

Great Lakes Salmon & Trout

Lake Huron, Lake Erie, & Lake St. Clair



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Lake St. Clair Fisheries Research Station





Superior

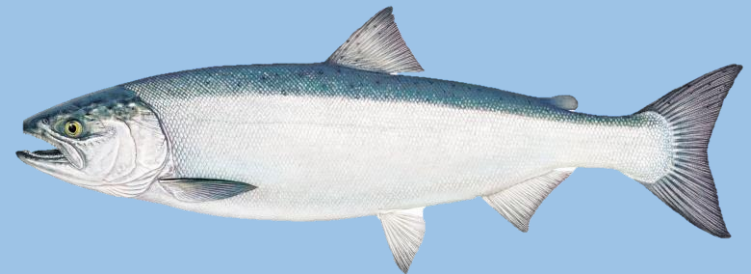
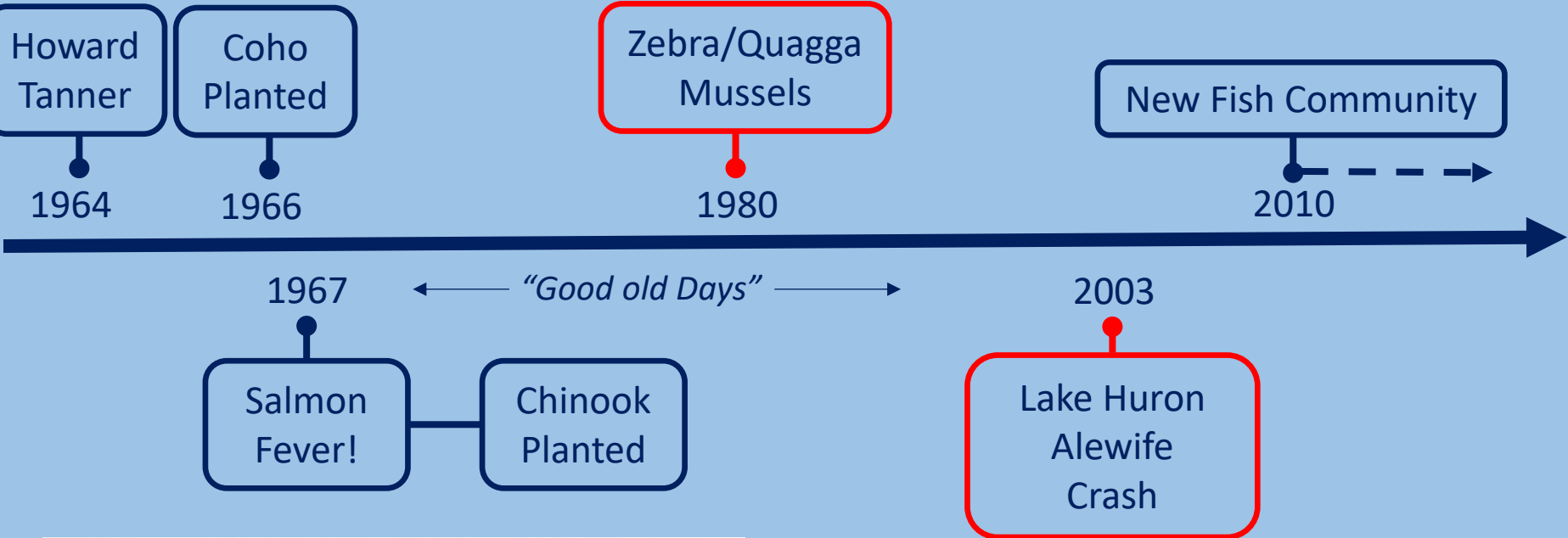
Michigan

Huron

Erie

Ontario

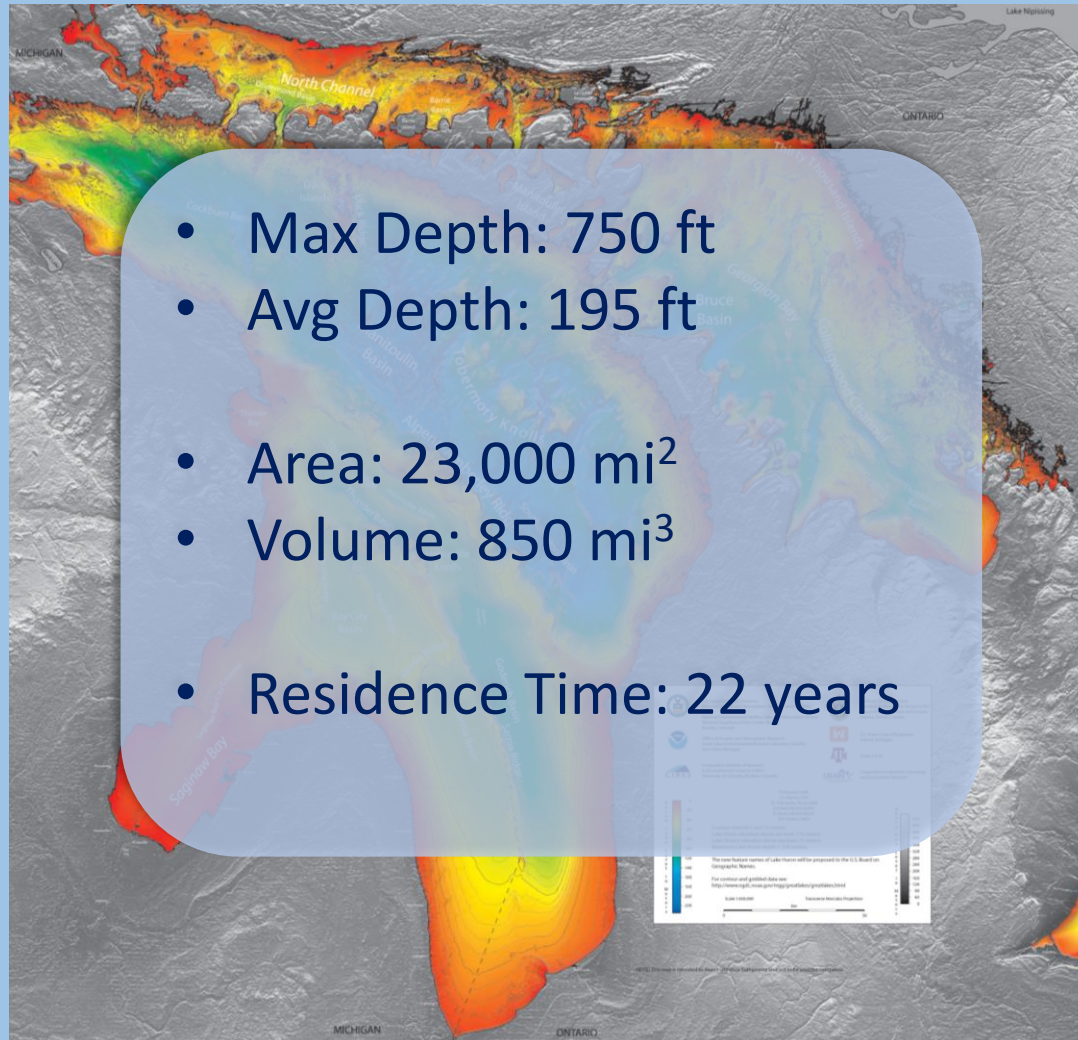
Timeline



Lake Huron

Lake Huron Bathymetry Map - NOAA

- Max Depth: 750 ft
- Avg Depth: 195 ft
- Area: 23,000 mi²
- Volume: 850 mi³
- Residence Time: 22 years



The State of Things – 1960's



**Lake Trout and Lake
Whitefish Crashing**

Overfishing

Sea Lamprey

Alewife



Alewife



© Muskegon Chronicle 1967



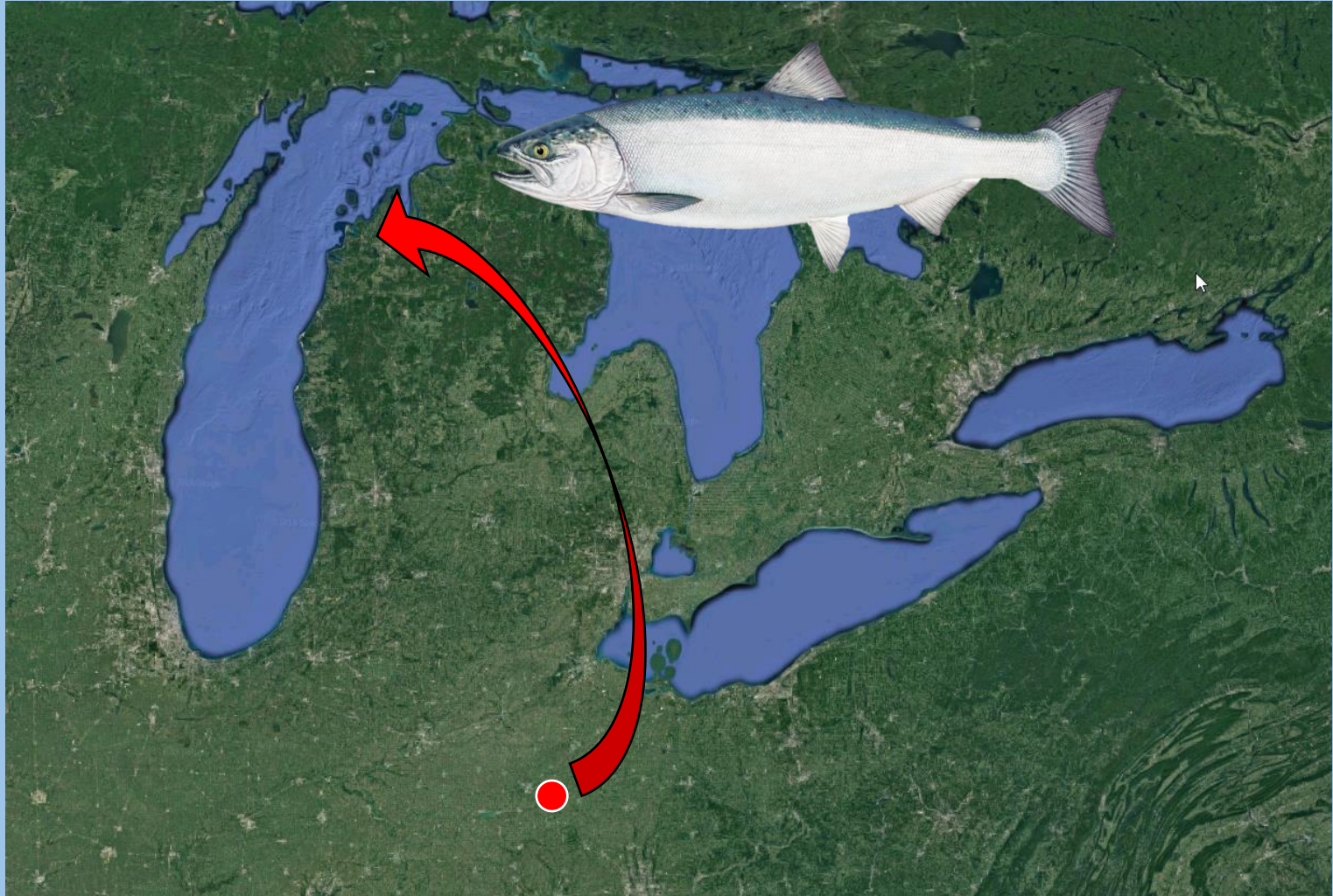
© Muskegon Chronicle 1968

“...do something spectacular.”

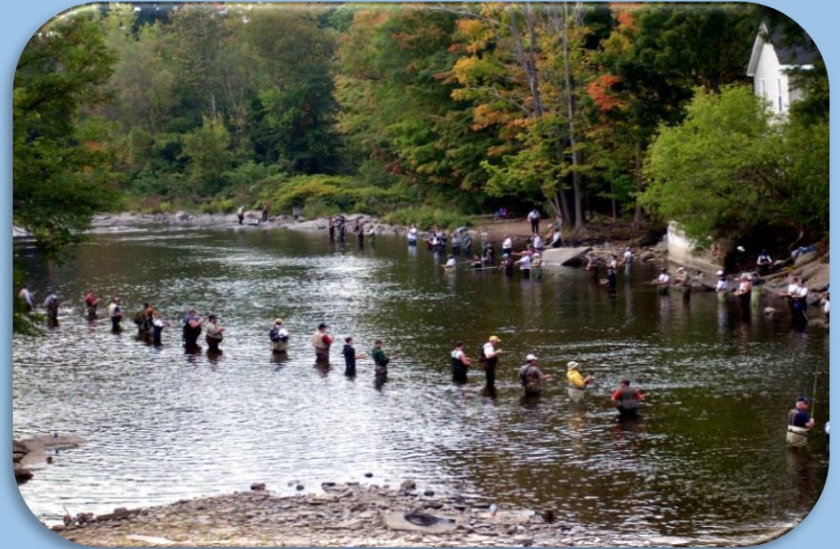
- Howard Tanner
- “...we are going to produce the world's greatest freshwater fishery.”
- Great Lake’s first shift from a commercial to recreational fishery



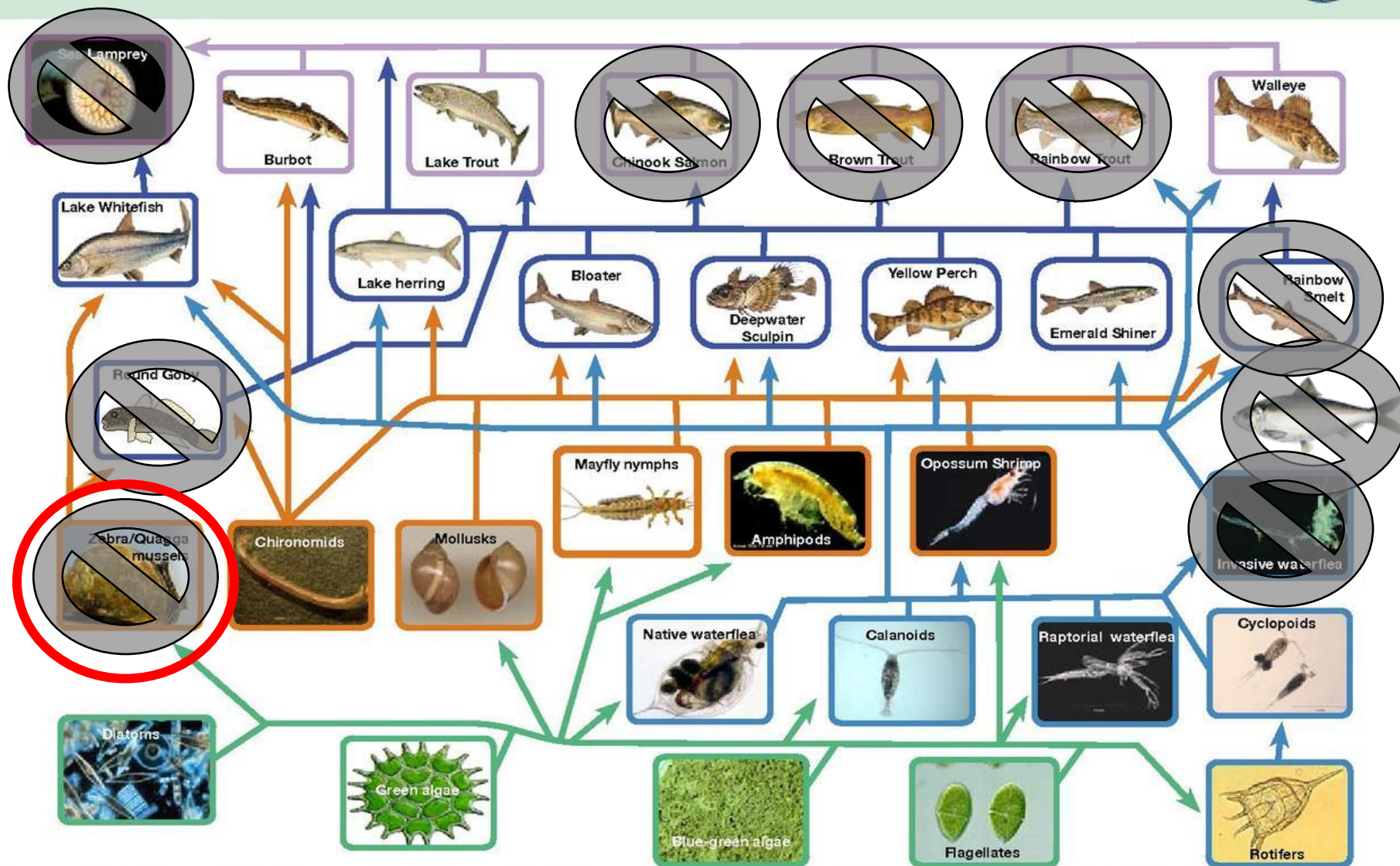
How excited were people?



Glory Days



Lake Huron Food Web





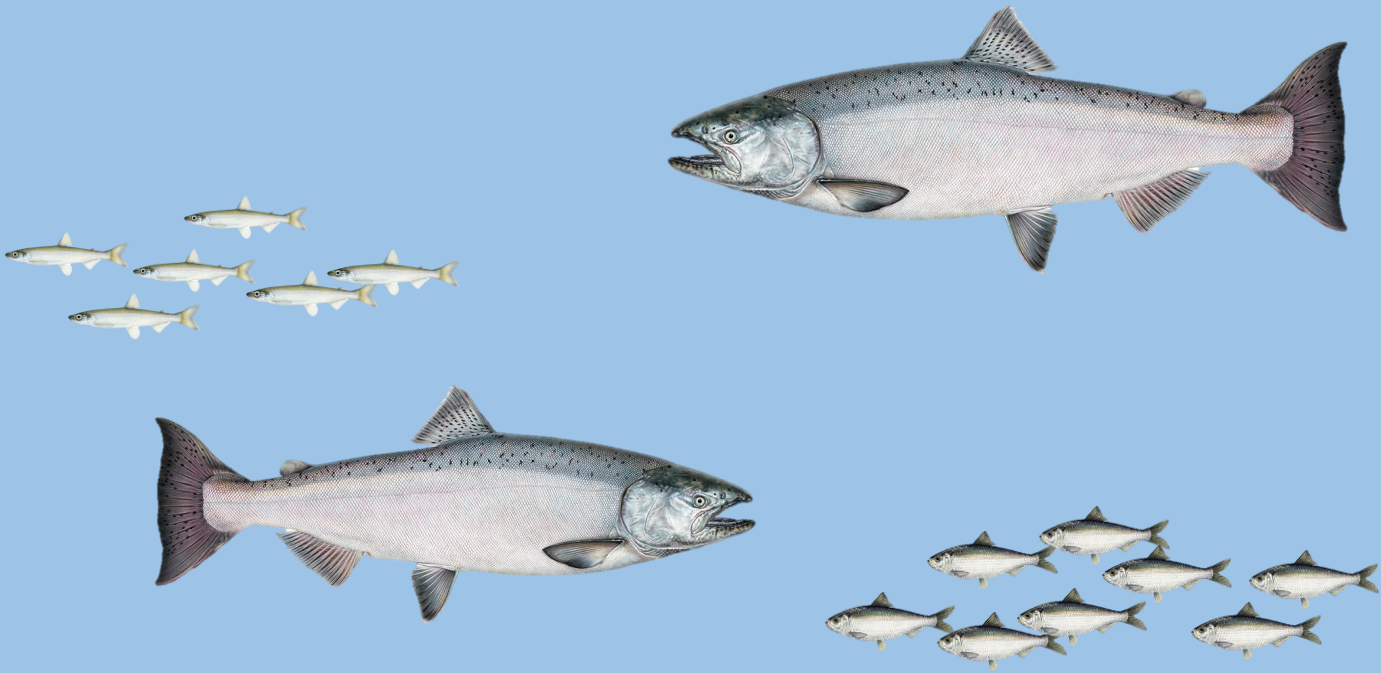
Energy

Prey Fish

Predators



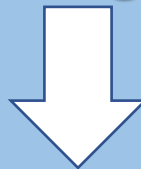
Prior to mussel invasion...



Energy

Forage

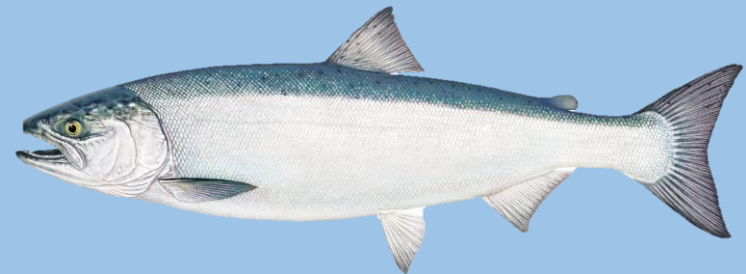
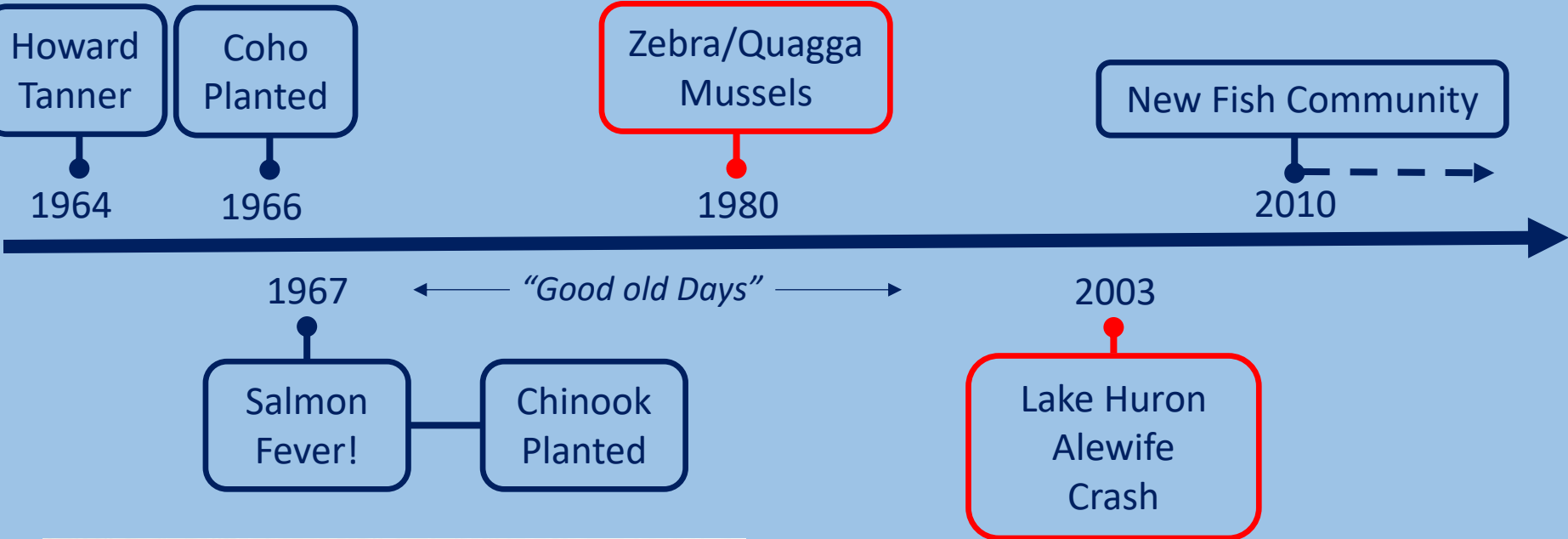
Predators



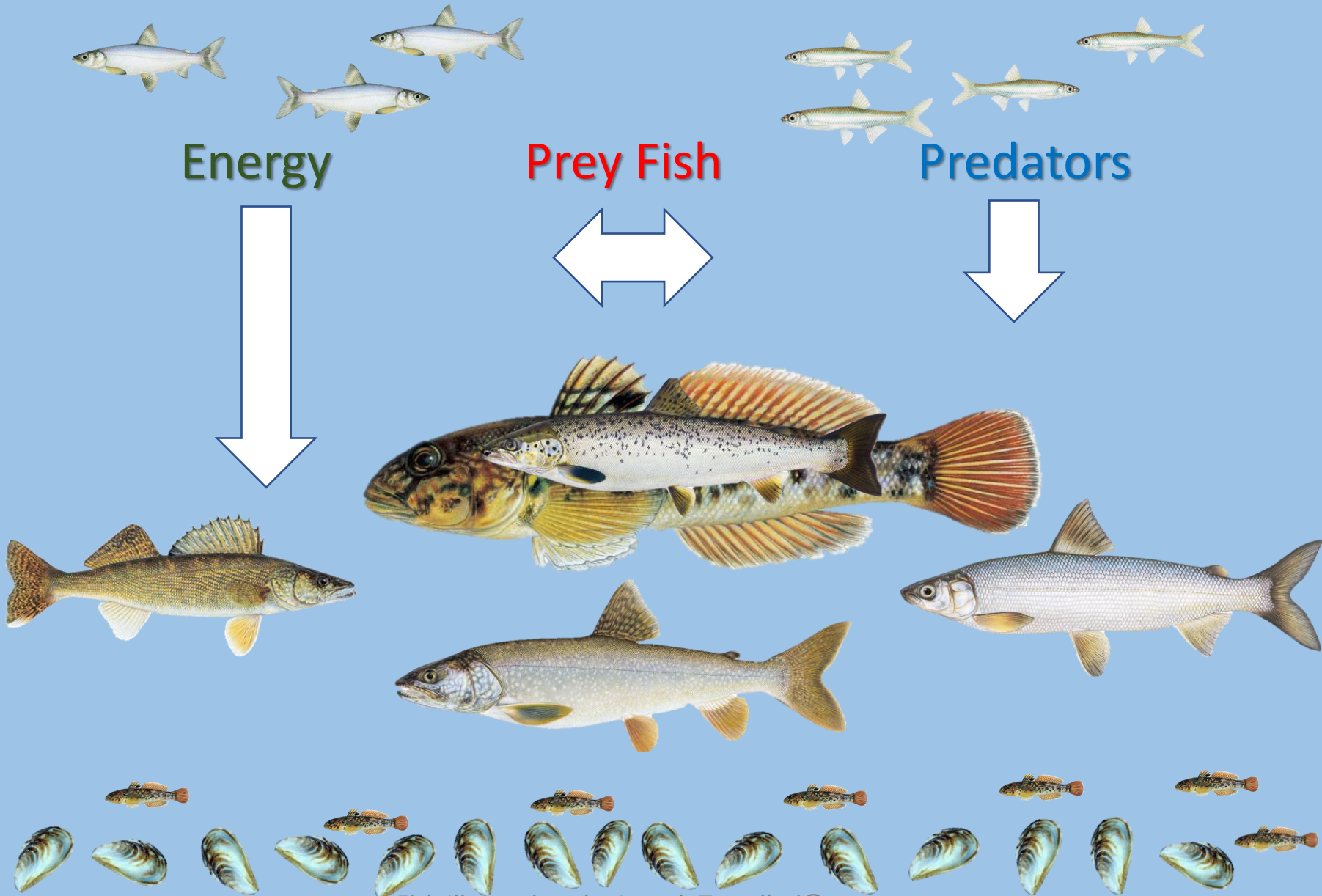
After the crash...



Timeline



After mussel invasion...





A New Lake Huron

Losers 🙄

- Alewife 
- Chinook Salmon
- Tourist Industry
- Anglers

Winners 😊

- Walleye 
- “Versatile” Salmon
- Anglers 

Saginaw Bay



Alewife



Walleye

Unexpected consequences...

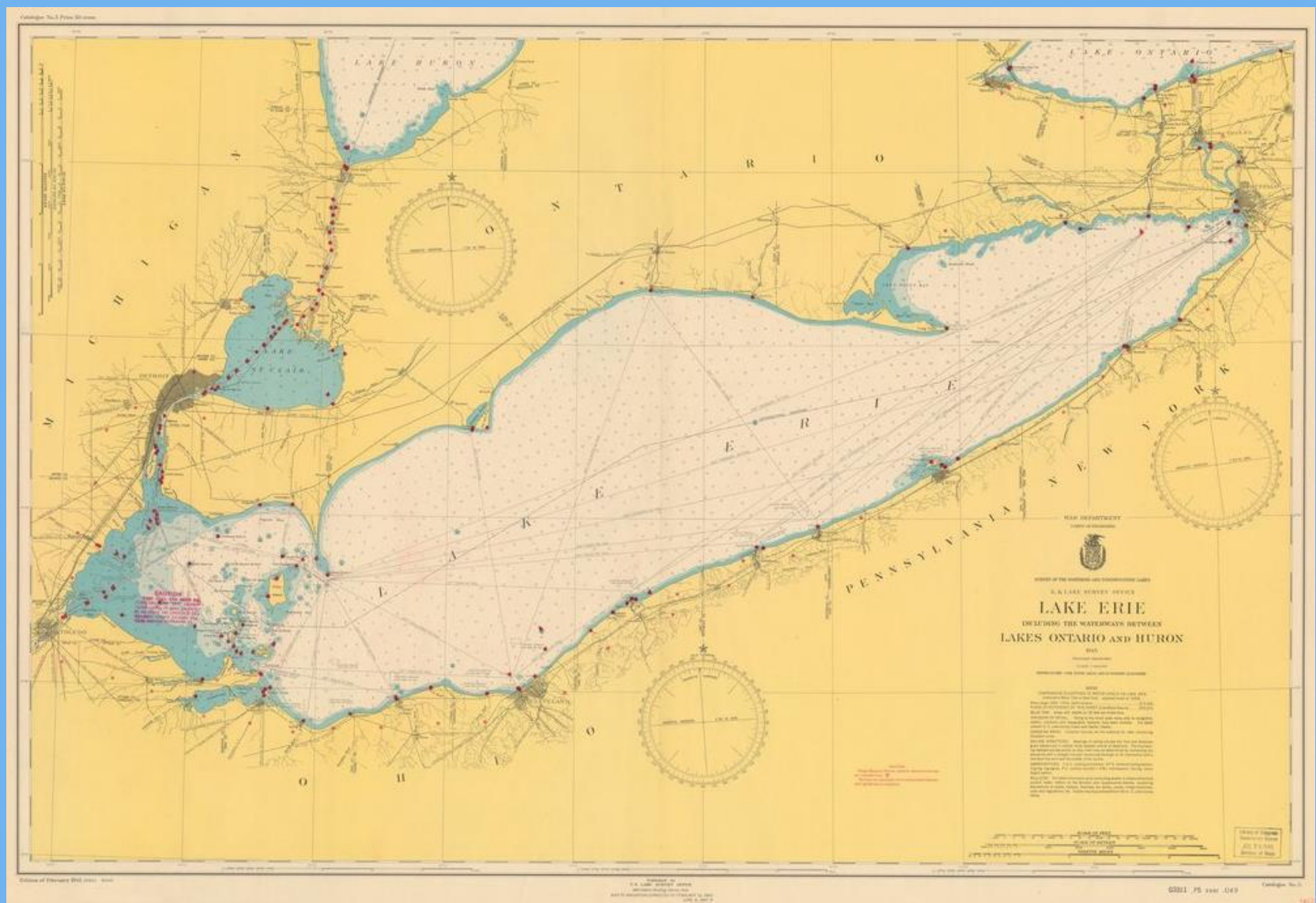
What does it all mean?



- **Mussels Here to Stay**
- **Less Food**
- **Alewives Gone**
- **Change is Constant**

- **Adapt**
- **Re-Evaluate**
- **Learn and Apply**

Lake Erie



Lake Erie

- Max Depth: 210 ft
- Avg Depth: 62 ft
- Area: 10,000 mi²
- Volume: 116 mi³
- Residence Time: 2 years

Eutrophic

Oligotrophic

Mesotrophic

Lake Erie Bathymetry Map

- NOAA

Productivity



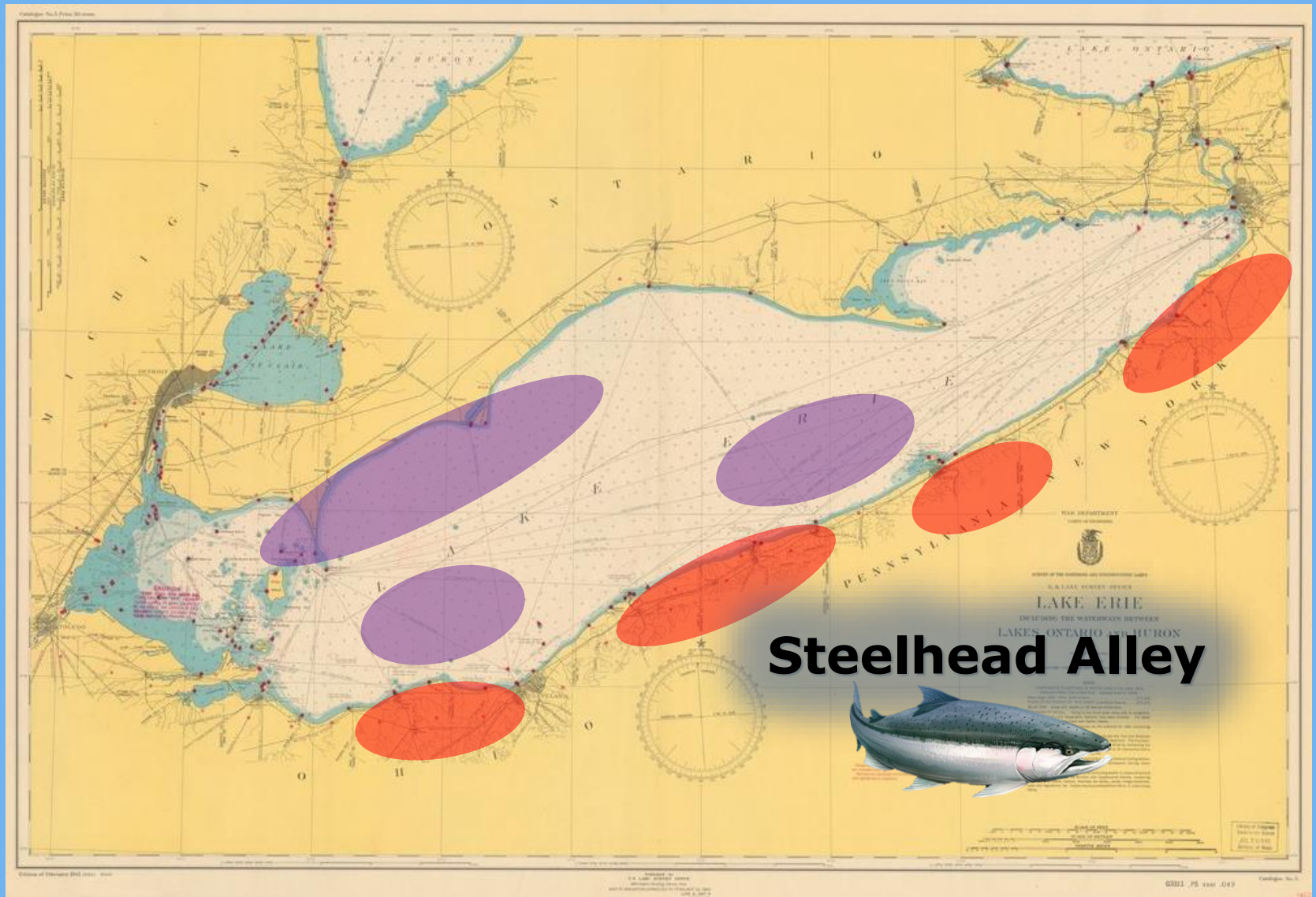
Lake Erie Walleye



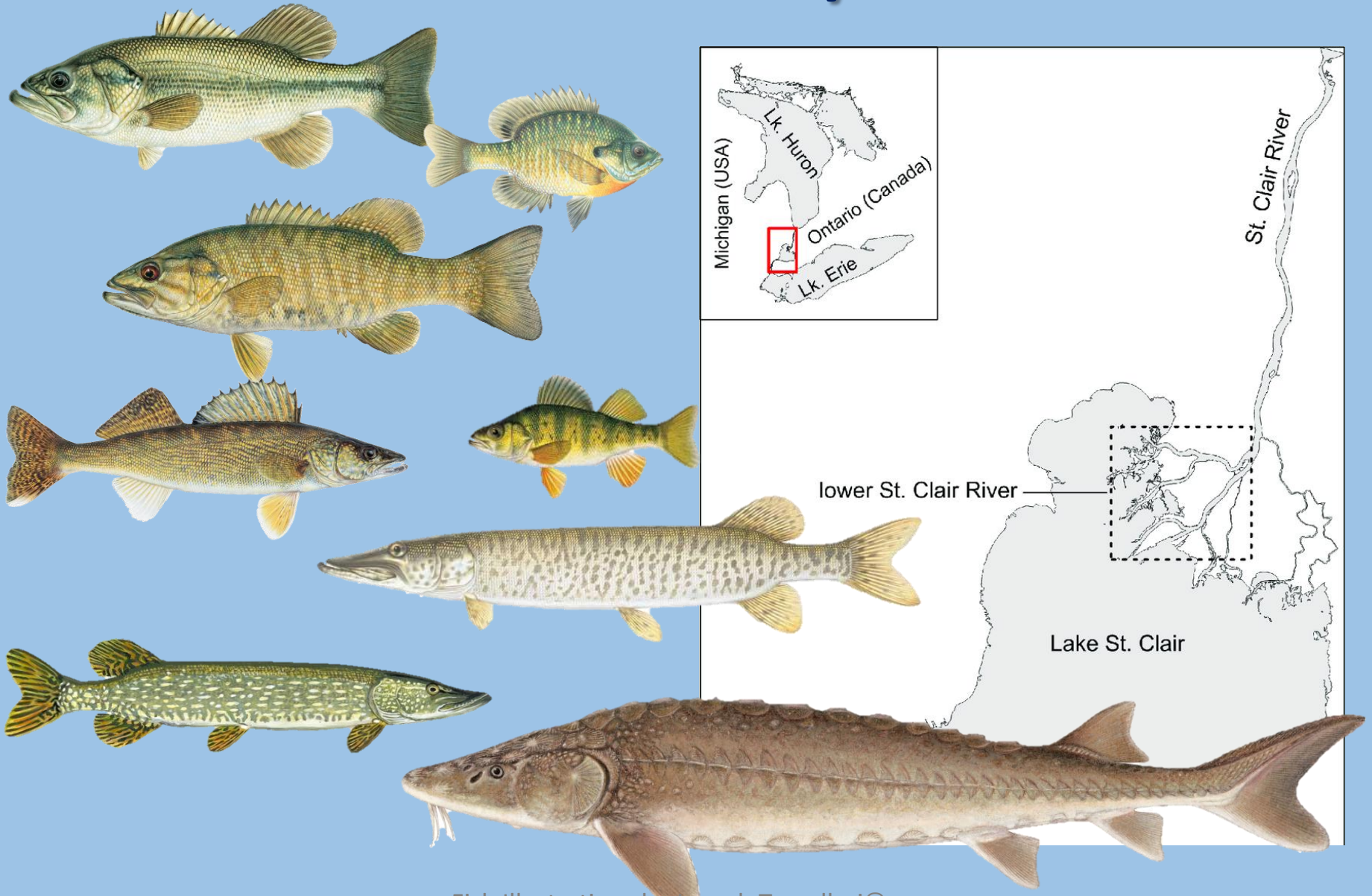
Lake Erie Steelhead



Lake Erie Steelhead

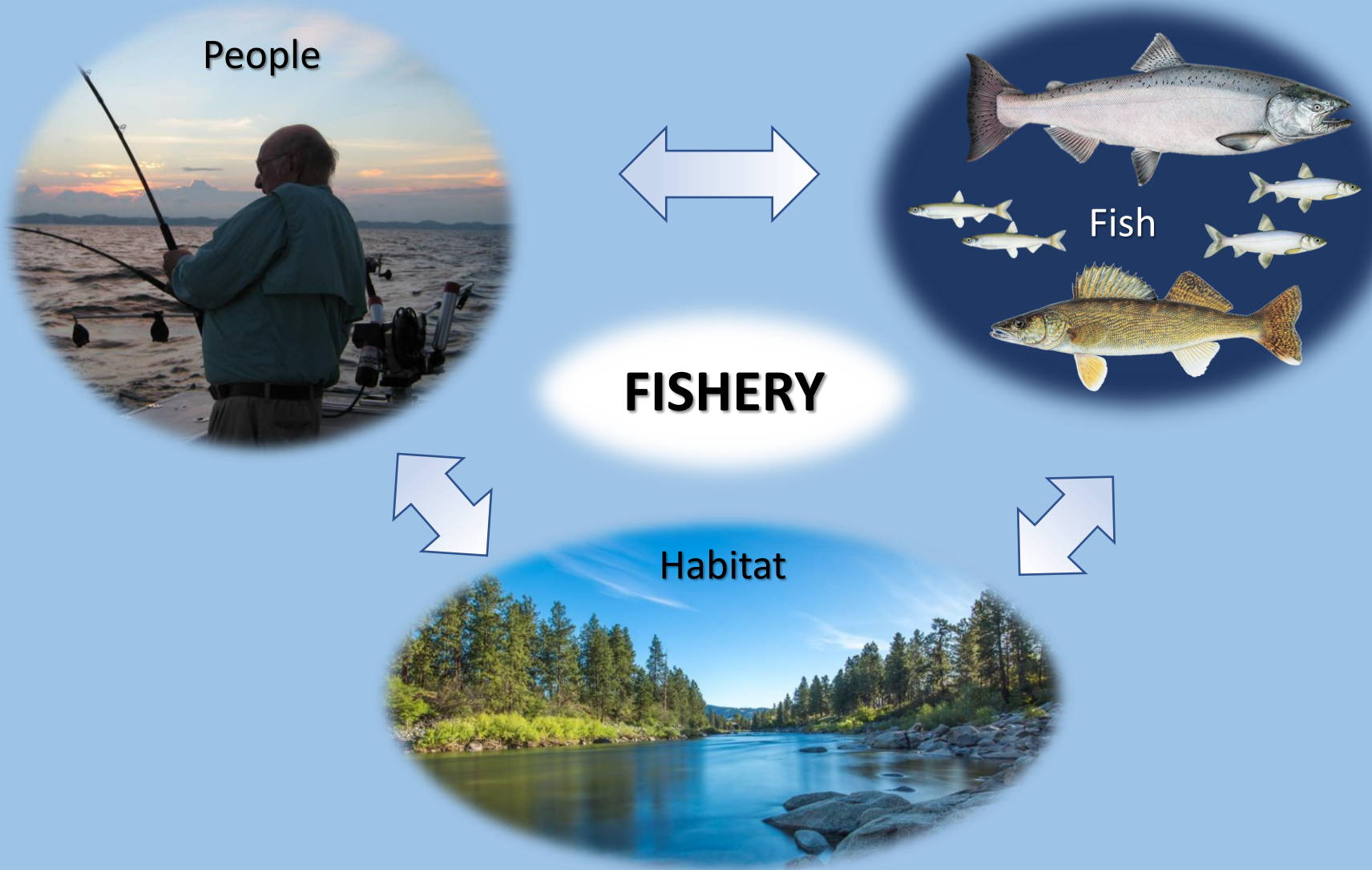


St. Clair System

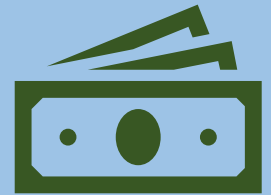
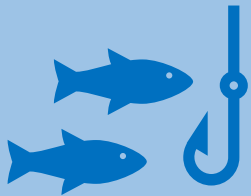




Fisheries Are Complicated



Native Vs. Sport Fishery



Moving Forward...





Questions?