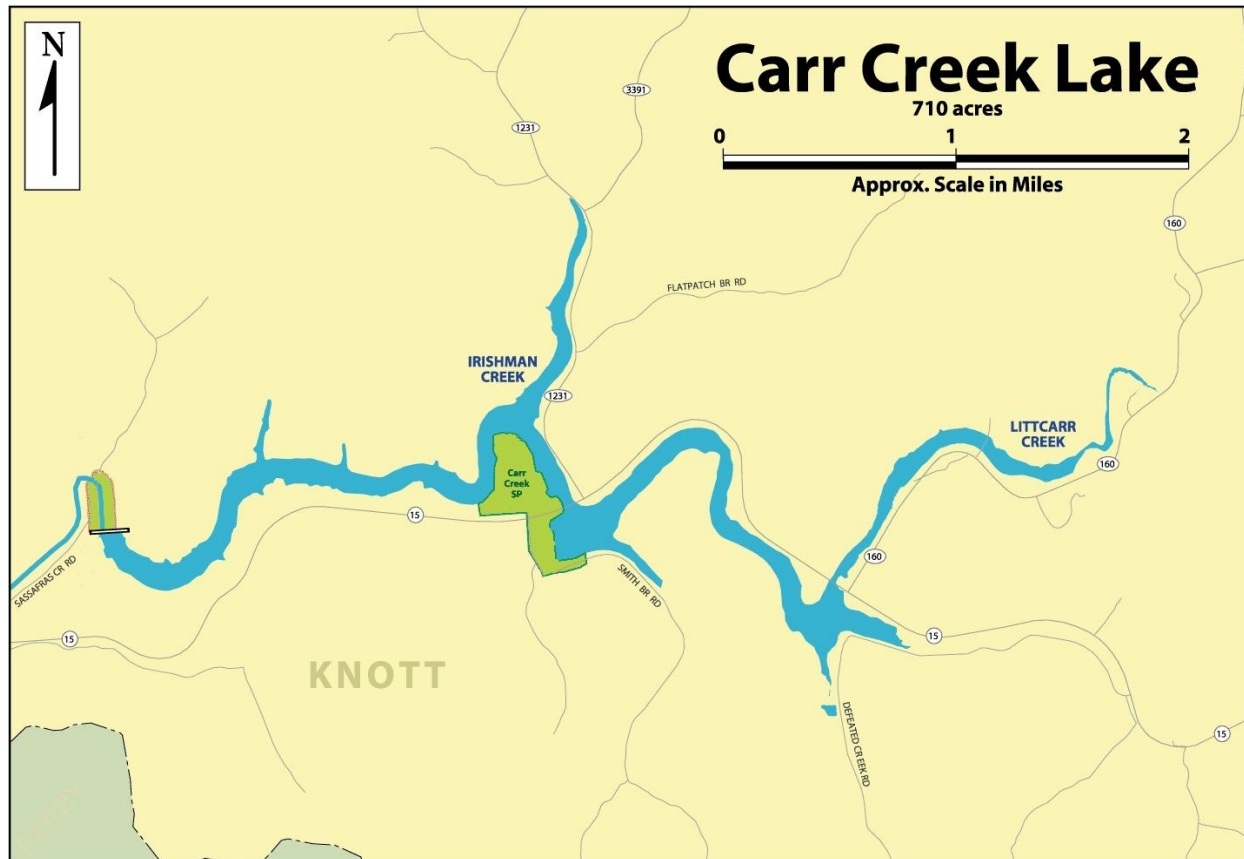


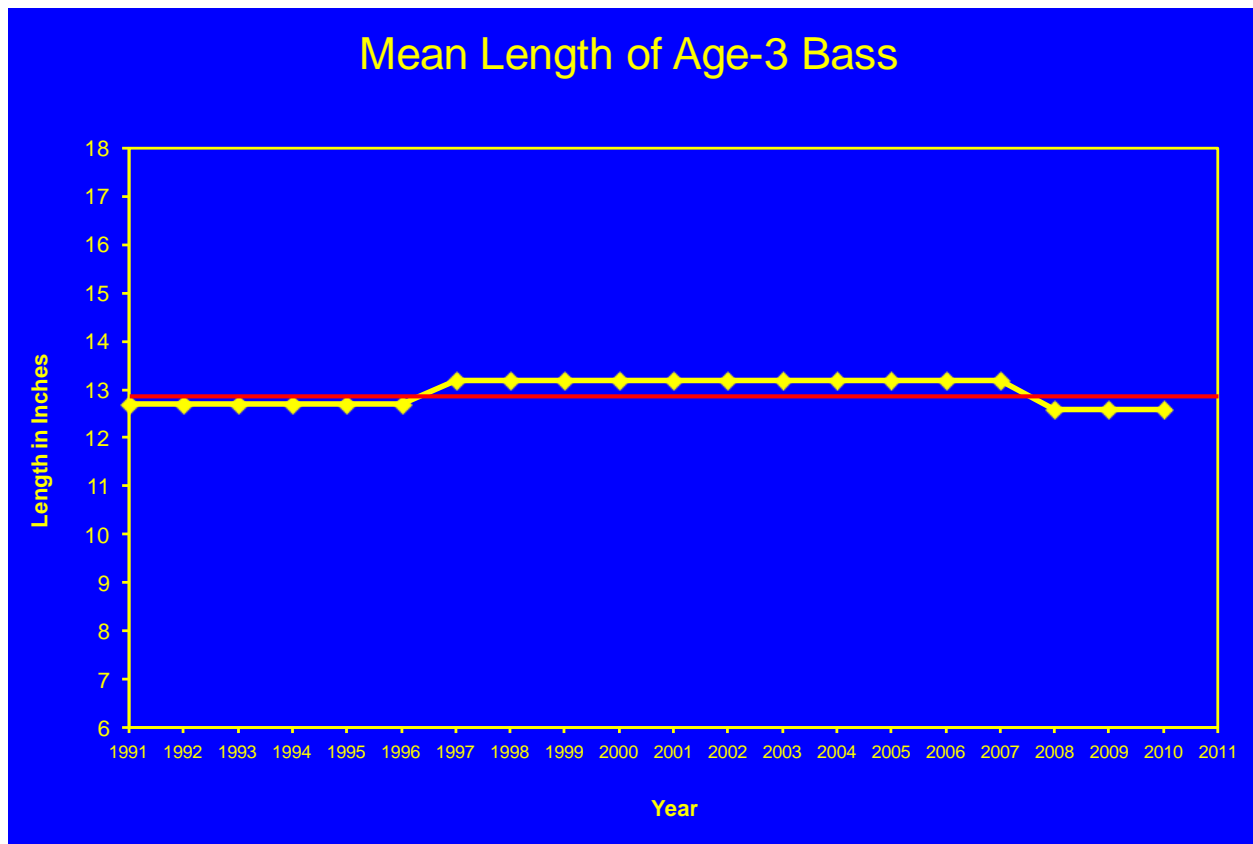
## Carr Creek Lake Bass Assessment 2011

Carr Creek Lake, located in Knott County, is a 710 acre multipurpose reservoir on Carr Fork. The majority of anglers using this lake target largemouth bass. This lake is unique to others of its size because it contains a large population of alewives which were first documented in 2000. Alewives can have a detrimental impact on sport fish species since they compete excessively with small fish for resources. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment. Please see "Understanding The Largemouth Bass Assessment" article for an explanation of how the assessment works. *Please note that the minimum size limit for largemouth bass on this lake is 15.0 inches.*



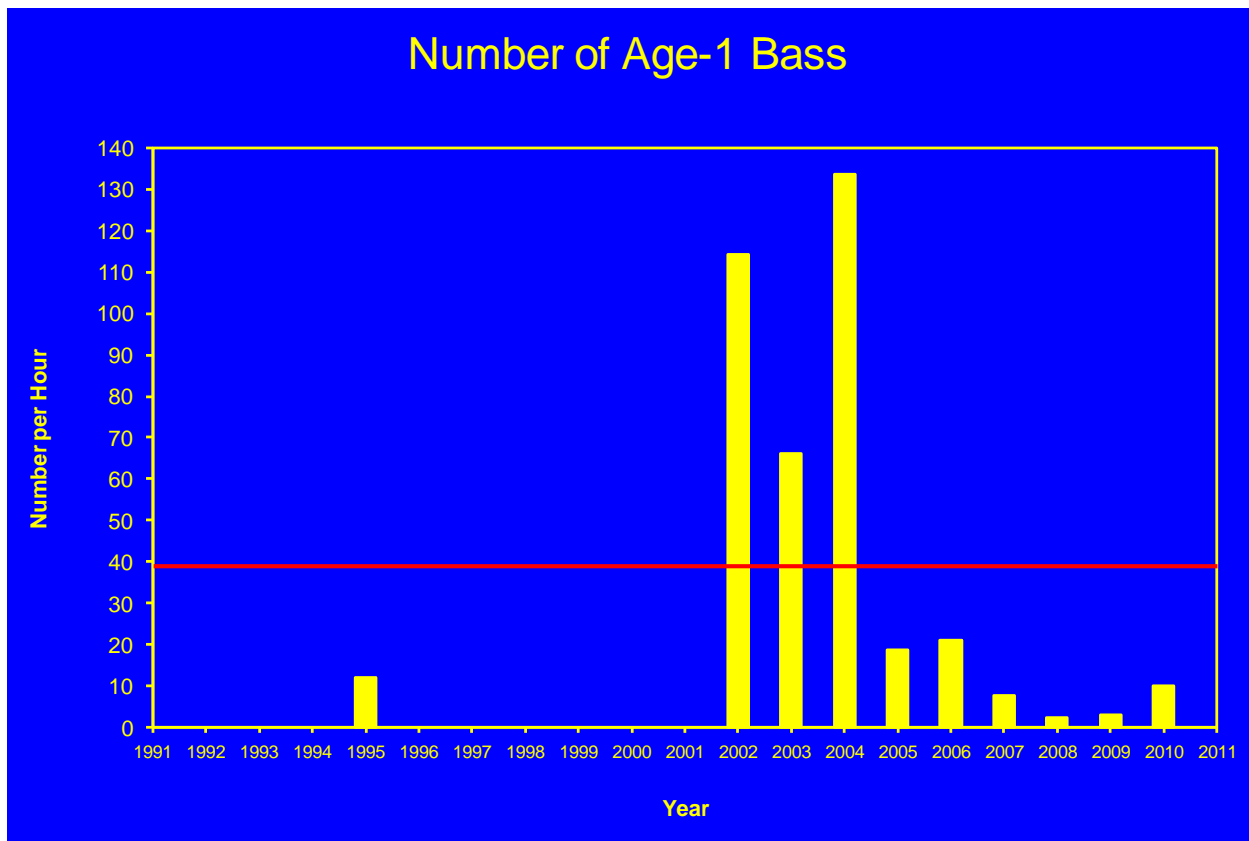
## Parameter 1 – Length at age-3 (growth rate)

At Carr Creek Lake, the length of an age-3 largemouth bass has averaged just above 12.9 inches over the past 23 years (see red line). Compared to other reservoirs of similar size, largemouth bass generally exhibit excellent growth at Carr Creek Lake. Growth rates can be variable and are generally related to factors such as population density, food resources, and weather patterns. The most recent aging of largemouth bass at Carr Creek Lake was in 2008 and found that 3 year old largemouth experienced excellent growth, averaging 12.6 inches.



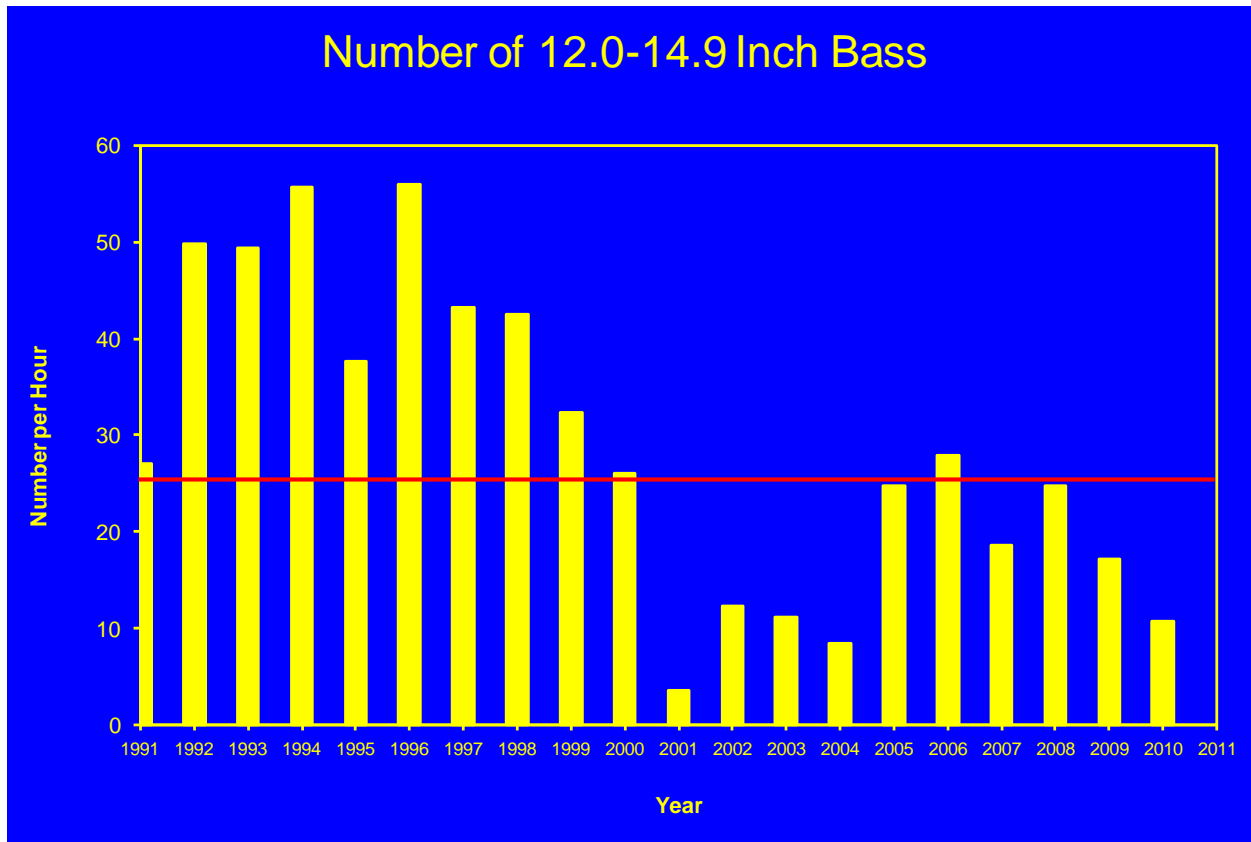
## Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the spring 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 catch. At Carr Creek Lake, the combined catch rate of wild and stocked age-1 largemouth bass averaged 70.85 fish per hour of electrofishing from 2002 to 2006 which is considered “good” compared to similar sized lakes. However, from 2007 to 2010 the average age-1 catch rate averaged only 5.78 fish per hour, which is considered “poor.” Recruitment is often a problem at Carr Creek Lake. Largemouth bass fingerlings have been stocked every year since 1999 to increase numbers of bass in the lake. Stocking is largely responsible for increased numbers between 1999 and 2004. Recent catch rates have fallen off tremendously due to several factors but in part to inconsistent fertilization effectiveness as a result of spring flooding. In 2010, KDFWR will stock fingerling largemouth bass at a higher than normal rate, earlier in the year, in an attempt to increase the year class strength.



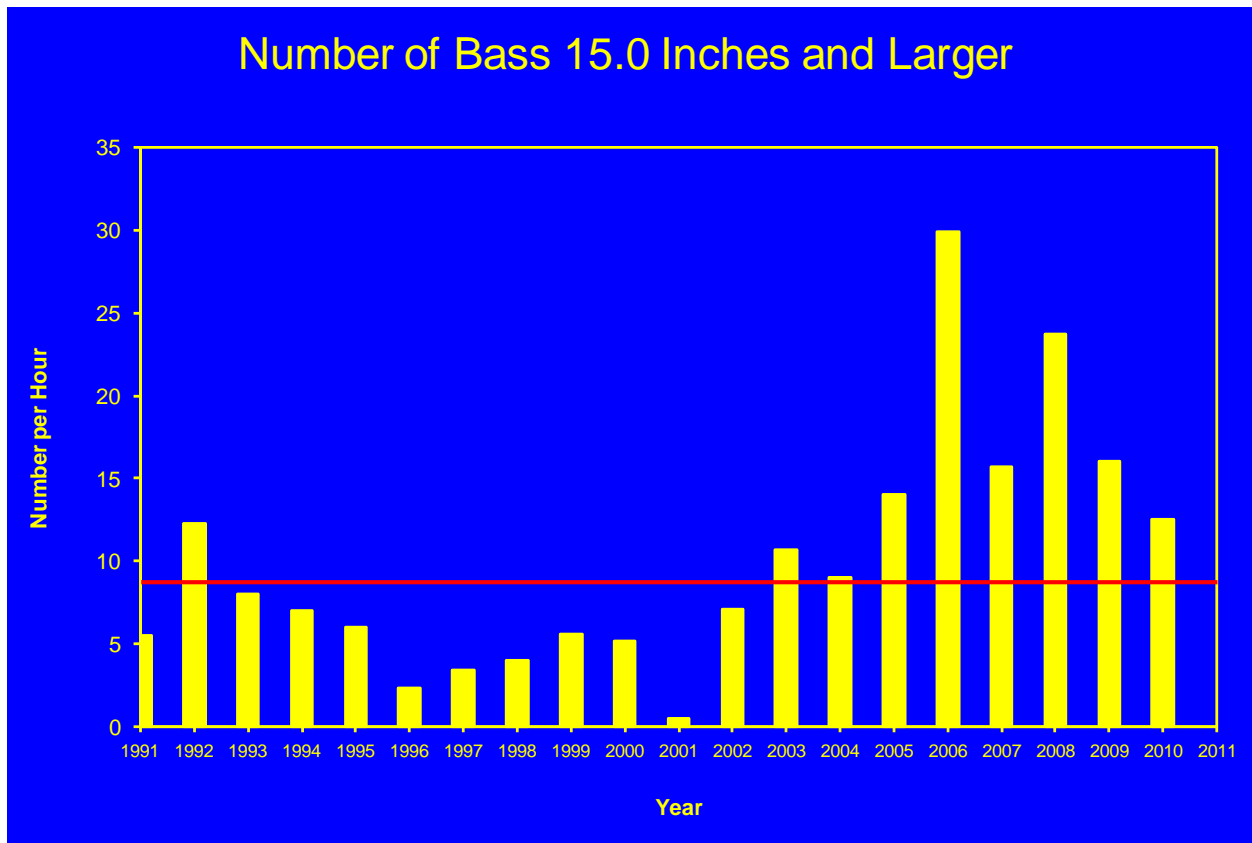
### Parameter 3 – Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass has averaged 24.70 fish per hour over the years as indicated by the red line. As compared to other lakes, this is a “fair” catch rate for this size group of bass. Higher catch rates experienced between 1992 and 1999 averaging 45.86 fish per hour and considered “good,” declined to an average of 8.87 fish per hour (“poor”) from 2001-2004. Since then catch rates were near the lake average for a few years, only before declining again to 10.80 fish per hour (“poor”) in 2010. This number is important because these fish will soon grow to exceed the 15.0 inch legal size limit at the lake, and is a good predictor how bass fishing will be in years to come. The recent decline in 12.0-14.9 inch fish indicates a likely decline in fish over 15.0 inches in coming years.



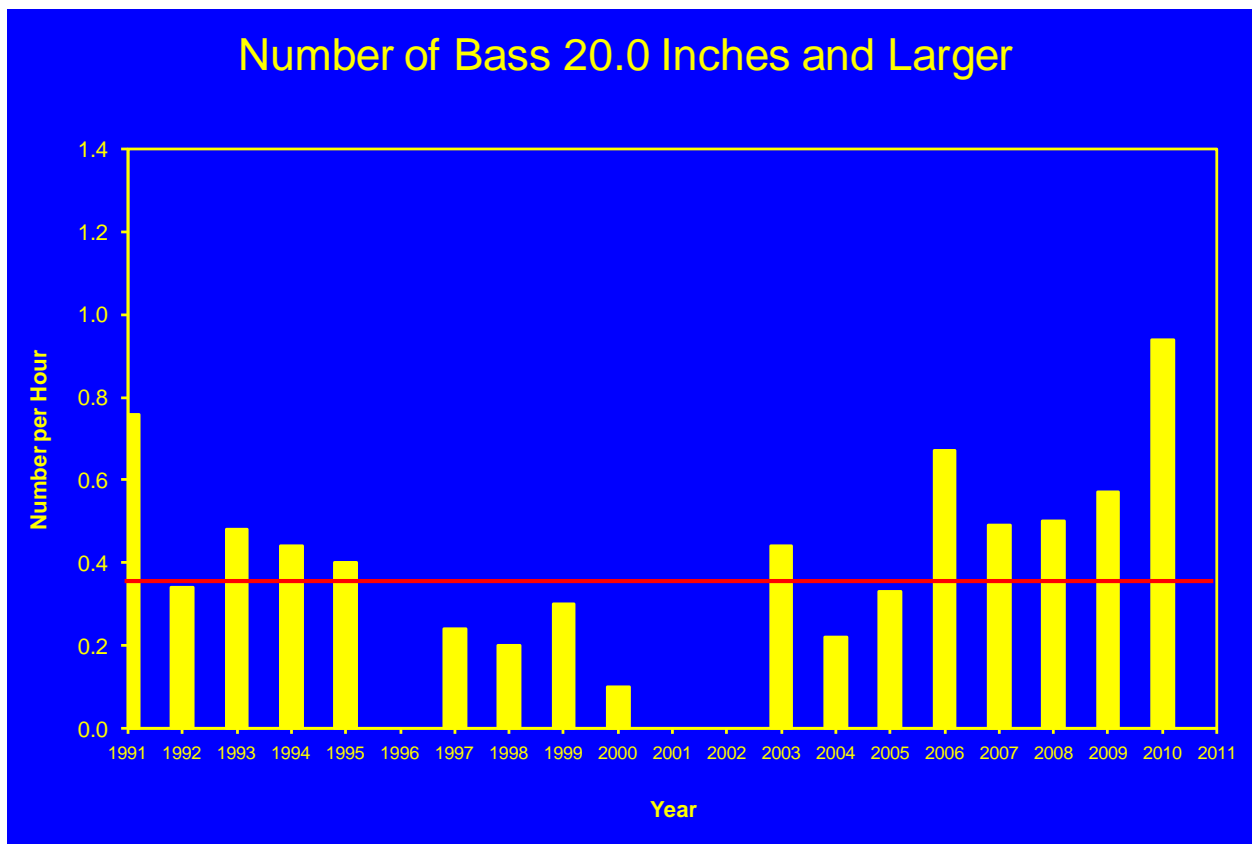
## Parameter 4 – Numbers of 15.0 inch and larger bass

The catch rate of 15.0 inch and larger largemouth bass at Carr Creek Lake has averaged 8.87 fish per hour of electrofishing since 1986. Again, as compared to other lakes, this is a “fair” catch rate for this size group. The past six years, however, has seen an increased average of 18.65 fish per hour (“good”). Catch rates increased steadily from 1997-2006 and experienced historic highs for Carr Creek Lake in 2006 and 2008 (29.90 and 23.71 fish per hour, respectively; both considered “good”). Since then, catch rates of 15.0 inch and larger fish have dropped but remain above average for the lake. The most recent value of 12.55 fish per hour in 2010 is considered “fair.” This catch rate may continue to fall in the near future as the 12.0-14.9 fish have shown a decreasing catch rate over the past couple years.



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

The electrofishing catch of 20.0 inch and larger largemouth bass has averaged about 0.35 fish per hour at Carr Creek Lake since 1986. Catch rates for fish greater than 20.0 inches have been above average the last five years, but are still “poor” when compared to lakes of similar size. Thus, an angler fishing in Carr Creek Lake would have a better chance of catching several quality size bass than a genuine trophy. Even so, 2010 saw the highest catch rate of 20.0 inch and larger largemouth bass of the past 25 years for Carr Creek Lake. There are some big fish out there and that occasional trophy largemouth cannot be completely ruled out.



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

Overall, the largemouth bass fishery at Carr Creek Lake has averaged a “fair” rating over the past 10 years. The overall assessment score for the largemouth bass population at Carr Creek Lake has been surprisingly stable, dropping only slightly in recent years, even though components of the score have been highly variable. In 2010, the overall assessment rating for the largemouth bass population at Carr Creek Lake was below average with a rating of 9. Recent declines in survival of age-1 fish will have a long lasting effect on the quality of fishing at Carr Creek Lake. While there are still above average numbers of fish 15.0 inches and larger and 20.0 inches and larger in the lake, low numbers of smaller fish will cause those larger size classes to decline as well. One can expect a steady or declining assessment over the next 2 to 4 years. Efforts at increasing year class strength with higher stocking rates over the next few years may help the assessment score to increase back to normal levels in the more distant future.

