Grand Portage is a medium hard water drainage lake with primarily sand and muck substrates. It has a surface area of 144 acres, 3.1 miles of shoreline, and a maximum depth of 31 feet. The Mercer DNR Fisheries Management Team conducted the following fishery surveys on Grand Portage Lake in 2015: an early-spring electrofishing survey targeting the walleye population, an early-spring fyke netting survey targeting muskellunge, a late-spring electrofishing survey to assess bass and panfish populations, and a summer fyke netting survey to assess panfish populations. 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, and reflect the percentage of the adult population sampled larger than the specified size.

During the targeted spring electrofishing survey we captured a total of 10 individual walleyes at a rate of 3.3 /mile. Walleyes ranged in length from 15.9” – 26.0” and averaged 19.4”. Eleven additional walleyes were sampled during non-targeted surveys are also included in the above figures to better depict the walleye population’s size distribution. These results suggest that adult walleyes are currently present in relatively low densities, although most walleye present are of quality size.
Although survey efforts did not target northern pike populations, northern pike were sampled at low capture rates during all surveys. Northern pike from all surveys ranged in length from 10.7” – 21.0”. These results suggest that northern pike are currently at low densities, and most individuals present are relatively small in size.

During our targeted early-spring fyke netting efforts we sampled a total of 5 individual muskellunge at a rate of 0.43/net-night. Muskellunge from this survey ranged from 31.0”- 46.0” inches and averaged 37.0”. Muskellunge were sampled during additional survey efforts and are included in the above figure to better represent the population size structure. These data suggest that muskellunge are currently present in low-moderate densities, and the population exhibits a balanced size structure.
The targeted late-spring electrofishing survey sampled a total of 40 largemouth bass at a rate of 12.2/mile. Largemouth bass ranged in length from 9.5” – 17.5” and averaged 13.0”. Largemouth bass were also consistently sampled during additional, non-targeted survey efforts throughout the spring. These results suggest that largemouth bass are currently present in low-moderate densities and most individuals in the population are relatively small.

A targeted summer fyke netting survey sampled a total of 132 black crappies at a rate of 32.8/net-night. Crappies ranged in length from 5.8” – 8.2” and averaged 7.5”. These results suggest that crappies are currently present in moderate-high densities, and most individuals are relatively small.
A targeted summer fyke netting survey sampled pumpkinseeds at a rate of 2.8/net-night. Pumpkinseeds ranged in length from 3.8” – 7.6” and averaged 5.1”. These results suggest that pumpkinseeds are currently at low densities and the population exhibits a relatively small size structure.

A targeted summer fyke netting survey sampled bluegills at a rate of 117.8/net-night. A total of 471 bluegills were sampled, of which a subset were measured that ranged in length from 3.0” – 7.6” and averaged 4.6”. Results from this survey suggest that bluegills are present in high densities but the population’s size structure is relatively small.
Additional Notes:

Most surveys conducted should accurately portray the status of fish populations. The early-spring fyke netting survey targeting muskellunge may be slightly under-representative of the adult muskellunge population abundance as a rapid warming trend immediately following ice-out likely caused some muskellunge to spawn prior to our targeted efforts. Regardless, data from non-targeted surveys also suggest that the muskellunge population is at a low-moderate density and exhibits a well-balanced size structure.

Yellow perch, bullheads, rock bass, and shorthead redhorse were also documented in low abundances during these surveys. For questions or additional results from 2015 survey work contact:

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