



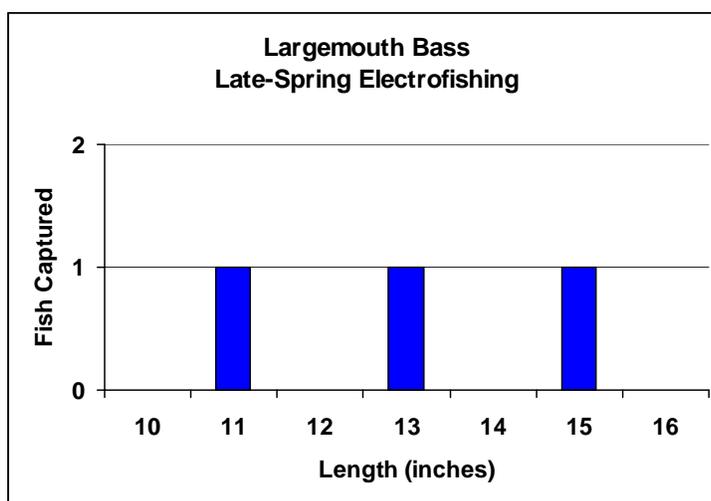
Summary of Fishery Surveys Long Lake, Iron County, 2011

The Mercer DNR Fisheries Management Team conducted the following fishery surveys on Long Lake in 2011: a late-spring electrofishing survey (May 31) to assess the bass community, and an early-summer fyke net survey (June 29 and 30) to assess the 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.

Largemouth Bass



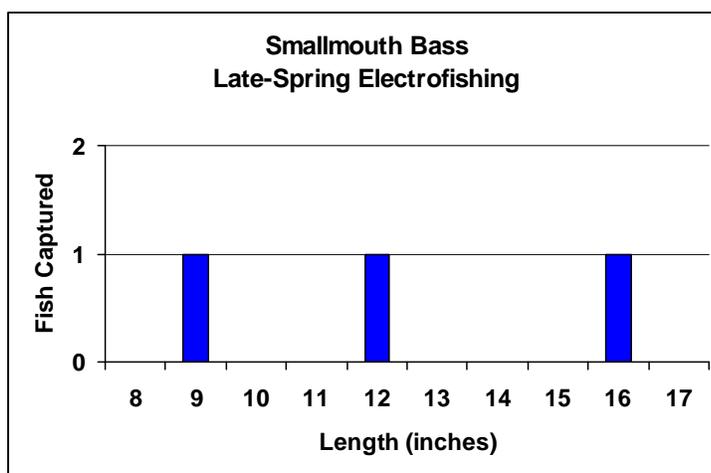
| | |
|----------------------------------|-----|
| Captured 0.5 per mile $\geq 8''$ | |
| Quality Size $\geq 12''$ | 67% |
| Preferred Size $\geq 15''$ | 33% |



Smallmouth Bass



| | |
|----------------------------------|-----|
| Captured 0.5 per mile $\geq 7''$ | |
| Quality Size $\geq 11''$ | 67% |
| Preferred Size $\geq 14''$ | 33% |

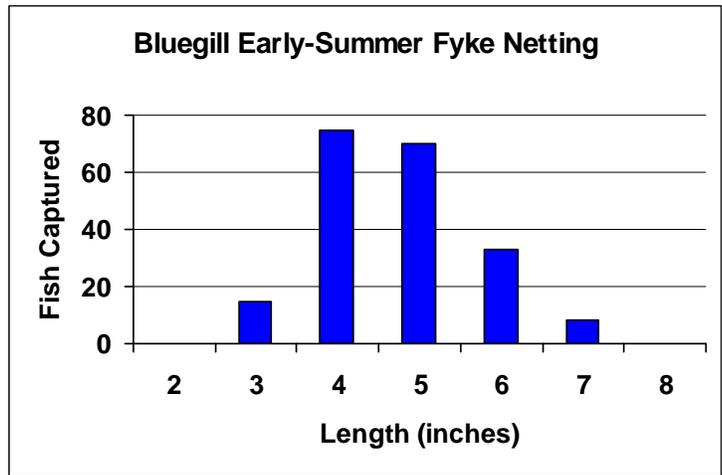


We captured largemouth and smallmouth bass at a very low rate of 0.5 per mile during the late-spring electrofishing survey. However, this was expected from previous survey (e.g., angler creel, electrofishing) information, which had indicated relatively low numbers of largemouth and smallmouth bass being present in Long Lake.

Bluegill



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|--------------------------------------|-----|
| Captured 99 per net-night $\geq 3''$ | |
| Quality Size $\geq 6''$ | 20% |
| Preferred Size $\geq 8''$ | 0% |

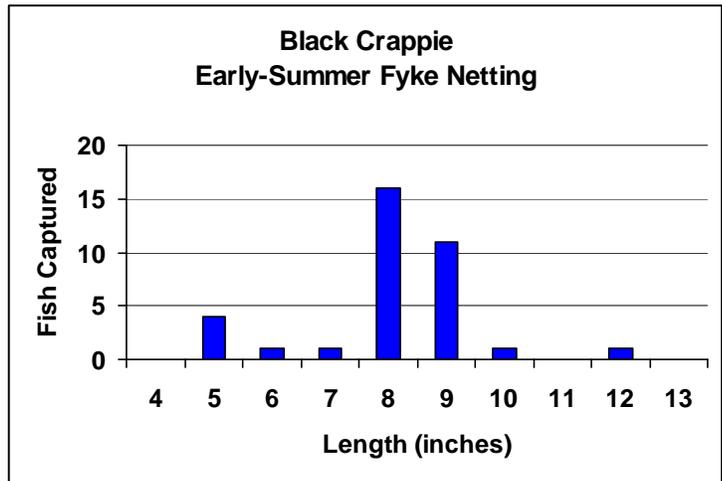


Bluegill ≥ 3 inches were captured at a high rate of 99 per net-night during the early-summer fyke netting survey. The size structure of the population was very poor, with no fish being of a preferred size to anglers. The capture rate and size structure of bluegill we observed in this survey are indicative 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.

Black Crappie



| | |
|-------------------------------------|-----|
| Captured 7 per net-night $\geq 5''$ | |
| Quality Size $\geq 8''$ | 83% |
| Preferred Size $\geq 10''$ | 6% |
| Memorable Size $\geq 12''$ | 3% |

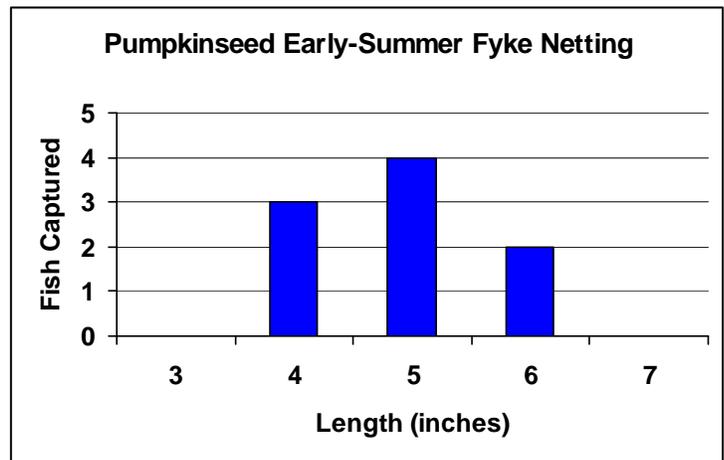


Black crappie ≥ 5 inches were captured at a relatively low rate of 7 per net-night during the early-summer fyke netting survey. The size structure of the population is considered fair, but numbers of crappie of a preferred size to anglers are limited. Capture rates of crappie by means of summer fyke netting may not be truly representative of the relative abundance present in the population. However, we do feel that the size structure of the crappie captured during this survey is representative of what is present in the current population.

Pumpkinseed



| | |
|-------------------------------------|-----|
| Captured 2 per net-night $\geq 3''$ | |
| Quality Size $\geq 6''$ | 22% |
| Preferred Size $\geq 8''$ | 0% |



Pumpkinseed sunfish ≥ 3 inches were captured at a low rate of 2 per net-night during the early-summer fyke netting survey. The size structure of the pumpkinseed captured was very poor, with few fish near an acceptable size to anglers.

Conclusions

Results from this survey and previous surveys suggest that the Long Lake fish community currently lacks the number of apex predators (walleye and largemouth bass) needed to adequately control bluegill abundance. As a result, bluegill (and potentially other panfish species) growth and size may be negatively affected as they compete with each other for limited space and food resources. Age and growth analyses would need to be completed to confirm these suspicions. Other factors, such as high angler harvest, could also be limiting the proportion of acceptable-size panfish (especially for crappie, based upon recent angler creel information).

In cooperation with the Long Lake Association, we are attempting to rectify the imbalance between predators and prey by now focusing walleye stocking efforts on large fingerling walleye (6-8 inches long). Large fingerlings, stocked in the fall, should contribute better to the adult walleye population than the small fingerlings (~ 2 inches long) stocked in past years during either late spring or early summer. If our revised stocking strategy is 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.

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

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