



2023 SPRING FISHERIES SURVEY SUMMARY

NELSON LAKE, SAWYER COUNTY

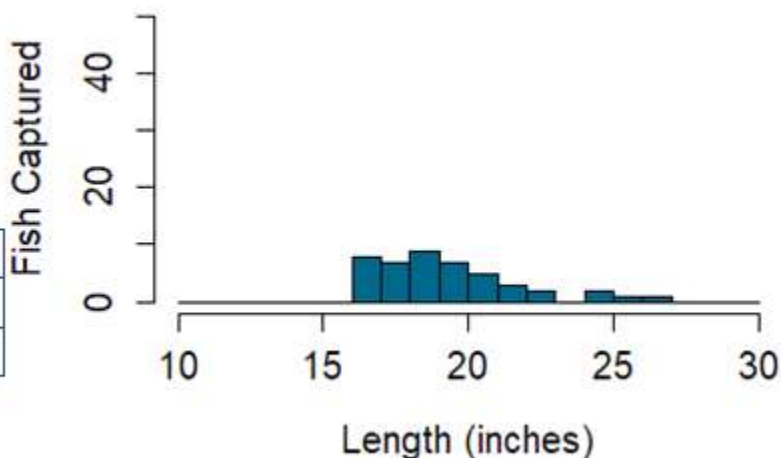
Report by Evan Sirianni

The Wisconsin Department of Natural Resources (DNR) Hayward Fisheries Management Team conducted a fyke netting survey on Nelson Lake from April 28 to April 29, 2023. The primary target was walleye, but useful data was also gathered on northern pike, yellow perch and black crappie. Ten nets were set overnight for one night, which resulted in 10 total net-nights of effort. An electrofishing survey was conducted on May 22, 2023 to target largemouth bass, smallmouth bass and bluegill and included five miles of shoreline. Quality, preferred and memorable sizes referenced in this summary are based on standard proportions of world record lengths developed for each species by the American Fisheries Society.

WALLEYE



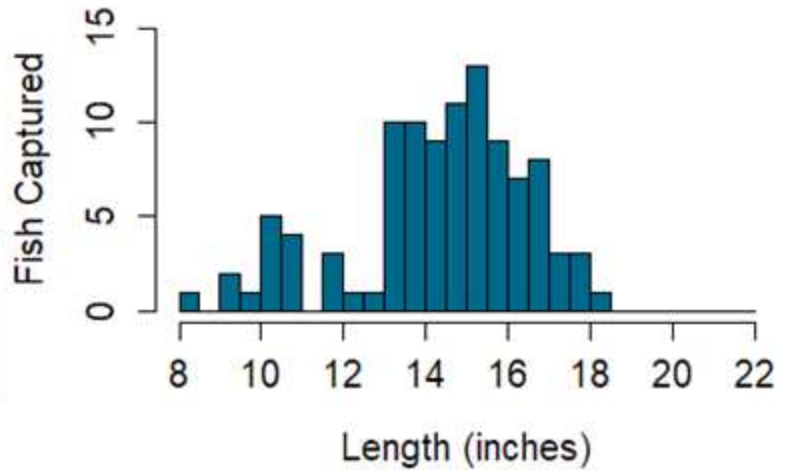
Captured 4.6 per net-night ≥ 10 inches	
Quality Size $\geq 15''$	100%
Preferred Size $\geq 20''$	31%



LARGEMOUTH BASS



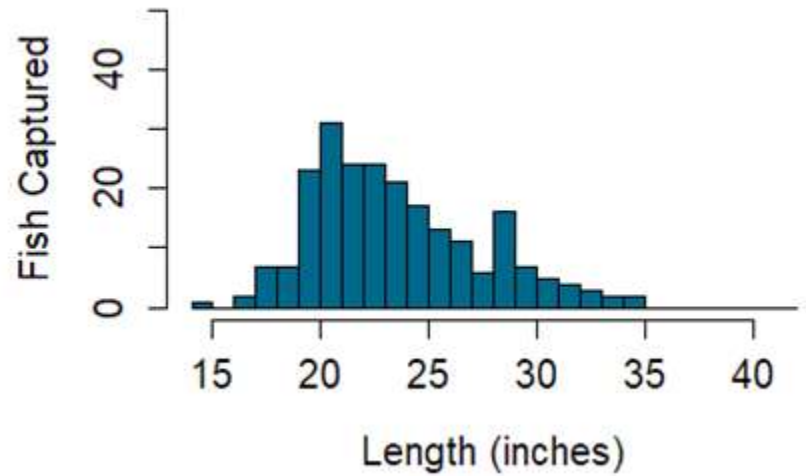
Captured 21 per mile \geq 8 inches	
Quality Size \geq 12"	84%
Preferred Size \geq 15"	43%



NORTHERN PIKE



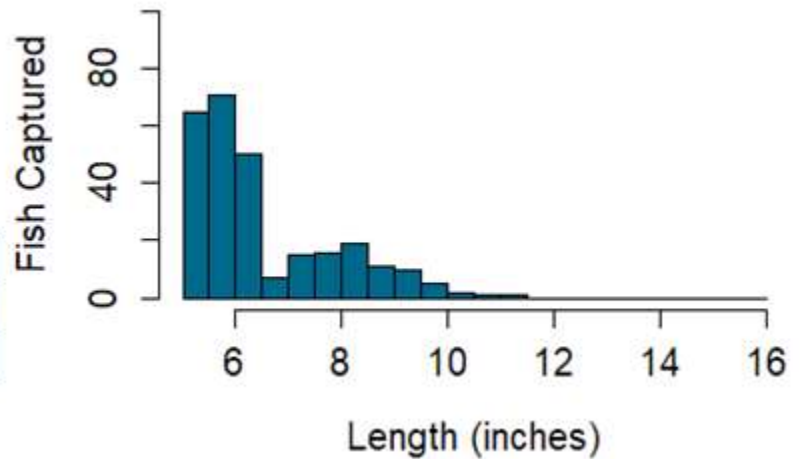
Captured 23 per net-night \geq 14 inches	
Quality Size \geq 21"	69%
Preferred Size \geq 28"	17%



BLACK CRAPPIE



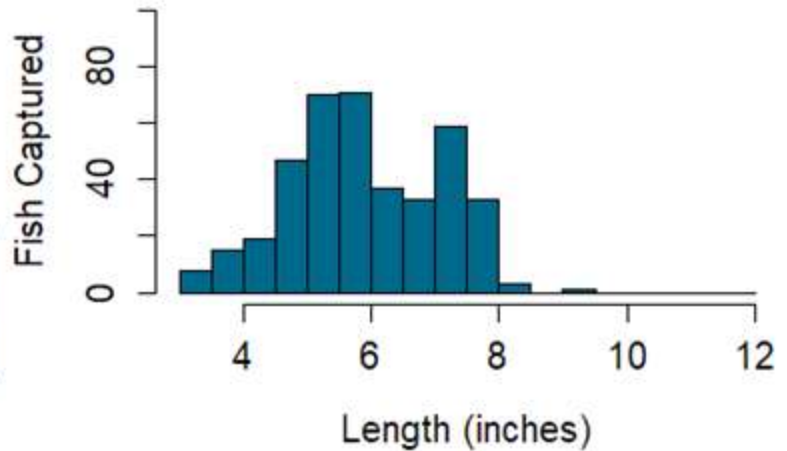
Captured 218 per net-night \geq 5 inches	
Quality Size \geq 8"	18%
Preferred Size \geq 10"	1%



BLUEGILL



Captured 269 per mile \geq 3 inches	
Quality Size \geq 6"	42%
Preferred Size \geq 8"	1%



SUMMARY OF RESULTS

The netting survey was timed to target northern pike as they moved up into the shallows shortly after ice-out to spawn and was also very effective at surveying black crappies. The electrofishing survey was timed to assess largemouth bass and bluegills as the waters warmed and as these species moved up into shallower waters. Smallmouth bass are present within Nelson Lake; however, none were captured during the spring surveys. Nelson Lake is classified as a Complex-Cool-Dark lake according to the DNR fisheries lake classification system. The “Complex” classification refers to the number of gamefish present within the lake system. “Cool” and “Dark” terms refer to the lake’s temperature and water clarity relative to other lakes. This report compares catch rates of lakes of the same classification as Nelson Lake.

WALLEYE

The catch of walleyes (4.6 per net-night) was just above the median (50%) for lakes of similar classification. The overall size was impressive, with 100% of the walleyes captured being above a quality size of 15 inches and 31% being above a preferred size of 20 inches. However, the catch rate was average to low. Nelson Lake has been stocked with walleye at an every-other-year basis in odd-numbered years. The walleye regulation on Nelson Lake is an 18-inch minimum length limit with a daily bag limit of three.

LARGEMOUTH BASS

Nelson Lake holds an impressive population of largemouth bass. The largemouth bass catch rate was 21 per mile, which was between the 75th and 90th percentile for lakes of the same classification as Nelson Lake. A quality size of 12 inches or more was attained by 84% of the largemouth captured, and 43% of them were at or above

a preferred size of 15 inches. Largemouth bass and smallmouth bass of any length may be kept in Nelson Lake with a daily bag limit of five fish (both species combined).

NORTHERN PIKE

Nelson Lake offers a high-density population of northern pike, with quality fish making up a large portion of the population. The catch rate of northern pike within the netting survey (23 per net-night) was right below the 100th percentile (24.17 per net-night) for lakes of the same classification. Northern pike caught over 21 inches in length made up 69% of the total sampled, and 17% were at or above a preferred size of 28 inches. The northern pike regulations for Nelson Lake are a daily bag limit of one that must be greater than 32 inches.

BLACK CRAPPIE

The black crappie catch rate within the netting survey was extremely high (218 per net-night), effectively at the 100th percentile when compared to other lakes of a similar classification. The proportion of quality-size fish (equal to or greater than 8 inches) was 18%, and fish greater than or equal to 10 inches only made up 1%. The panfish regulation for Nelson Lake is a combined species daily bag limit of 10.

BLUEGILL

The bluegill catch rate during the electrofishing survey (269 fish captured per mile) was between the 75th and 90th percentiles compared to similar lakes. Less than half (42%) of bluegills captured were equal to or above a quality size of 6 inches, and only 1% of fish caught were above a preferred size of greater than or equal to 8 inches. The panfish regulation for Nelson Lake is a combined species daily bag limit of 10.

Survey Crew: Max Wolter, Scott Braden and Evan Sirianni, with volunteers Kevin Lynch and Dale McPherson

Reviewed and approved by Aaron Cole