

**TESTIMONY OF
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BEFORE THE

**SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
SUBCOMMITTEE ON PUBLIC LANDS, FOREST AND MINING**

CONCERNING

**S. 2240, FEDERAL LANDS INVASIVE SPECIES CONTROL, PREVENTION, AND
MANAGEMENT ACT**

April 28, 2016

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to testify before you today on S.2440, the Federal Lands Invasive Species Control, Prevention and Management Act, and the role of the Forest Service in protecting forests and grasslands from invasive species. The Forest Service is only one of several agencies of the U.S. Department of Agriculture (USDA) committed to the prevention, detection, control, management and eradication of invasive species, and to restoring the structure and function of affected aquatic and terrestrial ecosystems on all lands. As such, the USDA supports the goals and use of collaborative partnerships set out in the bill to improve the management and control of invasive species on public lands and waters. As we have previously testified on similar legislation, we have identified some concerns with the bill as introduced and would like to work with the sponsors and the committee, as well as other agencies, on continual improvement in this challenging management area.

Background

Invasive species are among the most significant environmental and economic threats facing our Nation. Aquatic and terrestrial invasive plants, pathogens, vertebrates, invertebrates, algae, and fungi have become established on millions of acres across North America. These infestations are degrading watershed condition and ecosystem functionality, reducing forest and rangeland productivity, increasing the risk of wildfire and soil erosion, causing declines in recreational use and enjoyment, negatively impacting human health and safety, endangering livestock, and threatening native fish and wildlife populations and their associated habitats, causing declines in property values, and undermining the economy at all levels. Invasive species cause billions of dollars in damage each year in the United States. A 2001 study by Pimentel et al. estimated the total damage from invasive species worldwide at more than \$1.4 trillion per year, which, at the time of the study, represented nearly 5 percent of the world economy.

Burgeoning global trade and transportation have facilitated the spread of many species among continents well beyond their native range. With a continued increase in the number of people living in, enjoying, and using forests, grasslands, and water resources, the likelihood of invasive species spreading through transportation and recreational activities is also rising. As a result, many species of invasive plants, pathogens, vertebrates, invertebrates, and other harmful exotic species have been introduced to our Nation's aquatic and terrestrial ecosystems. Many of these have become established within these ecosystems.

Responsibilities and Capabilities of the Forest Service

The Forest Service plays an important role in the Nation's efforts to address the threat of invasive species across the landscape through our National Forest System, State and Private Forestry, Research and Development, and International program areas. In this testimony we will explore how individually and collectively these programs work together to address invasive species threats.

With internationally recognized land management and scientific expertise, the Forest Service is well suited to address the many challenges of invasive species. The Forest Service continues to play an important national and international leadership role in advancing the understanding of the invasive species problem. The wide ranging authorities of the Forest Service allow us to work with partners to combat invasive species across all lands, public and private. We also develop methods, tools, and approaches, through which these harmful exotic species can be detected, prevented, controlled, and eradicated.

At the national, regional, State and local levels the Forest Service works extensively with county, State, Tribal, Federal, and private stakeholders to proactively implement invasive species management activities across the broader landscape. Through an "all lands approach" the Forest Service provides a wide range of technical and financial assistance to help manage invasive species. The Forest Service works closely with State forestry agencies to implement State Forest Action Plans to protect the forest from threats.

The Forest Service has also been a major financial supporter for the establishment of local invasive species cooperatives, including Cooperative Weed Management Areas (CWMAs) and Cooperative Invasive Species Management Areas (CISMAs), for nearly two decades, under the National Fish and Wildlife Foundation's "Pulling Together Initiative" grant program. This Federal grant program led to the establishment and sustainability of dozens of CWMA and CISMA areas across the nation to expand public and private partnerships against invasive species.

In each region of the country, the Forest Service is also a partner in implementing priority invasive species management actions identified in State invasive species management plans, supporting the implementation of the invasive species components of State Wildlife Action Plans, helping to develop local and regional invasive species management strategies, and

providing local support to prevent the spread of invasive species. As an example, the Forest Service plays several important roles in implementing the USDA obligations and priorities under the national Quagga-Zebra Mussel Action Plan, developed through a Federal-State collaboration to prevent and control the spread of these high-risk invasive mussels across the U.S. These partnerships help achieve our agency watershed restoration and protection goals.

The Forest Service also provides interagency leadership and support as a member of the Federal Interagency Committee for the Management of Noxious and Exotic Weeds, the Aquatic Nuisance Species Task Force, and the Federal Interagency Committee for the Management of Invasive Terrestrial Animals and Pathogens. In addition, the Forest Service serves as an active member of the Invasive Species Committee of the Association of Fish and Wildlife Agencies. Through these partnerships the Forest Service continues to expand national and State efforts to address the invasive species threat.

Forest Service Invasive Species Management Activities

As one of the largest Federal land management agencies in the country, the Forest Service has the responsibility for the stewardship of over 193 million acres of public lands within the National Forest System. This vast and nationally significant system extends from Alaska to the Caribbean, and includes examples of nearly every type of aquatic and terrestrial ecosystem in North America. These lands and waters are under tremendous pressures from aquatic and terrestrial invasive plants, algae, pathogens, fungi, vertebrates, and invertebrates. Effective management of these harmful exotic species which threaten the National Forest System and all lands is a critical part of the agency's land stewardship responsibility.

The recognition that national forests and grasslands play a key role in the local, regional, and national battle against aquatic and terrestrial invasive species is reflected by the annual expansion of on-the-ground management efforts to address a wide range of invasive species challenges. To accelerate this expansion, a new national Invasive Species Management Policy for the National Forest System was issued to the field in late-2011. It is viewed as a comprehensive national policy for invasive species management in the Federal land management sector. The new policy defines and clarifies the authorities, scope, roles, and responsibilities associated with National Forest System management activities against aquatic and terrestrial invasive species. A few examples of the requirements in this new policy include:

- Requiring that Forests work closely with local communities, including State, local, and Tribal interests, to address a variety of invasive species challenges across the landscape.
- Increasing program transparency, performance accountability, and management effectiveness against priority aquatic and terrestrial invasive species at all levels.

- Requiring the use of invasive species-free materials and products, and the decontamination of vehicles and equipment to reduce the spread of aquatic and terrestrial invasive species to, and from, national forests and grasslands.
- Prioritizing prevention, and early detection and rapid response, activities to maximize management efficiency over time.

Forest Service invasive species management performance is outcome driven, with a focus on treating and restoring priority areas to improve watershed condition and reduce the long-term impacts of invasive species. To achieve this, national forests and grasslands typically treat nearly 400,000 acres of priority aquatic and terrestrial invasive species infestations annually using an integrated management approach. Since 2007, more than two million acres of lands and waters have been restored to protect against aquatic and terrestrial invasive species across National Forest System lands and waters; with very high treatment efficacy rates each year.

The Forest Service's State and Private Forestry programs provide a wide range of assistance to States, Tribes, and others to better manage private and other public natural resources. The Forest Service provides technical and financial assistance to State natural resource and agricultural agencies, Tribal governments, and other Federal land management agencies to respond to and manage forest pests that threaten the Nation's 851 million acres of rural and urban forests of all ownerships. The Urban and Community Forestry program works with community partners in the detection, monitoring, containment, and when possible, eradication of invasive species and provides funding and technical assistance to States to support canopy restoration and management.

We also work closely with sister USDA agencies to coordinate prevention and management of invasive species across all lands. USDA has the largest Federal role in invasive species management because of its responsibility to offer technical assistance to responsible agencies who quarantine goods coming into the country; manage more than 193 million acres of national forests and grasslands; conduct research; and provide technical assistance to the private sector and in large agricultural pest control projects. The USDA Agricultural Research Service (ARS) conducts research in extremely diverse areas involving prevention, control and management of invasive species. For example, ARS provides research in support of action agencies such as the Animal and Plant Health Inspection Service (APHIS), to reduce the rate of introduction of invasive species, and to rapidly detect, identify and eradicate incipient species.

APHIS is a multi-faceted agency with a broad mission area that includes protecting and promoting U.S. agricultural health, regulating certain genetically engineered organisms, administering the Animal Welfare Act and carrying out wildlife damage management activities. APHIS's mission has expanded over the years to include protection of public health and safety as well as natural resources that are vulnerable to invasive pests and pathogens.

The Natural Resources Conservation Service (NRCS) has become a conservation leader for all natural resources, ensuring private lands are conserved, restored, and more resilient to a changing climate. NRCS helps agriculture producers and private landowners tackle invasive species problems in four major ways: technical and financial assistance to manage invasive species; conservation initiatives that work at a landscape scale to address natural resource concerns, including invasive species; Conservation Innovation Grants with partner entities to support development and implementation of innovative approaches and strategies to address invasive species; and Plant Materials Center research geared toward invasive plant species management and restoring areas where invasive plant species have been removed.

The Forest Service Forest Health Protection program directs and implements measures to prevent, detect, contain, and suppress unwanted native and invasive insects, pathogens, and plants affecting trees and forests. Since the start of FY 2014, State and Private Forestry programs have provided \$1.8 million in essential matching funds and technical assistance to State governments to combat economically significant weed threats to State and private forest lands. Since 2000, the Forest Service, working in partnership with States and other Federal agencies, has implemented a national Slow the Spread (STS) strategy to minimize the rate at which gypsy moth spreads into uninfested areas. The STS program has reduced the spread of gypsy moth more than 60 percent from the historical level of 13 miles per year. In only 12 years, this program has prevented impacts on more than 100 million acres.

Forest Health Protection and partners from cooperating States conduct an annual collaborative forest pest surveys on over 400 million acres of Federal and cooperative forest land. Additionally, we have developed a pest website (<http://foresthealth.fs.usda.gov/portal/Flex/APE>) and the annual report, Major Forest Insect and Disease Conditions in the United States (http://www.fs.fed.us/foresthealth/publications/ConditionsReport_2012.pdf), to track and report on invasive insects and diseases affecting our Nation's forests.

In FY 2013, Forest Service Research and Development delivered 193 invasive species tools including the identification of key pathways for invasion by new forest pests; best management practices for significantly reducing invasive plants spread during timber harvesting operations; evaluating the establishment of a biological control agent for emerald ash borer (EAB); and a model of future pest risk that can be used to make prevention efforts more cost effective.

The Forest Service International Programs also work to protect our forests from invasive species damage. For example, the program works with Chinese counterparts who have partnered with us to address one of the most destructive invasive forest pests, the EAB. The Forest Service continues to work with ARS to better understand why the borer is so resilient and pervasive. This will help predict and prevent potential future outbreaks by related wood boring beetles. With an aim of identifying biocontrol mechanisms, a partnership was formed between the Forest Service's Northern Research Station, the ARS and counterparts in China. With support from International Programs, the team is working to find natural enemies of EAB in its native range.

Strategic Approach to Invasive Species Management

To ensure the continued production of needed goods, services, and values from our Nation's terrestrial and aquatic ecosystems, the Forest Service takes a strategic approach for managing invasive species across all program areas. This approach includes prevention, early detection and rapid response, control and management, restoration and rehabilitation, and technical assistance.

Prevention

The most effective strategy to protect forests, waterways, and grasslands from invasive species is to prevent invasive species introduction and establishment. Containing known infestations is also important for blocking the spread of invasive species from infested lands to surrounding areas. We coordinate with Federal and State regulatory agencies to understand pathways for introductions, implement quarantine regulations, survey for invasive species, and educate the public about invasive pest threats and how to prevent the spread of invasive species.

Forest Service researchers in partnership with APHIS are working with industry partners to reduce the introduction of invasives into the U.S. through shipments of wood products and packaging and the live plant trade. Additionally, Forest Service scientists and managers at the Eastern and Western Threat Centers are working closely with domestic and international partners to develop a comprehensive database for prediction, prevention, and proactive management of invasive plants. A public education campaign developed by the Forest Service in partnership with Wildlife Forever recruits hunters, anglers, and recreational boaters to help prevent the spread of aquatic invasive species such as quagga and zebra mussels and Eurasian milfoil.

Early Detection and Rapid Response

As a critical second-line of defense against invasive species threats, the Forest Service develops and implements efficient survey and monitoring tools and technologies to facilitate early detection of aquatic and terrestrial invasive species across the landscape, including in urban areas, and to rapidly assess their potential impact on the environment. Using a coordinated and collaborative approach with local, State, Tribal, and other Federal partners, the Forest Service is then able to respond rapidly to new infestations to eradicate or contain those populations before they can spread.

The Forest Service has supported development of a mapping system used nationally by cooperating agencies and weed management organizations to document distribution of invasive species, and has developed an integrated user interface to efficiently collect and map inventory and treatment information for all terrestrial and aquatic invasive species across the National Forest System. Additionally, Forest Service scientists developed a test capable of detecting the fungal pathogen that causes white-nose syndrome (WNS) in bats. The test is being used to identify infested caves, so that Forest Service and other land managers might selectively restrict access to those caves and mines to help slow the spread of WNS.

Control and Management

The Forest Service directly intervenes to manage populations of invasive species that threaten forest and grassland health and sustainability. Rapid response following early detection is used to eradicate new infestations. If eradication is not feasible, Integrated Pest Management (IPM) and adaptive management techniques are implemented to help maintain ecosystem function. This includes research and management to increase the resilience of threatened ecosystems to mitigate the impacts of pests. Using new research tools, and the authorities and requirements defined within our new Invasive Species Management Policy (Forest Service Manual 2900), the Forest Service coordinates closely with external stakeholders to implement effective control and management activities on millions of priority areas throughout the National Forest System.

For example, the Jackson and Buffalo Ranger Districts of the Bridger-Teton National Forest in Wyoming include the majority of the land within the Jackson Hole Weed Management Association, where the Forest Service identified approximately 7,000 priority acres for early detection and immediate eradication efforts. In total, the Forest Service successfully eradicated 15 priority species from those 7,000 acres. When oak trees started dying in the San Francisco Bay Region, the Forest Service Pacific Southwest Research Station developed a collaborative research response that helped identify the cause—a water mold previously unknown to science. The combined efforts of the Forest Service with APHIS and numerous partners via the California Oak Mortality Task Force have reduced the human-assisted spread of Sudden Oak Death and helped communities in the 14 infested coastal counties in California and Oregon deal with the infestation.

Restoration and Rehabilitation

Restoring landscapes that have been impacted by invasive species or associated management activities is necessary for improving ecosystem integrity and function and may reduce vulnerability to invasive species establishment in the future. Restoring and maintaining the health, functions, and productivity of areas affected by invasive species is consistent with management guidance on restoring national forests and the effective use of native species.

For example, In order to restore cutthroat trout populations to streams, non-native trout are replaced with genetically pure cutthroat populations. After a decade of restoration efforts, Cherry Creek, on the Gallatin National Forest, now contains the largest genetically pure population of this cutthroat trout subspecies in the upper Missouri River drainage area. The Forest Service strives to utilize cost-effective methods; however we note the importance of providing discretion to land managers to choose appropriate methods, in full consideration of a balance of land management objectives. There may be situations in which the lowest cost option for invasive species management is not the best option for achieving multiple objectives on the landscape.

Technical Assistance

The U.S. Forest Service has some concerns that we welcome working with the subcommittee to address. We are concerned with establishing categorical exclusions without input from those most affected by their application, and are concerned that the categorical exclusion in section 5(c) is overly broad and could call into question our collaborative work with partners and other stakeholders. The Forest Service has successfully established categorical exclusions under existing authorities, such as those focused on restoration, and could support a call for a rulemaking to establish any appropriate and necessary categorical exclusions for invasive species. This would enable us to focus on gaps in current categorical exclusions and strengthen our relationships with our partners and other stakeholders.

Conclusion

The invasive species issue is considered a high priority by all program areas of the U.S. Forest Service. We believe the Forest Service collaborative approach to invasive species management enhances our ability to work together by building on each other's strengths and authorities. In addition, our Forest Service personnel work closely with local, county, State, and Tribal governments; Cooperative Weed Management Areas; Cooperative Invasive Species Management Areas; our departmental partners NRCS, ARS and APHIS; and other organizations in the public and private sectors to promote a collaborative approach to mitigate, manage, and if necessary, adapt to aquatic and terrestrial invasive species threats across the landscape.

I would like to thank the Chairman and subcommittee members for your interest in invasive species management, and look forward to working with you to refine some aspects of this bill. I welcome any questions you may have for me at this time.