



FY 2006 President's Request

Aquatic Invasive Species Initiative

NOAA Mission Goal

To protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management

What is requested?

The National Oceanic and Atmospheric Administration requests \$2.5M for the Aquatic Invasive Species Program to protect the Nation's aquatic resources from the increasingly costly challenge of invasive species. The Program is part of a Presidential crosscut budget initiative involving nine Federal agencies and is a cooperative effort between NOAA Research, the National Ocean Service, and the National Marine Fisheries Service. The requested funding will cover monitoring, control, education, and research mandated by the 1996 National Invasive Species Act to identify locations where invasive species need to be reduced by early targeted rapid response and to prevent new introductions.

Why do we need it?

Hundreds of millions of dollars are spent each year to mitigate the effects of aquatic invasive species in our coastal and Great Lakes ecosystems. Aquatic invasive species disrupt the stability of coastal ecosystems, thereby affecting recreational, economic, and other beneficial uses of coastal resources. They constitute one of the largest present and future threats to coastal ecosystems, coastal economies, protected habitats, and human health in coastal regions. As a threat to endangered species, invasive species are second only to habitat loss, and they have been responsible for some of the most dramatic fishery losses in recent times (e.g., Lake trout, turbot, whitefish, and salmon in Great Lakes). For example, the cost associated with the invasive zebra mussel introduction is over \$200 million each year. The introduced European green crab threatens the vitality and economic productivity of U.S. marine ecosystems at an estimated cost of more than \$44 million annually from loss of juvenile shellfish and crabs consumed by the green crab.

The National Invasive Species Act identifies the need for early detection and monitoring of aquatic invasive species and mandates that NOAA, in conjunction with other Federal agencies, develop a comprehensive national program. In addition, the recommendations in the U.S. Commission on Ocean Policy's 2004 report reaffirm the importance of NOAA's invasive species programs. It calls for greater coordination among agencies and adequate funding to carry out invasive species programs.

Reliable and comparable monitoring of coastal ecosystems based on standardized protocols is essential for the early detection of introduced species. In addition to enabling a rapid response to new introductions, the monitoring data will identify factors that facilitate invasions, affect rates of spread, and influence impacts of invasive species on coastal ecosystems.

Aquatic Invasive Species Initiative At-a-Glance

What: \$2.5M Total
Why: To prevent and eradicate aquatic invasive species and reduce their impacts on our Nation's resources.

Office of Oceanic & Atmospheric Research, Ocean, Coastal and Great Lakes Research, Other Partnership Programs



What will we do?

This program focuses on the prevention, control, and monitoring of invasive species. Control activities include eradication, population reduction, preventing further spread, and/or mitigating the impact of invasive species.

Of the requested increase for NOAA's Invasive Species Program, \$1.5M will allow NOAA to: (1) continue to implement the national program to develop standardized survey methods and sampling protocols, (2) add another region to the Early Warning System for Aquatic Invasive Species Introduction, and (3) complete an additional aquatic species baseline assessment. The remaining \$1.0M will be used to enhance National Marine Fisheries Service activities to control established populations of invasive species determined to be high priorities. In the following years, this effort will include research for the development of new control technologies. In addition, the program will continue to be coordinated with efforts in the Aquatic Nuisance Species Task Force, the National Sea Grant College Program, other NOAA and federal programs, and the academic community.

What are the benefits?

The Program will respond to legal mandates and the most urgent national needs related to the growing aquatic invasive species problem.

Benefits will include:

- Eradication, containment, and/or mitigation of invasive species.
- Development of new control technologies, which will reduce the economic and environmental costs of highly invasive species.
- Increased ability to detect new aquatic invasive species early enough to allow targeted rapid response.
- Identification of introduction pathways and development of effective approaches to reduce invasion risks to NOAA steward resources.
- Verification and availability of more ballast water treatment technologies and management approaches.
- Reduction or interdiction of other pathways through targeted risk reduction actions, education, and increased public awareness and participation.
- Increased availability of management information to control invasive species, such as life history parameters, potential range, and possible pathways for spread.
- Completion of invasive species baseline assessments and Early Warning Systems for improved detection of new aquatic invasive species and verification of potentially invasive species within two weeks of detection.
- Implementation of top priority green crab control measures.
- Working towards completion of the pilot National Early Warning Systems in FY 2008, using protocols and effectiveness measures developed and proven in regional pilots.

For more
information:

NOAA Research
301.713.1671

Aquatic Invasive Species Initiative



Zebra mussel invasions in freshwater ecosystems of the U.S. have cost industries, businesses and communities billions.



Invasive sea lamprey feed parasitically on the blood of trout, an important sport fishing species native to the Great Lakes.



Office of Oceanic and Atmospheric Research
Ocean, Coastal and Great Lakes Research
Other Partnership Programs

NOAA Budget
FY 2006
Change

Aquatic Invasive
Species Initiative
\$ 2.5M Total