing this problem.

I have a few things that I would like to recommend, just specifics, and they do talk just specifically about a coordinated effort from the very top to the very bottom and get as many stakeholders at the table as possible—the State wildlife agencies, agricultural departments, the Federal agencies, the local governments, and all of the other people out there who are the local people, the ranchers that Mr. O'Keeffe said are out there and have to deal with this on an everyday basis. Their lives and their livelihood are affected terribly by this. There are no bright spots on the horizon for a lot of these people, and we have to somehow make the American people feel that we are actually going to address this.

Thank you.

[The prepared statement of Mr. Riley follows:]

Statement of Dr. Terry Z. Riley, Director of Conservation, Wildlife Management Institute

Introduction

Messrs. Chairmen, I am Terry Z. Riley, Director of Conservation for the Wildlife Management Institute (WMI). The Wildlife Management Institute was established in 1911, and is staffed by professional wildlife scientists and managers. Our purpose is to promote the restoration and improved management of wildlife and other natural resources in North America.

Thank you for giving us the opportunity to offer our insights on H.R. 3558, the Species Protection and Conservation of the Environment Act. The debate that will occur on invasive weeds is not a do or don't proposition. The economic viability of farms and ranches is dependent on a national, coordinated effort to control the spread of invasive weeds, and H.R. 3558 will serve as a catalyst to bring the affected parties together to ensure success. Production of wildlife, agricultural crops, and livestock already have been compromised, and farmers and ranchers are losing billions of dollars each year to weeds.

WMI commends all three Subcommittees for initiating this dialog. The seriousness of the invasive weeds issue cannot be overstated, and we urge the Subcommittees to complete work on H.R. 3558, or similar legislation, that will enable our country to begin aggressive and long-term control of invasive weeds.

We are concerned about the accelerating spread of invasive exotic plants, or "weeds", on public and private land. Some estimates indicate that exotic invasive plants are spreading at a rate of about 10,000 acres per day. The following examples of increased weed populations on private, state, and federal lands illustrate the devastation underway: In Montana spotted knapweed increased from a few plants in 1920 to 5 million acres today; in Idaho rush skeleton weed went from a few plants in 1954 to 4 million acres today; in Northern California yellow starthistle increased from 1 million acres in 1981 to about 15 million acres today. Imagine how concerned and vocal ranchers, sportsmen, and environmentalists would be if 5 million acres of rangeland or backcountry had been bulldozed or paved, or locked up and lost for any human use. In many of these cases we are talking about destruction of land that will be very hard, if possible at all, to restore to its former condition. Our coun-

try has spent millions restoring the integrity of our waters under the Clean Water Act, but invasive weeds represent a challenge as great to that integrity as what we faced from water pollution. Thousands of watersheds on public and private land are undergoing the greatest permanent short-term degradation in their recorded history—with fish and wildlife habitat and livestock forage suffering the greatest losses.

Local cooperative approaches offer the best opportunity to prevent and control weeds within a specific watershed, particularly when they address problems identified in a State or regional assessment. In a few states, Weed Cooperatives or County Weed Boards are bringing land owners and operators, utility companies, county and state road departments, State fish and wildlife agencies, federal land management agencies, businesses, conservation organizations and public land users together to attack this insidious plague of weeds.

Federal and private funds through the National Fish and Wildlife Foundation's "Pulling Together Initiative" already are providing local cooperatives with the funds they need to develop and implement long-term plans to control invasive weeds within local watersheds. Over 200 weed control cooperatives have been supported by the "Pulling Together Initiative" since 1998, however, more than 250 weed cooperatives submitted project proposals to the National Fish and Wildlife Foundation that went unfunded. A wide array of partners have contributed millions of dollars to these cooperative weed-control ventures, leveraging nearly 2 non-federal for each federal dollar committed to the program. The Wildlife Management Institute has been the grantee on one of these "Pulling Together Initiative" projects since 1998 that has brought together 14 federal, state, county and private partners to collectively control the spread of purple loosestrife up the Missouri River and its tributaries in Nebraska and South Dakota. These diverse groups enthusiastically come together to fight a common enemy. Unfortunately, in most areas and in most watersheds, these cooperative efforts to control and eradicate weeds are not yet in place, or have not been able to secure funding.

The technology is available to cooperatively bring the spread of invasive weeds down over the long term to a level approximating "no net increase"; along with making good progress at controlling and restoring some large infestations. However, the cost to apply and coordinate the delivery of this technology will not be low. Without substantial long-term federal funding that is leveraged with state and private resources, vast areas will become degraded permanently as these invasive weeds spread across our country.

Only now are we beginning to see the danger that lies ahead. There is great economic efficiency in increasing investments now to keep relatively healthy watersheds from becoming severely infested by weeds. Enormous increases in investments will be needed to restore land once it is seriously infested. With prompt action now, these disasters can be avoided, or at least effectively managed.

Over the past 2 years, our nation experienced some of the most devastating wildfires we have seen in some time; burning nearly 8 million acres and destroying immense amounts of public and private property. While most of those fires were ignited naturally by lighting strikes, the fuels that carried those fires often were invasive weeds, such as cheatgrass, that have invaded millions of acres of our western rangelands.

Congress immediately responded to these disastrous fires by allocating nearly 2 billion dollars in fiscal year 2001 to aggressively deal with the wildfire hazards across the country on public and private land. While exotic invasive weeds do not destroy homes as do catastrophic wildfires, and thus do not receive the interest of the Press, they are doing just as much if not more permanent damage to the lives and livelihood of farmers and ranchers over a much larger area of our country.

Recommendations

House Bill 3558 lays the foundation to aggressively address the invasive weeds catastrophe, but we have a few concerns that you might consider as you continue to develop this legislation. Specifically, as your deliberations on H.R. 3558 proceed, we ask that you include provisions in the bill to provide:

- Sufficient and long-term funding on public and private land;
- A watershed-based approach to controlling weeds;
- Coordinated weed control projects on public and private land;
- Assurances that all nonnative invasive weeds are addressed;
- Requirements to leverage non-federal funds;
- Opportunities to fund multi-state weed control projects;
- Expanding the role of the National Fish and Wildlife Foundation; and

- A primary focus on wildlife and fish species that are experiencing long-term declines, but are not yet listed as threatened or endangered under the Endangered Species Act.

We strongly urge the Subcommittees to address the issue of annual and long-term funding needed to control invasive nonnative weeds on our Nation's public and private lands. Local cooperative efforts to control invasive nonnative weeds must have some assurances that funding will be available to help plan and implement their programs. Federal land management agencies also must have the funds to control weeds on our public lands, and there must be methods developed to ensure coordination between weed control efforts on public and adjacent private lands.

We strongly urge the Subcommittees to commit at least $100,000,000 per year for nonnative invasive weed control projects on private land, and to commit at least 5 years of funding.

We also urge the Subcommittees to allocate sufficient funds to the federal land management agencies to control noxious weeds on public lands. For example, the Bureau of Land Management needs at least $15 million in fiscal year 2003 to implement their weed control program, and they will need at least $30 million per year once the program is fully implemented. Congress provided $8 million in fiscal year 2001 to the USDA Forest Service to control invasive weeds on 150,000 acres, but already there are over 8 million acres of the agencies' 192 million acres that are infested by nonnative invasive weeds. Much more funding is needed to stop the spread of weeds on federal land.

We are concerned that H.R. 3558 may reduce funding for other natural resource programs within the Department of the Interior (DOI) in an attempt to balance the federal budget. However, without clearly identifying the source of funding (new money or transfer from other programs), we believe there will be attempts to raid existing wildlife programs within DOI. We recommend that H.R. 3558 clearly identify the source of funds necessary to protect and restore wildlife and fish habitats that have been impacted by invasive weeds.

Most successful efforts to control weeds have been those that address the problem within an entire watershed. We recommend that the H.R. 3558 be modified to require that all programs and projects using federal dollars to control weeds must be based on a watershed planning and implementation approach.

There are many nonnative invasive weed control programs already in existence on public and private land. However, many of these programs do not bring together all private and public agencies, organizations and stakeholders to mount a coordinated effort to control weeds. Government funding for control of invasive weeds on private land traditionally has come from the various federal and state departments of agriculture. We are concerned that federal funding through the Secretary of the Interior might disrupt these traditional cooperative ventures. We recommend that the Secretaries of the Interior and Agriculture be equally involved in the planning and implementation of any nonnative invasive weed control program on public and private lands.

We are concerned that efforts to control invasive weeds might only focus on the widespread infestations in the western states. Our Nation's waterways often provide the avenues by which invasive weeds spread throughout a watershed, and many of our waterways (rivers, streams, lakes and wetlands) are completely choked and dysfunctional because of weed infestations. We urge the Subcommittees to address all nonnative invasive weeds in H.R. 3558, including those weeds in waterways, wetlands, farmlands, pasture and haylands and our western rangelands.

Almost all local agencies, organizations, and stakeholders are concerned about invasive weeds, and most are eager to commit their own time and resources to provide control. The National Fish and Wildlife Foundation (NFWF) has demonstrated that it can leverage millions of dollars from a wide array of private and public partners to control weeds through its Pulling Together Initiative. We recommend that H.R. 3558 recognize the proven model for leveraging private resources for weed control that has been successfully employed by the NFWF, and to continue to use the NFWF as an integral player in achieving the goal of promoting greater cooperation to control harmful weeds.

Often nonnative weeds infestations cross boundaries created between administrative, political and state entities. We are concerned that H.R. 3558 will not accommodate nor encourage cooperative efforts across all of these boundaries, such as a multi-state weed control project. We recommend that the H.R. 3558 provide funding to a broad array of cooperative ventures to control invasive weeds, including multi-state projects.

Finally, we are concerned that H.R. 3558 may not address adequately the effects of invasive weeds on fish and wildlife species that are in serious decline. The habitats of a large number of native fish and wildlife species are being destroyed by

invasive weeds. Species like the sage grouse are in serious decline, but they are not yet threatened or endangered. Sage grouse are almost completely dependent on vast areas of sagebrush, but millions of acres of these habitats are being destroyed by invasive weeds. Without a clear focus on declining species in H.R. 3558, we are concerned that these native species will be overlooked in favor of those that are listed as threatened or endangered under the Endangered Species Act (ESA). We recommend that the purpose of H.R. 3558 be modified to include the objective of placing priority on restoring habitats of native fish and wildlife species that are in serious decline, but are not yet listed as threatened or endangered under the ESA.

Concluding Remarks

We thank the Chairmen and members of the Subcommittees for inviting the Wildlife Management Institute to testify on H.R. 3558. Economic losses to invasive weeds are staggering, and we are very concerned that wildlife and other natural resources will suffer irreparable harm if we do not act now. We fully support a broad array of active and cooperative weed control ventures on public and private lands, particularly for native fish and wildlife habitats in serious decline. We believe significant and long-term funding is needed to assist these partnerships in controlling weeds within all of our Nation's watersheds. Funding for invasive weed control on our public lands is woefully inadequate to stop the spread of these insidious pests, but we would not support funding for any new weed control program that would be at the expense of other federal natural resource programs or existing cooperative weed control partnerships. Messrs. Chairmen, we respectfully request that our written and oral comments presented here today be entered into the permanent written record of this hearing.

Mr. GILCHREST. Thank you, Mr. Riley.

Mr. O'Keeffe, what kind of invasive problems are you experiencing right now? And how are you working to deal with it?

Mr. O'KEEFFE. Right now in our watershed, we have got three main noxious weeds. They are perennial pepperweed, Russian knapweed, and white top.

Mr. GILCHREST. What was the last one?

Mr. O'KEEFFE. White top. Hoary cress is another name for it perhaps in this region. Anyway, we have got a local working group that prioritizes the effort, and we do a triage to decide how to spend our limited resources at the top of the watershed where there is most chances of spreading, keep them on the properties that are already infested, deal with the satellite infestations.

Mr. GILCHREST. Where do they come from?

Mr. O'KEEFFE. You know, it almost just showed up, like the haying equipment sometimes will spread it, wildlife spreads it. We have got an island on our ranch. There is an island. It is one of the 16 places in the United States for white pelican's nest. There has never been a cow on that island or a piece of machinery. But one day I happened to be out there, and the pepperweed had gotten there. It has to be a wildlife thing in that instance.

But it just comes in. Tourists—or it gets there and gets spread by roads and machinery, wildlife, livestock to some extent. You know, I think livestock sometimes gets too much blame because people like myself, we know what the weeds are. We know where our livestock goes. We watch for the weeds. It is the wildlife and the tourists that come out of the blue that I think create some of the situations that are so hard to get a handle on, or weeds you are not familiar with show up in the middle of nowhere.

Mr. GILCHREST. You said you have a working group.

Mr. O'KEEFFE. We do.

Mr. GILCHREST. Who is in that working group, and where do the funds come from that pay for that eradication?

Mr. O'KEEFFE. The working group, the landowners in the area and the Federal agencies, the State, the Nature Conservancy, they are a landowner but also as an environmental conservation organization, are involved. The BLM, the Bureau of Land Management, is providing the administration for our group so that a rancher doesn't have to go in the evening doing the grant writing and stuff. We apply for grants. We have gotten a grant from the State of Oregon. The type of funding—that is the beauty of these local groups. A lot of these problems that the bill addresses, like addressing the fact of how the weed got there, you know, these working groups, they are not—you are getting the caliber of input where you are not going to put the horse back in the barn and leave the door open. That is the beauty of these working groups.

I know a lot has been said about a nationally coordinated effort, and that is important. But if these working groups are funded and have successes, they will sell themselves. And with the time lost in providing a national coordination, maybe that will be offset by the effectiveness of the early response.

But, anyway, a lot of these issues are taken care of by a good, effective local working group.

Mr. GILCHREST. That is the area that you say the bill duplicates.

Mr. O'KEEFFE. The area that the bill duplicates is mainly in like habitat restoration for wildlife. There are other areas that that is funded from—or there are other possible areas of funding for that.

Mr. GILCHREST. You also said that the most important thing now, which is what you just described, is to put money on the ground, I guess into those local working groups that will use it right away, instead of front-loading the State bureaucracies.

Mr. O'KEEFFE. Yes. You know, our group, we already know what we need, and the groups in neighboring counties, I would hope that they would also. And the process of the State assessment, while that would be valuable, I think that some of these groups are ready to go now. And these groups are busy people with volunteer efforts, and adding the bureaucracy to this effort, I think we could be more effective by—I mean, we have already done our homework. If you fund us real efficiently—

Mr. GILCHREST. You will get going.

Mr. O'KEEFFE. We will have to compete with other groups for our grant, and if they are better organized and better able to spend the money, that will be recognized through the grant process.

Mr. GILCHREST. Mr. Riley, having dealt with something similar in the Dakotas, would you agree with Mr. O'Keeffe? I am not sure how we would massage the legislation, just talk to the appropriators separately to get that funding on the ground immediately for that type of rapid response.

Dr. RILEY. Well, right now we do already have money flowing, as Dr. Chavarria talked earlier. Obviously the National Fish and Wildlife Foundation and a variety of other agencies are making many millions of dollars available in the last 5 or 6 years to do this. And there are other entities out there doing the same thing, and this bill should support those entities to continue on the processes and the wins they have already made. They have already jumped through many of the administrative hoops that Mr. O'Keeffe is speaking of, and I think we need to build on those and

not somehow cripple them by some new level of bureaucracy that we are dealing with.

I think local efforts are—that is the way we are going to stop it. There is no doubt about it. When I made my statements with respect to national and State efforts, I just don't think you can do it just one county at a time without dealing with all the counties around it, too. I think that is the value of the local efforts that are going on right now, and obviously Mr. O'Keeffe sounds like he is in a very progressive one. I have been in one in South Dakota and Nebraska controlling purple loosestrife from moving up the Missouri River, and we are holding the line where the Missouri River flows from South Dakota into Nebraska, and that is funded through the National Fish and Wildlife Foundation's Pulling Together Initiative. That money comes from six different agencies, Federal agencies.

But we also have many others that are partners in that program, including Indian tribes, local governments, and many ranchers and farmers along the Missouri River. They all know the problem. It is coming up the stream—I mean up the river, and all of its tributaries, and we are doing everything we possibly can to hold it right where it is. And that may be all we accomplish. Those efforts are where the rubber meets the road.

If this process somehow circumvents them or slows them down, I think it won't be good, so we need to address that part of it, too.

Mr. GILCHREST. We want to make sure that the language fits the need of all areas of the country, especially your particular situation, Mr. O'Keeffe, if you already have a working group put together, you have a rapid response team. We think that the bill has the capacity to do that now. The last thing we want to do is create another layer of bureaucracy and complicated paperwork. And I think Mr. Shannon talked about making some of these applications for grants user-friendly, which is what we want to ensure will happen.

Mr. Riley, you said you used—I am just curious, what was it Tordon?

Dr. RILEY. Tordon, t-o-r-d-o-n.

Mr. GILCHREST. Tordon, to eradicate noxious weeds—in South Dakota?

Dr. RILEY. The Black Hills of South Dakota.

Mr. GILCHREST. Black Hills of South Dakota. It is a nice place, right down the street from Wal-Drug, I guess.

Dr. RILEY. Yes, that is right.

[Laughter.]

Mr. GILCHREST. Just don't let anybody on Route 90 come to the Black Hills. You probably won't have those tourist problems with invasive weed.

We are talking about eradicating or holding the line. You made some comment about using Tordon, and every year you had to continue to use Tordon. What would you do differently if you had adequate resources to eradicate those invasive weeds?

Dr. RILEY. Well, in the early 1980's, when we were using Tordon, the biological agents we have talked about, such as other insects or things that might affect the plants, were not very well

developed. We were trying to use those at the time. But it is going to take an integrated approach.

Our problem is without some kind of guidance or control about how you put the stuff down—in other words, if you don't have a whole bunch of partners working on the same problem, you can throw your dollars over here and throw your dollars over there—and 10,000 pounds of Tordon might sound like a lot of Tordon, but we probably could have used 100,000 pounds to try to just keep up with the invasion that was going on in that district.

It is a very insidious problem. So the only thing I can say is from what I have learned from the early 1980's to now, we need a coordinated effort, just like Mr. O'Keeffe is talking about. And those parties that are involved in that, all those stakeholders need the money to get it done on the ground. They will get better with every succeeding year they are on it, but it is not something that is going to just be a 5-year program. This has to continue on for a long time because it is a very significant plague throughout the whole country, and we have to stay with it. And these organizations, the longer they work, the better they will get at it, the more technology we will have, and we will get it eventually, but we just have to stay with it.

Mr. GILCHREST. So you feel that as the groups become more sophisticated, the relationship strengthens, the science becomes more readily available, that other than—there would be a whole myriad of ways that we could eradicate a lot of these invasive species. Is there the same kind of effort, Mr. O'Keeffe, on your ranch with the three invasives that you described? Could you tell us the kind of damage they do? And is there some mechanism to plant native species that could outpace the invasive species?

Mr. O'KEEFFE. Of course, the problem with these invasive species is that the native species aren't set up to compete with them. We don't have at this point a viable biological control for any of those species right now. And another thing that concerned me about 3558 is that it is appeared to discourage the use of pesticides, or herbicides, and I think it is so important to realize that on the satellite infestations, if they just start out, a timely application the first season with a herbicide eliminates that issue. And that stops further satellite infestations, and it prevents a situation where the population spreads and then you have got different landowners using herbicides in a much larger amount later.

So I think one thing to encourage is the real timely use of appropriate herbicides on the early populations rather than just a statement discouraging the use of pesticides. But we do try to use an integrated approach. We wish we had a biological agent. But we try and do all the right things, not transport hay out of fields where the weeds are known. We feed it in those fields. Those types of things are definitely a part of our plan.

Mr. GILCHREST. I apologize, Mr. O'Keeffe. I forgot about a meeting that I had with two other members at 1 o'clock, and I think it is about 5 after 12 now, so that gives us about—is it 5 after 12:00? Oh, it is 5 after 1. We have another 50 minutes, I guess, I am just kidding.

[Laughter.]

Mr. GILCHREST. Two other quick questions then. On invasives or controlling invasives, whether or not you use chemicals, does land-use practice have anything to do with controlling the invasives or contributing to the problem? In the East—I come from an agricultural area, and a lot of times the rotation of the crops can have a very positive impact on the control of noxious weeds, invasive weeds, or things like that. And I am not sure if you have the same rotation out there being on a ranch instead of a grain farm.

Mr. O'KEEFFE. You are very right that the practices can have a lot to do with the weeds. The pepperweed issue that we are faced with, we have got native meadows that we manage for hay and livestock grazing, and the pepperweed tends to try and create a monoculture in those. And, of course, a crop rotation isn't appropriate there. They are still the same vegetative community they were at settlement times, basically. So you don't have the opportunity to do a crop rotation, but you have other opportunities to try and minimize the disturbance, like ditchwork and any disturbances tend to create a foothold for weeds. So you have got to monitor those things carefully.

Mr. GILCHREST. Thank you.

Mr. Shannon, I guess the last question. You gave us six things that you would recommend. The first one was to expand the scope of the bill and include USDA, demonstration projects, public and private land projects, and things like that. Could you just mention in a little more detail that process and who we should include in the legislation to cover, let's say, somebody like Mr. O'Keeffe and the problem Mr. Riley described, and even some of the situations, if it is appropriate, that we heard about in Hawaii?

Mr. SHANNON. Of course, I deal with forest land and forest landowners, and I am not the right person to answer questions about a cattleman's concerns. I am sorry. But I can tell you that for forest land, we have had as traditional partners for many decades the U.S. Forest Service, and for a long time, APHIS, the Animal and Plant Health Inspection Service.

When gypsy moth had one of these satellite infestations in Arkansas, we went to APHIS. They were a tremendous technical help for us, and a little financial help for us. And it was very successful, use of chemicals to go in there quickly, intelligently applied, and you will have a tough time finding a gypsy moth in Arkansas today.

A good part of the reason is APHIS helped us right from the start, and the forest health people at the Forest Service worked with us thereafter on monitoring. So that is why I think—there is a little language in the bill that says rapid response is undeveloped in America now. I don't think that is accurate. It may be underdeveloped. It needs to be better developed. But we do have some rapid response.

I know APHIS has rapid response. It sounds like Mr. O'Keeffe's group is ready for rapid response. So let's get USDA involved. Let's hold their feet to the fire. They need to help us meet the objectives of the bill.

Mr. GILCHREST. All right. Well, gentlemen, thank you very much. Your testimony has been very helpful to all of us, and I hope the

rest of your day is a good day in Washington. At this point we will insert statements submitted for the record.

[The prepared statement of Mr. McInnis follows:]

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

Expanding global trade and travel have increased the risk of introducing new, exotic organisms. Certain non-native insects, diseases, plants, and animals have had significant impacts on national forests and other forest lands in recent years and have proven difficult to control. Without natural enemies in the forests of the U.S., many exotic organisms have spread at alarming rates. Others have spread slowly, becoming established residents before the need for control is evident.

A recent brochure by the Forest Service, America's Forests: 1997 Health Update, describes the effect of invasions of exotic pests on our forests:

"Large numbers of nonnative (exotic) species are displacing naturally occurring species in a wide array of ecosystems. They often have no natural control factors and thus can cause extensive damage. Their effects have been devastating over the past century—including the demise of the American chestnut due to chestnut blight, decreases in white pine from blister rust, loss of hardwoods to gypsy moth, and the killing of elms by Dutch elm disease. More recently, exotic plants such as mellaleuca and miconia have invaded large acreages in Florida and Hawaii, respectively. These exotic plants have displaced the native vegetation, thereby affecting wildlife habitat."

A number of cooperative relationships exist to address the identification, management and control of exotic pests. For example, many state and federal agencies undertake cooperative inventory, monitoring and control programs. Forest Service research stations and universities conduct research to reduce the impact and improve control of introduced pests. However, there is more we can and should do to protect and restore our lands. I look forward to hearing from the witnesses and partners here today to explore additional mechanisms to aggressively treat the invasive species problems before our Nation.

Mr. GILCHREST. Thank you very much. The hearing is adjourned.

[Whereupon, at 1:11 p.m., the Subcommittee was adjourned.]