Great Lakes Restoration Initiative

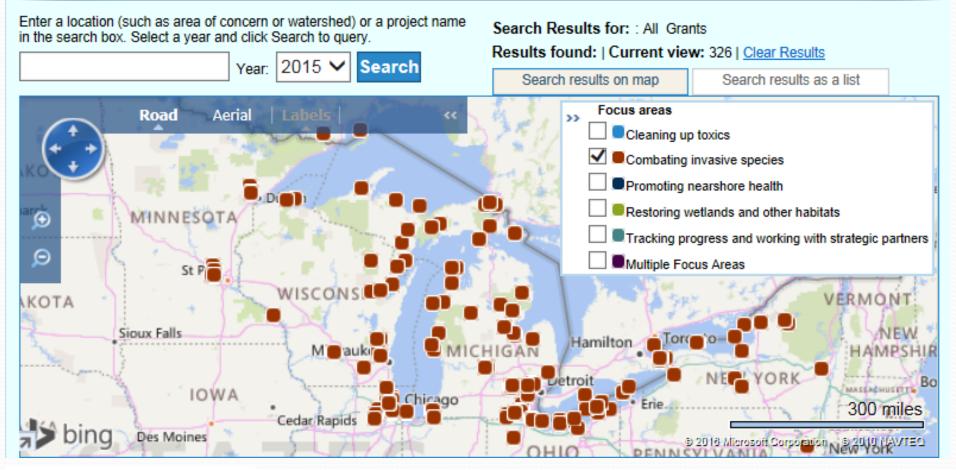
Accomplishments & Opportunities

Great Lakes Aquatic Nuisance Species Panel and ANS Task Force Meeting Traverse City, USA -- May 4, 2016

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.)





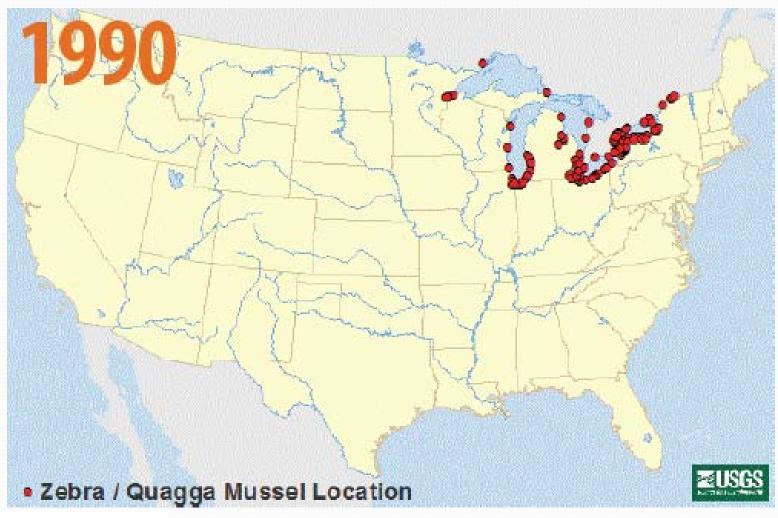
Overview of the GLRI

- How do I get my GLRI? (22 years in 2 minutes)
- Accomplishments overview of the GLRI and some key invasive species activities
- Opportunities future efforts we can work together on with GLRI support











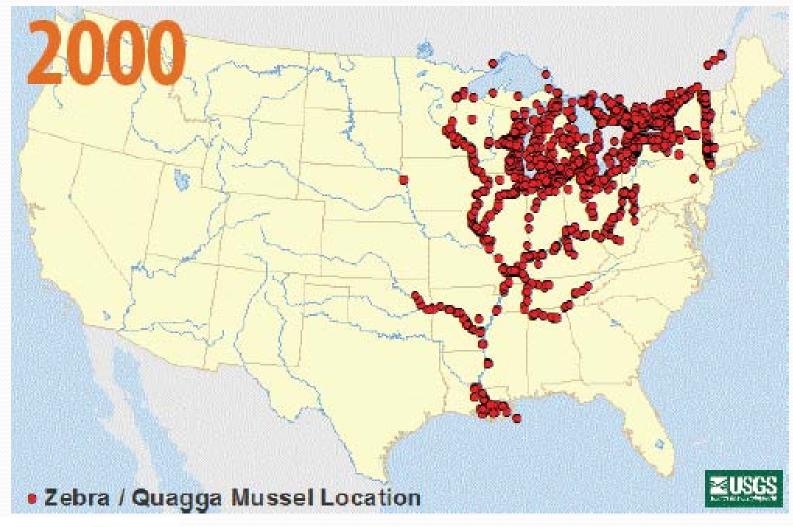
Great Lakes ANS Panel: synthesis of science and consistent messages on impact of invasive species.



Great Lakes Aquatic Invasions

Aquatic Invasive Species Prevention and Control: Outreach, Research, Management and Policy







Great Lakes Strategy 2002

A PLAN FOR THE NEW MILLENNIUM

A Strategic Plan for the Great Lakes Ecosystem Developed by the U.S. Policy Committee for the Great Lakes



Great Lakes Regional Collaboration Strategy





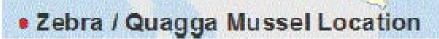
Great Lakes Interagency Task Force



Strategy Team Recommendations

- Aquatic Invasive Species
- Habitat/Species
- 🐨 Coastal Health
- AOC/Sediments
- Nonpoint Source
- Toxic Pollutants
 - Indicators and Information
 - 📕 Sustainable Development





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Great Lakes RESTORATION



Great Lakes Interagency Task Force





Challenges...



Challenges/Limitations

- Invasive Species a huge issue... could spend all of GLRI on it!
- No new invasive species authorities.
- Must use existing federal authorities to direct spending.
- Year-by-year funding, uncertainty.



Accomplishments through the GLRI...



Invasive Species

Prevent new introductions of invasive species

Control established invasive species

Develop invasive species control technologies and refine management techniques



Prevent new introductions of invasive species

Control established invasive species

Develop invasive species control technologies and refine management techniques



Total Funding ~\$40,000,000

30% Asian Carp 30% Prevention and Early Detection

25% Control

15% Technology and Species-Specific Collaborations

Prevention

Before:

- Some pathway work.
- Limited early detection monitoring / limited examples of rapid response.
- No Asian Carp Response

Through GLRI:

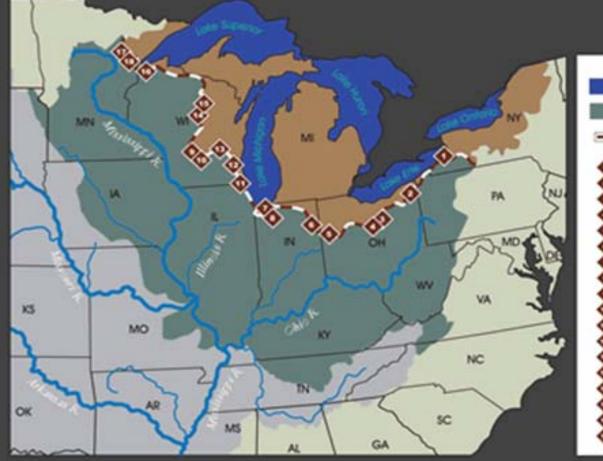
- Canals and waterways; Recreational boating; Commercial shipping; Illegal Trade of banned species; Release of aquarium species; Release of live bait.
- Conventional and molecular/genetic monitoring. 10+ responses

per year.

 Asian Carp Action Plan



Vectors of Transport



LEGEND		
GrectLokes	Great Lokes Basin	
Upper Massaippi Rver Bosin Lower Massaippi Rver Bosin		
Border of Grec	of Lokes and Upper S	Maalasippi River Scaine
NAME	COUNTY	STATE
And Multiple	Charlevere	89
The Manager No Later Grand Reer	Tumbul	¢#
Onio-Bine Const of Long Loke	Summit	dm .
Gille Killsuck Creek	Medine	CH .
Grand Lake St Marys	Mercer	OH
Cage Ward, Fort Worke	Adam	-
Coortin Lote	Parter	-
Aufur Ditth - Colle Ditth	Parlar	-
A Purtage Stantmant	Columbia	*
Antage Downsteams	Columbia	*
Anuma Casal	Kampaha	*
W. Manumumaa Fulls	Washington	*
townshin - bonder	First du Los	**
Aufres Prover Brear	Monthon	**
L Anime Waltanda	Marchan Deward	*
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treat liter	Rent of	MAN .
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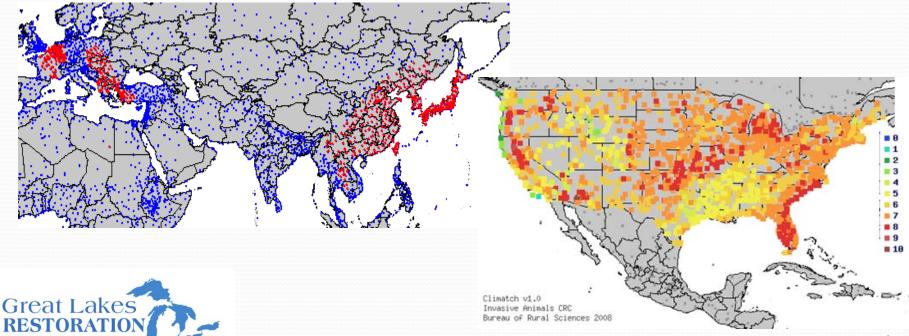
Recreational Boating





Species Risk Assessments

- Vast increase in through-put of risk assessments:
 - Before: limited risk assessments.
 - Through GLRI: ~100 risk assessment each year



Control

Before:

- State ANS Management Plan funding: \$30K/State each year.
- Example: EPA Competitive Grants for IS: ~\$200K/yr

Through GLRI:

- Great Lakes States: >\$5M (+ \$Carp) year in activities
- Communities: >\$5+M year for control plus stewardship beyond funding period
- Over 100,000 acres of GLRI control activities or 150 square miles!







Technology (and Collaborations)

Before:

- Treatment technology performance largely unknown.
- Informal collaboration among professionals and stakeholders

Through GLRI:

- 20+ promising systems, type approval of systems soon.
- Informal collaborations

continue, plus:

- (Asian Carp)
- Phragmites
- Monecious Hydrilla
- Invasive Mussels





Future Opportunities...



Linking Detection and Response

- Detection has become easier with increased effort and new monitoring techniques.
- Response and eradication remains a daunting challenge!
 - Reasonable expectations!
 - Supporting organizations that attempt eradication.
 - "Horsepower" we all help out.
 - Adaptive Management learning from each attempt.



Expansion of Collaborations

• What is the next species that merits a Species-Specific Collaboration?

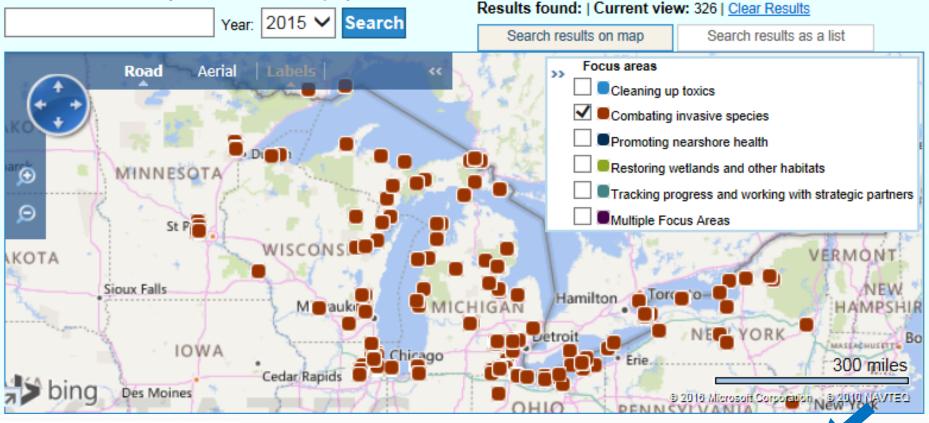
 "Technology Collaborations"? – e.g. genetic markers and/or genomic tools?



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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.





http://GLRI.US

Search Results for: All Grants



