

# An Action Plan on Invasive Species

.....  
for President Obama and the 111th Congress



# National Environmental Coalition on Invasive Species

Established in 2003, the National Environmental Coalition on Invasive Species (NECIS) is a national partnership of 16 major environmental organizations that provides a united expert and scientific voice on invasive species policy. Its leaders include scientists, lawyers, activists, and advocates with many years of experience on invasives policy. NECIS members meet monthly, host an annual education day in Washington, DC, share ideas through a dedicated listserv, and maintain a website at [www.necis.net](http://www.necis.net).

The following groups endorsed this action plan and can be contacted for more information:

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Stronger federal law could stop the arrival of aquatic species like the zebra mussel, which reached the United States via ships' ballast water in the late 1980s and has been spreading ever since.

## We know *how* to address invasive species. Now we need dramatic policy reforms that allow the federal government to *act*.

**I**nvasive species pose a serious threat to the environmental and economic interests of the United States. Today, thousands of these non-native plants, animals, and pathogens have been introduced by humans and are reshaping our country.

### Invasives are:

- dramatically altering our lands, waters, and way of life.
- causing more than \$100 billion in damage each year.
- triggering outbreaks of plant, wildlife, and human diseases.
- partly responsible for threatening nearly half of rare U.S. species.

The problem is urgent and growing. International trade, the source of most invaders, is on the upswing. Global warming is stressing ecosystems, which can shift the balance between native and non-native species. Thus scientists predict an *increase* in the rate of new species invasions and the costs and harm they inflict, absent major reforms.

*This need not happen.* We can slow the flood of invasive species.

Real solutions—based on good science—are available. They have bipartisan support.

The best way to stop potential invaders is to block them from coming into the country in the first place. That means paying closer attention to the major pathways of introduction: **the globalized shipping industry** and **legal, intentional imports of live plants and animals**. But the United States lacks an effective legal system to control these means of entry—and to respond rapidly to the incipient invasions that do occur.

We know *how* to address invasive species and we know that this is cost-effective for the nation. Now we need dramatic policy reforms that will allow the federal government—which regulates international trade—to *act*.

**The opportunity to act in America's best interest is at hand. Upon taking office, President Obama and the 111th Congress can together create new and effective national policies on invasive species.**

Invasive species are expensive: controlling the sea lamprey in the Great Lakes costs more than \$16 million per year; more than \$300 million have been spent since control began nearly 60 years ago.



# Addressing Invasive Species

Invasive species pose diverse challenges, but we know how to meet them. Here are cogent examples of recent invaders and the solutions that would help limit such invasions in the future:

## IMPORTED ANIMALS

**Snakehead fish** (*Genera Channa and Parachanna*) is a voracious predator that was imported from Asia for the specialty food market and then released surreptitiously into natural waterways. Snakeheads are disrupting food webs in the Potomac River and spreading. Imports were retroactively banned under the Lacey Act, but the ban came far too late to stop this invasion.

**Monkeypox** is an animal disease that was introduced into the United States in a shipment of giant Gambian rats brought in for the pet trade. It affects mainly rodents, but humans are susceptible as well. Spread mostly through infected pet prairie dogs that were exposed to the African rodents, monkeypox sickened approximately 80 people in six states in 2003. If it infects native prairie dogs, the disease could decimate populations of native U.S. species and make them permanent reservoirs for the virus.

**SOLUTION: Pass new legislation that allows the import of only non-native animal species that have first been evaluated and screened based on any risks they present to human health, animal health, or the environment.**

## IMPORTED PLANTS

**Beach vitex** (*Vitex rotundifolia*) is a woody vine native to the Pacific Rim. In the 1980s it was imported and planted on Carolina beaches to help stabilize dunes. It proved better at crowding out native vegetation than at holding dunes in place. By 2003, beach vitex was infringing on nesting

habitat of loggerhead sea turtles and had earned the nickname “the kudzu of the Carolina coast.” Despite five years of control, beach vitex continues to spread and was recently spotted in Virginia.

**SOLUTION: Implement a pre-import screening system to assess invasion and weediness risks of non-native plants before they are imported in the nursery or aquarium trade, with provisions to keep out those deemed most risky.**

**Sudden oak death** (*Phytophthora ramorum*) is a plant disease that is suspected to have been imported, unnoticed, through infected woody nursery plants. This fungus has killed more than 100,000 trees in California. In 2004, one nursery shipped infected plants to 17 states—where dozens of species of native oaks and shrubs are vulnerable.

**SOLUTION: Adopt stronger national and international rules to ensure that plants in trade are free of pests and diseases.**

## ORGANISMS IN SHIPS' BALLAST WATER

**Veined rapa whelk** (*Rapana venosa*) is a large, predatory marine snail native to the Sea of Japan. Likely introduced to the lower Chesapeake Bay via ballast water, the snail eats oysters, clams, and mussels. It is deemed a potential threat to clam and oyster populations in the lower Chesapeake, which already are at very low levels.

**Fishhook water flea** (*Cercopagis pengoi*), first detected in 1998, was transported to the Great Lakes from northeastern Europe in the ballast tanks of commercial ships. This occurred after the first measures were enacted to protect the Great Lakes, but were too weak to do so. Like other freshwater invaders first introduced there, water fleas are likely to spread across North America, placing fishing resources at risk throughout the country. They reproduce rapidly and compete with juvenile fish for food.

**SOLUTION: Enact effective legislation and regulations to require that ballast water be treated before it is discharged to a standard that protects the environment and thus stops future invasions.**



Randy Westbrooks, USGS

Beach vitex, the “kudzu of the Carolinas.”



Most weeds of natural areas originated as horticultural imports, due to lax federal policy. Few non-native plant—or animal—species are checked for invasiveness before they are imported and subsequently banned.

# An Action Plan on Invasive Species

The impacts of invasive species go well beyond a local site or a single state. Countless expert reports from public and private groups have brought attention to these impacts and called for federal action to address invasive species problems. To date, progress has been woefully inadequate. However, there *are* opportunities to act. We call upon President Obama and the upcoming Congress to immediately take the following steps to benefit our nation:

# 1

## Screening Intentional Imports

**“It is extremely difficult and costly to control invasive species once they become established—our best defense is to screen out potential invaders from imports in the first place.”**

—Peter T. Jenkins, *Defenders of Wildlife*

Right now, the United States does not require that living organisms being proposed for import be screened for invasiveness beforehand. The need for, and importance of, such a risk screening process has been noted in every major report on invasive species policy for nearly 20 years. Development of such a screening process was a high priority in the 2001 National Invasive Species Management Plan issued by the National Invasive Species Council. However, there has been virtually no progress. Some federal agencies have the statutory authority to implement pre-screening measures, but have not made it a priority. For these agencies, President Obama needs to direct them to begin pre-import screening immediately. On the other hand, the U.S. Fish and Wildlife Service (FWS) lacks legal authority to screen many types of animal imports. In this case, Congress needs to extend statutory authority to this agency.

**Revise the Lacey Act to require screening of animal imports.** The Lacey Act provides authority for the FWS to name groups of animals as “injurious species” and thus restrict their import. However, it does not require that animal species being proposed for import be screened for either invasiveness or disease risk first. This creates unacceptable threats to native wildlife, to the economy, and to human and animal health. Thus, Congress should provide the FWS with the necessary authority to screen invasive animals, both terrestrial and aquatic, rather than relying on the Lacey Act’s currently ineffective provisions.

**Speed up and strengthen the U.S. Department of Agriculture’s (USDA’s) revision of plant regulations to screen out weedy imports.** Intentional horticultural and nursery imports are the top pathway for the introduction of harmful weeds. Other nations have significantly reduced weedy introductions—and have reaped major economic benefits—by adopting risk screening protocols. The United States urgently needs a similar approach. The Obama administration should direct the USDA’s Animal and Plant Health Inspection Service (APHIS) to promptly revise its regulations for importing plants, known as Quarantine 37, or “Q-37.” APHIS announced a tentative screening proposal in 2004 but this effort is moving far too slowly. It desperately needs a jump-start—and improvements—by the Obama administration.

## 2

## Preventing Inadvertent Introductions

**“The United States loses hundreds of millions of dollars annually due to aquatic invaders, a direct result of our policies being reactive instead of proactive. We have cost-effective technologies to keep harmful species out of our waters—what we lack so far the political will to put these technologies to use.”**

—Jennifer Nalbone, *Great Lakes United*



The 110th Congress considered, but ultimately failed to pass, a Ballast Water Management Act. This should be a priority for the 111th Congress.

**Reauthorize the National Invasive Species Act and pass a Ballast Water Management Act.** Ballast water is the primary vector for introducing invasive aquatic organisms unintentionally into U.S. waters. An important step in addressing this is to enact and implement new legal authority that would require all ships to treat their ballast water before it is discharged and to use specific “best management practices” to stop the continued introduction of aquatic invasive species. New laws should also help coordinate federal and state authority to respond rapidly to new aquatic invasions. Once legislation is enacted, the U.S. Coast Guard and Environmental Protection Agency should assign a top priority to its implementation and enforcement.

**Revise the USDA’s Q-37 “Plants for Planting” regulations to block plant pests and diseases.**

Horticultural introductions (imported plants, cuttings, seeds, etc.) are the principal pathway for introduction of plant pests and diseases that are causing severe ecological and economic damage to American agriculture and forests. As part of its revisions to the Q-37 regulations, the next administration needs to strengthen specific measures to prevent further introductions of devastating insects, other plant pests, and plant diseases.

## 3

## Funding for Early Detection and Response

**“When prevention fails, we need to respond fast to new invaders. Every delay adds costs and lowers our chances of success. Inadequate funding is penny wise and pound foolish.”**

—Corry Westbrook, *National Wildlife Federation*

Finding new invaders quickly, and responding rapidly to address them, is essential to limiting impacts and costs when prevention fails. However, agencies often lack the resources for quick responses, which delays work, allows invaders time to spread, and undermines their efforts.

**Establish an Invasive Species Emergency Fund.** Setting aside special funds—much like those used for responding to oil spills—would permit agencies to respond rapidly, especially to aquatic and insect species, when they are first detected in the country and can be most easily and cheaply addressed.

**Fund strategic regional efforts on the ground.** If invasive species are not eliminated immediately, funding for major efforts is essential before they spread throughout the nation. Funding should be prioritized for projects that stop spread into new areas.

**Fund a national network of regional invasive plant centers.** Regional centers on invasive plant species have developed in many parts of the country, serving as information hubs for natural resource managers on the ground. Networking these centers into a virtual national center would strengthen the nation’s ability to identify and respond to new invasions.



The emerald ash borer, an insect that has killed tens of millions of ash trees in the Midwest, could wipe out native ash trees across the nation.

# 4

## Federal Leadership

**“We face different challenges for animals, plants, and diseases but clear opportunities exist for reforms in each. Stronger federal leadership would transform our invasive species policy for the better.”**

—Phyllis Windle, *Union of Concerned Scientists*

The National Invasive Species Council (NISC) was established by Executive Order 13112 to coordinate invasive species-related actions among several departments and agencies. Also, it was tasked with creating and implementing the National Invasive Species Management Plan. Its first Management Plan in 2001 was well-received but NISC’s effectiveness has been far less than hoped for since then, in part due to a lack of statutory authority, an unclear role with respect to other federal agencies, and limited funding.

**The Obama administration should re-invigorate NISC** by ensuring that appointees in the 13 participating agencies show an exceptional commitment to fulfilling the goals of the Executive Order and Management Plan. NISC’s status should be elevated to have independent funding and a level of authority comparable to that of the Council on Environmental Quality, so that it can better oversee, coordinate, and assist agencies in addressing invasive species.

# 5

## Other Funding Gaps

**“Invasive species prevention pays for itself many times over.”**

—Faith Campbell, *The Nature Conservancy*

Agencies currently lack the resources to expedite urgently needed regulatory changes.

Increased funding would allow agencies to better manage widespread invaders, more aggressively address the worst infestations, and better protect valuable natural resources. In addition, appropriate funding would allow us to strengthen our understanding of how invasions occur and to develop effective counter-measures.

Addressing these funding gaps is especially important given the value of the resources at risk. Economic studies, including detailed analysis by the Brookings Institution, independent economists, and the former congressional Office of Technology Assessment, show that government funds spent on invasive species prevention and control efforts are highly likely to provide large net economic returns to the nation.

**See the back cover for a summary of recommendations and the list of agencies to which they apply.**



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# Solutions

## For the Executive Branch:

### **Prevent the arrival of new invaders: National Invasive Species Council (NISC) member agencies\* plus other federal groups**

- Ensure that appointees to federal agencies are committed to meeting the goals of the NISC National Management Plan.

### **Screen intentional imports: U.S. Department of Agriculture (USDA), Centers for Disease Control and Prevention, and others**

- Direct federal agencies to implement pre-import screening where legal authority exists.
- Speed and strengthen revisions to the USDA/APHIS's Quarantine 37 "Plants for Planting" regulations to screen imported plants for invasiveness before they are imported.

### **Stop inadvertent introductions: USDA**

- Speed and strengthen revisions to the USDA/APHIS's Quarantine 37 "Plants for Planting" regulations to block imports of plant diseases and pests.



## For the Legislative Branch:

### **Prevent the arrival of new invaders: NISC member agencies**

- Exercise greater oversight of federal invasive species programs.

### **Screen intentional imports: U.S. Fish and Wildlife Service**

- Revise the Lacey Act to require screening of all animal imports.

### **Stop inadvertent aquatic introductions: U.S. Coast Guard, Environmental Protection Agency, and others**

- Reauthorize the National Invasive Species Act and pass a Ballast Water Management Act.

### **Prevent further spread of current invaders via early detection and rapid response: Public and private land management agencies from the local to the federal levels**

- Authorize and fund an Invasive Species Emergency Fund for species new to the United States.
- Fund strategic efforts to ensure that invaders are detected and responded to quickly, before they spread.
- Authorize and fund a national network of regional invasive plant centers.

Less than 5 percent of imports are currently inspected for invasive species, underscoring the urgent need for strong federal measures to limit invaders that hitchhike in packing materials, contaminate live cargo, or are inaccurately labeled. (Photo: U.S. Customs and Border Protection)

\* NISC is co-chaired by the U.S. Departments of Agriculture, Commerce, and Interior. Other members are the U.S. Departments of Defense, Health and Human Services, Homeland Security, State, Transportation, and Treasury, plus the Environmental Protection Agency, National Aeronautics and Space Administration, Office of the Trade Representative, and the U.S. Agency for International Development.

## **National Environmental Coalition on Invasive Species** ***www.necis.net***

Defenders of Wildlife • Environmental Law Institute • Lady Bird Johnson Wildflower Center  
National Audubon Society • National Wildlife Federation • National Wildlife Refuge Association  
Natural Areas Association • The Nature Conservancy • Union of Concerned Scientists  
Great Lakes United • California Invasive Plant Council

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