



Lake Shelbyville

2015 Lake Status Summary



Location: Lake Shelbyville is located in Shelby and Moultrie Counties in east-central Illinois. This lake has a surface area of 11,100 acres, with a maximum depth of 67 feet, and an average depth of 18 feet. Numerous public boat launching facilities are available, with a fee assessed on developed U.S. Army Corps of Engineers (USACE, 217/774-3951) access area boat ramps, and free access on IDNR state park or USACE gravel boat ramps. An annual fish attractor project is coordinated by the USACE in coordination with the Illinois Department of Natural Resources (IDNR) in early March. All fishing tournaments require a permit from the USACE office. Lake Shelbyville is home to at least 32 species of fish. In addition to the lake, a popular fishery exists in the Kaskaskia River just below the spillway and in both the West Okaw and Kaskaskia Rivers upstream of the lake. In cooperation between the USACE and the IDNR, two nursery ponds, 6.5 and 0.7 acres, are utilized to improve fishing quality in Lake Shelbyville. Many other recreational opportunities exist on or near the lake, including camping, swimming, hiking, and more.

Largemouth Bass – fair – Due to concerns over the quality of this bass fishery, two additional fish population surveys were completed to determine if the timing of sampling efforts was affecting the results obtained. Although analyses are not completed, it does not appear that survey timing is an issue. Despite good natural reproduction and recruitment in most recent years, the recruitment of bass age-3+ to larger sizes has not been as high as expected, with the reason unknown. This is being investigated through a variety of resources. The 2014 year class was represented by 194 young bass collected through electrofishing during the fall survey, ranging in size from 2 to 5 inches. This is a lower catch rate than in 2013. The number and collection rate of bass, age 1+ and older, collected in the 2014 fall fish population survey (66/hr.) was much higher than the number and rate collected from the 2013 (31/hr.) 2012 (34/hr.) and the 2011 (46/hr.) surveys. This is in part due to the good recruitment of the strong 2013 year class. Size structure indices were improved somewhat, again due in part to good recruitment of the 2013 year-class. The size structure indices for fish larger than 15 inches did not improve due to lower than desired numbers of larger bass collected. The largest bass collected during the 2014 fall survey was 20 inches and weighed 4.2 lbs. The body condition for largemouth bass (Relative weight "Wr" = 95) was good. From survey data, the average size of largemouth bass, 14 inches and longer, is expected to be 15.6" and weigh about 1.9 lbs. in spring 2015. For these reasons, the largemouth bass fishing prospects for 2015 are projected to be fair (but improved) for the number of fish available and fair for size structure of the population.

Smallmouth Bass – poor - Recent attempts to establish a self-sustaining population of smallmouth bass in Lake Shelbyville from the Kaskaskia River population have not produced expected results. Although anglers are catching a few of the stocked smallmouth bass, there has been no indication of natural recruitment. In 2014, 188 fingerling smallmouth bass, ranging from 4-8+ inches, were stocked into the lower part of the lake. Fishing prospects for smallmouth bass are poor due to low stocking rates and a lack of natural recruitment. Anglers are encouraged to release any smallmouth bass caught immediately to improve their chances of survival.

Crappie – Excellent – Recent years of heavy rain and prolonged floods have boosted both the growth rate and recruitment of crappie in Lake Shelbyville. The improved number and size has resulted in unprecedented catch rates of crappie from the lake in recent history. Angler catch rates and size structure have remained good to excellent from 2012 through 2014! The catch rates of all sizes of white crappie in the 2014 fall survey were much improved, with a total of 382 collected. Catch rates of black crappie were slightly higher than 2013, with 369 collected. The size structure of the white crappie collected was good, with 52% being 10 inches or longer. In addition, 18% of the black crappie collected were 10 inches or longer, which is similar to 2013, but an improvement over previous years. Body condition was good indicating the potential for continued good growth and recruitment. The majority of white crappie available in spring 2015 will be from 9.5 – 11.0 inches, with 11 and 12-inch fish fairly abundant. The majority of black crappie available in spring will be from 8.5 – 10.0 inches, with 10-inch fish fairly common. Anglers have reported catching white crappie up to 15 inches and black crappie up to 12 inches. The fishing prospects for crappie are expected to remain excellent for both the number of fish available and size structure in 2015! Anglers are encouraged to keep their limit of five (5) crappie less than 10 inches to continue thinning this population for improved growth. In addition, voluntarily limiting the harvest of large crappie (>12") will also contribute to a higher quality fishery.

White Bass – excellent – There has been concern over the white bass population on Lake Shelbyville, with poor body condition in fall of 2012 (Relative weight, "Wr" = 72) and significantly reduced numbers in 2013. Disease and parasite analysis did not determine the cause of this situation. The fishery has improved quickly, with body condition improving to a modest average Wr of 87 by fall 2013 and 84 in 2014. The total catch of white bass in the fall fish population survey improved significantly to 309 compared to only 31 in 2013. This is similar to the catch rates experienced in 2011 and 2012. Of the adult white bass collected this fall, 54% exceeded 12 inches! Fish up to 15+ inches were collected. Fishing reports ranged from primarily poor to fair for white bass in 2014, which improved significantly into late fall. The fishing prospects for white bass are expected to be much improved and are rated excellent for both the number of fish available and for size structure in 2015. Although body condition indices do not indicate so, these fish are chunky.

Walleye – good - excellent – A strong year class of walleye is moving into the fishery for 2015. This is a result of annual stocking in addition to what appears to have been natural recruitment in spring 2013. Much of this year class will exceed 14 inches by spring. A greater number of walleye (n=76), with a wide size range, were collected in the standard fall survey. This is nearly double the average collected in the three previous years, 2013 (44), 2012 (35),

and 2011 (38). The walleye collected in the standard fall survey ranged from 7 to 25+ inches, with the largest weighing 5.8 lbs. Unlike largemouth bass, white bass, and crappie the body condition of walleye has been very consistent body (Relative weight, "Wr" = 83) over the past four years and these fish look healthy. The size structure was good with about 45+% of the fish collected in the fall survey exceeding 14 inches, 35+% exceeding 15 inches, and 22% exceeding 18 inches. These values are lower than 2013 due to the strong year class, including some fish shorter than the length limit, moving into the fishery. Two stocking success surveys were completed, one in October, the other in November. The catch rate of walleye was not as impressive as in 2013, but walleye were collected at the rate of 28/hr. and 46/hr. respectively. The catch was comprised primarily of age1+ fish which will make up the bulk of the fishery in 2015. This compares to catch rates during the 2013 (116/hr.), 2012 (24/hr.), 2011 (35/hr.), 2010 (18/hr.), 2009 (64/hr.), 2008 (19/hr.), 2007 (34/hr.), 2006 (11/hr.), and 2005 (24/hr.) stocking success surveys, which were often comprised primarily of young-of-the-year fish. The walleye collected in the 2014 stocking success survey ranged from 7 to 22 inches, with the largest weighing 3.9 lbs. As predicted many of the 2013 year class were reaching legal size by fall 2014. From survey data, the average size of walleye, 14 inches and longer, is expected to be 16.5 - 18" and weigh about 1.5 - 2 pounds in 2015. The walleye fishing prospects for Lake Shelbyville and the Kaskaskia River (above the lake) are rated as excellent for the number of fish available and good for size structure in 2015 and are expected to get better! Fishing prospects below the spillway for walleye are expected to be good for the number of fish available and good to excellent for size structure in 2015.

Sauger - fair – Previous introductory stockings of sauger, from 2006 through 2010, have contributed significantly to the fishery in the past two years. In addition, many sauger were reported caught in the Kaskaskia River above the lake in early to mid-spring. In 2014, an additional 256,000 sauger were produced in the Fins & Feathers Nursery Pond and stocked into the lake. During the 2014 standard fall survey, 39 sauger were collected (3.2/hr.), ranging from 5 to 17 inches. These catch rates are much higher than 2013, which was expected due to the high number of fish stocked. In the two 2014 stocking success surveys, sauger were collected at the rate of 43 and 26 fish per hour of effort and ranged from 5 to 18 inches. Again, most were young-of-the-year fish. Catch rates during the 2013 (14/hr.) 2012 (12/hr.), 2011 (29/hr.), and 2010 (25/hr.) stocking success surveys all exceeded stocking success goals. The largest sauger collected in either survey weighed about 2.1 lbs. The average size of sauger, 14 inches and longer, is expected to be 16" and weigh about 1.0 lbs. in 2015. The fishing prospects for sauger in the lake should be good for the number of fish available and fair for size structure in 2015. Fishing prospects in the river below the spillway should be good for both number and size structure on 2015.

Muskellunge – poor - Only three (37) muskies were collected in the 2014 fall fish population survey with the largest fish being 32". This is a lower catch rate than 2013 and 2012, when 7 and 11 fish were collected, respectively. Despite recent increases in the number of muskie stocked, there has been little improvement in this fishery on Lake Shelbyville. Although angler catch rates for muskie have improved below the spillway, catch rates on the lake were poor in 2012 through 2014 for most anglers. There was a report of a 50" muskie caught below the spillway in December, 2013. Fishing prospects for muskie in 2015 are expected to remain poor on the lake for the number of fish available and size structure, but still good to excellent for size and number below the spillway.

Channel Catfish / Flathead Catfish – fair – Only eighteen (18) channel catfish were collected in the 2014 fall survey with the largest being 30+ inches and 9.7 lbs. Only four (4) flathead catfish were collected, with the largest being 30+ inches and 12.6 lbs. Catfish recruitment in Lake Shelbyville and the Kaskaskia River above the lake has been relatively poor in recent years. Moderate catches of larger fish are reported by fishermen, especially on trot lines. Fishing prospects for channel and flathead catfish on the lake in 2015 are poor to fair for the number of fish available and fair to good for size structure. Fishing prospects for catfish below the spillway are somewhat better, especially for flatheads.

Bluegill – poor – Despite the positive effects of floods on the growth rates and body condition of other species, the bluegill population has been relatively unaffected. Although catch rates are good, the size structure of the bluegill population is poor with a very low percentage of bluegill exceeding 7 inches. Their body condition is slightly below average and not conducive for good growth (Relative weight, "Wr" = 92). Fishing prospects for bluegill and other smaller sunfish species (green sunfish and longear sunfish) on Lake Shelbyville is expected to remain poor in 2015.

Other Species of Fish – Many other species of fish occupy Lake Shelbyville and are often underutilized by fishermen. **Yellow bass** are very abundant, but rarely get longer than 9 inches. There are very good to eat and despite the small size some fishermen keep as many as possible for this reason. **Common carp** are abundant, and reach lengths of 26 inches and 8+ lbs. They are a common target of bow fishermen. When common carp are canned, they are said to make a good substitute for canned salmon. They are very good when smoked as well and smaller fish can be scored and fried. **Freshwater drum** are abundant from 0.5 to 3 lbs. They are occasionally used to make "Poor-man's shrimp", when filleted, sliced vertically, and quickly boiled with a small amount of sugar added to the water. A fishery for jumbo **bigmouth buffalo** (up to 20+ lbs.) is getting more attention. Despite being primarily planktivores, these abundant and large fish can be targeted along drop-offs with jigging spoons and put up a great battle when hooked. Some guides occasionally book trips for buffalo. Although bony, they too can be scored and fried (smaller fish), canned, or smoked and have a milder flavor compared to carp.

Regulations – See the Illinois Fishing Information guide for a complete list of regulations for Lake Shelbyville and other USACE and IDNR project ponds and lakes. Regulations signs are posted at all boat ramps and major access points. Questions or concerns can be directed to Mike Mounce, IDNR Fisheries, 217-345-2420.

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