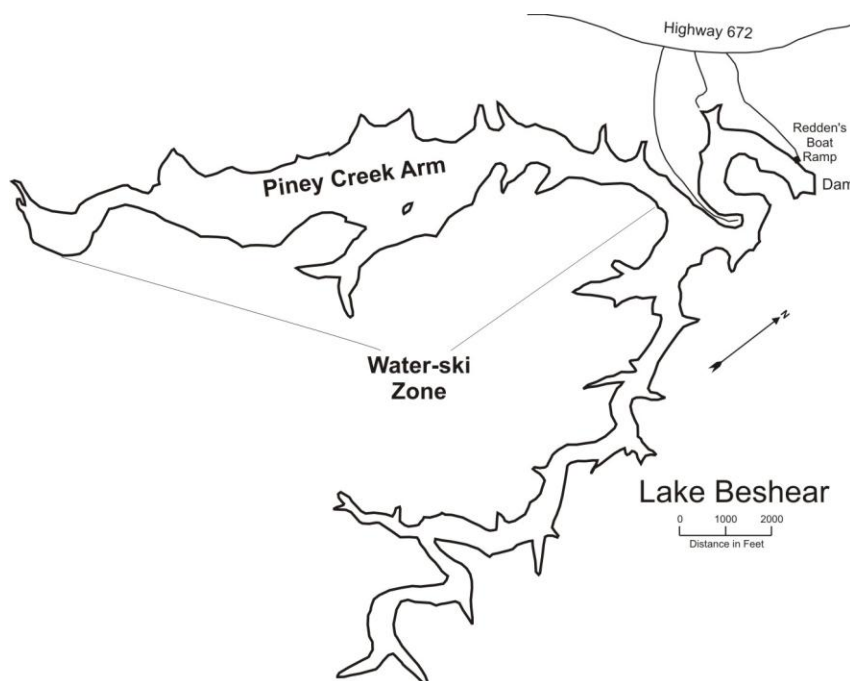


Lake Beshear Bass Assessment 2011

Lake Beshear is a 784-acre state-owned reservoir in Western Kentucky. 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 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-mi. of shoreline at normal pool elevation (410 ft msl). 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. Although the ramp is open to the public, it is privately owned. There is a small launching fee charged to use this ramp.



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 Largemouth Bass Assessment" article for an explanation of how the assessment works.

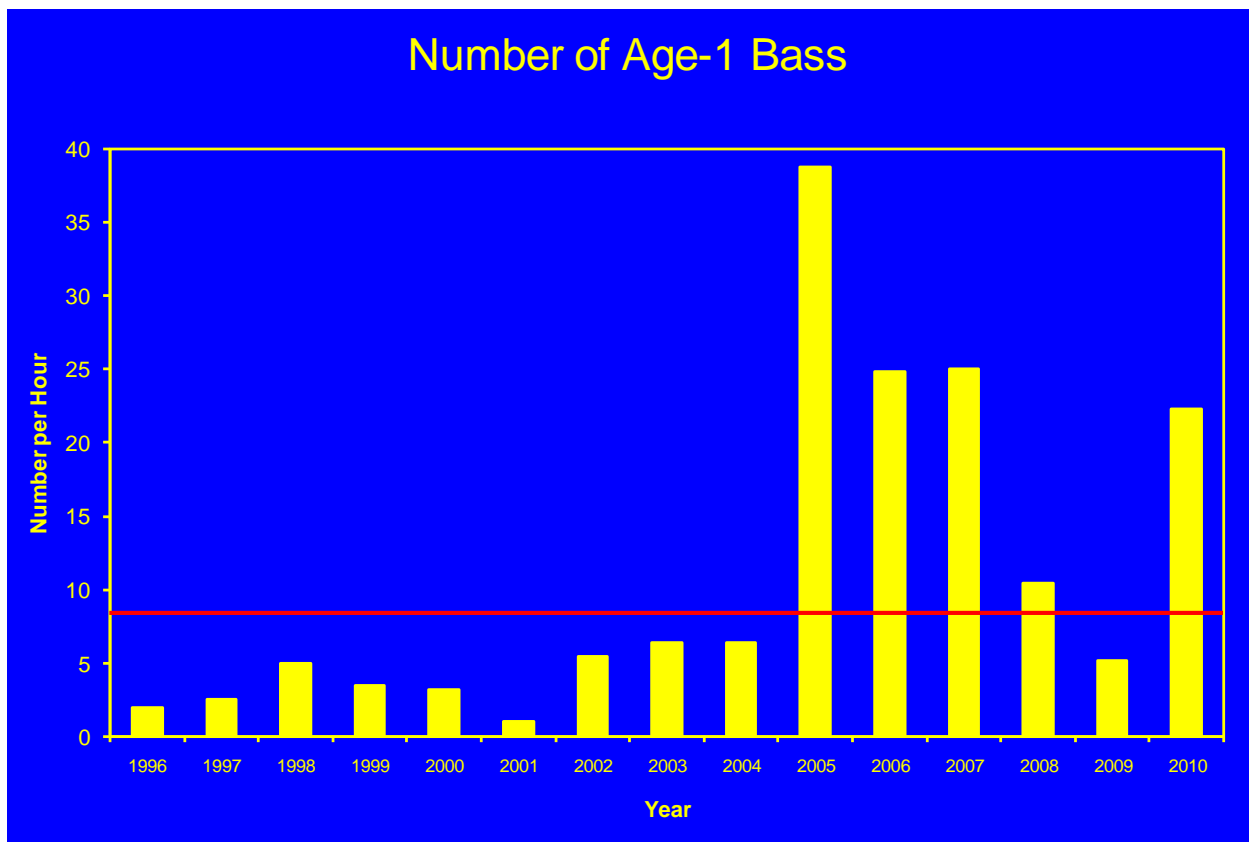
Parameter 1 – Length at age-3 (growth rate)

Largemouth bass at Lake Beshear have had fairly consistent growth. In the past few years, largemouth bass have shown excellent growth reaching 14.0 inches by age-3. There is a 12.0 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. These are much easier to read and provide more accurate results. If otoliths had been used prior to 2000, age-3 length for that time period would probably have been similar to that seen after 2000. As a result, we can say that bass growth rates in Lake Beshear have been very good over the years.



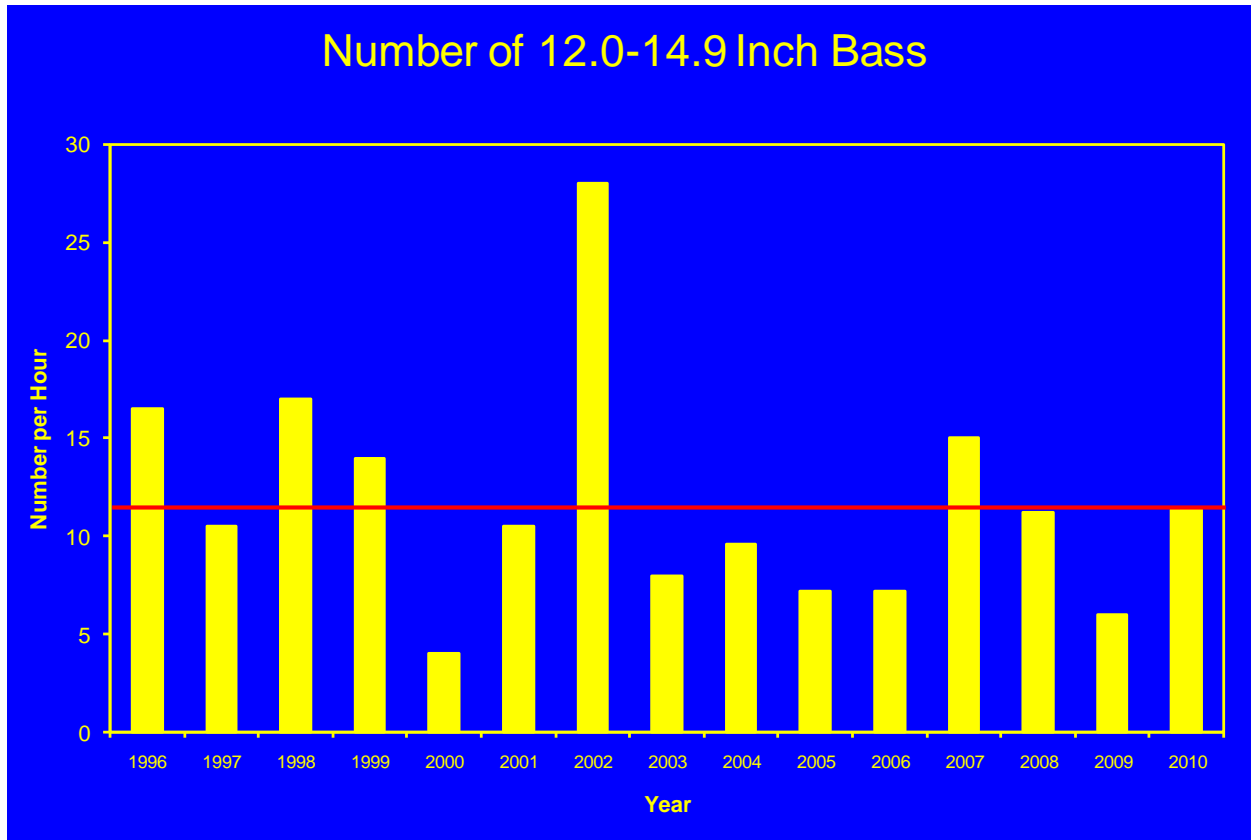
Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the spring electrofishing catch rates of age-1 largemouth bass to assess the success of the spawn which occurred in the prior year. This is an important parameter because the number of age-1 bass produced represents how good the fishing will be once these fish grow large enough for anglers to harvest. Prior to 2005 the catch of age-1 bass was fairly stable. During this time the number of 15.0 inch and larger bass represented a quality bass fishery (Parameter 4). In the past few years sampling results may suggest that there have been some exceptional year classes of bass produced. The catch rates of the smaller bass reached almost 40.00 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, the number of small bass was below average, suggesting a poorer spawn in 2008, although the 2010 sample was back up again.



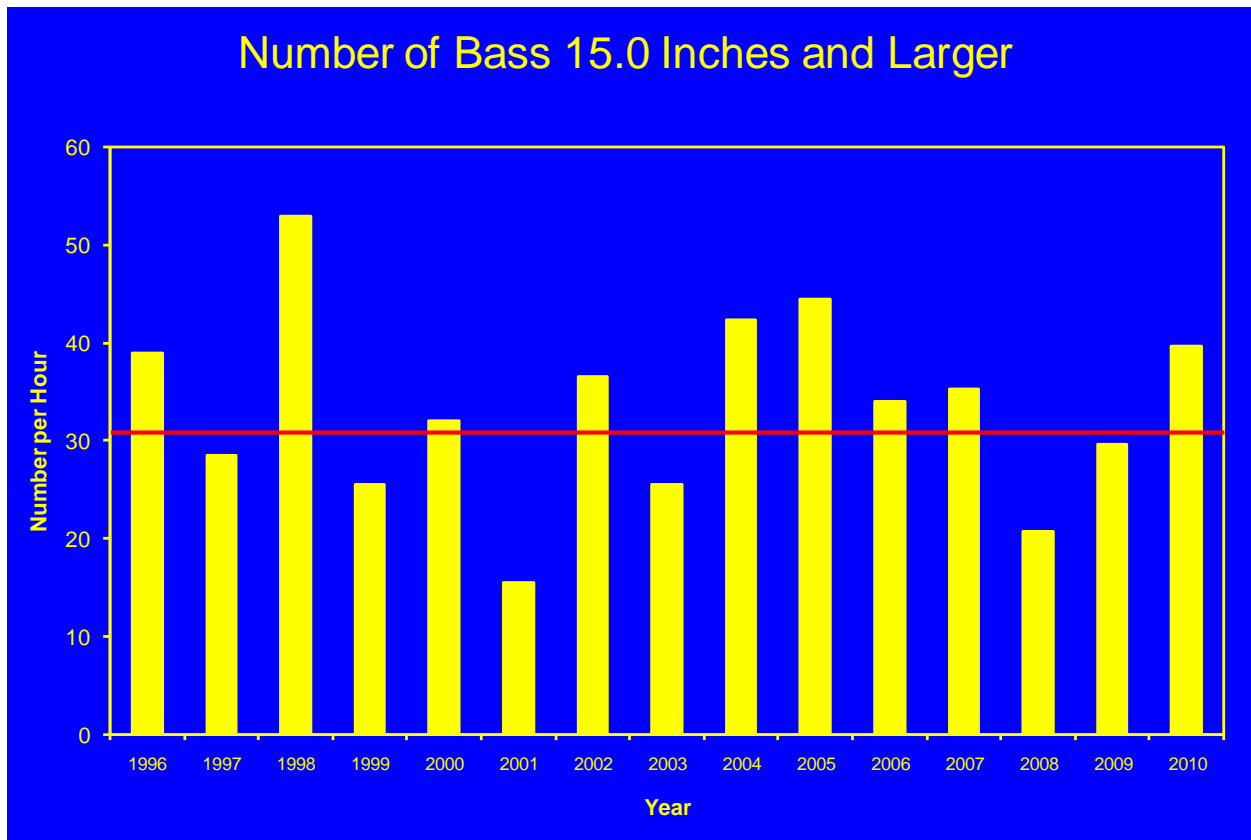
Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass has averaged almost 12.00 fish/hour. This parameter for Lake Beshear has received a “poor” to “fair” rating, when compared to other lakes across the state. If the numbers of smaller bass have actually increased, as suggested in parameter 2, then we should see the numbers of harvestable-size bass increase during the next few years. That was the case in 2007 and 2008, but not 2009.



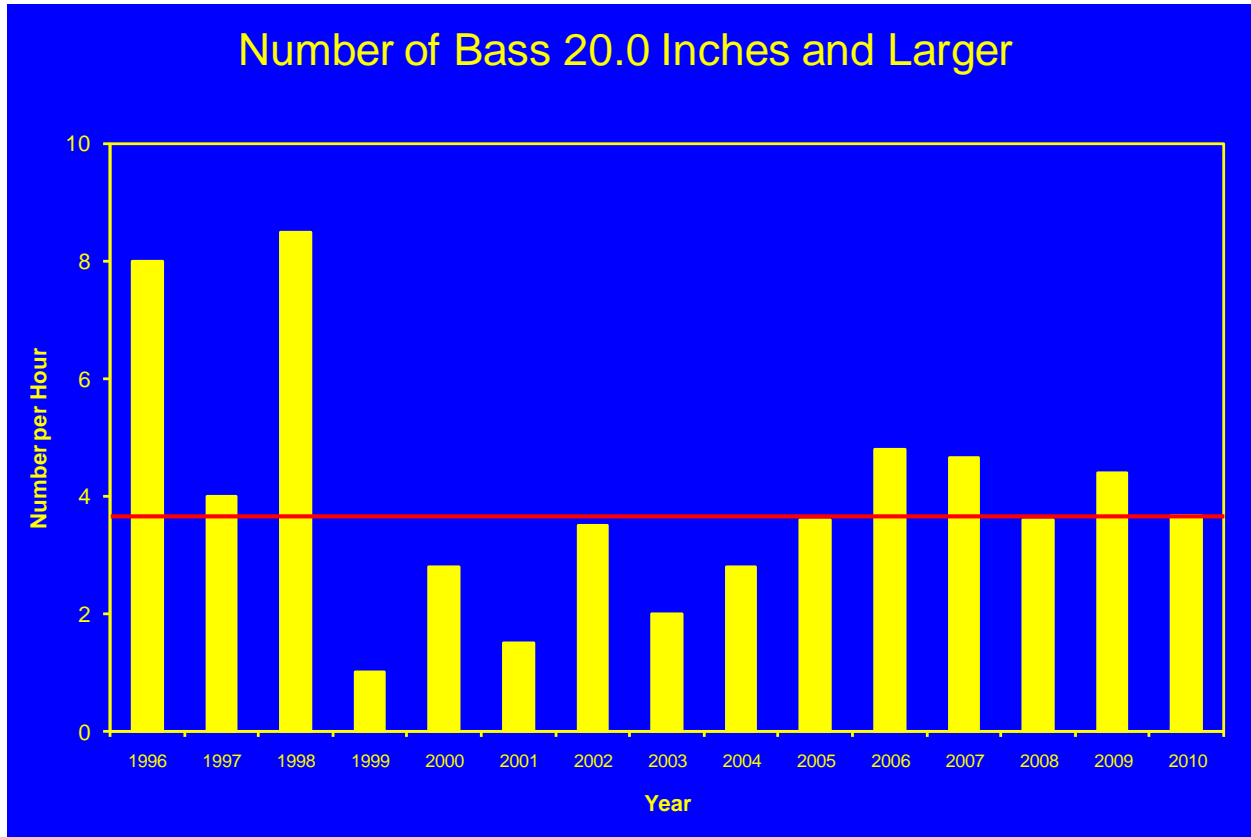
Parameter 4 – Numbers of 15.0 inch and larger bass

Despite poor catches in our electrofishing sampling of smaller 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 year classes every so often, this lake continues to maintain a good density of larger 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 bass weighed in is 2.59 pounds.



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 larger bass were collected prior to 2000. For the next few years there was a decline in these larger bass. Since that time the number of larger bass has increased.



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 quality size largemouth bass, and the good catch rates of smaller 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 2009, the catch of bass under 15.0 inches kept the rating in the lower “good” range, but has since increased.

