



# DNRE Asian Carps Management Plan



David Clapp  
Michigan DNRE  
Charlevoix Fisheries Research Station  
November 22, 2010



# Acknowledgments

- **Fisheries Division working group**  
Jessica Mistak, Kregg Smith, Mark Tonello
- **MDNRE collaborators and reviewers**  
Fisheries Division (Elizabeth Hay-Chmielewski)  
Office of the Great Lakes (Roger Eberhardt)  
Recreation Division (Ray Fahlsing)  
Water Resource Division (Sarah LeSage, Barry Burns)  
Wildlife Division (Amy Derosier)



# Presentation Outline

- Background and DNRE plan overview
- What we'll do if Asian carps are detected
- Strategies for immediate implementation

MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENT

PROPOSED PLAN FOR THE PREVENTION, DETECTION, ASSESSMENT, AND  
MANAGEMENT OF ASIAN CARPS IN MICHIGAN WATERS



(Bighead carp)



(Black carp)



(Grass carp)



(Silver carp)

DAVID CLAPP, JESSICA MISTAK, KREGG SMITH, and MARK TONELLO

FISHERIES DIVISION

OCTOBER 2010

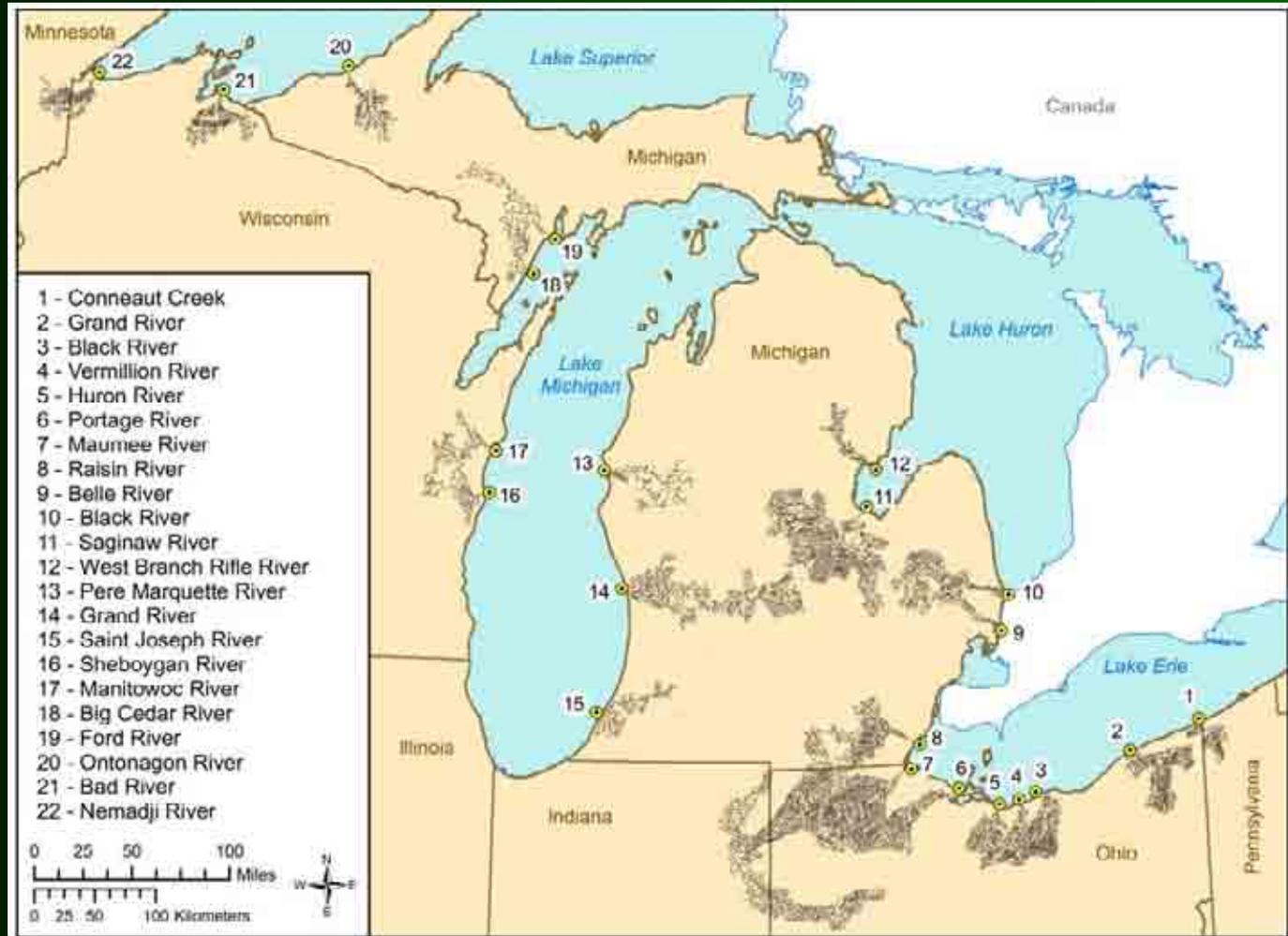




# Species of Concern



# Areas of Concern



(from Kolar et al. 2005)



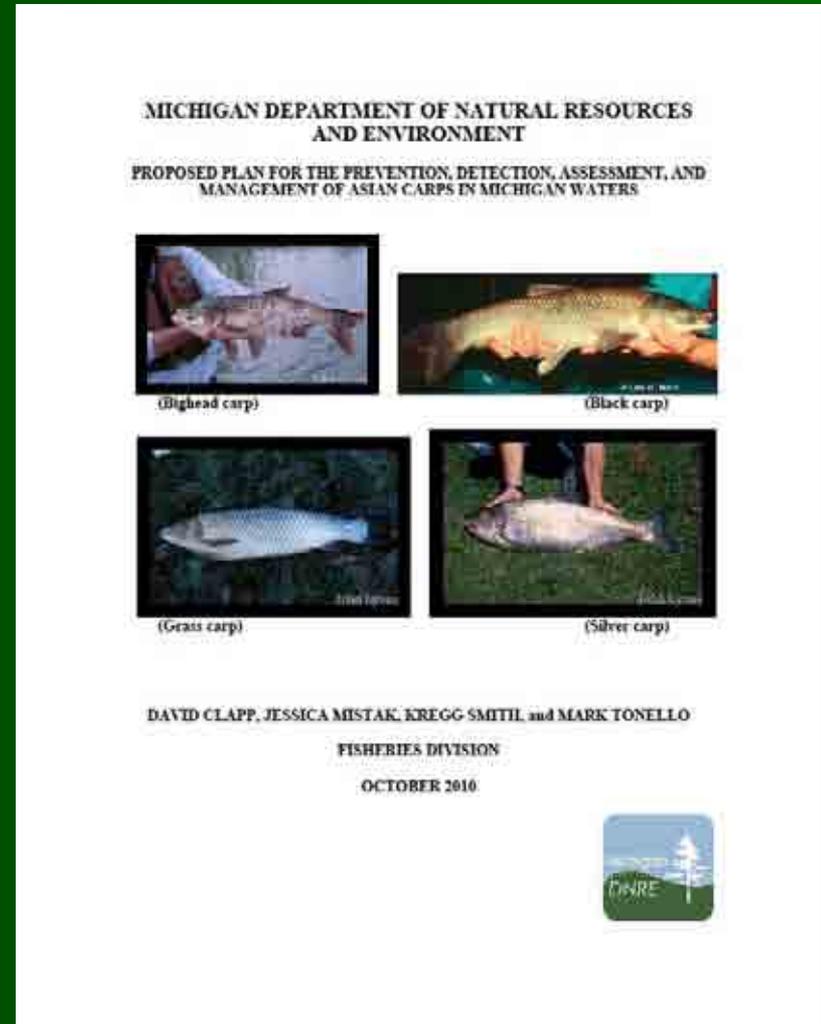
# Areas of Concern





# Asian Carps Management Plan Overview

- Plan is not intended as a “rapid response” plan
- Plan is a comprehensive strategy for addressing the threat of Asian carps dispersing, or being introduced, into Michigan’s waters.





# Asian Carps Management Plan Policy Background

- Legislative statute
- Executive orders
- Administrative rules
- DNRE Fisheries Orders
- Division permitting





# Asian Carps Management Plan Overview

## Plan Elements

1. Prevention
2. Communication
3. Surveillance
4. Assessment
5. Management

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# Asian Carps Management Plan Prevention

- I. Prevent the accidental or deliberate introduction of Asian carps in Michigan
  - Range expansion
  - Baitfish pathways
  - Stocking pathways
  - Live fish trade





# Prevention

**Keep Our Waters Great!**



**Don't Dump Your Bait**

*Fish diseases like*  
**Viral Hemorrhagic Septicemia (VHS)**  
*can be transferred in your bait bucket!*  
**It's the law:**

- Dispose of unused bait in the train
- Empty live-wells and trays at the ramp
- Don't transfer live fish to waterbodies other than where they were caught

**Help prevent disease transfer**

- Disinfect live-wells and trays with a bleach solution (1/2 cup bleach to 8 gallons of water)
- Allow equipment to dry thoroughly before using in a different body of water

For More Information Visit:  
<http://www.michigan.gov/vhs>  
*Great Lakes, Great Times, Great Outdoors*



**MICHIGAN Fishing Guide**

Plans valid from April 1, 2008 through March 31, 2009



**Take a Kid Fishing!**

Great Lakes, Great Times, Great Outdoors

**CHALLENGE:** We need your help! Please rotate this guide for the next few seasons. See back cover for details.

Visit us on the Web at:  
[www.michigan.gov/lor](http://www.michigan.gov/lor)



# Asian Carps Management Plan Communication

## II. Effectively share information to improve management and control

- Identification
- Ecosystem effects
- Regulations
- Safety
- Michigan DNRE strategies
- Agency task group



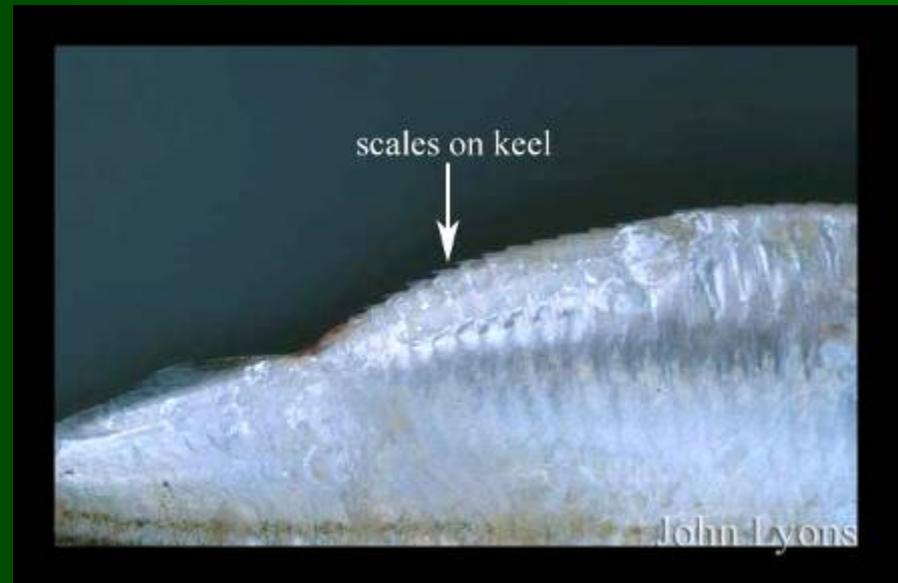
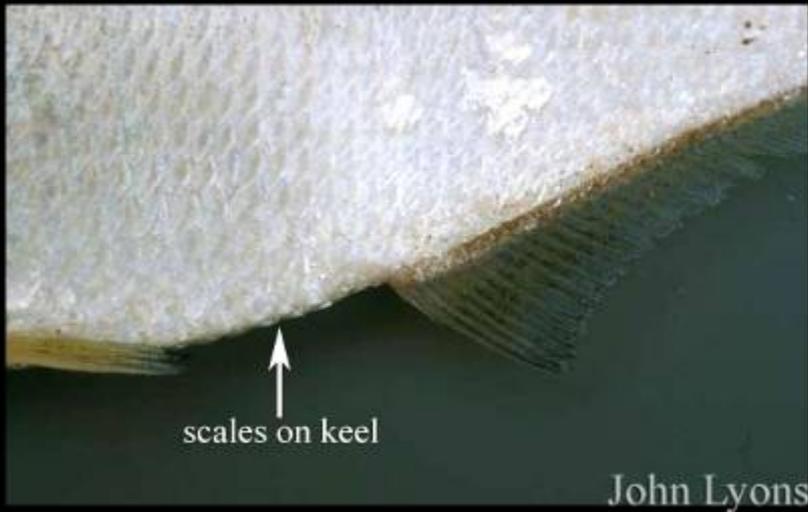


# Identification of Asian carps





# Characteristics Used in Identification – Ventral Keel





# Asian Carps Management Plan Surveillance

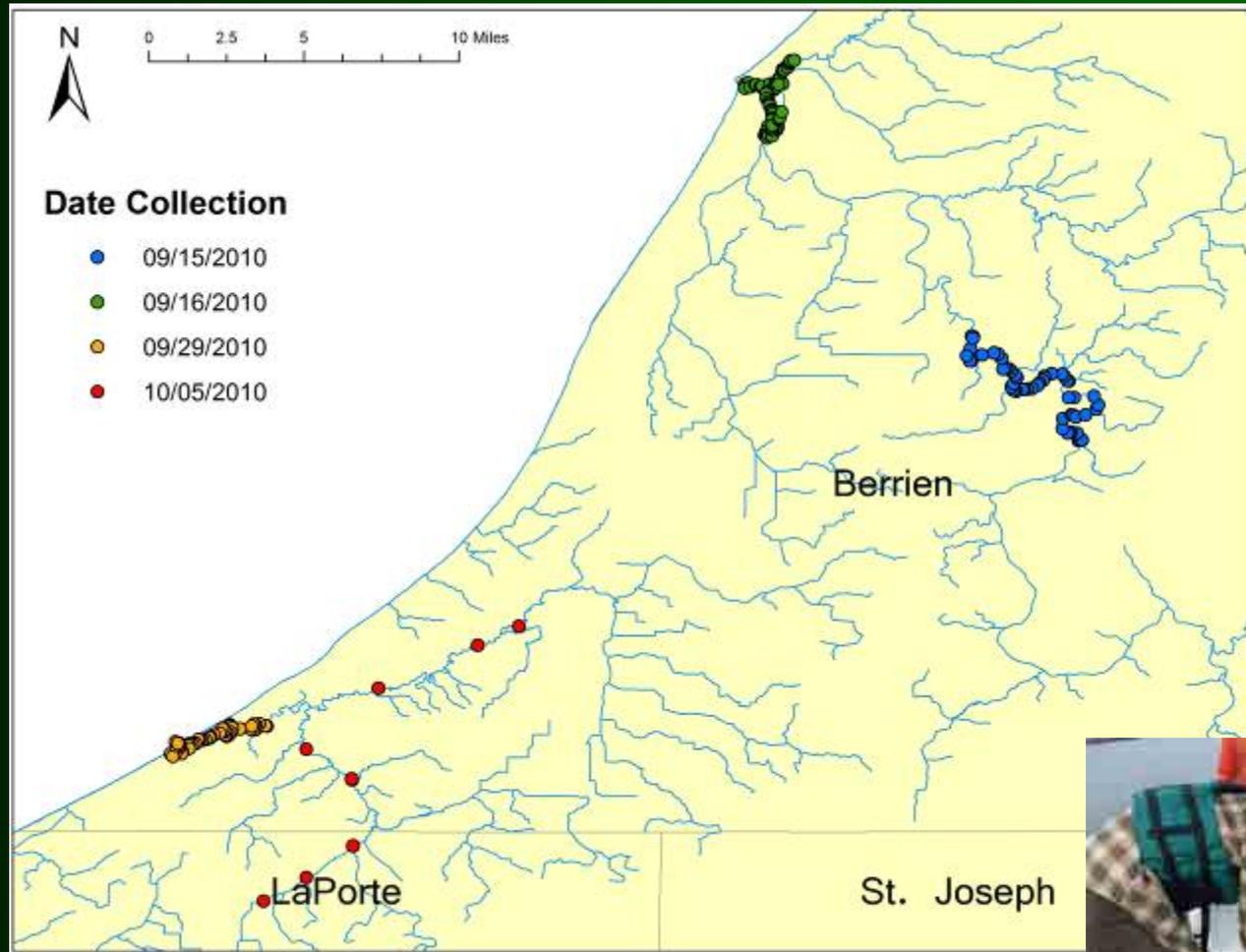
## III. Detect the presence of Asian carps in Michigan

- eDNA
- Informed public
- Scientific Collector Permit system
- Department surveys
- Fish passage sites





# eDNA Surveillance





# If Asian Carps are Detected in Michigan Waters

- Evaluation
- Asian carp assessment
- Fish population assessment
- Management recommendation / implementation





# Assessment – Asian Carp

- Acoustics
- Gill net / trammel net
- Electrofishing
- Early life history
- Chemical
- Commercial fishery





# Assessment – Fish Populations

- Adult population estimates
- Recruitment surveys
- Creel surveys
- Fish community evaluations





# If Asian carps Are Detected in Michigan Waters

## Management recommendations

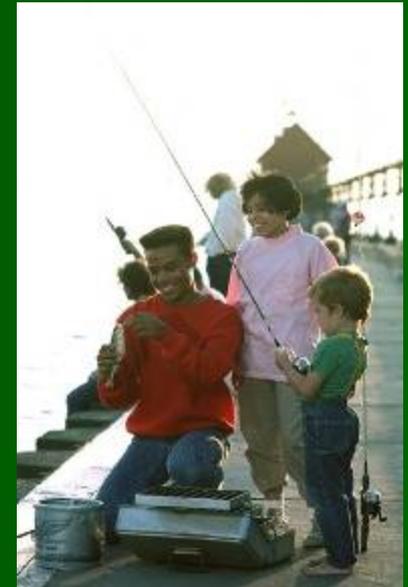
- Hazard Analysis and Critical Control Point system
- Barriers to dispersal
- Incidental removal
- Harvest
- Chemical eradication
- Alternative technologies



*Photograph by: M. Spencer Green  
Credit: AP*



***“...while management will likely be a difficult undertaking, our six recommended strategies carry with them a reasonable expectation of success. We do not believe that attempts at management of Asian carps are futile, and “writing off” Michigan waters in which Asian carps have been detected is not a responsible approach.”***





# What We're Doing Currently

- Michigan Asian Carps Task Group
- Prevention
- Surveillance
- Education / Communication





# In conclusion...

Your assistance is critical to the success of this plan!

- Comments
- Implementation
- Communication

# Thank You

