

**NIS Early Detection and Monitoring Project  
Advisory Team Conference Call  
April 22, 2003**

***Participant List***

<u>Name</u>	<u>Affiliation</u>
Brian Breidert	IN DNR
Stewart Cogswell	USFWS
Mike Conlin	IL DNR
Mark Dryer	USFWS
Roger Eberhardt	MI DEQ
Mike Hoff	USFWS
Mark Holey	USFWS
Ron Martin	WI DNR
Phil Moy	WI Sea Grant
Don Schloesser	USGS
Steve Schults	IL DNR
Kristen TePas	IL Sea Grant
Tom Trudeau	IL DNR
Marc Tuchman	EPA
Donna Turgeon	NOAA
Hank Vanderploeg	NOAA
Gwen White	IN DNR

***Great Lakes Commission Staff***

Sarah Whitney  
Kathe Glassner-Shwayder  
John Hummer  
Ric Lawson  
Kevin Walters

***Introductions***

Sarah Whitney (Great Lakes Commission (GLC)), welcomed all participants and thanked them for their interest in the early detection and monitoring project. Recognition was given to EPA-Great Lakes National Program Office for funding the project.

***Background***

A brief background and history of the Great Lakes Panel on Aquatic Nuisance Species was given by Kathe Glassner-Shwayder. The panel was officially convened in late 1991 by the Great Lakes Commission in response to section 1203 of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990. Panel membership is drawn from U.S. and Canadian federal agencies, the eight Great Lakes states and the province of Ontario, regional agencies, user groups local communities, tribal authorities, commercial interests, and the university/research community. The panel is directed to perform the following tasks:

- Identify Great Lakes priorities
- Assist and make recommendations to a national Task Force on ANS
- Coordinate exotic species program activities in the region
- Advise public and private interests on control efforts
- Submit an annual report to the task force describing prevention, research and control activities in the Great Lakes Basin

John Hummer provided an explanation for the role of the Lake Michigan Monitoring Coordination Council (LMMCC). The LMMCC was begun in 1999 to foster cooperation and coordination among groups involved in all types of environmental monitoring activities. The Council is working toward developing a systematic and comparable approach to the collection, management, interpretation, and dissemination of environmental data related issues, policies, and resource management involving environmental monitoring in the Lake Michigan Drainage Basin. Hummer briefed participants on the Council framework, which consists of 10 resource-based workgroups, one of which is ANS. He reviewed a series of issues and objectives that each of the workgroups are addressing (i.e., developing monitoring objectives).

Ric Lawson then gave an overview of the Lake Michigan Monitoring Inventory (LMMI). With funding support from the Lake Michigan Team at U.S. EPA Region 5, and research assistance from ten local partners, the Great Lakes Commission developed an inventory of monitoring programs in the Lake Michigan drainage basin. This project resulted in two major projects. The Lake Michigan Tributary Monitoring Project report (maintained on the Commission's website) was developed after the initial inventory and includes a detailed review of programs in each of ten subwatersheds, along with an analysis of gaps and recommendations for further initiatives. The second result of this project is the interactive monitoring inventory database. Through the inventory information about monitoring programs (or "metadata") was collected and a database was designed for long-term storage and access. One aspect of program metadata is information about the geographic area covered by each monitoring program.

### ***Project Summary***

The draft mission statement was read and subsequently discussed. The group agreed that the use of the word "mission" should be changed to "objective". The group also agreed to change the word "system" to "program".

Sarah Whitney read through the project objectives, action items, and timeline. One of the described project objectives is to assess the LMMI to identify programs that regularly monitor or collect information regarding biotic and abiotic parameters in high risk areas and may facilitate detection of harmful new aquatic invaders. Other project objectives include developing and distributing a survey to determine the potential for existing Lake Michigan basin monitoring programs to detect and report on nonindigenous invasive species (NIS), assess current monitoring coverage, and develop draft guidelines and recommendations for early detection and monitoring. The guidelines and recommendations will largely be developed at a workshop next fall/winter.

A concern was raised about how high risk areas will be determined and defined. In response, the group agreed that a new objective should be added to the project to address this concern. The

group also agreed that high risk areas should be divided into two separate categories. The first category, termed by the group as “high probability areas”, are those areas which have a high probability of being the location of a new invasion. The second category, termed by the group as “high risk areas”, are those areas that have a high risk of being impacted by new invasive species. These areas may be similar to marine protected areas and could include but are not limited to national shorelines and state and national park areas.

The National Aquatic Invasive Species Act states in Sec. 1106 that “...the Task Force shall promulgate a set of sampling protocols, a geographic plan, and budget to support a national system of ecological surveys to rapidly detect recently-established aquatic invasive species in waters of the United States.” Some discussion was centered around having a region-wide standardized protocol for monitoring. However, many long-term research efforts will not be willing and/or able to change their sampling protocols. Many in the group agreed that instead of a monitoring protocol, a coordinated and standardized reporting system would be the most effective way to ensure that ancillary monitoring programs help to improve monitoring and detection of NIS. Such a standardized reporting system could include procedures for archiving the specimen, identification of the specimen, and protocols for reporting the finding to the proper entities.

There was strong support among the group for using predictive tools to aid in monitoring and detection of new invasive species, although exactly what tools should be used and how to use them is not clear at this point.

The scope and types of monitoring were also a topic of discussion. There can be monitoring for both new invasive species as well as monitoring of the spread of existing invasive species. Both types of monitoring will be very important to this project.

### ***Discussion of Working Definitions***

Definitions of several terms relevant to the project were discussed. Changes and additions to the definitions are shown in italics. The group agreed that the terms “high risk area” and “high probability area” also need to be defined.

**Early Detection:** The initial awareness and identification of a non-indigenous *invasive* aquatic species not previously known to exist in a particular body of water sometime prior to the *widespread distribution and/or* successful establishment of the species.

**Monitoring:** *Recording movements and spatial and temporal status changes, gathering baseline data (range, magnitude of infestation), and enabling an assessment.*

**Identification:** The process of recognizing the classification (family, genus, species) of the non-indigenous *invasive* aquatic organism based on resemblances and physiological, biochemical, anatomical, or other relationships.

**Establishment:** The setting up of a permanent, locally reproducing and replenishing population.

Observation: Close watching and examination so as to notice any changes in status.

*Population Status Assessment:* The analysis of information and data on the non-indigenous species. This information includes life history, trophic implications, habitat use and requirements, and environmental, social, and economic impacts.

***Questions/Concerns/General Comments***

The group was asked to briefly describe any current or upcoming monitoring efforts they are aware of that may be useful in detecting new invasive species in Lake Michigan. Mark Dryer mentioned that he and Mark Holeý have recently discussed monitoring for ruffe in high probability areas within Lake Michigan. Donna Turgeon has started an early detection program for NIS in Hawaii and is currently looking for funding to support pilot projects in other areas. She mentioned that the Great Lakes would be a good location. Hank Vanderploeg stated that NOAA/GLERL has an ongoing experimental plankton monitoring project in the Muskegon area. Greg Ruiz is examining 17 different embayments looking for invasive species. Some states are conducting inland lake monitoring efforts.

The question was raised as to whether NIS should be considered as pollutants. Because pollution tends to receive high levels of concern among the public and stakeholders, it will be beneficial to consider NIS as biotic pollution.

Hank Vanderploeg emphasized that more monitoring projects need to focus on the benthos and nearshore habitats. Many past and current projects focus on monitoring the offshore pelagic environment but benthic areas are seldom surveyed.