

The Feds in Wisconsin: The Crucial Role of the U.S. Government in AIS Prevention and Control

Aquatic invasive species (AIS) have captured the attention of everyone that uses water for fun or business. The Federal government has been instrumental in bringing AIS to the United States and has been instrumental in their control and prevention as well. What Federal agencies are involved in the AIS issue, and what role do they play in Wisconsin's struggle to prevent their arrival or contain and control their impact? From financial contributions, to policies and regulations, the Federal government is a partner against AIS.

*Presenter:
Bob Wakeman, Statewide Aquatic
Invasive Species Coordinator, WI
Department of Natural Resources*

Federal Partners – Who are they?

- US Army Corps of Engineers
- US Environmental Protection Agency
- US Fish and Wildlife Service
- National Oceanic and Atmospheric Administration
- US Geological Survey
- National Parks Service
- US Coast Guard

US Army Corps of Engineers (ACOE)

- Develop and Use AIS Control Techniques and Strategies
 - Aquatic Plant Management
 - Chemical
 - Biological
 - Mechanical
 - Electrical barrier (Chicago Area Waterway System)
- Great Lakes Mississippi River Interbasin Study

US Army Corps of Engineers

- Canals and Waterways
 - Great Lakes
Mississippi River
Interbasin Study
 - Wisconsin
 - 4 Medium Risk
 - 4 Low Risk



FIGURE N.1 Potential Aquatic Pathway Locations within Focus Area 2

US Environmental Protection Agency

- Great Lakes Restoration Initiative - GLRI
- Developing AIS Monitoring Techniques

US EPA

- Red Swamp Crayfish
 - Mgmt. and control project
 - \$286,000 - GLRI



Find a GLRI Project

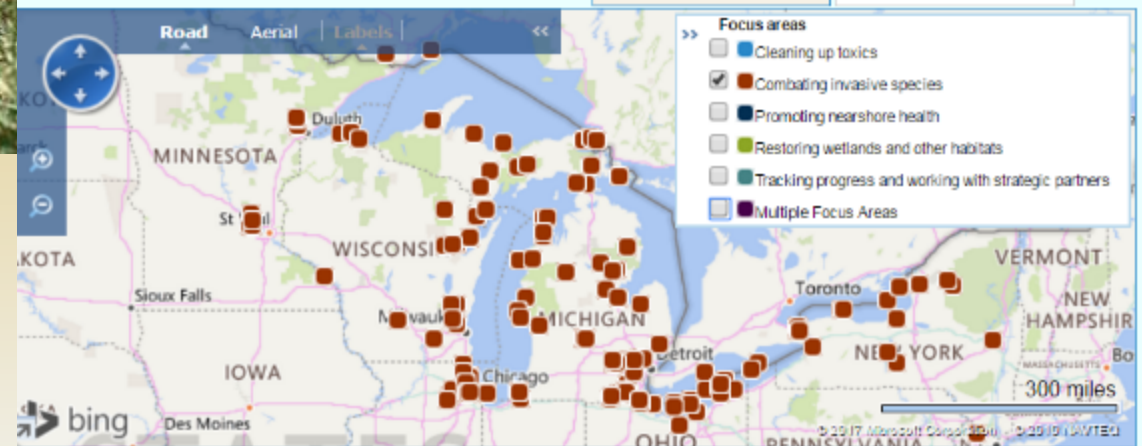
Use the map below to find GLRI project information. Or, see a [list of all GLRI projects](#).
(Note: the points on the map show the actual location of the project and/or the location of the entity managing the project.)

Enter a location (such as area of concern or watershed) or a project name in the search box. Select a year and click Search to query.

Year: 2015

Search Results for: : All Grants

Results found: | Current view: 355 | [Clear Results](#)



US Fish and Wildlife Service

- Invasive Species Risk Screenings
- Injurious Wildlife and Lacey Act
- Aquatic Nuisance Species Task Force
- Hazard Analysis and Critical Control Points (HACCP) Training
- Great Lakes Restoration Initiative

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Aquatic Nuisance Species Task Force

- ANS Task Force is an intergovernmental organization, administered by the Fish and Wildlife Service, committed to preventing and controlling aquatic nuisance species and implementing the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA).
- The ANSTF, co-chaired by Fish and Wildlife Service and the National Oceanic and Atmospheric Administration, is comprised of both Federal agencies and ex-officio members representing affected entities.
- The Task Force coordinates Federal governmental efforts dealing with aquatic nuisance species with those of state and local governments, non-governmental organizations, academic institutions, and the private sector.
- Regional Panels were formed to assist the ANS Task Force.
- National Campaigns

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Panels of the ANS Task Force



Dedicated to the prevention and control of aquatic nuisance species

Home

ANS Task Force ▶

What are ANS? ▶

Prevention ▶

Monitoring

Control

Education

Research

Documents

Invasive Species
Experts Database

The Regional Panels of the Aquatic Nuisance Species Task Force

Western

(Members include: AK, AZ, CA, CO, HI, ID, KS, MT, ND, NE, NM, NV, OK, OR, SD, TX, UT, WA, WY and Guam - Estab. 1997)



Great Lakes

(Members include: IL, IN, MI, MN, NY, PA, OH, WI - Estab. 1991)



Northeast

(Members include: CT, MA, ME, NH, NY, RI, VT - Estab. 2001)



Mid-Atlantic

(Members include: DE, DC, MD, NC, NJ, NY, PA, VA, WV - Estab. 2003)



Mississippi River Basin

(Members include: AL, AR, CO, IA, IL, IN, KS, KY, LA, MN, MO, MS, MT, NC, ND, NE, OH, OK, PA, SD, TN, TX, VA, WI, WV, WY - Estab. 2002)



Gulf and South Atlantic

(Members include: AL, FL, GA, LA, MS, NC, SC, TX - Estab. 1999)



June 2010
Graphics by Don MacLean, USFWS

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ANS Task Force National Campaigns

- Stop Aquatic Hitchhikers
 - <http://stopaquatichitchhikers.org/>



**STOP AQUATIC
HITCHHIKERS!™**

Be A Good Steward. Clean. Drain. Dry.

StopAquaticHitchhikers.org

ANS Task Force National Campaigns

- Stop Aquatic Hitchhikers
 - <http://stopaquatic hitchhikers.org/>



- Habitattitude
 - <http://habitattitude.net/>



ANS Task Force National Campaigns

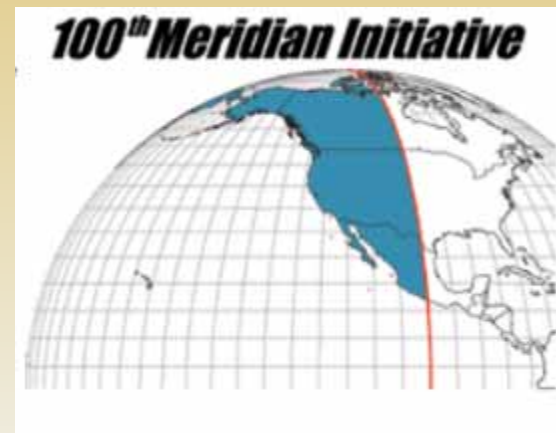
- Stop Aquatic Hitchhikers
 - <http://stopaquatic hitchhikers.org/>



- Habitattitude
 - <http://habitattitude.net/>



- 100th Meridian Initiative
 - <http://100thmeridian.org/>



USFWS

**PUBLICATION
SUPPORT**

Risk Assessments

Rapid Response Framework

AIS education and Outreach

AIS Monitoring

**EDNA MONITORING
AND RESEARCH**

AIS Staff

Phragmites Control

State ANS Management Plan

State ANS Management Plans

The ANS Task Force encourages state and interstate planning entities to develop management plans describing detection and monitoring efforts of aquatic nuisance species, prevention efforts to stop their introduction and spread, and control efforts to reduce their impacts. Management plan approval by the Aquatic Nuisance Species Task Force is required to obtain funding under Section 1204 of the Aquatic Nuisance Species Prevention and Control Act. Regardless of financial incentives, plans are a valuable and effective tool for identifying and addressing ANS problems and concerns in a climate of many jurisdictions and other interested entities.

Status of State ANS Management Plans (41 Approved Plans - 38 State, and 3 Interstate)



National Oceanic and Atmospheric Administration (NOAA)

- Great Lakes Aquatic Non-Indigenous Species Information System (GLANSIS)
- Risk Assessments – Asian carp
- Asian carp education and outreach – UW Sea Grant
- Forecasting the bioeconomic impact of AIS

NOAA



GLANSIS

**GREAT LAKES
AQUATIC NONINDIGENOUS SPECIES
INFORMATION SYSTEM**

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Background

The Great Lakes have a long history of aquatic nonindigenous species (ANS) introductions – both intentional and unintentional. As of 2012, over 180 nonindigenous species have been reported to have reproducing populations in the Great Lakes basin, i.e. lakes Superior, Michigan, Huron, St. Clair, Erie, Ontario, and their connecting channels and water bodies within their respective drainages (Mills et al. 1993, Ricciardi 2001, Ricciardi 2006, Ricciardi unpubl. data). The two most recent ANS reported and verified established in the Great Lakes basin were *Hemimysis anomala* and *Procambarus clarkii*.

The number of Great Lakes aquatic nonindigenous species documented in GLANSIS must be interpreted as a minimum. Identification depends on our ability to find, recognize, verify, and document new species, which is, in turn, dependent on our ability to adequately sample the Great Lakes ecosystem.

Species Included in GLANSIS

Species are assessed for inclusion in the database on a case-by-case basis. The present database does not include waterfowl.

The present GLANSIS database consists of three lists:

- A core list of species **nonindigenous** to the Great Lakes basin (not native to any part of the basin),
- A list of **range expansion** species (native only to a portion of the basin) and
- A **watchlist** (not currently found in the Great Lakes but assessed in the peer-reviewed scientific literature as of 2010 as likely to invade via current pathways).

US Geologic Survey



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Upper Midwest Environmental Sciences Center

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Aquatic Invasive Species Control

Current Projects

Asian Carp

[Application of broadband sound for bigheaded carp deterrence](#)

Principal Investigator: Marybeth Brey

[Assessing the properties of DNA degradation in complex environmental water samples](#)

Principal Investigator: [Chris Merkes](#)

[Assessing the properties of RNA degradation in complex environmental water samples](#)

Principal Investigator: [Chris Merkes](#)

[Assessment of carbon dioxide as barrier to Bigheaded carp](#)

Principal Investigator: Aaron Cupp

[Bioacoustic manipulation of invasive Bigheaded carp](#)

Principal Investigator: Marybeth Brey

[Correlating seasonal trends and occupancy of bigheaded carp eDNA to land use and stream characteristics](#)

Principal Investigator: [Chris Merkes](#)

[Developing a portable LAMP assay for detecting grass and black carp](#)

Principal Investigator: [Chris Merkes](#)

Dreissenid Mussels

[Development of Targeted Delivery Techniques for Zequanox](#)

Principal Investigator: [Jim Luoma](#)

[The effects of 28-day exposure to elevated CO₂ on survival, growth and condition of the juvenile life stage of *Lampsilis siliquoidea* and *Lampsilis higginsii* mussels](#)

Principal Investigator: Diane Waller

[Efficacy of *Pseudomonas fluorescens*, strain CL145A, SDP \(Zequanox®\) for controlling Zebra mussels within Lake Minnetonka, MN enclosures](#)

Principal Investigator: [Jim Luoma](#)

[Evaluation of CO₂ as a dreissenid mussel control tool](#)

Principal Investigator: Diane Waller

[Exposure-Related Effects of Zequanox on Lake Sturgeon \(*Acipenser fulvescens*\) and lake trout \(*Salvelinus namaycush*\) Survival and Condition](#)

Principal Investigator: [Jim Luoma](#)

[Temperature-dependent toxicity of molluscicides to zebra mussels](#)

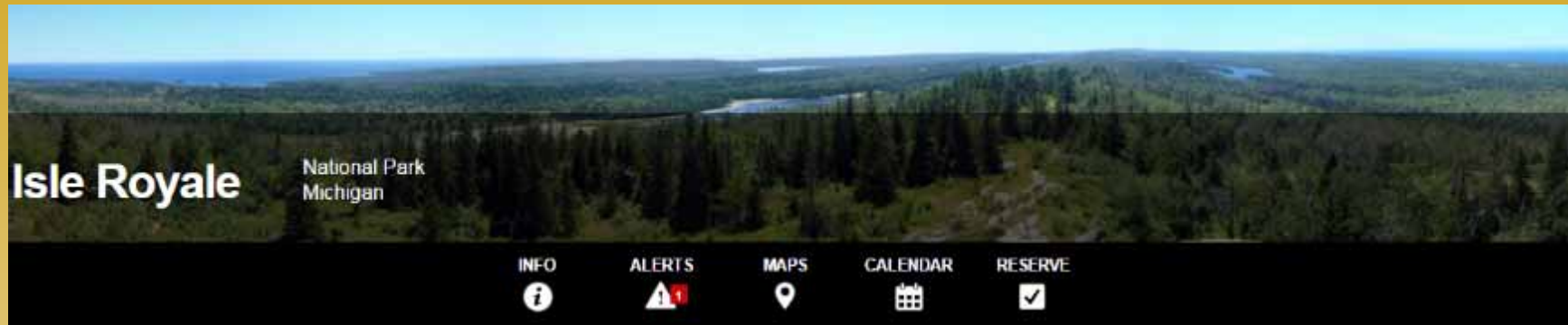
Principal Investigator: [Jim Luoma](#)

USGS Research

- Zebra Mussel control
- Round Goby control
- eDNA
- Asian Carp control



National Parks Service



NPS.gov / Park Home / Plan Your Visit / Directions & Transportation

Directions & Transportation



Isle Royale National Park is located in the northwest corner of Lake Superior. The island contains a roadless backcountry which prohibits the use of all wheeled vehicles and devices (except wheelchairs). Visitors traveling to Isle Royale must arrive by boat or seaplane. There are a variety of [transportation services](#) available that depart from Houghton, Michigan, Copper Harbor, Michigan and Grand Portage, Minnesota. Vehicular parking is available at all departure locations.

US Coast Guard

- Ballast Water Regulations



Ballast Water Regulation

International Maritime Organization (IMO)

- The International Convention for the Control and Management of Ships' Ballast Water and Sediments ([BWM Convention](#)) will enter into force on 8 September 2017
- Under the Convention's terms, ships will be required to manage their ballast water to remove, render harmless, or avoid the uptake or discharge of aquatic organisms and pathogens within ballast water and sediments

Federal Authorities

Non-Indigenous Aquatic Nuisance Species Prevention and Control Act - 1990

- Facilitate an effective governmental response to zebra mussel impacts on manufacturing and power generating processes in the Great Lakes' states.
- Created the national Aquatic Nuisance Species (ANS) Task Force.
- 1996 Congress reauthorized NANPCA and expanded its scope beyond ballast water introductions and zebra mussel control and management.
- ANS Task Force to work with its state and local government partners to address these challenges.

National Invasive Species Act – 1996 (Ballast Water)

- NISA required the Coast Guard to establish national voluntary ballast water management guidelines.
- The Coast Guard established both regulations and guidelines to prevent the introduction of ANS.
- Under the initial nationwide program which began in 1998, a self-policing program was established where ballast water management (BWM) was initially voluntary for a period of 24-30 months.
- However, the rate of compliance was found to be inadequate, and vessel operators often failed to submit mandatory ballast water reports to the Coast Guard during this timeframe. The voluntary program has become mandatory.

Federal Funding for AIS

- ANS Management Plan Implementation
 - USFWS – available to any state with an approved Mgmt. Plan
 - \$46,000
 - Very flexible...few strings
 - Shared with Great Lakes Indian Fish and Wildlife Commission
- Great Lakes Restoration Initiative - GLRI
 - USEPA and USFWS
 - Since 2010 – Estimated \$8 million to AIS program

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Thank You

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