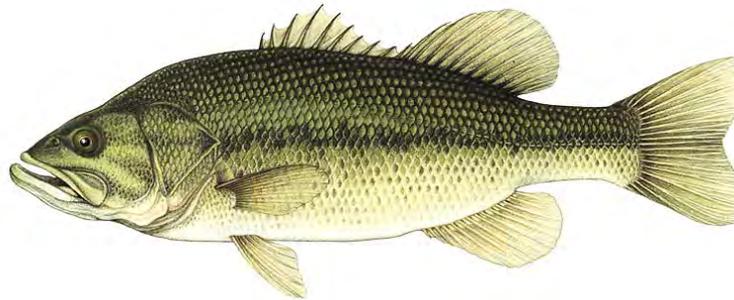
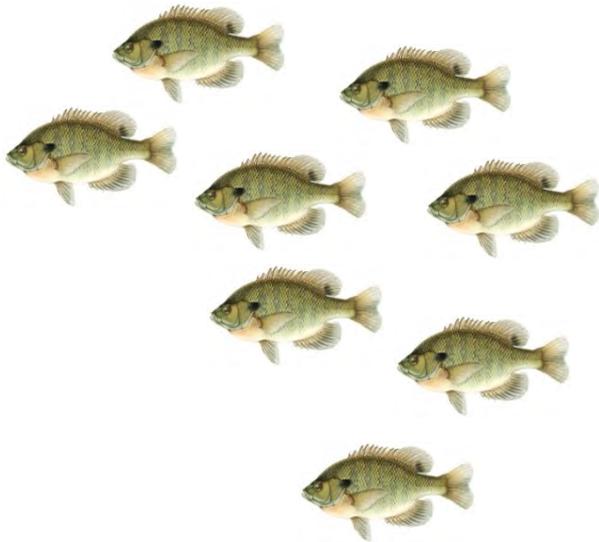




Ohio Fisheries... Managing our Lakes & Streams



2015 Ohio Boating Summit
May 4, 2015



Rich Carter
Executive Administrator
Fish Management & Research
ODNR Division of Wildlife
Columbus, Ohio

Overview



- Benefits
- Customers
- Understanding Ohio's Program
 - Why We Manage
 - What We Manage



DOW Fish Management



- 124,000 Acres of Inland Water
- 7,000 Miles of Streams
- 2 1/4 M Acres of Lake Erie
- Ohio's Portion of 481 Miles - Ohio River



Overview



- **Benefits**
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Ohio Sport Fisheries



- ✓ **1.3 Million Anglers**
- ✓ **Fish 16 Million Days**
- ✓ **\$2.9 Billion Annual Economic Impact**
- ✓ **\$1.9 Billion in Retail Sales**
- ✓ **\$203 Million in State/Local Tax Revenue**
- ✓ **\$208 Million in Federal Tax Revenue**
- ✓ **26,400 Jobs**



Lake Erie Sport Fisheries



- ✓ **About 400,000 Anglers**
- ✓ **\$800 Million Annual Economic Impact**
- ✓ **\$480 Million in Retail Sales**
- ✓ **\$53 Million in State/Local Tax Revenue**
- ✓ **\$54 Million in Federal Tax Revenue**
- ✓ **9,915 Jobs**



Overview



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Who are Ohio Anglers?¹



- 53 years old
- 84% male
- 89% employed
- 64% grew up in small towns and live in small towns
- 80% have access to high-speed internet

¹(Zajac et al. 2012)

Who are Ohio Anglers?

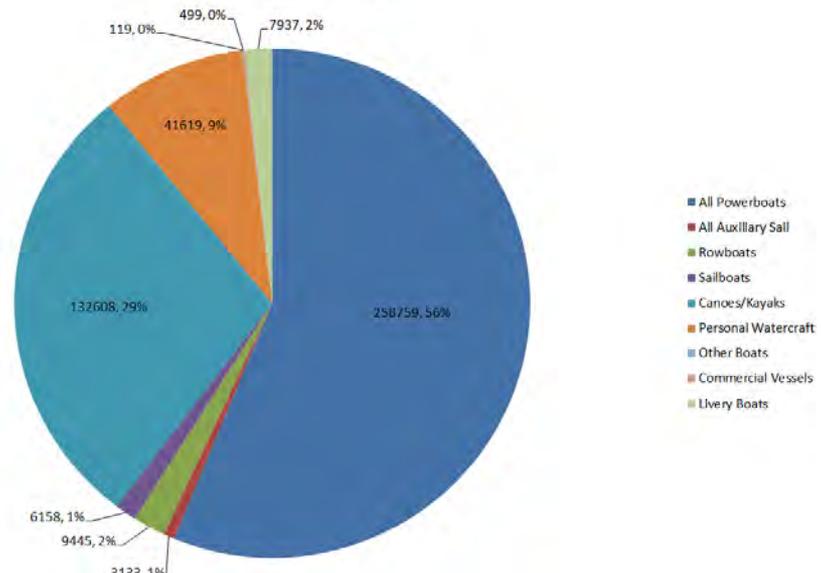


From Our Creel Surveys:

	<u>Boat</u>	<u>Shore</u>
2013	54%	46%
2014	63%	37%



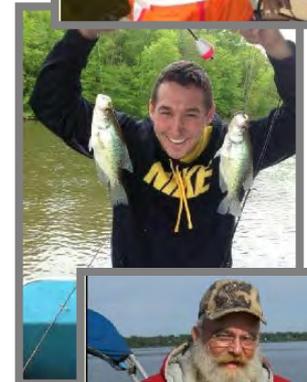
2014 Ohio Registered Vessels
All Vessels



Reservoir Preferences

Type of Fish	Seeking (%)
Anything	33
Black Bass	25
Crappie	14
Catfish	10
Walleye/Saugeye	8
Sunfish	7

Our Creel Surveys...



Overview

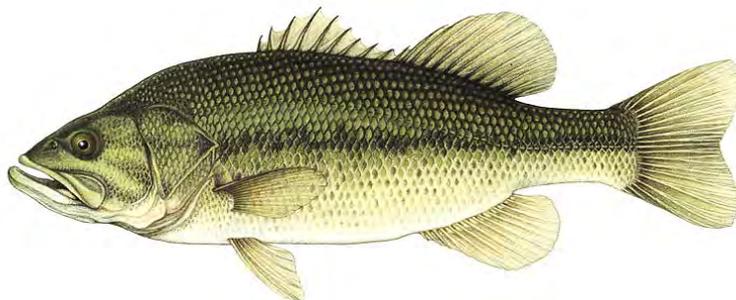


- Benefits
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Understanding Our Program...

How We Do Our (Your) Work



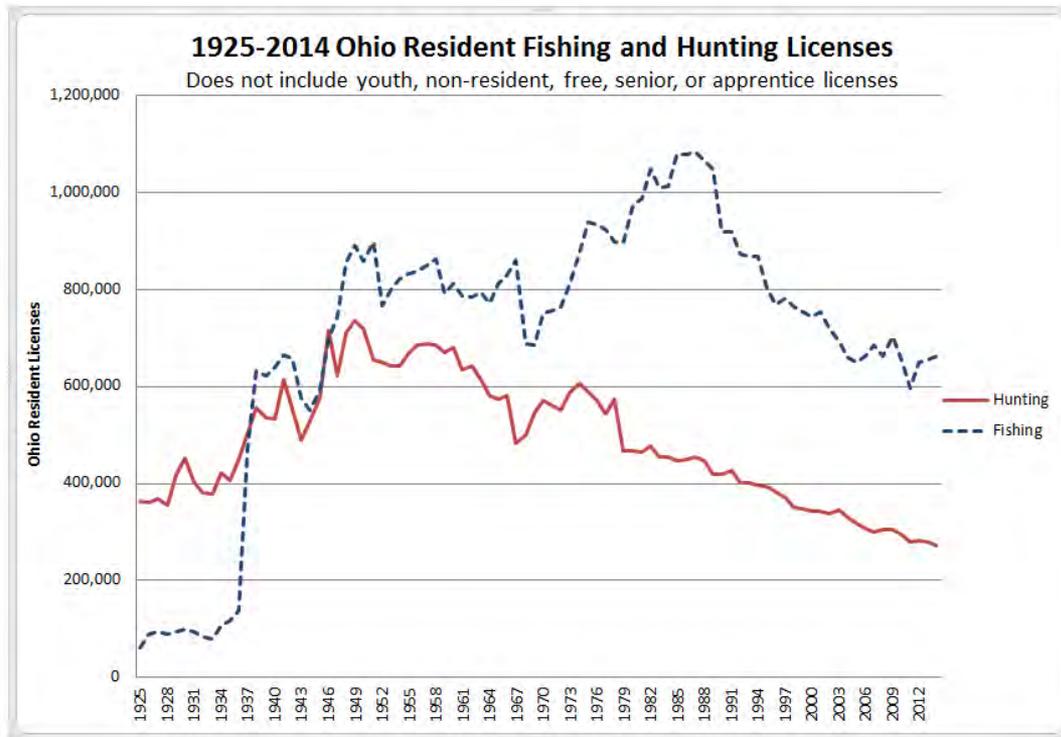
Funding \$\$\$...

- No GRF
- Sportsmen's Dollars





Funding \$\$\$...



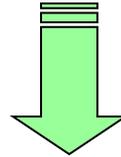
License Sales
\$15 M (2014)

+

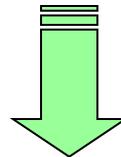
Excise Tax
\$6.2 M (2014)



Manufacturer's excise taxes on fishing equipment , import duties, motorboat & small engine fuel taxes, and interest earned on Trust Fund are collected.



Sport Fish Restoration & Boating Trust Fund



Funds are distributed to grant programs, administration, States and Territories.

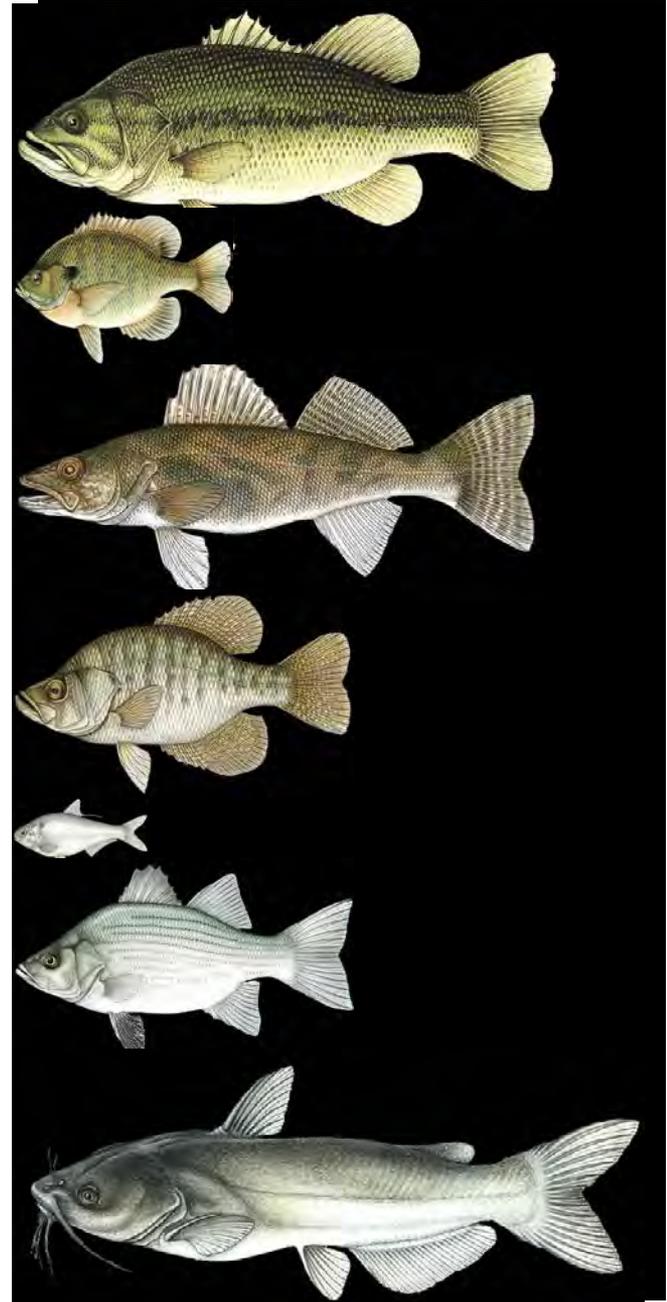
(Apportioned to states 40% on size of state and 60% on number of licensed anglers)



We Manage the Sportfish...

Fish people
like to catch

- Eating
- Catching





Mission:

To conserve and improve fish and wildlife resources & their habitats for sustainable use & appreciation by all.



We Build
a Better Bite!

Building a Better Bite!



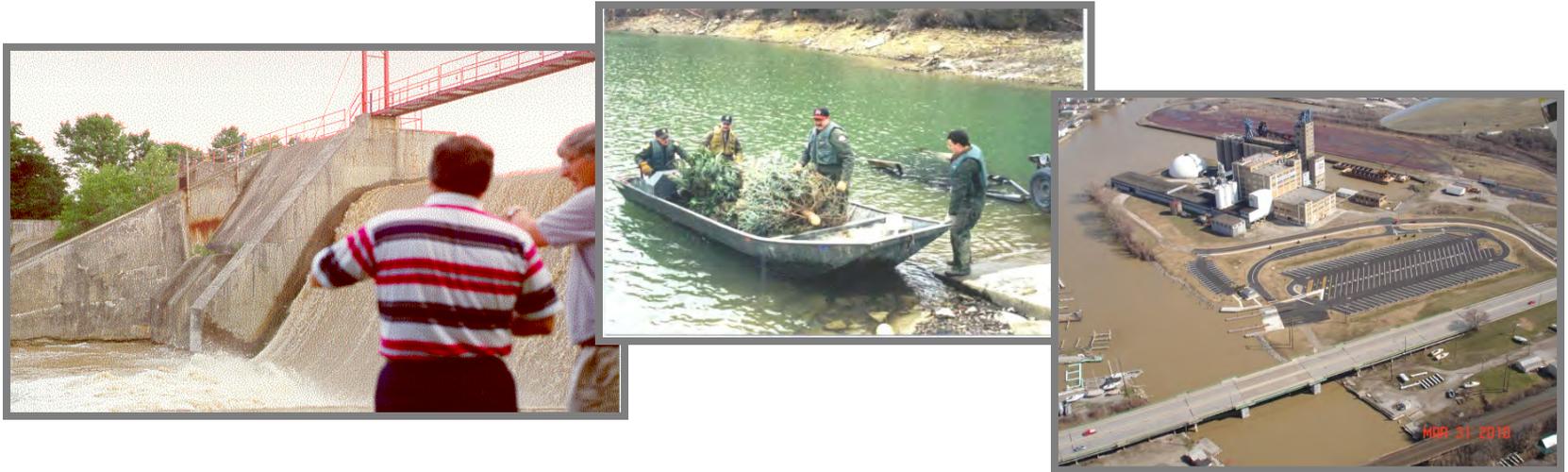
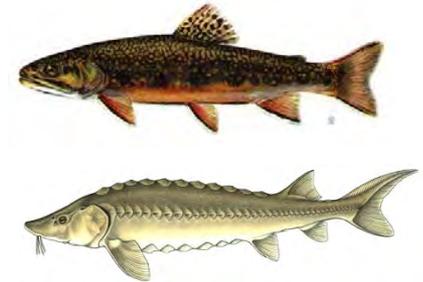
- Manage for long-term sustainability of sport species



Building a Better Bite!



- Manage for long-term sustainability of sport species
- Maintain & Improve:
 - Threatened and endangered species
 - Non-sport aquatic species
 - Aquatic habitat



Building a Better Bite!



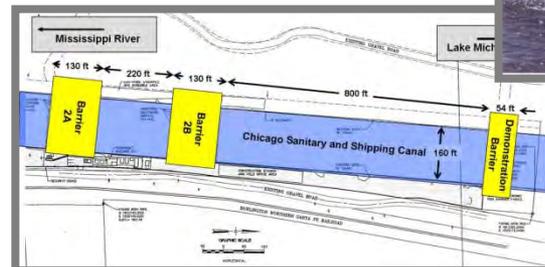
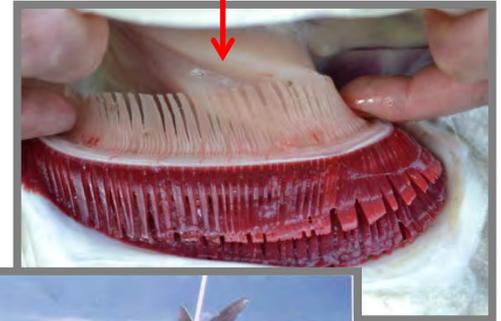
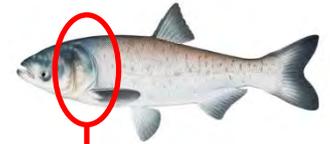
- Manage for long-term sustainability of sport species
- Maintain & Improve:
 - Threatened and endangered species
 - Non-sport aquatic species
 - Aquatic habitat
- Promote improved water quality



Building a Better Bite!



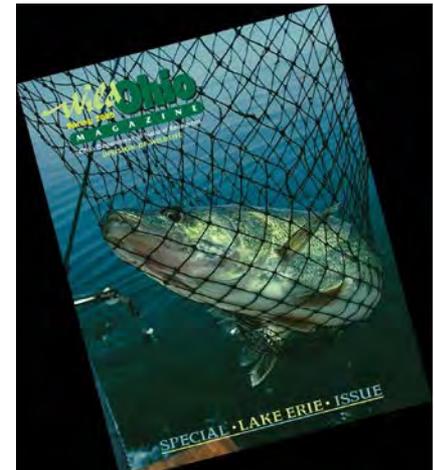
- Manage for long-term sustainability of sport species
- Maintain & Improve:
 - Threatened and endangered species
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 - Aquatic habitat
- Promote improved water quality
- Prevent & control invasive species



Building a Better Bite!



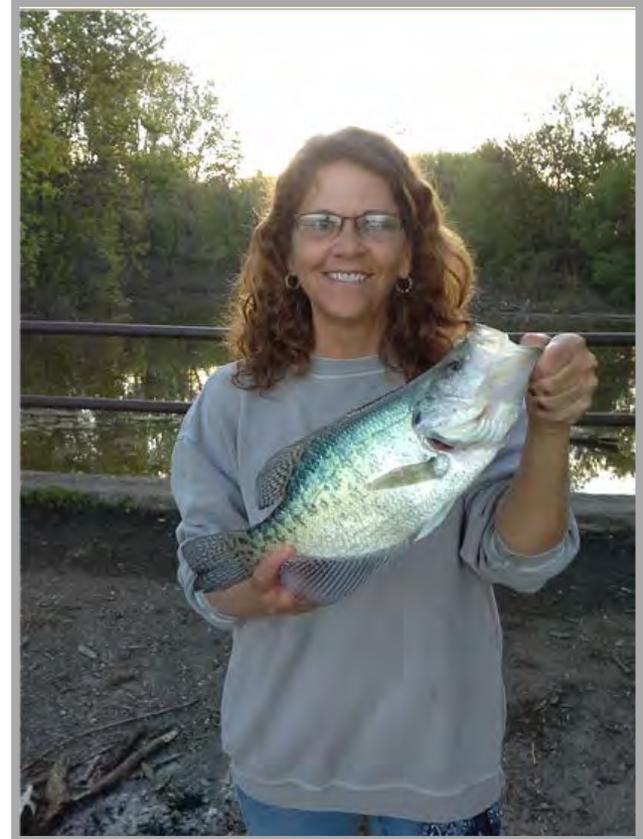
- Manage for long-term sustainability of sport species
- Maintain & Improve:
 - Threatened and endangered species
 - Non-sport aquatic species
 - Aquatic habitat
- Promote improved water quality
- Prevent & control invasive species
- Promote wise-use and appreciation of Ohio's aquatic resources



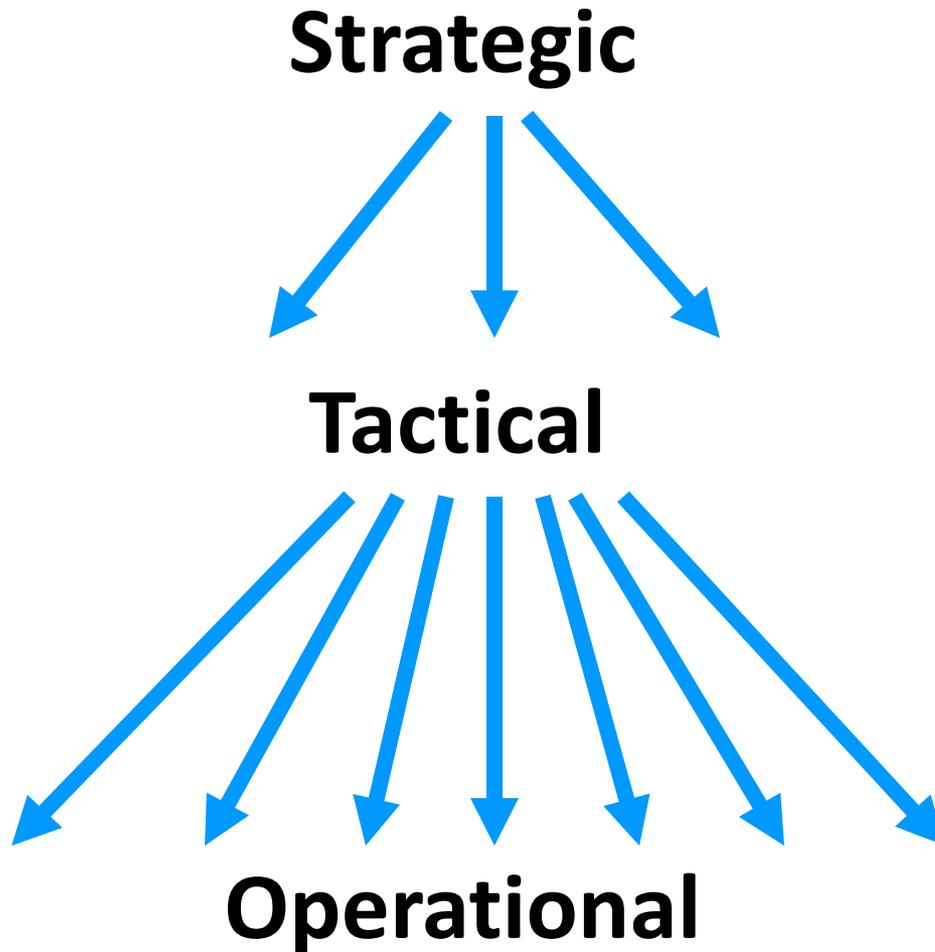
Sustainable Fisheries



*Fisheries Management:
The manipulation of
fish populations
or their environment
in an orderly fashion
that is designed to meet
a pre-determined goal.*

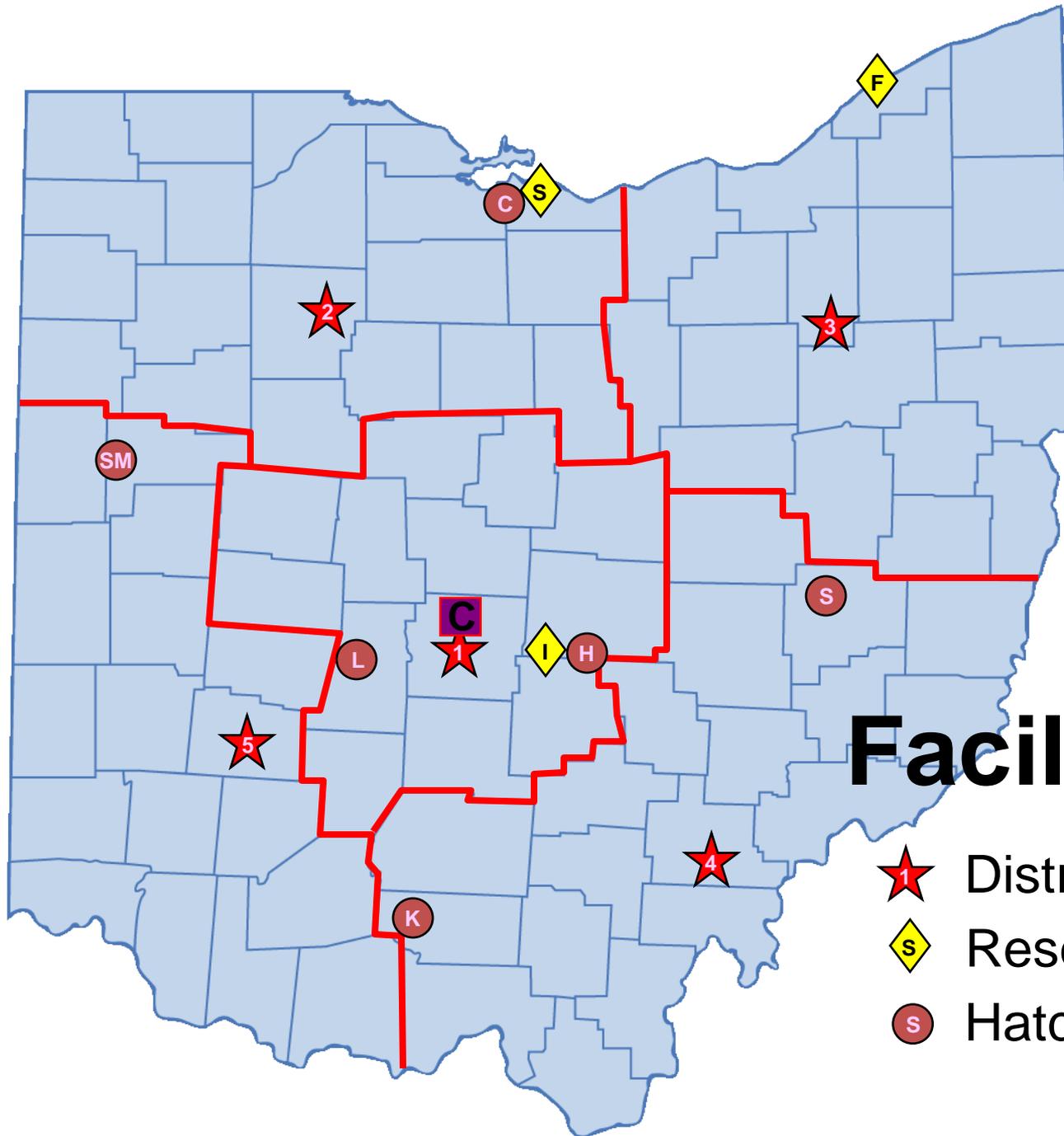


Plans & Linkages



Our Actions are:

- **Strategic**
- **Long Term**
- **Deliberate**
- **Results Oriented**
- **Required for Compliance**



Facilities

- District Office
- Research Unit
- Hatchery

Routine Assessments - Health



Electrofishing



Angler Surveys



Gillnets



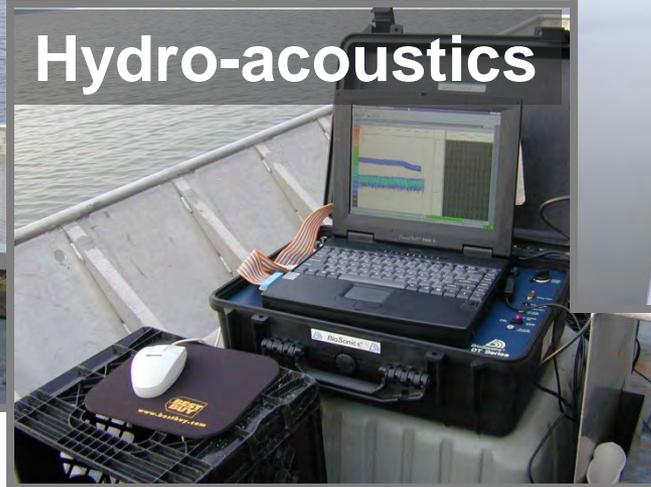
Stream Surveys



Water Quality



Hydro-acoustics



Trapnets



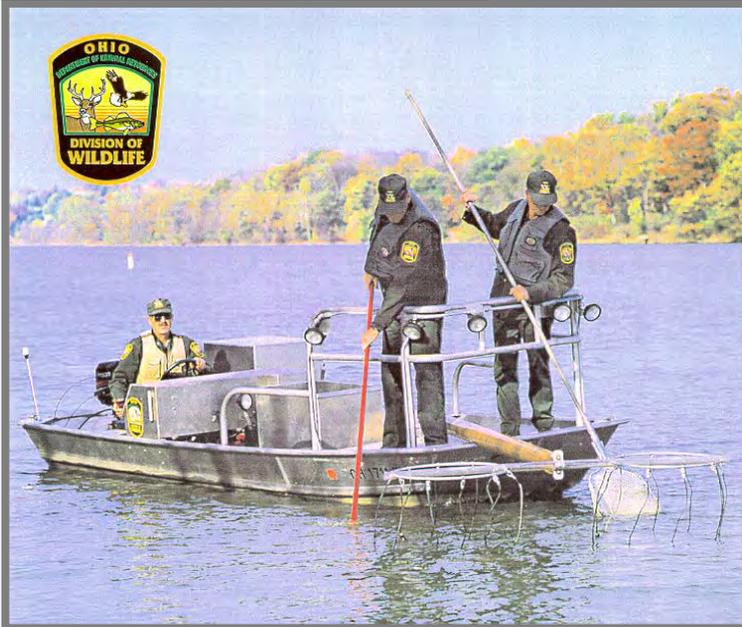
Science Based Management - Research



Aquatic Ecology Laboratory



The Ohio State University
Department of Evolution, Ecology, and Organismal Biology

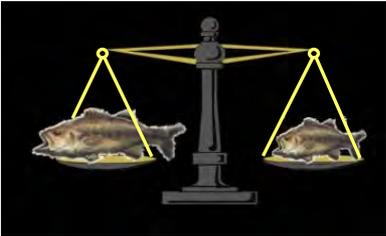


Finding Answers to Management Questions

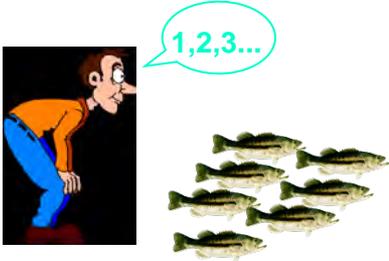
Determines...



What Size



How Many



Growth



Angler Impacts



Mortality



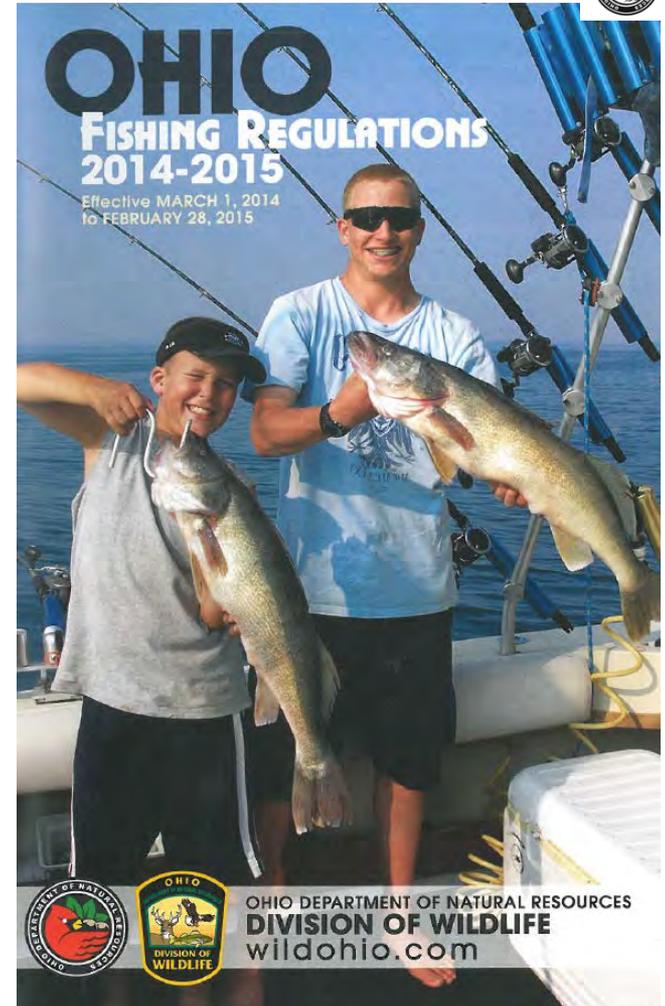
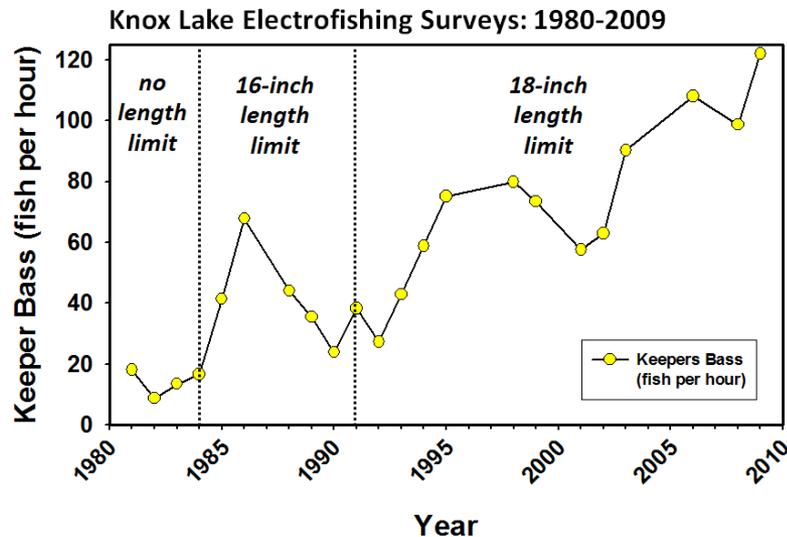
Forage



Leverage, Leverage, LEVERAGE!

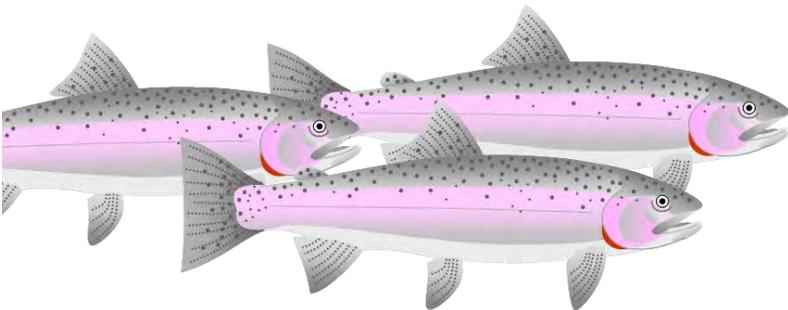
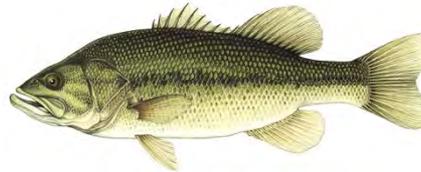
Regulations...Why?

- ❑ Prevent over harvest
- ❑ Equitably distribute harvest
- ❑ Increase sizes of fish caught
- ❑ Increase numbers of fish caught



Strategic Stocking

- Public Waters
- Capacity
- Food
- Niche



Stocking...

Walleye



Saugeye



Channel Catfish



Hybrid Striped Bass



Hybrid Bluegills



Hebron Hatchery 



Hebron State Fish Hatchery





Ponds filled 3-5 days before stocking



Harvesting fingerlings from pond



Harvesting fingerlings from pond



Harvesting fingerlings from pond



HEBRON
FISH
HATCHERY

HEBRON
FISH
HATCHERY



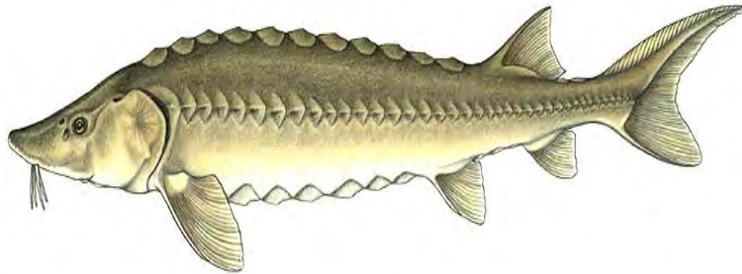
Stocking Strategies



Put-Grow-Take



Put-Take



Reintroduction

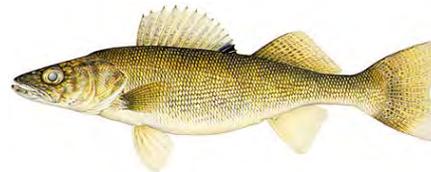
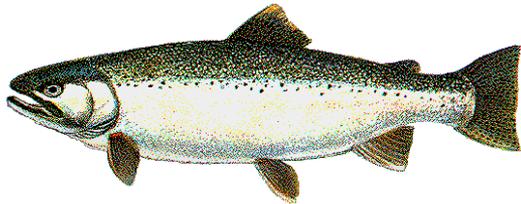
Main Program Species



Cold Water

Cool Water

Warm Water



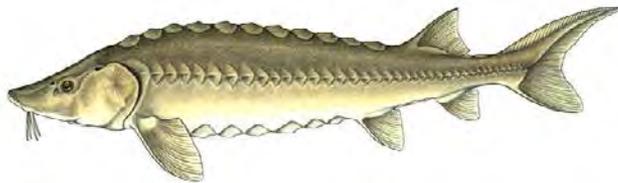
Other Species Raised



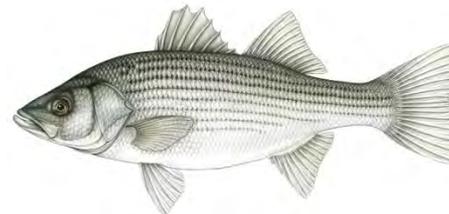
Restoration



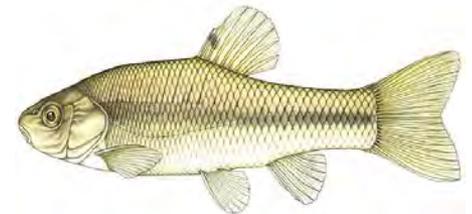
Rehabilitation



Brood



Food

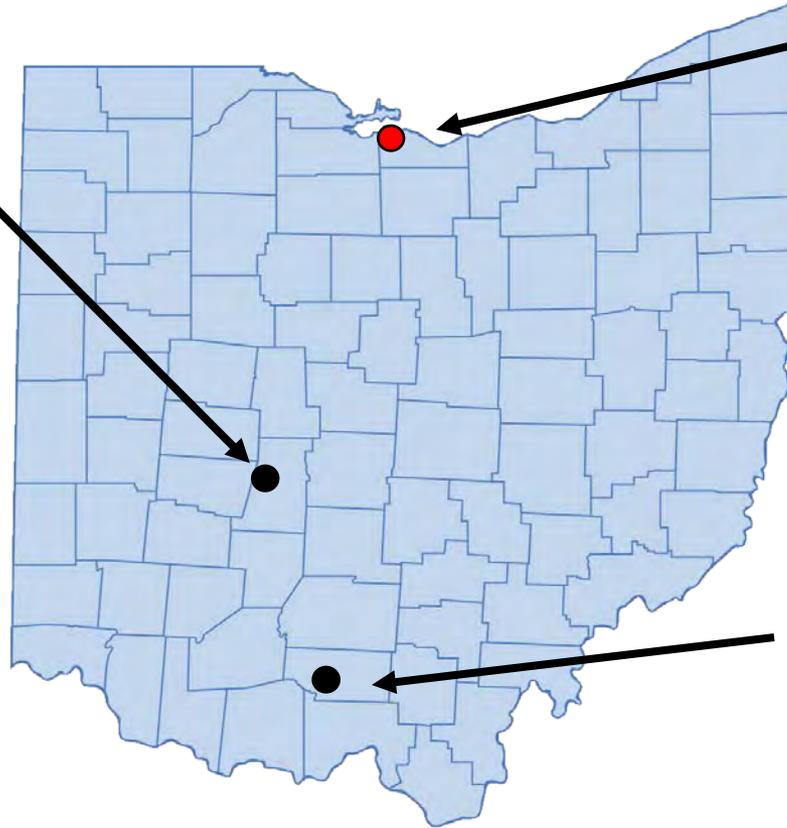


Cold Water Hatcheries



London

- Madison Co.
- Well water



Castalia

- Erie Co.
- Blue Hole
- Cold Creek

Kincaid

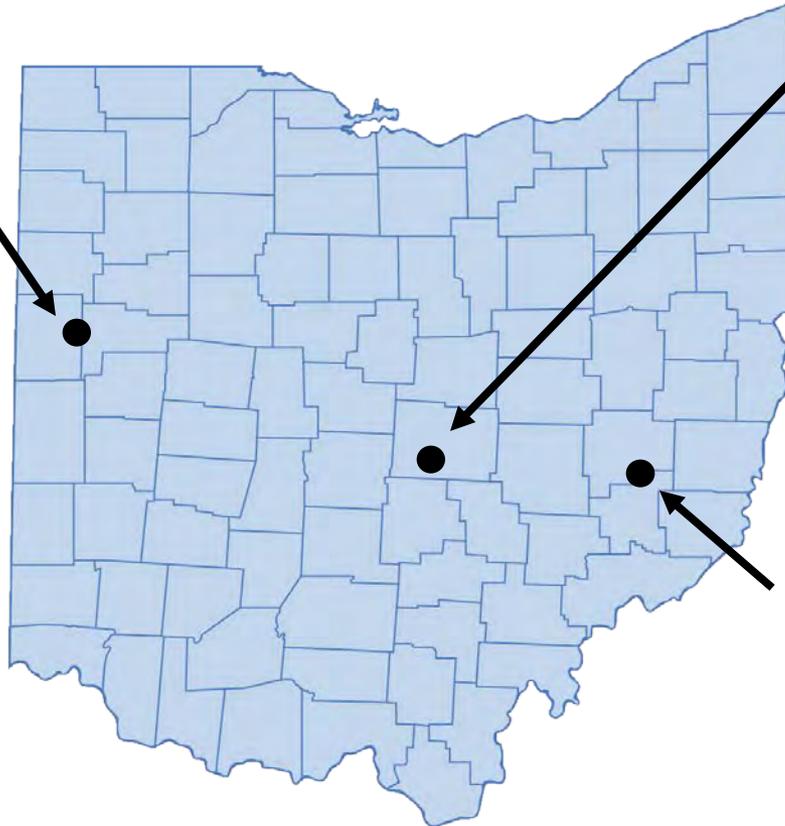
- Pike Co.
- Spring Water

Cool/Warm Water Hatcheries



St Marys

- Auglaize Co.
- GL St Marys



Hebron

- Licking Co.
- Buckeye Lake

Senecaville

- Guernsey Co.
- Seneca Lake

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