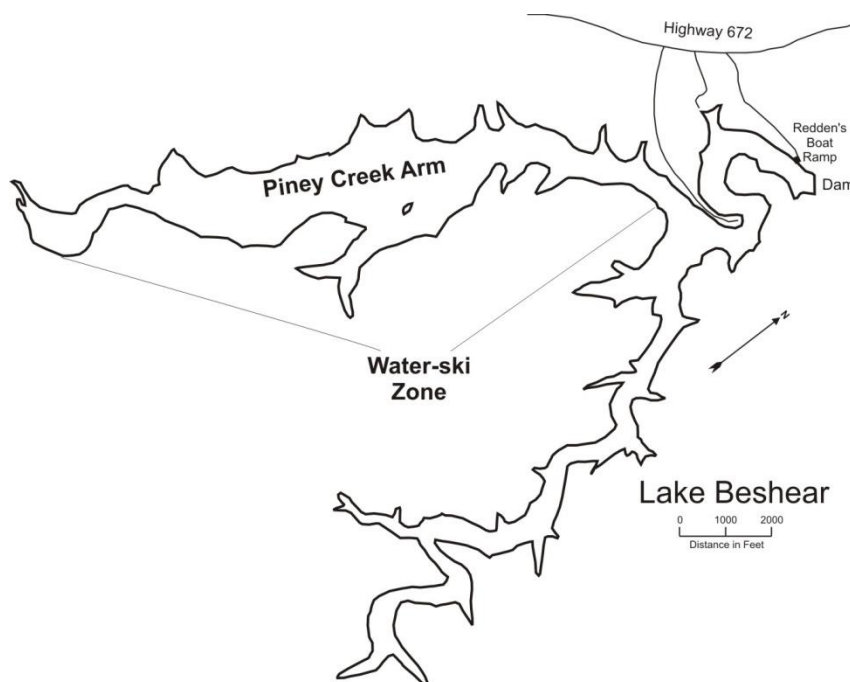


## Lake Beshear Bass Assessment 2016

Lake Beshear is a 784-acre state-owned reservoir. The lake straddles the Caldwell and Christian County line approximately 4 miles south of Dawson Springs off State Highway 672. Lake Beshear was built in 1962 by the Kentucky Department of Fish and Wildlife Resources (KDFWR), and opened to public fishing in 1964. The City Water Commission of Dawson Springs was deeded the right to use the water within Lake Beshear to supply the needs of residents within the City.

Lake Beshear was created by the placement of an earthen dam across Piney Creek. The lake has two main arms, impounding the drainages of both Piney and Clifty creeks. The tailwater of Lake Beshear flows into the Tradewater River. Lake Beshear has an estimated 21.5 miles of shoreline at normal pool elevation (410 feet above sea level). Pennyryle State Forest borders a large portion of the lake; therefore little of the land bordering Lake Beshear is in private ownership.

Boating access at Lake Beshear is limited to one public boat ramp near the Dam.



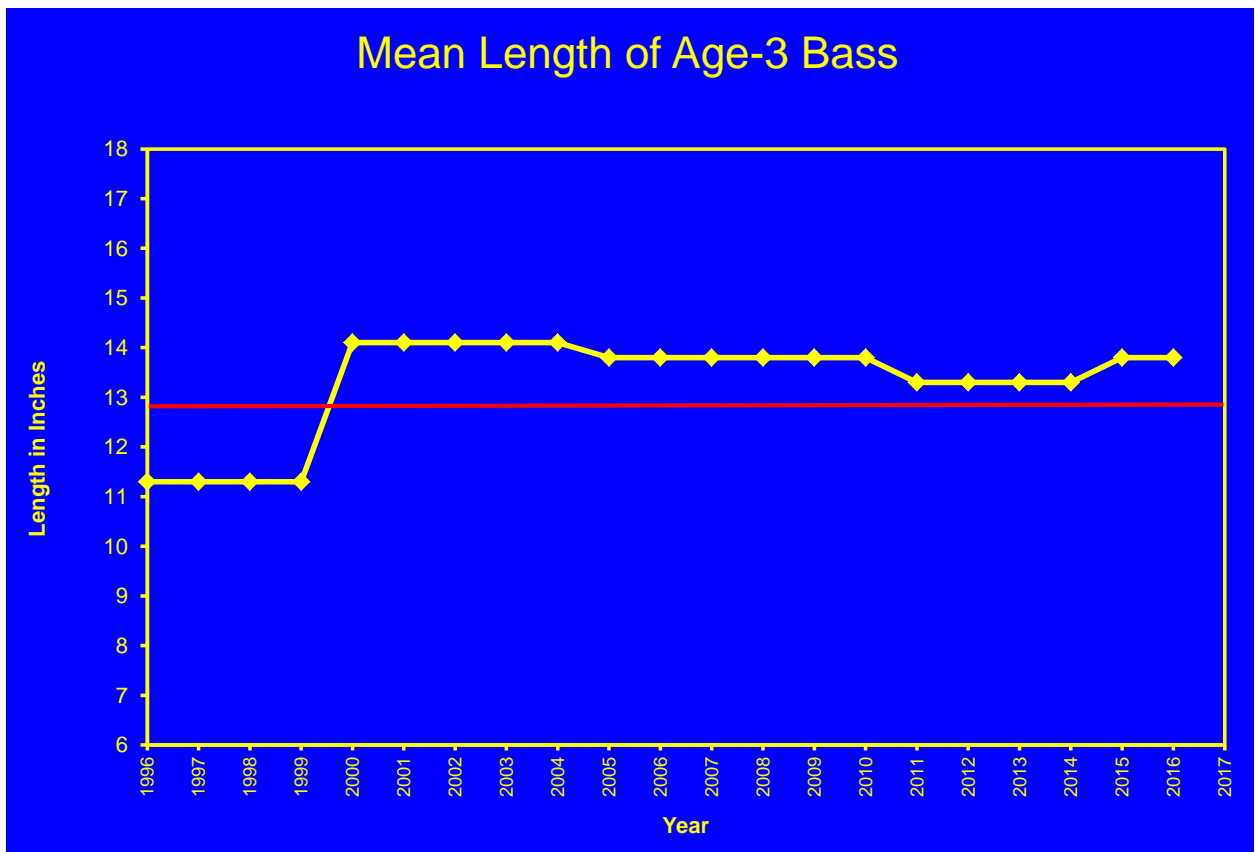
Largemouth bass are the only black bass species in Lake Beshear. Bass fishing is best in the spring months when fish move up shallow into the water willow and around fallen trees that extend out into the water. This same pattern may hold true during the fall months as well. During warm weather, bass likely seek deep water habitat around submerged trees, underwater humps, and ledges.

The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment.

Please see the [Sportfish Assessments](#) page for an explanation of how the assessment works and for a list of other lakes with largemouth bass assessments.

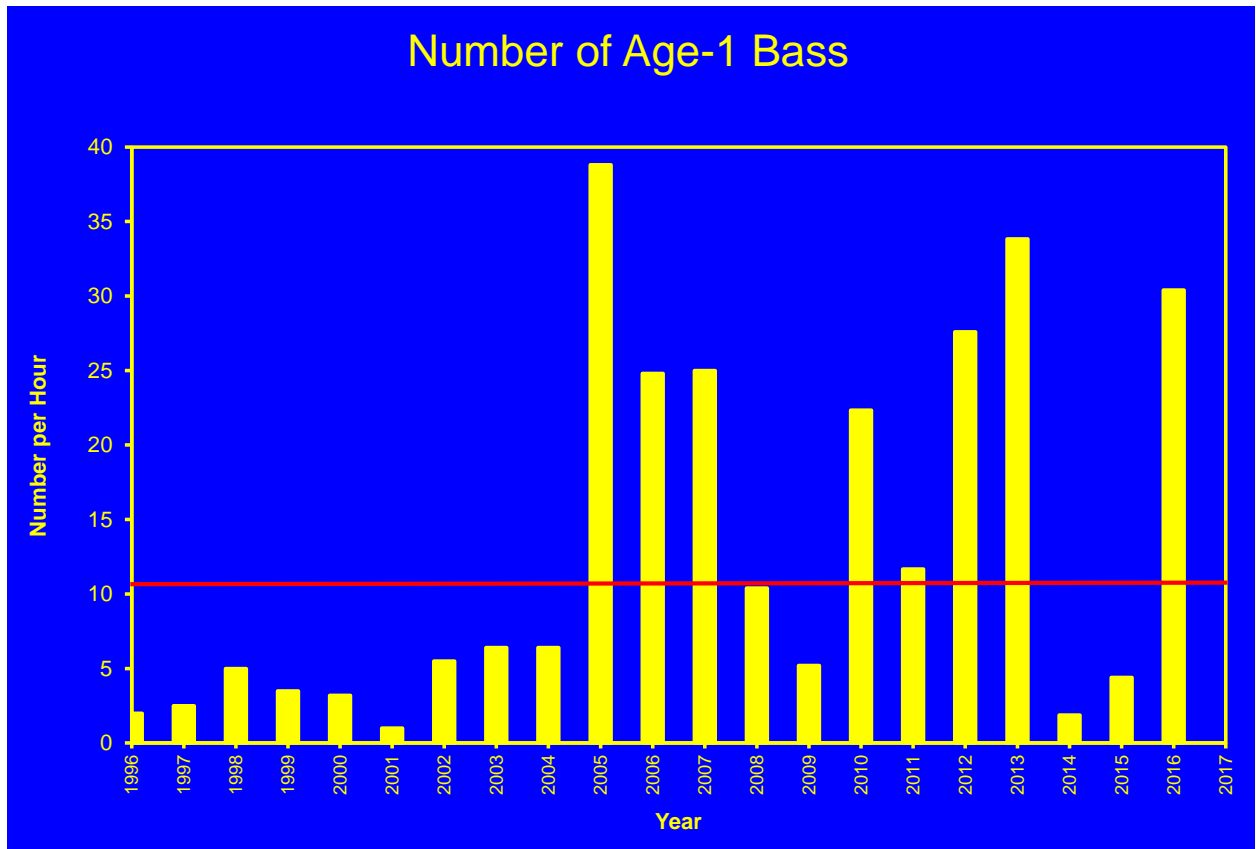
## Parameter 1 – Length at age-3 (growth rate)

Largemouth bass at Lake Beshear have shown good, consistent growth, reaching almost 14 inches by age-3. There is a 12-inch minimum length limit at Lake Beshear; therefore it is common to have harvestable-size bass by their second growing season. The jump in growth rates seen in 2000 was due to an improvement in our aging methods; more than a change in actual bass growth. Starting in 2000, KDFWR began using otoliths (ear bones) instead of scales to age fish. Otoliths are much easier to read and provide more accurate results. As a result, we can say that bass growth rates in Lake Beshear have been very good over the years.



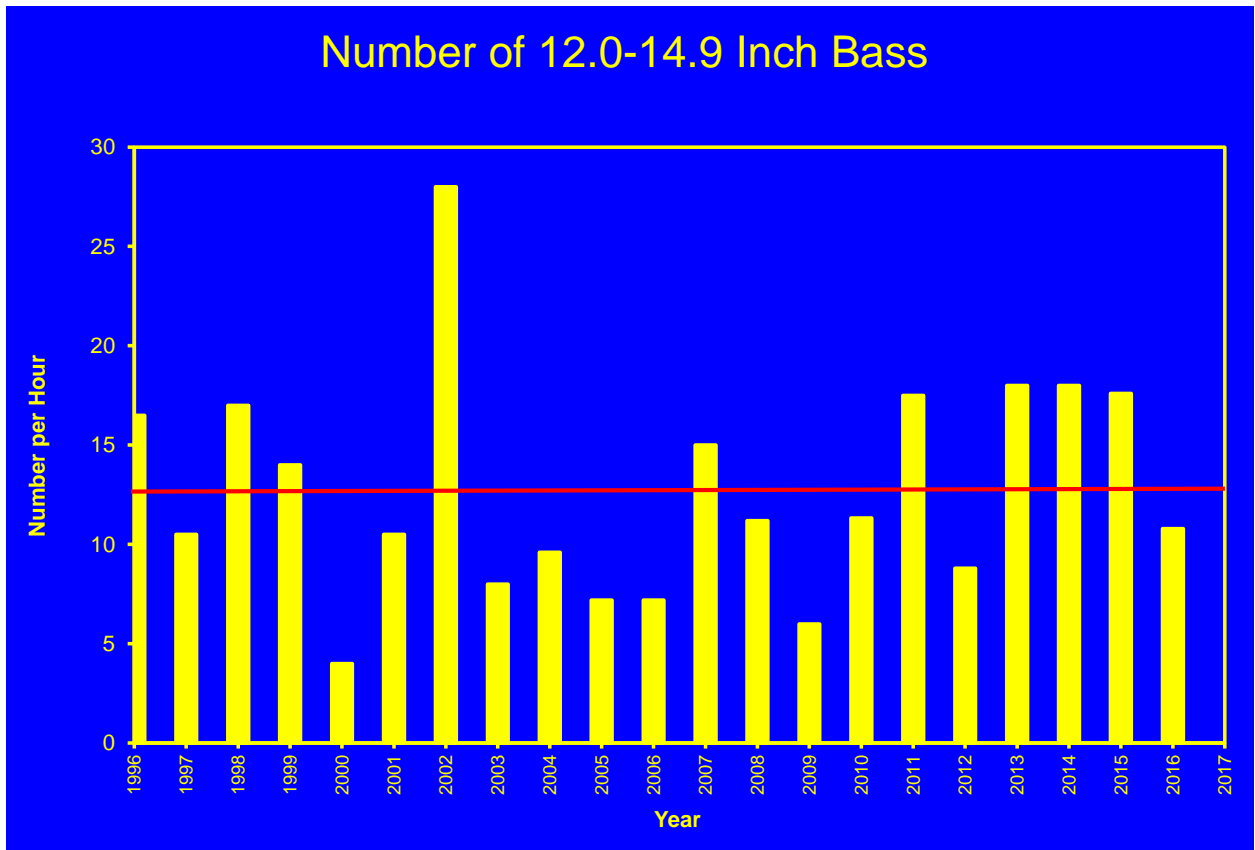
## Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the spring electrofishing catch rates of age-1 largemouth bass to assess the success of the spawn which occurred in the previous year. This is an important parameter because the number of age-1 bass produced represents how good the fishing might be once these fish grow large enough for anglers to harvest. Prior to 2005 the catch of age-1 bass was fairly stable, but low. In the past few years sampling results suggest that there have been some exceptional year classes of bass produced. The catch rates of the smaller-size bass reached almost 40 bass per hour during 2005, which suggests an exceptional spawn in 2004. Likewise, in the three years following, the numbers of young bass collected during the spring were above average. In 2009, 2014 and 2015 the number of small bass was below average, suggesting a poorer spawns in preceding years. 2016 showed another large age-1 year class.



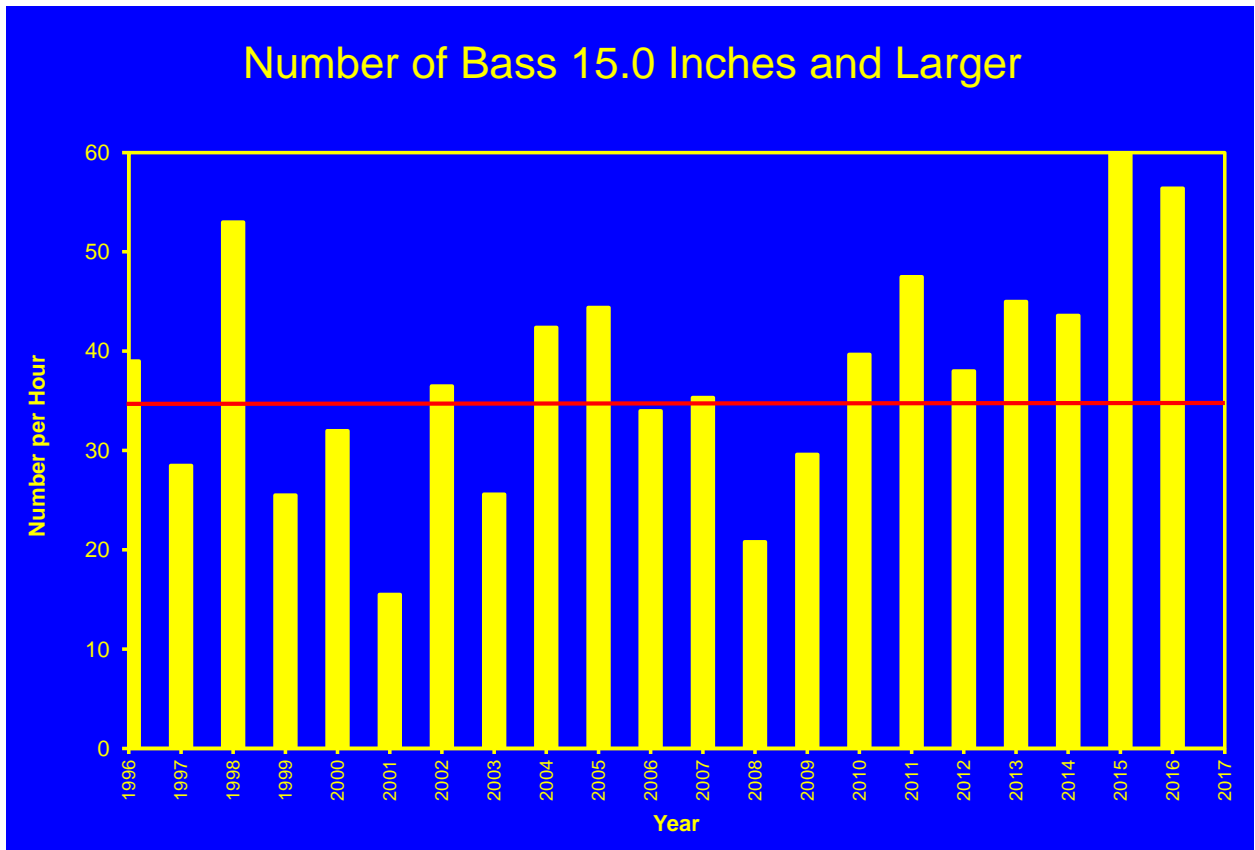
### Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass has averaged 12.5 fish/hour. This parameter for Lake Beshear has received a “poor” to “fair” rating, when compared to other lakes of similar size across the state. If the numbers of smaller bass have actually increased, as suggested in parameter 2, then we should expect to see the numbers of harvestable-size bass increase during the years to follow. There is evidence of this in 2011 and 2013-2015. In the most recent creel survey at Lake Beshear bass anglers harvested only 19% of the legal-size ( $\geq 12$ ”) bass caught. This suggests that overharvest is not an issue.



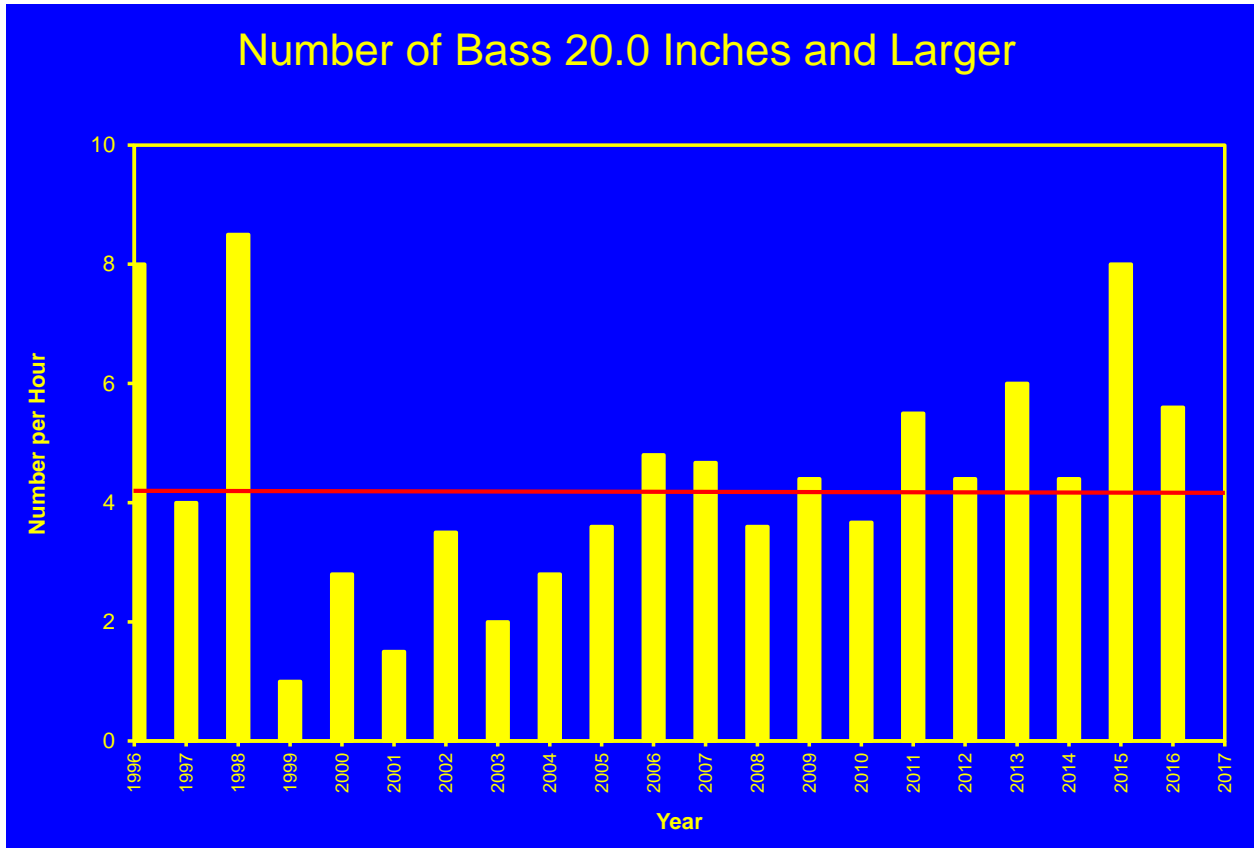
## Parameter 4 – Numbers of 15.0 inch and larger bass

Despite poor catches in our electrofishing sampling of intermediate size bass in years prior to 2005, the numbers of 15.0 inch and larger bass have continued to be rated “good” to “excellent”. Despite a few poor years, this lake continues to maintain a good density of preferred-size bass. This lake has fairly clear water and adequate amounts of shoreline vegetation for nesting and spawning. The best fishing for these larger bass is during the spring. They can be found in and along the water willow that grows out from the shoreline. Bass tournament results indicate that the average weight for legal-sized tournament bass weighed-in is 2.6 pounds. These higher catch rates are likely to drop as poor years classes seen in 2014 and 2015 recruit into the fishery.



## Parameter 5 – Numbers of 20.0 inch and larger bass

Just like the numbers of 15.0 inch and larger fish, the numbers of 20.0 inch and larger fish also rates “good” to “excellent” at Lake Beshear. Higher numbers of these trophy size bass were collected prior to 2000. For the next few years the population of these larger bass declined. This was a period when several large bass were found dead around the lake, and LMB Virus was suspected. Since that time the number of larger bass has been above average.



## Overall – Total Assessment Score (All five parameters added together)

The largemouth bass fishery at Lake Beshear has rated “good” for the past several years. This is due to the excellent growth, good numbers of preferred and trophy size largemouth bass and the good catch rates of age-1 bass. The “fair” rating seen from 1999 to 2003 is related to the fish kills of larger bass during that time. The assessment score decline seen in 2008 was due to the lower catch rates for all sizes of bass, but the overall rating still remains good. In the past few years the excellent growth rates and increased numbers of bass larger the 15.0 inches has kept the assessment score above the twenty year average.

