

MULTISTATE CONSERVATION GRANT PROGRAM

Annual Report 2024



Funding Critical
Conservation Needs

ABOUT THE MULTISTATE CONSERVATION GRANT PROGRAM



For over two decades, the Multistate Conservation Grant Program (MSCGP) has been firmly dedicated to preserving our nation's fish and wildlife populations and conserving natural resources and crucial habitats. The MSCGP was established through the Wildlife and Sport Fish Restoration Programs Improvement Act of 2000 (Improvement Act), which amended the Pittman-Robertson Wildlife Restoration Act and the Dingell-Johnson Sport Fish Restoration Act.

Each year, the MSCGP directs up to \$6 million—\$3 million from Sport Fish Restoration (SFR) and \$3 million from Wildlife Restoration (WR) funds—to support projects directly benefiting fish and wildlife conservation and state fish and wildlife agencies as well as projects that provide a foundation for future management and conservation. Grants focus on research, education, management leadership, industry relations, and on-the-ground management of fish and wildlife and their habitats.

On December 20, 2019, Modernizing the Pittman Robertson Fund for Tomorrow's Needs Act was signed into law which further amended the Wildlife Restoration Act to create a new Hunter Recruitment and Recreational Shooter Recruitment (R3) Multistate Conservation Grant Program.

It authorized the Secretary of the Interior to make up to \$5 million available annually, specifically for R3 grants that promote a national hunting and shooting sports recruitment program, including related communications and outreach activities.

The program is co-administered by the Association of Fish & Wildlife Agencies (AFWA) and the U.S. Fish and Wildlife Service (USFWS). The Association solicits grant proposals from state agencies, regional associations, and non-governmental agencies and selects its "priority list" of recommendations at AFWA's Annual Meeting. Those priorities are forwarded to the USFWS, which reviews, processes and approves grant awards.

The Association updates the information on How to Apply for Multistate Conservation Grant Program every year (End of March-Beginning of April). This information can be found on the AFWA website www.fishwildlife.org, or by scanning the QR code.



THE MULTISTATE CONSERVATION GRANT PROGRAM: ANNUAL CYCLE



2024 MSCGP Strategic Priorities

1. Conservation & Science

- A. Climate Change
- B. Fish and Wildlife Health (“One Health”)
- C. Human Dimensions & Conservation Social Science
- D. Invasive Species
- E. Emerging Technologies for fish and wildlife management

2. Expanding Relevancy and Engagement (ERE)

- A. Enhancing Conservation Through Broader Engagement
- B. Implementing and/or Expanding Diversity, Equity, and Inclusion Efforts
- C. Research

3. Capacity Building, Conservation Education, and Coordination of Conservation Policies

- A. Leadership Development
- B. Conservation Education
- C. Coordination of Conservation Policies
- D. Integration of Law Enforcement

4. AFWA Priorities Identified in AFWA Funding Principles (submitted by ExCom)

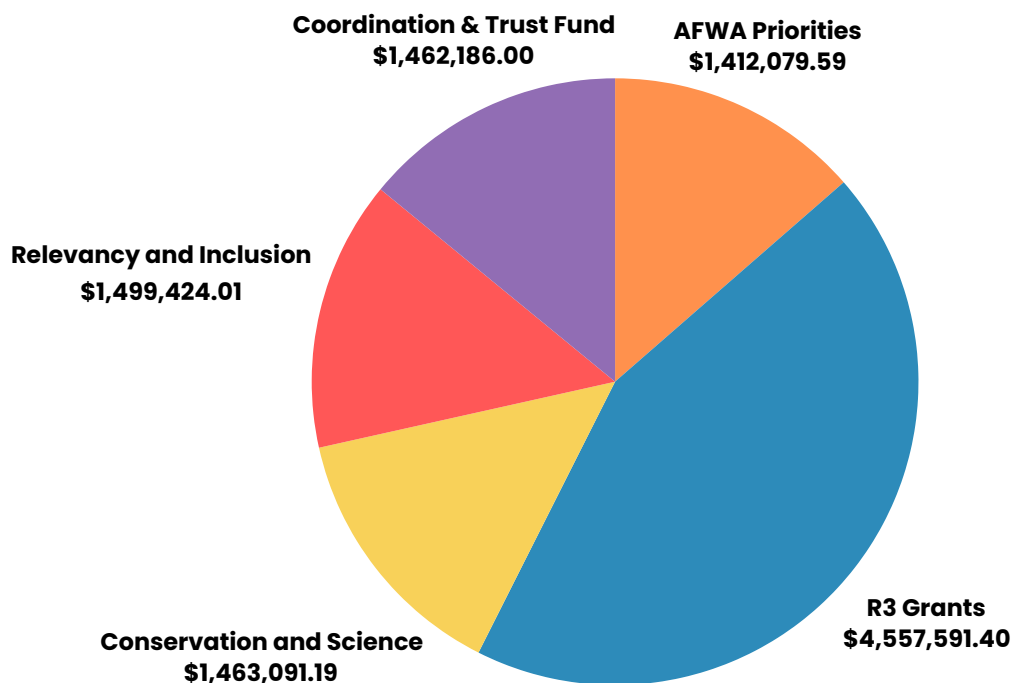
- A. Management Assistance Team
- B. Management of MSCGP Program
- C. CITES and International Conservation Programs and Their Impact of State Agencies
- D. Coordination of Conservation on a National Scale
- E. National Survey of Fishing, Hunting and Wildlife-Associated Recreation

5. Recruitment, Retention, Reactivation (R3)

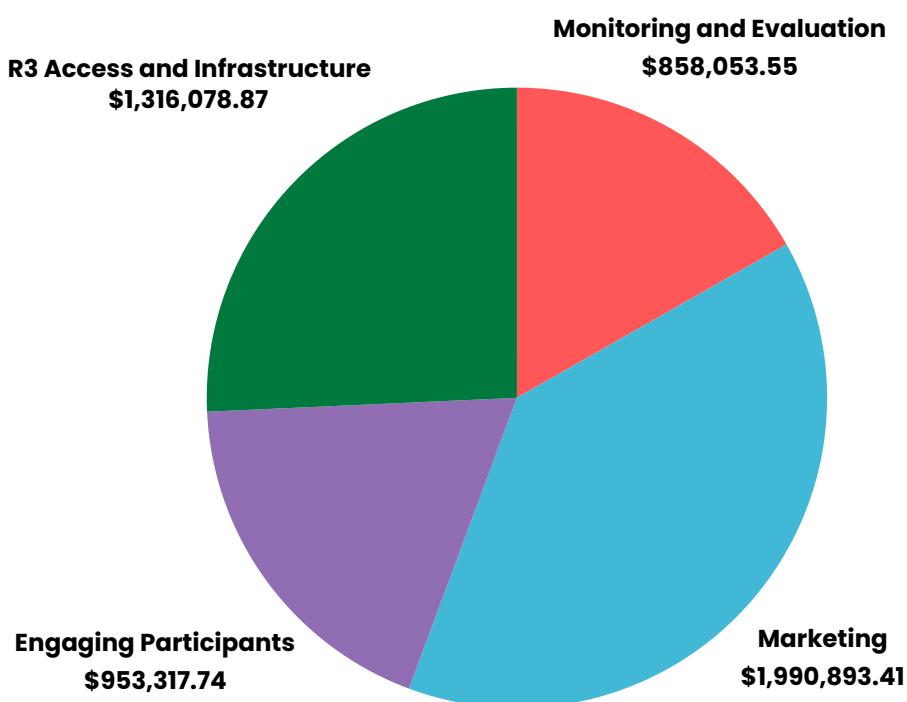
- A. Marketing
- B. Engaging Participants
- C. Monitoring and Evaluation
- D. Hunting and Shooting Sports Access and Infrastructure

The Association established priority areas for the 2024 Multistate Conservation Grant Program and received 105 proposals. In 2024, 55 proposals (in addition to 3 obligated in the previous year) were awarded \$10,579,372.

2024 Multistate Conservation Grant Program



Recruitment, Retention, Reactivation (R3) Priorities



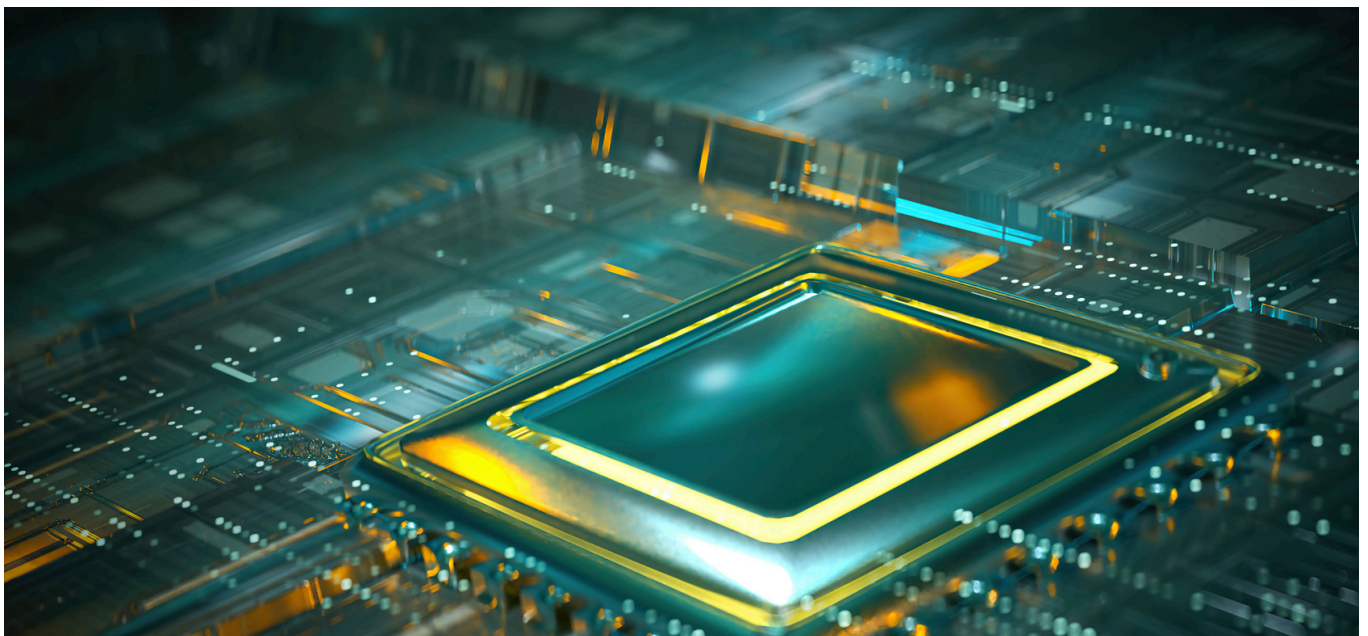
MULTISTATE CONSERVATION GRANTS DATABASE

The Association of Fish and Wildlife Agencies launched the Multistate Conservation Grant Program (MSCGP) Database, marking a significant milestone in its two-decade history since its establishment in 2000.

This platform provides a comprehensive overview of awarded MSCGP grants from the program's inception to the present year. Featuring over 450 previous grants, the database is a great tool for applicants, offering a unique opportunity to explore the wealth of projects and initiatives that have received funding over the years.

The database helps prospective applicants by allowing them to examine the historical landscape of conservation efforts and inspires them to get ideas and strategies from previously successful projects. The database safeguards against duplications, empowering applicants to ensure their proposed activities build upon existing achievements rather than duplicating efforts.

As a pioneering initiative, it stands as a testament to the Association of Fish and Wildlife Agencies' dedication to enhancing transparency, efficiency, and the overall impact of the Multistate Conservation Grant Program.



EXAMPLES OF 2024 AWARDED GRANTS

1 **COORDINATION OF STATE FISH AND WILDLIFE AGENCIES' AUTHORITY TO MANAGE WILDLIFE RESOURCES IN CONCERT WITH FEDERAL ACTIONS REQUIRED BY INTERNATIONAL TREATIES, CONVENTIONS, PARTNERSHIPS, AND INITIATIVES**

Association of Fish & Wildlife Agencies



Support for state agency participation in international treaties, conventions, and initiatives such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the International Union for Conservation of Nature was critical this year. State fish and wildlife agency representatives met in person with the USFWS CITES staff to discuss issues of importance to the USFWS and state agencies, enhance collaboration, and advance implementation of CITES in the U.S. State fish and wildlife agency staff also engaged globally through the CITES Animals Committee. They worked with partners on issues of importance to the sustainable use of native species of birds, mammals, and fish, such as traceability, expedited permits, American eel conservation, and more. The pilot trade status assessment published examined international trade in 63 turtle species native to the US. It was developed as a pilot assessment to inform the potential future assessments of bobcats, river otters, and other CITES-listed species.

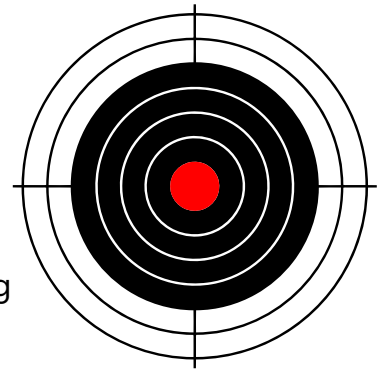
Participation in the US IUCN Annual Meeting and the Regional Conservation Forum was also made possible by the grant.

2 **WELCOME NEW SHOOTERS! TACTICS TO INCREASE PARTICIPATION WITHIN UNDER-REPRESENTED COMMUNITIES**

Outdoor Stewards of Conservation Foundation

Previous MSCGP research identified high levels of interest in target shooting across multicultural communities, yet few actually do so. The Outdoor Stewards of Conservation Foundation, with contract support from Southwick Associates and DJ Case & Associates, connected with these audiences to identify the barriers preventing them from trying and how states and their industry partners can help these potentially millions of new participants overcome these hurdles. The goal is to have significant increases in recreational target shooting among new and diverse participants.

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Strategic top-level insights emerged regarding how to boost target shooting participation among multicultural communities. First, campaigns targeted at each specific racial, ethnic, or gender-based audience are not necessary. The results were consistent across all tested audiences. Messages and imagery showing they can try target shooting in safe, expert-controlled conditions are critical. They are not necessarily concerned for their safety but worry if they will be a danger to others. Campaigns will be even more effective if marketing images contain individuals other than traditional participants, such as white males. Agencies and industry should focus marketing efforts on the reasons why these audiences want to visit a range, with top motivations including wanting to learn more about how to protect oneself and family, safe firearms handling, developing a challenging new skill, having some fun, ensuring safety is paramount in all communications, and promoting the safety steps required of everyone.

The full report and results will be available at www.OutdoorStewards.org.

3 ENSURING THE VIABILITY OF THE AMERICAN SYSTEM OF CONSERVATION FUNDING: IMPROVING THE UNDERSTANDING OF EXCISE-TAX BASED FUNDING FOR CONSERVATION.

Wildlife Management Institute

The Wildlife and Sport Fish Restoration program allocates more than \$1 billion each year to state wildlife agencies for conservation, which has positive ripple effect on local economies through wildlife-related recreation. Furthermore, it creates and sustains opportunities for everyone to appreciate and engage with nature, including fish, wildlife, and the outdoors. By strengthening relationships among industry, agencies, and other collaborators, we can efficiently promote our success stories in conservation and collectively engage our partners and customers to ensure the long-term stability of conservation funding. Furthermore, by leveraging resources through partnerships, we can raise awareness among influential individuals and the public, allowing our conservation model to thrive for years to come. The objectives of this project are to clarify the role of industry partners in fish and wildlife conservation, highlight the benefits of conservation to our partners and customers, and

EXAMPLES OF 2024 AWARDED GRANTS

increase awareness among key influencers regarding the crucial contributions made by states, manufacturers, and the sporting public. These efforts aim to shed light on what has long been our best-kept secret and our most remarkable conservation success story.

For more than a decade, work done under previous versions of this grant helped to rebuild state agency-industry partnerships. Previous iterations of this grant have led to the establishment of notable organizations and programs like the Council to Advance the Hunting and Shooting Sports and the USFWS "Partner with a Payer" program. During the 2024 MSCG cycle, WMI continued to collaborate with the major trade associations to improve industry relationships to increase their support for conservation funding and programs. Actions taken under this current grant:

- WMI coordinated the research on the loss of excise tax thru loopholes (slippage) caused by "direct to consumer" sales from overseas manufacturers and/importers and addressed the issue of lost excise tax revenue caused by common carriers delivering taxable items directly to consumers, bypassing the excise tax collection. This resulted in a positive General Accounting Office (GAO) audit of the issue, which verified that millions of dollars are lost to the program and corrective actions should be taken. Both ASA and ATA have used this information to solicit congressional sponsors and develop language to close the slippage loophole.
- WMI created, produced, and secured hosting for a new podcast focused on the business of conservation (Connecting with Conservation – Spotify, Podbean, Apple Podcast, etc.). Guests on the podcast represent state and federal agencies, industry partners, manufacturers, retailers, and conservation non-profits. Its purpose is to inform everyone about the importance of the excise tax for conservation in the United States.
- WMI continued to host and maintain the WSFR Partner with a Payer database (wildlifemanagement.institute/industry), facilitating better communication and outreach among WSFR partners.
- WMI promoted the WSFR Program by attending and presenting at industry and agency conferences, trade shows, summits, etc. In 2024, this included Annual Conferences of AFWA, MAFWA, WAFWA, and SEAFWA as well as the SHOT and ICAST trade shows.
- WMI provided excise tax seminars, written materials, and personal interactions at ICAST and ATA in order to educate partners who may not be familiar with the significance of the federal excise tax for conservation. This included technical seminars for new manufacturers on how to ensure compliance with the tax system and meeting personally with new manufacturers to explain the importance of the tax system to conservation.

Overall, WMI's work under this grant solidifies a sustainable future for conservation funding provided by the excise tax, thus ensuring a continued reliable source of revenue for state fish and wildlife agencies.



EXAMPLES OF 2024 AWARDED GRANTS



4 HUMAN COSTS AND IMPACTS OF LOSING HUNTING & TRAPPING AS WILDLIFE MANAGEMENT TOOLS

Sportsmen's Alliance Foundation

It's no secret that over the past five decades state wildlife agencies have faced persistent calls to limit, and/or outright ban, hunting and trapping activities. When these calls materialize into policy there are many downstream impacts to not only wildlife populations and habitat, but also farmers, homeowners, families, communities, public health and safety, and insurance premiums. However, the only available data to analyze the impact is nearly 20-years old (2005).

Today, the public at large is largely unaware of the critical and important role hunting and trapping play in limiting human-wildlife conflicts, reducing damage to private and public property, and maintaining public safety. As human and wildlife populations increase, so do human-wildlife conflicts leading to increased demands on state wildlife agencies for relief.

This project will provide comprehensive insights to help policy makers, the media, and the general public better quantify and describe the benefits of hunting and trapping, as well as the expected impacts if hunting and trapping were lost as management tools. For example, we will quantify the financial damages from deer-auto collisions, as well as crop and livestock losses. By documenting and communicating current levels of known wildlife damage and safety threats (disease, air and highway transportation, infrastructure security, et al) plus trends over time, we will give policy makers, agency personnel and others the tools necessary to explain the benefits and cost-effectiveness of utilizing hunting and trapping as wildlife management tools.

This effort is being conducted in two major parts. The first is a comprehensive compilation of existing facts and research that documents examples of damages and losses that currently occur from wildlife, focused on explaining the need for active, professional wildlife management. This effort is complete. Using an advanced survey technique known as the 'Delphi Method', the second part is collecting expert opinion on the costs society will be expected to incur if hunting and trapping were lost as wildlife management tools. Requiring several rounds of anonymous surveys, the final round will be issued the week of November 18th, 2024. Final results for the complete project are expected by December 31st, 2024.

EXAMPLES OF 2024 AWARDED GRANTS

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INTEGRATIVE MODELING TO PREDICT THE DISTRIBUTION OF ESSENTIAL FISH HABITAT UNDER FUTURE CLIMATE CHANGE SCENARIOS IN THE SOUTHEASTERN USA

Florida Institute of Technology

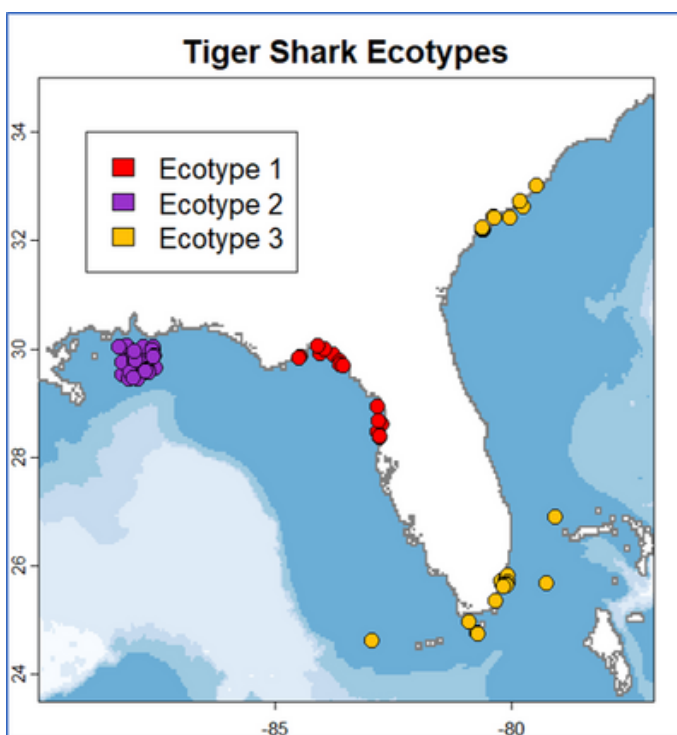
As oceans warm under climate change, migratory marine fishes, such as sharks, are moving poleward to in search of favorable habitat. Fishery managers and researchers often predict these movements using species distribution models, which draw correlations between species occurrence and oceanic variables such as temperature or salinity. Yet in widespread species, subpopulations may be closely adapted to their specific habitats, and conventional models may produce generalized predictions that fail to account for regional differences. Our objective is to develop a genetic species distribution model (GSDM) that accounts for these between-group adaptive differences by combining evolutionary and environmental data. Past studies have shown that considering adaptation in distribution models can dramatically improve their predictive ability, and our model will represent a powerful new tool for the prediction of climate change impacts and responses in widespread, highly-mobile fishes. In addition to the GSDM, we will also use the genomic data and the model's predictions of available habitat to construct a genomic population viability analysis (GPVA), in which we will estimate minimum viable population size and extinction risk for shark populations under various scenarios.



Postdoc Dr. Anna Weber presents our results at the 2024 Joint Meeting of Ichthyology and Herpetology

EXAMPLES OF 2024 AWARDED GRANTS

As of November 2024, we have successfully identified three groups, or ecotypes, of juvenile tiger sharks (*Galeocerdo cuvier*) with genomic evidence of local adaptation to their surroundings. This adaptation could lead to between-group variation in characteristics defining optimal habitat, in future habitat availability, and in climate vulnerability. Multiple statistical frameworks for the GSDM have been tested, including the Maxent software and boosted regression trees, neither of which were satisfactory in their ability to account for local adaptation. We have now turned to the cutting-edge modeling technique known as hierarchical or joint models, which are specifically designed to accommodate variation between groups of organisms, such as our identified adaptive shark ecotypes. This model is currently under development using a simulated dataset to minimize error during testing, and, once optimized, the method will be applied to tiger sharks and bull sharks (*Carcharhinus leucas*) to predict future essential habitat under climate change. The model will be generalized in publication for use in other marine species, and once predictions of future habitat are available, the GPVA will be completed using measures of habitat loss, genetic diversity, and predictions of climate vulnerability.



Raw data on tiger shark ecotypes for input into a genetic species distribution model

EXAMPLES OF 2024 AWARDED GRANTS

6

IMPROVING CONSERVATION EFFORTS FOR SPORTFISH AND WATERFOWL – DEVELOPING EDNA TOOLS FOR USE IN AQUATIC INVASIVE SPECIES DETECTION

Regents of the University of Minnesota

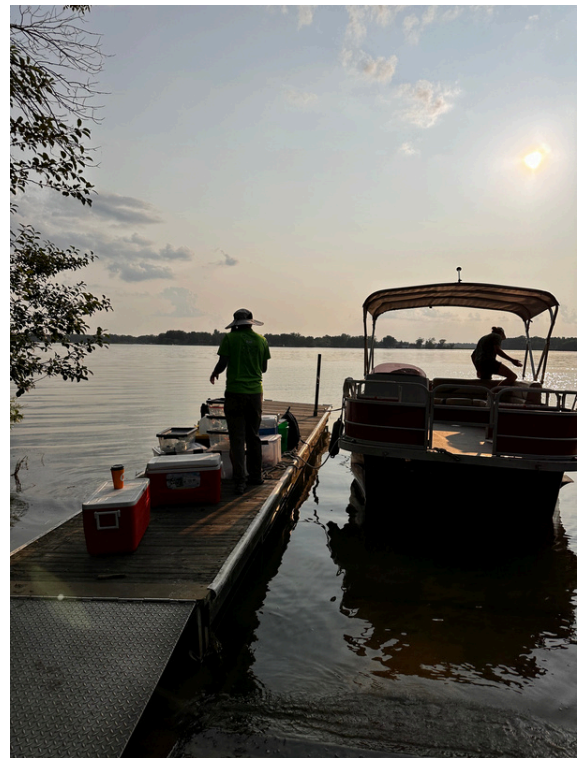


Aquatic Invasive Species (AIS) can have drastic impacts on populations of waterfowl and sportfish through a variety of environmental impacts including habitat alterations, outcompeting native prey items, and altering food web dynamics. In 2020, it was estimated that AIS cost the US at least \$23 billion dollars. Early detection of AIS can be critical in enabling managers to provide rapid response measures in order to prevent establishment or further spread of AIS along with directing limited restoration funds. Detecting AIS can be a very costly and time-intensive endeavor when traditional sampling methods are used. Environmental DNA (eDNA) is a powerful tool for biodiversity assessments and the early detection of AIS, but eDNA assays are missing for most aquatic plants. Aquatic plants are key indicators of ecosystem health and popular targets for biodiversity monitoring and restoration worldwide. Invasive plants are often accidentally introduced into new waterbodies at distinct points of use, like boat landings. At new invasion sites, traditional field-based plants surveys typically detect the invasive only after the plant is established in high abundance and therefore difficult or impossible to eradicate.

This project aims to develop an eDNA assay for aquatic invasive plants using nanopore sequencing technology. This next-generation sequencing platform continues to improve, affording a more accessible and readily deployable option for surveyors. This project will focus on 38 species of interest for the Upper Mississippi River Basin. The list includes ecologically significant native species, currently invading species, and potential invasive species that are established in Southern regions or frequent the aquarium trade. As of November 2024, tissue samples have been collected for 22 species, covering all natives and all invasive species from the list that have been detected in the UMRB. Additionally, samples for 81 species of aquatic plants from across the state of Minnesota were collected in collaboration with the Minnesota Aquatic Invasive Species Center's Aquatic Invasive Plant ID workshop. Samples from 24 species were collected from Pool 6 of the Mississippi River. Tissue samples allow for the assembly of a DNA database that will be used to test primers and optimize the nanopore assay for expected plant community compositions.

EXAMPLES OF 2024 AWARDED GRANTS

We will grind the collected aquatic plant tissues to extract genomic DNA. The extracted DNA will then be used to generate a species-level DNA barcoding database. To achieve this, we have designed 28 sets of primers based on sequences from aquatic plant chloroplastic genes (*rbcl*, *matk*, *ITS2*), with some primers adapted from [Prieto et al. \(2023\)](#). These primers will be tested on a collection of aquatic plant samples gathered during the summer of 2023, with the goal of identifying the most effective universal primer for developing species-specific DNA barcodes. The amplified PCR products will be sequenced using the MinION platform, and the resulting sequences will be analyzed to identify haplotypic variations among species. This analysis will help create a metabarcoding database that will serve as a valuable resource for identifying aquatic invasive plant species. To ensure broad accessibility, the species-specific chloroplastic gene sequences will be made publicly available by submitting them to the National Center for Biotechnology Information (NCBI) GeneBank (<https://www.ncbi.nlm.nih.gov/genbank/>).



This Project was funded by a Multistate Conservation Grant [F24AP00129](#), a program funded from the Wildlife and Sport Fish Restoration Program, and jointly managed by the U. S. Fish and Wildlife Service and the Association of Fish and Wildlife Agencies.