

Building a Framework to Advance Aquatic Nuisance Species Management of Organisms in Trade in the Great Lakes Region

GLC Project Team:

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Definition of Terms

- Invasive species: An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. *Source: U.S. Executive Order 13112 (1999) and National Invasive Species Council and Aquatic Nuisance Species Task Force (2007).*
- Pathway: The means by which species are transported from one location to another. Natural pathways include wind, currents, and other forms of dispersal in which a specific species has developed morphological and behavioral characteristics to employ. Man-made pathways are those pathways which are enhanced or created by human activity. These are characteristically of two types: intentional and unintentional. *Source: National Invasive Species Council and Aquatic Nuisance Species Task Force (2007).*
- Vector: An “umbrella” term used to describe a group of related pathways. Examples of vectors include maritime commerce, organisms in trade, canals and waterways and recreational activities.

Definition of Terms

VECTOR

Live Organisms in Trade (OIT)

PATHWAYS

Aquaculture

Aquarium

Bait

Horticulture / Water Garden

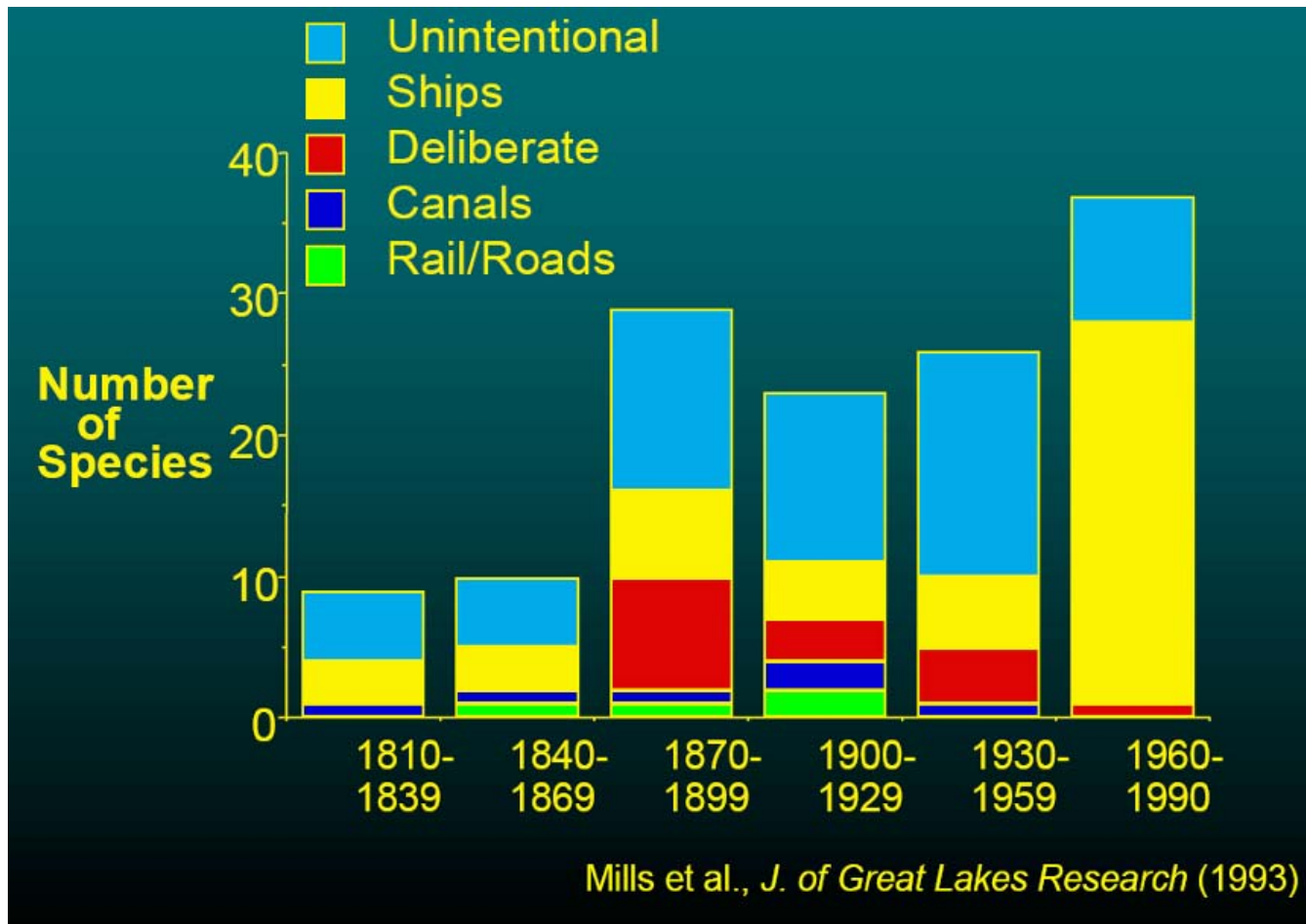
Food Fish

etc

Great Lakes Aquatic Invasions

- Great Lakes Regional Collaboration (GLRC), Aquatic Invasive Species (AIS) Strategy Team (2005)
- Identified 5 primary vectors contributing to Great Lakes aquatic invasions:
 - Maritime commerce (ballast water discharges)
 - Aquaculture
 - Canals and waterways
 - Recreational activities
 - Organisms in Trade (OIT)

Great Lakes Aquatic Invasions



GLC Planning Grant

To investigate and characterize the organisms in trade (OIT) vector in efforts to develop a project to reduce the invasion risks of OIT based on a cooperative effort(s) between the public and private sector.

GLC Planning Grant

- Led by the Great Lakes Commission
- **Funder:** Great Lakes Protection Fund
- **Timeframe:** January – December 2008
- **Premise:** Scoping and planning exercise
- **Outcome:** Final Report and Full Project Proposal (s)??

Project Components

Advisory Committee

- 13 members
- Agency, industry, NGOs

OIT Pathway Expert Teams

- Aquaculture
- Live Bait Fish
- Live Food Fish
- Aquarium
- Horticulture and Water Garden

Project Components

Pathway summaries

- Developed with input from the expert teams
- Include information on:
 - Scope of the pathway in the Great Lakes region
 - Potential points/mechanisms of AIS introduction or spread within the pathway
 - Mitigation efforts to reduce AIS risks
 - Gaps and unmet needs (e.g., information, technology, authority, collaboration)

Project Components

Workshop I: *Exploring the Organisms in Trade Vector*

(June 10-11, 2008)

- Objectives:
 - Assess the significance of the OIT vector in potential AIS introduction, establishment and spread in the Great Lakes region.
 - Gain a better understanding of the OIT vector and activities associated with each pathway.
 - Review the best available science on the relative risks posed by each invasion pathway in order to inform strategies to reduce OIT risks.
 - Find common areas of concern among industry, managers and other stakeholders to provide direction and build the partnerships needed to effectively address invasions risks associated with OIT.
 - Explore potential options for addressing threats from the OIT vector through information technology and management applications.

Project Components

Workshop I: *Exploring the Organisms in Trade Vector*

(June 10-11, 2008)

- Outcomes:
 - Expanding awareness and use of existing AIS databases
 - How can databases be better utilized by policy makers for AIS management?
 - Need for common source of regulations; develop effort for state-by-state regulations (updated, including emergency regulations)
 - Need for inventories to facilitate sharing of best management practice information and lessons learned between pathways/efforts; information can be used to harmonize efforts in the region

Project Components

Workshop I: *Exploring the Organisms in Trade Vector*

(June 10-11, 2008)

- Outcomes:
 - Information is needed to show what is being sold that is a problem and who is selling them
 - Aquaculture and bait industries are highly regulated within the region (state licensed)
 - Regulated businesses are “low hanging fruit”; need to identify unlicensed sales and target efforts there
 - Inventory regulatory and other efforts in the region

Project Components

Workshop I: *Exploring the Organisms in Trade Vector*

(June 10-11, 2008)

- Outcomes:
 - Use efforts by some industries to reach out to other industries
 - Fully implement AIS education/awareness efforts across the region
 - Develop an AIS education inventory/library
 - Get more information by involving other state agencies (e.g. state departments of agriculture)

Project Components

Project Ideas:

- Developed after Workshop I
- Gathered additional state and Advisors input
- Presenting at Workshop II for more input:
 - Risk assessment for potential new invaders
 - Internet monitoring for sales of invasive species
 - Improving regional consistency for aquaculture

Project Components

Workshop II: *Proposed Projects to Advance OIT Management*

- Objectives:
 - Gather input based on the questions below from stakeholders and potential project partners on a proposed suite of project ideas that have been developed based on outcomes from project activities and Workshop I.
 - Does the project provide opportunity for balanced participation from the states/provinces (e.g., resource managers and policy makers), industry, academic, environmental stakeholders?
 - Identify additional resources that may be needed, that have not already been identified, in order to implement the project ideas (e.g. information, funding, partners, time, etc.) and identify challenges that could impede implementation.
 - Prioritize project ideas (could be based on perceived need, political will, availability of information needed to implement the activities, potential for having the greatest impact, etc.).

Risk Assessment

- Definitions
 - Screening (pre-import)
 - Risk Analysis
 - Risk assessment
 - Risk management
- Goal
 - Support management efforts
 - To be introduced or spread

Risk Assessment

- Objectives
 - Id species ((lists)
 - Develop “A” model
 - Run it
 - Identify alternatives to harmful species
 - Outreach

Risk Assessment

- Context / Related Efforts
 - Consistent Regulations (GL Fishery Commission)
 - Screening model – “gold standard” (MRBP, ANSTF, NCIS)
 - Federal efforts
 - Federal agencies (APHIS, Ag)
 - Screening legislation

Risk Assessment

- Benefits
 - Support state/provincial efforts
 - Regional consistency
 - Support industry and voluntary efforts
 - Partnership with TNC/Notre Dame
 - Others?

Risk Assessment

- Questions
 - List?
 - State/provincial efforts – how to serve multiple needs?
 - “A” versus more than one?
 - Keep science and management separate?