

2014 Lake Shelbyville Fishing Prospects By IDNR Fisheries Biologist Mike Mounce

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 18.9 feet. Numerous public boat launching facilities are available, with a fee assessed on U.S. Army Corps of Engineers (USACE, 217/774-3951) developed access area boat ramps, and free access on 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 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.

Largemouth Bass – fair – Although this lake has been a popular tournament destination, catch rates by tournament and individual anglers from summer 2012 through 2013 were comparatively poor. Few limits were weighed in at tournaments and total weights in the upper teens or less won most tournaments. Bigger bass weighed into the larger tournaments ranged from 4.8 to 6.6 lbs. A bass weighing over eight pounds was reported in late fall 2012.

The 2013 year class was represented by 441 young bass collected through electrofishing during the fall survey, ranging in size from 2 to 9 inches. The ratio of fingerlings to adult largemouth bass was very high in this fall's survey. These fingerlings should recruit well into this fishery and help improve fishing quality.

The number of bass, age 1+ and older, collected in the 2013 fall fish population survey (31/hr.) was lower than the number collected from the 2012 (34/hr.) and the 2011 (46/hr.) surveys. Size structure indices were not within management objectives due in part to poor recruitment of the 2012 year-class and lower than desired numbers of larger bass collected. The largest bass collected during the 2013 fall survey was 20 inches and weighed 4.4 lbs. Average body condition for largemouth bass (Wr "relative weight" = 97) was much improved over fall in 2012.

Despite good natural reproduction and recruitment in most recent years, the number of large fish collected in fish population surveys and the number caught by fisherman has not been as high as expected. Recruitment of yearling bass to larger sizes appears to have been hampered by unknown reasons and is being investigated through a variety of resources. From survey data, the average size of largemouth bass, 14 inches and longer, is expected to be 15.5-16" and weigh about 2 lbs. in spring 2014. For these reasons, the largemouth bass fishing prospects for 2014 are projected to be fair for the number of fish available and fair to good for size structure of the population.

Smallmouth Bass – poor - Recent attempts to establish a founding population of smallmouth bass in Lake Shelbyville from the Kaskaskia River population have not produced expected results. Although anglers are seeing and 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 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 numbers and improved recruitment to larger sizes, coupled with warm recent winters have resulted in unprecedented catch rates of crappie from the lake.

Angler catch rates and size structure remained good throughout the summer and fall in both 2012 and 2013. The catch rates of both white crappie and black crappie in the 2013 fall survey were much improved, with 190 and 334 collected, respectively. The size structure of the white crappie collected was good, with 46% being 10 inches or longer. Only 17% of the black crappie collected were 10 inches or longer, but this is an improvement over the past two surveys when only 10 and 7% were 10 inches or longer. Body condition improved significantly for both species over 2012 indicating the potential for continued good growth and recruitment.

The majority of white crappie available in spring 2014 will be from 9.5 - 10.5 inches, with 11 and 12 inch fish fairly abundant. The majority of black crappie available in spring will be from 8.5 - 9.5 inches, with 10-inch fish 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 2014!

White Bass – fair – There is some concern over the white bass population on Lake Shelbyville. Body condition was very poor in fall of 2012 ($Wr = 72$) and continued into spring 2013. Fish collected for disease and parasite analysis did not indicate that either of these were likely reasons for poor body condition. Body condition improved to a modest average Wr of 87 by fall 2013. Although there were no visual indications of a significant kill of white bass, the catch rates of white bass in the fall fish population survey (total $n = 31$) were significantly reduced over the 2012 and 2011 surveys when 416 and 226 fish were collected, respectively. Although the number of adult white bass collected was low, of those collected, 62% exceeded 12 inches.

Fishing reports ranged from primarily poor to a few good reports for white bass in 2013, which improved into fall. Reports from guides indicated that there were some fish in the 10 inch range and some very large and healthy looking fish in the 12inch+ range. The fishing prospects for white bass are expected to be fair for the number of fish available and good-excellent for size structure in 2014.

Walleye – good – Significant late spring and summer flooding curtailed what should have been a very promising year for catching large walleye on Lake Shelbyville. A very few anglers reported catching limits and some large walleye, but most reported catching few walleye or caught primarily sauger instead. Walleye have a tendency to move into heavy cover during high flood events, making them less vulnerable to standard angling methods.

A greater number of walleye (44), with a wide size range, were collected in the standard fall survey. This compares very well to 35 collected in 2012 and 38 collected in 2011. The walleye collected in the standard fall survey ranged from 7 to 25+ inches, with the largest weighing 6.4 lbs. Unlike largemouth bass, white bass, and crappie the body condition of walleye has been very consistent ($Wr = 83$) over the past three years. The size structure was good with about 81% of the fish collected in the fall survey exceeding 14 inches, 76% exceeding 15 inches, and 38% exceeding 18 inches.

For the stocking success survey conducted in October, the catch rate of walleye exceeded significantly all recent surveys, with 116 walleye collected per hour of electrofishing effort! In comparison, although good to very good, catch rates during the 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 fell below to well below this rate. All met or exceeded stocking success goals. The walleye collected in the 2013 stocking success survey ranged from 7 to 26 inches, with the largest weighing 7.9 lbs. Like the stocking success surveys in 2012 and 2011, this sample was comprised primarily of age-0+ walleye. These fingerlings are expected to start reaching legal size by fall in 2014.

From survey data, the average size of walleye, 14 inches and longer, is expected to be 18.5" and weigh about 2 pounds in 2014. The walleye fishing prospects for Lake Shelbyville and the Kaskaskia River above the lake are rated as good for the number of fish available and excellent for size structure in 2014 and are expected to continue to get better! Fishing prospects below the spillway for walleye are expected to be fair, but somewhat improved, for the number of fish available and good to excellent for size structure in 2014.

Sauger - fair to good – From 2006 to 2009, a relatively small number of sauger were stocked annually in an attempt to produce a self-sustaining population. In 2010, 106,500+ sauger were stocked in the lake from the USACE Fins & Feathers Nursery Pond and the IDNR's LaSalle Fish Hatchery. These fish have contributed significantly to the fishery in 2013. No significant evidence suggests that sauger have developed a self-sustaining population in Lake Shelbyville as relatively few fingerlings were collected in 2013.

Catch rates during the 2012 (12/hr.), 2011 (29/hr.), and 2010 (25/hr.) stocking success survey all exceeded stocking success goals. In the 2013 stocking success survey, 14 sauger/hr. were collected, ranging from 7 to 17 inches. Most were legal-size fish. Only six sauger were collected in the 2013 standard fall survey (0.5/hr.), ranging from 8 to 17 inches. The largest sauger collected in either survey weighed about 1.5 lbs.

Sauger from previous stockings were being targeted by a few fishermen during late spring and early summer in 2013 and a few limits were caught on Lake Shelbyville. One sauger caught by a lake fishing guide was reported to be only a few ounces shy of the current state record of 5 lbs.-12.5 oz. Many sauger were reported caught in the Kaskaskia River above the lake in early to mid-spring. The average size of sauger, 14 inches and longer, is expected to be 16.5" and weigh about 1.2 lbs. in 2014. The fishing prospects for sauger should be fair to good for the number of fish available and good for size structure in 2014, in the lake, the river above the lake, and in the river below the spillway.

Muskellunge – poor - fair- Only seven (7) muskies were collected in the 2013 fall fish population survey with the largest fish being 32". One of these fish was a young-of-the-year fish stocked in late summer from the IDNR's Jake Wolf Memorial Fish Hatchery. This is a lower catch rate than 2012, when 11 fish were collected, but similar to 2011 when six fish were

collected. Despite recent increases in the number of muskie stocked, there has been little improvement in this fishery on Lake Shelbyville. As with bass, this issue is being addressed.

Although angler catch rates for muskie have improved below the spillway, catch rates on the lake were poor in 2012 and 2013 for both individual and tournament anglers. There was a report of a 50" muskie caught below the spillway in December, 2013. Fishing prospects for muskie in 2014 are expected to remain poor to fair for the number of fish available and size structure on the lake, but still good for size and number below the spillway.

Channel Catfish / Flathead Catfish – **poor - fair** – Only eleven (11) channel catfish were collected in the 2013 fall survey with the largest being 32 inches and 16 lbs. Only three (3) flathead catfish were collected, with the largest being 31 inches and 15 lbs. Despite four recent long-duration summer floods, some coupled with turbid water, catfish recruitment in Lake Shelbyville and the Kaskaskia River above the lake has been relatively poor. Reports of moderate catches are reported by fishermen on rare occasion. Fishing prospects for channel and flathead catfish in 2014 are poor to fair for the number of fish available and fair for size structure on the lake. 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 ($W_r = 97$). Fishing prospects for bluegill and other smaller sunfish species (green sunfish and longear sunfish) on Lake Shelbyville is expected to remain poor in 2014.

Other Species of Fish – Many other species of fish occupy Lake Shelbyville and are often underutilized by fishermen. **Yellow bass** are abundant, but rarely get longer than 9 inches. They 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, and quickly boiled in water 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 jiggling spoons and put up a great battle when hooked. Some guides book trips for buffalo. Although bony, they too can be scored and fried (smaller fish), canned, or smoked and have a mild flavor compared to carp.