

**STATEMENT OF
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U.S. DEPARTMENT OF AGRICULTURE
BEFORE THE
COMMITTEE ON NATURAL RESOURCES,
SUBCOMMITTEE ON PUBLIC LANDS AND ENVIRONMENTAL REGULATIONS
UNITED STATES HOUSE OF REPRESENTATIVES**

**CONCERNING
INVASIVE SPECIES MANAGEMENT ON FEDERAL LANDS
MAY 16, 2013**

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to testify before you today on the role of the Forest Service in protecting forests and grasslands from invasive species. The Forest Service is 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.

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, 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. Pimentel et al. (2001) estimated damage from invasive species worldwide totaled at more than \$1.4 trillion per year.

Burgeoning global trade and transportation have facilitated the spread of many species among continents well beyond their native range. With the number of people living in, enjoying, and using forests, grasslands, and water resources continually increasing, 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 forest from threats.

The Forest Service has also been a major financial supporter for the establishment of 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 (QZAP), developed through the interagency Aquatic Nuisance Species Task Force to prevent and control the spread of these high-risk invasive mussels across the US. 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 (FICMNEW), and the Federal Interagency Committee for the Management of Invasive Terrestrial Animals and Pathogens (ITAP). In addition, the Forest Service serves as an active member of the Invasive Species Committee of the Association of Fish and Wildlife Agencies (AFWA). 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.

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.

Forest Service **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 (1) conduct port-of-entry inspections and offer technical assistance to responsible agencies who quarantine goods coming into the country, (2) manage more than 192 million acres of national forests and grasslands, (3) conduct research, and (4) provide technical assistance to the private sector and in large agricultural pest control projects.

The U.S. Department of Agriculture (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.

The Animal and Plant Health Inspection Service (APHIS) is a multi-faceted Agency with a broad mission area that includes protecting and promoting U.S. agricultural health, regulating genetically engineered organisms, administering the Animal Welfare Act and carrying out wildlife damage management activities. APHIS' 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 Resource Conservation Service (NRCS) has become a conservation leader for all natural resources, ensuring private lands are conserved, restored, and more resilient to environmental challenge. NRCS helps private landowners tackle invasive species problems in four major ways: 1) technical and financial assistance to manage invasive species and pests; 2) conservation initiatives that work at a landscape scale to address natural resource concerns, including invasive species; 3) Conservation Innovation Grants with partner entities to support development and implementation of innovative approaches and strategies to address invasive species; and 4) Plant Materials Center research geared toward invasive species management and restoring areas where invasive species have been removed.

The Forest Service Forest Health Protection programs direct and implement measures to prevent, detect, contain, and suppress unwanted native and invasive insects, pathogens, and plants affecting trees and forests. In FY 2012, State and Private Forestry programs provided \$1.4 million in essential matching funds and technical assistance to state governments to combat economically significant weed threats to state and private forest lands.

Forest Health Protection and partners from cooperating states conduct an annual collaborative forest pest survey on over 400 million acres of forest land. We recently completed high resolution maps for over 250 forest tree species in the US that will be used to guide these surveys in the future. Additionally, we have developed a program called the "Forest Disturbance Mapper," a near real-time web portal that uses remote sensing to detect disturbances caused by forest pests, and an interagency database to detect and track thousand cankers disease of walnut and other pests.

In FY 2012, Forest Service **Research and Development** delivered 169 invasive species tools including the identification of key pathways for invasion by new forest pests; methods for detecting, monitoring, and controlling the walnut twig beetle; release and recovery guidelines for biological control agents for emerald ash borer; and an assessment of the potential impacts of hemlock woolly adelgid predators.

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 emerald ash borer (EAB). The Forest Service continues to work with the USDA Agricultural Research Service (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 four main elements: **(1) prevention, (2) detection, (3) control and management, and (4) restoration and rehabilitation.**

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 US 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.

Detection

The Forest Service develops and implements efficient survey and monitoring tools and technologies to facilitate early detection of invasive species, including in urban areas, and rapidly assess their potential impact on forest and grassland health. As necessary and appropriate, the Forest Service coordinates these activities with Federal and non-Federal cooperators across all lands.

The Forest Service has supported development of a mapping system used nationally by cooperating agencies and weed management organizations to document distribution of invasive weeds. 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. In cooperation with external stakeholders, the Forest Service conducts research to characterize infestations, to identify factors conducive to infestations, and to develop tools and techniques to cost-effectively eradicate or manage priority invasive species.

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 detection and immediate eradication efforts. In total, the Forest Service successfully eradicated 15 priority species from those 7,000 acres. 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. 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.

Conclusion

In 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 works with local, county, and State 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 invasive species threats across the landscape.

I would like to thank the committee members for their interest in invasive species management, and I welcome any questions you may have for me at this time.