

# An Action Plan on Invasive Species

.....  
for President Obama and the 112th Congress



# National Environmental Coalition on Invasive Species

Established in 2003, the National Environmental Coalition on Invasive Species (NECIS) is a national partnership of 17 major environmental organizations that provides a united expert and scientific voice on invasive species policy. Its leaders include scientists, lawyers, 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:

## **Defenders of Wildlife**

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## **National Audubon Society**

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## **The Nature Conservancy**

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## **Great Lakes United**

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## **National Association of Exotic Pest Plant Councils**

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Zebra and quagga mussels reached the United States via ships ballast water in the later 1980s and have been spreading across the continent ever since. In 2007, these species were detected in the West for the first time.

## 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. President Obama and the 112th Congress can together create new and effective 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 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 and coordinate effective 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 112th Congress to immediately take the following steps to benefit our nation:



## 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.”**

—Mike Daulton, *National Audubon Society*

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.

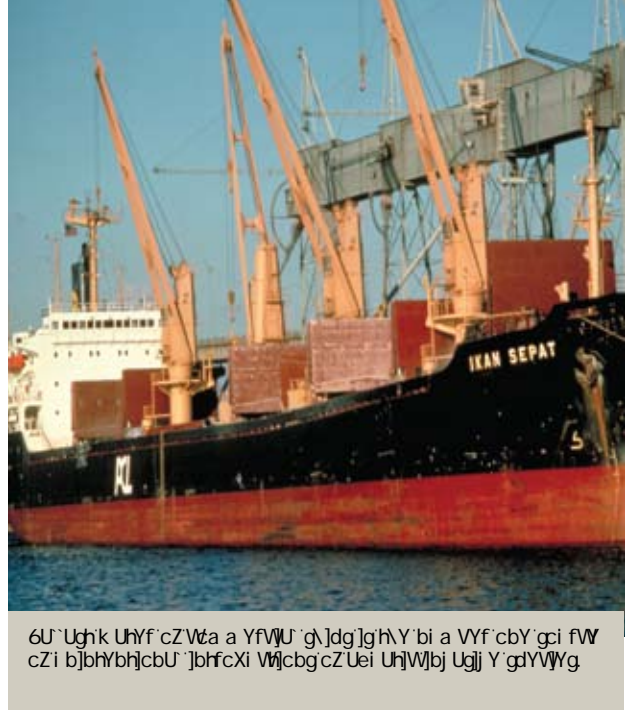
**Speed up and strengthen the U.S. Department of Agriculture’s (USDA’s) revision of plant regulations to screen out weedy imports.** Intentional horticultural and nursery imports are the top pathway for the introduction of harmful weeds. Other nations have significantly reduced weedy introductions—and 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 complete its revision of regulations for importing plants, known as Quarantine 37, or “Q-37.” APHIS released proposed improvements in 2009 but has not yet implemented them. This follows on a tentative screening proposal announced back in 2004. This effort is moving far too slowly. It needs a jump-start—and improvements—by the Obama administration.

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# 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 is the political will to put these technologies to use.”

—Jennifer Nalbene, *Great Lakes United*



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## Strengthen Federal Regulations Under the Coast Guard and Environmental Protection Agency

Ballast water is the primary vector for introducing invasive aquatic organisms unintentionally into U.S. waters. An important step in addressing this vector is to strengthen regulations that would require all ships to treat their ballast water and meet an environmentally protective standard before it is discharged. The Coast Guard and EPA both have authority to prevent new aquatic invasions from ballast discharges, but current regulations are too weak. The Coast Guard and EPA should also assign a top priority to coordinating regulatory monitoring, 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 administration needs to strengthen specific measures to prevent further introductions of devastating insects, other plant pests, plant diseases and invasive plants.

www.emeraldashborer.org



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.



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www.jklossner.com

# Funding Gaps

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**“When prevention fails, we need to respond fast to new invaders. Every delay adds costs and lowers our chances of success. It is simply cost-effective to have strong federal capacity to counter the invaders posing the greatest risk.”**

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inding new invaders quickly, and responding rapidly to address them, is essential to limiting impacts and costs when prevention fails. 5bmX]gd fcdcfh]cbUhY' W'hg]b'U[ YbV]Yg'fU' fYUXm'YUb'Vi X[ Yhg'k ]' 'XY'Um i ] a d c f h U b h' k c f \_ U b X' U' c k' ] b j U X Y f g' h ] a Y' h c' g d f Y U X z' h i' g i' b X Y f a ] b ] b [ ' d f c h Y V M ] c b " work, allows invaders time to spread, and undermines their efforts.'

**Maintain funding for invasive species prevention and control.** A U b m U [ Y b V ] e s z' ] b W i X ] b [ ' h Y' i G 8 5 z' 9 D 5 z' : K G z' 5 D < - G z' 7 c f d g z' U b X' 7 c U g h ; i U f X z' d' U m U M j j Y' f c' Y g' ] b' d f Y j Y b h ] b [ ' U b X' V t b h f c' ] b [ ] b j U g j j Y' g d Y V W Y g' 9 b g i f ] b [ h Y g d U [ Y b V ] Y g' ] b j U g j j Y' g d Y V W Y g' k c f \_ V t b h ] b i Y g' ] g' W ] h ] W' h c' d f c h Y V M ] b [ ' H U i d U h Y f g' Z f c a' h Y' [ f Y U h Y f' Z ] b U b V ] U' V i f X Y b' c Z b Y k' ] b Z y g h U h ] c b g

**Build on existing and formative networks of regional invasive species centers.** Regional centers U b X a i' h ] g' U h Y' ] b ] h ] U h j Y g' Z c W' g ] b [ ' c b ] b j U g j j Y' d' U b h' g d Y V W Y g' U b X' c h Y f' ] b j U X Y f g' Y i ] g h' c f' U f Y' ] b' X Y v e l o p a Y b h i n m a n y p a r t s o f t h e c o u n t r y " 5 g g ] g h ] b [ ' h Y a' ] b' V t c f X ] b U h ] b [ ' h Y ] f' Y Z c f h g' k ]' g t r e n g t h e n t h e n a t i o n ' s U V ]' ] m h c i d e n t i f y a n d r e s p o n d t o n e w i n v a s i o n s .

**Evaluate and re-invigorate the National Invasive Species Council (NISC).** B - G 7' k U g Y g h U V' ] g Y X' V m i 9 I Y W h j j Y C f X Y f' % % & ; h c' V t c f X ] b U h Y' ] b j U g j j Y' g d Y V W Y g' f Y' U h Y X' U M ] c b g ] U a c b [ ' g Y j Y f U' X Y d U f h a Y b h g' U b X' U [ Y b V ] Y g' U b X' k U g' H U g' Y X' k ] h' W Y U h ] b [ ' U b X' ] a d' Y a Y b h ] b [ ' h Y' B U h ] c b U' - b j U g j j Y' G d Y V W Y g' A U b U [ Y a Y b h' D' U b' " H Y' D' U b' k U g i d X U h Y X' ] b' & \$ \$ , z' V i h B - G 7' n j d f c [ f Y g g ] b ] a d' Y a Y b h ] b [ ' h Y' d' U b' \ U g' V Y Y b' g c k Y f' h U b' \ c d Y X' Z c f' " H Y' C V U a U' U X a ] b ] g' f U h ] c b g c i' X' f Y ] b j ] [ c f U h Y' B - G 7' V m i V t a d' Y h ] b [ ' U b X' d i V' ] g' ] b [ ' U b' Y j U i U h ] c b' c Z B - G 7' d Y f Z c f a U b W' U b X' V m i X Y b h ] Z h ] b [ ' U b X' ] a d' Y a Y b h ] b [ ' U d d f c d f ] U h Y' g' U h i h c f m i U b X' U X a ] b ] g' f U h j j Y' g c' i h ] c b g' h c' ] a d f c j Y' ] h g' Y Z Y V M j j Y b Y g g' "

**“Invasive species prevention pays for itself many times over.”**  
-Faith Campbell, *The Nature Conservancy*

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

# 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, Fish and Wildlife Service, 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 aquatic introductions: U.S. Coast Guard, Environmental Protection Agency, and others**

- Strengthen Coast Guard regulations and EPA's Vessel General Permit

**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**

- Take action on Implementation Tasks outlined in the National Management Plan.

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

- Revise the Lacey Act to require screening of animals proposed for importation.

**Maintain funding for invasive species prevention, control, early detection and rapid response**

- Protect agencies' funding for prevention and control efforts.
- Authorize and fund a national network of existing 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](http://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  
Great Lakes United • National Association of Exotic Plant Pest Councils

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