



Native Mussel Extinctions? Not on OUR watch!! A Call for Action By The Upper Mississippi River Tallgrass Prairie Ecosystem Team

The eastern U.S. has the highest diversity of freshwater mussels in the world. The Higgins' eye (*Lampsilis higginsi*) and Winged Mapleleaf (*Quadrula fragosa*) are Federally endangered freshwater mussels found in the Upper Mississippi River Basin. They need immediate attention because they and other native mussels are threatened with extinction.



Commercial barges carry a stowaway that threatens all freshwater mussels on the Upper Mississippi River - the exotic zebra mussel. This European species originally came to the Great Lakes when infested water in the ballast tanks of ocean-going cargo vessels was emptied while ships were in port. Channels between Lake Michigan and the Illinois River that were constructed for navigation provided the path for the spread of zebra mussels. Zebra mussels are prolific and spread quickly, smothering native mussels, changing water chemistry and competing for food.

Zebra mussels have already infested most areas where Higgins' eye are found. Only two of the Higgins' eye's ten Essential Habitat Areas are currently free of zebra mussels. Reproducing populations of zebra mussels are now 25 miles downstream of the only known population of winged mapleleaf mussels in the St. Croix River and individual zebra mussels have been found much closer.

The Upper Mississippi River Tallgrass Prairie Ecosystem team's Native Mussel Subgroup has developed the following list of action items which require a multi-agency and multi-disciplinary approach to species conservation.

Action Items for Mussel Subgroup:

- Brief Regional Management Team
- Prepare long-range plan for mussel culture at Genoa NFH
- Section 7 reconsultation with Army Corps on 9-ft. Channel Project
- Complete a Biological Opinion for National Park Service's Lower St. Croix River Management Plan
- Assist Genoa NFH with mussel culture activities

Action Items for FWS Managers:

- Through Solicitor's Office identify responsible Federal agency for Great Lakes and Mississippi River inter-basin transfer
- Brief Mississippi River Congressional

- Task Force on Upper Mississippi River mussel issues and needs
- Elevate mussel conservation and include mussel recovery actions in the RONS and FONS
- Identify and obtain Service funding sources for recovery activities
- Assistant Regional Director-Ecological Services assume a prominent role in species recovery

Action Items for Public Outreach:

- Service External Affairs to lead mussel media/outreach efforts
- Develop Upper Mississippi River Mussel Web Site
- Through internal and external communications promote urgency of mussel recovery

Mussel Research Needs:

- Identify host fishes for winged mapleleaf mussel
- Conduct feasibility study and implement measures to halt spread of invasive species from Lake Michigan to Illinois River and Upper Mississippi River System
- Identify native mussels that are ‘at risk’ from zebra mussel infestation
- Conduct a population and habitat viability analysis study for Higgins’ Eye Pearlymussel

FWS Personnel Needs:

- Establish an aquatic ecologist position on the Upper Mississippi River to promote conservation of native mussels and to assist with implementation of the 9-ft. Channel Project Biological Opinion
- Establish a Grants Coordinator through the Upper Mississippi River Tallgrass Prairie Ecosystem Team to

assume responsibility for preparation of internal and external grant proposals for mussels on the Upper Mississippi River System

- Establish a Public Outreach position specifically on the Upper Mississippi River to assume responsibility for public education and outreach efforts on the threat of invasive species and ecological value of freshwater mussels

Action Items for Partner Agencies:

U.S. Army Corps of Engineers

- Develop action items and timeline for implementation of the May 2000 Biological Opinion for Higgins’ Eye and Winged Mapleleaf mussels
- Fund the development and implementation of Higgins’ Eye Pearlymussel Conservation Plan

U.S. Geological Survey

- Increase involvement in conservation of Federally-listed mussels in the Upper Mississippi River System

U.S. Coast Guard

- Increase participation in Upper Mississippi River invasive species issues and mussel conservation

State Natural Resource Agencies

- Continued participation with development/implementation of Higgins’ Eye Pearlymussel Conservation Plan and winged mapleleaf conservation actions

Contact:

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