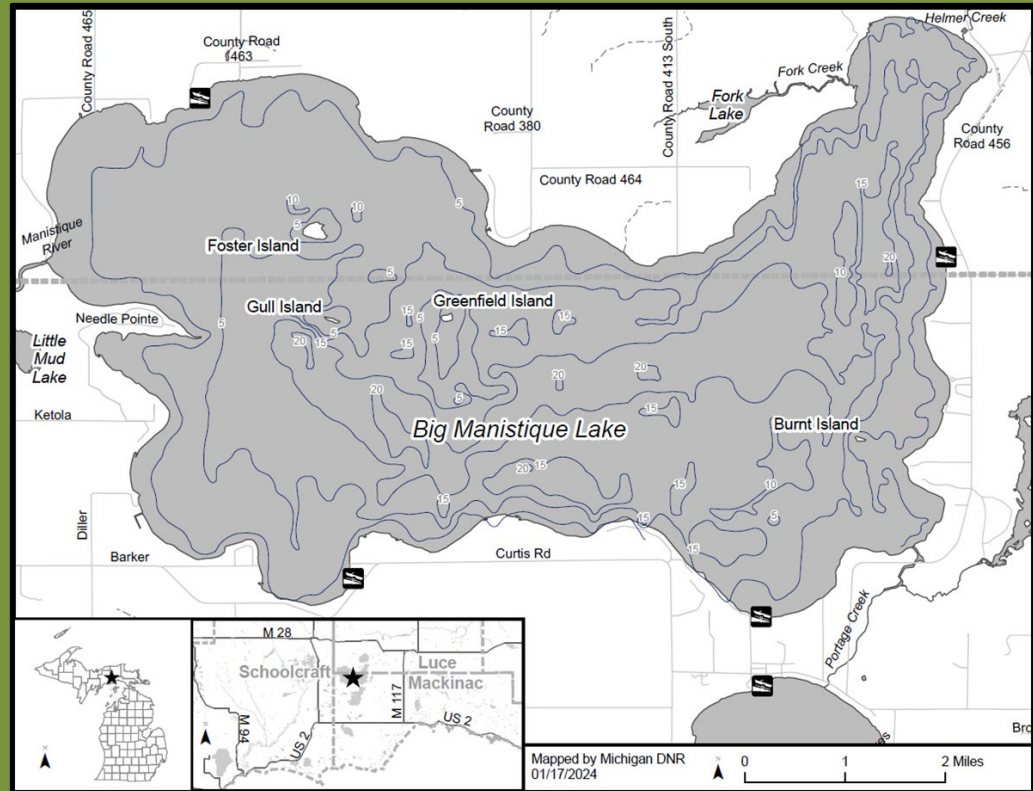


Big Manistique Lake Public Meeting



April 10, 2024



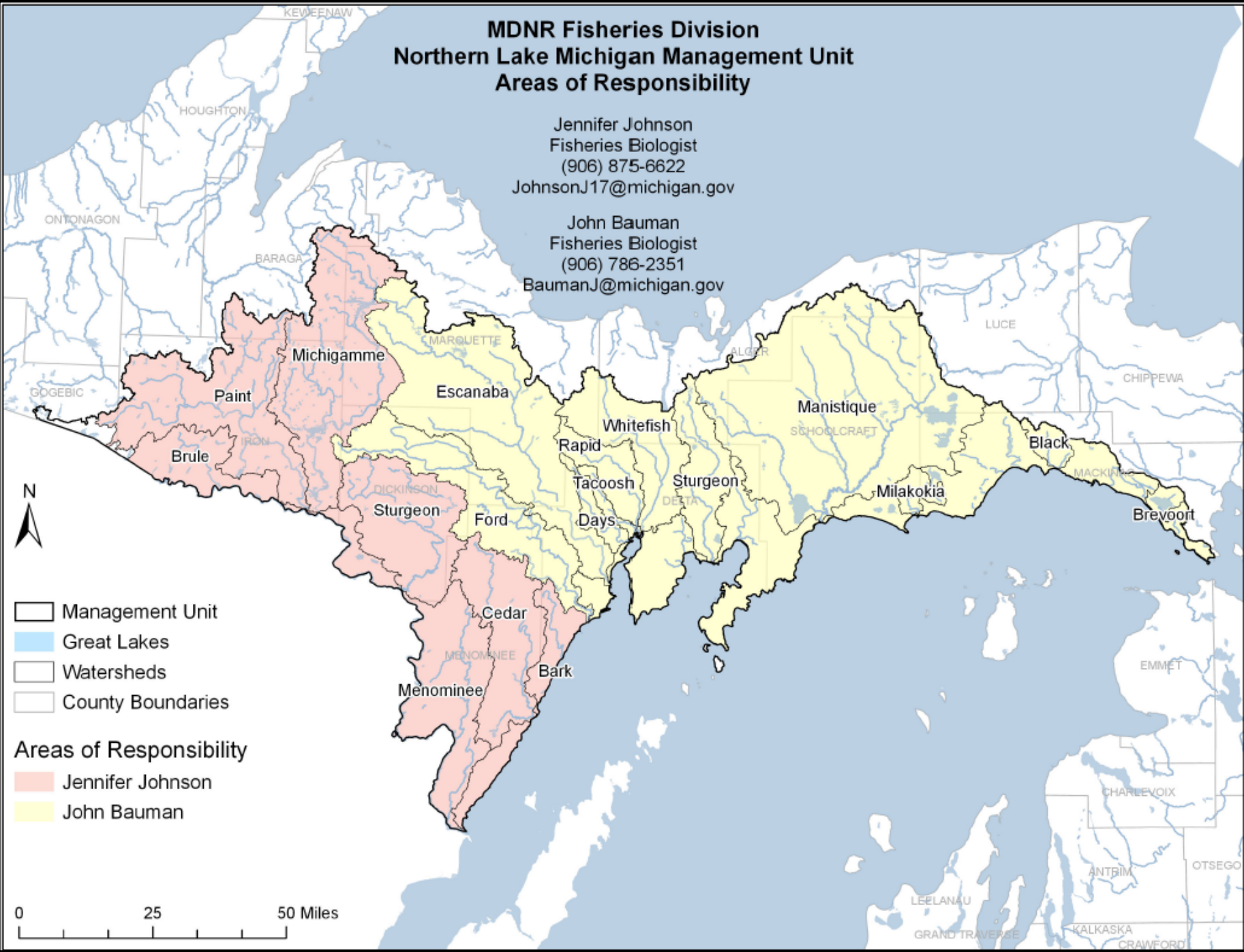
Evening Schedule

- 06:00 to 06:30 John Bauman:
 - Fish Community
 - Walleye, Northern Pike, Yellow Perch, Panfish
 - Invasive Species
 - Water Quality
 - Habitat
- 06:35 to 06:55 Emily Martin:
 - Tribal Coordination Unit
 - Tribal Harvest
- 07:00 to 07:30 Doug Schultz:
 - Lake Huron Basin Coordinator
 - Double Crested Cormorant
- 07:30 to 08:00 General Questions

MDNR Fisheries Division Northern Lake Michigan Management Unit Areas of Responsibility

Jennifer Johnson
Fisheries Biologist
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JohnsonJ17@michigan.gov

John Bauman
Fisheries Biologist
(906) 786-2351
BaumanJ@michigan.gov



- Management Unit
- Great Lakes
- Watersheds
- County Boundaries

- Areas of Responsibility
- Jennifer Johnson
 - John Bauman

0 25 50 Miles



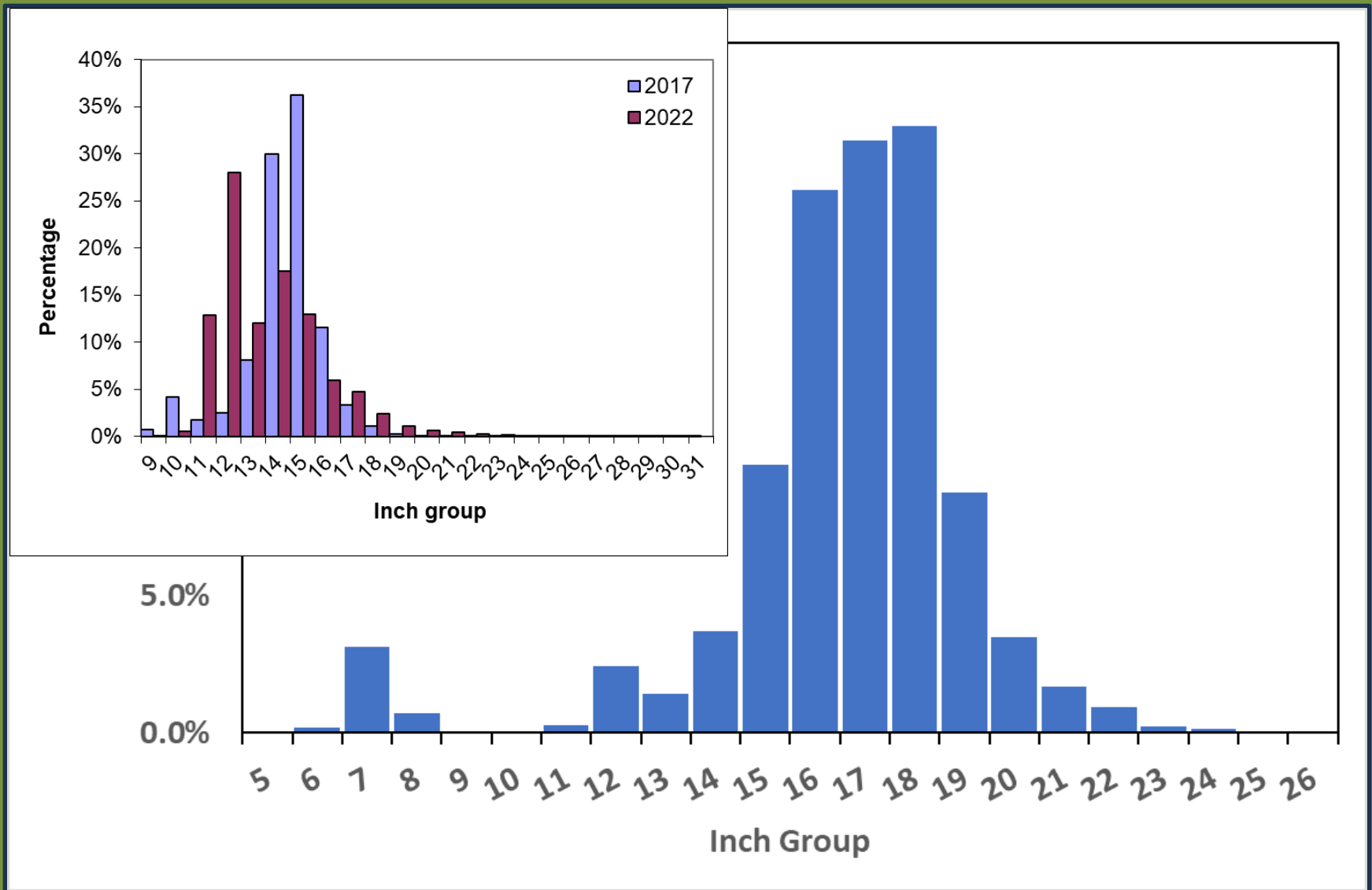
Walleye Population Estimates



Year	Number
1978	19,638
2000	9,350
2003	7,384
2023	21,604

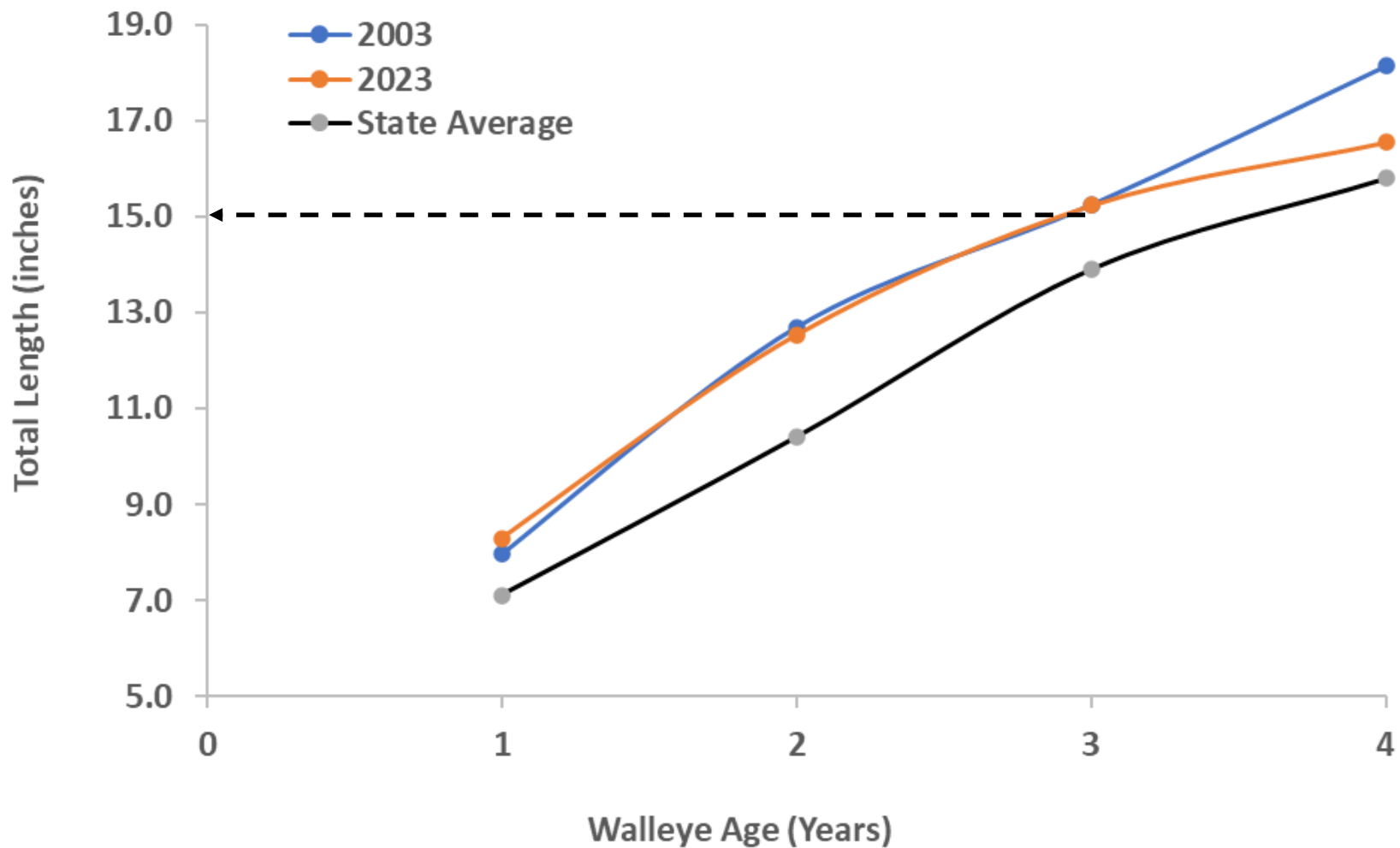


Walleye Size Distribution



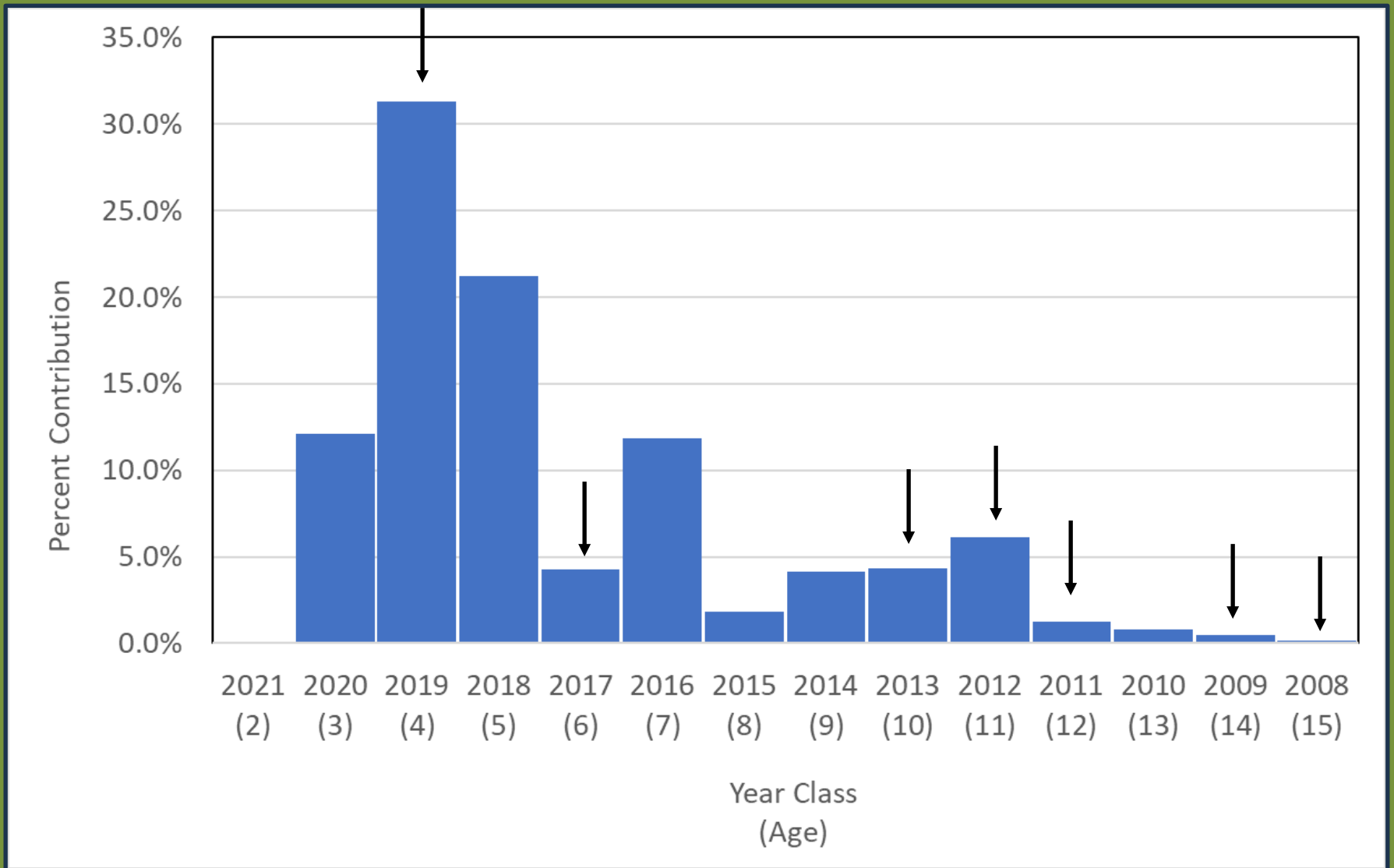


Walleye Age & Growth



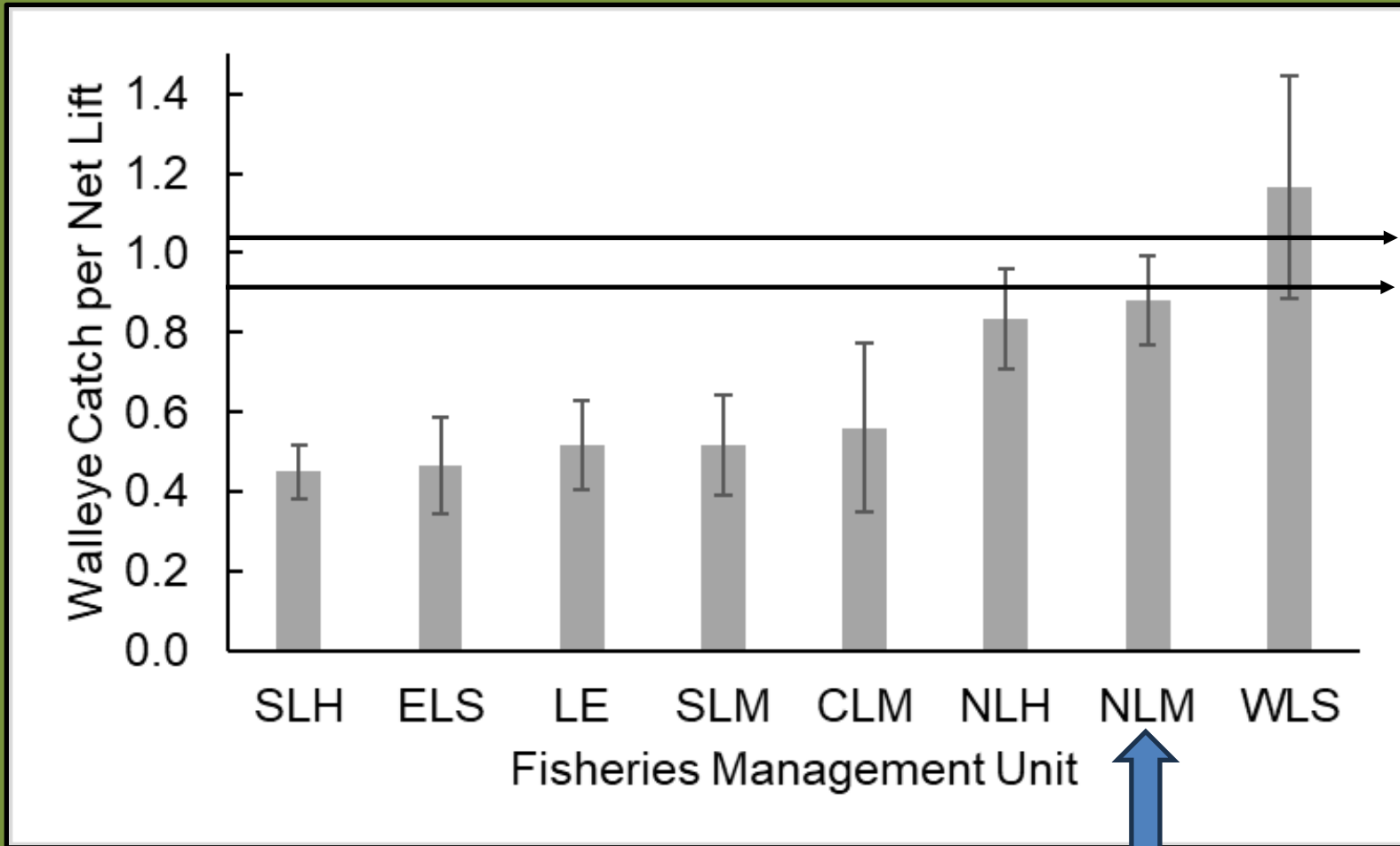


Walleye Age Distribution





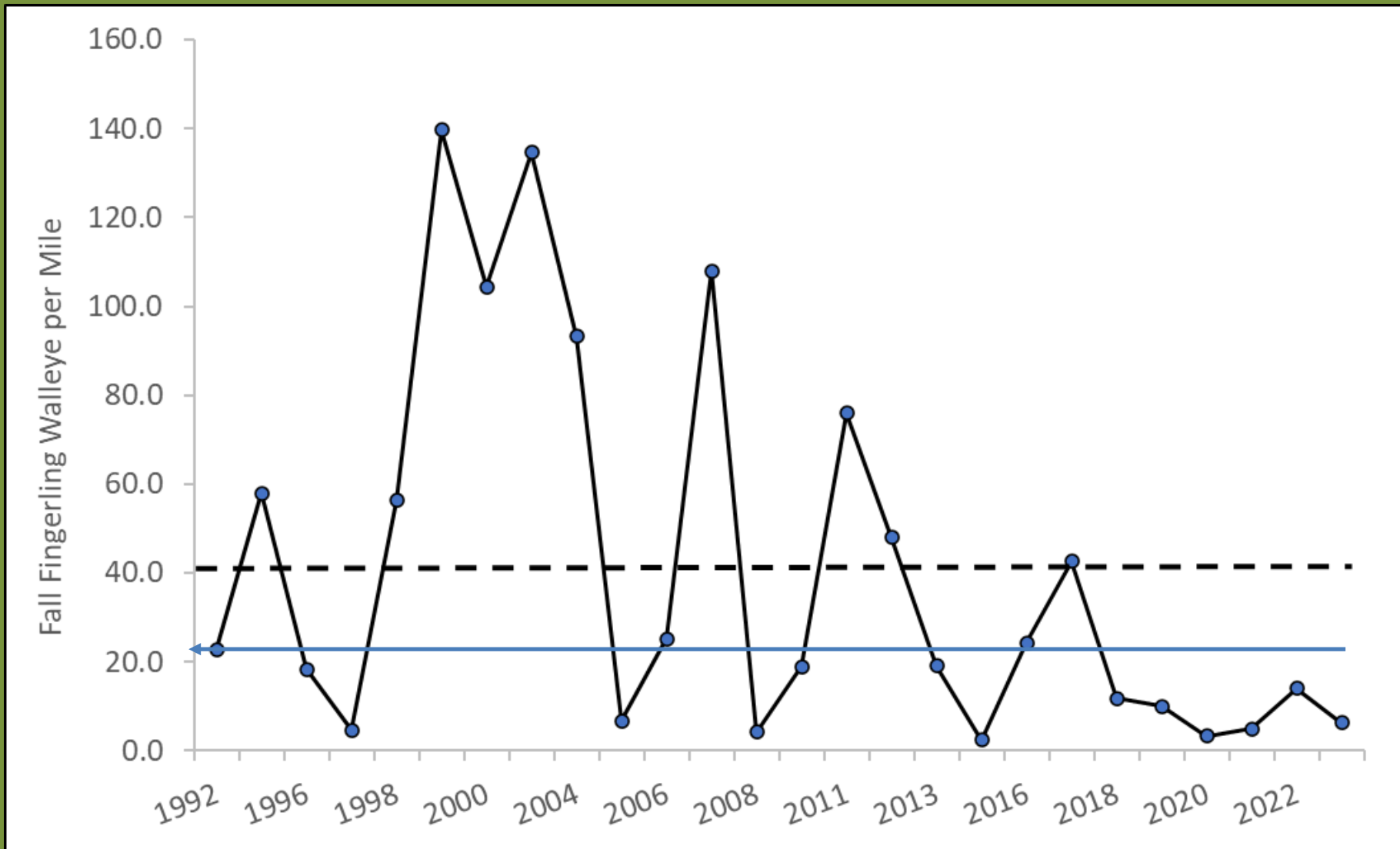
Walleye Relative Abundance

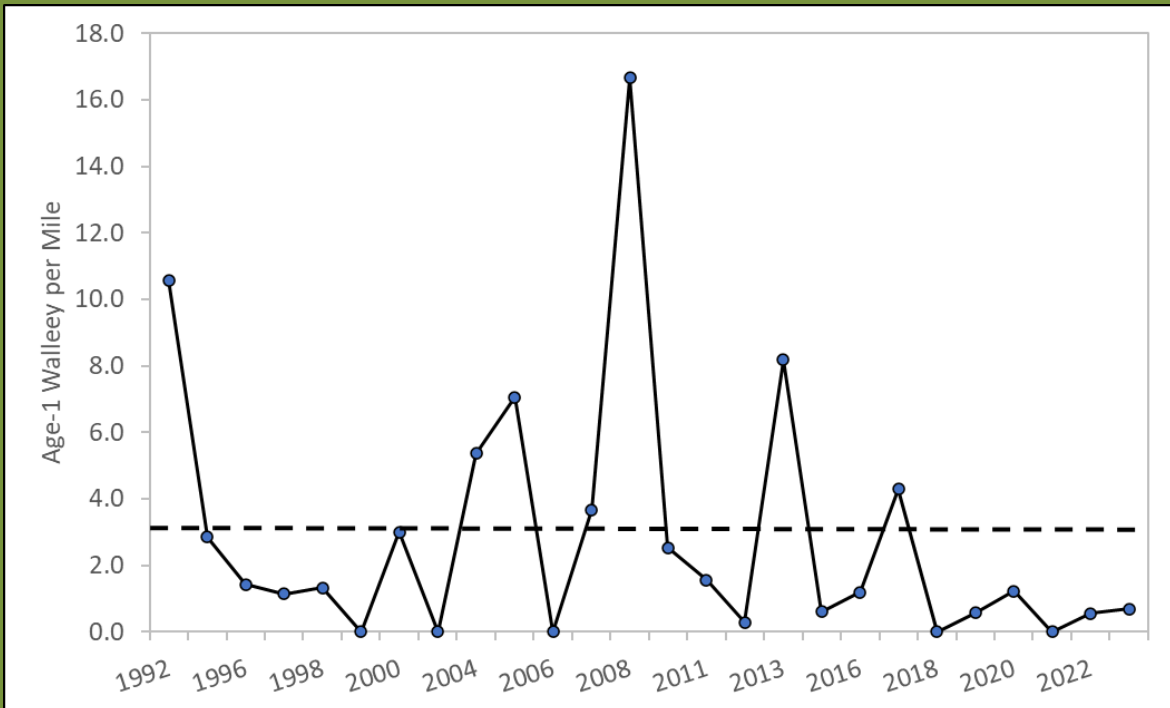
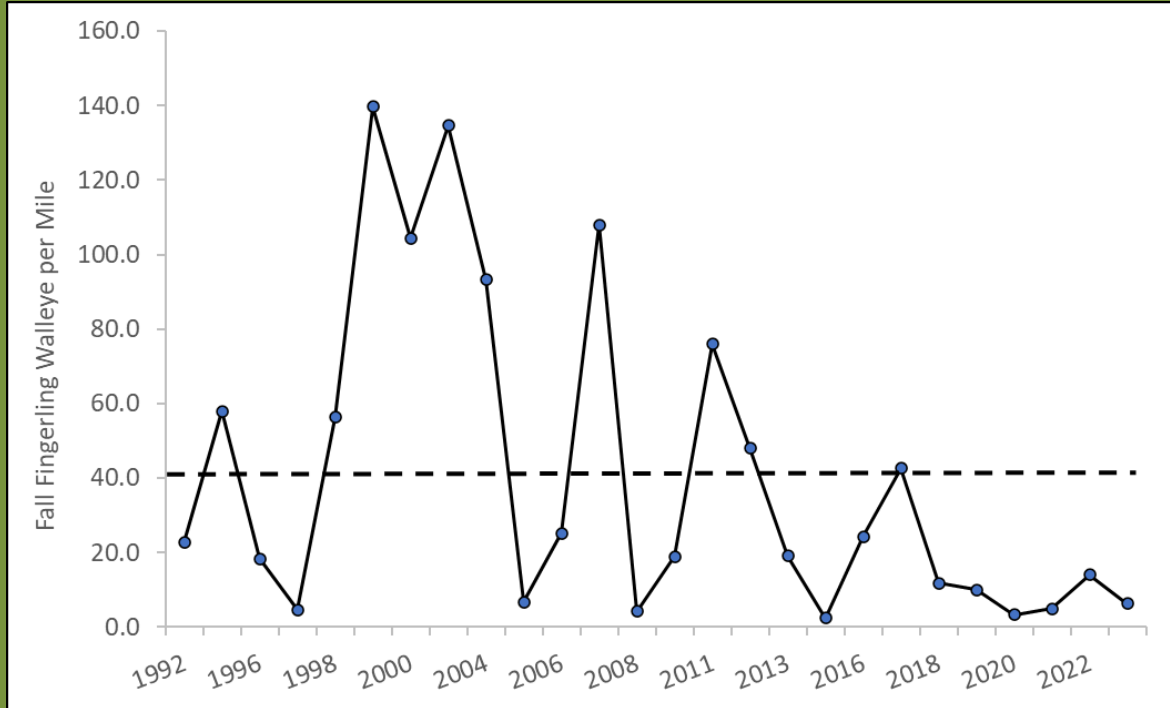


2013
2003



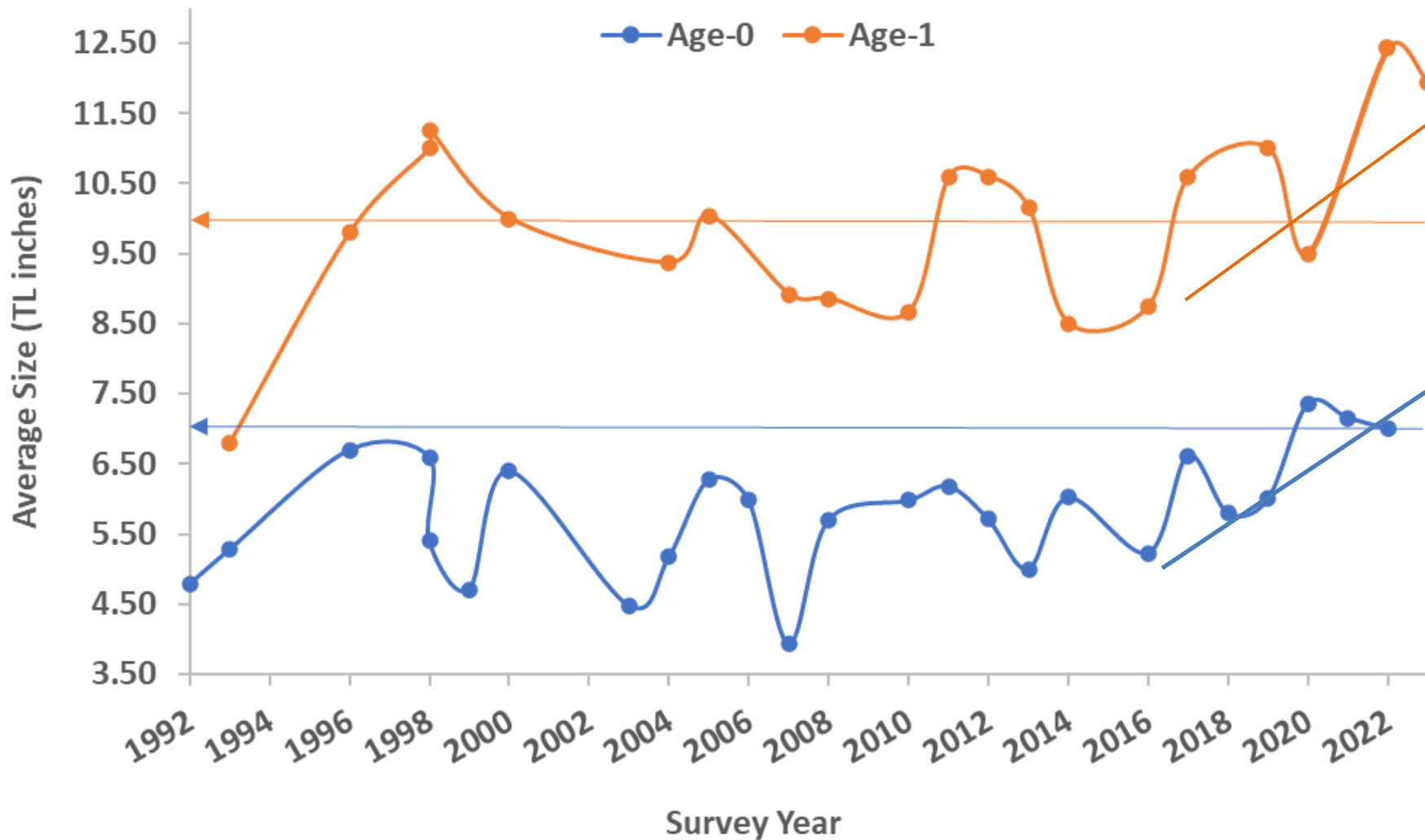
Walleye Recruitment (Age-0)







Walleye Age-0, Age-1 Growth

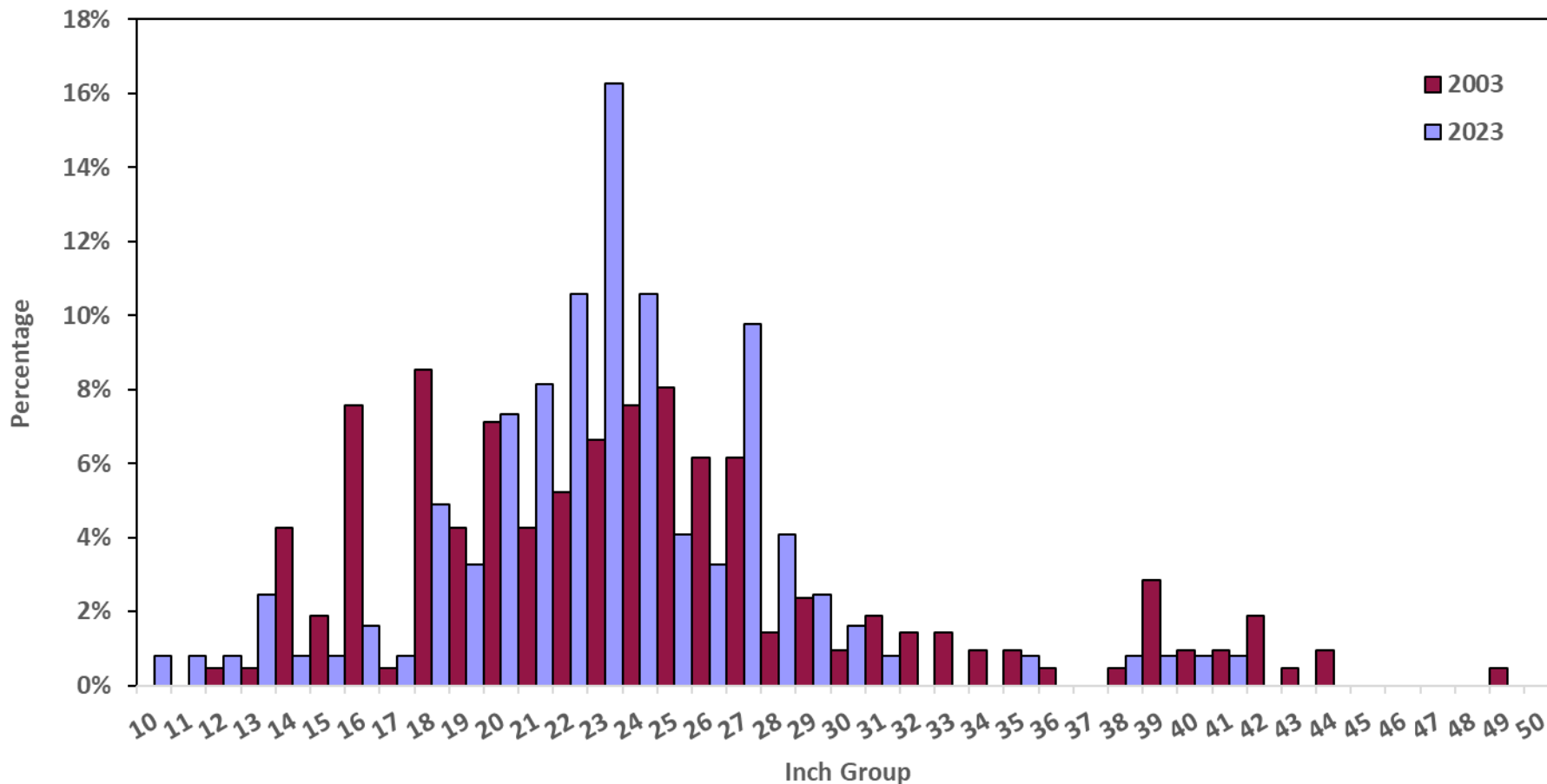




- Walleye Status:
 - Natural recruitment: Is occurring annually
 - Growth – high, indicator for predation
 - Relative abundance (Status & Trends)
 - Trends correlate with fishing reports
 - Adult abundance
 - Status – Good, room for natural recruitment
 - Growth – high, indicator for predation
 - Stocking
 - Will continue to support local efforts
 - Will continue to conduct annual recruitment surveys
 - A more formal evaluation of stocking should take place

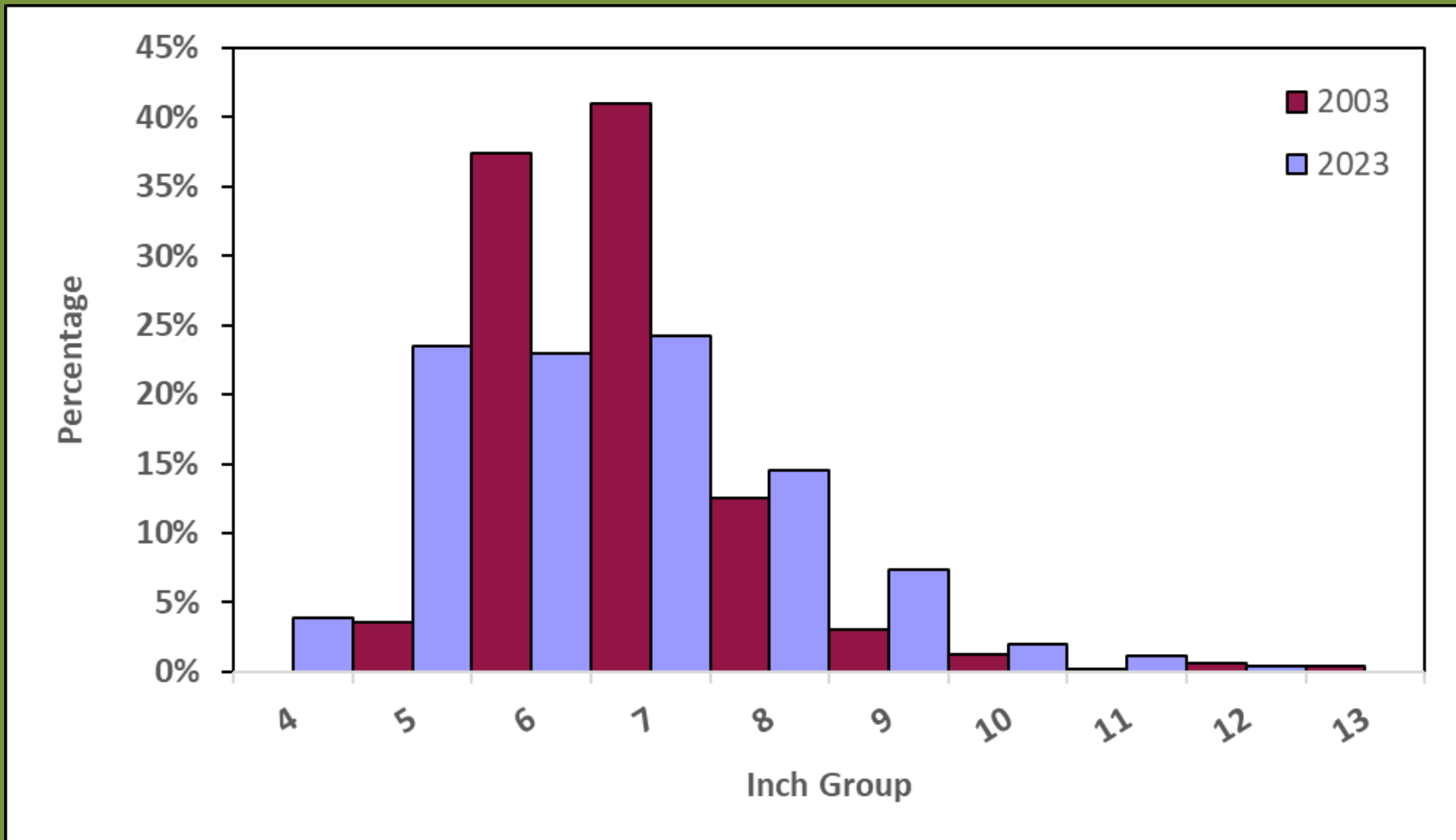


Northern Pike Size Distribution





Yellow Perch Size Distribution





Summer Survey Comparison



Species	2003	2013
Black Crappie	0	1
Bluegill	75	96
Brown Bullhead	15	36
Cisco	40	9
Largemouth Bass	3	30
Minnow Species	1,305	22,131
Northern Pike	27	105
Pumpkinseed Sunfish	22	50
Rock Bass	116	229
Smallmouth Bass	104	98
Sucker	188	332
Walleye	213	201
Yellow Perch	1,334	7,013



Summer Survey Comparison

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ARTICLE


Black Crappie Influences on Walleye Natural Recruitment in Northern Wisconsin Lakes

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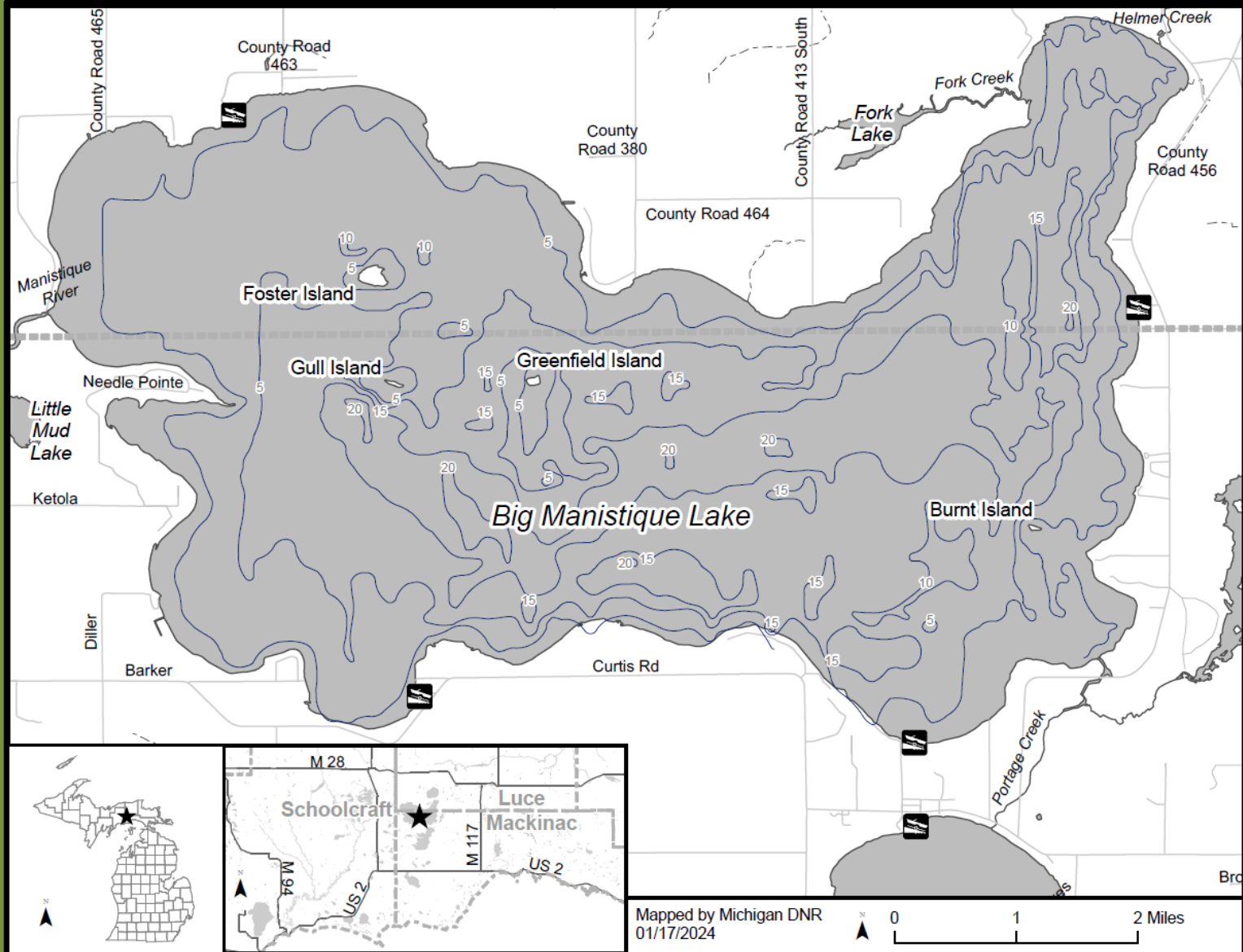
Percentage

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Inch Group

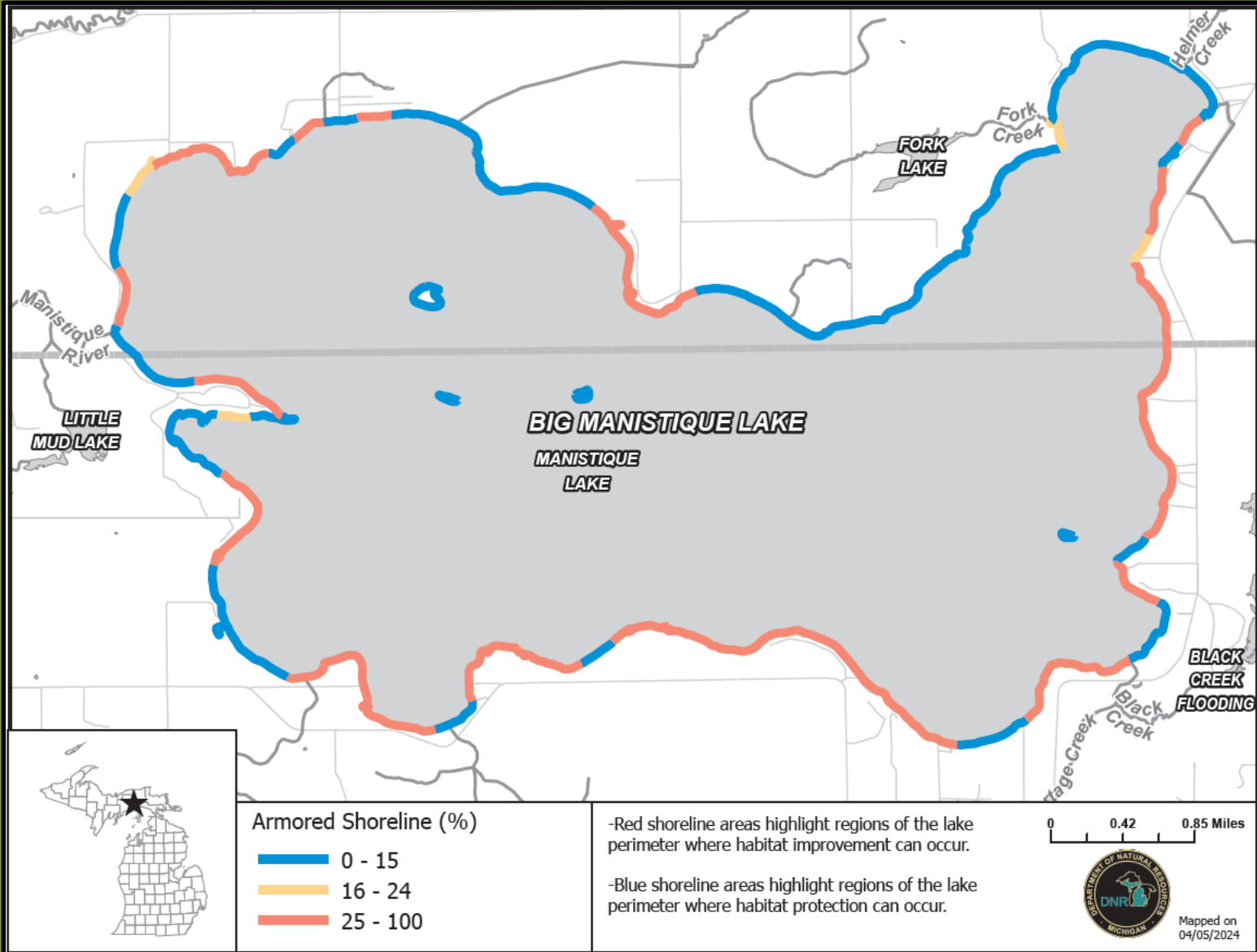


Big Manistique Offshore Habitat



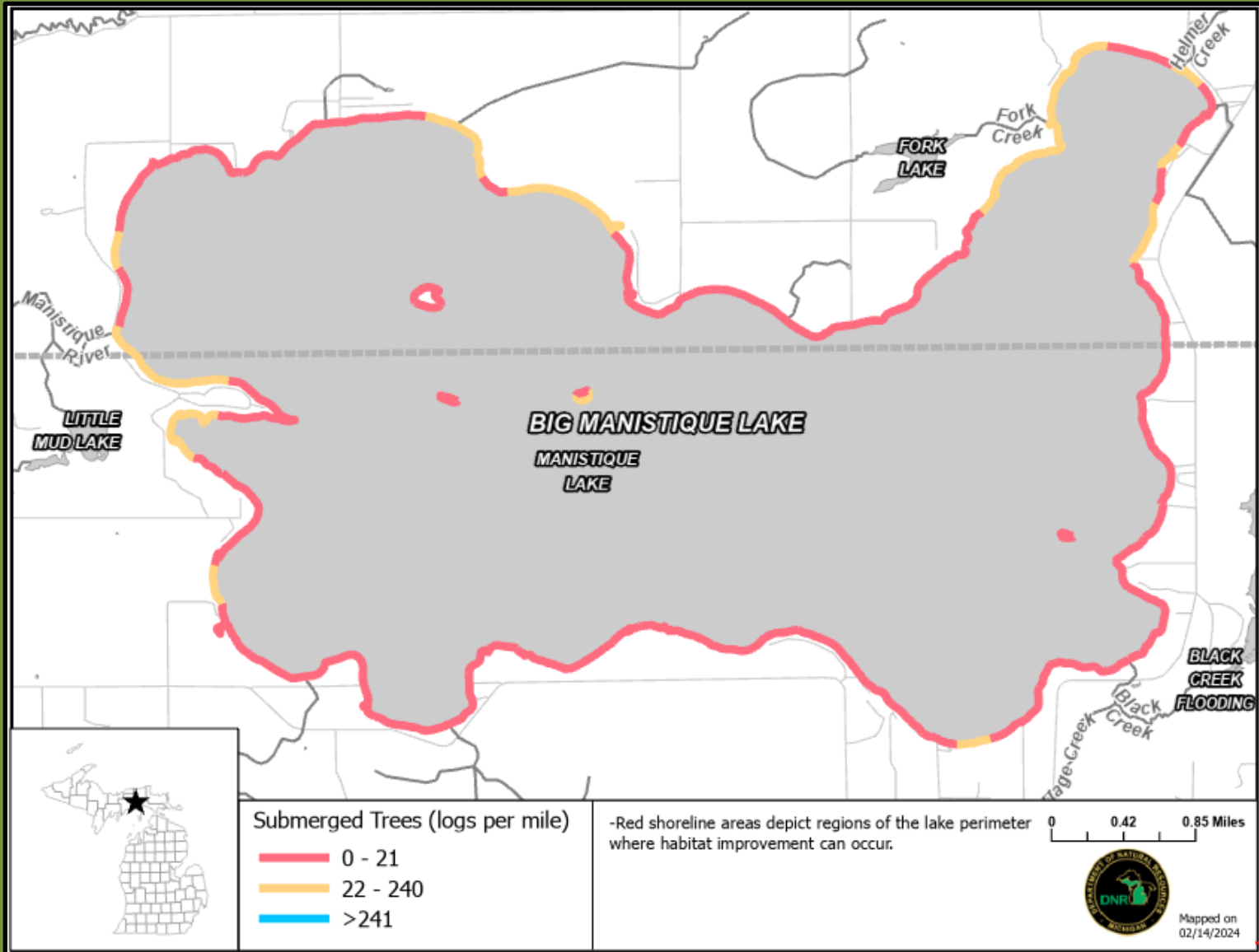


Big Manistique Shoreline Habitat





Big Manistique Shoreline Habitat



Contact Information



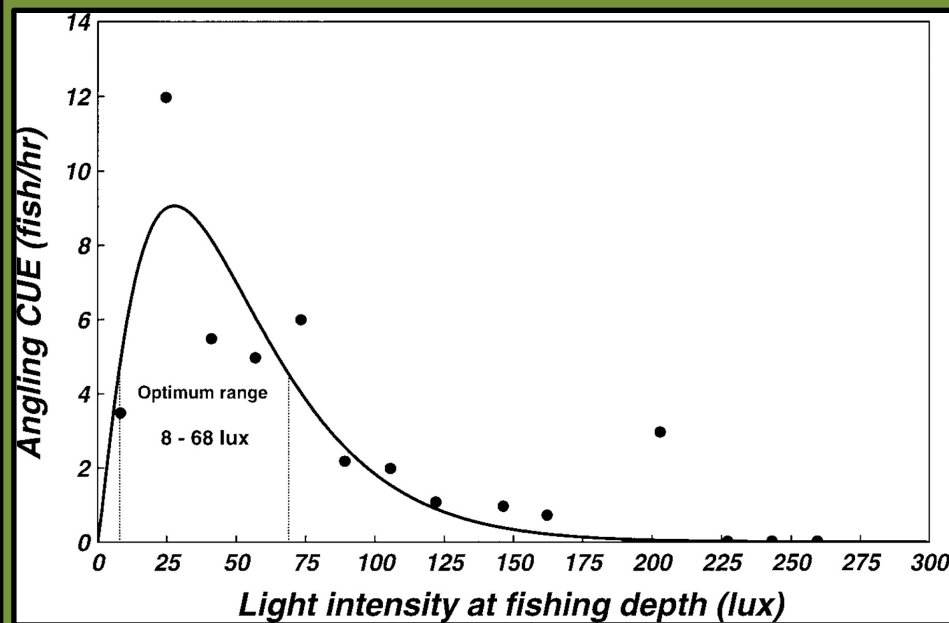
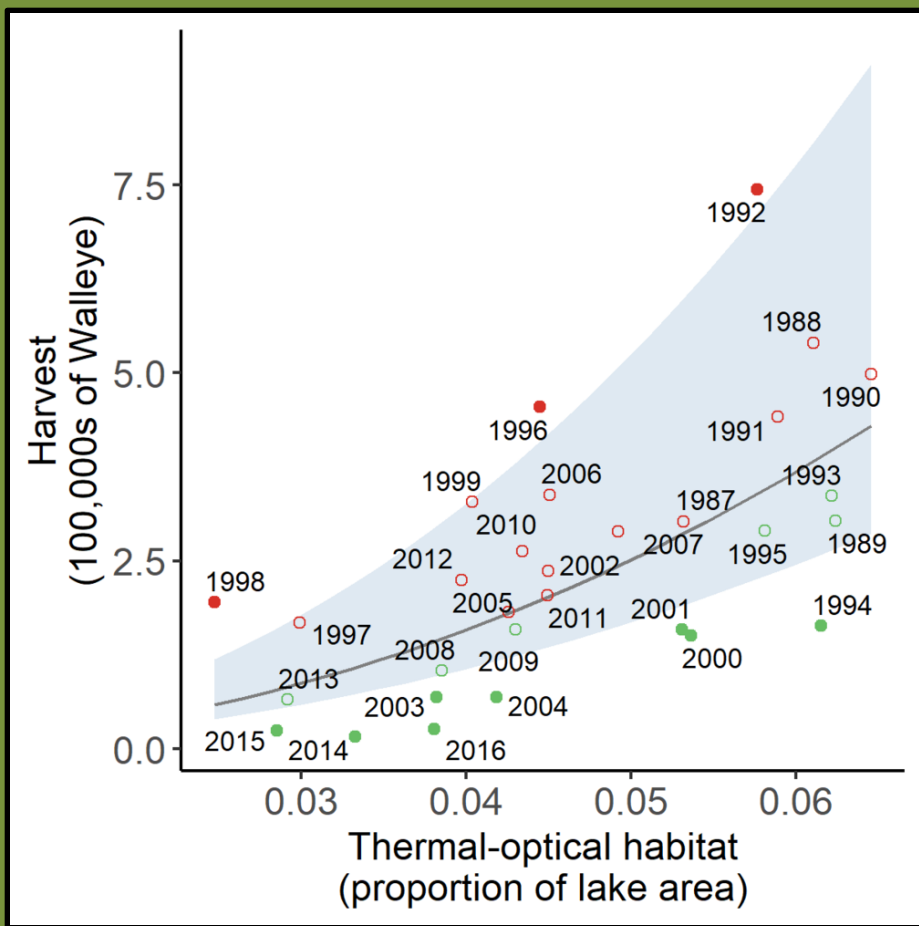
John Bauman: baumanj@michigan.gov

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Doug Schultz: schultzd11@michigan.gov

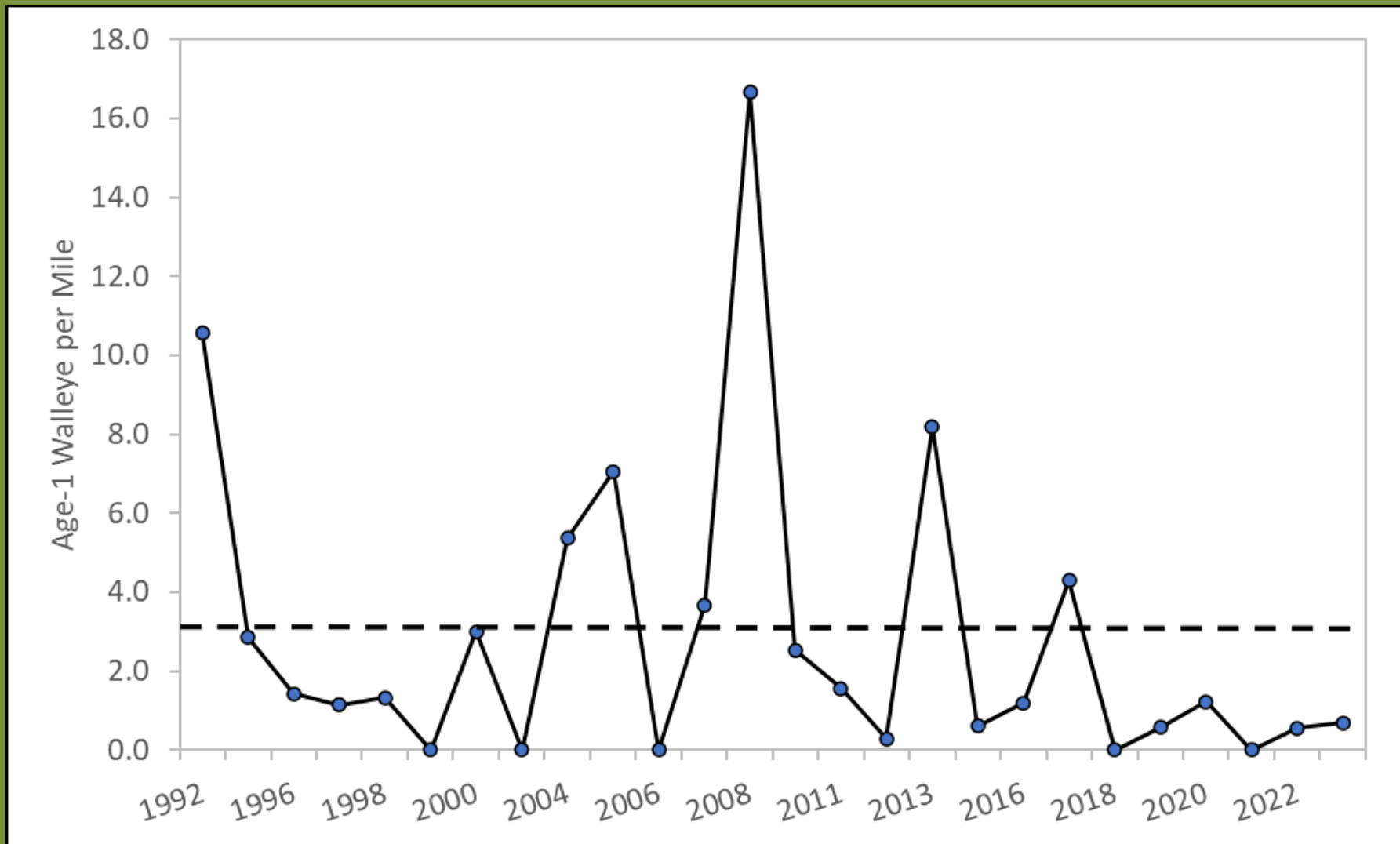


Thermal-Optical Habitat

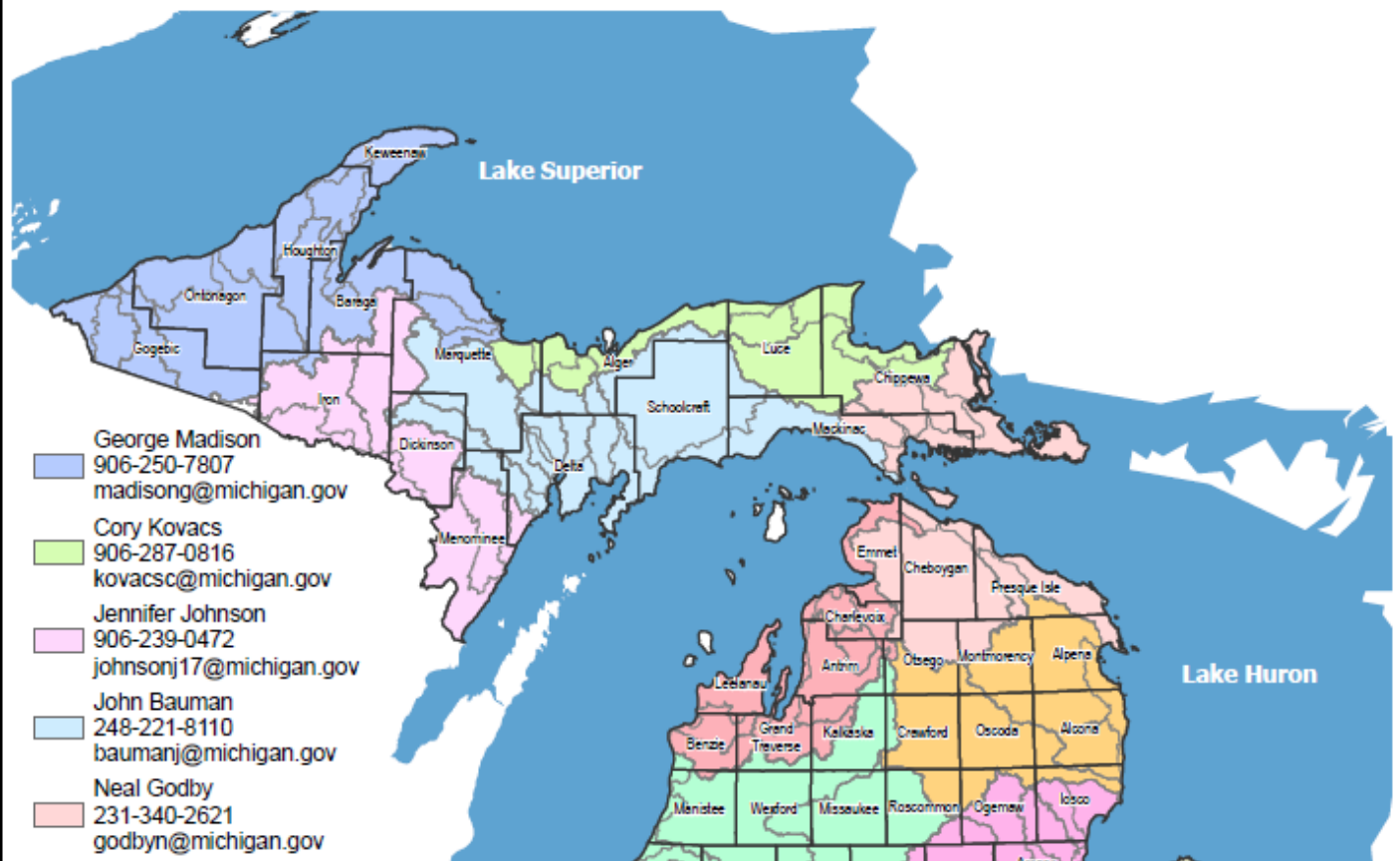




Walleye Recruitment (Age-1)



Fisheries Biologist Coverage Areas





Regulations

- Minimum Size Limits:
 - Protect fish under MSL and allow to spawn once
 - Maximizes yield though stunting can occur
 - Best when low reproduction, good growth, high fishing mortality, low natural mortality
- Maximum Size Limits:
 - Protect fish over MSL
 - Used if few spawners and low spawning success
- Protected Slot Limits:
 - Allow harvest of abundant small fish and larger adults
 - Protect viable reproductive fish
 - Used on self-sustaining, high density, slow-growing populations with high mortality
- Harvest Slot Limits:
 - Generally used to protect mature females
 - Recent literature suggests may meet many objectives



Questions and Comments

