
A Citizen Based Aquatic Invasive Species Monitoring Protocol for Wisconsin Shorelines

Patrick Miller, Kaci Baillies, Shannon Davis-Foust
26 April 2014

Many Ecological, Social, Economic Effects of Invasive species...



Property values rise on zebra-mussel infested lakes, study shows



... but species are still spread



Early Detection Matters!

Early detection allows for rapid response...



Don Behm

A fabric fence has been erected along the shoreline of Esquire Estates storm water pond to prevent the large and aggressive red swamp crayfish from crawling to other water bodies.

DNR plans to pour 4,000 gallons of the chemical into Germantown ponds to kill intruders

By Don Behm of the Journal Sentinel

Nov. 7, 2009



We need more eyes for early detection!

Goals of the Citizen Shoreline Monitoring Protocol:

- To provide a better citizen monitoring system for early detection of AIS.
- To increase citizen involvement in AIS monitoring.
- Increase the number of people able to identify AIS.



Contents

- The Citizen's Shoreline Monitoring Protocol
 - How to assemble a citizen's monitoring kit
 - Wisconsin invasive species to watch for
-

The Citizen's Shoreline Monitoring Protocol

Formatted and created with the ease of the user in mind, allowing for 5 easy steps!

1. Prepare
 2. Scan
 3. Collect
 4. Identify
 5. Report
-

Prepare

- Familiarize yourself with the aquatic invasive species that you are on the lookout for.
- Can be tailored to your region
- Assemble a monitoring kit



Scan

- Walk along the shoreline
- Use polarized glasses and the aquaview scope



Collect

- Throw the double-sided rake
- Use the bucket and scraper
- Use the hand scoop to take samples of soft bottom areas.



Identify

- Use keys and field guides to identify species
- Collect and label suspected specimens with the date, location, time, and any other pertinent information.

Aquatic plant specimens can be kept in a sealed container with a small amount of lake water for identification purposes. It is not illegal to transport aquatic plants for the purpose of identification/documentation.

Report

- Report all findings of all invasive species
- Turn over collected specimens (previously undetected) to the local DNR or the regional AIS coordinator.



Suggested Contents of a Monitoring Kit

- Aquaview scope
- Double-sided rake
- Hand scoop
- Polarized sunglasses
- Pail with lid
- Hand lenses
- Clipboard with AIS monitoring forms



Suggested Contents of a Monitoring Kit (cont.)

- Containers - Polypropylene collection bottles, Ziploc bags (qt. & gal.) and/or other appropriate bags or containers for specimens Pens, towels, hand sanitizer
 - Several field books for ID, such as Lake Plants You Should Know, A Visual Field Guide or Aquatic Plants of the Upper Midwest. Order from: <http://www4.uwsp.edu/cnr/uwexlakes/publications/>
 - Freshwater mussel identification website <http://wiatri.net/inventory/mussels/>
 - Key to Wisconsin Freshwater Snails
<http://www.uwlax.edu/biology/faculty/perez/wifwsnailkey/wifwsnailkey.htm>
-

What might you find just by looking around?

What might you find using the *aqua-view* scope?



What might you find using the *sampling rake*?



What might you find using the *hand scoop*?



Who can do this?

Anyone!

Venues for promoting volunteers:

- Clean Boats Clean Waters Programs
 - Lake Associations
 - Boy and Girl Scouts
 - Conservation Clubs
 - Sportsmen Clubs
 - People who want to volunteer
 - Many more!
-

Acknowledgements

Special thanks to Paul Skawinski, Diane Schauer, Andrew Karleigh, Laura Herman, Maureen Ferry and the Wisconsin AIS Coordinators and other experts who have provided advice, supplies, proofreading, and other support for this project. We are extremely grateful to the Wisconsin DNR for funding this project through the Citizen-Based Monitoring Partnership Program.
