Fisheries Management and Habitat Protection

By

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WISCONSIN DEPT. OF NATURAL RESOURCES

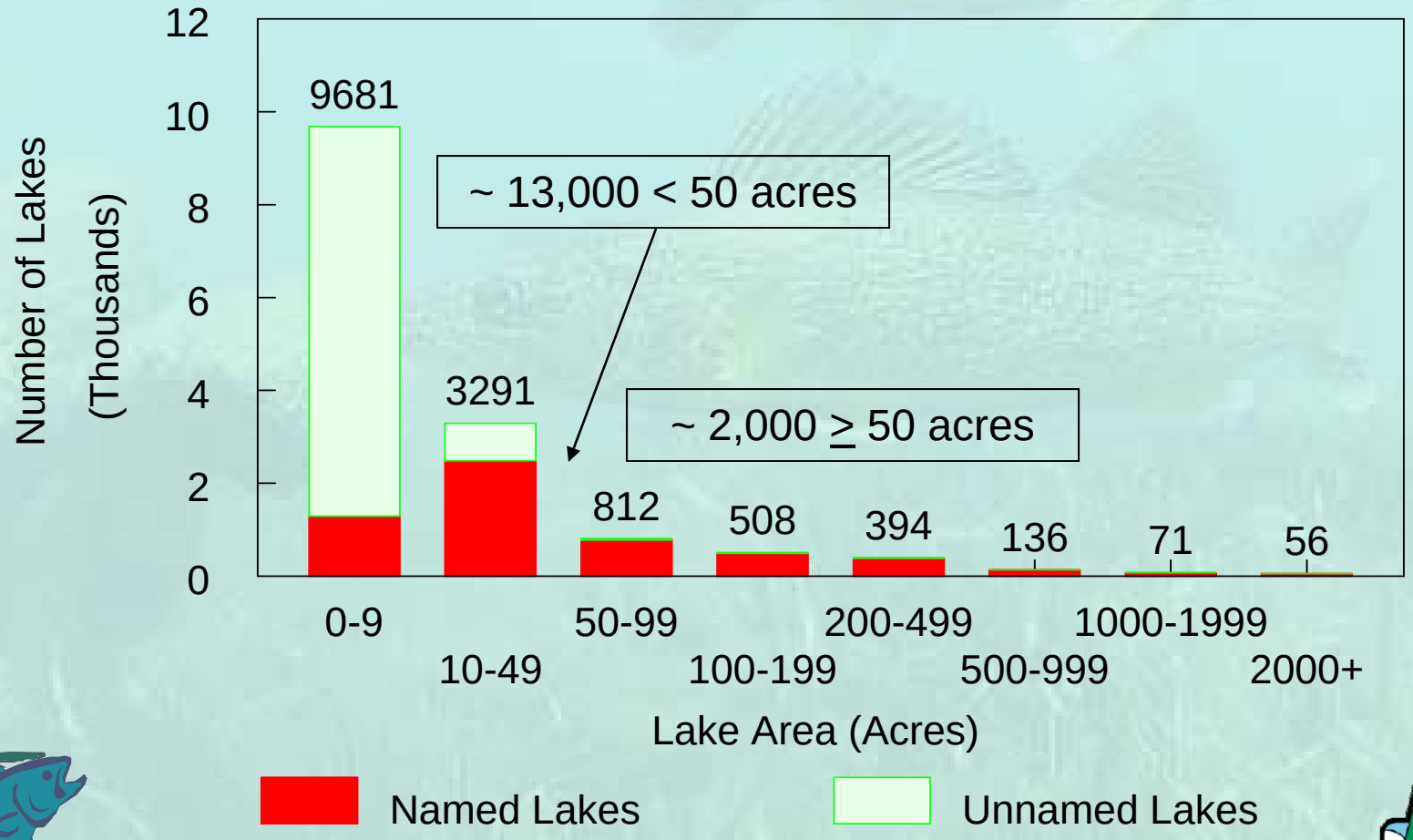
Overview of Lake Resources

- WI has 15,081 documented inland lakes covering one million surface acres
- Range from 1 acre to 137,708 acres
- ~ 6,000 named lakes (40%)

Overview of Lake Resources

Number of Wisconsin Lakes

by Size Categories (15,081 total)



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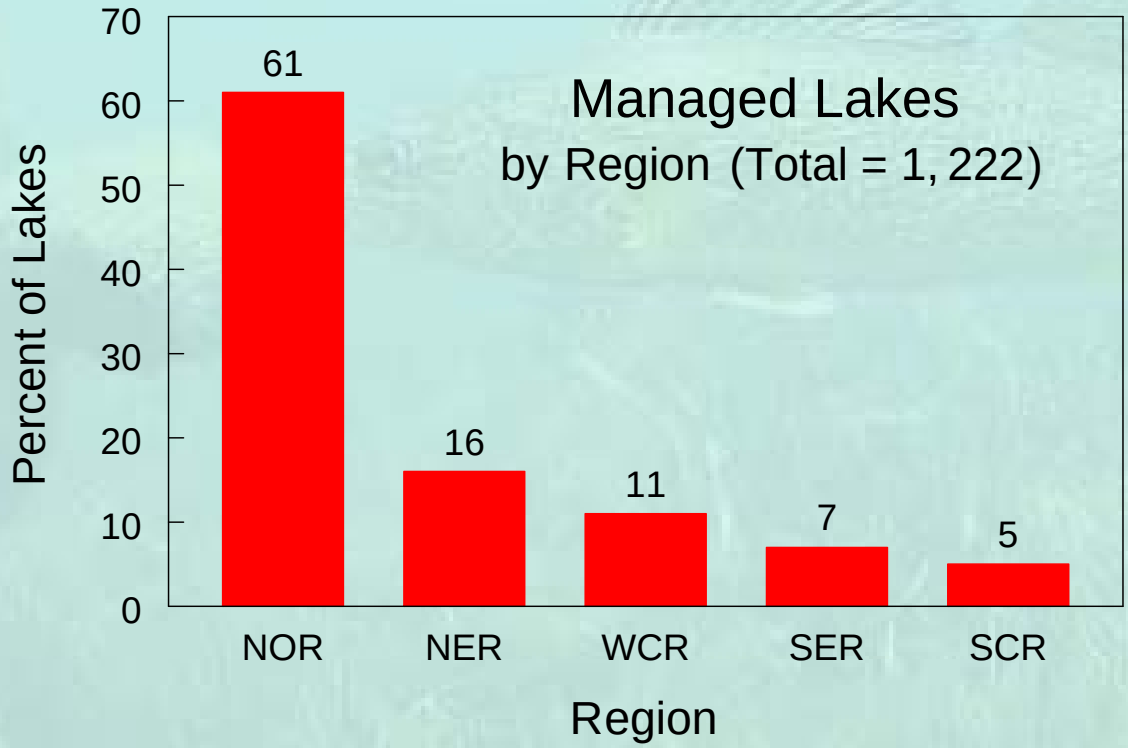
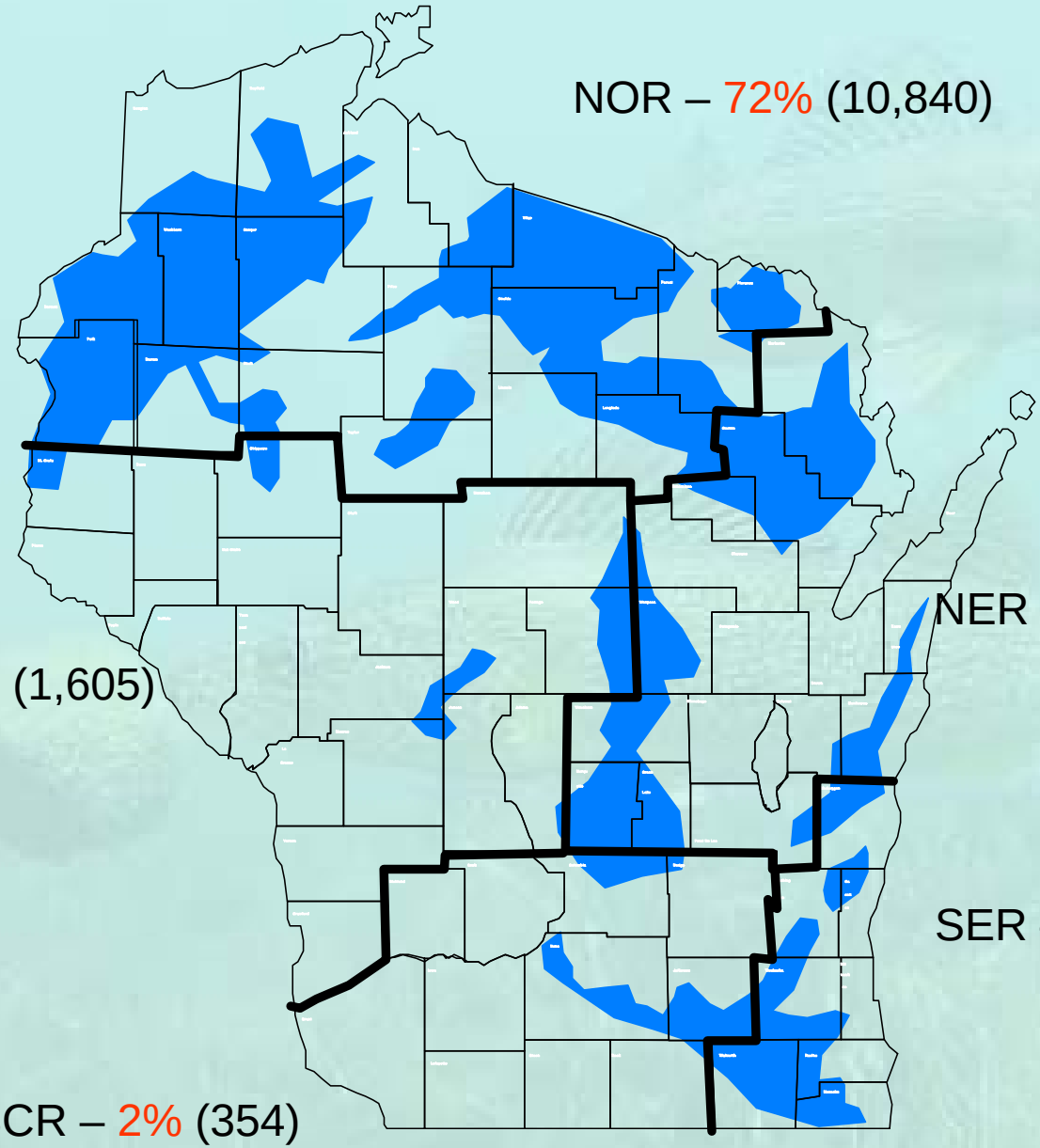
Overview of Lake Resources

- FM actively manages 1,222 lakes
- Most (60%) ≥ 100 acres
- Unequally distributed across state





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Overview of Lake Resources

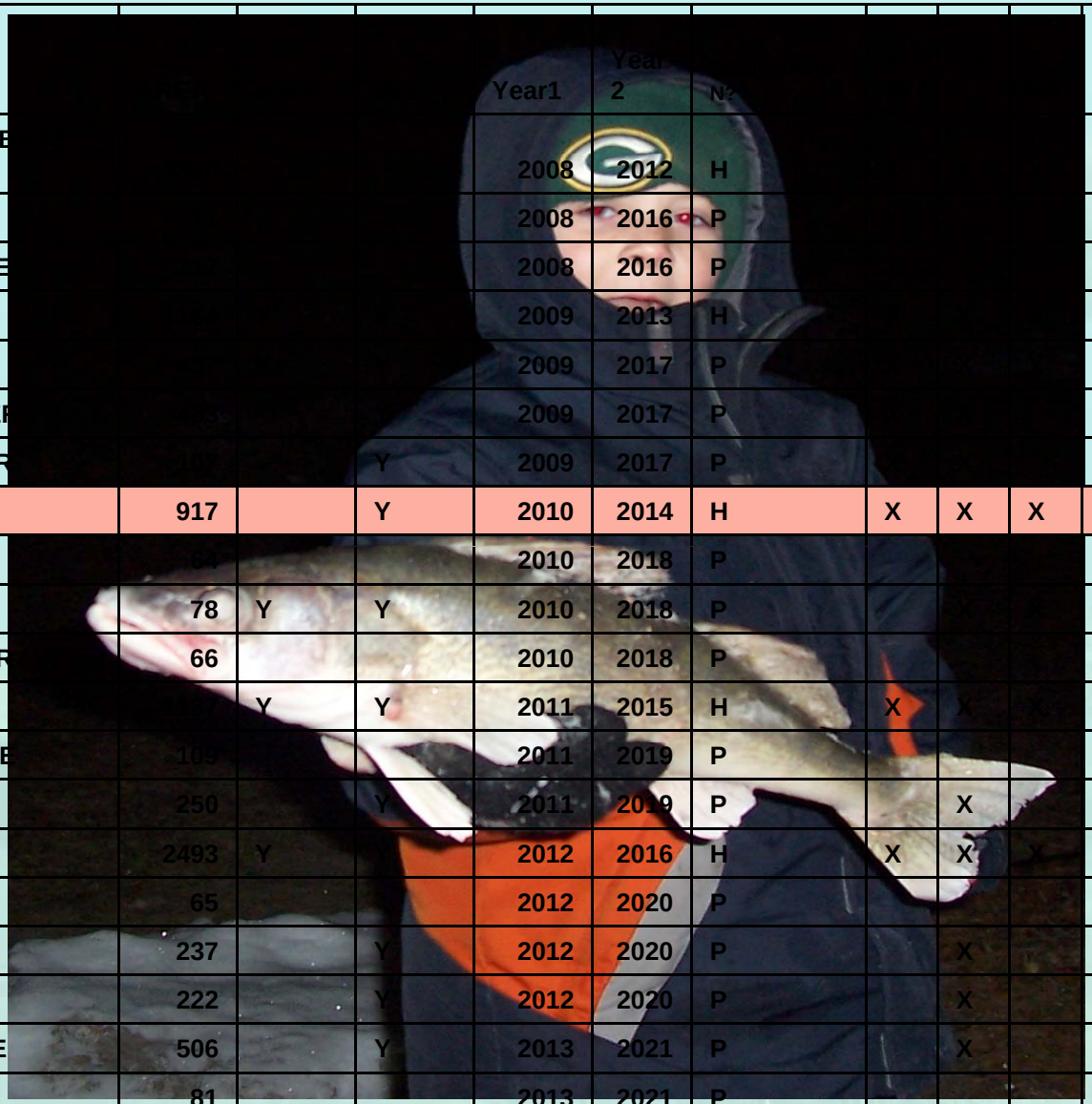
Fishery Designations/Rotations:

"High Profile" > 1,000 ac, 4-yr rotation

"Public Access" 100-1000 ac, 8-yr rotation

"Minor Fishery" 50-100 ac, 10-yr rotation

LAKE NAME	[redacted]			Year1	Year 2	N?				SE II	S NII I	FE	Cr eel
BIG MUSKEGO LAKE & B BAY	[redacted]			2008	2012	H				X			Y
EAGLE SPRING LAKE	[redacted]			2008	2016	P				X			
SCHOOL SECTION LAKE	[redacted]			2008	2016	P				X			
LAC LA BELLE	[redacted]			2009	2013	H				X		X	Y
NORTH LAKE	[redacted]			2009	2017	P				X		X	
PHANTOM LAKE, LOWER	[redacted]			2009	2017	P				X		X	
PHANTOM LAKE, UPPER	[redacted]		Y	2009	2017	P				X		X	
NAGAWICKA LAKE	917		Y	2010	2014	H	X	X	X	X		X	Y
PRETTY LAKE	[redacted]			2010	2018	P				X			
FOWLER LAKE	78	Y	Y	2010	2018	P				X		X	
GENESEE LAKE, LOWER	66			2010	2018	P				X			
OKAUCHEE LAKE	[redacted]	Y	Y	2011	2015	H	X	X	X	X		X	
GENESEE LAKE, MIDDLE	[redacted]			2011	2019	P				X			
GOLDEN LAKE	[redacted]		Y	2011	2019	P		X		X		X	
PEWAUKEE LAKE	[redacted]	Y	Y	2012	2016	H	X	X	X	X		X	
HUNTERS LAKE	[redacted]			2012	2020	P				X			
KEESUS LAKE	237		Y	2012	2020	P		X		X		X	
SILVER LAKE	222		Y	2012	2020	P		X		X			
LITTLE MUSKEGO LAKE	506		Y	2013	2021	P		X		X		X	
MOOSE LAKE	81			2013	2021	P				X			
OCONOMOWOC LAKE	767	Y	Y	2013	2021	P		X	X	X		X	Y



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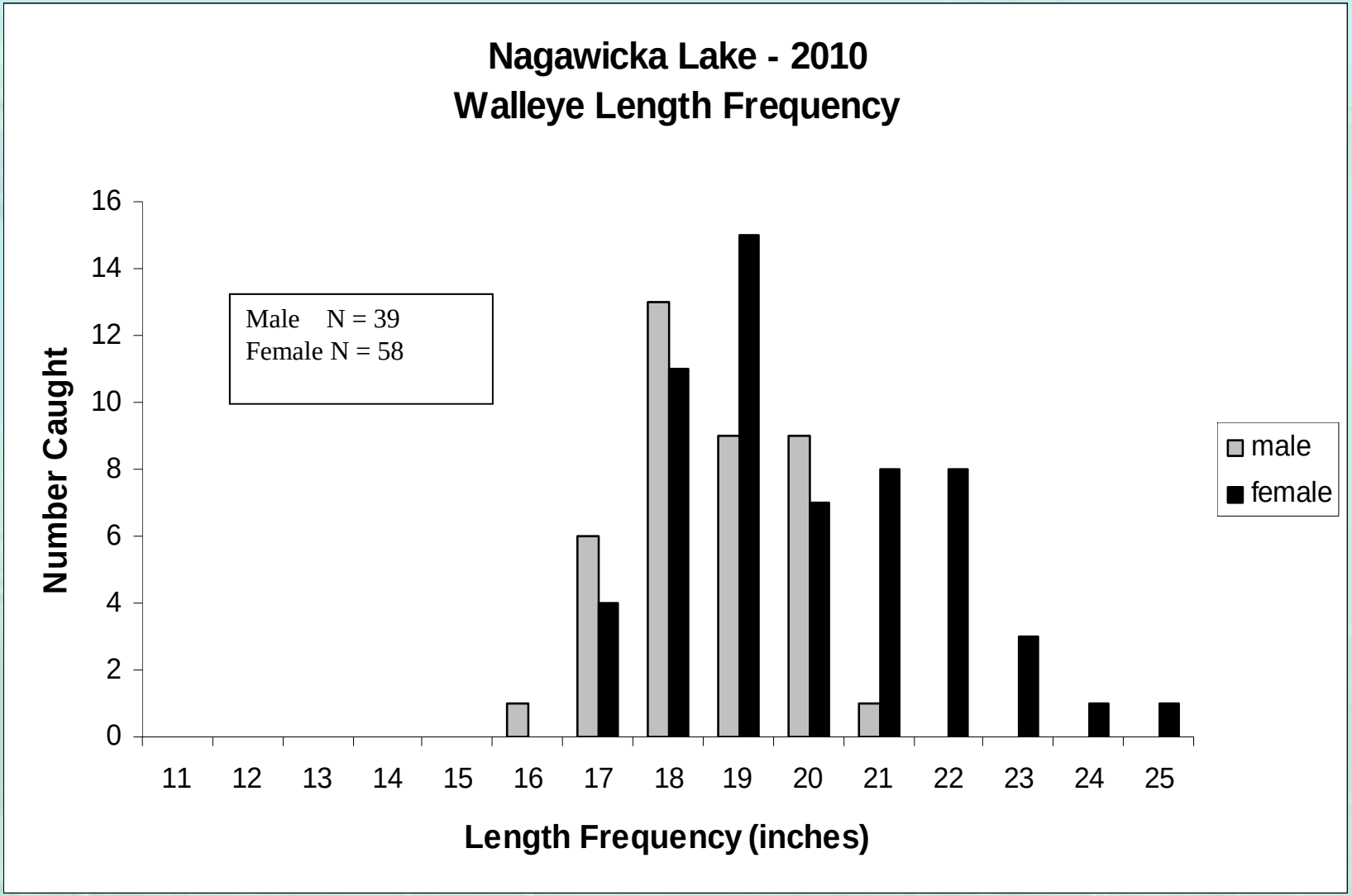
Local Walleye Population Estimates

- Baas Bay - 0.7 per acre
- Lac LaBelle - 2.0 per acre
- Pewaukee Lake - 0.9 per acre
- Oconomowoc Lake - 3.0 per acre
- Pine Lake - 3.7 per acre
- Nagawicka Lake - 0.4 per acre



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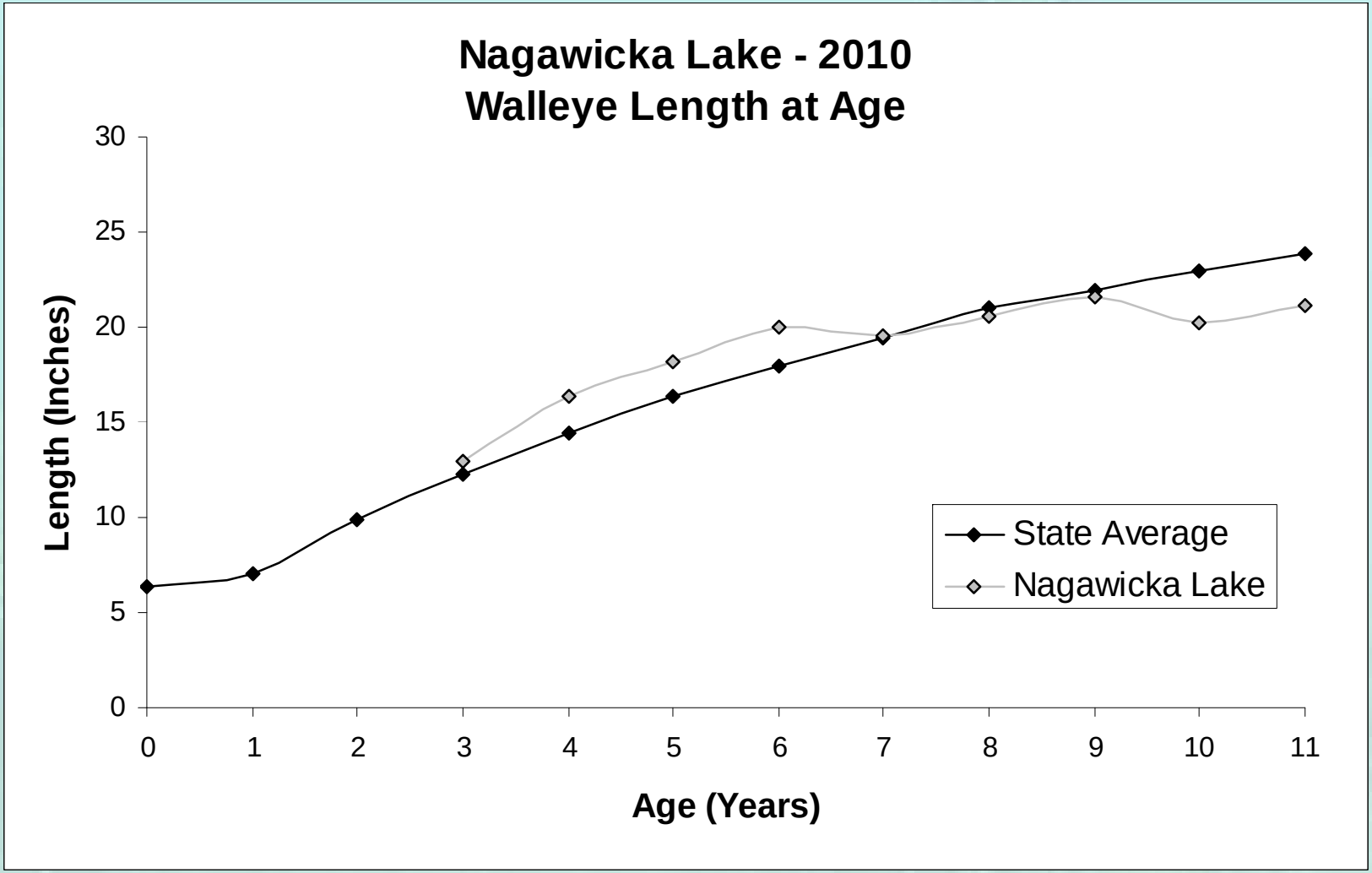

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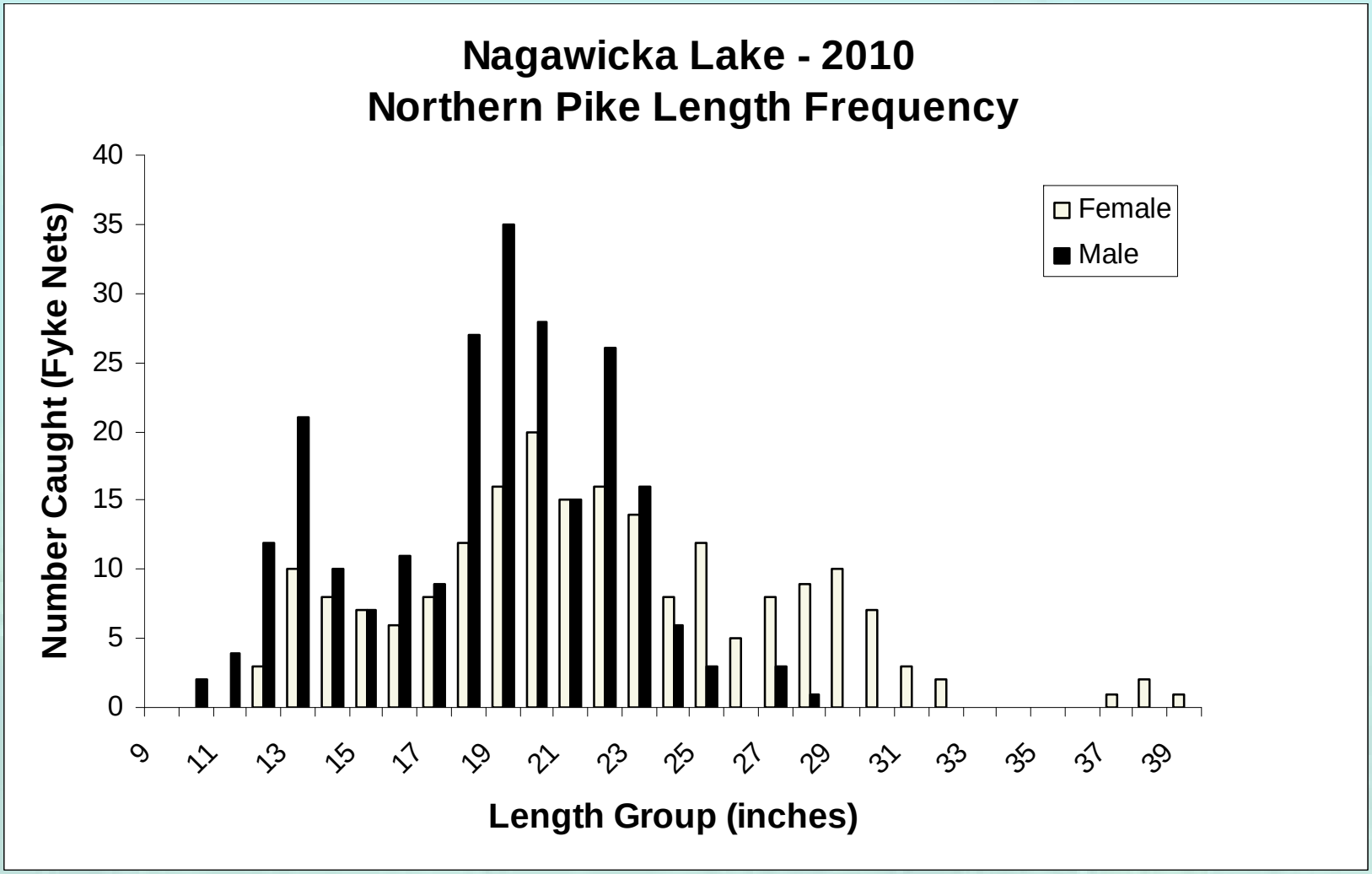

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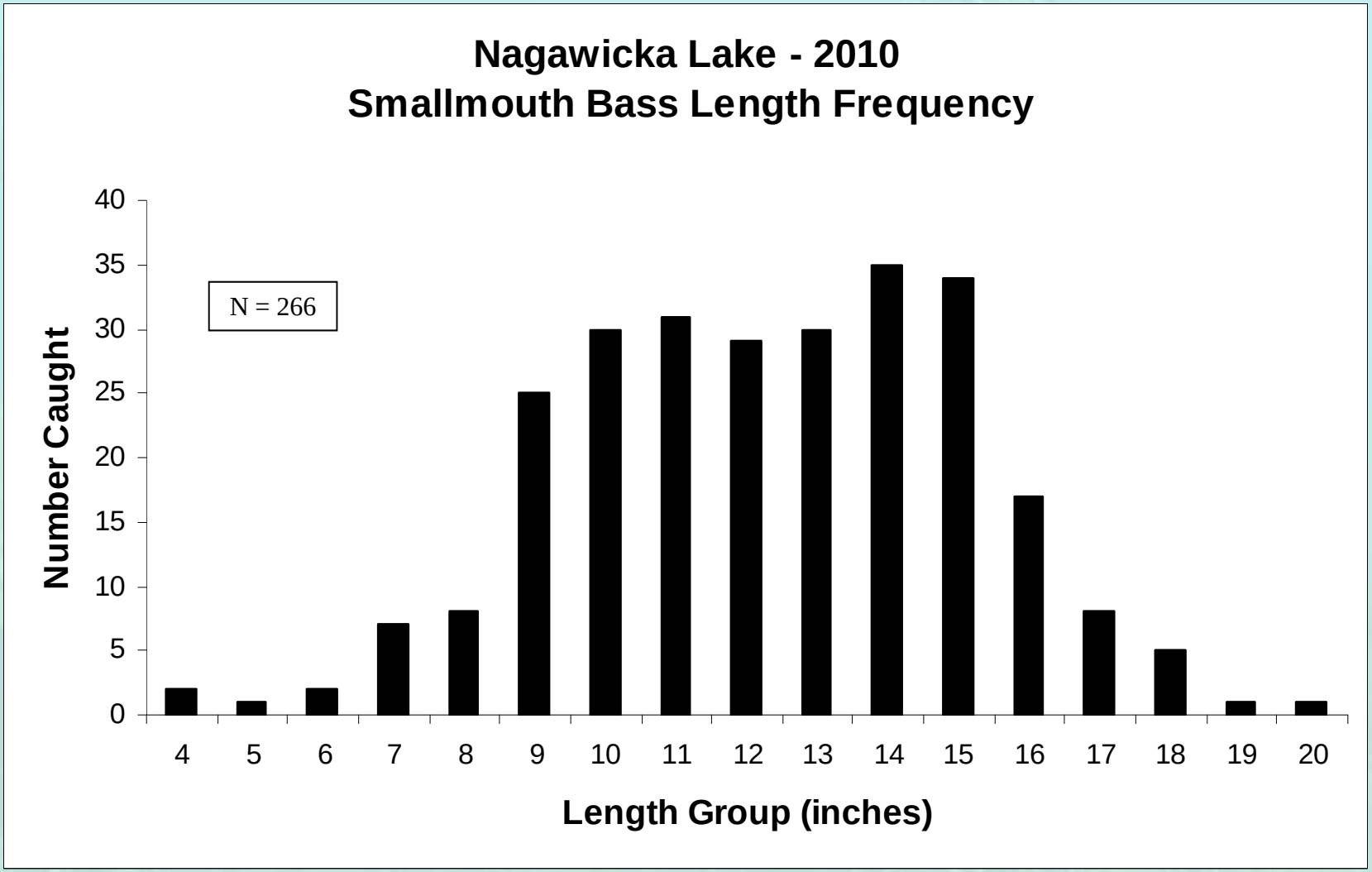

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How Do We USE Data?

Linking Surveys to Management

- **Identify limiting factors:**
  - **Recruitment, growth, angler harvest, habitat, forage, etc.**
- **Use management tools:**
  - **Habitat improvement, stocking, fishing regulations.**

NR 1.02 Inland fisheries management. The following actions are essential to carry out an effective fish management program:

ANGLING RESTRICTIONS

TROUT STREAM CLASSIFICATION

PROPAGATION AND STOCKING

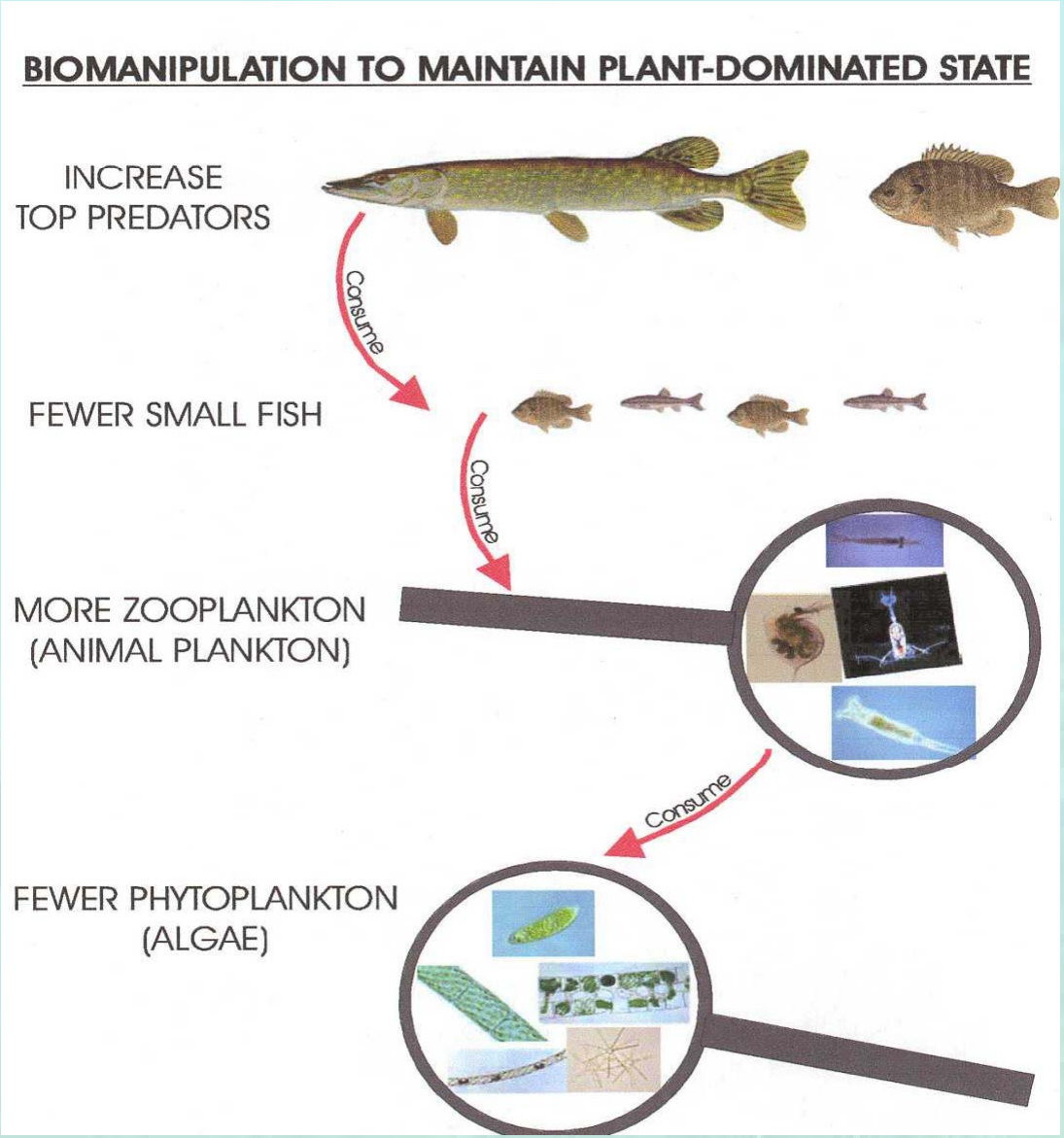
POPULATION MANIPULATION

LAND ACQUISITION AND DEVELOPMENT

HABITAT PROTECTION AND IMPROVEMENT

SURVEYS AND RESEARCH.

Programs shall be based on **sound surveys and research**. The department shall **survey lakes and streams to obtain information needed to develop and implement management programs**. Research shall be conducted to evaluate and resolve problems that have been defined.



Bio manipulation

Stocking

WISCONSIN DNR FISHERIES INFORMATION SHEET

County: WAUKESHA
Lake Name: NAGAWICKA LAKE
WBIC: 828000
Survey Year: 2010

WDNR Fish Biologist Contact Information

Benjamin Heussner - Waukesha - 262-574-2152

Lake Characteristics

Lake Type: DEEP LOWLAND DRAINAGE

Acres: 917 **Shoreline miles:** 8.6 **Maximum Depth (feet):** 90

Fish Stocking History

Year	Species	Strain	Age Class	Number Fish Stocked
1996	WALLEYE	UNSPECIFIED	FINGERLING	49,850
1998	NORTHERN PIKE	UNSPECIFIED	SMALL FINGERLING	4,400
1998	WALLEYE	UNSPECIFIED	SMALL FINGERLING	91,368
2000	NORTHERN PIKE	UNSPECIFIED	SMALL FINGERLING	4,904
2000	WALLEYE	UNSPECIFIED	SMALL FINGERLING	91,700
2001	NORTHERN PIKE	UNSPECIFIED	SMALL FINGERLING	4,252
2002	NORTHERN PIKE	PUCKAWAY	SMALL FINGERLING	2,586
2002	WALLEYE	MISSISSIPPI HEADWATERS	SMALL FINGERLING	46,200
2003	WALLEYE	ROCK-FOX	SMALL FINGERLING	46,248
2004	WALLEYE	MISSISSIPPI HEADWATERS	SMALL FINGERLING	76,662
2005	NORTHERN PIKE	PUCKAWAY	SMALL FINGERLING	2,500
2006	NORTHERN PIKE	PUCKAWAY	SMALL FINGERLING	5,365
2006	WALLEYE	ROCK-FOX	SMALL FINGERLING	33,563
2008	NORTHERN PIKE	UNSPECIFIED	LARGE FINGERLING	2,000

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Fish Stocking History

Year	Species	Strain	Age Class	Number Fish Stocked
2008	WALLEYE	MISSISSIPPI HEADWATERS	SMALL FINGERLING	32,095
2009	NORTHERN PIKE	UNSPECIFIED	LARGE FINGERLING	619
2010	NORTHERN PIKE	MUD LAKE - MADISON CHAIN	LARGE FINGERLING	3,582
2010	WALLEYE	ROCK-FOX	SMALL FINGERLING	31,110

Fisheries Habitat Improvement and Protection

- Spawning Reef Installation
- Fish cribs, tree drops.
- Proper aquatic plant management.
- Erosion and sedimentation control.
- Watershed management, nutrient loading.
- Sensitive area designations & habitat protection.

Summary

- We need to utilize the *best available science* to support management decisions.
- We need to identify *limiting factors* in fisheries management to improve fishing opportunity.
- Habitat Protection and Enhancement are critical to healthy fisheries and better water quality.
- Fisheries management reports are available upon request.

Thank you.

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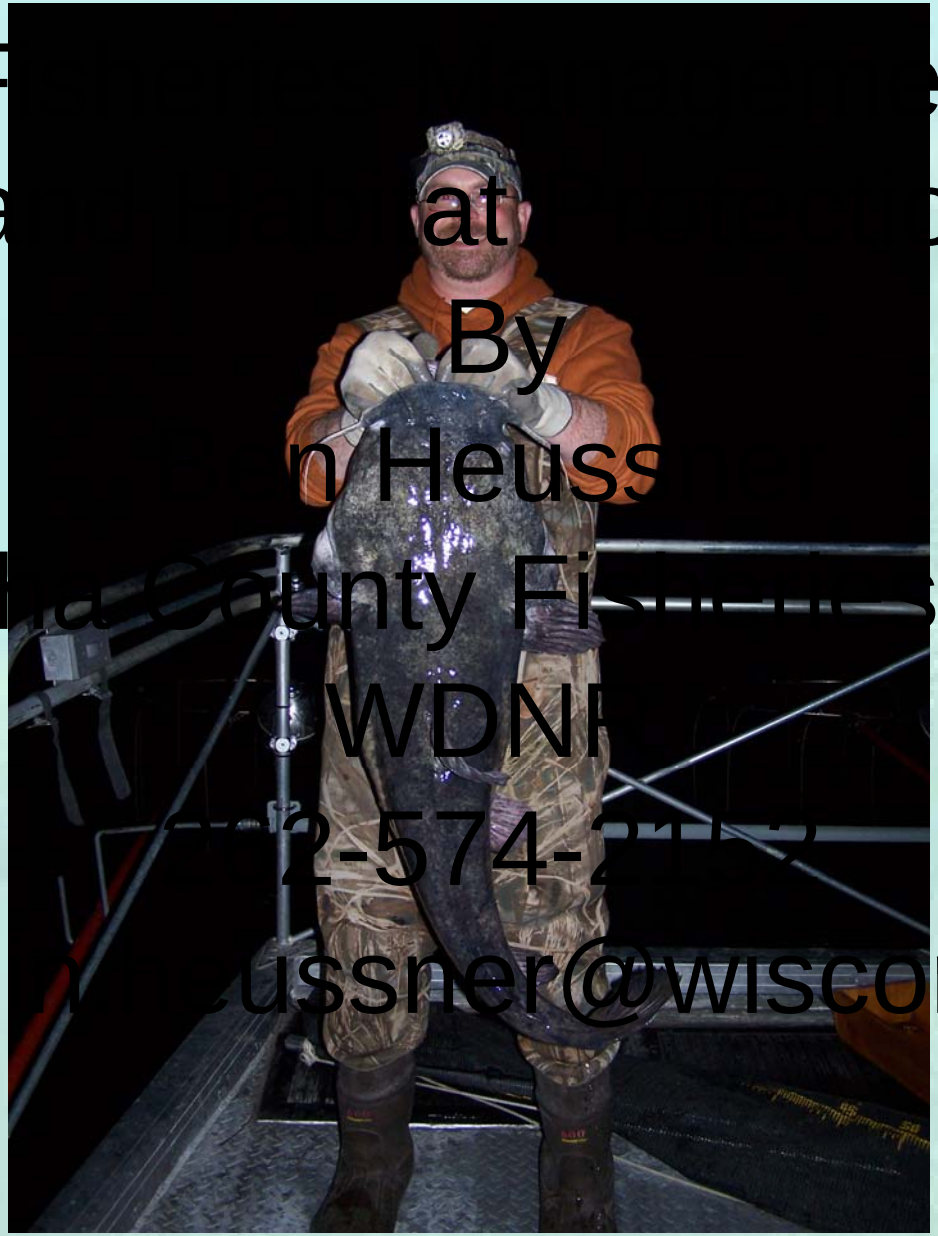

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