

Funding for Invasive Species: A Review of Progress, Gaps, and Opportunities

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Project Background

This project aims to complement existing reporting systems by aggregating project information across various metrics and providing a more detailed analysis of how federal investments have been used to make progress on aquatic invasive species (AIS) prevention and control.

Utilizing Great Lakes Restoration Initiative (GLRI) funding information, this project compares investments made by the federal funding initiative to the regional priorities set forth by the Research Coordination Committee of the Great Lakes Panel on Aquatic Nuisance Species.

Great Lakes Restoration Initiative

- Established in 2010 by Congress to provide additional resources toward critical long-term goals for the Great Lakes ecosystem.
- Coordinated by the U.S. Environmental Protection Agency (U.S. EPA)

Great Lakes Panel on Aquatic Nuisance Species

- The Great Lakes Panel on Aquatic Nuisance Species (Great Lakes Panel) coordinates education, research, management, and policy efforts to prevent new AIS from entering the Great Lakes basin and to control and mitigate those AIS populations already established.
- Serves as one of six regional panels that advise the federal Aquatic Nuisance Species Task Force

Research Coordination Committee

- Provides a forum for ongoing dialogue and action among the parties who conduct, manage, sponsor or apply Great Lakes-related AIS research
- Enhances inter-regional communication and coordination of AIS research
- Disseminates policy recommendations regarding AIS research priorities.

Core Questions

Distribution across:

- Certain species or taxonomic groups that are favored or overlooked
- Habitats (inland vs coastal vs offshore)
- Locations (population bias)
- Pathways funding
- Investment portfolios (research/development vs implementation vs evaluation)
- Management functions (prevention vs EDRR vs control)
- Spread of resources (universities vs NGO vs government (federal vs state vs local))

Project Objectives

1. Create a database that compiles relevant details of the past 7 years of Great Lakes Restoration Initiative aquatic invasive species investment.
2. Aggregate database records to quantify investments across a variety of metrics.
3. Analyze investments to identify trends, gaps, and progress in funding regional priorities.

Data Utilized

- U.S. EPA database of all GLRI-funded projects FY2010 – FY2016
- This project incorporated projects that received federally dispersed funds only.
- Federal funds distributed to states by U.S. FWS through the GLRI program for state management plan implementation are not reflected

Database Metrics

- Invasion Stage
- Taxa Targeted
 - Species/Taxonomic Group Targeted
- Vector/Pathway Addressed
 - Specific Vector/Pathway
- Great Lakes or Inland Waters?
- Habitat Type
- Project Phase
- Project Focus
- Area/Populations Managed
- Tools/Methods
- Target Area
- Technology Developed

- Population Reduction
- Materials Developed
- Funding Agency
- Funding Year
- Recipient
- State
- Award (amount)
- Project Funded through a Plan?
- Project Type
- Project Title
- Project Description

GLRI Project Identification

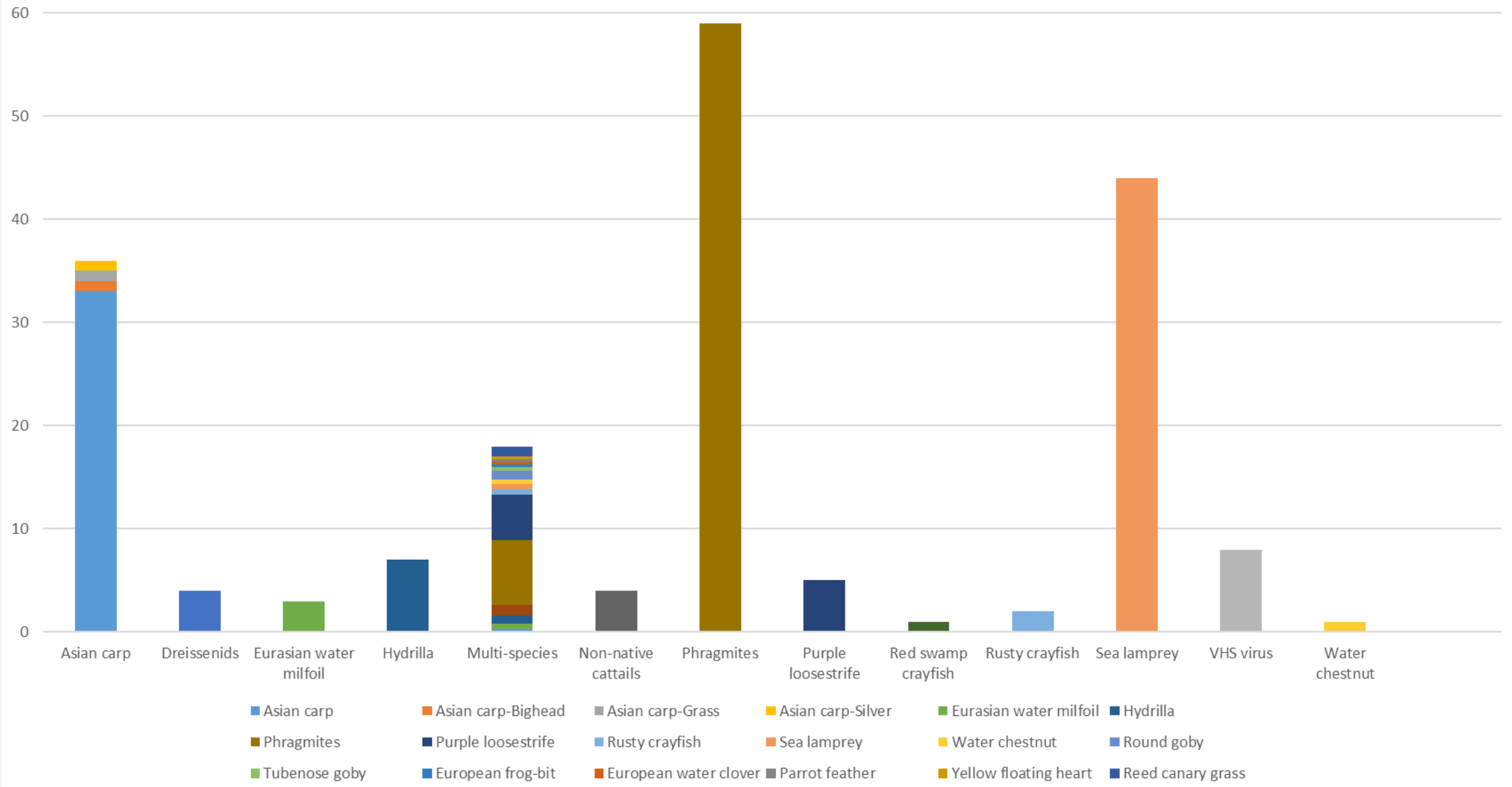
- Identified GLRI projects with a focus on aquatic invasive species.
- 526 projects were funded in FY2010-FY2016.
- Total AIS funding: \$ 322,928,930.97
- Total GLRI funding: \$1,711,470,506.00 (18.8%)

Preliminary Results

Research Coordination Committee Priorities: Species

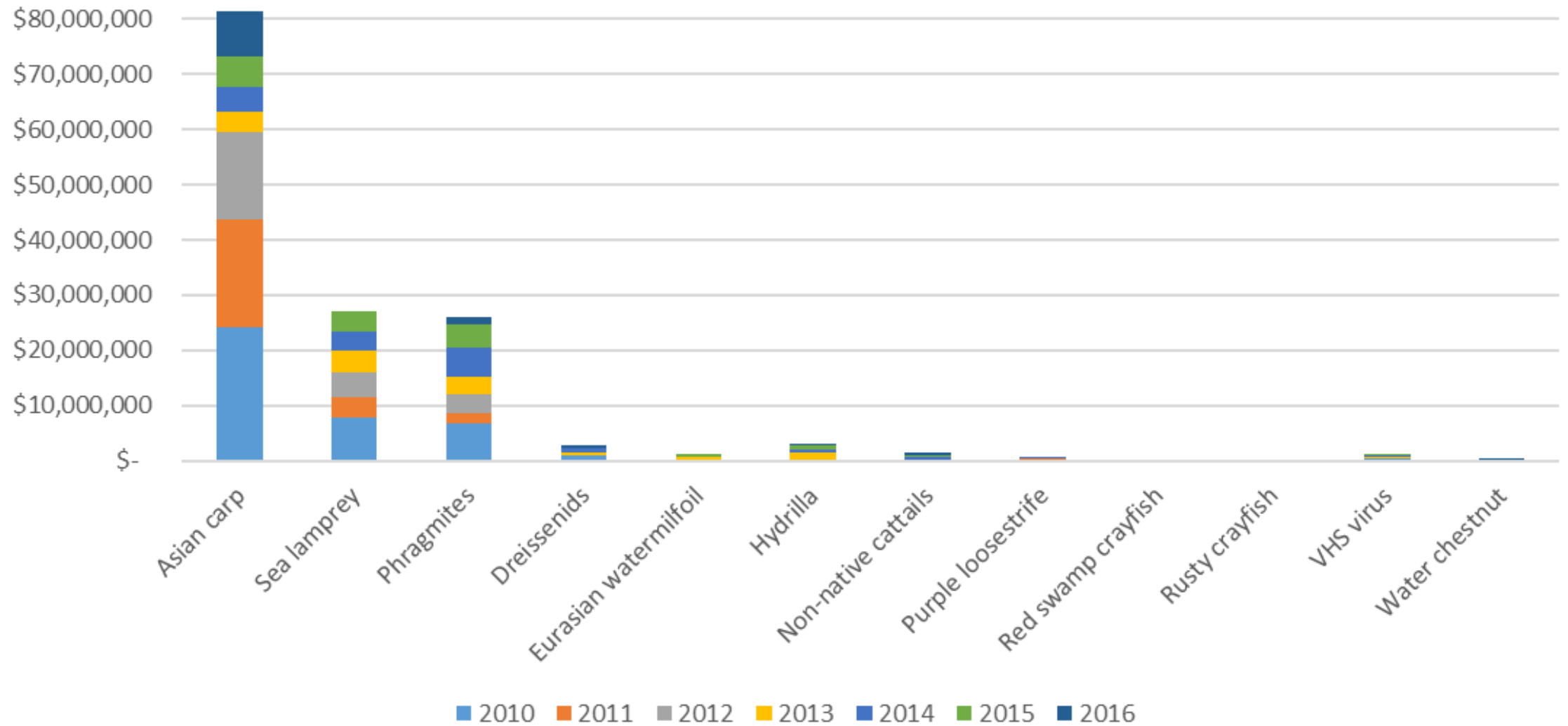
- We found 179 projects in FY2010-FY2016 that focused on 11 priority species:
 1. Asian carp
 - a) Silver
 - b) Black
 - c) Grass
 - d) Undefined
 2. Dreissenid mussels
 3. Eurasian watermilfoil
 4. European frogbit
 5. Hydrilla
 6. Phragmites
 7. Round goby
 8. Rusty crayfish
 9. Sea lamprey
 10. VHS
 11. Water chestnut
- Additionally, 25 projects in FY2010-FY2016 focused on species not on the priority species list

Projects per species

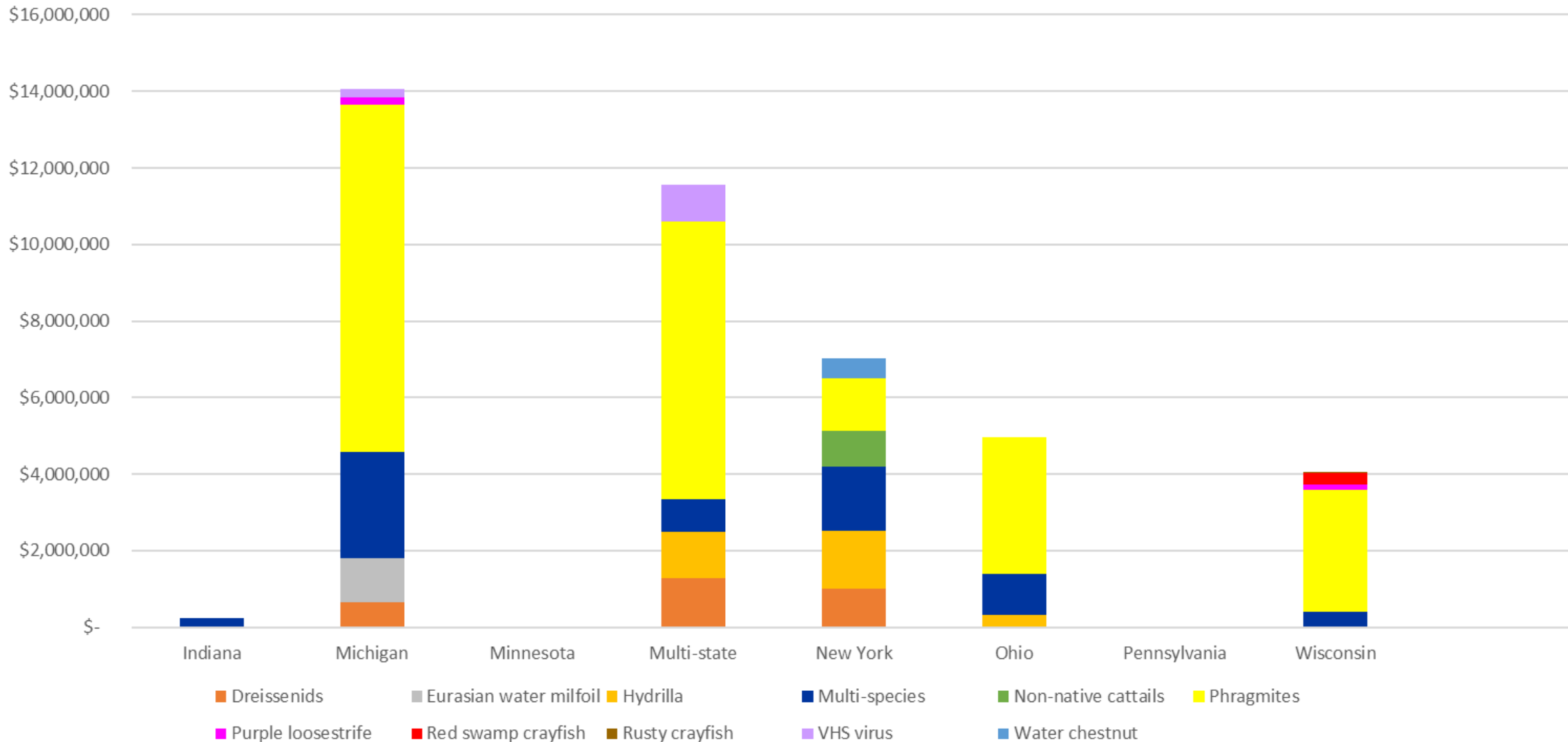


- Asian carp
- Asian carp-Bighead
- Asian carp-Grass
- Asian carp-Silver
- Eurasian water milfoil
- Hydrilla
- Phragmites
- Purple loosestrife
- Rusty crayfish
- Sea lamprey
- Water chestnut
- Round goby
- Tubenose goby
- European frog-bit
- European water clover
- Parrot feather
- Yellow floating heart
- Reed canary grass

All species (federally-dispersed GLRI funds)



Species funding per state (sans Asian carp and sea lamprey)



Challenges

- Analyzing projects with more than one management/species focus
- Accurately determining where species are on the invasion curve
- Supplementing project description data
- Presenting a partial picture of AIS funding in the Great Lakes

Next Steps

- Incorporate projects managed at the state level through GLRI-funded AIS state management plans, as well as funding allocated from state budgets.
- Finalize analysis of funding vs. regional management priorities
- Moving forward with the Great Lakes Panel regional priorities

Questions?

Thank you!

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