

Results from Comprehensive Fisheries Surveys of Long Lake and Bullhead Lake



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Comprehensive Fish Surveys

- Fyke netting surveys
 - Ice out
 - Northern pike and walleyes
 - Panfish
 - Crappies
 - Bluegills?

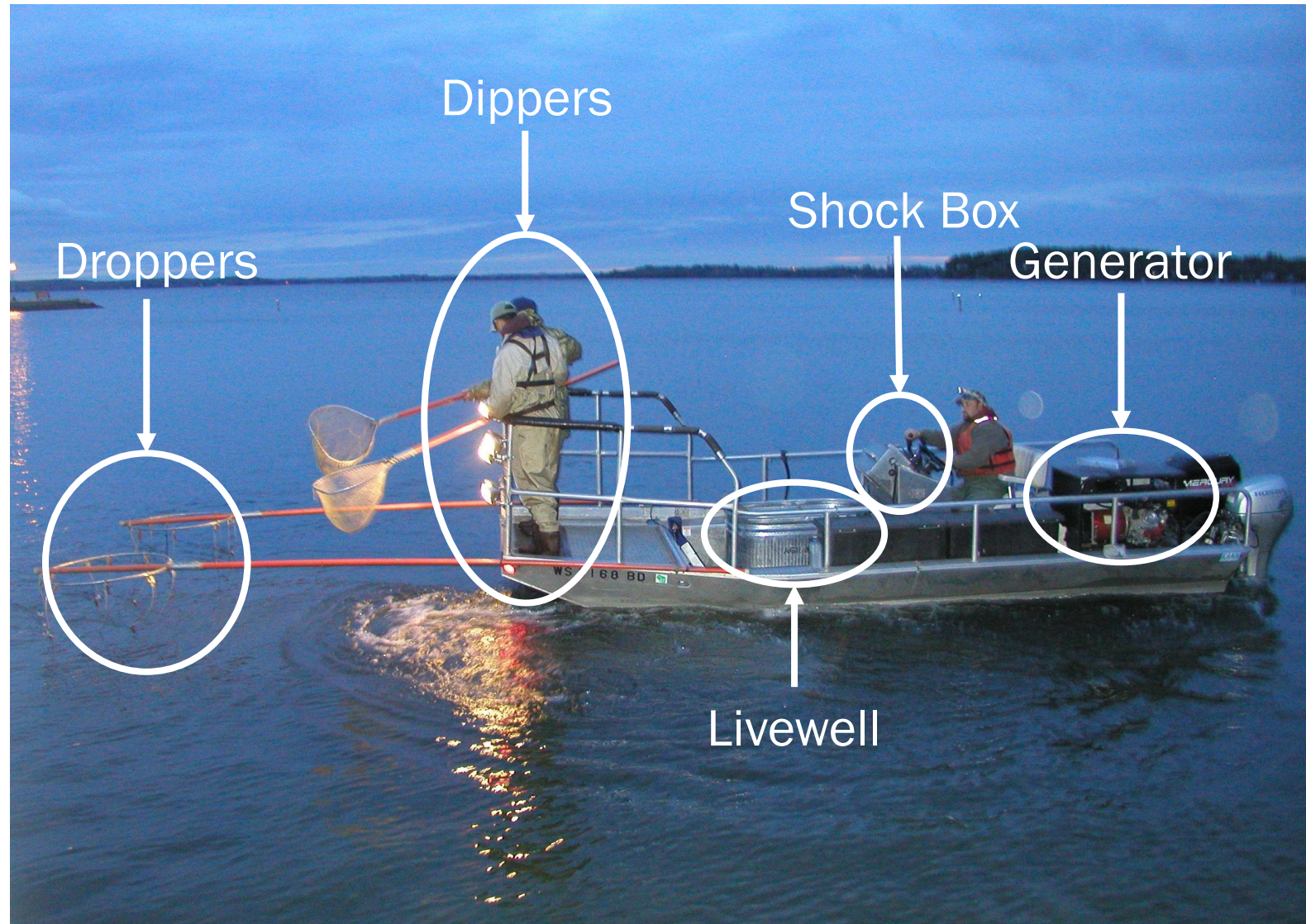


Comprehensive Fish Surveys



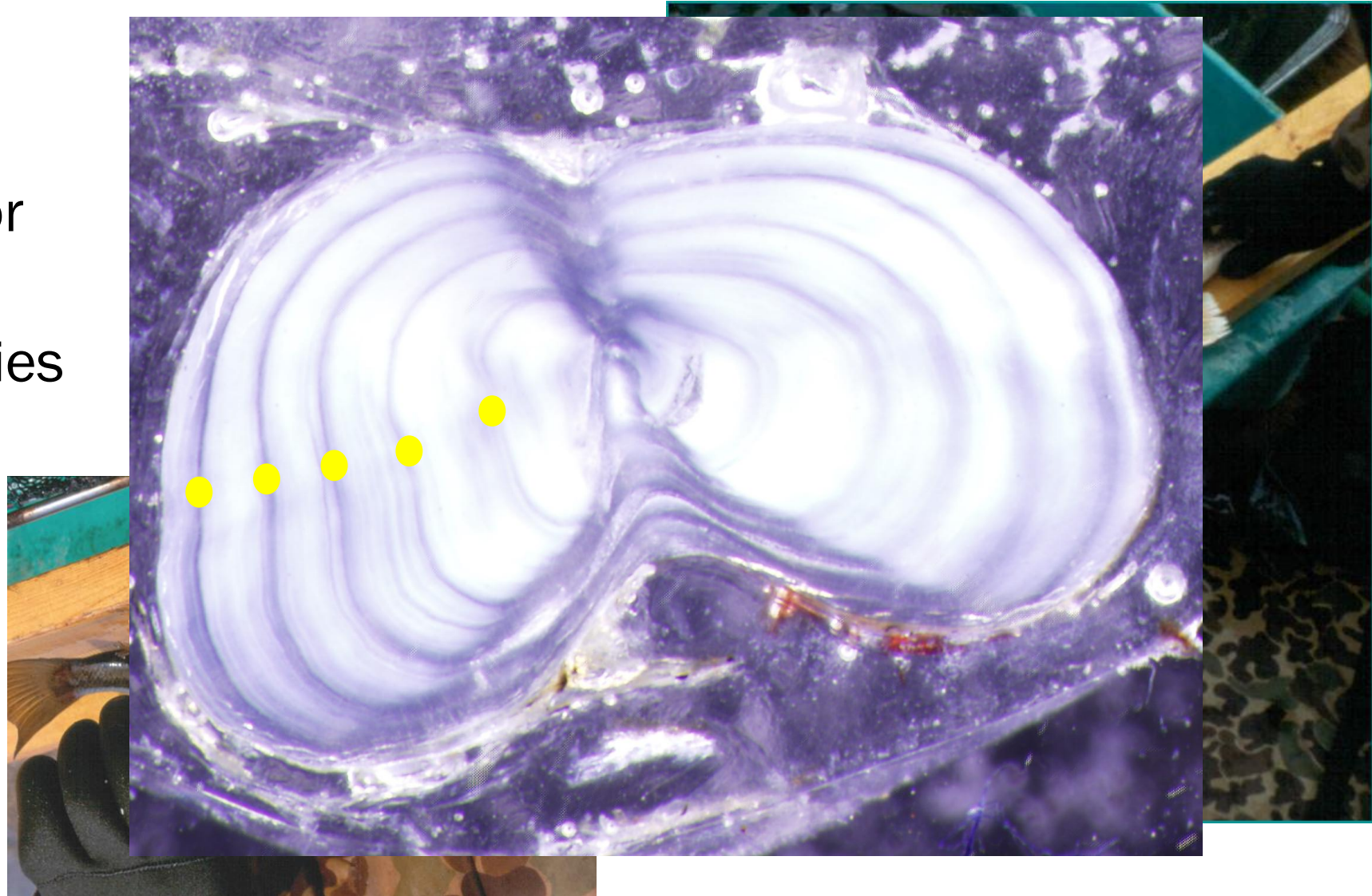
Comprehensive Fish Surveys

- Boat electrofishing
 - May (60 – 70 °F)
 - Largemouth bass and panfish



What Information We Collect

- Length
- Gender
- Calcified structures for estimating ages
- Number of each species
- Fin clips
 - Stocking origin
 - Recaptures



Standard Fisheries Metrics



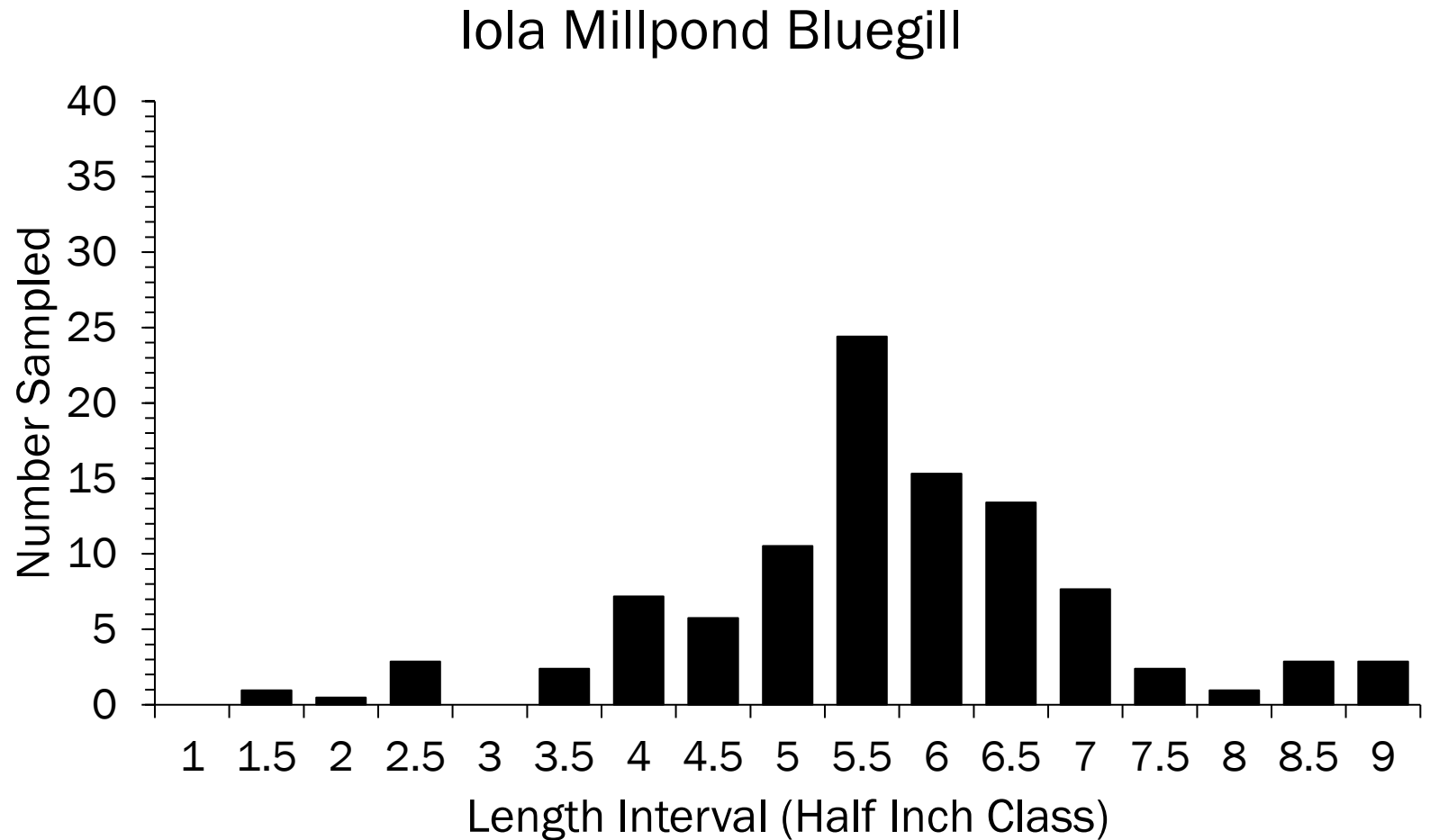
Standard Fisheries Metrics

- Catch Per Unit Effort:
 - Relative abundance
 - Number of fish caught per unit of effort
 - Netting effort = net night
 - Electrofishing effort = mile of electrofishing
 - Compare within waterbody through time
 - Compare to other waterbodies in WI
 - Percentile



Standard Fish Metrics

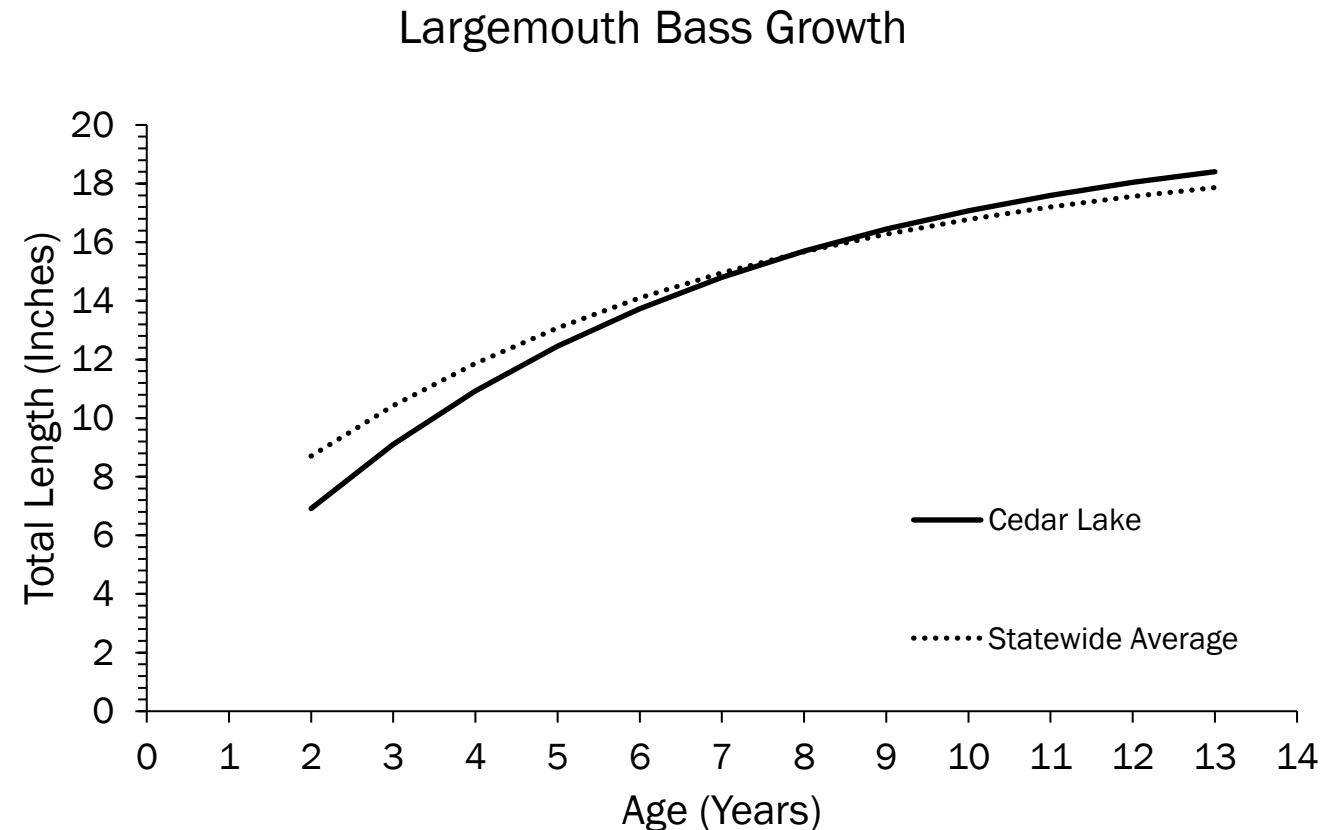
- Length Frequency Distribution
 - Size structure
 - Graphical representation of the number or percentage of fish captured by half inch or one inch size intervals



Standard Fisheries Metrics

- Growth

- Mean lengths at age from calcified structure
- Growth curve
- Compare to statewide averages



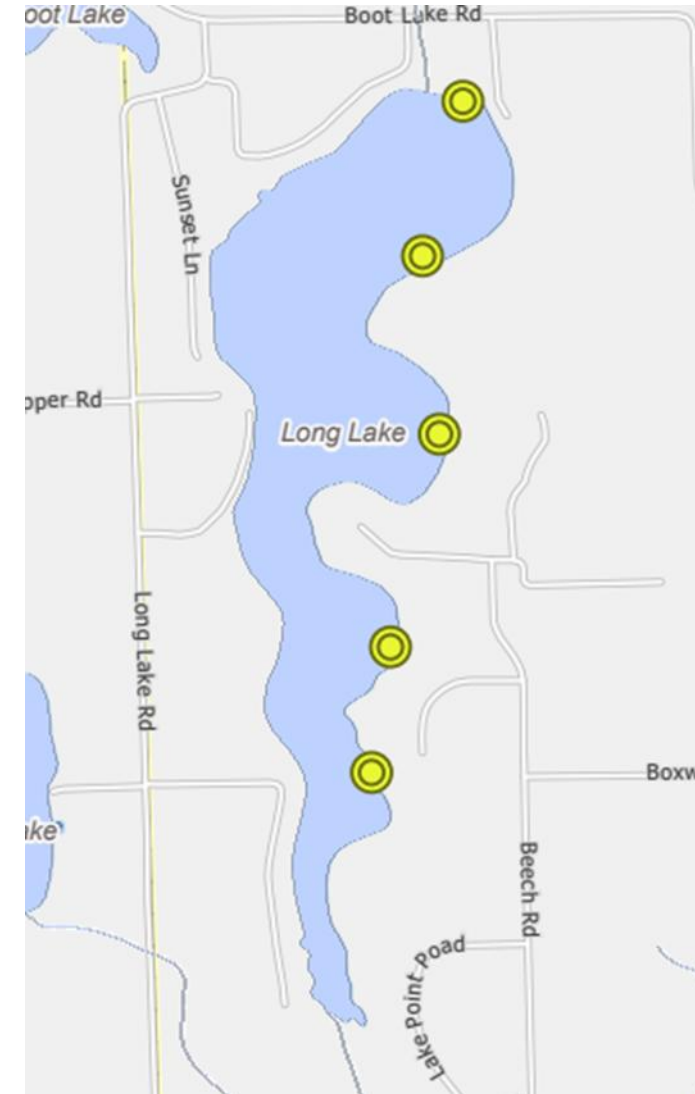
Fisheries Management Goal

- Balanced fish populations!
 - Even mix of small and large fish
 - Provides opportunities for anglers to catch fish as well as ensures small fish to grow into large fish in coming years



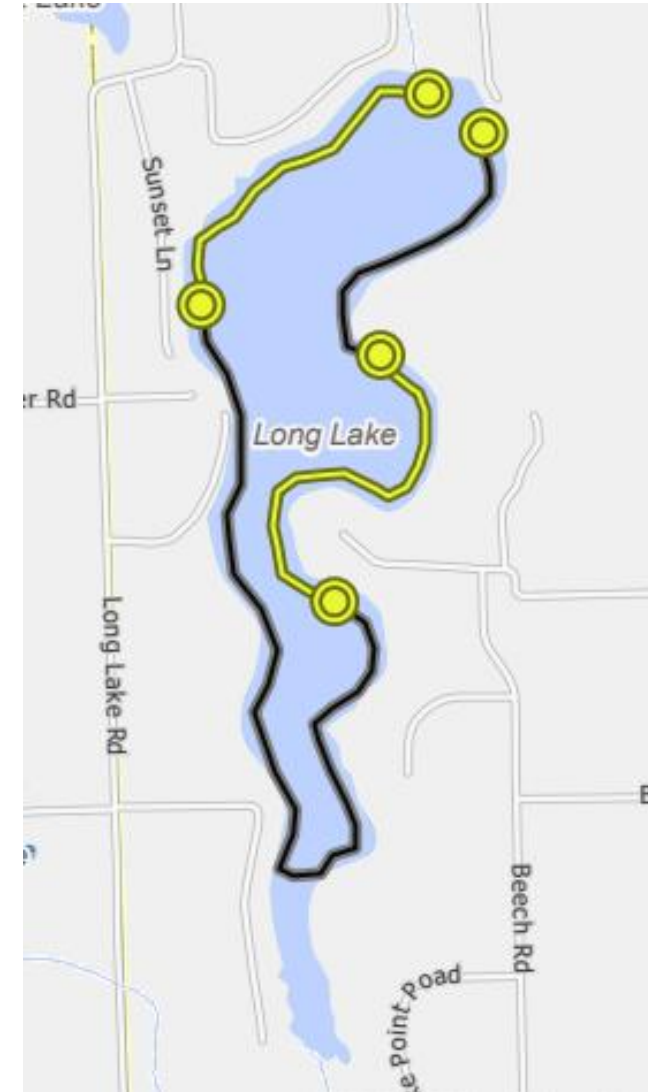
Long Lake

- Comprehensive fish survey:
 - Natural reproduction of northern pike
 - 3,524 large fingerling northern pike stocked between 2013 – 2019
 - Updated panfish data from special regulation
- Set nets on 3/17/2025
 - 24 net nights of effort
- 3,396 fish
 - 13 species
 - Bluegill, black crappie and northern pike



Long Lake

- Electrofishing survey
 - 5/13/2025
 - 1 mile of dip all
 - 1.95 miles of gamefish only
- 296 fish
 - 10 species
 - 1 hybrid species
 - Largemouth bass, black crappie and bluegill



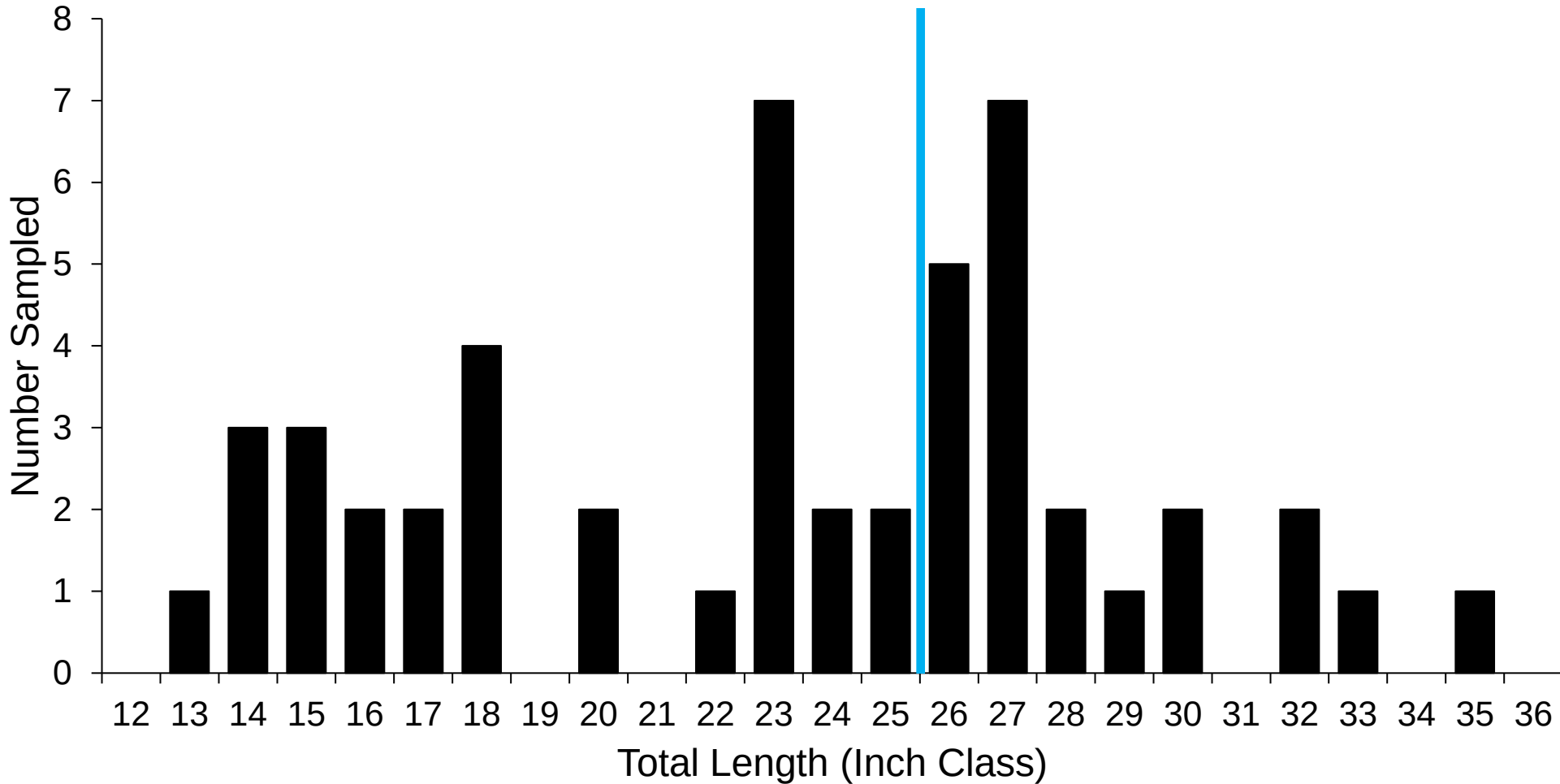
Long Lake

- Fyke netting results:
- Northern pike
 - 86 captures
 - 50 unique individuals
 - 36 recaptures
 - CPUE = 3.6 per net night
 - 71st percentile for lakes in WI
 - Average size = 23.6 inches
 - Range = 13.8 – 35.0 inches



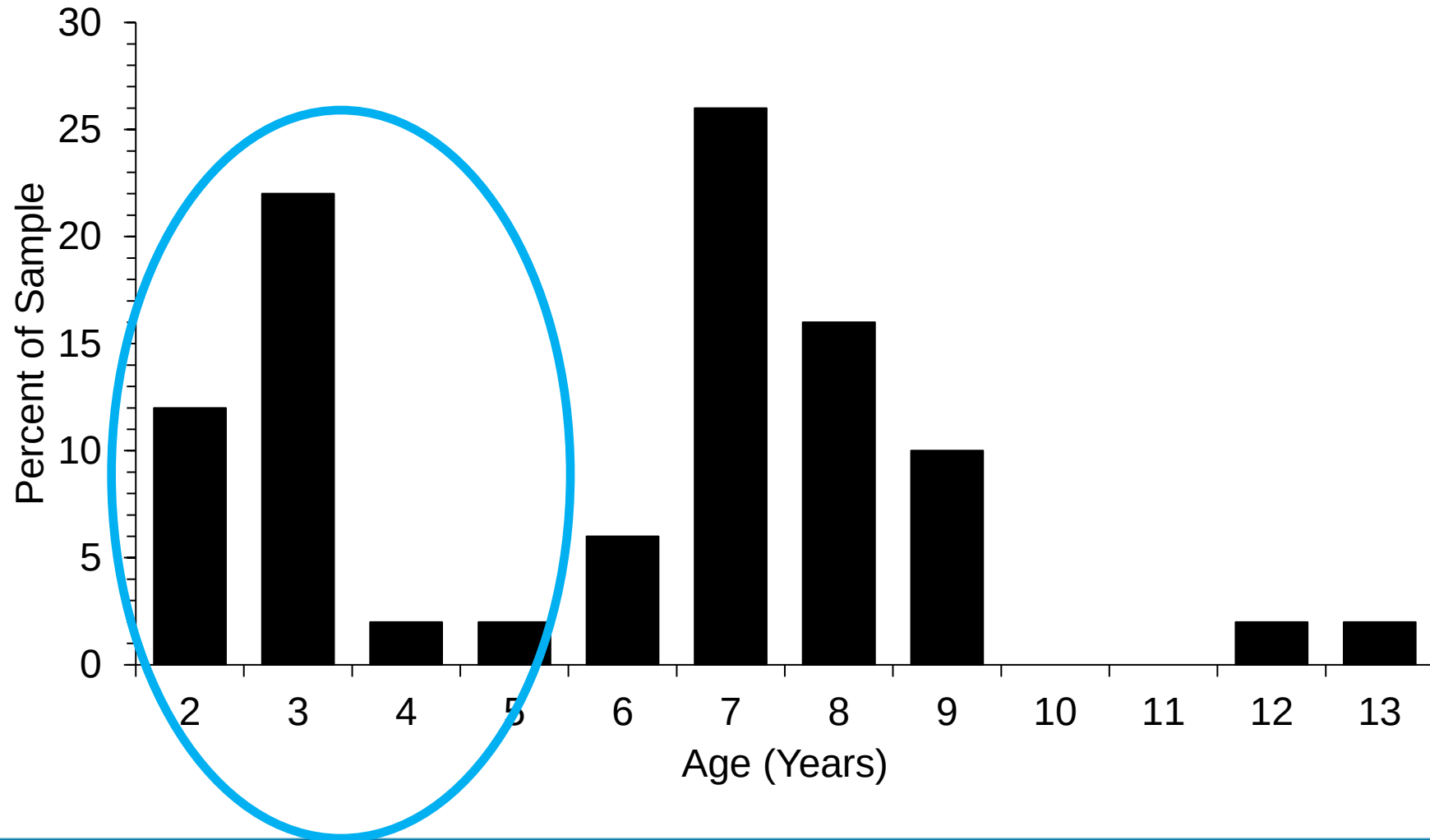
Long Lake

Northern Pike Length Frequency Distribution



Long Lake

Long Lake Northern Pike Age Frequency Distribution



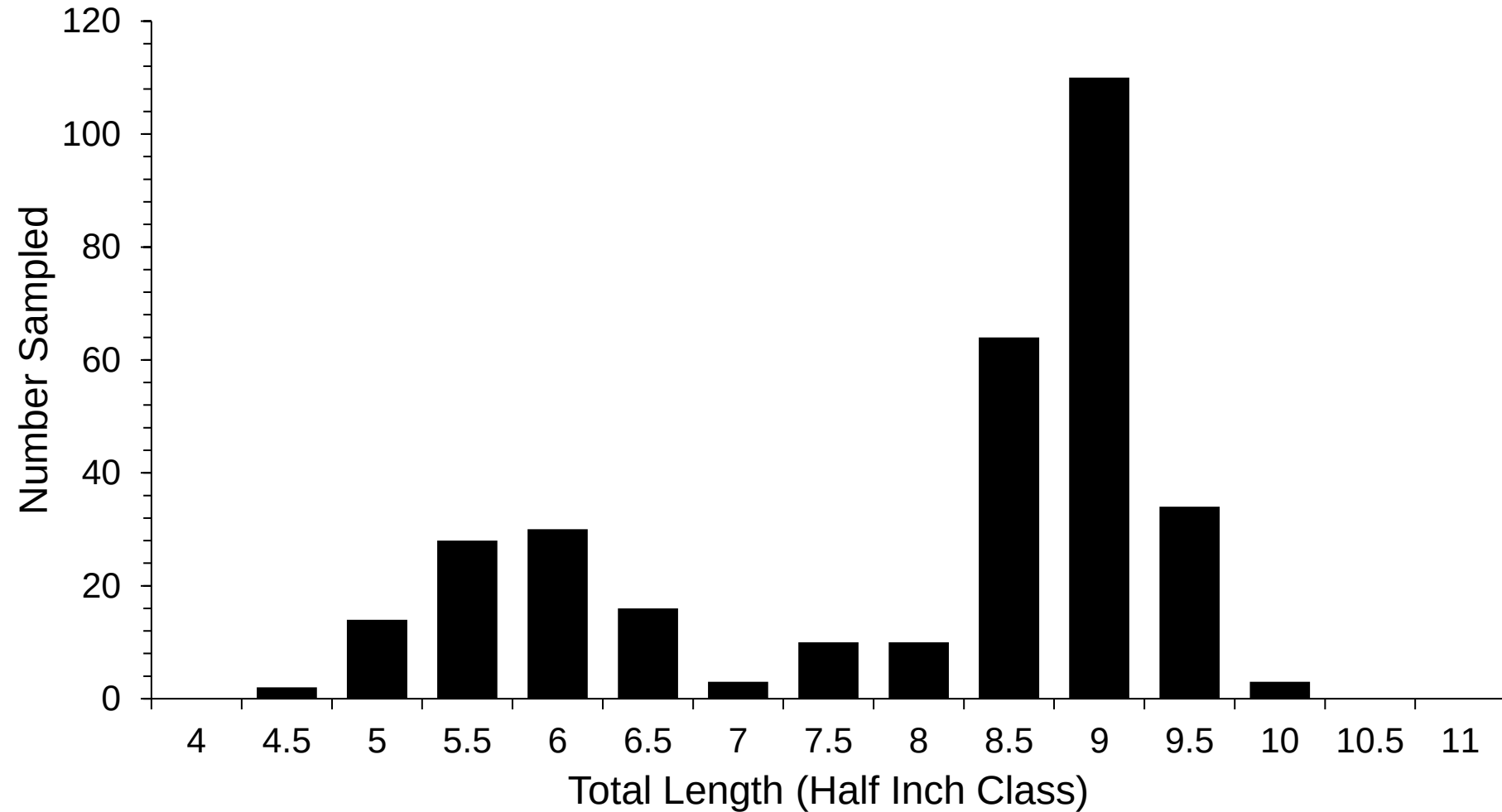
Long Lake

- Black crappie
 - 1,367 captured
 - CPUE = 57.0 per net night
 - 96th percentile for lakes in WI
 - Average size = 8.2 inches
 - Range = 4.8 – 10.4 inches



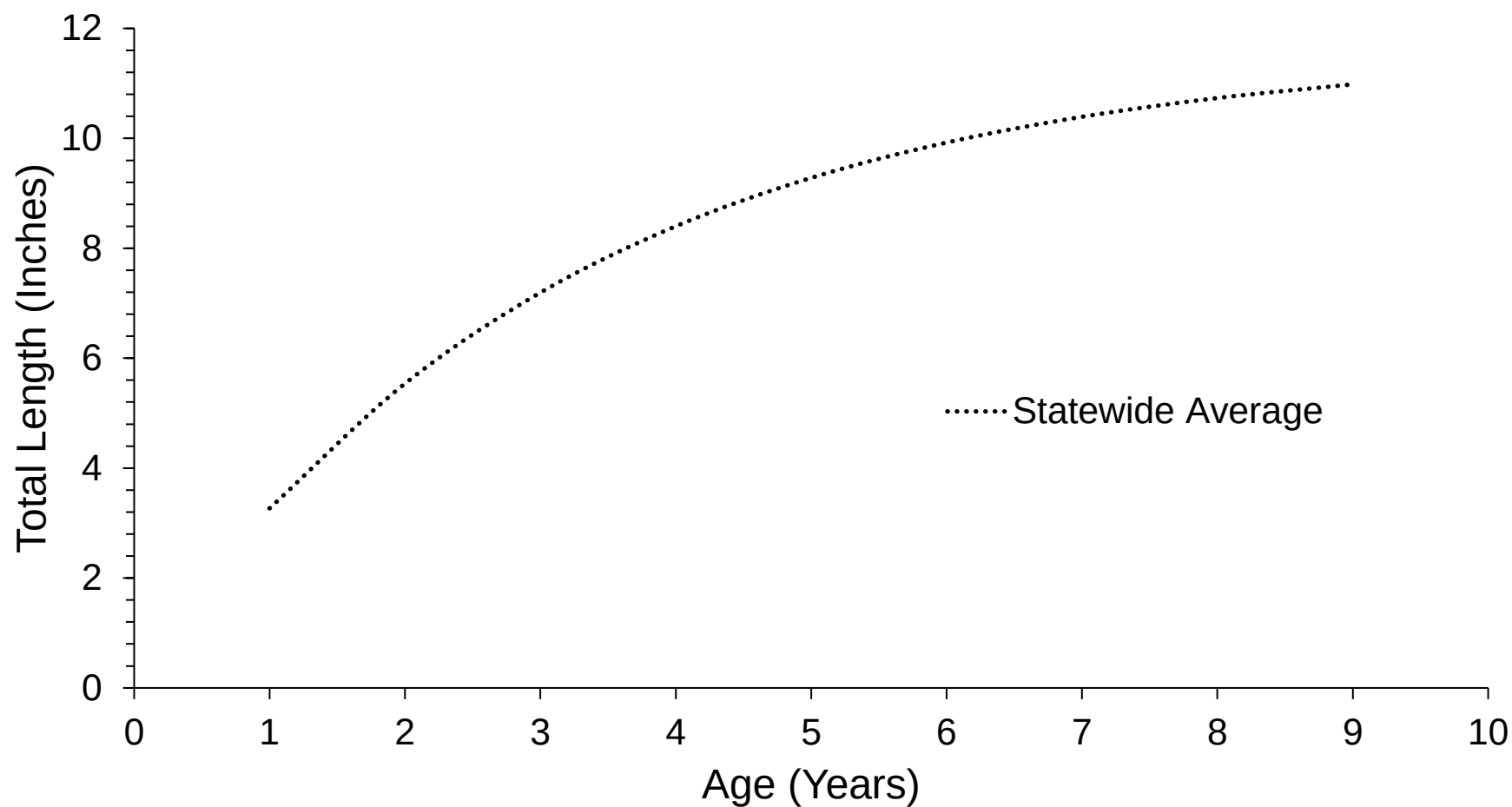
Long Lake

Black Crappie Length Frequency Distribution



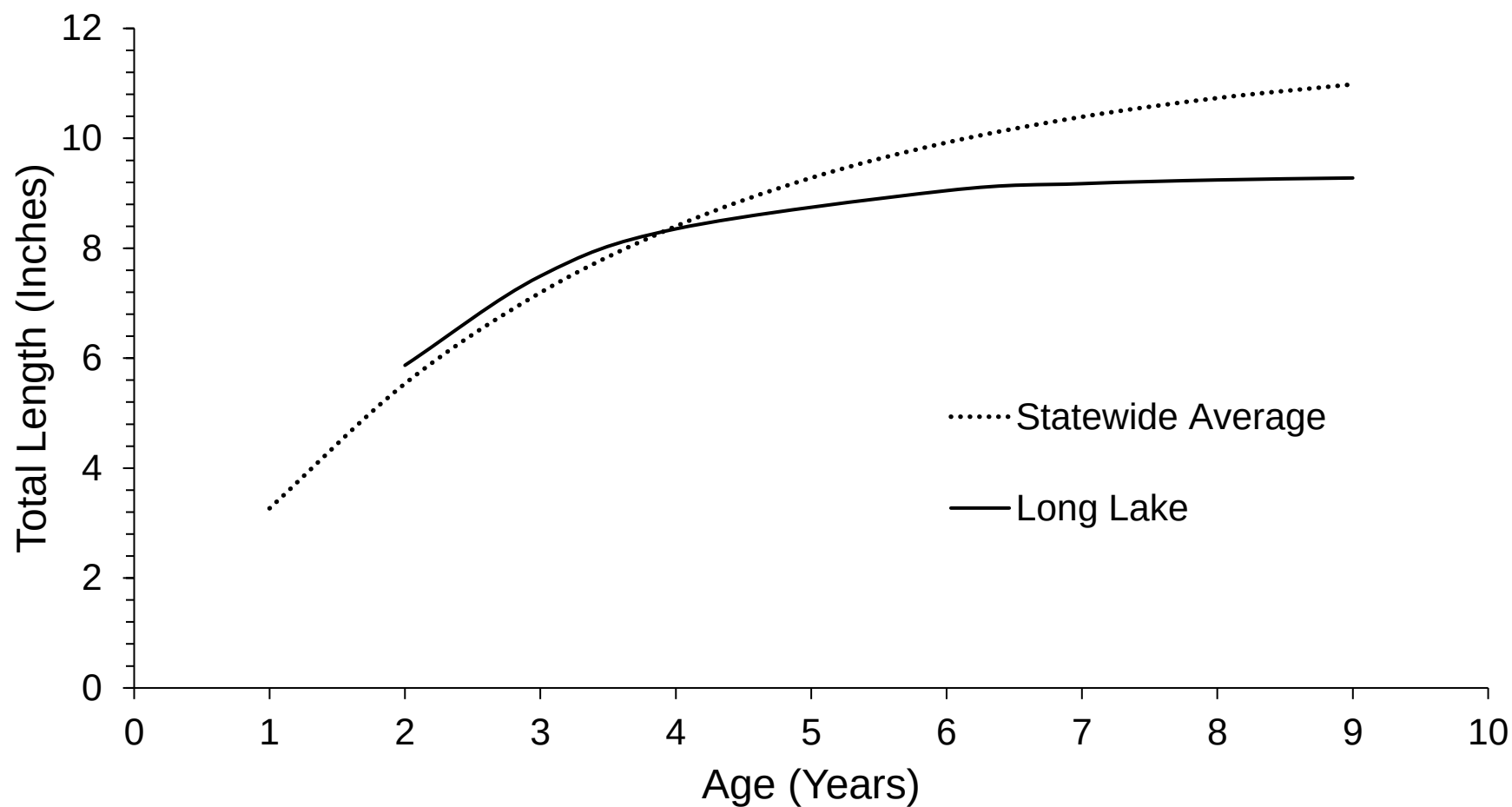
Long Lake

Black Crappie Growth



Long Lake

Black Crappie Growth



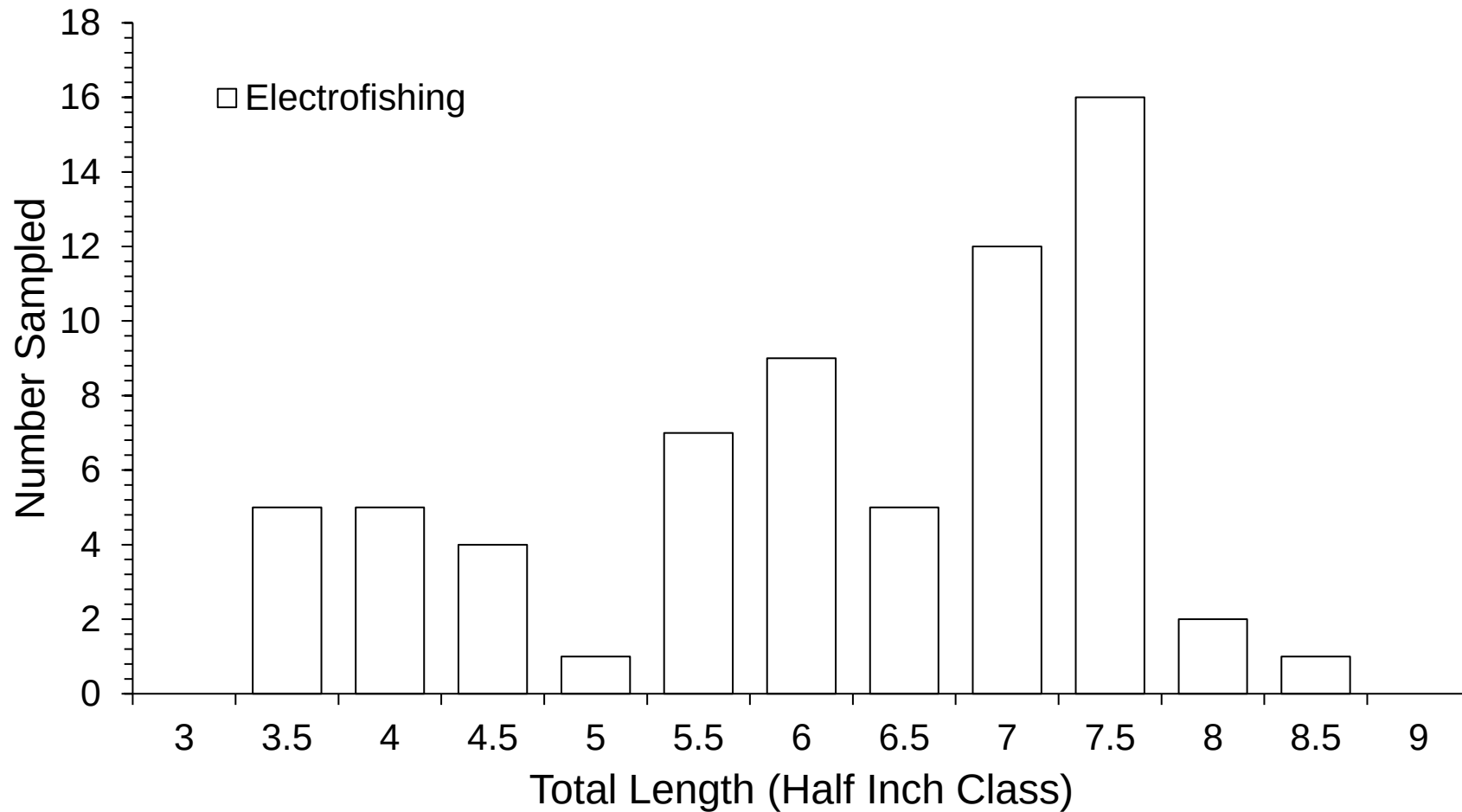
Long Lake

- Fyke netting and electrofishing results:
- Bluegill
- Fyke nets
 - 1,782 captured
 - CPUE = 74.3 per net night
 - 95th percentile for lakes in WI
 - Average size = 6.0 inches
 - Range = 3.9 – 8.5 inches
- Electrofishing
 - 67 captured
 - CPUE = 67.0 per mile of electrofishing
 - 43rd percentile for lakes in WI
 - Average size = 6.4 inches
 - Range = 3.5 – 8.7 inches



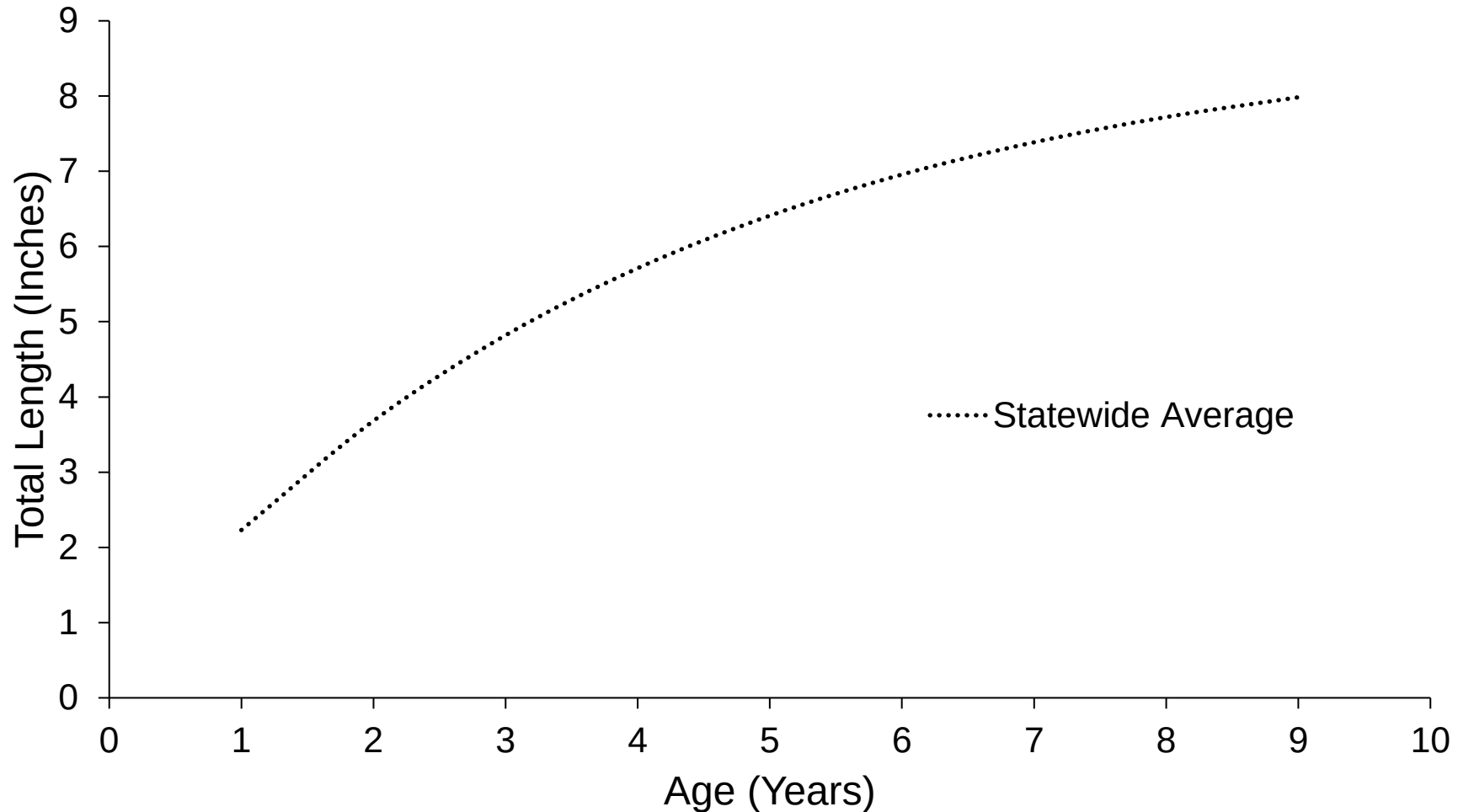
Long Lake

Bluegill Length Frequency Distribution



Long Lake

Bluegill Growth



Long Lake

Bluegill Growth

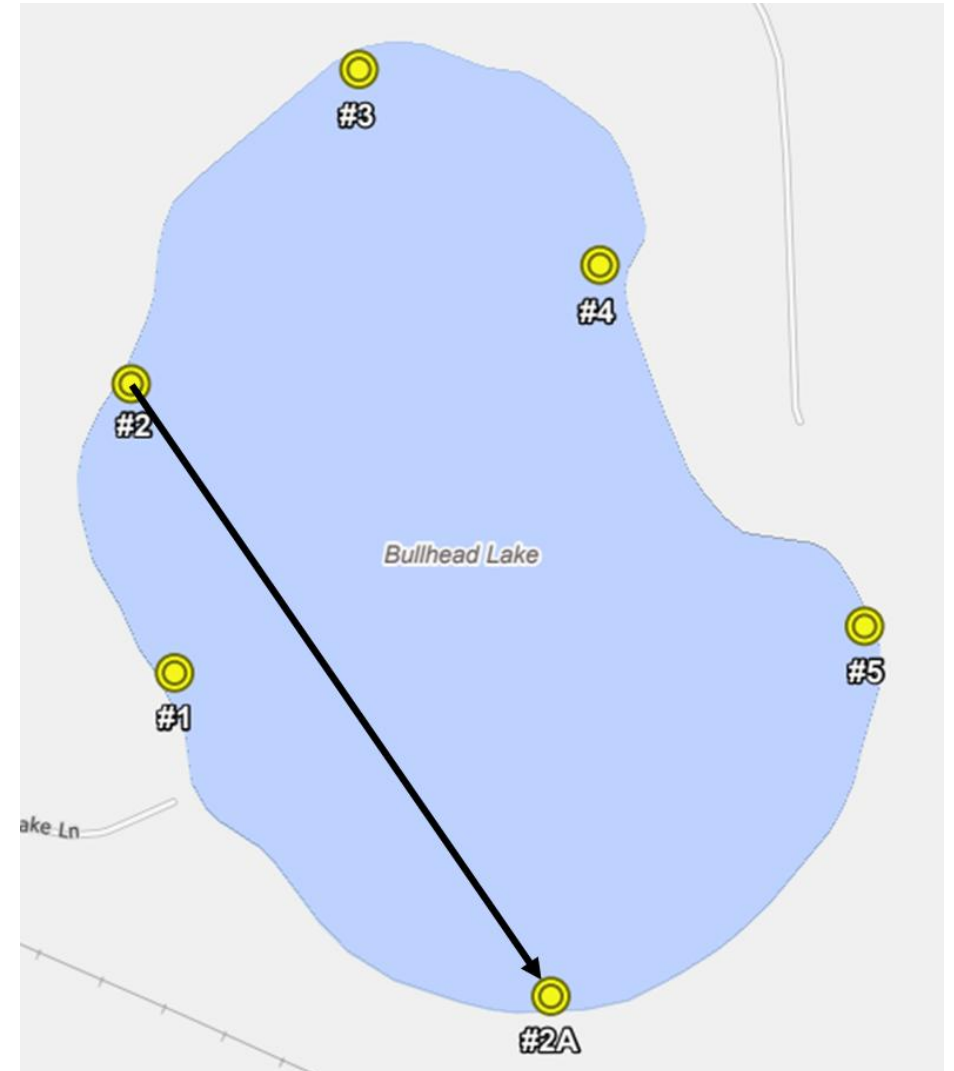


Bullhead Lake



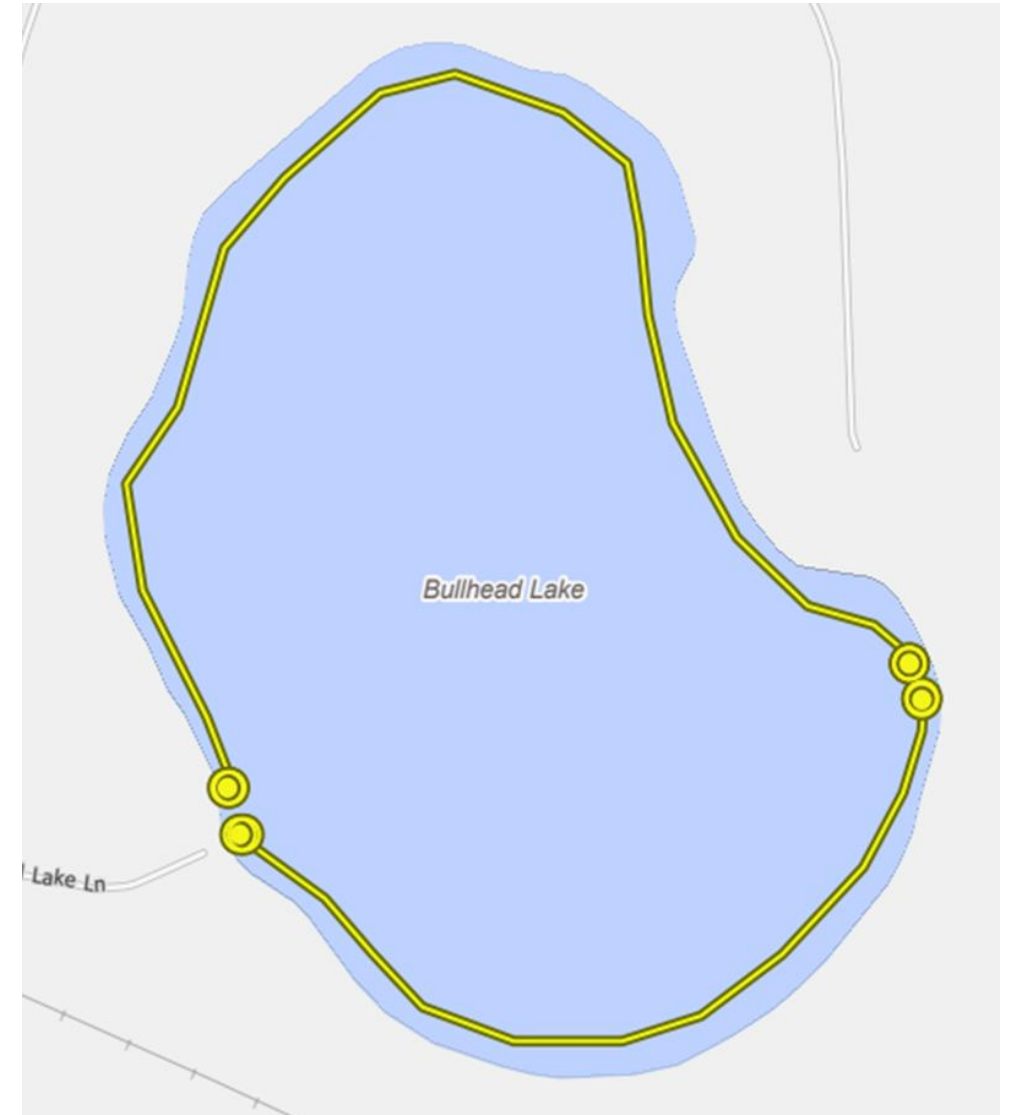
Bullhead Lake

- Comprehensive fish survey:
- Set nets on 3/18/2025
 - 25 net nights of effort
- 283 fish
 - 9 species
 - Northern pike, largemouth bass and yellow bullhead



Bullhead Lake

- Electrofishing survey
 - 5/19/2025
 - 1.25 mile of dip all
- 348 fish
 - 5 species
 - Largemouth bass, bluegill and yellow bullhead



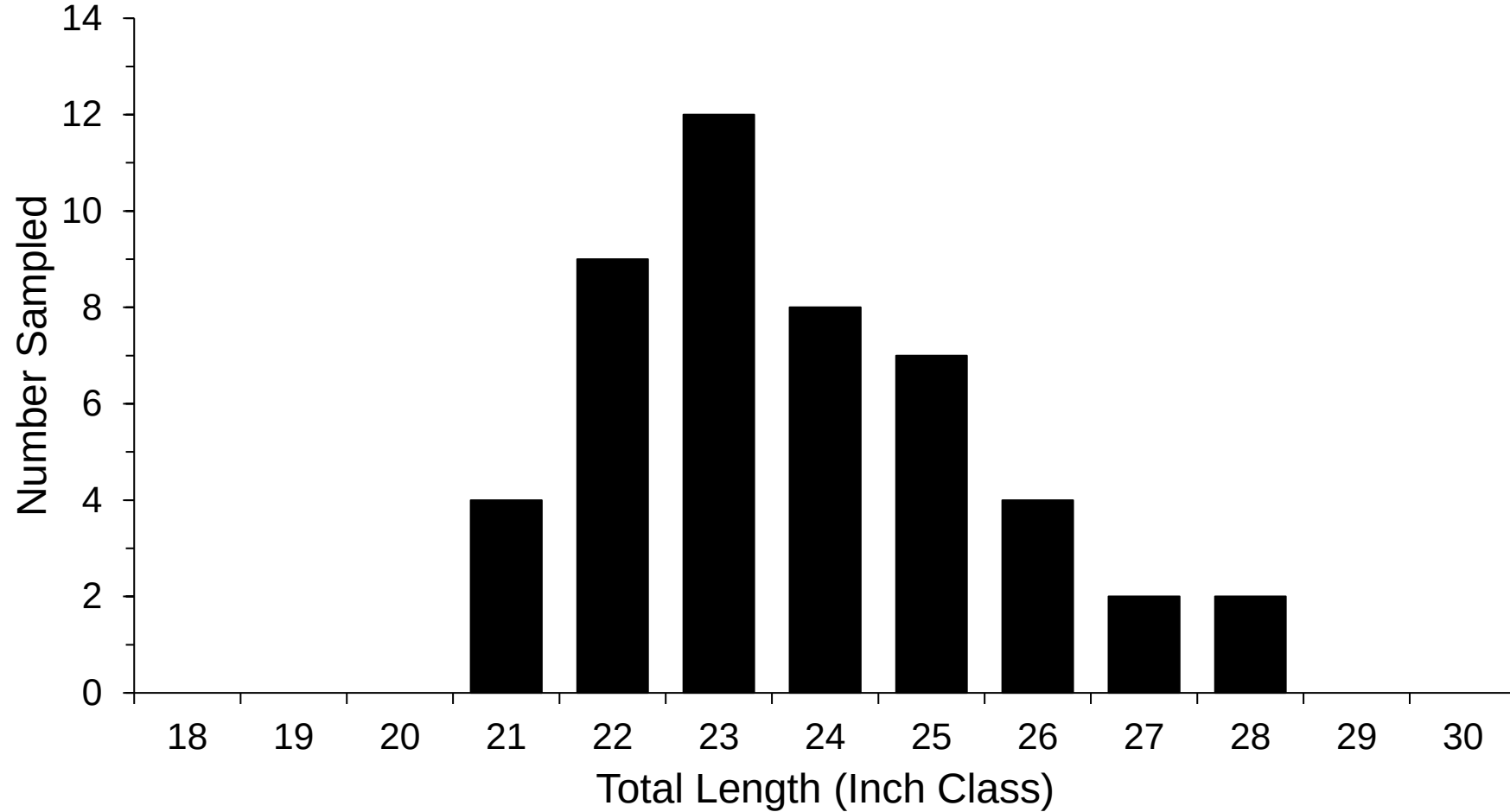
Bullhead Lake

- Fyke netting results:
- Northern pike
 - 143 captures
 - 48 unique individuals
 - 95 recaptures
 - CPUE = 5.7 per net night
 - 82nd percentile for lakes in WI
 - Average size = 24.3 inches
 - Range = 21.1 – 28.9 inches



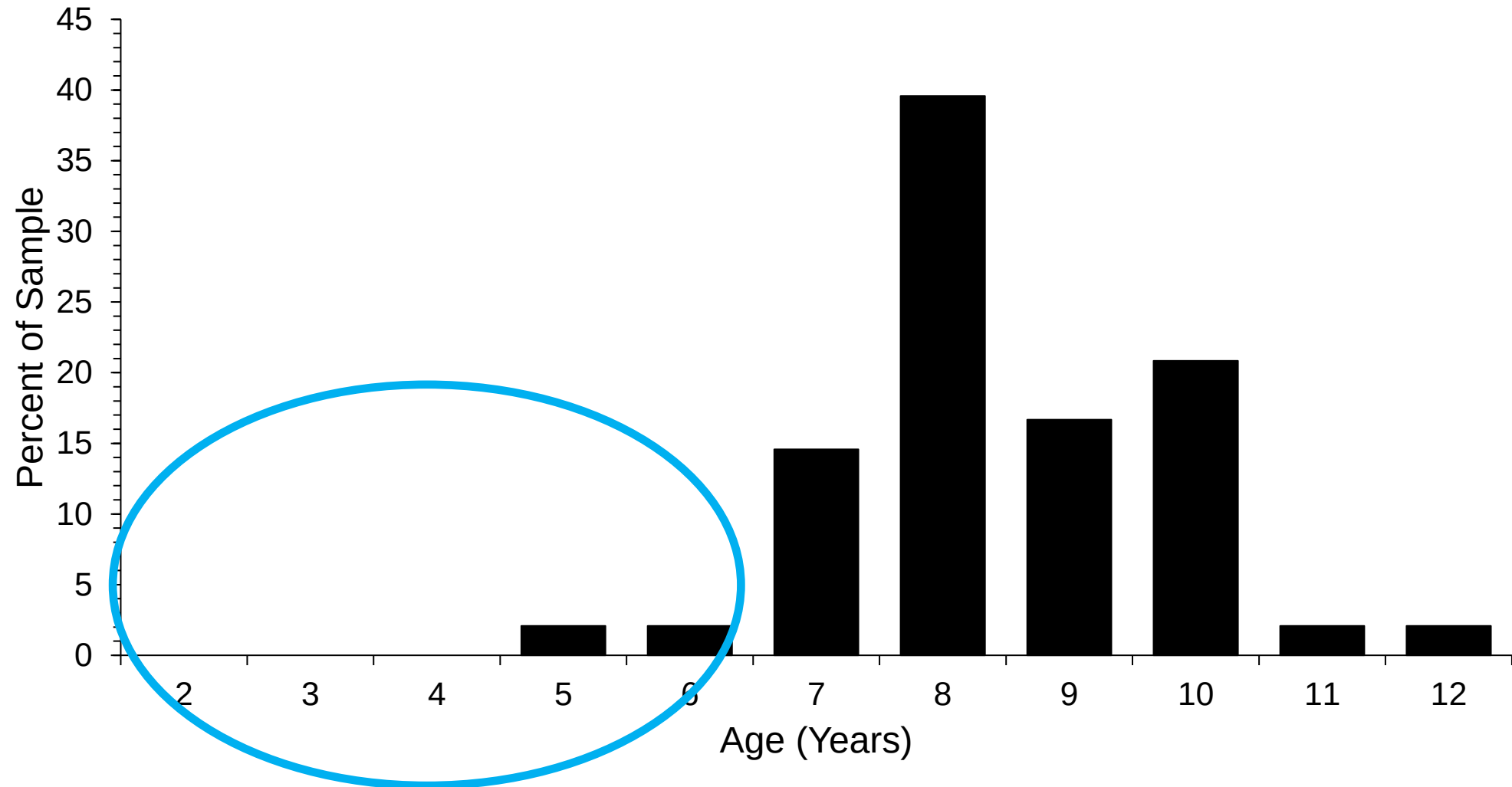
Bullhead Lake

Northern Pike Length Frequency Distribution



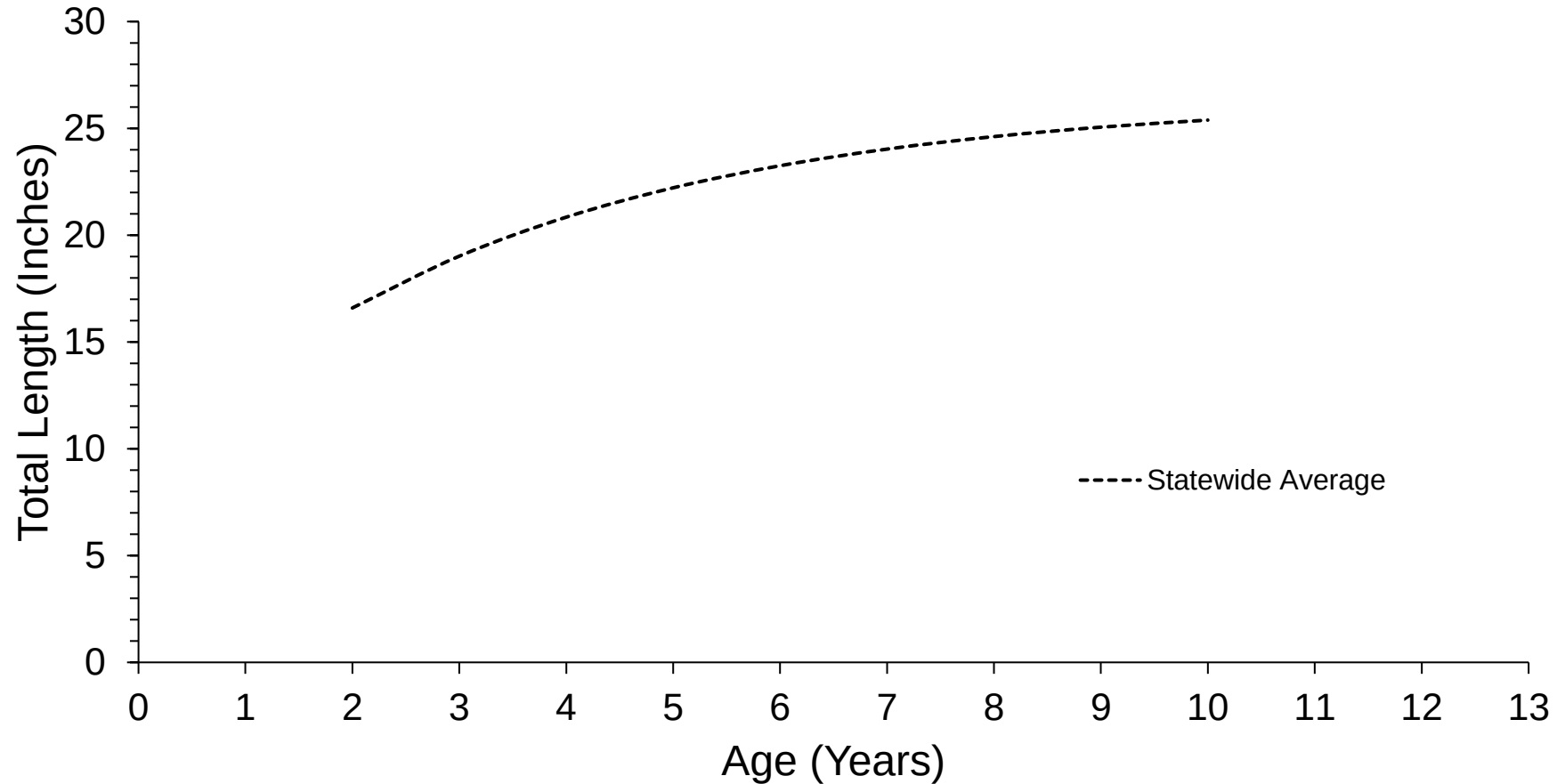
Bullhead Lake

Northern Pike Age Frequency Distribution



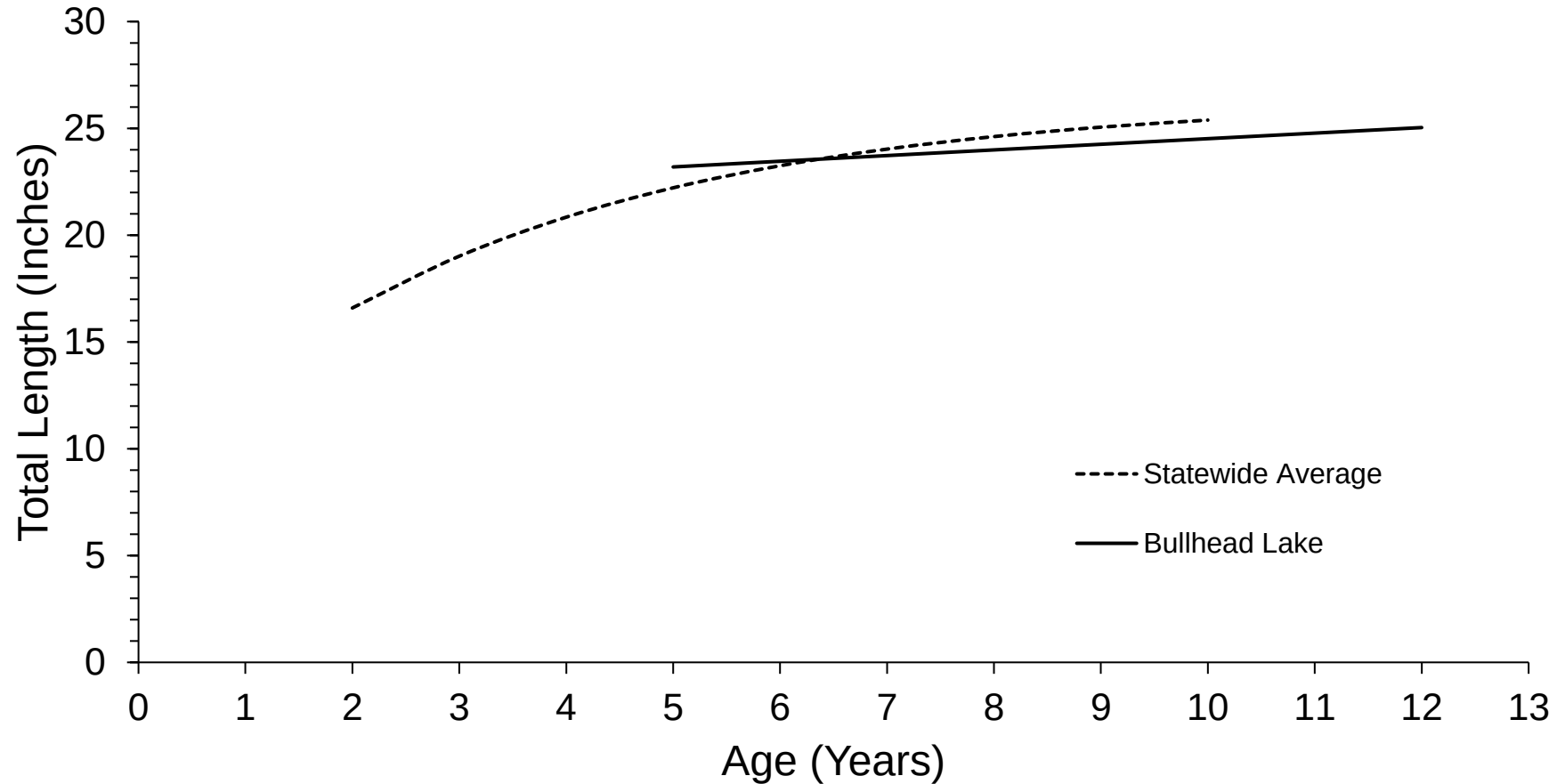
Bullhead Lake

Male Northern Pike Growth



Bullhead Lake

Male Northern Pike Growth



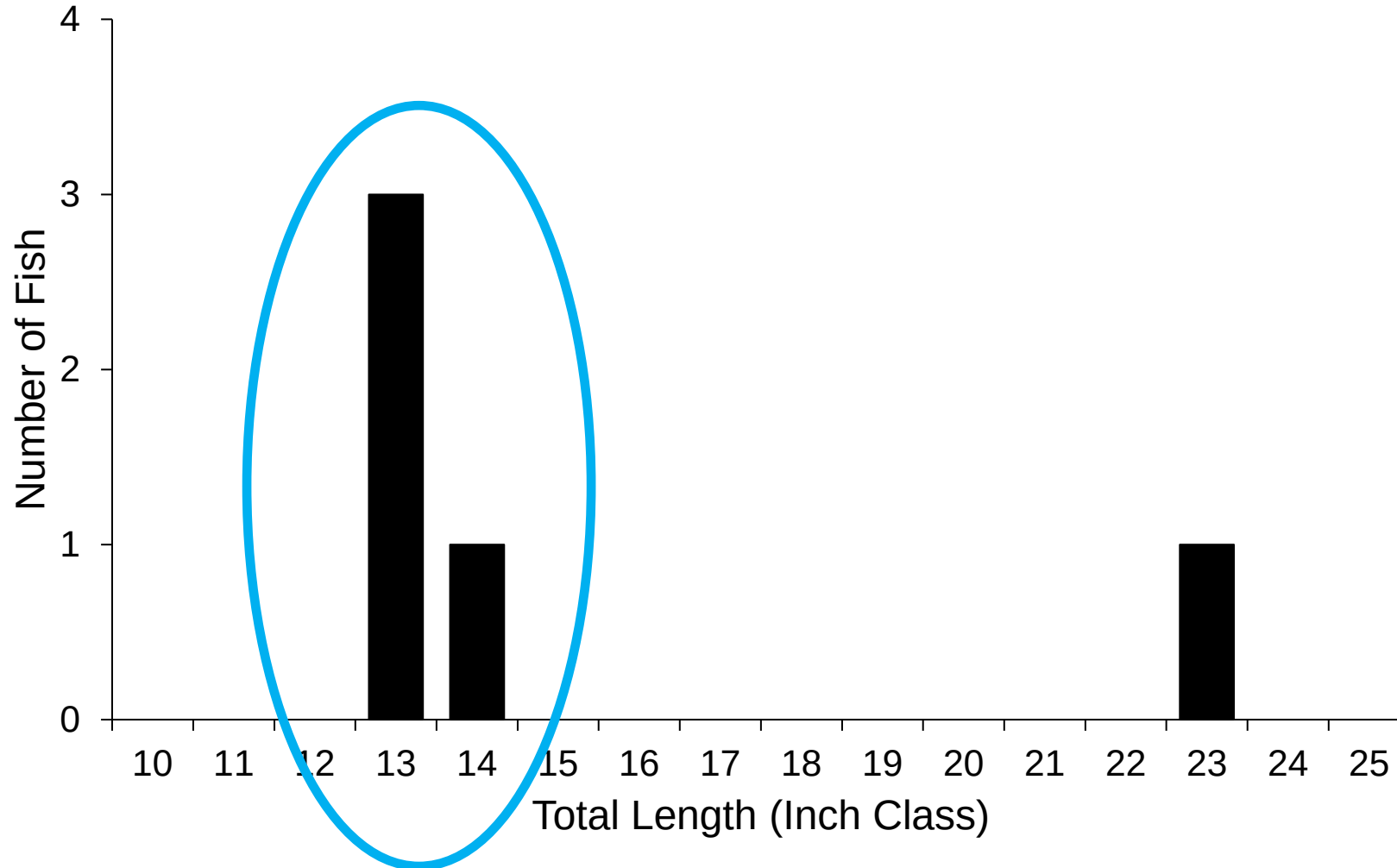
Bullhead Lake

- Walleye
 - 5 captured
 - CPUE = 0.2 per net night
 - 10th percentile for lakes in WI
 - Average size = 15.8 inches
 - Range = 13.3 – 23.6 inches



Bullhead Lake

Walleye Length Frequency Distribution



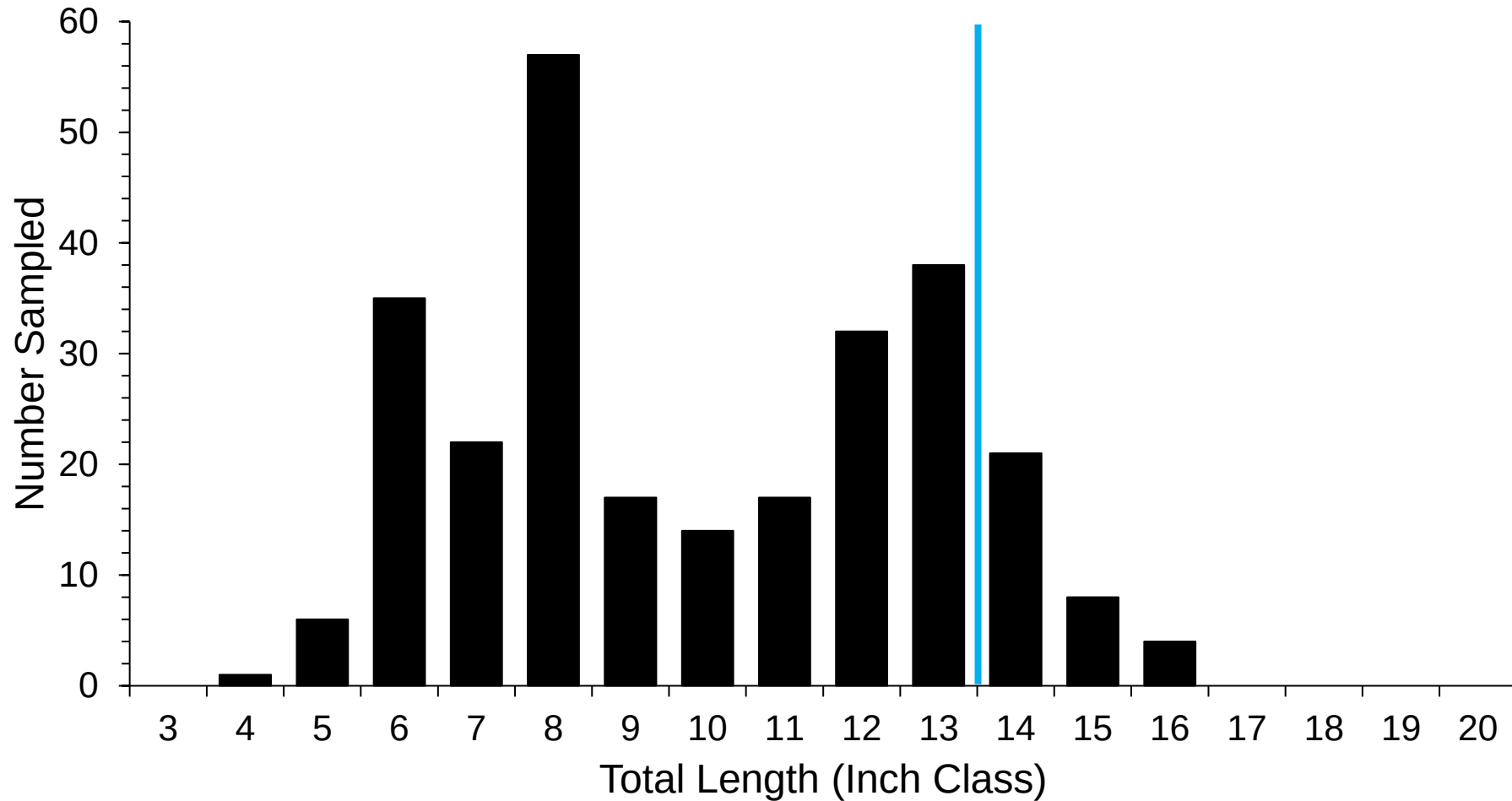
Bullhead Lake

- Electrofishing results:
- Largemouth bass
 - 272 captured
 - CPUE = 217.6 per mile of electrofishing
 - 99th percentile for lakes in WI
 - Average size = 10.4 inches
 - Range = 4.9 – 16.7 inches



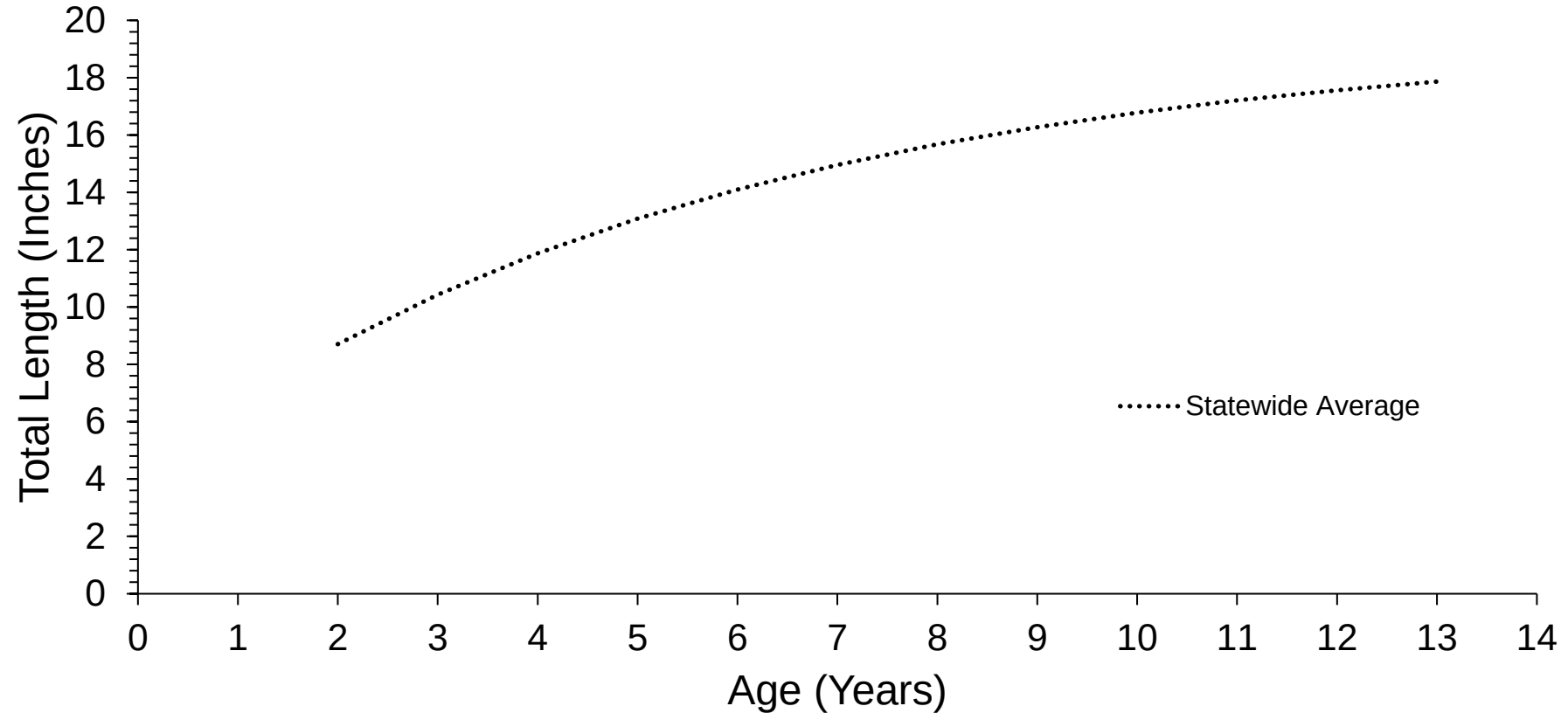
Bullhead Lake

Largemouth Bass Length Frequency Distribution



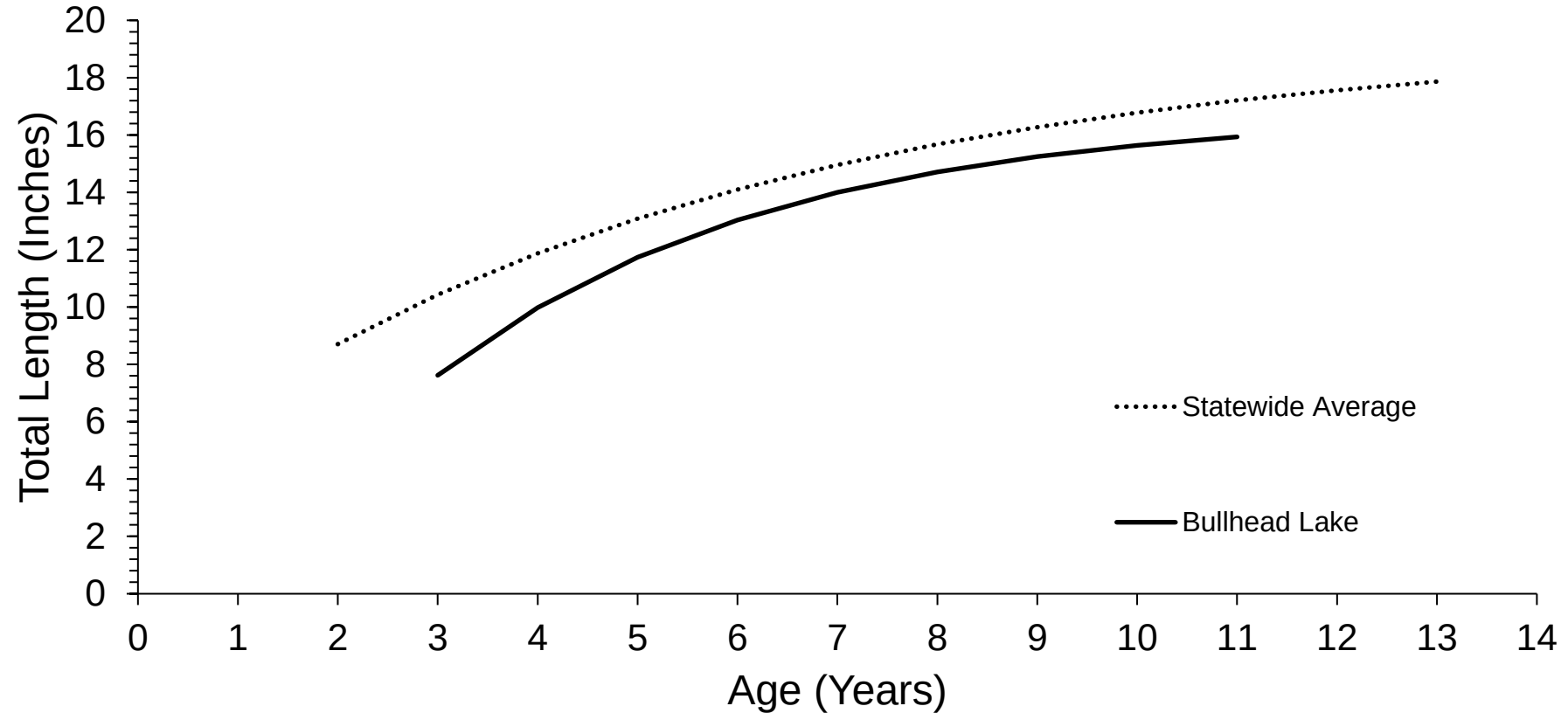
Bullhead Lake

Largemouth Bass Growth



Bullhead Lake

Largemouth Bass Growth



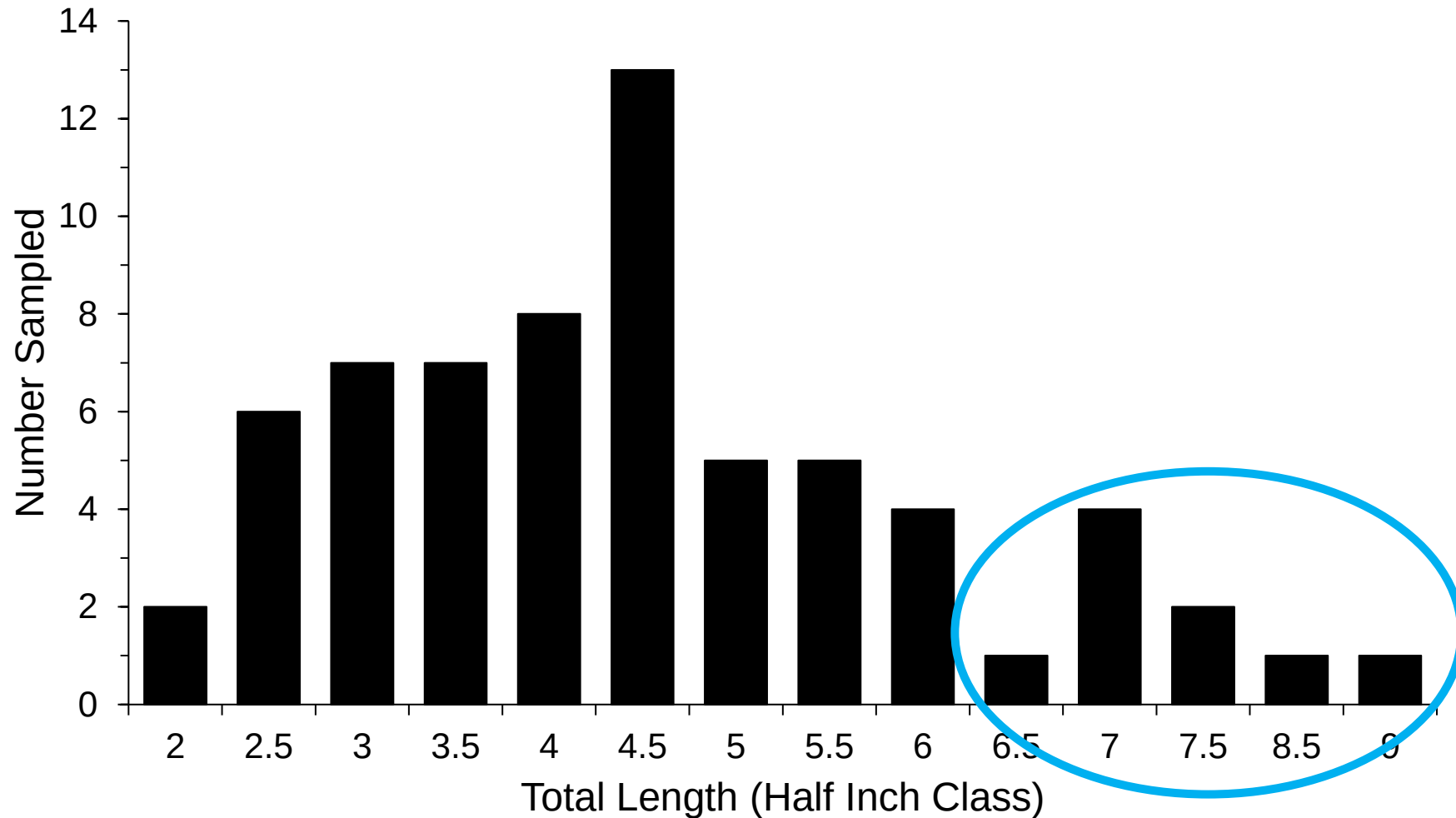
Bullhead Lake

- Bluegill
 - 66 captured
 - CPUE = 52.8 per mile of electrofishing
 - 37th percentile for lakes in WI
 - Average size = 4.8 inches
 - Range = 2.3 – 9.1 inches



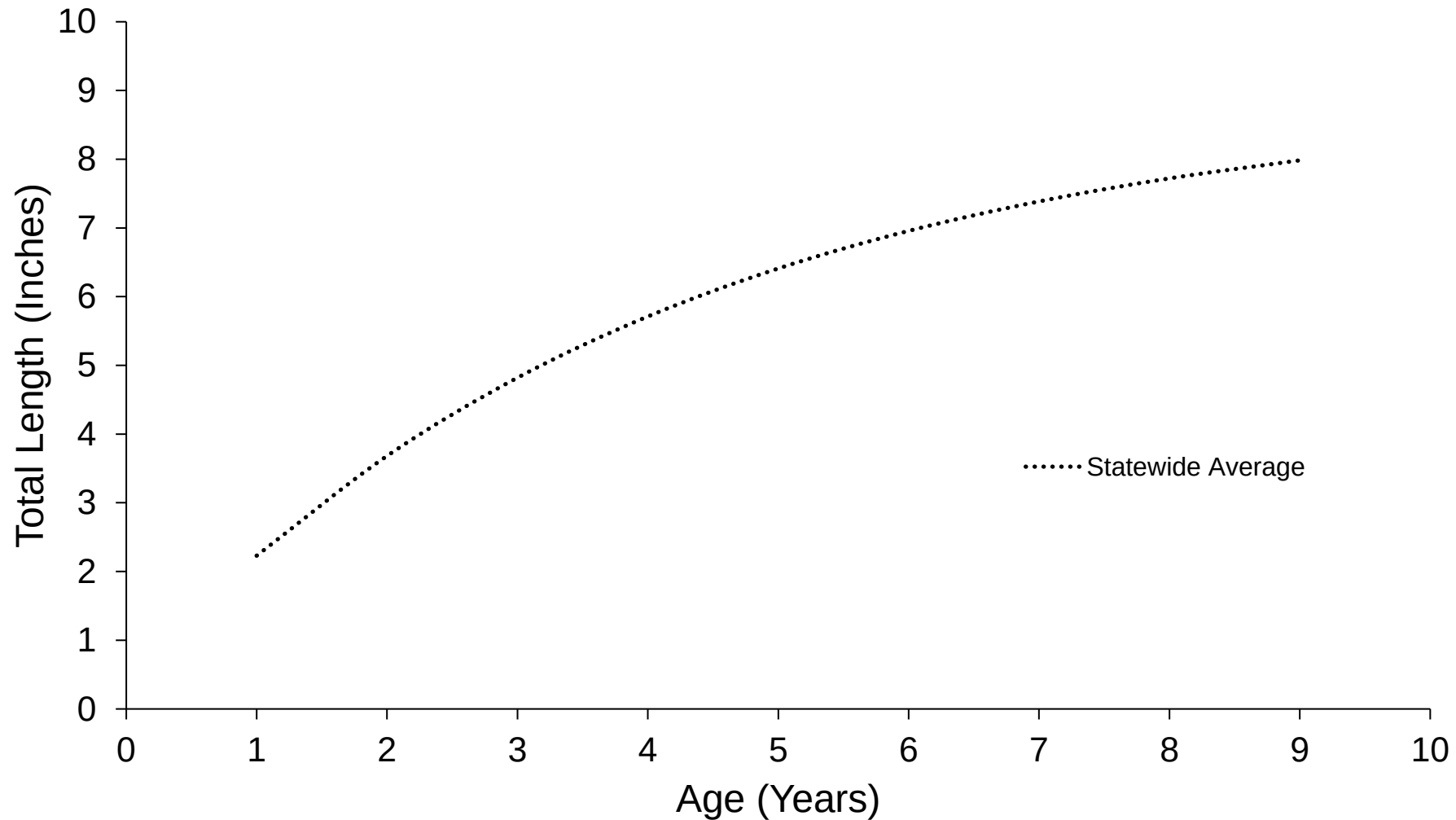
Bullhead Lake

Bluegill Length Frequency Distribution



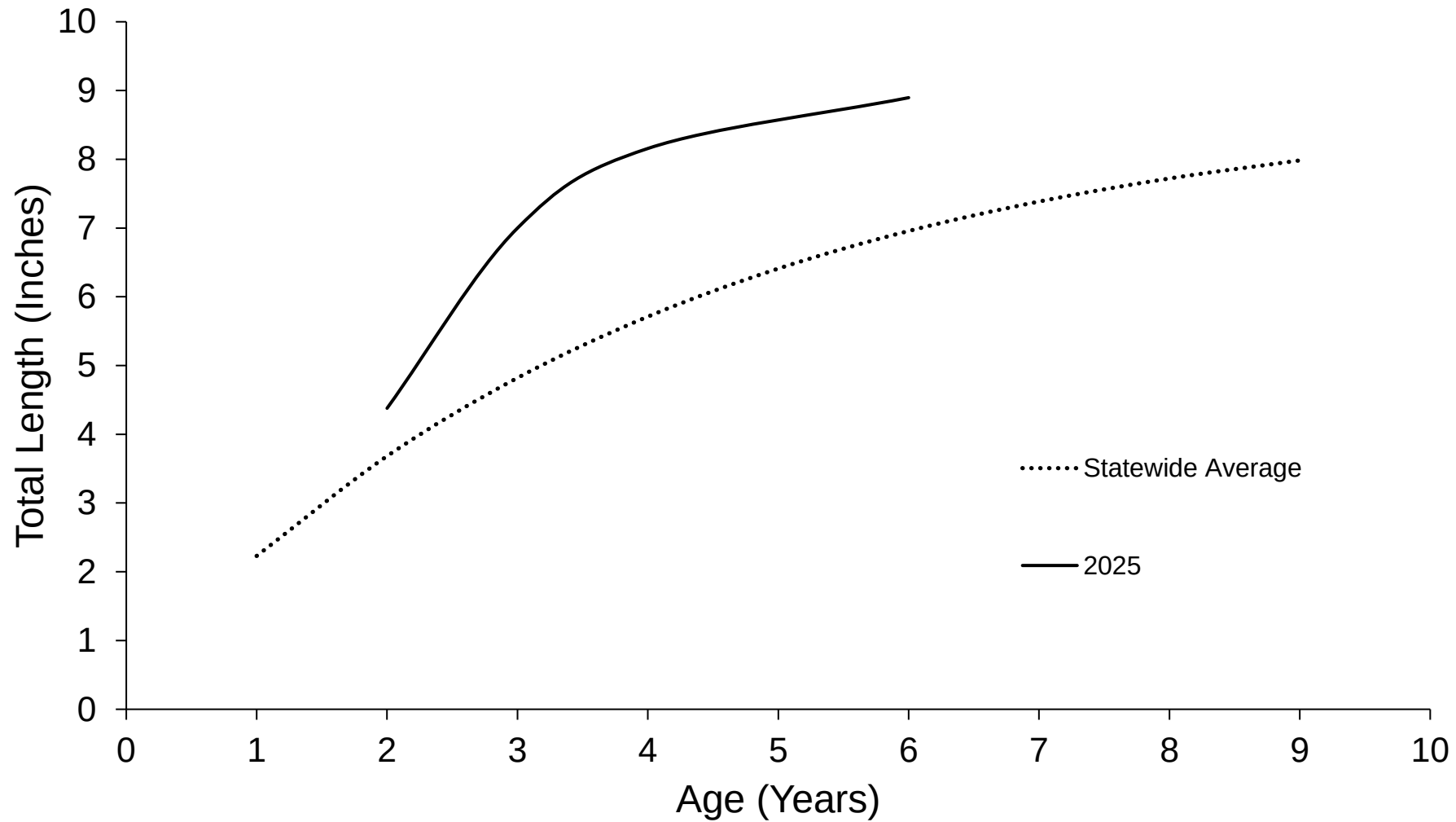
Bullhead Lake

Bluegill Growth



Bullhead Lake

Bluegill Growth



Bullhead Lake

- Black crappie
 - 2 captured
 - 7.9 and 11.6 inches
- Yellow perch
 - 2 captured
 - 10.2 and 11.9 inches



Summary and Management Recommendations

- Long Lake:
- Northern pike:
 - Moderate – high density northern pike population
 - Good growth and size structure
 - Strong evidence of enough natural reproduction to sustain population
 - Monitor for continued natural reproduction in future
- Panfish:
 - Black crappie:
 - Very high – density black crappie population
 - Growth tops out at 9-10 inches
 - Bluegill:
 - Moderate – high density bluegill population
 - Good growth rates and size structure
 - Change panfish regulation to 25 aggregate bag limit but no more than 5 bluegill on April 1, 2026
 - Reduce density of black crappies
 - Protect quality bluegill fishery



Summary and Management Recommendations

- Bullhead Lake:
- Northern pike:
 - Moderate density northern pike population
 - Dominated by older individuals
 - Largemouth bass predation?
 - Monitor northern pike population in 3-5 years to ensure recruitment of young pike to the population
- Walleye:
 - Low density walleye population
 - Higher survival of walleyes from 2023 stocking
 - Continue large fingerling walleye stocking
 - Monitor walleye population moving forward
- Largemouth bass
 - Very high-density largemouth bass population
 - Poor growth and size structure
 - Remove minimum size limit to reduce density and predation pressure



Summary and Management Recommendations

- Bullhead Lake:
- Panfish
 - Bluegill:
 - Low – moderate density bluegill population
 - Good growth potential
 - Few very large bluegills
 - Overharvest?
 - Black crappie and yellow perch:
 - Only two of each species captured
 - Excess predation
- Change panfish regulation to an aggregate bag limit of 10 panfish on April 1, 2026



New Regulations on April 1, 2026

- Cedar Lake
 - Northern pike 25 – 35 inch protected slot limit with daily bag limit of 2
 - Daily bag limit of 10 panfish with no more than 5 bluegill
- Silver Lake
 - Northern pike 26 inch minimum length limit with daily bag limit of 2
- Bullhead Lake and Pigeon Lake
 - Daily bag limit of 10 panfish
- English Lake
 - Daily bag limit of 10 panfish with no more than 5 bluegill
- Harpt Lake
 - Daily bag limit of 10 panfish with no more than 5 yellow perch
- Long Lake
 - Daily bad limit of 25 panfish with no more than 5 bluegill



Photo Credit: Scott Otterson!

Other Updates

- 2025 Stocking:
 - Wilke, Pigeon, Silver, English, Harpt, Long, Bullhead
 - 5 per acre for a total of 2,605 large fingerling walleye
 - Cedar
 - 5,267 small fingerling walleye
- Spring 2026:
 - Harpt Lake
 - Comprehensive survey
 - Silver Lake
 - Fish kill investigation
- Permits!



Silver Lake Fish Kill

- Reported on 1/26/2026
 - Not catching fish or seeing fish on electronics and dead minnows
- Site visit 1/27/2026
 - Very low dissolved oxygen at 12 locations
 - Dead panfish in SW corner of lake
- Collected water quality samples on 1/28/2026
 - E coli
 - Biochemical oxygen demand
 - Nutrients
- E coli results within normal range
 - Not manure spill
- Internal loading?
- Late fall algal bloom?
- Late fall stratification?



CONNECT WITH US

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"WILD WISCONSIN:
OFF THE RECORD"