WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Fishery Survey Summary
Saint Clair Lake
Taylor County, Wisconsin, 2022

Introduction

The Wisconsin Department of Natural Resources' (DNR) Fisheries Management Team from Park Falls completed an electrofishing survey in late spring of 2022 to obtain a "snapshot assessment" of the recreational fishery in Saint Clair Lake. As far as we know, this was the only fishery survey completed since staff from the Wisconsin Conservation Department, the DNR's predecessor, made cursory visits in 1957 and 1966. Quality, preferred, memorable and trophy sizes referenced in this summary are based on standard proportions of world record lengths developed for each species by the American Fisheries Society. "Keeper size" is the team's description for Black Crappie and Yellow Perch 9 inches or longer and Bluegill at least 7 inches long, based on observed angler behavior.

HABITAT AND PUBLIC ACCESS CHARACTERISTICS

Saint Clair Lake is a 6.3-acre seepage lake, located about 4 miles northeast of Rib Lake, Wisconsin. Its maximum depth is 26 feet. The water's low conductance (37 µmhos/cm @ 77°F) and low methyl purple alkalinity (14 mg/l as $CaCO_3$) indicated soft water and low levels of biological productivity from measurements in August 1966. Despite high water clarity (Secchi depth=9 feet), aquatic vegetation is sparse. The lakebed materials near shore were roughly distributed as 40% muck, 30% sand, 20% gravel and 10% rubble.

A roadside clearing on the south shore provides public access from Wisconsin Rustic Road 1. This makeshift landing can accommodate canoes, kayaks and vehicle parking, but it is not suitable for launching boats from trailers.

SURVEY EFFORT

With water temperature at 69°F, our June 15, 2022 electrofishing survey coincided with the spawning and nest-guarding activities of Largemouth Bass, Bluegills and Pumpkinseeds. We collected all fish species along Saint Clair Lake's entire shoreline, sampling 0.58 miles in 0.32 hours. Low conductivity may have somewhat hampered our electrofishing capture efficiency, even with our electrofishing equipment set to its maximum output.

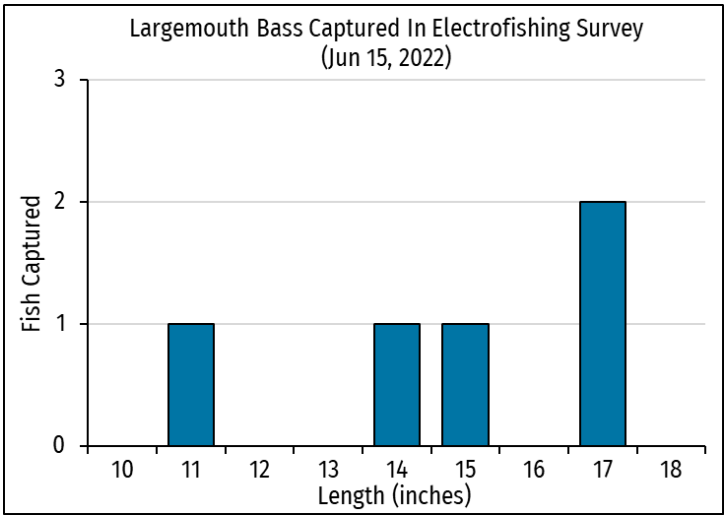
Results and Discussion

FISH COMMUNITY

Our sample included seven fish species, but we doubt that the entire fish community can be properly represented in a single survey that used only one type of collection gear. Surprised by the absence of Northern Pike in this sample, a lakeshore owner recently commented that the lake had many small pike. In the 1970 DNR publication, *Surface Water Resources of Taylor County*, Northern Pike were listed among the fish present in Saint Clair Lake. Northern Pike population abundance and size structure are better described from fyke net surveys immediately after the ice thaws rather than from late-spring electrofishing surveys. In

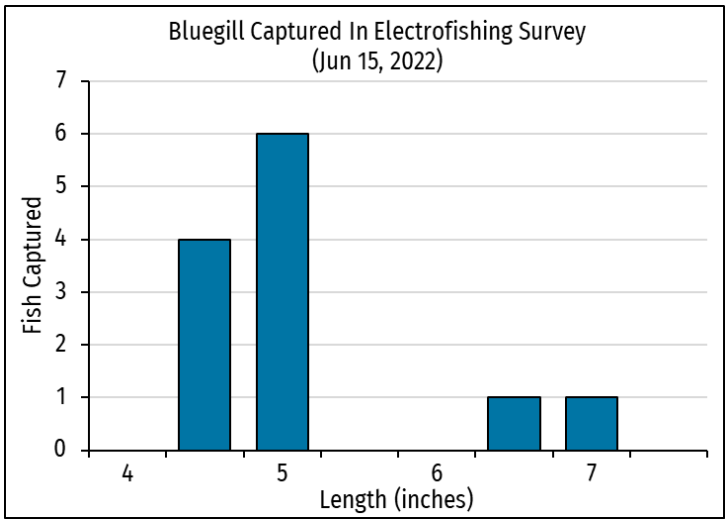
addition to the species discussed below, we also found Golden Shiner and Yellow Bullhead in this survey.

LARGEMOUTH BASS



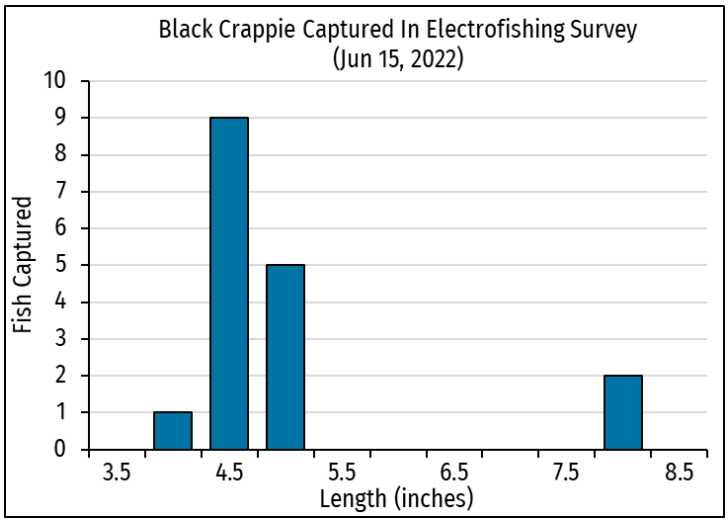
We dip-netted only five Largemouth Bass in our electrofishing circuit and saw three others that evaded capture. Therefore, we cannot draw broad inferences about the Largemouth Bass population status from such a small sample. Nonetheless, we can cautiously say that four of the five bass measured were legal-size fish ≥ 14 inches, and three were preferred-size bass ≥ 15 inches long. Our catch rates of nine bass ≥ 8 inches per mile and 16 per hour suggest that bass population abundance is low to moderate. Based on the meager size of Yellow Perch, Bluegills, Black Crappies and Pumpkinseeds, Largemouth Bass apparently cannot provide effective predatory control of panfish abundance in Saint Clair Lake.

BLUEGILL



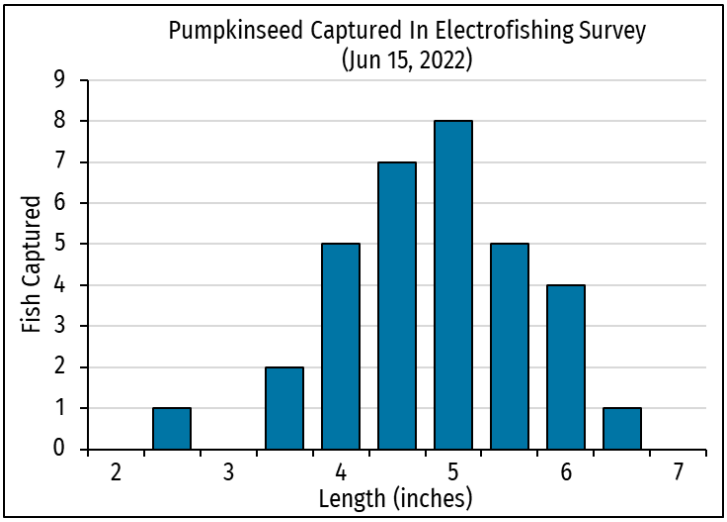
Late spring electrofishing produced a small sample of 12 Bluegills that ranged from 4.6 to 7.3 inches and averaged 5.3 inches long. Electrofishing catch rates of 21 Bluegills ≥ 3 inches per mile and 38 Bluegills ≥ 3 inches per hour normally represent low population abundance. However, the population's disappointing size distribution suggests that Bluegill may be more plentiful than our low catch rates indicated. Most were 4.5-5.4 inches long. Two reached quality size ≥ 6 inches, but only one attained keeper size ≥ 7 inches. Unless anglers are consistently taking the largest Bluegills, it appears that Saint Clair Lake does not have enough effective predators to control Bluegill numbers and keep them growing fast toward the preferred size of at least 8 inches long.

BLACK CRAPPIE



Our electrofishing sample included 17 Black Crappies that ranged from 4.4 to 8.2 inches and averaged 5.2 inches long. Two of the seven crappies ≥ 5 inches grew to quality size at least 8 inches long, but none reached keeper size. It's difficult to gauge crappie population abundance by the electrofishing catch rates recorded in this survey (12 crappies ≥ 5 inches per mile and 22 per hour). Similar to Bluegill, we suspect that crowded crappies compete for food, grow slowly and die to angling or natural causes before they can reach the sizes that anglers like to keep. Practical options to improve crappie fishing in this infertile lake are few and far between.

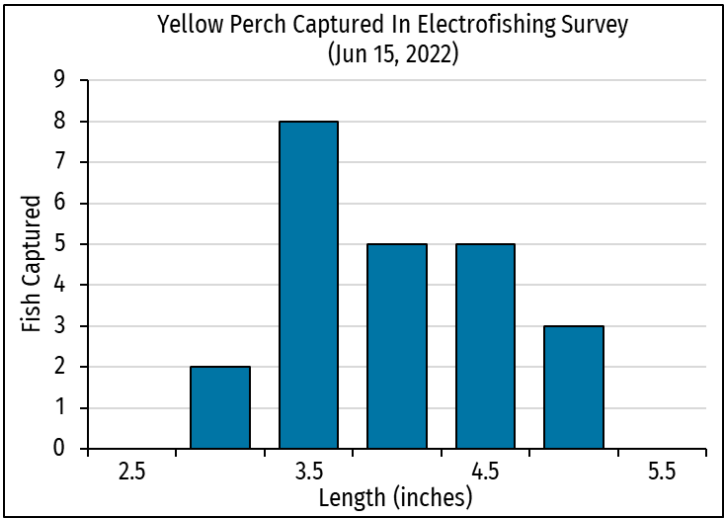
PUMPKINSEED



Pumpkinseed was the most common fish species, comprising nearly a third of the total catch. In contrast to the size structure of Bluegills and Black Crappies, the 33 Pumpkinseeds in our sample had a more typical length distribution. They ranged from 2.7 to 6.7 inches and averaged 5.0 inches long. The electrofishing catch rates of 55 Pumpkinseeds ≥ 3 inches per mile and 101 per hour portray low to moderate population abundance. Pumpkinseeds may offer the best hope for anglers to catch a meal of panfish in Saint Clair Lake. Nearly 16% of Pumpkinseeds ≥ 3 inches were 6-6.7 inches long, but none grew to 7 inches.

YELLOW PERCH

We captured 23 Yellow Perch that ranged from 3.3-5.1 and averaged 4.2 inches long. Most were less than 5 inches long, making them suitable forage for Largemouth Bass and Northern Pike but certainly not table fare for anglers. The catch rates for all sizes combined were 40 perch per mile and 73 perch per hour, but we don't know if late-spring electrofishing catch rates can represent perch population abundance.



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