

This summary is for discussion purposes only and reflects the best effort of breakout session recorders to capture comments received during the AIS stakeholder meeting breakout sessions. The summary does not necessarily reflect the position or priorities of the state agencies involved in this meeting and should not be assumed to be the consensus of stakeholders involved.

**Michigan's Call to Action on Aquatic Invasive Species
March 5, 2008**

Early Detection and Monitoring Breakout Session Summary

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Top Priority Actions

- Specific taxonomic experts who can handle specimens of potential invasives must be identified to ensure species will be properly identified and verified
- Monitoring must be prioritized based on risk. To do so, we must:
 - Designate all high risk species and high risk areas in MI
 - Decide who the central monitoring coordinator will be (e.g. NOAA, DEQ)
- Collection and identification protocols must be established. A system is needed so people who believe they have discovered an AIS will know where to send a specimen, what parts of the specimen to send, and how to package it
- An integrated database must be created and it must contain protocols for identification and reporting
 - The database must be accessible to agency staff and to interested citizens
 - One way to accomplish this may be to expand and further fund the Great Lakes Aquatic Non-indigenous Species Information System (GLANSIS) database, which already has abstracts available for many of the invasive vascular plants found in the Great Lakes.
http://www.glerl.noaa.gov/res/Programs/ncrais/search_notes.html
 - Also potential for using USGS website for new invasives <http://biology.usgs.gov/invasive/>, which has a number of invasive species mapping initiatives occurring in other states
- Communication must be improved within and between agencies and citizens using education and the databases
- Members of lake associations, Great Lakes shoreline property owners, anglers and others who are the most likely to spot new AIS must be educated and trained. MSU Extensions could serve as vehicles to deliver educational materials and training
- All interested parties must work to achieve the support of the executive and legislative offices. Without their support, Michigan's AIS program will continue to run on a shoestring budget.
- All monitoring procedures must be continuously reviewed and audited. Adaptive management should be used to continuously improve procedures

Key unresolved questions for the funding breakout session: development of actions/priorities

A. What factors should be used to determine risk-based monitoring locations/species/pathways?

High Risk Locations:

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- Is the site “attractive” to the major vector transporting the AIS?
- These sites are often lower quality, but they are the most likely areas to be invaded.
Example: fishing piers, public access lakes
- To slow the rate of invasion, high risk sites are the most important monitoring priority
- Is the site irreplaceable and does it have high ecological value?
- Sites with threatened and endangered species
 - Sites that currently do not have invasive species
 - To protect ecologically important areas, focus should be placed on high quality sites.
- The MNFI three-pronged approach advocates protecting and monitoring both high risk sites and high quality sites where time and funds allow

High Risk Pathways

- Before we can determine which sites to monitor, we must understand the behavior of the vector (major transporting mechanism)
- Has the pathway been used in previous introductions?
- Can the pathway be tracked and monitored?
- Must focus on monitoring the vectors that most frequently cause introductions (ballast water? Fishing? Recreational boat traffic?)

High Risk Species

- Is the species an aggressive species that has been known to invade other locations with environments similar to Michigan’s? (ex: Asian carp in the Mississippi, hydrilla in southern inland lakes)
- Has the species that have already invaded portions of Michigan? (Phragmites invasion in the lower peninsula, Eurasian milfoil in certain inland lakes)
- What are the ecological consequences of the introduction of this species? (i.e. disruption of food webs? impacts to threatened and endangered species, etc)

B. Should there be different approaches taken form monitoring new invasive species as opposed to those AIS that are already present in Michigan?

- Important to recognize that we are dealing with two different objectives: preventing the spread of existing AIS and preventing the introduction of potential AIS.
- Two objectives require monitoring at different scales
 - For existing aggressive species, focus on monitoring high quality sites that have not been invaded
 - For potential and new species, focus on monitoring high risk introduction areas.
- One similarity for both types of monitoring is that both types of monitoring require that risk evaluations be conducted for each species

C. How do we prioritize species to target monitoring efforts?

- Species monitoring priorities should be based on how aggressive the species is known to be and what ecological consequences may occur as a result of the invasion
 - Example: We know that an Asian carp invasion would have enormously detrimental effects on the Great Lakes. Thus, monitoring for carp should be a top priority. Hydrilla invasions in inland lakes are a similar example
- Some focus should also be placed on species that may become the next invaders (organisms known to inhabit the Caspian and Black Seas that could survive in the Great Lakes)

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- Species risks are closely tied to location risks (some species are more of a threat in the upper peninsula than the lower peninsula, more threatening the Great Lakes than inland lakes, etc)

D. What tools/information /training is needed in order to be able to detect and monitor for these species?

- Develop protocols for screening based on high risk sites and high risk species
 - Must recognize that different parts of the state will have different high risk sites and species
 - Protocols would likely vary by region (for example, New York has protocols for 5 different regions of the state)
- Support for a volunteer base since these are the people who are most likely to find new species
- Standardized survey methods for each species
- Training manuals for monitoring, identifying, transporting (for expert identification), and responding
- More angler training
- Resources and funding to expand existing programs (Sea Grant)
- Additional information and research on species that could potentially invade the region
- Stronger policies to prevent spread would make monitoring more feasible

E. What reporting systems/communication structure needs to be set up for timely and accurate reporting of new and/or already present AIS?

- As mentioned above, protocols for communication need to be developed
- It is extremely important that reporting information travel from the bottom up and from the top down in all agencies (i.e. management informs staff and vice versa) to ensure all appropriate levels of agencies are dealing with specific issues
- Many databases exist for reporting invasives, but the information provided by each is scattered and incomplete. An integrated database must be created with the following characteristics
 - Accessible to both agency staff and the public
 - Maps of AIS distribution available
 - Descriptions of species and protocols for identification available
 - Protocols for submitting a report of a new population available
 - An AIS council with many representatives from all involved federal and state agencies needs to be created. Local governments should have the opportunity to review the recommendations of the council and to participate if they desire

F. How can we assess the feasibility of integrating AIS monitoring and early detection into existing funding/programs

- The group did not have enough time to discuss this question

G. What new collaborations or funding is needed for monitoring and early detections?

- Other state models should be reviewed and mimicked if they are working
- Consider charging a boat registration fee that is specifically for AIS response and monitoring
- NGOs need to use their influence with their members and their lobbyists to push the need for funding on this issue