



## Late-Spring Electrofishing Survey Summary Rice Lake, Iron County, 2013

### Survey Description

The Mercer DNR Fisheries Management Team conducted a late-spring electrofishing survey at Rice Lake on June 10, 2013. The entire shoreline of the lake (3.5 miles) was surveyed for purposes of obtaining representative samples of the bass and panfish populations. Water temperatures during the survey were in the upper 60s and weather conditions were calm. It was noted that largemouth bass appeared to be towards the end of their spawning activities, while bluegills appeared to be just beginning theirs (presence of males releasing milt and females being full of eggs). 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.

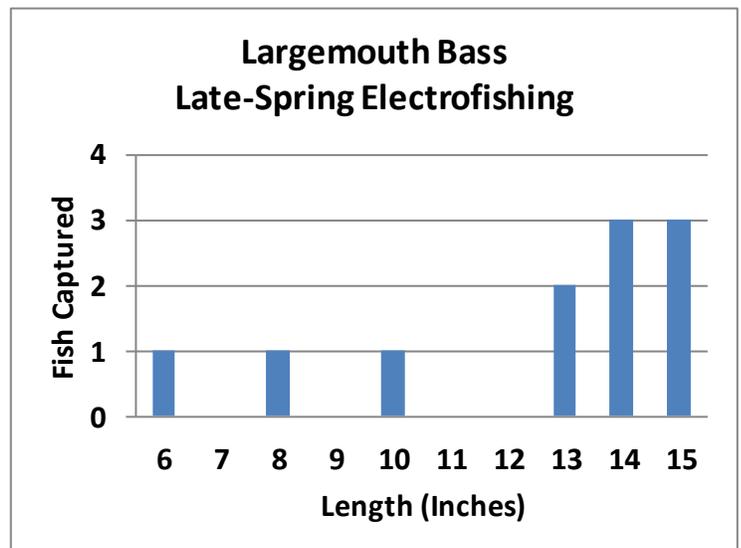
### Habitat Characteristics

Rice Lake is a 125-acre drainage lake (maximum and mean depths of 21 and 8 feet, respectively) with medium brown-stained water that is publicly accessible by small watercraft through the Turtle River. The littoral zone (near-shore area where light is able to penetrate to the lake bottom) substrates are comprised primarily of muck and sand with aquatic vegetation present at moderate to high densities (1970 WDNR Surface Water Resources of Iron County). The lake has moderate water clarity with Secchi disk transparency measurements averaging around 5 feet (WDNR citizen lake monitoring data 2009-2013). Nutrient analyses (e.g., phosphorus) have typically shown that Rice Lake is moderately productive (mesotrophic).

#### Largemouth Bass



Captured 3 per mile $\geq 8''$	
Quality Size $\geq 12''$	80%
Preferred Size $\geq 15''$	30%

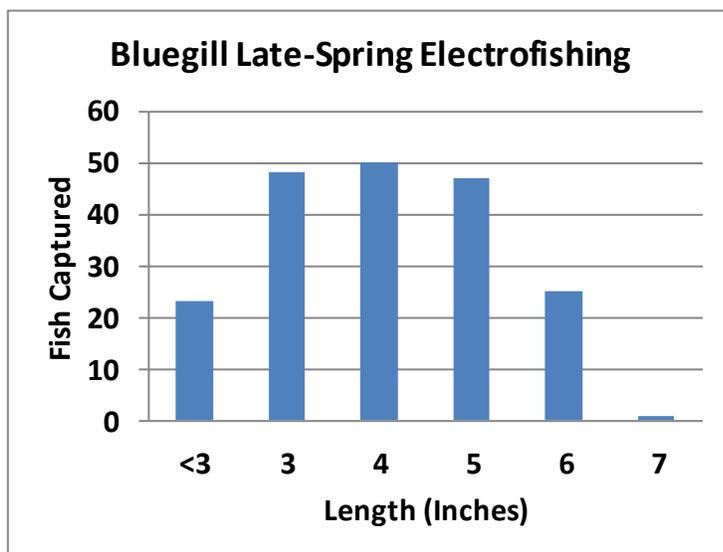


We captured largemouth bass at a low rate (3 per mile) during the early-spring electrofishing survey. Size structure of the population is considered good, although it is indicative of a population experiencing low levels of recruitment. No smallmouth bass were captured or seen during this survey.

### Bluegill



Captured 171 per mile $\geq 3''$	
Quality Size $\geq 6''$	15%
Preferred Size $\geq 8''$	0%

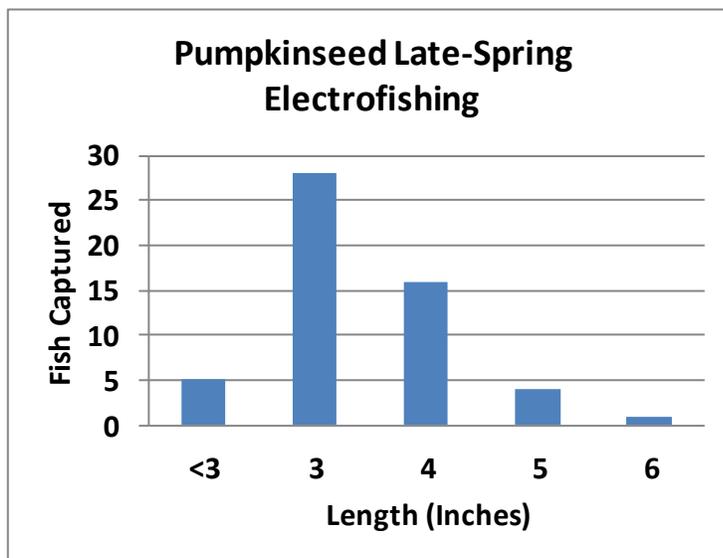


Bluegill  $\geq 3$  inches were captured at a high rate (171 per mile) during the late-spring electrofishing survey. The size structure of the population was very poor, with no fish being of preferred size to anglers. The capture rate and size structure of bluegill we observed in this survey are indicative of an overabundant population.

### Pumpkinseed



Captured 49 per mile $\geq 3''$	
Quality Size $\geq 6''$	2%
Preferred Size $\geq 8''$	0%

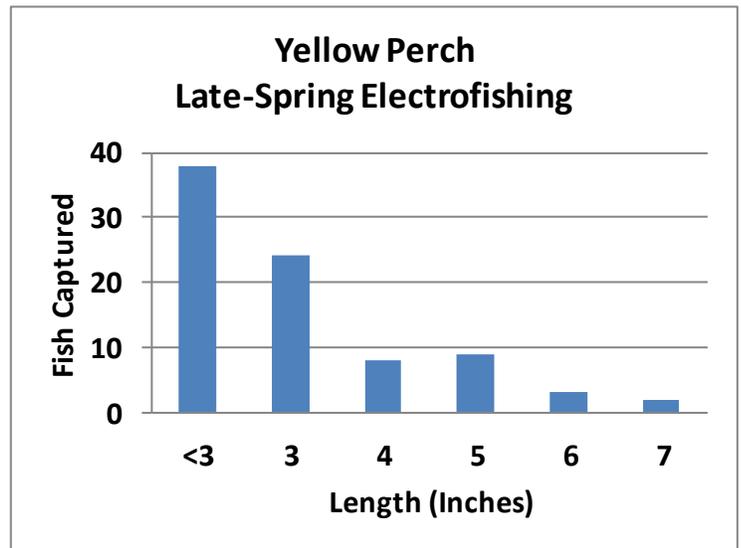


Pumpkinseed sunfish  $\geq 3$  inches were captured at a moderate rate (49 per mile) during the late-spring electrofishing survey. As with bluegill, the size structure of the population was very poor.

### Yellow Perch



Captured 14 per mile $\geq 5''$	
Quality Size $\geq 8''$	0%
Preferred Size $\geq 10''$	0%



Yellow perch  $\geq 5$  inches were captured at a low rate (14 per mile) during the late-spring electrofishing survey. Although late-spring electrofishing is likely not the best survey to obtain a representative sample of the perch population, the size structure of our sample was very poor.

### Conclusions

The Rice Lake fish community currently exhibits characteristics of a fishery in which apex predator populations (e.g., 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. In order to help rectify this problem, anglers are encouraged to release all predatory gamefish species (e.g., bass, walleye, pike, musky) to promote predation on young panfishes. Lowered abundances of panfish may promote increased panfish growth as a result of decreased competition for available resources. As another way to control bluegill numbers, we encourage anglers to selectively harvest the smaller ones while releasing the much fewer, larger fish.

Nine northern pike (16.5 – 23.9 inches), three muskellunge (16.0 – 24.9 inches), two walleye (14.5 and 20.5 inches), seven black crappie (3.0 – 9.2 inches), and two rock bass (3.8 and 4.1 inches) were also captured along with shorthead redhorse, white sucker, golden and common shiners, and central mudminnow. Data for these species are not displayed graphically here due to low sample size and/or sampling bias.

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