Late-Spring Electrofishing Survey Summary
Augustine Lake, Ashland County, 2011

The Mercer DNR Fisheries Management Team conducted a late-spring electrofishing survey at Augustine Lake on June 13, 2011, as part of our baseline monitoring program. The entire 2.3-mile shoreline of the lake was surveyed for purposes of obtaining representative samples of the presumed bass and 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.

### Walleye

- Captured 9 per mile ≥ 10”
- Quality Size ≥ 15” 35%
- Preferred Size ≥ 20” 0%

![Walleye](image)

### Yellow Perch

- Captured 16 per mile ≥ 5”
- Quality Size ≥ 8” 0%
- Preferred Size ≥ 10” 0%

![Yellow Perch](image)
Summary of Results

Water temperatures during the survey were in the upper 60s. Weather conditions were clear and calm, however, a slight algal bloom and some pollen accumulation on the water’s surface affected visibility at a couple locations.

No bass were captured during this survey. Largemouth bass were stocked in 2003 and 2004 in an attempt to add an additional gamefish species to diversify the fishery. However, it appears that these stockings resulted in few, if any, largemouth bass surviving to adulthood, and no subsequent establishment of a self-sustaining population.

Although late-spring electrofishing is not designed to obtain a representative sample of walleye populations, walleye was the predominant gamefish species sampled. Due to sampling bias, walleye capture rate and size structure indices should not be compared with other populations sampled earlier in the spring. Walleyes were first documented in Augustine Lake during a 1996 survey. At that time, it was suspected that they had been illegally introduced into the lake. Regardless of how walleye got into the lake, this survey provides evidence that several year-classes are present in the current population. Since no reported stocking events have occurred, we can assume that some level of natural reproduction has taken place in past years. A 2010 fall electrofishing survey documented that natural reproduction of young-of-the-year walleye did occur at a relatively low level.

Yellow perch $\geq$ 5 inches were captured at a moderate rate of 16 per mile, but the size structure was poor. Late-spring electrofishing is not the best way to document the relative abundance and size structure of perch, but they were the predominant panfish species captured. The only other panfish captured were three black crappie, three rock bass, and one pumpkinseed sunfish. Other species captured included muskellunge, northern pike, white sucker, and golden shiner.

In light of the actual fish community composition at Augustine Lake, future baseline lake monitoring surveys should incorporate early-spring fyke netting, early-spring electrofishing, or both, in order to better assess the relative abundance and size structure of the most dominant species (percids).

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