

## America's Invasive Species Problem

### What is an invasive species?

Invasive species are harmful, non-native plants, animals, and microorganisms that are introduced into an environment in which they did not evolve. Usually they have no natural enemies to limit their reproduction and spread. Human actions are the primary means of introduction. These invaders now comprise the second-largest threat to global biodiversity after habitat loss, representing the primary threat to 46 percent of America's threatened and endangered species. The damage they inflict on U.S. agriculture, forestry, fisheries, property, and human health is staggering—by one estimate, at least \$137 billion annually.

### What Is the OTA Report?

In 1993, the congressional Office of Technology Assessment (OTA) released the report *Harmful Non-Indigenous Species in the United States* (available at <http://www.wms.Princeton.edu/~ota/>). This was the first comprehensive examination of invasive species' impacts across economic sectors, political jurisdictions, and taxonomic lines. The report flagged gaps in federal and state laws and regulations and in their implementation. Where policies and programs did exist, it highlighted their strengths and weaknesses, and laid out recommendations for better addressing problems. Therefore, this landmark OTA report provides the benchmark against which we measure improvements.

### Why a Scientists and Experts' Call to Action?

Recent advancements in invasive species policy can be attributed in large part to the involvement of scientists and other experts. More than 200 took part in OTA's three-year study. A 1998 letter to Vice President Gore from some 500 scientists and other experts was a critical impetus to establishing a presidential Executive Order on invasive species. As a result, the nation has a National Invasive Species Council, a means for stakeholders to advise federal officials, and a national management plan for invasive species.

However, implementation of this plan has been painfully slow, and actual progress in slowing the introduction and spread of invasive species is woefully inadequate. For example, hundreds of non-native weeds have invaded the United States but only a few have been added to the official list of Federal noxious weeds in the past decade. Nine new aquatic invaders have been detected in the Great Lakes since 1993—many attributed to ocean-going ships' ballast water, despite the region having the most stringent ballast water management regulations in the nation. Scientists and experts have grown increasingly alarmed at this lack of progress. Those most involved in the OTA work feel that, 10 years later, it is time to again take stock—and to redouble our efforts.

### What is NECIS?

In 2003, several organizations created the National Environmental Coalition on Invasive Species (NECIS) to advocate for solutions to invasive species problems. NECIS is a coalition of organizations that are motivated by concern for native species and their habitats; for the sustainability of our environment, economy, and public health; and for moral and aesthetic reasons.

Current members are The Center for International Environmental Law, Defenders of Wildlife, Environmental Defense, Environmental Law Institute, Great Lakes United, International Center for Technology Assessment, National Audubon Society, National Wildlife Federation, National Wildlife Refuge Association, The Nature Conservancy, and the Union of Concerned Scientists. Together, we represent more than six million individual members and supporters. Our members have affiliates in at least 46 states and ties to hundreds of community and other groups. We, too, see indicators that invasive species problems are not being solved and we seek to amplify the voice of the environmental community on this issue. To this end, many additional citizens' groups have joined us in calling for immediate action by Congress and the president.

## **Indicators of a Worsening Problem**

In the absence of a formal update of the OTA report, NECIS has prepared fact sheets on the following topics. These are indicators of where we stand, 10 years after the problems caused by invasive species were clearly laid out, along with the policy changes to solve them.

### **Ten New Invaders Since 1993**

- Several pathways bring especially worrisome new species to the United States: insects in wood packaging; plants in the nursery or aquarium trade; and aquatic animals introduced in ballast water.
- The troubling new arrivals include: two grave diseases of humans and wildlife; two wood-boring forest pests; three invasive aquatic and terrestrial weeds; a serious plant pathogen; and two aquatic invertebrates.

### **Ten Invasive Species that the United States Sent Abroad**

- One insect pest was introduced into Serbia from the United States in the early 1990s and has since spread to six other countries. European countries fear damage like that in the United States, where it is estimated at approximately \$1 billion annually.
- Also on the NECIS list of U.S. exports are: one weed; one parasite of pine trees and another of oysters; one mammal, one fish, and one amphibian; and several invertebrates, including a marine species considered by some to be “the revenge of the zebra mussel.”

### **Ten Invasive Species Not Yet Established in the United States**

- One fish caused the extinction of more than 100 native fish species in Africa in less than 30 years. What would happen in U.S. waters?
- One snake caused bird extinctions and disrupted the economy of Guam—is Hawaii next?
- Also, NECIS names, in particular, two beetles, one moth, two weeds, one mammal, and one shrimp as among the prime examples of why we must prevent new introductions.

## **Federal Actions the Nation Deserves**

There *are* solutions to the pervasive problem of invasive species. Because the federal government regulates the movement of damaging organisms into the country and between U.S. states, solutions to this problem require strong federal action. The National Environmental Coalition on Invasive Species has identified six actions that Congress and the White House can take immediately. Together, these actions would provide invaluable and long-lasting benefits to the Nation.