

Bait Inspection, Outreach, Response Strategies

To Conserve and improve
Fish and **Wildlife**
resources and their
Habitats for sustainable
use and appreciation by **all**



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Fish Management and Research

AIS Pathways

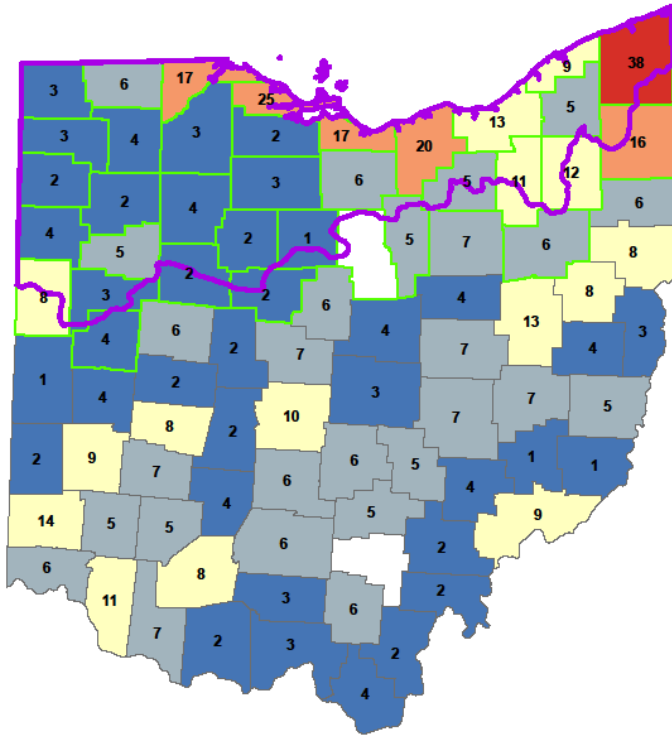
- Aquaculture/Bait
- Pet Trade
- Plant Industry
- Shipping
- Recreation



Bait Sometimes Looks Alike



The Landscape



- 11.5 million people
- 3,875 square miles H2O
- 1.3 million anglers
- 327 live bait dealers

Bait Shop Surveillance



Bubba's
BAIT SHOP
&
SUSHI BAR



What Changed

General Title: Restriction of bait use to the origin of collection.

Ohio Administrative Code: 1501:31-13-01 Sport fishing.
(A)(7) It shall be unlawful for any person to release any fish or aquatic insect into waters of the state, or waters under control of the division of wildlife **from which it did not originate** without first obtaining permission from the chief of the division of wildlife.



What is the Risk to Ohio?

- Habitat matches their needs
- \$10 billion Lake Erie tourism industry
- \$800 million Ohio sport fishery
- Jumping silver carp are hazard to boaters



What is a Bigger Threat to Ohio?

- 5 perch over the daily limit of 30 or
- Dumping a bucket containing silver carp into the lake?



What is the Project Goal?

- To determine where bait is coming from
- To determine if AIS are present
- To teach bait dealers what to look for
- To ensure compliance with the regulations



What Are We Looking For?

- Fish that are not baitfish
- Look for the things that do not belong
- Sources of bait, especially from out of state or the Ohio River



Common Bait at a Glance



Golden Shiner

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Fathead Minnow

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Striped Shiner

Photo by Brian Zimmerman



Emerald Shiner

Photo by: Brian Zimmerman



Common White Sucker

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Northern Hog Sucker



Creek Chub

Photo by: Brian Zimmerman

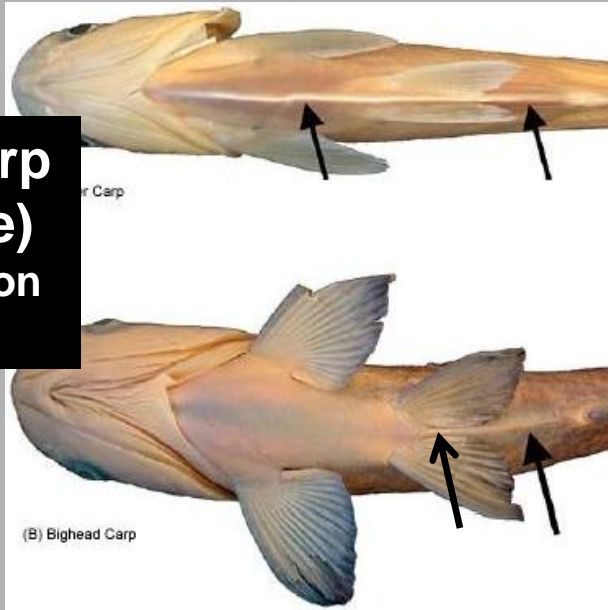
Gizzard Shad



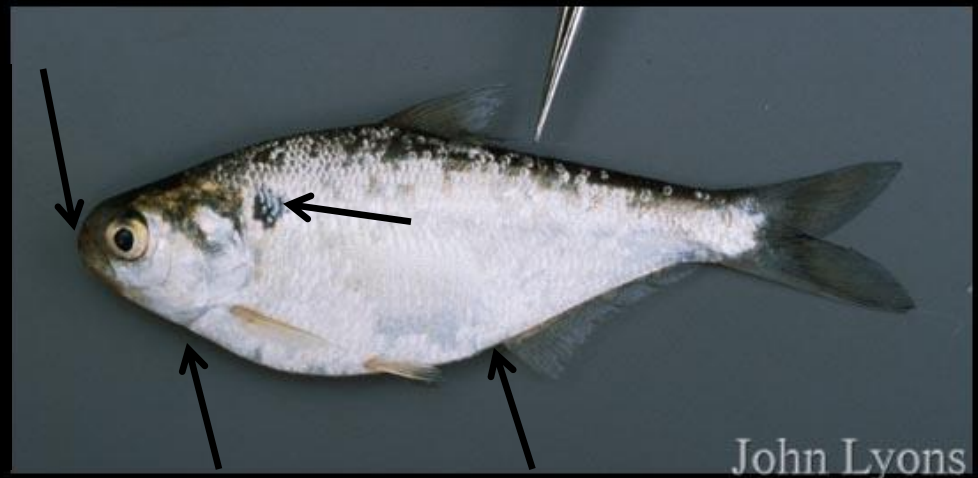
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Silver Carp, Bighead Carp and Gizzard Shad

**Silver Carp
(Invasive)**
No scales on
keel.



**Gizzard Shad
(Native)**
Rounded snout,
conspicuous dark
spot behind head,
keel with saw-like
scales



Keel with saw-like scales

Bowfin, Burbot and Snakehead

Bowfin (Native) : Two short barbels on nose and short anal fin



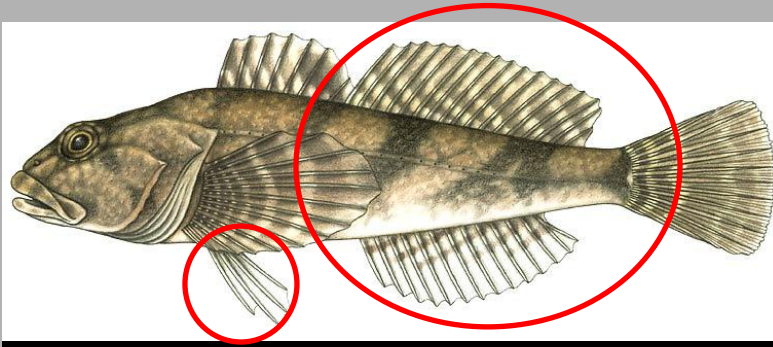
Snakehead (Invasive) : No barbels on head, extremely long single dorsal fin and anal fin



Burbot (Native): Single long chin barbel and short first dorsal fin, no scales

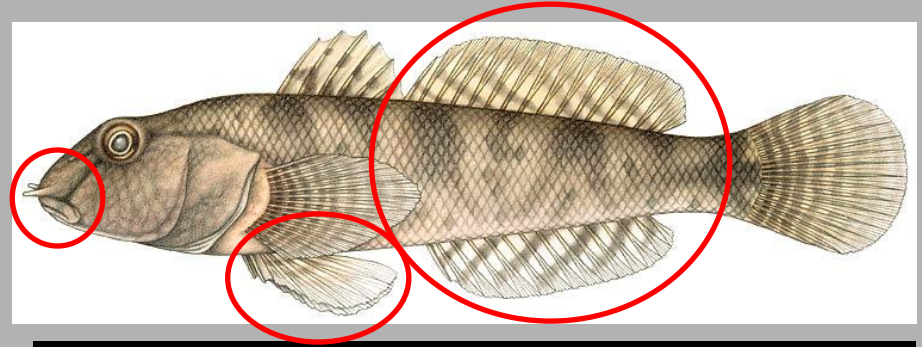


Mottled Sculpin, Tubenose Goby and Round Goby



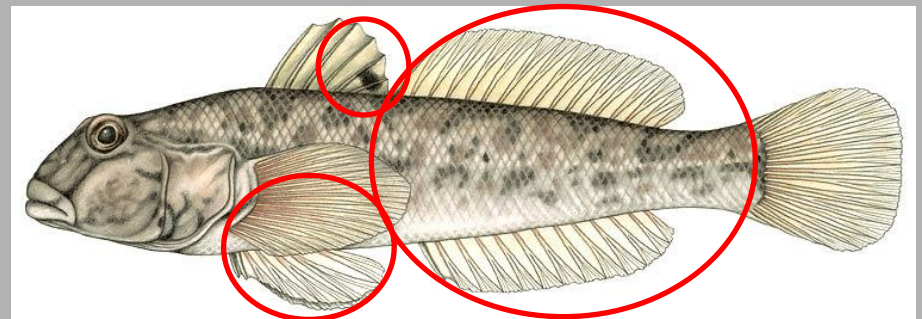
Mottled Sculpin (Native)

Mottled Sculpin has unbranched rays supporting the soft dorsal and anal fins. Pelvic fins separate.



Tubenose Goby (Invasive)

Gobies have branched rays in soft dorsal and anal fins. Pelvic fins are fused together to form a cup shape.



Round Goby (Invasive)

Catchy Slogan - Trash Unused Bait



Aquatic Invasive Species Outreach Material



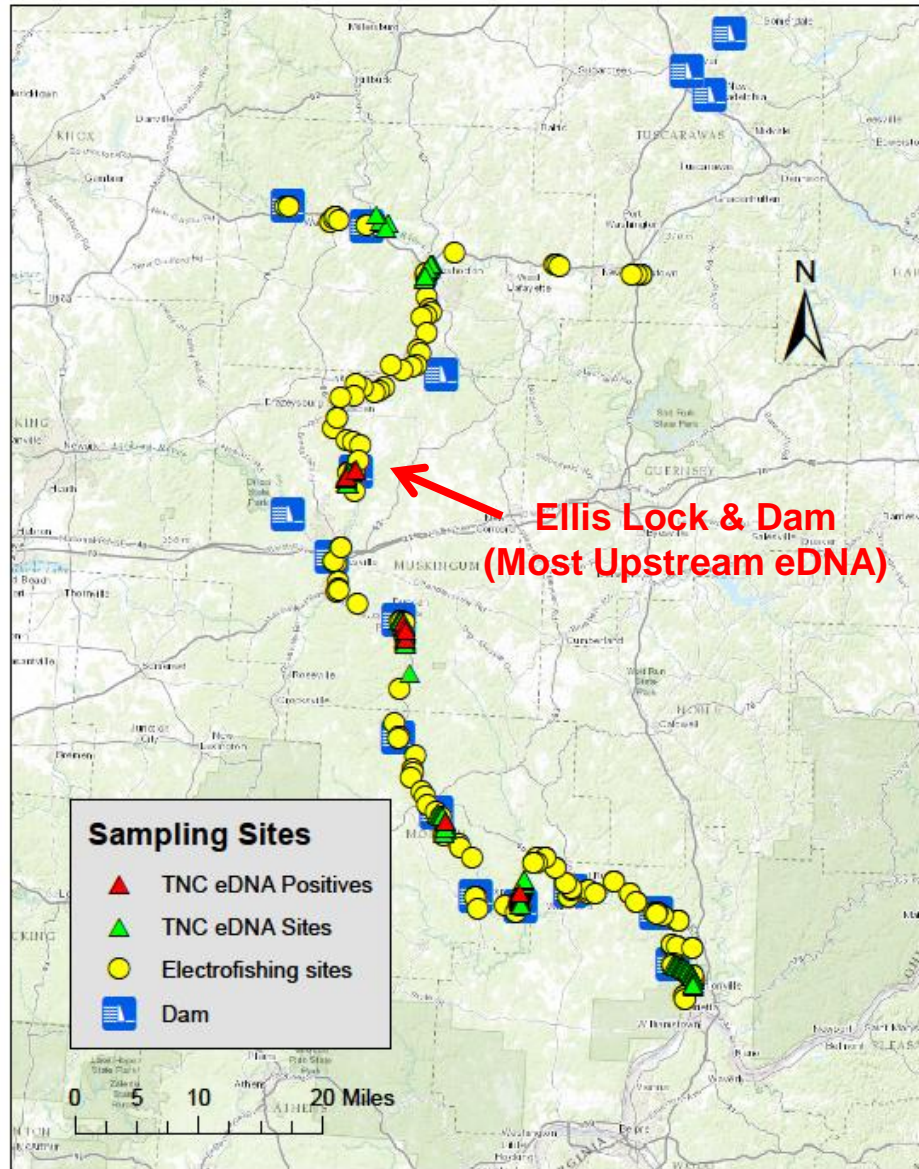
Aquatic Invasive Species Plans

- 1) AIS State Management Plan
- 2) Asian Carp Tactical Plan
- 3) Rapid Response Plan
- 4) Asian Carp Response Guidelines

Failing to plan is
planning to fail.



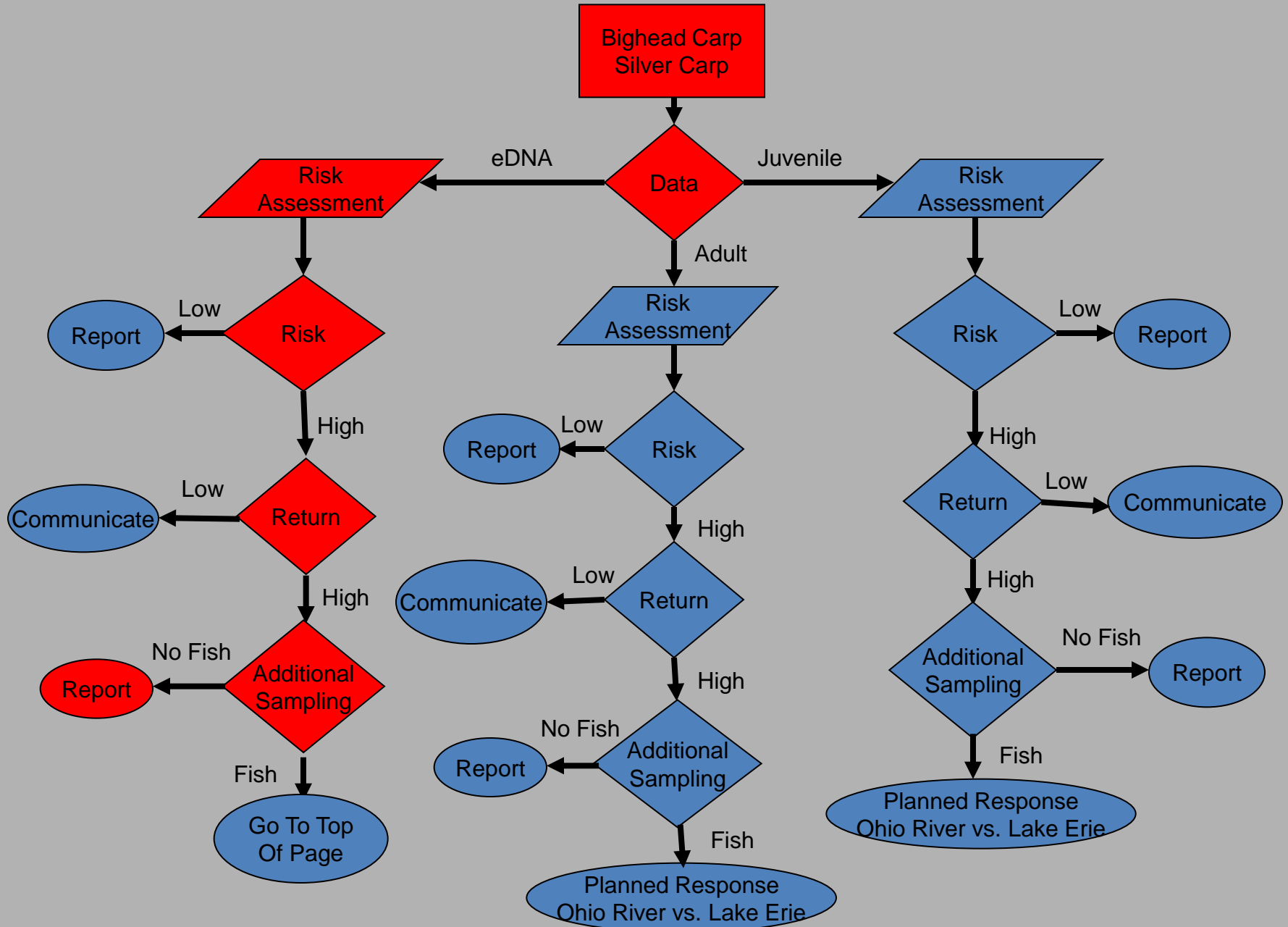
Muskingum River Asian Carp Sampling



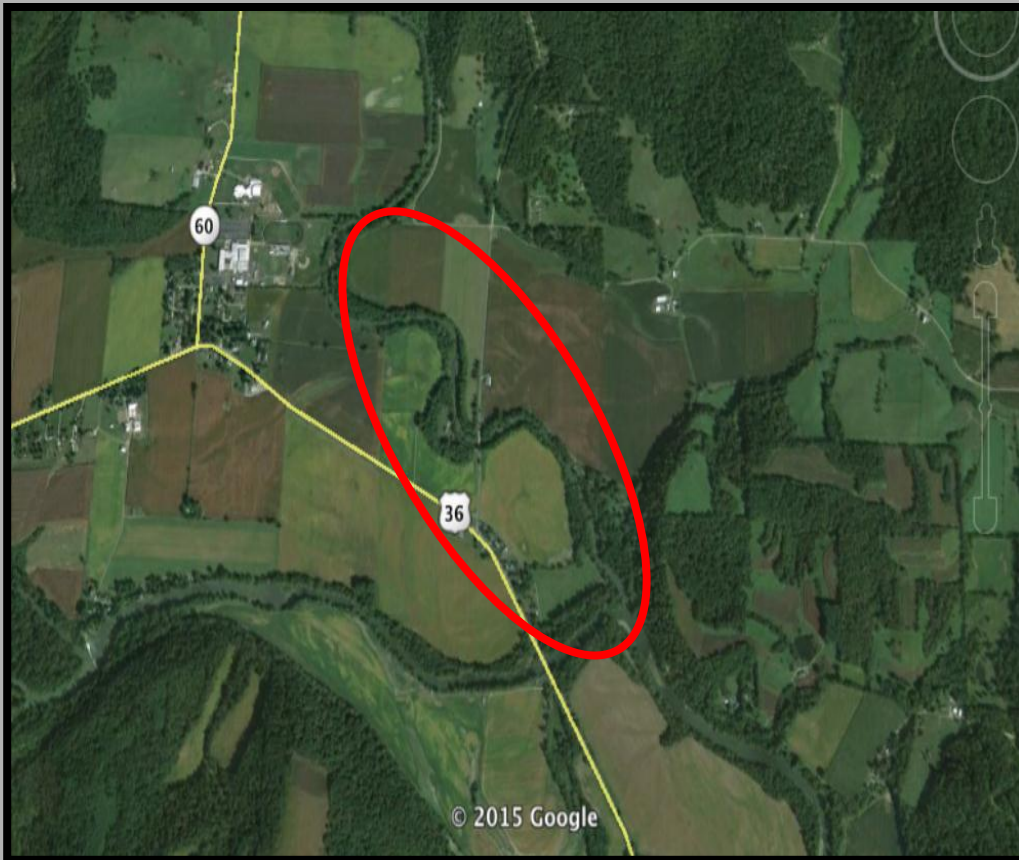
Planned Response to Asian Carp eDNA Results

- DOW and USFWS sent out sampling crews
- 23 hours of electrofishing at 125 sites
- Muskingum, Tuscarawas and Walhonding Rivers
- No Bighead or Silver carp were observed

Asian Carp Risk Assessment



Planned Response to Snakehead eDNA Results



- **DOW sent out sampling crews**
- **155 minutes of electrofishing - five river miles**
- **Killbuck Creek**
- **No Snakeheads were observed**
- **Over 30 Bowfin**

