



# Lake Shelbyville

## 2018 Lake Status Summary



**Location:** Lake Shelbyville is located in Shelby and Moultrie Counties in east-central Illinois. This lake is 11,100 acres, with a maximum depth of 65 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) on the third Saturday in March. All fishing tournaments on USACE ramps require a permit from the USACE office as well as an IDNR permit. 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, hunting, swimming, hiking, and more.

**Largemouth Bass – fair - good** – Despite good natural reproduction and recruitment in most recent years, the recruitment of bass, age-3+ (14-15”+) to larger sizes, has been much lower than expected, with the reason likely due to largemouth bass virus. The 2017 year class was very well represented with 426 young bass collected during the 2017 standardized fall survey, ranging in size from 2 to 8 inches. This is a much higher catch rate than in 2016 (n=103). The collection rate of bass, age 1+ and older, collected in the 2017 fall fish population survey (24/hr.) was much lower than the number and rate collected from the 2016 (32/hr.), 2015 (52/hr.), and 2014 (66/hr.) surveys, due in large part to poor recruitment of the 2016 year class. Despite these results anglers reported some improvement in their catch. Recruitment of the 2016 and 2015 year classes were fair and good, respectively. This is expected given collection rates of YOY from those years. Size structure indices (PSD 64) were all higher compared to 2016 (PSD 46) largely due to poor recruitment of the 2016 year-class and slightly improved catch rate of bass longer than 12-inches. The size structure indices for fish longer than 16 inches were higher than 2016 as well. The largest bass collected during the 2016 fall survey was 20 inches and weighed 5 lbs. The body condition for adult largemouth bass (Relative weight “Wr” = 99) similar to 2016, indicating good forage density and possibly improved growth. From survey data, the average legal-size bass is expected to be 16” and weigh about 2.4 lbs. in spring 2018. For these reasons, the largemouth bass fishing prospects for 2018 are projected to be good for the number of fish available and fair for size structure of the population with potential again for moderate improvement.

**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. 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 the survival of these valuable stocked fish.

**Crappie – excellent** – Forage conditions were ideal in 2017 and most crappie appeared to have been able to capitalize on this opportunity, as evidence by outstanding body condition observed (Wr ~97, both species). The number of crappie available to anglers, longer than 10 inches, should improve significantly through 2018. Fall and winter fishing reports in 2017 have been very outstanding. Body condition was good for white crappie indicating the potential for continued good growth and recruitment. The majority of white crappie available in spring 2018 will be from 9.0 – 12.9 inches (avg. 10.9”), with the abundance of 13 and 14-inch fish improved. The majority of black crappie available in spring will be from 9 – 10+ inches (avg. 10.6”), with fish to 12 inches present. These fish will have an average weigh of approximately 0.65 lbs. 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 be excellent for both the number of fish available and size structure in 2018. Anglers are encouraged to keep their limit of five (5) crappie less than 10 inches, especially the more abundant black crappie. Thinning the number of smaller fish, especially those less than 9.5 inches”, will help improve growth and recruitment to larger sizes.

**White Bass – excellent** – The white bass population on Lake Shelbyville appears to be rebounding and stabilizing since the population crash in 2012-'13. Body condition was slightly improved over past years, with a WR value of 88. The total catch of white bass in the 2017 fall fish population survey was significantly higher (n=236) compared to 74 in 2016 and 166 in 2015. Size structure was much improved, with prospects for the average size fish, 10" and larger, being 12.5" and 0.85 lbs. in 2018. Fishing reports were much improved for white bass in 2017. The fishing prospects for white bass are expected to be improved over 2017 and are rated excellent for the number of fish available and excellent for size structure in 2018.

**Walleye – good** – The collection rate of walleye varied highly among surveys, but several very large fish were collected in 2017 and two strong year classes appear to be developing (2016 and 2017). Two eight pound and one nine pound walleye were collected in fall surveys. All three fish measured 27 inches. Although the 2016 year class was not well represented in the standardized fall and stocking success surveys, fishermen catch rates were good in spring, summer, and late fall in 2017. A much higher number of walleye (n =97) were collected in the standard fall survey as compared to 2016 (10). This is well above the average collected (x = 49) in the four previous years, 2015 (n = 66), 2014 (n = 76), and 2013 (n = 44). The walleye collected in the standard fall survey ranged from 6 to 27+ inches, with the largest weighing 8.4 lbs. As with most species the body condition of walleye improved in 2017 (relative weight, "Wr" ~ 86). Body condition had been consistently 83 over the previous seven years. One stocking success survey was completed in October with walleye collected at the rate of 18 fish/hr. This compares to catch rates during the 2016 (15/hr.), 2015 (14/hr.), 2014 (26/hr.). The walleye collected in the 2016 stocking success survey ranged from 9 to 27 inches, with the largest weighing 9.1 lbs. From survey data, the average "legal-size" walleye is expected to be 22" and weigh about 4.4 pounds in 2018. There may be more 14 and 15" fish in the catch than survey data indicates. The walleye fishing prospects for Lake Shelbyville and the Kaskaskia River (above the lake) are rated as good - excellent for the number of fish available and good - excellent size structure in 2018! Fishing prospects below the spillway for walleye are expected to be good for the number of fish available and excellent for size structure in 2018. This should be another good year for catching a huge walleye (26"+) in Lake Shelbyville.

**Sauger – good - excellent** – Previous introductory stockings of sauger, from 2006 through 2010, have contributed significantly to the fishery in past years. In addition, many sauger were reported caught in the Kaskaskia River, both above and below, 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 which has contributed significantly to the fishery in the past two years. An additional 157,000+ fingerlings were stocked in 2017 from IDNR hatcheries. During the 2017 standard fall survey, only 16 sauger were collected, ranging from 7 to 19 inches. In the 2017 stocking success survey, sauger were collected at the rate of 5 fish per hour of effort and ranged from 9 to 20+ inches. Most were age-4+ fish from those stocked in 2014, but a few of the sauger stocked in 2017 were collected. The largest sauger collected in either survey was 20 inches and weighed 2.7 lbs. In 2017, the average "legal-size" sauger is expected to be 18"+ and weigh about 1.7 lbs. The fishing prospects for sauger in the lake should be good for the number of fish available and excellent for size structure in 2018. Fishing prospects in the river below the spillway should be good for both number and size structure on 2018.

**Muskellunge – poor & excellent** – No musky were collected in the 2017 standard fall fish population or stocking success surveys. Despite recent increases in the number of muskie stocked, there has a steady decline in the catch rate in fish population surveys on Lake Shelbyville. Although angler catch rates for muskie have been consistent below the spillway, catch rates on the lake were poor in 2012 through 2017. For unknown reasons, fishing prospects for muskie in 2018 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 - good** – Only three (5) channel catfish were collected in the 2017 fall survey with the largest being 29+ inches and 8.4 lbs. Only six (6) flathead catfish were collected, with the largest being 33+ inches and 17 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 2018 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 - fair** – 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. A few bluegill near the 8-inch range were collected in 2016. Fishing prospects for bluegill and other smaller sunfish species (green sunfish and longear sunfish) on Lake Shelbyville is expected to remain poor-fair in 2018.

**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. They are very good to eat and despite the smaller size some fishermen keep as many as possible. **Common carp** are abundant, and reach lengths of 25+ 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. Although bony, they too can be scored and fried (smaller fish), canned, or smoked and have a more-mild flavor compared to carp. **Gizzard shad** are the primary forage, were exceptionally abundant, and had a wide range of sizes in 2017. This helped improve the growth and body condition of piscivorous (fish-eating) species like largemouth bass, crappie, walleye, sauger, white bass, yellow bass, and catfish into early 2018.

**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.

**News** - The Lake Shelbyville Fish Habitat Alliance (LSFHA) was formed in 2017 with the purpose to apply to granting agencies for funding to improve angling quality on the Lake Shelbyville. Many individuals, fishing clubs, tournament organizers, businesses, non-governmental organizations, municipalities, and governmental agencies came together to form and support the LSFHA.

Fund raising prior to and after organization, resulted in enough funds received to build 262 Lake Shelbyville cubes and Georgia cube fish attractors, which have been placed in the lake. So far the cubes have been paying off very well, with numerous reports of good catches coming from the cubes. Large numbers of fish are congregating on the structures in as little as two days after deployment!

The LSFHA successfully applied for a grant to the “Friends of Reservoirs” and will receive \$30,000 to further the cause of developing fish habitat in summer or early fall 2018. Additional funding sources have been identified and will be pursued in 2018 and 2019. In addition to the cube attractors, an aquatic plant nursery was developed by the USACE, and 100s of plants produced and planted into Lake Shelbyville. These plantings are protected by wire-mesh enclosures which can be found in each of the major arms of the lake. Results and activities can be observed on our Facebook page; Lake Shelbyville Fish Habitat Alliance. Check us out and give us a “**LIKE!**” Watch for future structure building events this coming year, as several are planned!

January 22, 2017