



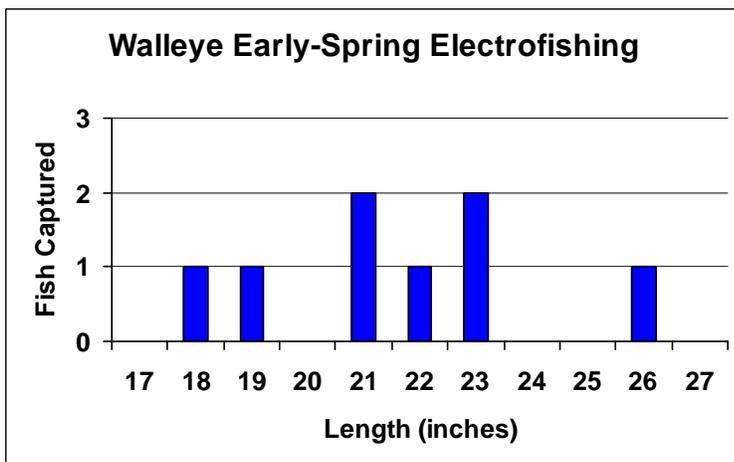
## Summary of Fishery Surveys Upper Clam Lake, Ashland County, 2011

The Mercer DNR Fisheries Management Team conducted the following fishery surveys on Upper Clam Lake in 2011: an early-spring electrofishing survey (April 23) to assess the adult walleye population, and a late-spring electrofishing survey (June 8) to assess the largemouth bass population and panfish community. 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 3 per mile $\geq 10''$	
Quality Size $\geq 15''$	100%
Preferred Size $\geq 20''$	75%
Memorable Size $\geq 25''$	13%

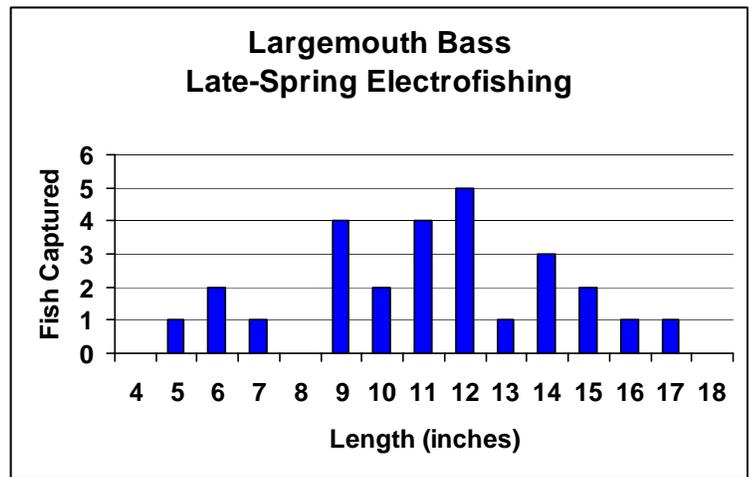


We captured only a few large adult walleyes at a very low rate (3 per mile) during the early-spring electrofishing survey; indicating a walleye population experiencing poor recruitment of young fish into the adult population. During several previous fall surveys, electrofishing capture rates of naturally produced young-of-the-year (YOY) walleye were very low, indicating poor natural reproduction. Alternate-year stockings of YOY walleye have been tried in an apparently unsuccessful attempt to bolster recruitment into the adult population. Upper Clam Lake walleye are currently managed under the statewide angling regulations (15-inch minimum length limit and 5-fish daily bag limit), which adequately protects young walleyes from harvest. However, anglers lucky enough to catch a legal-sized walleye are asked to voluntarily release them in order to promote increased numbers of adult fish in the population.

### Largemouth Bass



Captured 8 per mile $\geq 8''$	
Quality Size $\geq 12''$	57%
Preferred Size $\geq 15''$	17%

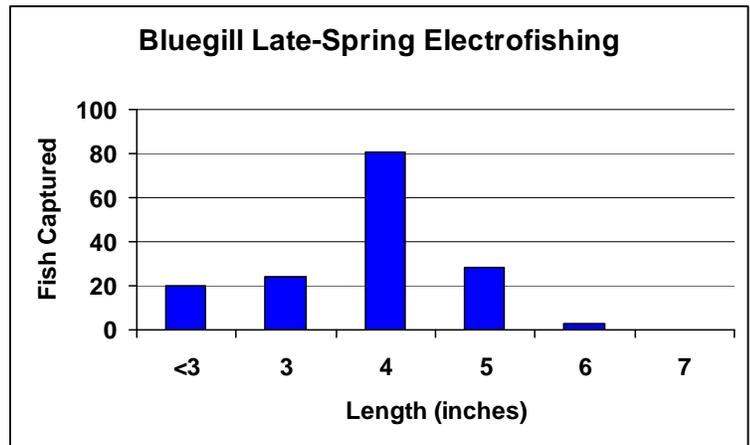


Largemouth bass  $\geq 8$  inches were captured at a low-moderate rate of 8 per mile during the late-spring electrofishing survey. The size structure of the population is considered good, with numbers of fish near, and exceeding, legal size (14 inches and longer). No smallmouth bass were captured or seen during either survey.

### Bluegill



Captured 136 per mile $\geq 3''$	
Quality Size $\geq 6''$	2%
Preferred Size $\geq 8''$	0%

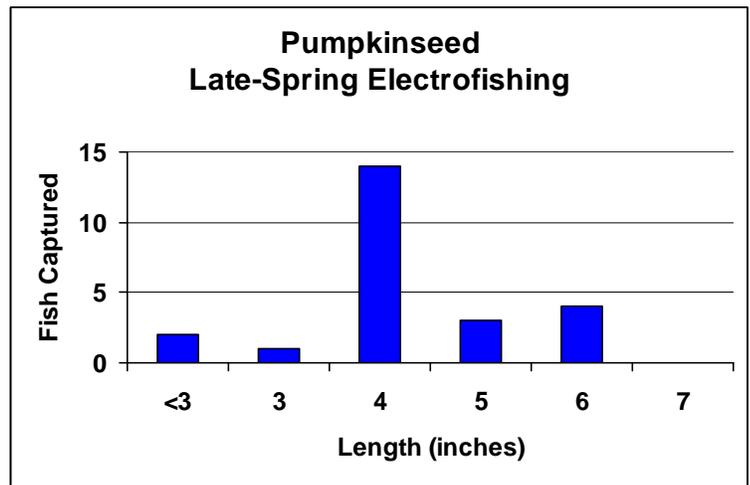


Bluegill  $\geq 3$  inches were captured at a very high rate of 136 per mile during the late-spring electrofishing survey. The size structure of the population was very poor, with no fish being of preferred size to anglers. The capture rate and size structure of bluegill we observed in this survey are indicative of an overabundant population. As a result, growth and size of all panfish species may be negatively affected due to high levels of competition for available resources.

### Pumpkinseed



Captured 22 per mile $\geq 3''$	
Quality Size $\geq 6''$	18%
Preferred Size $\geq 8''$	0%

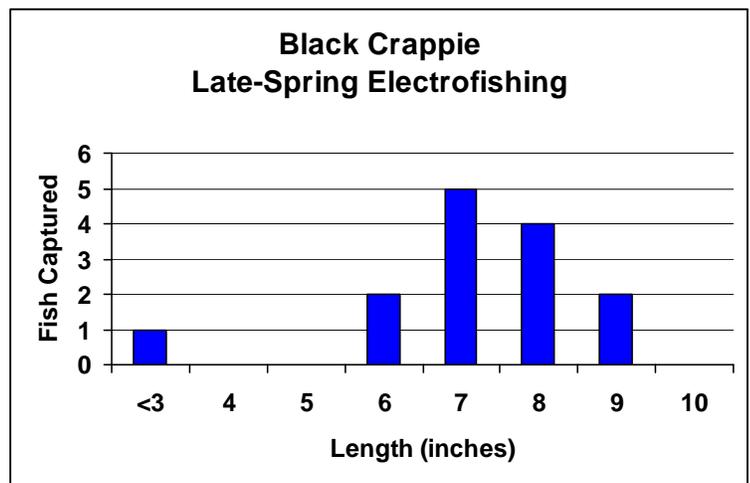


Pumpkinseed sunfish  $\geq 3$  inches were captured at a moderate rate of 22 per mile during the late-spring electrofishing survey. As with bluegill, the size structure of the population was very poor, with very few fish near an acceptable size to anglers.

### Black Crappie



Captured 13 per mile $\geq 5''$	
Quality Size $\geq 8''$	46%
Preferred Size $\geq 10''$	0%



Black crappie  $\geq 5$  inches were captured at a relatively low rate of 13 per mile during the late-spring electrofishing survey. The size structure of the population is considered fair, but numbers of crappie of an acceptable size to anglers are limited.

### Conclusions

The Upper Clam Lake fish community currently exhibits characteristics of a fishery in which apex predator populations (e.g., walleye and largemouth bass) are at insufficient levels to effectively control the overabundant prey populations (e.g., bluegill). As a result, bluegill (and other panfish species) growth and size are negatively affected as they compete with each other for limited space and food resources.

We are attempting to rectify this problem by continuing the walleye stocking program in Upper Clam Lake, with a new emphasis on stocking large fingerling walleyes in the fall, which may survive at a higher rate than small fingerlings stocked previously in late spring or early summer. This stocking strategy is intended to increase the number of predators known to be effective at preying upon young bluegills. If successful, we would expect to see a predator-prey fish community more in balance, and as a result, improved fishing quality for walleye and panfish. As another way to control bluegill numbers, we encourage anglers to harvest them (especially the smaller ones) and voluntarily release walleye, bass, and other large predators.

Other species captured during these surveys, but not reported here due to low abundance and/or sampling bias, included musky, northern pike, yellow perch, shorthead redhorse, white sucker, and a variety of minnow species.

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