

The background of the slide is a photograph of a beach. In the foreground, there is a pile of several clams on the sand. The middle ground shows the ocean waves breaking onto the shore. In the background, there is a pier or structure extending into the water under a clear sky.

Michigan's Aquatic Invasive Species Program and Management Plan update

Michigan Natural Resources Commission meeting
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State of Michigan AIS team

- Department of Environmental Quality
 - Water Resources
- Department of Natural Resources
 - Fisheries
 - Wildlife
 - Recreation
 - Law Enforcement
- Department of Agriculture
 - Pesticide and Plant Pest Management
 - Animal Industry
- Office of the Great Lakes
- Others
 - Department of Transportation
 - Forestry
 - Attorney General





What Are Aquatic Invasive Species?

- A species that is **not native** and whose introduction causes, or is likely to cause, economic or environmental **harm** or harm to human health.



Why care about Aquatic Invasive Species?

- Compete with native species for food and habitat or directly harm native species.
 - Effect diversity and abundance of native species
 - Alter foodweb
- Economic effects
 - Decreased commercial and recreational fisheries
 - Decrease property values
 - Decreased tourism
 - Effects on utilities and other industries



Total costs of AIS

- When economic losses due AIS caused ecological impacts are included, the total economic impact (damage and management/control costs) of **AIS in the Great Lakes region is estimated to be \$5.7 billion per year.**
- The Great Lakes sport and commercial fishing are the most impacted industries with losses estimated at \$4.5 billion per year.
- Economic costs of aquatic and terrestrial invasive species to the United States have been estimated at \$137 billion per year.

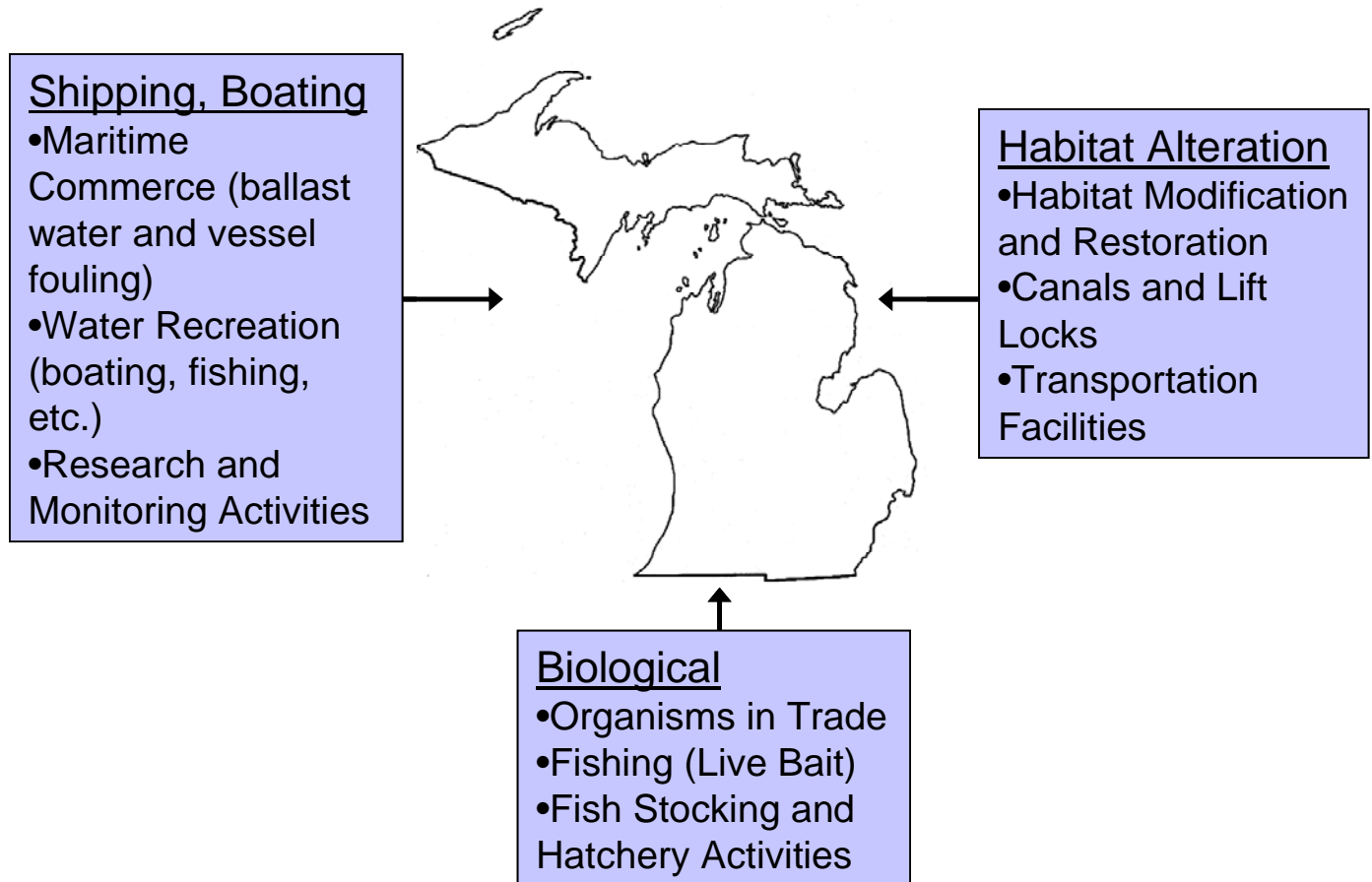


AIS State Management Update

- Goal I: **Prevent** new introductions of AIS into Michigan waters.
- Goal II: **Limit the spread** of established populations of AIS into uninfested waters of the state.
- Goal III: Develop an **early detection and rapid response** program to address new AIS invasions.
- Goal IV: **Manage and control** AIS to lessen the harmful ecological, economic, social and public health impacts resulting from infestation of AIS.



Prevention of Aquatic Invasive Species in Michigan Waters: Vectors and Pathways Concept Map (Adapted from Lake Superior AIS Complete Prevention Plan)





Strategic Actions

New actions that need to be implemented & existing efforts that need to be maintained/enhanced

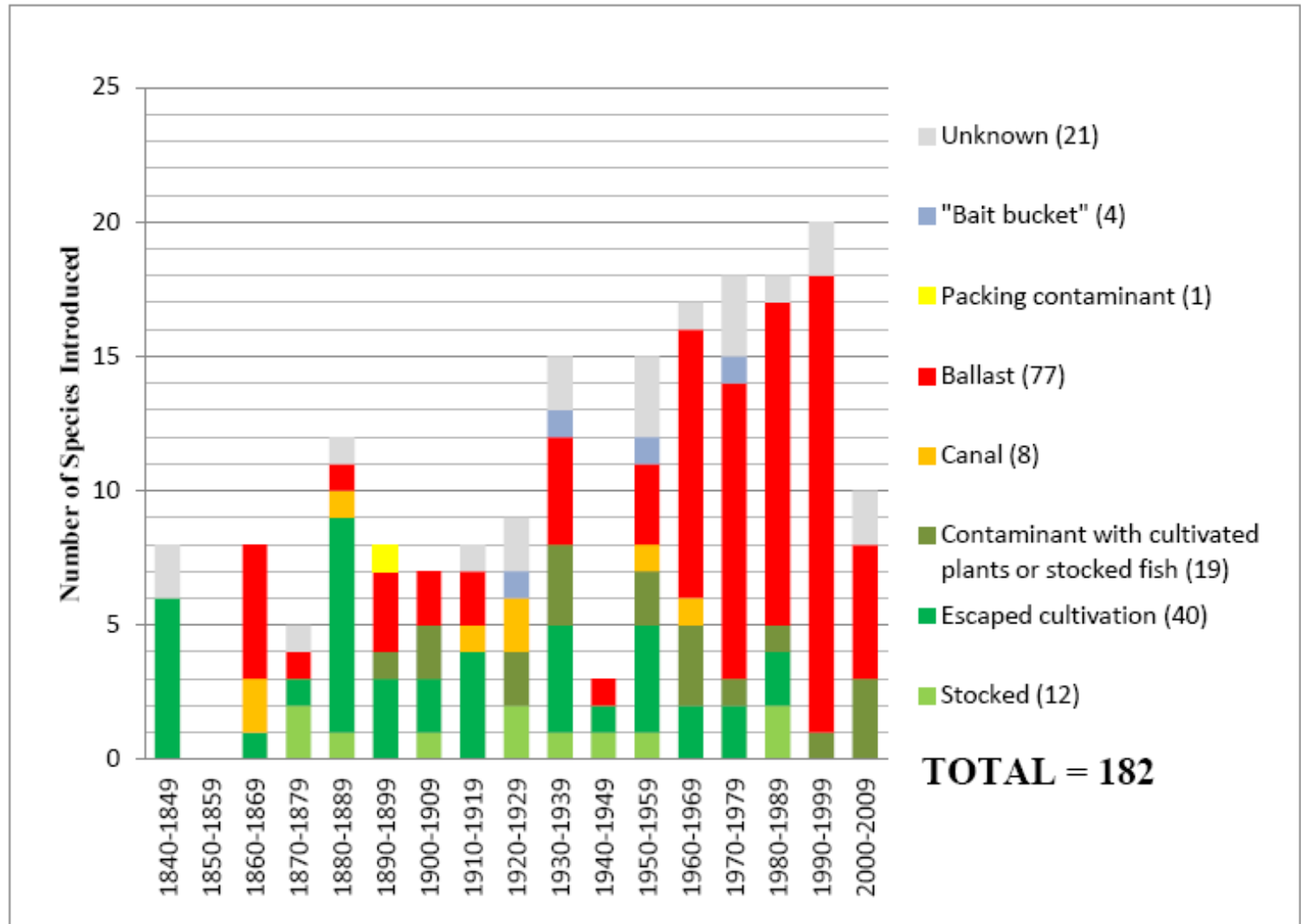
- Legislative and policy
- Regulation (including compliance, enforcement, and inspection)
- Information and education
- Research and monitoring
- Early detection and rapid response
 - Measures of success (program evaluation) and funding estimates

A photograph of a beach at low tide. In the foreground, several large piles of clams are scattered on the golden sand. The clams have a silvery, iridescent sheen. In the background, the calm blue water of a bay or ocean stretches to the horizon under a clear sky. A pier with several wooden posts is visible in the distance on the right. A white bucket is lying on the sand to the right of the central text box. The overall scene is peaceful and suggests a clamming activity.

Questions?



Introduction of AIS to the Great Lakes



Source: NOAA GLANSIS