

**TESTIMONY OF DR. MAMIE PARKER, ASSISTANT DIRECTOR FOR
FISHERIES AND HABITAT CONSERVATION, U.S. FISH AND WILDLIFE
SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE HOUSE
NATURAL RESOURCES SUBCOMMITTEE ON FISHERIES, WILDLIFE, AND
OCEANS REGARDING AQUATIC NUISANCE SPECIES**

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Good afternoon, Chairwoman Bordallo and Members of the Subcommittee, I am Dr. Mamie Parker, Assistant Director for Fisheries and Habitat Conservation for the U.S. Fish and Wildlife Service (Service). I serve as a co-chair of the Aquatic Nuisance Species Task Force (ANS Task Force). I am pleased to be here today to discuss the work of the Service in addressing aquatic nuisance species. Without question, aquatic nuisance species can have profound environmental, health, and economic impacts. In fact, aquatic nuisance species are one of the most significant natural resources management challenges that the Service faces today. Despite the difficult issues posed by aquatic nuisance species, the Service remains committed to using our expertise, resources, and authorities to combat this threat to our Nation's trust resources.

State and Federal Collaboration

The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (NANPCA), reauthorized by the National Invasive Species Act of 1996, established the ANS Task Force to encourage Federal and State agencies to work with partners to enhance our collective efforts to address aquatic nuisance species issues. The ANS Task Force has made significant progress towards accomplishing its statutory mandate: to prevent the introduction and dispersal of aquatic nuisance species; to monitor, control, and study such species; and to disseminate related information to the public.

The ANS Task Force relies on the expertise of its six Regional Panels, whose memberships include, in addition to Federal agencies, representatives of States, Indian Tribes, non-governmental organizations, commercial interests, and neighboring countries, to identify regional ANS priorities; coordinate ANS program activities in each region; make recommendations to the ANS Task Force; and provide advice to public and private interests concerning appropriate methods of ANS prevention and control.

In order to achieve our goals of identifying and implementing effective strategies for early ANS detection and monitoring, and of reducing the harmful effects of aquatic nuisance species, the ANS Task Force continues to provide technical support for the development of State and interstate aquatic nuisance species management plans. The Service's State Management Plan Cost-Share Program continues to provide funding for implementation of these management plans and will provide \$1,075,000 in fiscal year 2007. Currently, there are 22 states and interstate organizations with approved management plans in place, three states with plans that will be approved in November 2007, and nine states with plans under development. Regional or interstate ANS management plans have also been developed, including the Lake Champlain Basin

Interstate Management Plan and the St. Croix Natural Scenic Riverway Interstate Management Plan.

Prevention of Aquatic Nuisance Species

As the old proverb goes, “an ounce of prevention is worth a pound of cure.” The proverb resonates particularly well when addressing aquatic nuisance species. Preventing new introductions is the primary focus of the Service and the other members of the ANS Task Force and is the most effective strategy to protect our Nation’s aquatic habitats.

The Service is using an innovative method, originally developed by Pillsbury Foods for use during the NASA moon missions of the 1960s, where food purity was essential. The method called Hazard Analysis and Critical Control Points (HACCP) is a straightforward process used by planners to evaluate and manage contamination risk. This approach, developed by the food industry, is now being used to prevent the introduction and spread of non-native species.

HACCP is being used at Service facilities, including National Fish Hatcheries, to prevent the introduction of biological “hitchhikers,” such as non-target fish, diseases, parasites, plants, snails, insects and plankton that could move via natural resource management activities to new locations. The Service and our partners altered the HACCP concept slightly to address likely pathways of ANS introduction and spread that may be related to its field-based work. HACCP helps biologists and resource planners systematically manage risks of the spread of non-target hitchhikers through their work, similar to the way process planning prevents contamination in food production. We are developing and implementing HACCP plans at all of our fisheries field stations nationwide, and the plans are being provided to others with similar goals.

Education and outreach continue to be critical elements to the success of aquatic nuisance species prevention and control. The Service and the ANS Task Force have been working for many years on educational outreach programs aimed at preventing additional introductions. Although ballast water has long been acknowledged as one of the leading vectors of introduction, we are encouraged to see that additional emphasis on educational initiatives is being placed on other pathways of ANS introductions. For example, the *Stop Aquatic Hitchhikers!* public awareness campaign targets aquatic recreation users and promotes voluntary guidelines to ensure that aquatic nuisance species are not spread through recreational activities. Currently, over 585 formal campaign partners are promoting the prevention message through *Stop Aquatic Hitchhikers!*.

To promote prevention of introductions through other high-risk pathways, the Service, the Pet Industry Joint Advisory Council, and NOAA Sea Grant recently created the *Habitattitude*[™] initiative. This campaign, encourages aquarium hobbyists and water gardeners to be responsible caretakers of their plants and pets, as well as to be good environmental stewards. The Service, the pet industry, and other partners are using *Habitattitude*[™] to protect native species and their habitats by ensuring that pets are well cared for or that hobbyists find alternatives to releasing unwanted plants and pets into the environment, thereby preventing the introduction of potentially invasive species.

Other efforts include conducting detection and monitoring surveys for species such as round gobies, zebra mussels, and Asian carp in conjunction with routine field work and efforts such as the 100th Meridian Initiative, which seeks to stop the movement of ANS species, particularly zebra mussels, at the 100th meridian.

Early Detection and Monitoring

We believe that an early detection network based on the best available science is important to reducing the impacts of aquatic invasive species. To that end, the ANS Task Force has conducted several ecological surveys in major ecosystems in order to establish baseline data and to document aquatic nuisance species spread and their impacts. Ecological surveys have been conducted for the Great Lakes and Upper Hudson River; Valdez Harbor in Prince William Sound and Alaska's Cook Inlet; Delaware Bay; Coos Bay, Oregon; Pearl Harbor, Hawaii; San Francisco Bay and Inland Delta; Florida's Freshwater Systems; Chesapeake Bay; the Sacramento-San Joaquin Delta; and the Lower Columbia River in Oregon and Washington.

In addition, the ANS Task Force continues to work on facilitating the development of a system to report sightings and collections of non-native species to an appropriate authority. For example, an aquatic nuisance species hotline (1-877-STOP-ANS) and website (<http://nas.er.usgs.gov/SightingReport.asp>), sponsored by the Service and the U.S. Geological Survey, has been created for the public and agencies to report sightings of new or unusual plants, animals, or other organisms. The hotline is staffed 24 hours a day with reports directed immediately to personnel in the Service's ANS program.

Management/Control Plans and Rapid Response

The ANS Task Force also develops species-specific control plans, including plans for the brown tree snake, ruffe, mitten crab, New Zealand mudsnail, European green crab, and *Caulerpa taxifolia* (a marine alga). A control plan for Asian carp is also being developed (the draft plan was published in 2006). ANS Task Force partners have also developed control plans for three invasive plant species: purple loosestrife, water chestnut, and giant salvinia. These plans are developed and implemented cooperatively by federal, state, and regional entities, as appropriate.

Incorporated in many of these state management plans and species-specific control plans are provisions for rapid response. The more rapidly a new invasion is detected and acted upon, the more likely it can be controlled or eradicated, avoiding long-term ecological and economic impacts. Therefore, the ANS Task Force encourages the development of rapid response contingency plans, so we can quickly respond to a new invasion when it is initially detected. Important in developing rapid response contingency plans is the synthesis of "lessons learned" from previous attempts to respond to new aquatic species invasions. Consequently, the ANS Task Force is analyzing and evaluating rapid response measures used from previous invasions, as well as rapid response plans prepared for other contaminants-related events such as oil spills and the spread of exotic animal diseases.

Several critical gaps remain in the long-term management and control of aquatic invasive species. Although much research has been conducted for some invasive aquatic species, there are many species for which little is known. Information, such as the biology of an aquatic nuisance species and its interactions within its new ecosystem, is essential for effective control and management. One of the goals in the ANS Task Force strategic plan is to facilitate research to address the threat and harmful effects of aquatic nuisance species. The ANS Task Force provides a cooperative forum for federal and state agencies to identify needed control methods. For example, the sea lamprey control program in the Great Lakes has demonstrated that a variety of tools are needed to effectively implement a long-term management program. This program utilizes adaptive management, ongoing population assessments, and a variety of control methodologies (chemical lampricides and physical barriers) to control this aquatic invasive species. The Service continues to learn from that example, and we are working with the U.S. Geological Survey to identify and research a variety of new control methods, such as a suite of natural substances that may be used to either attract Asian carp to an area for control or deter them from other areas. Even though we can show some progress in the development of management and control tools, we are constantly working with our partners to improve current tools and develop new ones.

Injurious Wildlife Evaluations Under the Lacey Act

Aside from its work on the ANS Task Force, the Service also addresses aquatic nuisance species under Title 18 of the Lacey Act, which includes the injurious wildlife provisions. Under the Lacey Act, the Secretary of the Interior is authorized to prohibit the importation and interstate transportation of species designated as injurious. Injurious wildlife are those species, including adults, their offspring, and their eggs that are injurious to wildlife and wildlife resources; to human beings; and to the interests of forestry, horticulture, or agriculture of the United States. Wild mammals, wild birds, fish, mollusks, crustaceans, amphibians, and reptiles are the only organisms that can be added to the injurious wildlife list. Species listed as injurious may not be imported or transported across State lines by any means without a permit issued by the Service; permits may be granted for zoological, educational, medical, or scientific purposes. Regulation of intrastate transport is the responsibility of each State, if species are not covered under a Service permit.

The Service considers a variety of factors when evaluating a species for listing as injurious, such as the species' survival capabilities, its ability to spread geographically, and its impact on: habitat and ecosystems, threatened and endangered species, human beings and resource-based industries, and resource managers' ability to control and eradicate the species. Analysis of these factors guides the Service's listing recommendation to the Secretary of the Interior.

An injurious wildlife evaluation can be initiated with or without a petition. If little data are available, the Service publishes a Federal Register notice requesting biological and economic information. The Service evaluates scientific data, as well as available economic data to assess the costs and benefits of the potential rule consistent with required legal determinations. Recently, under this administrative process, the Service

completed the final rule to designate silver and largescale silver carp as injurious species under the Lacey Act. The rule went into effect on August 9, 2007.

Although there has been criticism that implementation of the injurious wildlife provisions under the Lacey Act tends to be reactive in that injurious rulemakings have often been completed only after a species has been introduced to, or established within, the United States, it is important to note that the Lacey Act has served to block or slow a number of potential introductions and range expansions. One of the best examples of how the Lacey Act can be used as a regulatory tool to prevent a new introduction was the recent injurious designation of largescale silver carp, a species that is not known to have been imported into the United States.

In addition, while in some cases, injurious evaluations have taken a significant amount of time to complete, it is important to understand that Congress recognized the need for public input in the rulemaking process and the need to understand the economic impacts associated with administrative decisions. Consequently, the time period to complete injurious species evaluations depends upon the availability of data and the complexity of the analyses required to comply with the Lacey Act, as well as analyses that may be required under the National Environmental Policy Act, the Regulatory Flexibility Act, and other applicable regulatory process requirements. .

The Service recognizes the importance of the injurious wildlife provisions of the Lacey Act and accordingly shifted priorities in 2000 to provide a permanent, full-time position devoted to injurious wildlife determinations in the Invasive Species Branch in its Washington office. The Service's office of Law Enforcement and the Division of Management Authority implement the regulations developed under the injurious wildlife provisions of the Lacey Act, and the Service draws upon the expertise and resources of regional and field staff, as well as Federal, State, and private partners. The Service is currently working to complete evaluations for black carp, bighead carp, members of the Asian swamp eel genus, members of the *Boiga* (brown tree snake) genus, European rabbits (review of a species already on the list), and snake species for which there is no known anti-venom. We are also looking at other possible injurious fishes from Europe and Asia for future evaluation. We are also working with the Department of Commerce and others to find innovative solutions to these problems.

Conclusion

In closing, I want to thank you for providing the opportunity to discuss the activities of the Service in combating aquatic nuisance species. The Service, in partnership with the ANS Task Force, states, tribes, and other partners, remains committed to working on this significant threat to our natural resources. This concludes my prepared remarks, and I would be happy to respond to any questions that you may have.