Commonwealth of Kentucky

Date: June 30, 2008

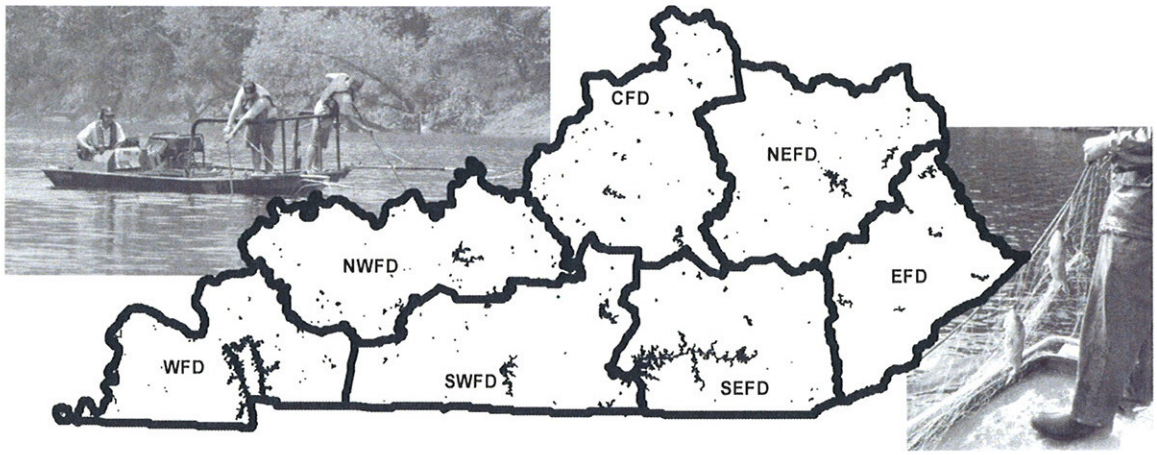
Sport Fish Restoration Grant F-50, Segment 30

Period: 01 April 2007
through
31 March 2008

ANNUAL PERFORMANCE REPORT

District Fisheries Management
Part I

Project 1: Lake and Tailwater Fishery Surveys



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STATE: Kentucky

GRANT NO.: F-50-30

GRANT TITLE: District Fisheries Management

PERIOD COVERED: 1 April 2007 - 31 March 2008

GRANT OBJECTIVES: To conduct research and surveys and to manage the fishery resources statewide within each of the following seven fishery districts: Western (WFD), Northwestern (NWFD), Southwestern (SWFD), Central (CFD), Northeastern (NEFD), Southeastern (SEFD), and Eastern (EFD).

RESEARCH AND SURVEY SECTION

Project 1: Lake and Tailwater Fishery Survey

Project Objective: To develop and implement fish management plans for lake and tailwater sport fisheries based on survey data from this project.

A. ACTIVITY

Electrofishing, gill netting, trap netting, fish scale and otolith reading for age and growth determinations, temperature and oxygen profiles, additional water quality and physical data, creel data, and preparation of an annual performance report and lake management plans.

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned achievement date: 31 March 2008
Work accomplishment: 31 March 2008

C. SIGNIFICANT DEVIATIONS

None

D. REMARKS

See accompanying report.

E. COST

$1,455,766.13

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WESTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Sampling Conditions for each sampling event are listed in table 1.

Kentucky Lake

During May, 1,157 black bass were collected by diurnal electrofishing from standardized sampling locations on Kentucky Lake. Largemouth bass comprised almost 97% (93.33 f/h) of this catch (Table 2). An objective in the Kentucky Lake Fish Management Plan (KLFMP) for the largemouth bass population is to maintain a catch rate of at least 24.00 f/h that are <8.0 in. The catch rate of largemouth bass <8.0 in was 18.00 f/h (Table 3). Using a regression model with a correlation of 0.64, it is estimated that this is the minimum value needed in order to produce an adequate number of harvestable-size (≥15.0 in) largemouth bass in five years. The KLFMP objective for largemouth bass ≥15.0 in is to maintain a catch rate of at least 18.00 f/h. The catch rate of harvestable-size largemouth bass was 26.08 f/h during this year's sample. A continued high number of trophy size bass were also collected. This will more than likely be the trend for the next few years. The surface acres of aquatic vegetation in the lake continued to increase due to low flows and increased water clarity. Table 4 lists the PSD and RSD values for bass collected during the spring of 2007. The PSD value calculated for all largemouth bass was 73, which falls in the targeted range (PSD, 55-75) suggested in the KLFMP. The calculated RSD_{15} was 35, which also falls into the range reported in the KLFMP (RSD_{15}, 20-40).

Otoliths were not collected from largemouth bass for age and growth determinations this spring. Age frequency for the spring data were determined using age data from previous years' data sets. The catch rate of age-1 largemouth bass was 22.16 f/hr (Table 5). The KLFMP objective for age-1 largemouth bass is to maintain a catch rate of at least 36.00 f/h. This value may be expected to decline in 2008 due to the below average number of <8.0 in bass collected. However, with the increased aquatic vegetation, increased over winter survival of YOY might actually yield a higher catch of age-1 bass in 2008. Table 3 lists the historical catch rates of age-1 largemouth bass at Kentucky Lake. Table 6 lists the catch rates for all age groups of largemouth bass collected during the past eleven years. A lake specific assessment for largemouth bass was used to evaluate the bass population in Kentucky Lake (Table 7). The largemouth bass population has rated "good" to "fair" during the past five years. The catch of age-1 largemouth bass continues to be below a "good" rating, as does the number of bass in the 12.0 to 14.9 in and ≥20.0 in ranges. However, the largemouth bass in Kentucky Lake continue to show excellent growth patterns, as measured by the average length at age-3. The catch rate of largemouth bass greater than 15.0 in is at a high enough level to be considered "excellent".

During October, 914 black bass were collected by diurnal electrofishing at two locations that had been previously sampled during the spring. Largemouth bass comprised 91% (165.80 f/h) of this catch (Table 8). Length and weight data were recorded from all bass collected to calculate relative weight values. The relative weight for all largemouth bass was 98 while the relative weight for smallmouth bass was 85 (Table 9). Both of these numbers were similar to the 2006 calculations. Length-weight equations for black bass species at Kentucky Lake are:

Largemouth bass	Log_{10} (weight) = -3.59854 + 3.28732 x Log_{10} (length)
Smallmouth bass	Log_{10} (weight) = -3.43298 + 3.08101 x Log_{10} (length)
Spotted bass	Log_{10} (weight) = -3.56700 + 3.23787 x Log_{10} (length)

The CPUE of age-0 largemouth bass during the fall sample was 122.20 f/h (Table 10). The CPUE of age-0 largemouth bass ≥5.0 in was 106.40 f/h. Mean length of the age-0 cohort (2007 year-class) of largemouth bass was 7.1 in. It is suggested that having larger age-0 bass will reduce the winter mortality. The average mean length for 15 years of data is 5.2 in. The 2007 year class was almost 1.5 times this size. It is speculated that the early spring warming trend and stable water level allowed for ideal spawning conditions. The early spawn and vast amount of aquatic vegetation allowed for the better growth. A similar trend was also observed at Lake Barkley.

Trap nets were fished for crappie in Blood River and Jonathan Creek embayments for a total of 80 net-nights (nn) during October. This sampling effort yielded 1,395 crappie (17.44 f/nn), of which 1.98 f/nn (11%) were white crappie and 15.46 f/nn (89%) were black crappie (Table 11). Black crappie have dominated the trap net catch for the past 10 years (Figure 1). Black crappie densities most likely have increased, but not by the magnitude suggested from fall trap netting. This change in catch may also be related to the water quality of Kentucky Lake. It is possible that due to the clearer water conditions, the white crappie are staying deeper, while black crappie are running the shoreline in shallower water. Under this scenario, the black crappie would be more susceptible to capture in the trap nets.

The crappie population at Kentucky Lake continues to produce a quality fishery. However, declining numbers of age-0 crappie over the last two years warranted a regulatory reduction in the angler creel from 30 to 20 fish. This regulation change will take affect 01 March 2008. The number of crappie ≥ 8.0 in collected in trap nets made up 76% (13.23 f/nn) of the sample (Table 12). The number of crappie ≥ 10.0 in made up 36% (6.24 f/nn) of the sample. The KLFMP objective for crappie is to maintain a catch rate of at least 10.00 f/nn for crappie ≥8.0 in, and 3.00 f/nn for crappie ≥10.0 in. Both of these objectives were met. PSD and RSD_{10} values are reported in Table 13. Length-weight equations for white and black crappie are listed below.

White crappie	Log_{10} (weight) = -3.42769 + 3.14608 x Log_{10} (length)
Black crappie	Log_{10} (weight) = -3.42966 + 3.19112 x Log_{10} (length)

Otoliths were collected from 160 crappie collected in the trap netting sample. The growth of crappie continues to be excellent with fish reaching 10.0 in (minimum length limit size) as early as age 3. Tables 14 and 15 list the average growth by age class for white and black crappie, respectively. The age growth data was used to extrapolate against this year's length frequency data to determine age frequency of white and black crappie (Tables 16 and 17, respectively). Age-1 white crappie comprised 43% (0.85 f/nn) of the sample, while age-1 black crappie comprised 47% (7.21 f/nn). Combined, the catch of age-1 crappie was still considered "poor" in the crappie population assessment (Table 18). A third management objective is to maintain a catch of age-1 crappie of at least 11.00 f/nn. However, this value has been below the management objective for the past two years. This low recruitment will likely lead to a poorer crappie fishery in 2009. At Kentucky Lake, it is hypothesized that spring water level fluctuations and timing of critical water temperature greatly affect spawning, leading to variable recruitment. Environmental effects such as clear water and increased density of aquatic vegetation may also help to explain the reduced number of age-0 crappie collected. Similar conditions occurred in the late 1980's, when low numbers of smaller crappie were recorded. The catch of age-0 crappie has been low for three consecutive years, and considered to be "poor". Creel statistics from a 2004 creel survey do not indicate over-harvest. Overall, the crappie population at Kentucky Lake rated "fair". This is mainly due to the black crappie population that has rated "good" to "excellent" over the past five years. The white crappie population has consistently rated "fair" over this same period.

Blue and channel catfish were collected using five 100-hook trotlines (tl) during May. The trotlines were baited with chicken hearts and cheese bait. This year due to high winds, the lines were set inside an embayment rather than on the river channel and adjacent flats. Data collected was used to determine CPUE, length and age frequencies. A total of 143 catfish were collected at a rate of 9.53 f/tl. CPUE of blue and channel catfish was 1.60 and 7.93 f/tl, respectively (Table 19). The catch of channel catfish was similar to the sample collected in 2006, while the number of blue catfish was down from 5.20 f/tl. Few catfish <12.0 in were collected, which is most likely the result of gear selectivity towards larger individuals. Relative weight values of both blue and channel catfish indicate excellent condition and are listed in Table 20. The length-weight equations for blue and channel catfish are:

Blue catfish	Log_{10} (weight) = -4.02434 + 3.37581 x Log_{10} (length)
Channel catfish	Log_{10} (weight) = -4.04300 + 3.40108 x Log_{10} (length)

Age frequencies for this year's catch data of blue and channel catfish were determined using age data collected in 2004 (Tables 21 and 22, respectively).

Kentucky Lake Creel Survey

A random, non-uniform probability, roving creel survey was conducted on the Kentucky portion (51,000 a) of Kentucky Lake from 1 March to 31 October 2007. This area of the lake was divided into ten creel areas (Figure 2). The survey was conducted five days per week, six hours (h) per day. The overall temporal sampling scheme was twenty days per month, consisting of six weekend days and fourteen weekdays. One hour each day was randomly chosen to conduct an angler count. Varying time period probabilities were assigned to each month's six-hour time period. Higher geographic probabilities, resulting in more frequent interviews, were assigned to the Blood River, Jonathan Creek and Sledd Creek/Kentucky Dam areas from March through May, and October, than were assigned to the other seven areas. Equal probabilities were assigned to all areas from June to September. A twelve-question, angler attitude survey concerning fishing in Kentucky Lake was conducted by the creel clerk during March through June (Appendix 1).

During the 2007 creel, the typical angler was a male (85%) resident (55%) who was casting (52%) or still fishing (40%) from a boat. Five percent of the anglers used a spider rig (defined as using 3 or more poles at the same time) for crappie fishing (Table 23). The average fishing trip was 3.8 h compared to 3.6 h and 4.7 h in the 2004 and 2003 creels, respectively. Anglers made 25% fewer trips (285,078 vs. 376,210) in 2007 than 2004, perhaps due to sharply higher costs of transportation. They fished for more than one million hours (21.1h/a), which was average compared to that of previous years' fishing pressure. Anglers caught more than 1.5 million fish and harvested more than 600,000, which was average when compared to that of the 2003 and 2004 creel data. Both the catch rate (30.8 f/a) and harvest rate (11.9 f/a) in 2007 were comparable to those reported during 2004 (31.9 f/a and 13.1 f/a). A slightly lower harvest rate was expected due to increasing angler attitudes which favor "catch and release". Length frequencies of all harvested or released fish are given in Table 24.

Table 25 includes fish harvest statistics for the 2007 creel survey. Crappie anglers accounted for about 37% of fishing trips to Kentucky Lake in 2007 (42% in 2003 and 32% in 2004). The estimated number of fishing trips (106,321) for crappie decreased by 10% from that of the 2004 creel, while the number of hours fished for crappie (401,714) fell by only 6%. Estimated catch and harvest rates for crappie were 7.3 f/a and 4.5 f/a, respectively (7.0 and 3.7 f/a in 2004; 9.0 and 4.9 f/a in 2003). It is estimated that 35% of the crappie caught were sub-legal in length, while about 2% of the harvestable size crappie were released (Table 26). About 48% of the 2007 crappie were caught in March (1.46 f/h) and 32% in April (0.53 f/h) (Table 27). In 2007 crappie represented 38% of all harvested fish, compared to 50% in 2003 and 28% in 2004.

Black bass anglers accounted for about 32% of all fishing trips to Kentucky Lake during 2007 (Table 25). There were 91,969 black bass fishing trips in the 2007 creel, compared to 66,000 in 2003 and 125,000 in 2004. Black bass accounted for only 4% of the harvested fish, compared to 5% in the 2004 creel. Those who targeted black bass enjoyed a catch rate of 0.73 fish per hour (0.64 f/h in 2004), but harvested only 0.06 f/h which was similar to 2004. Largemouth bass accounted for 86% of the harvested black bass and 88% of the harvested weight of black bass (Table 28). The catch of bass in May and June accounted for almost 50% of the bass creeled (Table 29).

About 15% of all trips were taken to catch panfish during 2007 (Table 25). The catch rate was 12.0 f/a, compared to 5.4 f/a in 2003 and 12.0 f/a in 2004. Panfish comprised 45% of all harvested fish in 2007, compared to 28% in 2003 and 50% in 2004. Panfish anglers harvested 236,000 panfish (1.5 f/h) during the 2007 creel survey. Table 30 breaks out the panfish creel for bluegill and redear sunfish. Although redear made up less than 10% of the panfish harvest, the quality of redear was good. The average harvested redear weighed almost 0.6 lbs. Bluegill accounted for 40% of all harvested fish. More than one half of the panfish were harvested during May, 2007 (Table 31). Bluegill and redear sunfish accounted for 88% and 10% of the panfish harvested, respectively.

Catfish anglers accounted for 6% of all fishing trips on Kentucky Lake in 2007. This was a decrease from 11% in 2004 and 8% in 2003. A drought during the summer months reduced the flow through the lake, likely having a negative impact on the success of catfish anglers. The total catch and harvest were 25,146 (0.49 f/a) and 18,175 (0.36 f/a) catfish (Tables 25 and 32). The 2003 and 2004 harvest rates were 0.7 f/a and 1.1 f/a. The catfish harvest represented 11% of the total weight of harvested fish in 2007, which was much lower than the 28% during the 2004 survey.

Only three percent of all trips were for *Morones* in 2007 (Table 25) which was similar to that during 2004 (2%). The estimated catch was 190,000 (3.72 f/a), an increase from the catches in 2003 and 2004. *Morones* represented 8.3% of the total fish harvest (0.99 f/a) during the 2007 creel survey. The catch of yellow bass was 159,000, compared to 99,000 in 2004, and 69,000 in 2003. Other than bluegill and crappie, yellow bass were the most-harvested species from Kentucky Lake at 5.9%. The catch of white bass dropped from 35,000 in 2004 to 26,000 in 2007. The catch of striped bass was 3681, similar to that of 2003 (4,700) and 2004 (2,500). High numbers of Morones were caught in March and October. In March, no anglers reported targeting Morones (Table 33). The catch during this month was likely crappie anglers incidentally catching yellow bass.

Kentucky Dam Tailwater

A random, non-uniform probability creel survey was conducted in the tailwaters of Kentucky Dam on the lower Tennessee River from 1 March 2006, through 28 February 2007 (12 months). The tailwater survey extended from Kentucky Dam downstream to the Interstate 24 Bridge (226 acres at normal pool). Random selection determined the days and time periods to be surveyed each week. Surveys were made 5 days per week. The overall temporal sampling scheme was a minimum of 20 days per month, consisting of at least 6 weekend days. There were three time periods: 0600-1200, 1200-1800 and 1800-2400. The third time period was only utilized for a portion of the survey period to collect paddlefish snagging data. Daily surveys had two parts; angler counts and angler interviews. All anglers were counted at a randomly chosen instantaneous moment each day in order to calculate a daily average usage. An attempt was made to interview all anglers in the tailwater area. This survey was an access point survey and no boat was used. A similar creel survey in this area was also conducted in 1992. However, there were some differences in the sampling scheme. During the earlier survey, the area was only sampled 10 days per month (3 weekend days and 7 week days). The duration of the 1992 survey was from February through November of 1992 (10 months).

During the 2007 survey, it was estimated that anglers made 13,288 trips and spent 38,701 hours fishing the tailwater to catch 58,636 fish (1.48 fish/hour) (Table 34). In comparison, during the 1992 creel survey, anglers made 42,726 trips, and exerted 128,141 hours of fishing pressure. The total catch during the 1992 survey was 66,505 fish (0.52 fish/hour). Total hours fished was down almost 70% during the 2007 survey, while total catch was down only 12%, which indicated a higher overall catch rate. One condition in the tailwaters that might have inhibited fishing pressure was the construction of new road and railroad bridges across the tailwater area. A second condition was the closure of the western shoreline to all fishing access while the east bank was also closed for short durations. Despite the west bank closure, shoreline fishing increased from 47% of the tailwater usage in 1992 to 54% in the 2007 survey. This is likely due to the fishing jetties that were constructed a few years prior as part of the mitigation for the current shoreline closures.

Catfish were the targeted species for 38% of all fishing trips during 2007 creel survey (Table 35). This value had declined from the 1992 survey when catfish anglers accounted for 51% of all trips. This is a decline from approximately 65,350 hours of pressure to 14,693 hours of pressure. The total number of catfish caught was down about 50 percent between the two survey periods. The majority of this decline was related to blue catfish catch. However, blue catfish still dominated the catch of catfish and comprised 81% of the catfish harvest. In 1992 it was estimated that 29,302 blue catfish were harvested, while during the recent survey only 11,639 were harvested. The length frequency for catfish harvested is tabulated in Table 36. The highest number (3,399) of catfish caught was recorded in April (Table 37). The month of highest catch reported in 1992 was July, when almost 8,000 catfish were caught. Fishing success for catfish is often determined by the flow (discharge) through the turbines at the dam. Overall, the harvest rate for catfish during the 2007 survey was 0.7 fish per hour, as compared to 0.5 fish per hour reported in 1992. One explanation for the better catch rate reported during the 2007 survey is that the construction in the tailwaters discouraged less proficient anglers from fishing.

Anglers fishing for *Morone* species, which includes white bass, yellow bass, striped bass and striped bass hybrids, accounted for 23% of all anglers in the tailwater. This was up from the 20% reported during the 1992 survey. However, these percentages are deceiving since the actual fishing pressure was around 24,700 hours in 1992 and only 8,784 hours during the 2007 survey. The best months for catching *Morones* stretched from April to October, when the number caught ranged from 1,010 to 1,529 fish per month (Table 38). The highest harvest rate was reported in the month of August.

Striped bass accounted for 51% of the *Morone* species caught and 55% of the harvest. The catch for striped bass was down from the 1992 survey (8,047 to 5,692) as was the harvest. The average length and weight for striped bass harvested was similar for the two survey periods.

Other sportfish such as black bass (largemouth, smallmouth and spotted) and crappie (white and black) comprised 3% and 6% of the angling pressure in the tailwaters, respectively. The number of black bass caught rose from 272 caught in 1992 to 1,538 during the 2007 survey. Largemouth bass comprised just over 50% of the black bass caught, while smallmouth bass accounted for 44%. The monthly creel statistics for black bass are reported in Table 39. The catch of crappie (1,808) in the 2007 survey was down from 2,270 fish in the 1992 survey. During the 2007 survey white and black crappie each comprised about 50% of the crappie catch. In 1992, white crappie accounted for almost 95% of the crappie catch. The monthly creel statistics for crappie are reported in Table 40.

Prior to the 2007 survey, the snagging regulations changed in the Kentucky Dam tailwater. In general, anglers snag for paddlefish or catfish. The old regulation allowed the angler to keep 15 fish as long as no sport fish creel limit was exceeded. There were no minimum length limit restrictions and the entire portion of the tailwater was open to snagging from the shoreline only. In March of 2006 the regulation changed. The creel limit was reduced to 8 fish. The section of tailwater between the dam and US 62 bridge would be open 24/7 from 1 January to 31 May. The same section would be open to snagging from sunset to sunrise from 1 June to 31 December. The section of tailwater between the US 62 and I-24 bridges was closed to snagging. Downstream from the I-24 Bridge was open 24/7 year around.

Snag anglers made up 12% of all fishing trips during the 2007 survey (Table 34). These anglers harvested 1,788 paddlefish which ranged in length from 16.0 - 61.0 in (eye-fork length) (Table 35). The average paddlefish harvested was 34.0 in long, and weighed 8.8 pounds. In comparison, during the 1992 creel, 3,556 paddlefish were harvested. Their average length was 35.0 in and they averaged 6.1 pounds. In the 1992 survey, the catch rate for paddlefish was estimated to be 0.5 fish/hour. During the 2007 survey, the catch rate was estimated to be 0.4 fish/hour.

There were two other regulation changes that occurred just prior to this survey. The first was the sauger creel limit, which was reduced from 10 to 6 fish. During the 2007 survey the catch of sauger was up compared to the 1992 results (3,558 in 1992; 4,098 in 2007) (Table 35). However, the harvest was down considerably (3,519 in 1992; 1,467 in 2007). Approximately 53% of the sauger caught during the recent survey were released because they were under the 14.0 in minimum length limit, while 10% were released despite being of legal length. The catch rate for both survey years was 0.5 fish/hour. The second regulation change was for *Morones* (white bass, yellow bass and hybrid striped bass). These species were combined to have an aggregate creel limit of 15 fish, with no more than 5 over 15.0 in. The 5 over 15.0 in regulation was intended to protect the hybrid striped bass. The previous creel regulation had a limit of 30 fish for white and yellow bass, while the hybrid was lumped with the striped bass. The striped bass (rockfish) was excluded from this recent regulation change and remained at 5 fish over 15.0 in. Of all the *Morone* species, striped bass comprised 51% of the catch. White, yellow and hybrid striped basses made up the remaining catch at 25%, 18% and 6%, respectively. The catch of white bass in 2007 was down from the 1992 survey (4,548 in 1992; 2,844 in 2007) as was the harvest. The quality of white bass harvested was similar between the two survey periods. However, the average length and weight for hybrid striped bass increased from the earlier survey period. Recorded in the 1992 survey, the hybrid striped bass harvested averaged 13.5 inches in length and weighed 1.2 pounds, while more recently the averages were 18.1 in and 3.4 pounds.

Lake Barkley

Black bass were collected by diurnal electrofishing from 23 April – 2 May 2007 at standardized sampling sites on Lake Barkley. A total of 1,601 black bass were collected at a rate of 145.60 f/h (Table 41). Spotted and smallmouth bass accounted for less than 4% of the total black bass sampled and too few individuals were collected to look at the true population characteristics. Largemouth bass accounted for 96.4% of the total catch and had a catch rate of 140.30 f/h. This catch rate lies just below the 23-year average catch of largemouth bass (144.80 f/h) at Lake Barkley (Table 42). The CPUE of quality size (12.0 – 14.9 in) and harvestable ($\geq$ 15.0 in) largemouth bass was higher in 2007 than in the past few year years. The catch rates of both size classes of largemouth bass continue to exceed their respective management goals found in the Barkley Lake Fish Management Plan (BLFMP).

These size classes will maintain fishing success in the near future, despite a low catch rate of small fish in the last three years (Table 42). The catch rate of largemouth bass ≥20.0 in was 1.80 f/h, and failed to meet the management objective of 3.00 f/h.

The PSD value for largemouth bass (84) has not changed much in the last three years (Table 43). This value is well above the twenty year average (61) for Lake Barkley, suggesting a better size distribution than in years past. The RSD_{15} (35) increased slightly and exceeded the 20-year average. Both PSD and RSD_{15} values met or exceeded their objective goals (PSD of 55-75 and RSD_{15} of 20-40) established in the BLFMP.

Ninety-six largemouth bass were collected for age and growth analysis (Table 44). On average, largemouth bass reached harvestable size at age 5. Ages ranged from 0-12 and the dominant age-class was age-3 (Table 45). The mean length at age-3 (13.0 in) exceeds the management objective (12.0 in). Catch rates by age-class are shown in Table 46. The annual mortality of largemouth bass older than a year was 27% in 2007 as determined using catch-curve regression (Table 47).

A lake-specific assessment was created for the largemouth bass fishery at Lake Barkley. In previous years we used an assessment that was based on data collected in water bodies throughout the state allowing statewide comparison of assessment scores. Our lake-specific assessment uses the same parameters as the statewide assessments, but only takes into account data collected on an individual lake to form the assessment scoring ranges. Lake-specific assessment scores were calculated for previous years from 2003-2007 (Table 47). The score for Lake Barkley has varied between "Fair" and "Good" over the past five years. The strongest assessment scores in 2007 for largemouth bass related to high catch rates of 12.0-14.9 and ≥15.0 inch fish (Table 47). Table 48 lists the assessment parameters and their respective values determined from the past 23 years of sampling on Lake Barkley.

Largemouth bass were sampled in October 2007 to collect length-weight data and determine the strength of the 2007 year-class. Six hundred twenty-seven largemouth bass were collected at a catch rate of 125.40 f/h (Table 49). The length-weight equations for each species of black bass at Lake Barkley are:

Largemouth bass	Log_{10} (weight) = -3.37430 + 3.06493 x Log_{10} (length)
Smallmouth bass	Log_{10} (weight) = -4.11135 + 3.71608 x Log_{10} (length)
Spotted bass	Log_{10} (weight) = -3.33856 + 2.96504 x Log_{10} (length)

Similar to previous years, very few smallmouth bass and spotted bass were collected during the fall sample and therefore these length-weight equations should be used with caution.

Relative weight values of all length groups of largemouth bass decreased slightly in 2007. However, the values are still well above the 20-year average and exceed those of previous years, indicating excellent condition of the largemouth bass in the population (Table 50). Mean length of the age-0 cohort was much larger than previous years (6.8 in; Table 51). Since year-class-strength tends to be related to the relative size of age-0 fish during the fall of their first year, the 2007 year-class should contribute strongly to the population in coming years. Year class strength has been low in preceding years, but CPUE of age-0 largemouth bass (68.70 f/h) was near record levels in 2007 (Table 51). CPUE of age-0 largemouth bass ≥5.0 in (59.40 f/h) was also very high. Because of this strong year-class, it is unlikely that anglers will notice a drop in fishing success due to the previous two years' weak year-classes.

Redear sunfish were collected by targeted diurnal electrofishing in early April 2007. Because we are in the early stages of sampling redear sunfish, sampling locations were chosen in areas where sunfish are known to spawn in the spring. As a result, CPUE's may be overestimated. We collected 149 redear sunfish ranging from 3.0-12.0 inches in 1.5 hours of sampling (Table 52). Because we focused on spawning fish, the sample is comprised mostly of adult fish (≥8.0 in; Table 53). In the future, effort will be made to collect more young fish as well as a more randomized sample. Otoliths were removed from 27 redear sunfish ranging from 1-9 years in age (Table 54). Redear sunfish in Lake Barkley exhibit very good growth reaching 8.0 inches in their third year and 10.0 inches in their sixth year. Six-year-olds dominated the catch while ages 4 and 5 were very weak (Table 55). This may be due to the low sample size in our age and growth assessment. A lake-specific population assessment indicates how the 2007 redear sunfish sample ranks in relation to previous years.

The 2007 sample earned an assessment ranking of "excellent" (Table 56), but increased CPUE's due to targeted sampling, low sampling times, and a small age and growth sample size may contribute to inaccurate estimates of growth and density.

Blue and channel catfish were collected using 100-hook trotlines (tl) from 21-25 May 2007. We captured 380 catfish at a catch rate of 20.20 f/tl-night (Table 57). The CPUE of blue catfish was 14.60 f/tl-night (Table 57). Approximately 66% of all blue catfish collected were ≥15.0 in and 26% were ≥20.0 in. As in previous years, few small catfish were captured. However, we did capture a few blue catfish under 8.0 in. The catch rate of channel catfish was 5.60 f/tl-night. Approximately 93% of all channel catfish collected were ≥12.0 in and 62% were ≥15.0 in. Similar to blue catfish, only one small channel catfish (≤8.0 in) was captured. Relative weight values of both blue and channel catfish indicate excellent condition and are shown in Table 58. The length-weight equations of blue and channel catfish are:

Blue catfish	$Log_{10}(weight) = -3.81487 + 3.28605 \times Log_{10}(length)$
Channel catfish	$Log_{10}(weight) = -3.97773 + 3.40392 \times Log_{10}(length)$

Age frequencies were calculated using 2004 age data and 2007 catch data for blue and channel catfish. The catch of age-5 and 6 blue catfish dominated the overall catch, comprising 31 and 28% of the total catch, respectively (Table 59). The catch of age-5 and 6 channel catfish dominated the overall catch, comprising 34 and 20% of the total catch, respectively (Table 60). The catch of young (ages 1-3) blue and channel catfish continues to be low and is most likely the result of gear selectivity towards larger catfish. Alternative sampling schemes will be considered in 2008 to obtain better measures of recruitment and abundance of younger catfish.

Trap nets were fished for crappie in Little River and Donaldson Creek embayments for a total of 79 net-nights (nn) from 29 October - 2 November 2007. Four hundred fifty-two crappie were collected at a rate of 5.79 f/nn (Table 61). White crappie accounted for 66% of the total catch and were collected at a rate of 3.88 f/nn. Black crappie were collected at a rate of 1.91 f/nn. The number of black crappie has increased in the catch of trap nets but not to the magnitude seen at Kentucky Lake (Figure 2). The CPUE of harvestable-size (≥10.0 in) crappie was 1.80 f/nn (Table 62). In twenty-three years of sampling, this value has ranged from 0.55-3.37 f/nn. The CPUE of quality-size (≥8.0 in) crappie (3.30 f/nn) also failed to meet the management objective (4.00 f/nn) set in the BLFMP. However, this value is above the twenty-three-year average, so there should be plenty of younger crappie growing into harvestable size fish next year. In 2007, the PSD (78) and RSD_{10} (59) of white crappie improved dramatically over 2006 values (Table 63). The 20-year average PSD and RSD_{10} values of white crappie are 57 and 25, respectively. The PSD (98) and RSD_{10} (33) values for black crappie were also much higher than in 2006, and far exceeded the 20-year average of 53 and 19, respectively. The length-weight equations for white and black crappie from Lake Barkley are:

White crappie	$Log_{10}(weight) = -3.60336 + 3.31391 \times Log_{10}(length)$
Black crappie	$Log_{10}(weight) = -3.46044 + 3.25709 \times Log_{10}(length)$

Age frequency was estimated using age and growth data from 2006 and catch data from 2007. The catch of black crappie was dominated by age-1 and age-2 fish (Table 64) with age-0 black crappie catch somewhat lower (0.44 f/nn). The catch of age-0 white crappie (1.55 f/nn) comprised 40% of the total catch (Table 65). The total CPUE of age-0 crappie (1.99 f/nn), while an improvement from last year's catch, failed to meet the management objective (5.40 f/nn) established in the BLFMP.

Assessment of the white and black crappie populations yielded a rating of "fair" at Lake Barkley in 2007 (Table 66). The lowest assessment values for white crappie were the two recruitment parameters (CPUE of age-0 crappie and CPUE of age-1 crappie) and the population density parameter (CPUE of age-1 and older). The highest assessment value continues to be the growth parameter (mean length at capture of age-2 crappie).

Lake Beshear

Largemouth bass were collected by diurnal electrofishing during May at Lake Beshear. A total of 249 largemouth bass were collected at a rate of 83.00 f/h (Table 67). CPUE's of harvestable-size (≥12.0 in) and ≥15.0 in largemouth bass were 50.33 and 35.33 f/h, respectively (Table 68). One objective in the Lake Beshear Fish Management Plan (LBFMP) is to maintain a catch rate of 40.00 f/h for harvestable-size largemouth bass. Because the bass fishery at Lake Beshear is considered to be a high quality bass fishery, a second objective is to maintain a high catch rate of bass ≥18.0 and ≥20.0 in. Ideally, these catch rates should be greater than 30.00 and 4.00 f/hr, respectively. This is the second consecutive year the catch rate of the trophy size (≥20.0 in) bass was above the recommended rate. The historical mean for this catch rate is 3.80 f/hr, while the highest rate was recorded in the late 1990's (8.50 f/hr).

Age and growth determinations were made using otoliths collected during the 2006 spring sample. Largemouth bass reach 12.0 in (harvestable-size) by age-3. The age frequency data is presented in Table 69. The population estimate for age-1 fish was about half of that reported in the 2006 sample. However, the catch of age-2 bass was up. A lake specific assessment rated the overall bass population as "good" (Table 70). The excellent growth rate of bass, along with the high catch rate of bass ≥ 15.0 in, continues to support this rating. What limits this fishery is recruitment. However the number of quality fish is always high. Low recruitment could be a factor of sampling in clear water. Nocturnal sampling, however, was conducted in 1995 to 2002 and yielded similar results as diurnal sampling in other years.

Largemouth bass were collected by diurnal electrofishing in October. The catch rate (44.80 f/h) was below that of the spring sample (Table 67). Relative weight data suggests that the larger bass (≥15.0 in) are very healthy with regard to their length-weight ratio. Relative weight values were above 103 for these larger bass and averaged 91 for all bass. The length-weight equation for largemouth bass at Lake Beshear is:

$$\text{Log}_{10}\,(\text{weight}) = -3.61244 + 3.26478 \times \text{Log}_{10}\,(\text{length})$$

Otoliths were removed from a sub sample of largemouth bass ≤ 8.0 in to determine the mean fall length of the age-0 cohort. The catch rate for this year class was 21.60 f/h (Table 71). The average length of the age-0 bass was 4.8 in.

Lake Pennyrile

Lake Pennyrile was sampled by diurnal electrofishing on 4 April 2007. Largemouth bass were collected at a rate of 124.00 f/h., while bluegill and redear sunfish were collected at a lower rate (64.00 f/h and 50.67 f/h, respectively; Table 72). The largemouth bass catch rate was lower than that recorded in 2006 (218.40 f/h), but similar to the catch rates in previous years (Table 73). The CPUE of largemouth bass ≤8.0 in was 41.00 f/h, compared to 81.00 f/h recorded in 2006. Similarly, CPUE of largemouth bass 8.0-11.9 in was 66.00 f/h, compared to 105.00 f/h recorded in 2006. CPUE of largemouth bass 12.0-14.9 in was 14.00 f/h, which failed to meet the management objective (25.00 f/h) established in the Lake Pennyrile Fish Management Plan (LPFMP). Catch rates of largemouth bass ≥15.0 in was lower than the average for most years of sampling (Table 73). The catch of the larger bass has exceeded the management objective (5.00 f/h) in previous years, but failed to do so in 2007. This is the fourth year that a 12.0-15.0 in protective slot limit has been in place on Lake Pennyrile. The lower catch rates of largemouth bass <12 in suggest an improvement in the overall population size distribution. PSD and RSD_{15} values, listed in Table 74, lie well below the management objectives set in the LPFMP for PSD (40-50) and RSD_{15} (10), and are reflective of the high density of small fish in the population.

The new lake-specific assessment for largemouth bass at Lake Pennyrile is indicative of the management challenges that we've had in recent years. Since 2003 the assessment has ranged from "Poor" to "Good", with the 2007 assessment rating "Poor" (Table 75). The growth parameter used in the assessment was estimated in 2003, so we will collect an age and growth sample next year to see if there has been any improvement. Table 76 shows CPUE for each age class of largemouth bass calculated from the 2003 age and growth sample. With the slot limit in place, we hope to see a decrease in the density of smaller fish in the population and an increase in the catch rates of fish over 15.0 in. While the catch rates were lower this year, they were lower for all sizes of fish, which could be caused by sampling conditions and timing of sampling. We intend to examine the population over the next couple years to see if the slot limit is working. If the population does not show improvement, we'll consider other management options at that time.

The spring catch rates of bluegill and redear sunfish have been variable over the past seventeen years. CPUE for fish over 8.0 in. has ranged from 0.00-12.30 f/h for bluegill and 7.00-134.70 f/h for redear sunfish (Table 77). Unfortunately, the samples in recent years have fallen at the low end of these ranges. The lake specific assessment for bluegill and redear has ranged from "poor" to "fair" since 2002 (Tables 78 and 79).

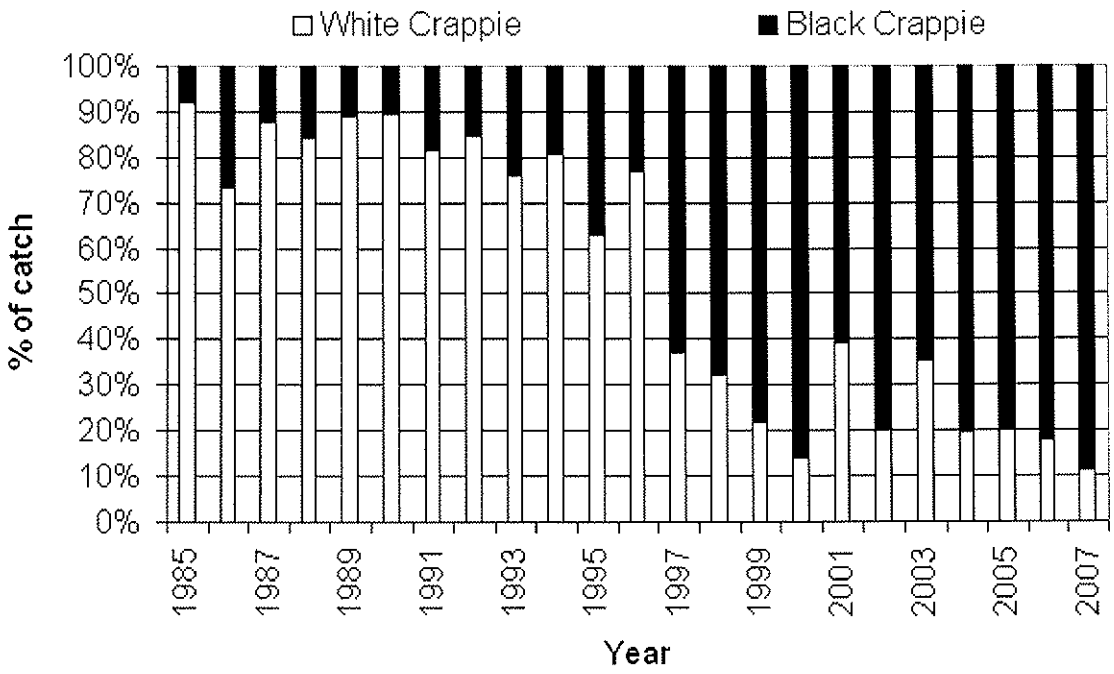
Hematite Lake

Hematite Lake is a 90-acre sub-impoundment of Lake Barkley located within the Land Between the Lakes Recreational Area. The management objective for this lake is to establish a quality redear fishery, seen in the late 1980s before the lake was drained due to a levee failure. In spring 2002, the lake was sampled by electrofishing. During that study redear sunfish were collected at a catch rate of 159.00 f/h. In 2005, the redear sunfish population was again sampled resulting in a catch rate of 187.60 f/h, and in 2007 it was 355.50 (Table 80). The catch of redear sunfish 3.0 to 6.0 in dominate the sample, while the number of quality fish remains low (Table 81). The harvest of redear sunfish is regulated by a creel limit of 10 fish $\geq$10.0 in. This size limit should be revisited given the low catch rate of harvestable fish. However, these sampling conditions are not ideal due to the density of aquatic vegetation present in the lake. Until this vegetation is thinned, samples may continue to be low. Also, the dense vegetation may provide too much cover for small sunfish, limiting the needed predation by bass to keep the sunfish population in balance.

Lake Blythe

Lake Blythe is an 89 acre watershed lake located just north of Hopkinsville off Highway 41 in Christian County, Kentucky. The fishery in this lake is primarily largemouth bass, bluegill, redear, crappie and catfish. In recent years sampling has revealed a stunted bass population. Table 82 includes spring electrofishing data, which suggest that 90% of the bass population is less than 12.0 inches in length. The PSD and RSD_{15} values are presented in Table 83, and also suggest the bass population is dominated by small bass. As a result, in 2008 a 12.0-15.0 in protective slot limit will be enforced on the lake. Otoliths were collected from a portion of the samples taken in the spring. Although the sample size is small and few big bass were taken, growth is considered slow. It appears to take about 4 years for bass to reach 12.0 in (Table 84). Over 60% of the bass aged were 2 years old (Table 85). It is also anticipated that channel catfish will be stocked at a rate of 50 fish per acre (4,450 total fish) on an every other year basis beginning in 2008.

Figure 1. Relative species composition of white and black crappie collected during annual fall trap-netting from 1985-2007 at Kentucky Lake.



(Kentucky_Crappie_Database.xls)

Figure 2. Map of creel survey areas at Kentucky Lake.

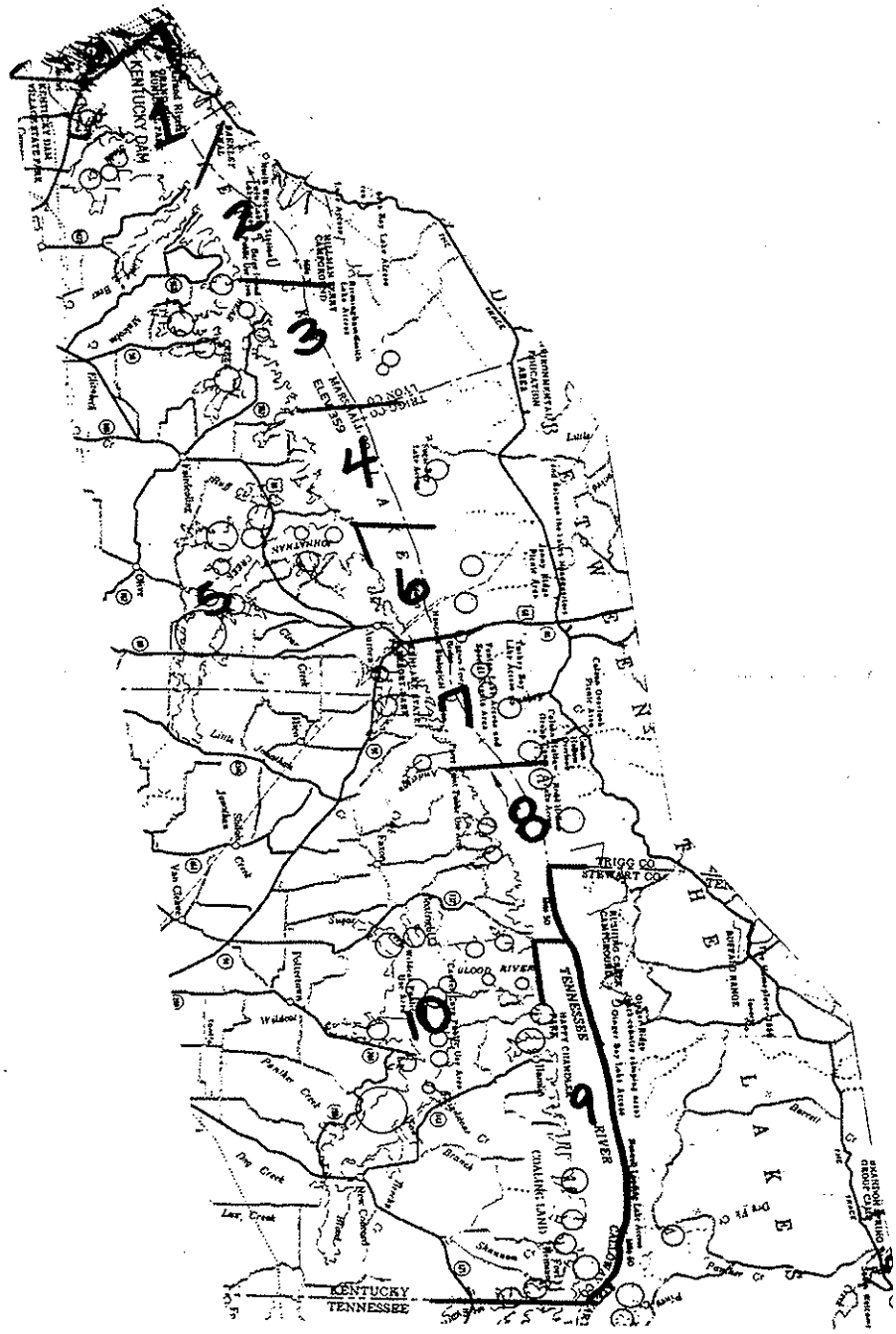
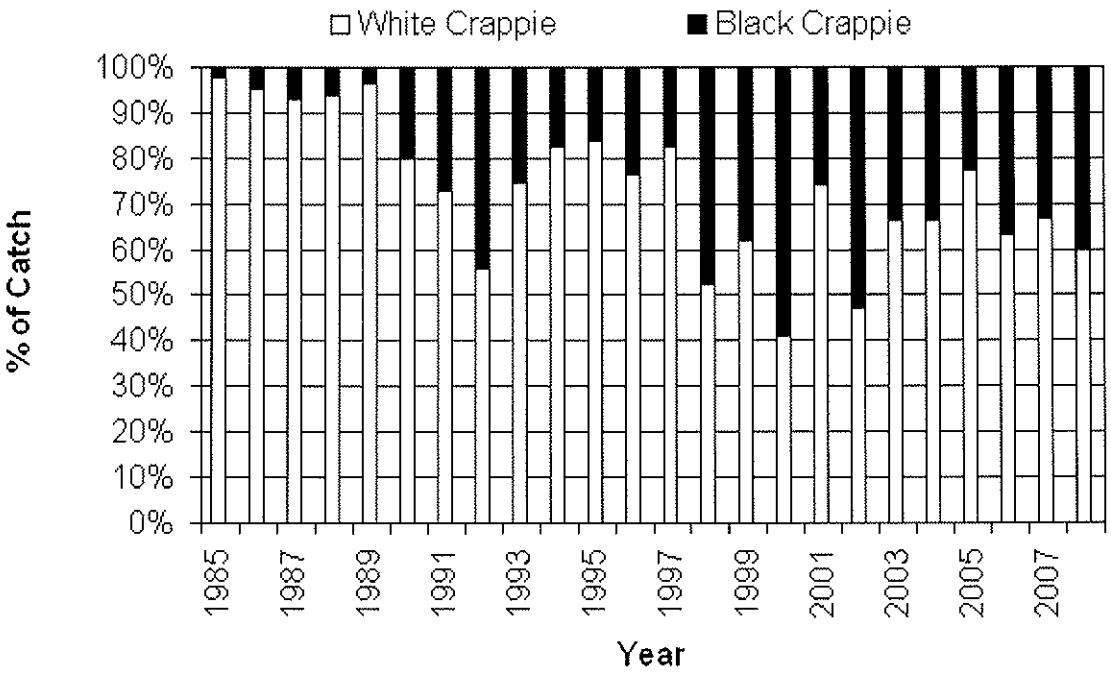


Figure 3. Relative species composition of white and black crappie collected during annual fall trap-netting from 1985-2007 at Lake Barkley.



(Barkley_Crappie_Database.xls)

Appendix 1. Kentucky Lake creel survey questionnaire.

KENTUCKY LAKE ANGLER ATTITUDE SURVEY 2007

1. Have you been surveyed this year? Yes, stop survey No, continue to answer questions

2. Zip Code_____ Name (optional) _____

< 1% - AL, IA, MI, TX, WV, and WI, 1% - AR, 17% - IL, 54% - KY, 5% - MO, 5% - OH, 2% - TN
(46% - nonresident and 54% resident)

3. What level of satisfaction do you have with crappie fishing at Kentucky Lake? **(307)**
30% very satisfied **33%** somewhat satisfied **11%** neutral
9% somewhat dissatisfied **5%** very dissatisfied **12%** no opinion

3-A. If you responded with somewhat or very dissatisfied in question (3) – what is the single most important reason for your dissatisfaction?

4. Do you support or oppose the current 30 fish daily creel limit on crappie at Kentucky Lake? **(307)**
79% support **11%** oppose **10%** no opinion

5. Would you support or oppose a reduction in the current crappie creel limit? **(307)**
47% support **35%** oppose **18%** no opinion

5A. What reduced daily creel limit would you support ? **(135)**
10 = 1%, 12 = 1%, 15 = 23%, 20 = 65%, 25 = 10%

6. Do you use spider rigging (three or more poles per angler at the same time) as your primary method of crappie fishing? **(307)** **21%** yes **79%** no

7. Do you support or oppose spider rigging as a method of crappie fishing? **(307)**
32% support **19%** oppose **49%** no opinion

8. What level of satisfaction do you have with the bass fishing at Kentucky Lake? **(307)**
27% very satisfied **24%** somewhat satisfied **4%** neutral
1% somewhat dissatisfied **1%** very dissatisfied **43%** no opinion

8-A. If you responded with somewhat or very dissatisfied in question (8) – what is the single most important reason for your dissatisfaction?

9. Do you support or oppose the largemouth and smallmouth bass 15 inch minimum size limit on Kentucky Lake? **(307)** **70%** support **3%** oppose **27%** no opinion

10. If opposed, what size limit would you prefer? **(13)** **12"-15" slot = 24%,**
15"-18" slot = 17%, 15" & 1 under = 17%, 10" = 8%, 12" = 17%
17" = 8%, 18" = 8%

11. What other fishing or boating related issues should the Department be aware of on Kentucky Lake? (write response on back of form)

42% - more law enforcement, 18% - higher water levels, 11% - more boat ramps, fish cleaning stations, stake beds and bathrooms, 10% - change fish creel regulations, 7% - non-resident licenses fee, 6% - aquatic vegetation, 6% - miscellansous responces

KENTUCKY LAKE TAILWATER ANGLER ATTITUDE SURVEY 2007

1. Have you previously completed this survey? Yes - stop survey No – continue

2. Name _____ and Phone number _____ **(Optional)**

3. What zip code do you reside in? _____ _____ _____ _____ _____

4. What species of fish do you primarily fish for in the tailwaters below Kentucky Dam?

69.8% - Catfish 28.3% - White bass 43.9% - Striped bass 24.9% - Sauger 21.5% - Largemouth / Smallmouth bass 15.1% - Paddlefish 15.5% - Panfish 15.6% - Crappie 1.5% - Buffalo 4.4% - Herring/Skipjack 1.0% - Anything

Sauger Anglers

5. What level of satisfaction do you have with sauger fishing in the tailwaters below Kentucky Dam?

8% - Very satisfied 16% - somewhat satisfied 20% - neutral 7% - somewhat dissatisfied 4% - very dissatisfied 45% - no opinion

6. Do you support or oppose the 14-inch size limit on sauger in the tailwaters? 53% - Support 12% - Oppose 36% - No opinion

What size limit on sauger would you prefer? 14% - 10 36% - 12 14.3% - 13 21% - 15 7% - <14 7% - 13/17 slot

7. Do you support or oppose the 6 fish daily creel limit on sauger in the tailwaters? 53% - Support 12% - Oppose 36% - No opinion

What creel limit on sauger would you prefer? 83% - 6 12% - 10 <1% - 4, 8, no limit

Morone Anglers (White bass, Yellow bass, Striped bass, Hybrid striped bass)

8. What level of satisfaction do you have with Morone fishing in the tailwaters below Kentucky Dam?

26% - Very satisfied 24% - somewhat satisfied 15% - neutral 10% - somewhat dissatisfied 0% - very dissatisfied 25% - no opinion

9. What species of Morone do you primarily fish for in the tailwaters below Kentucky Dam?

28% - White bass 2% - Yellow bass 52% - Striped bass (rockfish) 19% - Hybrid striped bass

10. Do you support or oppose the 15 (in aggregate) fish daily creel limit on white bass, yellow bass and hybrid striped bass in the tailwaters? 59% - Support 20% - Oppose 21% - No opinion

11. Do you support or oppose that no more than 5 fish of your creel for white bass, yellow bass and hybrid striped bass can be more than 15 inches long? 54% - Support 21% - Oppose 25% - No opinion

12. Do you support or oppose the 15-inch size limit on striped bass in the tailwaters? 64% - Support 15% - Oppose 20% - No opinion

What size limit on striped bass would you prefer? 85% - 15 4% - 12 3% - 18 3% - 20 <1% - 10, 13, 14, 17, 22, 24

13. Do you support or oppose the 5 fish daily creel limit on striped bass in the tailwaters? 56% - Support 24% - Oppose 20% - No opinion

What creel limit on striped bass would you prefer? 75% - 5 11% - 3 2% - 2 2% - 7 4% - 8 5% - 10, <1% - 6, no limit

Paddlefish

14. Do you support or oppose the method of fishing called "snagging" for paddlefish and catfish in the tailwaters below Kentucky Dam? 45% - Support 30% - Oppose 25% - No opinion

15. Do you support or oppose the 8 fish (in aggregate) daily creel limit for this method of fishing, not to exceed a daily creel limit for any sport fish in which the creel limit is under 8 fish per day, in the tailwaters?

41% - Support 29% - Oppose 30% - No opinion

16. We recently changed regulations in the tailwaters to reduce the potential for conflicts between snagging and sportfish anglers. In your opinion, do the regulation changes reduce the conflict? 31% - Yes 19% - No 50% - No opinion

Table 1. Yearly summary of sampling conditions by waterbody, species sampled and date.

Water body	Location	Species	Date	Time (24hr)	Gear	Weather	Water temp. F	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Barkley	Little River	LMB	4/23/2007	900	shock	rain/wind	61.9	359.5	clear	average	sampling looks good, timing is right, fish are where they are supposed to be
Barkley	Ford's/Parsons	LMB	4/25/2007	900	shock	sunny/cool	68.3	359.5	54	ok	sampled on leading edge of front, samples good, cut short run 5 (680s)
Barkley	Donaldson/Devil's Elbow	LMB	4/26/2007	900	shock	cloudy/rain	69.0	359.5	clear	average	most bass and redear with eggs on outside of mustard flowers/outer edge of bushes
Barkley	Demumbers	LMB	4/30/2007	900	shock	sunny/hot	68.7	359.5	clear	average	
Barkley	Eddy Creek	LMB	5/2/2007	900	shock	cloudy/rain	72.5	359.5	54	average	
Barkley	Hopson north	catfish	5/22/2007	900	trotlines	sunny	74.6	358.9		slight wind	lost 1 line, most fish smaller in river channel, lost some fish due to poor water quality (cheese bait)
Barkley	Hopson north	catfish	5/23/2007	900	trotlines	sunny	75.0	358.6		south wind	very little current, fished on tops of main channel due to water quality issues
Barkley	Hopson north	catfish	5/24/2007	900	trotlines	overcast/windy	75.0	358.5		rough	tough sampling, rough water
Barkley	Hopson north	catfish	5/25/2007	900	trotlines	warm/windy	75.0	358.5		choppy	normal sample, cut one line
Barkley	Devil's Elbow	redear	4/26/2007	1300	shock	cloudy/rain	69.0	359.5		average	excellent sample, middle of spawn, most fish are spawners, no small fish
Barkley	Lick Cr.	redear	5/10/2007	800	shock	partly cloudy	72.9	359.6		calm	good sample, many fish have moved from beds, towards end of spawn
Barkley	Kuttawa north	smallmouth	8/2/2007	2100	shock	calm, hot, NE	88.3	357.0	poor vis.	poor	poor visibility, may have missed deeper fish, Run # 3 inexperienced driver may have affected sample
Barkley	Little River	crappie	10/30/2007	800	trapnet	calm, cool	59.3	356.6		poor	water about 1.0' higher than normal, most fish were adult fish, muddy upstream, moved some nets
Barkley	Donaldson	crappie	11/1/2007	800	trapnet	clouds, NE 10-15	59.3	356.6		poor	high water, net 8 messed with, 0 fish
Barkley	Little River	LMB	10/14/2007	800	shock	partly cloudy	70.8	355.5		good	Neal sick, Paul filled in
Barkley	Eddy Creek	LMB	10/18/2007	800	shock	sun, wind	71.6	355.5		good	previous night had storms and wind, good sample
Beshear		black bass	4/19/2007	900	shock	sun, wind	59.6	normal	42	choppy	good sample
Beshear		catfish	10/9/2007	900	trotlines	warm front	75.7	low	72	calm	water level was low and falling due to recent drought, good sample
Beshear		black bass	10/2/2007	900	shock	sun, light wind	75.9	low	72	calm	good sample
Blythe		everything	4/5/2007	900	shock	cold front	61.7	normal	20	choppy	results influence by cold front making sample only fair
Hematite		sportfish	4/16/2007	900	shock	sun, wind	54.8	normal	60	good	LBL intern assisted (inexperienced dipper), dense vegetation
Kentucky	Blood River	crappie	10/22-26/2007	900	trapnet	rainy, cold	65.0	355.6	clear	rough	water level rising about 1 foot during week, water temp. dropped 10 degrees during week, good sample
Kentucky	Jonathan	crappie	10/22-26/2007	900	trapnet	rainy, cold	65.0	355.6	clear	rough	water level rising about 1 foot during week, water temp. dropped 10 degrees during week, good sample
Kentucky	Blood River	black bass	4/24/2007	900	shock	sun, light rain	65.1	359.7	61	calm	lake level was stable, water temp. was rising to 67.7 upstream, good sample
Kentucky	Jonathan	black bass	4/27/2007	900	shock	cloudy, cool	65.7	359.5	61	calm	lake level was stable, water temp. fell to 66.2 downstream, good sample
Kentucky	Big Bear	black bass	5/1/2007	900	shock	clear	71.8	359.5	60	calm	lake level was stable, water temp. was rising to 73 upstream, good sample
Kentucky	Sugar Bay	black bass	5/3/2007	900	shock	cloudy/light rain	70.5	359.5	62	calm	lake level was stable, good sample
Kentucky	Blood River	black bass	10/16/2007	900	shock	overcast	70.9	355.5	65	calm	good sample
Kentucky	Jonathan	black bass	10/17/2007	900	shock	sun, light wind	70.5	355.5	65	calm	good sample
Kentucky	Boyd Branch	catfish	5/15/2007	900	trotlines	foul weather	74.0	359.6	47	rough	High winds, cold front, too rough to run lines on main lake, move into the embayment, poor sample for blues
Kentucky	Fenton - south	smb, sauger	7/30/2007	2000	shock	calm	84.2	356.7	clear	calm	sampled around a lot of aquatic vegetation, good sample
Kentucky	Canal	smb, sauger	7/31/2007	2000	shock	calm	84.2	356.7	clear	calm	sampled from sail boat marina south, around a lot of aquatic vegetation, good sample
Pennyrile		everything	4/2/2007	1000	shock	sunny/calm	64.0	normal		normal	good sample

Table 2. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected during 10.0 hours (20 x 30-minute runs) of diurnal electrofishing at Kentucky Lake during May 2007.

	Inch Class																						
Area	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std Err
Blood River																							
Smallmouth bass			1																		1	0.29	0.29
Spotted bass		3	1	1				1			1		1								8	2.29	0.81
Largemouth bass		5	14	23	12	2	9	15	19	11	12	24	31	19	16	14	9	3	1		239	68.29	4.89
Big Bear																							
Smallmouth bass			1					1													2	0.67	0.80
Spotted bass		1																			1	0.33	0.40
Largemouth bass		1	4	3	5	5	5	8	11	15	28	33	27	19	16	8	3	1			192	64.00	9.33
Sugar Bay																							
Smallmouth bass		1	1		1	1	1	1	1	1				1	1						10	3.33	1.23
Spotted bass		1	1	1				1	3	2	1	1	1								12	4.00	1.63
Largemouth bass	2	20	26	36	39	21	30	39	40	43	36	42	27	23	8	3					435	145.00	4.75
Jonathan																							
Spotted bass				1				1	1												3	1.20	0.68
Largemouth bass	1	5	7	12	1	2	9	14	17	25	30	46	30	23	9	3	10	6	3	1	254	101.60	7.94
TOTAL																							
Smallmouth bass		1	3		1	1	1	2	1	1				1	1						13	1.08	0.43
Spotted bass		5	2	3				3	4	2	2	1	2								24	2.00	0.55
Largemouth bass	3	31	51	74	57	30	53	76	87	94	106	145	115	84	49	28	22	10	4	1	1,120	93.33	7.06

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Table 3. Spring diurnal electrofishing CPUE of each length group of largemouth bass collected at Kentucky Lake during May 1983 - 2007.

	Mean length age-3 at	age-1		Length Group										Total	
				<8.0 in		12.0 - 14.9 in		≥15.0 in		≥18.0 in		≥20.0 in			
Year	capture	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err
1983				3.00		1.33		4.21						16.00	
1984				3.30	1.10	6.30	0.70	5.80	0.80					24.60	
1985				6.30		2.04		3.61						15.90	
1986	10.6	17.34	1.15	12.56	1.57	10.34	2.03	10.06	1.48	5.06	0.88	1.53	0.34	45.09	5.33
1987	11.2	41.01	3.83	36.88	5.80	10.12	1.33	11.86	1.81	4.50	1.04	1.30	0.45	77.33	8.72
1988	11.3	26.00	5.20	28.88	7.46	24.23	4.44	14.33	3.78	5.58	1.12	2.59	0.67	106.07	24.13
1989	11.0	33.75	3.63	29.19	6.28	23.73	3.89	9.78	1.88	4.58	0.92	1.83	0.41	92.82	14.73
1990	11.4	16.20	1.27	6.19	1.60	12.48	1.76	14.29	1.78	6.57	1.02	2.10	0.61	60.38	5.92
1991	11.3	41.40	3.89	38.48	7.06	26.95	2.46	19.43	2.51	9.24	1.33	3.14	0.56	99.62	10.32
1992	10.9	31.49	2.66	23.36	4.62	17.73	1.42	21.91	1.88	11.55	1.21	4.27	0.66	95.36	7.46
1993	11.6	33.08	2.92	31.50	5.40	25.60	3.17	29.80	3.46	14.80	2.02	5.50	1.03	101.90	10.14
1994	11.6	25.42	1.76	20.96	2.99	19.57	1.73	18.43	1.95	8.96	1.17	2.87	0.55	84.00	5.72
1995	11.0	9.17	0.85	5.91	1.15	19.64	2.49	24.64	2.11	13.27	1.57	6.18	0.85	65.45	4.99
1996	11.0	14.25	1.45	11.81	2.60	15.56	1.76	26.97	2.64	12.12	1.39	5.56	0.67	61.18	4.54
1997	12.7	7.30	0.69	6.17	1.23	9.92	1.43	19.58	2.03	8.08	1.11	3.17	0.68	42.58	4.14
1998	12.7	51.95	3.62	18.00	1.99	9.83	1.80	10.43	1.76	3.91	0.79	1.39	0.29	46.78	4.67
1999	13.9	41.89	3.44	18.70	3.33	11.40	1.53	11.90	1.68	3.10	0.66	0.80	0.30	52.00	4.90
2000	13.9	21.80	2.17	19.43	3.84	19.05	1.83	22.48	3.55	5.14	0.86	1.52	0.41	74.38	6.21
2001	14.4	73.90	4.28	63.70	6.99	12.80	1.55	12.60	1.49	2.80	0.60	0.40	0.18	116.70	9.63
2002	13.7	35.50	2.83	32.40	5.36	21.80	2.26	13.10	1.14	4.00	0.73	0.90	0.34	94.00	5.90
2003	13.7	30.90	2.70	21.81	3.75	43.62	5.20	15.62	1.92	4.38	0.90	0.95	0.26	105.43	11.40
2004	13.7	11.99	1.56	17.70	2.60	22.70	2.14	18.10	1.84	3.70	0.87	1.30	0.41	83.60	5.77
2005	13.8	28.70	3.01	24.50	2.49	46.50	4.36	23.60	2.21	3.70	0.70	0.80	0.37	107.40	7.59
2006	13.8	31.79	7.05	28.30	6.30	23.60	2.44	20.90	2.32	3.30	0.64	0.60	0.21	85.40	5.51
2007	13.8	22.16	3.95	18.00	3.29	28.75	2.80	26.08	1.74	5.42	0.74	1.25	0.40	93.33	7.06
Average	12.4	29.41		21.08		18.62		16.38		6.53		2.27		73.89	

(Kentucky Bass Database.xls)

Table 4. PSD and RSD values calculated for black bass species collected during diurnal electrofishing at Kentucky Lake during May 2007; 95% confidence limits are in parentheses.

Area	Species	No. Fish ≥ 8.0 in	PSD	(+/- 95%)	RSD[a]	(+/- 95%)
Blood River	Largemouth bass	185	76	(+/- 6)	50	(+/- 7)
Big Bear Creek	Largemouth bass	179	84	(+/- 5)	41	(+/- 7)
Jonathan Creek	Largemouth bass	228	82	(+/- 5)	37	(+/- 6)
Sugar Bay	Largemouth bass	312	58	(+/- 5)	20	(+/- 4)
TOTAL	Smallmouth bass	8	44	(+/- 34)	22	(+/- 29)
	Spotted bass	14	79	(+/- 22)	21	(+/- 22)
	Largemouth bass	904	73	(+/- 3)	35	(+/- 3)

[a]Largemouth bass = RSD_{15}, Spotted and Smallmouth bass = RSD_{14}
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Table 5. Age frequency and CPUE of largemouth bass collected during diurnal electrofishing for 12 hours (24 x 30-minute runs) at Kentucky Lake during May 2007.

	Inch Class																					
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	Std Err
1	3	31	51	74	57	30	20													266	23.8	22.16	3.95
2							33	76	71	38										218	19.5	18.17	2.31
3									16	56	96	44	14							226	20.2	18.83	1.76
4											10	43	29	14						96	8.6	8.00	0.67
5												43	72	56	49	17	6			243	21.7	20.25	1.47
6												15		14			6			35	3.1	2.92	0.23
7																11	10	4		25	2.2	2.08	0.30
8																		3	4	7	0.6	0.58	0.23
9																		3		3	0.3	0.25	0.09
Total	3	31	51	74	57	30	53	76	87	94	106	145	115	84	49	28	22	10	4	1,119		93.25	
%	0	3	5	7	5	3	5	7	8	8	9	13	10	8	4	3	2	1	0		100		

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Table 6. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Kentucky Lake in spring samples.

	Year										
Age	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	7.30	51.95	41.89	21.80	73.90	35.50	30.90	11.99	28.70	31.79	22.16
2	8.44	22.51	26.34	14.54	17.71	29.68	26.94	12.21	12.21	10.65	18.16
3	5.42	14.37	15.76	10.54	7.10	11.18	22.12	6.13	30.14	15.12	18.87
4	9.42	18.99	20.63	15.51	9.04	8.70	18.29	7.62	10.54	7.10	7.99
5	3.05	3.81	4.97	3.96	2.43	2.24	2.35	6.96	20.66	17.00	20.22
6	2.21	2.77	3.33	2.35	1.69	1.66	2.47	0.95	3.12	1.99	2.83
7	0.33	0.33	0.38	0.23	0.21	0.23	0.31	0.10	1.44	1.25	2.13
8	0.67	0.66	0.76	0.45	0.43	0.45	0.62	0.20	0.30	0.30	0.61
9	0.33	0.33	0.38	0.23	0.21	0.23	0.31	0.10	0.20	0.10	0.28

(Kentucky Bass Database.xls)

Table 7. Population assessment of largemouth bass based on spring sampling at Kentucky Lake from 2003-2007, using the Kentucky Lake specific assessment criteria.

	2003		2004		2005		2006		2007	
Parameter	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Growth (Mean length at capture of age-3)	13.7	4	13.7	4	13.8	4	13.8	4	13.8	4
Recruitment (Spring CPUE of age-1)	30.85	2	11.99	1	28.70	2	31.79	2	22.16	1
Size Structure (Spring CPUE of 12.0-14.9 in.)	43.62	3	22.70	2	46.50	3	23.60	2	28.75	2
Size Structure (Spring CPUE of ≥ 15.0 in.)	15.62	2	18.10	2	23.60	3	20.90	2	26.08	4
Size Structure (Spring CPUE of ≥ 20.0 in.)	0.95	1	1.30	1	0.80	1	0.60	1	1.25	1
Instantaneous Mortality (Z)	0.728		0.697		0.639		0.666		0.560	
Annual Mortality (A)%	51.7		50.2		47.2		48.6		32.2	
Total Score	12		10		13		11		12	
Assessment Rating	G		F		G		F		G	

Rating
5-7 = Poor (P)
8-11 = Fair (F)
12-16 = Good (G)
17-20 = Excellent (E)

(Kentucky Bass Database.xls)

Table 8. Species composition, relative abundance and CPUE (fish/hour) of black bass collected during 5.0 hours (10 x 30-minute runs) of diurnal electrofishing runs for black bass at Kentucky Lake during October 2007.

	Inch Class																					
Area / Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std Err
Blood River																							
Smallmouth bass			2	2	4	1	2		2	1	1	2		1		1					19	7.60	1.60
Spotted bass				7	4	2	1	2	5	2	4	2	3								32	12.80	3.61
Largemouth bass		3	4	21	22	75	52	20	4	9	15	12	15	11	10	9	1	1	3	2	289	115.60	20.02
Jonathan																							
Smallmouth bass			1	1	4				1	2			1	1							11	4.40	2.56
Spotted bass		2	3	3	3			1	6			3	2								23	9.20	3.32
Largemouth bass	9	48	15	11	54	154	110	37	9	16	11	17	17	13	9	5	2	2	1		540	216.00	43.34
TOTAL																							
Smallmouth bass			3	3	8	1	2		3	3	1	2	1	2	1						30	6.00	1.52
Spotted bass		2	3	10	7	2	1	3	11	2	4	5	5								55	11.00	2.39
Largemouth bass	9	51	19	32	76	229	162	57	13	25	26	29	32	24	19	14	3	3	4	2	829	165.80	28.05

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Table 9. Number of bass and relative weight (Wr) for each length group of black bass collected at Kentucky Lake during October 2007. Standard errors are in parentheses.

		Length Group								
		8.0-11.9 in			12.0-14.9 in			≥ 15.0 in		
Species	Area	No.	Wr		No.	Wr		No.	Wr	
Largemouth bass	Blood River	85	104	(0.99)	42	95	(1.25)	37	99	(1.70)
	Jonathan Creek	170	98	(0.73)	45	94	(1.40)	32	96	(2.03)
	Total	255	100	(0.61)	87	94	(0.94)	69	98	(1.31)

		Length Group								
		7.0-10.9 in			11.0-13.9 in			≥ 14.0 in		
Species	Area	No.	Wr		No.	Wr		No.	Wr	
Spotted bass	Blood River	10	103	(2.28)	8	95	(2.46)	3	95	(1.57)
	Jonathan Creek	7	97	(1.84)	3	85	(4.81)	2	98	(2.45)
	Total	16	100	(1.81)	11	92	(2.49)	5	96	(1.31)
Smallmouth bass	Blood River	5	88	(3.56)	4	80	(4.33)	2	80	(0.46)
	Jonathan Creek	1	90		2	94	(9.62)	2	82	(5.48)
	Total	6	89	(2.92)	6	84	(4.78)	4	81	(2.29)

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Table 10. Fall collected age-0 CPUE and mean length (in) of largemouth bass collected in the fall, and CPUE of age-1 largemouth bass collected the following spring during diurnal electrofishing at Kentucky Lake. Re-ran all calculations based off length frequency charts.

Year Class	Age 0[A] Mean Length	Std Err	Age 0[A] CPUE	Std Err	Age 0 ≥5.0 in[A] CPUE	Std Err	Age 1[B] CPUE	Std Err
1990	5.8	0.07	24.92	6.52	19.67	4.85	41.40	7.23
1991							31.49	4.94
1992	4.8	0.06	45.75	11.25	20.38	4.62	33.08	5.43
1993	4.1	0.07	40.57	10.52	9.71	1.71	25.42	3.28
1994	4.5	0.08	16.86	4.95	5.24	1.40	9.17	1.58
1995	5.2	0.06	58.21	12.50	31.26	4.91	14.25	2.70
1996	4.2	0.05	46.27	8.65	10.27	1.38	7.30	1.28
1997							51.95	6.74
1998	6.4	0.15	27.66	5.02	21.92	4.51	41.89	6.40
1999	4.3	0.08	43.56	12.16	9.56	2.78	21.80	4.04
2000	6.2	0.11	42.20	3.62	32.40	3.38	73.90	7.96
2001	5.6	0.08	23.20	4.80	18.40	3.66	35.50	5.26
2002	5.7	0.12	36.20	9.62	23.40	4.13	30.90	0.00
2003	4.9	0.08	30.67	5.57	15.67	2.01	11.99	0.00
2004	4.6	0.09	26.00	6.16	9.83	1.66	28.70	5.60
2005	5.0	0.14	17.80	4.07	10.00	1.71	31.79	6.69
2006	4.8	0.13	19.00	3.77	8.80	1.72	22.16	3.95
2007	7.1	0.06	122.20	26.51	106.40	24.60		
Average	5.2		38.82		22.06		30.16	

[A] Data collected by fall (October) diurnal electrofishing. Mean lengths were determined by analysis of otoliths removed from a subsample of LMB < 8.0 in and extrapolated to the entire catch of the fall sample.

[B] Data from diurnal electrofishing samples collected the follwing spring (April/May).

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Table 11. Species composition, relative abundance, and CPUE (fish/net-night) of crappie collected by trap nets fished during 80 net-nights in two embayments of Kentucky Lake during October 2007.

		Inch Class															
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE	Std Err
Blood River	White Crappie	1	7		2	5	2		1	4	10	1			33	0.83	0.21
	Black Crappie	33	31	12	9	20	16	74	55	90	55	14		1	410	10.25	1.53
Jonathan Cr.	White Crappie	9	9	2	1			14	46	23	14	6	1		125	3.13	0.45
	Black Crappie	5	25	13	4	14	117	263	106	146	125	8	1		827	20.68	3.57
TOTAL	White Crappie	10	16	2	3	5	2	14	47	27	24	7	1		158	1.98	0.28
	Black Crappie	38	56	25	13	34	133	337	161	236	180	22	1	1	1,237	15.46	2.02

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Table 12. Crappie population parameters used to manage the population at Kentucky Lake, with values determined from fall trap netting.

Year	Total CPUE (f/nn) excluding age-0			CPUE (f/nn) age-0			Mean length (in) age-2 at capture			CPUE (f/nn) for crappie ≥8.0 in			CPUE (f/nn) age-1			CPUE (f/nn) for crappie ≥10.0 in		
	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie
1985	15.70	1.85	17.55	5.65	0.33	5.98	9.0	8.4	8.4	1.73	0.78	2.51	16.91	0.80	17.71	0.50	0.35	0.85
1986	5.20	2.88	8.08	3.29	0.27	3.56	10.3	10.5	10.6	3.50	2.43	5.93	1.79	1.33	3.12	1.80	1.34	3.14
1987	9.80	3.64	13.44	2.35	0.19	2.54	10.5	9.9	10.5	8.32	1.64	9.96	9.05	1.29	10.34	4.00	0.38	4.38
1988	5.20	0.85	6.05	0.95	0.14	1.09	11.0	10.6	10.5	3.66	0.64	4.30	2.66	0.34	3.00	0.83	0.31	1.14
1989	15.60	2.39	17.99	20.41	1.12	21.53	9.3	9.4	9.9	1.74	0.23	1.97	6.08	2.18	8.26	0.87	0.04	0.91
1990	14.10	1.70	15.80	3.73	0.48	4.21	9.7	10.3	10.6	2.62	0.78	3.40	13.83	1.00	14.83	0.71	0.49	1.20
1991	12.70	3.82	16.52	4.95	0.08	5.03	9.7	8.6	9.4	5.56	0.46	6.02	6.84	3.19	10.03	1.14	0.10	1.24
1992	16.00	3.25	19.25	3.06	0.28	3.34	9.5	8.6	9.3	5.49	1.85	7.34	10.95	0.65	11.60	1.74	0.35	2.09
1993	12.00	3.43	15.43	1.96	0.95	2.91	9.0	8.6	9.6	4.69	1.76	6.45	7.61	1.68	9.29	2.73	0.76	3.49
1994	10.50	2.33	12.83	2.35	0.72	3.07	9.6	8.7	9.4	5.52	0.75	6.27	5.23	1.60	6.83	2.30	0.34	2.64
1995	11.00	6.61	17.61	3.54	2.02	5.56	10.4	9.4	9.9	3.34	1.56	4.90	8.49	5.04	13.53	1.69	0.94	2.63
1996	11.90	9.84	21.74	28.02	2.16	30.18	10.0	9.3	9.7	4.24	3.20	7.44	7.94	6.01	13.95	1.73	0.48	2.21
1997	7.00	11.59	18.59	1.70	2.49	4.19	9.6	8.5	9.0	3.33	5.50	8.83	3.29	4.82	8.11	1.61	0.70	2.31
1998	9.60	31.27	40.87	9.49	8.64	18.13	9.3	9.3	9.3	5.75	11.27	17.02	3.21	17.49	20.70	1.68	1.34	3.02
1999	5.40	21.66	27.06	0.95	1.00	1.95	9.5	8.9	9.1	2.30	12.66	14.96	3.42	6.30	9.72	1.26	1.83	3.09
2000	2.70	18.63	21.33	0.45	1.31	1.76	10.0	8.9	9.4	2.38	10.57	12.95	1.01	7.56	8.57	0.77	2.17	2.94
2001	4.69	22.59	27.28	26.76	24.52	51.28	10.8	9.3	9.8	2.21	12.55	14.76	2.34	9.67	12.01	1.29	3.17	4.46
2002	3.90	15.14	19.04	0.71	3.06	3.77	10.8	9.9	10.4	2.74	8.60	11.34	3.30	9.80	13.10	0.68	4.21	4.89
2003[A]	3.75	20.33	24.08	10.46	5.40	15.86	10.8	9.9	10.4	2.55	6.20	8.75	2.34	15.52	17.86	1.35	1.76	3.11
2004	7.47	32.46	39.93	0.65	0.98	1.63	10.8	9.2	9.7	2.71	11.67	14.38	6.20	18.60	24.80	1.09	2.99	4.08
2005[A]	3.91	22.75	26.66	2.29	1.92	4.21	10.8	9.2	9.7	2.45	13.78	16.23	2.55	10.31	12.86	1.12	3.42	4.54
2006[A]	2.62	16.07	18.69	1.24	1.18	2.42	10.8	9.2	9.7	1.60	11.86	13.46	1.68	6.60	8.28	1.10	2.78	3.88
2007	1.50	13.59	15.09	0.48	1.88	2.36	11.2	10.2	10.7	1.50	11.73	13.23	0.85	7.21	8.06	0.74	5.50	6.24
Average	8.36	11.68	20.04	5.89	2.66	8.55	10.1	9.3	9.8	3.48	5.76	9.05	5.55	6.04	11.59	1.42	1.55	2.83

[A] Indicates year where age and growth data was not collected. Age and growth data from the previous year was used to calculate the appropriate value.

Table 13. Proportional stock density (PSD) and relative stock density (RSD_{10}) of white and black crappie collected with trap nets (80 net-nights) at Kentucky Lake during October 2007. 95% confidence interval is in parentheses.

Location	Species	N	PSD	RSD_{10}
Blood River	White Crappie	25	64 (± 19)	60 (± 20)
	Black Crappie	334	87 (± 4)	47 (± 5)
Jonathan Creek	White Crappie	105	99 (± 2)	41 (± 10)
	Black Crappie	784	82 (± 3)	35 (± 3)
Total	White Crappie	130	92 (± 5)	45 (± 9)
	Black Crappie	1,118	84 (± 2)	39 (± 3)

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Table 14. Mean back-calculated length (in) at each annulus on otoliths from white crappie collected by trap netting (80 net-nights) at Kentucky Lake from 22-26 October 2007, including the range in length of white crappie at each age and the 95% confidence interval.

		Age				
Year-Class	N	1	2	3	4	5
2006	12	4.6				
2005	24	4.2	7.8			
2004	2	4.6	8.1	10.3		
2003	8	4.5	7.1	9.1	10.5	
2002	1	3.3	7.0	9.0	10.5	11.0
Mean		4.4	7.7	9.3	10.5	11.0
Smallest		3.3	5.6	7.7	8.6	
Largest		6.1	8.9	11.1	12.0	
Std Err		0.1	0.1	0.3	0.4	
Low 95% CI		4.2	7.4	8.7	9.8	
High 95% CI		4.5	7.9	9.9	11.3	

* Intercept = 0.

(wfdtnagk.d07)

Table 15. Mean back-calculated length (in) at each annulus on otoliths from black crappie collected by trap netting (80 net-nights) at Kentucky Lake from 22-26 October 2007, including the range in length of black crappie at each age and the 95% confidence interval.

		Age								
Year-Class	N	1	2	3	4	5	6	7	8	9
2006	43	4.0								
2005	25	4.2	7.4							
2004	7	3.9	7.5	9.6						
2003	33	4.3	7.2	9.1	10.4					
2002	3	3.7	6.6	8.3	9.3	10.1				
2001	1	5.4	8.9	10.9	12.5	13.2	13.7			
1998	1	4.3	6.9	8.5	9.4	10.3	10.9	11.5	11.8	12.3
Mean		4.1	7.3	9.2	10.4	10.7	12.3	11.5	11.8	12.3
Smallest		2.9	5.4	7.1	8.1	9.2	10.9			
Largest		6.3	9.2	10.9	12.5	13.2	13.7			
Std Err		0.1	0.1	0.1	0.1	0.7	1.4			
Low 95% CI		4.0	7.2	9.0	10.1	9.3	9.5			
High 95% CI		4.3	7.4	9.4	10.6	12.2	15.1			

* Intercept = 0.

(wfdtnagk.d07)

Table 16. Age frequency and CPUE of white crappie collected in trap nets fished for 80 net-nights in Kentucky Lake during October 2007. Age data was obtained using otoliths.

	Inch Class																
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	%	CPUE	Std Err
0	10	16	2	3	5	2								38	24.1	0.48	0.11
1							14	47	7					68	43.0	0.85	0.17
2									18	19	1			38	24.1	0.48	0.08
3										1	1			2	1.3	0.03	0.01
4									2	3	5	1		11	7.0	0.14	0.03
5										1				1	0.6	0.01	0.00
Total	10	16	2	3	5	2	14	47	27	24	7	1	0	158		1.98	
%	6	10	1	2	3	1	9	30	17	15	4	1	0		100		

wfdtpntk.d07, wfdtpagk.d07

Table 17. Age frequency and CPUE of black crappie collected in trap nets fished for 80 net-nights in Kentucky Lake during October 2007. Age data was obtained using otoliths.

	Inch Class																
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	%	CPUE	Std Err
0	38	56	25	10	10	11								150	12.1	1.88	0.25
1				3	24	122	337	57	34					577	46.6	7.21	1.12
2								92	169	16				277	22.4	3.46	0.47
3									11	39	2			52	4.2	0.65	0.09
4								12	11	117	18	1		159	12.9	1.99	0.28
5									11	8	1			20	1.6	0.25	0.03
6													1	1	0.1	0.01	0.01
9											1			1	0.1	0.01	0.00
Total	38	56	25	13	34	133	337	161	236	180	22	1	1	1,237		15.46	
%	3	5	2	1	3	11	27	13	19	15	2	0	0		100		

wfdtpntk.d07, wfdtnagk.d07

Table 18. Population assessment determined from white and black crappie based on fall trap netting at Kentucky Lake from 2003-2007, using the Kentucky Lake crappie specific assessment criteria.

	2003		2004		2005		2006		2007	
Parameter	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Population Density (CPUE of age-1 and older crappie)	24.08	3	39.93	4	26.66	3	18.69	2	15.09	2
Recruitment (CPUE of age-1 crappie)	17.86	3	24.80	4	12.86	2	8.28	1	8.06	1
Recruitment (CPUE of age-0 crappie)	15.86	2	1.63	1	4.21	1	2.42	1	2.35	1
Size Structure (CPUE of > 8.0 in)	8.75	2	14.38	4	16.24	4	13.46	4	13.23	3
Growth (Mean age-2 length at capture)	10.4	4	9.7	4	9.7	4	9.7	4	10.7	4
Instantaneous Mortality (Z)	0.709		0.649		0.788		0.729		0.872	
Annual Mortality (A)%	50.8		47.7		54.5		51.7		58.2	
Total Score:		14		17		14		12		11
Assessment Rating:		G		G		G		F		F

Rating

5 - 7 = Poor (P)
8 - 12 = Fair (F)
13 - 17 = Good (G)
18 - 20 = Excellent (E)

WFDTPNTK.D07, WFDTPNTK.D06, WFDTPNTK.D05, WFDTPNTK.D04, WFDTPNTK.D03

Table 19. Length frequency and CPUE (fish/trotline) of blue and channel catfish collected from Kentucky Lake in May 2007 using 5 100-hook trotlines baited with cheese bait and chicken hearts for 3 line nights.

	Inch Class																								
Species	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	CPUE	Std Err
Blue catfish										3	1	2		2	2	3	2		5	2	1	1	24	1.60	0.37
Channel catfish	1		1	1		2	1	6	10	18	16	13	9	10	4	7	10	4	4	2			119	7.93	0.74

wfdcftl.d07

Table 20. Relative weight (Wr) of each length group of blue and channel catfish collected at Kentucky Lake during May 2007. Fish were collected using 5 100-hook trotlines for three nights (15 trotline-nights).

Species	Length Group											
Blue Catfish	12.0 - 19.9 in.			20.0 - 29.9 in.			≥ 30.0 in.			Total		
	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err
	3	105	4.61	19	118	4.3	2	127	25.08	24	117	3.87
	Length Group											
Channel Catfish	11.0 - 15.9 in.			16.0 -23.9 in.			≥ 24.0 in.			Total		
	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err
	4	76	12.94	83	103	1.88	31	108	2.21	118	103	1.58

wfdcftlk.d07

Table 21. Age frequency and CPUE of blue catfish collected from Kentucky Lake in May 2007 using 5 100-hook trotlines for three nights. Age data was obtained using otoliths collected during the 2004 study.

	Inch Class																
Age	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	%	CPUE	Std Err
4	3		1											4	16.7	0.27	0.11
5		1	1		1	1	1							5	20.8	0.33	0.06
6					1	1	2	2						6	25.0	0.40	0.13
7										3	1			4	16.7	0.27	0.09
8										2	1	1		4	16.7	0.27	0.07
Total	3	1	2		2	2	3	2		5	2	1	1	24		1.60	
%	13	4	8		8	8	13	8		21	8	4	4		100		

wfdcftlk.d07, wfdcfagk.d04

Table 22. Age frequency and CPUE of channel catfish collected from Kentucky Lake in May 2007 using 5 100-hook trotlines for three nights. Age data was obtained using otoliths collected during the 2004 study.

	Inch Class																				
Age	10	12	13	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	Total	%	CPUE	Std Err
3				2		2													4	3.4	0.27	0.07
4							5	6											11	9.2	0.73	0.09
5								6			2	3							11	9.2	0.73	0.11
6					1			6	8	7	7	7	3	3	3	3			48	40.3	3.20	0.32
7							5			3				2	4		4		18	15.1	1.20	0.16
8						2			8	3			1	2		1			17	14.3	1.13	0.11
9						2									3				5	4.2	0.33	0.07
Total	1	1	1	2	1	6	10	18	16	13	9	10	4	7	10	4	4	2	119		7.93	
%	1	1	1	2	1	5	8	15	13	11	8	8	3	6	8	3	3	2		100		

wfdcftlk.d07, wfdcfagk.d04

Table 23. Fishery statistics derived from a creel survey at Kentucky Lake (51,000 a) from 1 March through 31 October 2007.

Fishing Trips			
	No. of fishing trips (per acre)	285,078	(5.6)
Fishing Pressure			
	Total angler-hours (S.E.)	1,077,120	(41,064)
	Angler-hours/acre	21.1	
Catch / Harvest			
	No. of fish caught (S.E.)	1,569,279	(147,876)
	No. of fish harvested (S.E.)	605,954	(66,654)
	Lb of fish harvested	371,589	
Harvest Rates			
	Fish/hour	0.53	
	Fish/acre	11.88	
	Pounds/acre	7.29	
Catch Rates			
	Fish/hour	1.48	
	Fish/acre	30.77	
Miscellaneous Characteristics (%)			
	Male	85.40	
	Female	14.60	
	Resident	55.03	
	Non-resident	44.97	
Method (%)			
	Still fishing	26.78	
	Casting	43.64	
	Trolling	3.18	
	Fly Rod	0.13	
	Spider Rig	5.11	
	Crappie Casting	8.41	
	Crappie Still fishing	12.74	
	Crappie Anglers Only		
	Trolling	6.80	
	Spider Rig	17.40	
	Casting	30.70	
	Still fishing	45.10	
Mode (%)			
	Boat	87.87	
	Bank	8.61	
	Dock	3.52	

Table 24. Length distribution for each species of fish harvested or released (lengths of released fish are estimated) at Kentucky Lake (51,000 a) from the 1 March to 31 October 2007 creel survey.

		Inch Class																								
Species		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
White crappie	H									37,256	54,417	41,166	18,248	7,386	1,303	543										
	R			1,406	5,516	5,408	6,381	28,120	44,666	3,292	898	1,097	299		199											
Black crappie	H									17,182	23,044	16,980	10,612	2,021	405											
	R			396	297	6,044	2,774	13,276	18,132	1,446	452	271	361	90												
Largemouth bass	H														6,138	6,961	4,117	1,722	524	898	374	75	150			
	R					6,145	2,517	17,917	5,183	33,539	3,480	49,087	23,840	48,274	22,173	21,257	12,736	8,796	2,016	1,191	733	641	92			
Smallmouth bass	H														544	544	181	635	181		91		92			
	R					1,387	816	1,224	245	3,426	1,142	4,323	2,529	2,772	1,811	472	630	551	79	236	236	78				
Spotted bass	H									96	288	192	384	192	95											
	R					347	173	694	260	954	173	1,474	867	780	174											
Bluegill	H			95	3,225	29,688	95,894	101,206	10,528	95																
	R			12,884	81,501	119,484	36,647	10,784	1,526																	
Redear sunfish	H			745		426	1,915	4,788	9,682	5,852	2,234	958														
	R		213	320	533	3,195	1,172	1,065	533	639		105														
Longear sunfish	H	176			1,757	3,076	967	88		87																
	R			7,203	41,797	17,629	94																			
Warmouth	H				242	363	363		241																	
	R			228	799	1,599	799	457	115																	
Green sunfish	H							193	97																	
	R			64			64	126																		
Channel catfish	H									98	98	975	390	878	1,561	1,268	1,170	1,658	1,073	1,170	975	1,170	98	975	780	98
	R				99	198				595	99	1,190	99	198	198	397	99	694		198		298		298	99	694
Blue catfish	H										41	81	41	122	204	326	122	81			326	407	204	326	163	41
	R									146		49	97	97		49		49		97						
Flathead catfish	H												88	176	88			352					88			
	R									172		57														
Bullhead	H										97															
White bass	H							280	654	1,961	2,522	3,082	2,522	2,055	93	93										
	R					1,516	152	2,728	1,895	1,895	303	1,516	606	1,440	152	150										
Striped bass	H															114		229	229	343		114				116
	R					149				99		248	248	445	176	176			59	469	176	117	175			
Hybrid striped bass	H							55	110	55	55	55	55			55										
	R						90			362		271	90		90				92							
Yellow bass	H					1,096	2,966	12,637	11,799	6,125	774	65														
	R		59	1,364	6,344	32,432	32,017	36,938	9,664	3,913	474	118														
Sauger	H													282		94										
	R						91	182	91	545	182	999	724	177	88	265			89							
Yellow perch	H						115	1,037	922	691	462															
	R			115		573	1,146	688	344	459																
Pickerel	R													107			322	322						107		
Drum	H									314	79	157	79								79	79	155			
	R				91	91	454	2,359	544	1,905	181	4,173	635	1,633	1,179	1,724	544	2,268	91	3,538	272	1,542	181	2,087	181	454
Skipjack herring	R					298	372	1,414	2,084	3,052	2,084	1,265	372	596	372	299										
Gar	R																	72		72						
Golden shiner	H							110																		
Blacknose Crappie	H											100	99													
Illegal Black bass	H										113	225		112												
Illegal B.Crappie	H								941																	
Illegal W.Crappie	H								1,054																	

Table 24 (cont'd). Length distribution for each species of fish harvested or released (lengths of released fish are estimated) at Kentucky Lake (51,000 a) from the 1 March to 31 October 2007 creel survey.

Species		Inch Class																				Total
		27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	44	45	46	47	48	
White crappie	H																					160,319
	R																					97,282
Black crappie	H																					70,244
	R																					43,539
Largemouth bass	H																					20,959
	R																					259,617
Smallmouth bass	H																					2,268
	R																					21,957
Spotted bass	H																					1,247
	R																					5,896
Bluegill	H																					240,731
	R																					262,826
Redear sunfish	H																					26,600
	R																					7,775
Longear sunfish	H																					6,151
	R																					66,723
Warmouth	H																					1,209
	R																					3,997
Green sunfish	H																					290
	R																					254
Channel catfish	H																					14,435
	R	597																				6,050
Blue catfish	H	81		163	41		41						40									2,851
	R				97																	681
Flathead catfish	H																					792
	R																					229
Bullhead	H																					97
White bass	H																					13,262
	R																					12,353
Striped bass	H																					1,145
	R																					2,537
Hybrid striped bass	H																					440
	R																					995
Yellow bass	H																					35,462
	R																					123,323
Sauger	H																					376
	R																					3,433
Yellow perch	H																					3,227
	R																					3,325
Pickerel	R																					858
Drum	H																					942
	R	181	272		456																	27,036
Skipjack herring	R																					12,208
Gar	R		72								70											286
Golden shiner	H																					110
Blacknose Crappie	H																					199
Illegal B. bass	H																					450
Illegal B.Crappie	H																					941
IllegalW.Crappie	H																					1,054

Table 25. Fish harvest statistics derived from a creel survey at Kentucky Lake (51,000 a) from 1 March - 31 October 2007.

	Black bass group	Largemouth bass	Smallmouth bass	Spotted bass	Crappie group	White crappie	Black crappie	Blacknose crappie	Catfish group	Channel catfish	Flathead catfish	Blue catfish	Bullhead	Panfish group	Bluegill	Redear sunfish	Longear sunfish	Warmouth	Green sunfish
No. caught	**311,944**	280,576	24,225	7,143	**371,584**	257,602	113,783	199	**25,136**	20,485	1,021	3,532	97	**616,557**	503,557	34,376	72,874	5,207	544
(per acre)	**(6.12)**	(5.50)	(0.48)	(0.14)	**(7.29)**	(5.05)	(2.23)	t	**(0.49)**	(0.40)	(0.02)	(0.07)	t	**(12.09)**	(9.88)	(0.67)	(1.43)	(0.10)	(0.01)
No. harvested	**24,474**	20,959	2,268	1,247	**230,762**	160,319	70,244	199	**18,175**	14,435	792	2,851	97	**274,981**	240,731	26,600	6,151	1,209	290
(per acre)	**(0.48)**	(0.41)	(0.04)	(0.02)	**(4.53)**	(3.14)	(1.38)	t	**(0.36)**	(0.28)	(0.02)	(0.06)	t	**(5.39)**	(4.72)	(0.52)	(0.12)	(0.02)	(0.01)
% of total no. harvested	**4.04**	3.46	0.37	0.21	**38.08**	26.46	11.59	0.03	**3.00**	2.38	0.13	0.47	0.02	**45.38**	39.73	4.39	1.02	0.20	0.05
Lb. harvested	**55,109**	48,524	5,574	1,011	**174,861**	116,840	57,784	237	**39,446**	28,152	1,351	9,889	54	**74,572**	60,193	13,269	738	279	94
(per acre)	**(1.08)**	(0.95)	(0.11)	(0.02)	**(3.43)**	(2.29)	(1.13)	t	**(0.77)**	(0.55)	(0.03)	(0.19)	t	**(1.46)**	(1.18)	(0.26)	(0.01)	(0.01)	t
% of total lb. harvested	**14.83**	13.06	1.50	0.27	**47.06**	31.44	15.55	0.06	**10.62**	7.58	0.36	2.66	0.01	**20.07**	16.20	3.57	0.20	0.08	0.03
Mean length (in)		16.5	17.3	12.5		11.1	11.5	12.5		18.0	17.8	21.3	11.0		7.3	9.3	5.8	6.9	8.3
Mean weight (lb)		2.36	2.53	0.85		0.66	0.87	1.11		1.90	2.43	3.70	0.55		0.24	0.56	0.12	0.25	0.35
No. of fishing trips for that species	**91,969**				**106,321**				**16,265**					**42,042**					
% of all trips	**32.3**				**37.3**				**5.7**					**14.7**					
Hours fished for that species	**347,488**				**401,714**				**61,456**					**158,848**					
(per acre)	**(6.81)**				**(7.88)**				**(1.21)**					**(3.11)**					
No. harvested fishing for that species	**21,744**				**225,460**				**12,811**					**235,552**					
Lb harvested fishing for that species	**48,414**				**170,670**				**27,322**					**63,789**					
No./hour harvested fishing for that species	**0.06**				**0.59**				**0.25**					**1.49**					
% success fishing for that species	**13.2**				**51.4**				**23.8**					**57.2**					

t = < 0.005

Table 25 (continued). Fish harvest statistics derived from a creel survey at Kentucky Lake (51,000 a) from 1 March-31 October 2007.

	Sauger	Yellow perch	Morone Group	White bass	Striped bass	Yellow bass	Hybrid Striped bass	Pickerel	Drum	Skipjack herring	Gar	Golden shiner	Carp	Sucker	Illegal bass	Illegal Bl. Crappie	Illegal Wh. Crappie	Illegal other	Anything
No. caught	3,809	6,551	189,516	25,615	3,681	158,785	1,435	858	27,978	12,208	286	110	45	97	450	941	1,054	154	
(per acre)	(0.07)	(0.13)	(3.72)	(0.50)	(0.07)	(3.11)	(0.03)	(0.02)	(0.55)	(0.24)	(0.01)	t	t	t	t	(0.02)	(0.02)	(0.02)	
No. harvested	376	3,227	50,309	13,262	1,145	35,462	440		942			110			450	941	1,054	154	
(per acre)	(0.01)	(0.06)	(0.99)	(0.26)	(0.02)	(0.70)	(0.01)		(0.02)			t			t	(0.02)	(0.02)	t	
% of total no. harvested	0.06	0.53	8.30	2.19	0.19	5.85	0.07		0.16			0.02			0.07	0.16	0.17	0.03	
Lb. harvested	367	1,158	22,775	9,769	3,857	8,730	419		2,179			110			430	298	394		
(per acre)	(0.01)	(0.02)	(0.45)	(0.19)	(0.08)	(0.17)	(0.01)		(0.04)			t			t	(0.01)	(0.02)		
% of total lb. harvested	0.10	0.31	6.13	2.63	1.04	2.35	0.11		0.59			t			0.12	0.08	0.11		
Mean length (in)	14.3	8.9		11.7	18.4	8.4	11.6		15.7			8.0			12.3	9.0	9.0		
Mean weight (lb)	0.93	0.33		0.70	2.57	0.23	0.92		2.01						0.97	0.32	0.37		
No. of fishing trips for that species	433		8,461																19,587
% of all trips	0.2		3.0																6.9
Hours fished for that species	1,637		31,970																74,007
(per acre)	(0.03)		(0.63)																(1.45)
No. harvested fishing for that species			22,158																
Lb harvested fishing for that species			12,554																
No./hour harvested fishing for that species			0.89																
% success fishing for that species			52.1																17.9

t = < 0.005

Table 26. Crappie catch and harvest statistics derived from the 1 March to 31 October 2007 creel survey at Kentucky Lake (51,000 a).

	White Crappie				Black Crappie				Blacknose Crappie			
	Harvested	Released		Total	Harvested	Released		Total	Harvested	Released		Total
	≥ 10.0 in	< 10.0 in	≥ 10.0 in		≥ 10.0 in	< 10.0 in	≥ 10.0 in		≥ 10.0 in	< 10.0 in	≥ 10.0 in	
Total no. of crappie	160,319	91,497	5,785	257,602	70,244	40,919	2,620	113,783	199	0	0	199
% of crappie harvested by number	69.5				30.4				0.1			
Total weight of crappie (lb)	116,840	20,093	3,613	140,545	57,784	10,503	1,959	70,246	237	0	0	237
% of crappie harvested by weight	66.8				33.1				0.1			
Mean length (in)	11.1				11.5				12.5			
Mean weight (lb)	0.66				0.87				1.11			
Rate (f/hr)	0.12				0.06				0.0002			

Table 27. Monthly crappie angling success at Kentucky Lake during the 2007 creel survey.

Month	Total no. of crappie caught	Total no. of crappie harvested	No. of crappie fishing trips	Hours fished by crappie anglers	Crappie caught by crappie anglers	Crappie caught/ hour by crappie anglers	Crappie harvested by crappie anglers	Crappie harvested/ hour by crappie anglers
Mar	178,994	110,658	31,624	119,484	177,246	1.46	109,784	0.91
Apr	117,301	76,353	57,204	216,137	115,146	0.53	74,968	0.34
May	38,167	21,935	6,794	25,669	36,083	1.40	20,729	0.80
Jun	19,277	10,515	2,311	8,733	17,795	2.07	10,111	1.18
Jul	506	126	393	1,486	189	0.21	126	0.14
Aug	734	108	267	1,007	668	0.85	108	0.14
Sept	3,978	2,228	1,990	7,520	3,859	0.68	2,148	0.38
Oct	12,627	8,839	5,737	21,678	10,462	0.55	7,486	0.39
Total	371,584	230,762	106,321	401,714	361,448		225,460	
Mean						0.95		0.59

Table 28. Black bass catch and harvest statistics derived from the 1 March to 31 October 2007 creel survey at Kentucky Lake (51,000 a).

	Largemouth bass				Smallmouth bass				Spotted bass			
	Harvest	Release		Total	Harvest	Release		Total	Harvest	Release		Total
	≥15.0 in	12.0-14.9 in	≥15.0 in		≥15.0 in	12.0-14.9 in	≥15.0 in			12.0-14.9 in	≥15.0 in	
Total no. of bass	20,959	121,201	69,635	280,576	2,268	9,624	4,093	24,225	1,247	3,121	174	7,143
% of bass harvested by number	85.6				9.3				5.1			
Total weight of bass (lb)	48,524	98,724	158,061	361,337	5,574	5,953	8,575	25,195	1,011	1,929	107	4,654
% of bass harvested by weight	88.1				10.1				1.8			
Mean length (in)	16.5				17.3				12.5			
Mean weight (lb)	2.35				2.53				0.85			
Rate (f/hr)	0.023				0.002				0.001			

Table 29. Monthly black bass angling success at Kentucky Lake during the 2007 creel survey.

Month	Total no. of bass caught	Total no. of bass harvested	No. of black bass fishing trips	Hours fished by bass anglers	Bass caught by bass anglers	Bass caught/ hour by bass anglers	Bass harvested by bass anglers	Bass harvested/ hour by bass anglers
Mar	16,405	2,038	8,058	30,446	13,201	0.45	1,747	0.06
Apr	45,874	3,079	14,434	54,535	36,945	0.67	2,617	0.05
May	81,599	6,690	21,046	79,519	71,510	0.87	5,923	0.07
Jun	70,637	5,257	19,834	74,938	67,402	0.86	4,314	0.06
Jul	12,512	1,201	5,142	19,428	12,133	0.59	1,074	0.05
Aug	3,582	583	2,083	7,871	3,344	0.38	561	0.06
Sept	27,130	2,108	11,077	41,854	26,255	0.53	1,990	0.04
Oct	54,207	3,518	10,295	38,897	48,479	1.06	3,518	0.08
Total	311,944	24,474	91,969	347,488	279,269		21,744	
Mean						0.73		0.06

Table 30. Panfish catch and harvest statistics derived from the 1 March to 31 October 2007 creel survey at Kentucky Lake (51,000 a).

	Bluegill				**Redear Sunfish**			
	Harvested	**Released**		**Total**	**Harvested**	**Released**		**Total**
		6.0 - 7.9 in	≥ 8.0 in			6.0 - 7.9 in	≥ 8.0 in	
Total no. of panfish	240,731	156,131	12,310	503,557	26,600	4,367	2,342	34,376
% of panfish harvested by number	87.6				9.7			
Total weight of panfish (lb)	60,193	19,631	1,547	93,238	13,269	914	491	14,896
% of panfish harvested by weight	80.7				17.8			
Mean length (in)	7.3				9.3			
Mean weight (lb)	0.24				0.56			
Rate (f/hr)	0.21				0.02			

Table 31. Monthly panfish angling success at Kentucky Lake during the 2007 creel survey.

Month	Total no. of panfish caught	Total no. of panfish harvested	No. of panfish fishing trips	Hours fished by panfish anglers	Panfish caught by panfish anglers	Panfish caught/ hour by panfish anglers	Panfish harvested by panfish anglers	Panfish harvested/ hour by panfish anglers
Mar	12,134	5,921						
Apr	83,742	30,942	4,670	17,644	37,407	2.03	19,704	1.07
May	338,132	163,856	23,188	87,611	305,229	3.25	157,386	1.68
Jun	84,387	32,623	7,904	29,862	68,347	2.74	30,332	1.21
Jul	37,219	15,545	3,176	12,000	30,837	2.88	12,765	1.19
Aug	2,956	1,079	517	1,952	2,460	1.76	992	0.71
Sept	17,264	7,518	1,164	4,398	11,535	3.66	6,165	1.96
Oct	40,723	17,498	1,424	5,381	17,363	3.18	8,208	1.51
Total	616,557	274,981	42,042	158,848	473,178		235,552	
Mean						3.01		1.49

Table 32. Monthly catfish angling success at Kentucky Lake during the 2007 creel survey.

Month	Total no. of catfish caught	Total no. of catfish harvested	No. of catfish fishing trips	Hours fished by catfish anglers	Catfish caught by catfish anglers	Catfish caught/ hour by catfish anglers	Catfish harvested by catfish anglers	Catfish harvested/ hour by catfish anglers
Mar	679	582	836	3,159	194	0.05	194	0.05
Apr	2,309	1,693	637	2,406	1,539	0.61	1,385	0.55
May	9,322	6,032	5,169	19,531	4,606	0.38	2,632	0.22
Jun	7,010	5,257	5,443	20,566	4,987	0.21	4,583	0.19
Jul	2,401	1,896	2,057	7,771	2,021	0.22	1,642	0.18
Aug	1,273	993	433	1,637	1,123	0.56	993	0.50
Sept	1,193	955	713	2,696	836	0.50	796	0.48
Oct	947	767	977	3,690	676	0.21	586	0.18
Total	25,136	18,175	16,265	61,456	15,982		12,811	
Mean						0.30		0.25

Table 33. Monthly *Morones* angling success at Kentucky Lake during the 2007 creel survey.

Month	Total no. of *Morones* caught	Total no. of *Morones* harvested	No. of *Morones* fishing trips	Hours fished by *Morones* anglers	*Morones* caught by *Morones* anglers	*Morones* caught/ hour by *Morones* anglers	*Morones* harvested by *Morones* anglers	*Morones* harvested/ hour by *Morones* anglers
Mar	41,934	10,580						
Apr	16,779	6,927	106	401	308	0.40	308	0.40
May	5,155	2,303	812	3,069	1,097	0.45	329	0.14
Jun	26,691	9,032	3,803	14,368	14,829	1.05	8,223	0.58
Jul	15,987	5,434	1,482	5,600	10,554	1.80	3,981	0.68
Aug	3,776	755	183	693	2,331	3.20	626	0.86
Sept	13,804	2,785	976	3,689	6,564	2.50	2,467	0.94
Oct	65,391	12,492	1,099	4,151	16,010	4.55	6,224	1.77
Total	189,516	50,309	8,461	31,970	51,693		22,158	
Mean						2.28		0.89

Table 34. Fishery statistics derived from a creel survey at Kentucky Dam tailwater (226 a), March 2006 - February 2007.

Fishing Trips		
No. of fishing trips	13,288	
Trips/acre	58.8	
Fishing Pressure		
Total angler-hours (S.E.)	38,701	(575.8)
Angler-hours/acre	171.2	
Catch / Harvest		
No. of fish caught (S.E.)	58,636	(3,842.5)
No. of fish harvested (S.E.)	36,974	(2,891.3)
Lb of fish harvested	65,332	
Harvest Rates		
Fish/hour	0.92	
Fish/acre	163.60	
Pounds/acre	289.08	
Catch Rates		
Fish/hour	1.48	
Fish/acre	259.45	
Miscellaneous Characteristics (%)		
Male	90.7	
Female	9.3	
Resident	77.0	
Non-resident	23.0	
Method (%)		
Still fishing	52.78	
Casting	32.27	
Snagging	12.11	
Trolling	2.81	
Fly	0.02	
Mode (%)		
Boat	45.8	
Bank	54.2	

Table 35. Fish harvest statistics derived from a creel survey at Kentucky Dam tailwater (226 a), March 2006 - February 2007.

	Black bass group	Largemouth bass	Smallmouth bass	Spotted bass	Illegal black bass	Crappie group	White crappie	Black crappie	Catfish group	Channel catfish	Flathead catfish	Blue catfish	Panfish group	Bluegill	Redear sunfish	Longear sunfish	Warmouth	Sauger	Illegal sauger	Walleye	Yellow perch	Logperch
No. caught	1,538	834	670	34	6	1,808	894	913	17,278	3,668	409	13,200	4,965	4,838	25	87	16	4,098	19	6	15	3
(per acre)	(6.80)	(3.69)	(2.96)	(0.15)	(0.03)	(8.00)	(3.96)	(4.04)	(76.45)	(16.23)	(1.81)	(58.41)	(21.97)	(21.40)	(0.11)	(0.38)	(0.07)	(18.13)	(0.08)	(0.03)	(0.07)	(0.01)
No. harvested	197	94	99	4	6	1,365	702	663	14,328	2,385	304	11,639	2,417	2,369	16	26	6	1,467	19	0	12	0
(per acre)	(0.87)	(0.41)	(0.44)	(0.02)	(0.03)	(6.04)	(3.11)	(2.93)	(63.40)	(10.55)	(1.35)	(51.50)	(10.70)	(10.48)	(0.07)	(0.12)	(0.03)	(6.49)	(0.08)		(0.05)	
% of total no. harvested	0.53	0.25	0.27	0.01	0.02	3.69	1.90	1.79	38.75	6.45	0.82	31.48	6.54	6.41	0.04	0.07	0.02	3.97	0.05		0.03	
Lb. harvested	339	166	166	7	3	840	431	409	35,060	3,981	940	30,139	608	592	9	4	3	1,533	13		6	
(per acre)	(1.50)	(0.73)	(0.73)	(0.03)	(0.01)	(3.71)	(1.91)	(1.81)	(155.13)	(17.61)	(4.16)	(133.36)	(2.69)	(2.62)	(0.04)	(0.02)	(0.01)	(6.78)	(0.06)		(0.03)	
% of total lb. harvested	0.52	0.25	0.25	0.01	t	1.29	0.66	0.63	53.66	6.09	1.44	46.13	0.93	0.91	0.01	0.01	t	2.35	0.02		0.01	
Mean length (in)		15.0	15.3	16.0	9.5		10.8	10.7		16.8	19.6	18.9		7.3	9.3	6.3	8.5	15.0	13.0			
Mean weight (lb)		1.79	1.70	1.63	0.42		0.59	0.67		1.56	3.17	2.54		0.25	0.58	0.15	0.42	1.06	0.69			
No. of fishing trips for that species	429					745			5,045				527					597				
% of all trips	3.4					5.6			38.0				4.0					4.5				
Hours fished for that species	1,249					2,170			14,693				1,535					1,739				
(per acre)	(5.53)					(9.60)			(65.01)				(6.79)					(7.69)				
No. harvested fishing for that species	42					1,190			13,259				1,590					1,155				
Lb harvested fishing for that species	86.5					731.8			32,856.2				390.0					1,210.1				
No./hour harvested fishing for that species	0.04					0.72			0.73				1.64					0.50				
% success fishing for that species	6.5					43.2			51.4				48.5					58.6				

t = < 0.005

Table 35 (continued). Fish harvest statistics derived from a creel survey at Kentucky Dam tailwater (226 a), March 2006 - February 2007.

	Morone Group	White bass	Striped bass	Hybrid striped bass	Illegal striper or hybrid striped bass	Yellow bass	Drum	Carp	Bighead carp	Silver carp	Suckers	Blue sucker	Skipjack herring	Shad	Gar	Goldeye	Mooneye	Spoonbill	Bowfin	Buffalo	Anything
No. caught	11,223	2,844	5,692	636	36	2,051	1,821	22	116	58	3	41	12,580	57	333	3	333	1,827	27	419	
(per acre)	(49.66)	(12.58)	(25.19)	(2.81)	(0.16)	(9.07)	(8.06)	(0.10)	(0.52)	(0.26)	(0.01)	(0.18)	(55.66)	(0.25)	(1.47)	(0.01)	(1.47)	(8.08)	(0.12)	(1.86)	
No. harvested	3,797	1,270	2,077	174	36	276	92	3	62	38	0	0	10,613	57	5	3	333	1,788	0	332	
(per acre)	(16.80)	(5.62)	(9.19)	(0.77)	(0.16)	(1.22)	(0.41)	(0.01)	(0.28)	(0.17)			(46.96)	(0.25)	(0.02)	(0.01)	(1.47)	(7.91)		(1.47)	
% of total no. harvested	10.27	3.44	5.62	0.47	0.10	0.75	0.25	0.01	0.17	0.10			28.70	0.16	0.01	0.01	0.90	4.84		0.90	
Lb. harvested	13596	1108	11929	490	41	90	321	26	1153	346			4248	11	16	3	93	5762		1316	
(per acre)	(60.16)	(4.90)	(52.78)	(2.17)	(0.18)	(0.40)	(1.42)	(0.12)	(5.10)	(1.53)			(18.80)	(0.05)	(0.07)	(0.01)	(0.41)	(25.50)		(5.82)	
% of total lb. harvested	20.81	1.70	18.26	0.75	0.06	0.11	0.49	0.04	1.76	0.53			6.50	0.02	0.02	t	0.14	8.82		2.01	
Mean length (in)		13.0	23.9	18.1	12.9	8.7	20.2	26.0	33.7	29.8			11.5	9.9	33.0	15.0	10.0	34.3		18.8	
Mean weight (lb)		0.89	5.55	3.40	1.09	0.26	3.36	8.16	17.65	13.79			0.42	0.36	3.08	0.86	0.30	8.78		3.79	
No. of fishing trips for that species	3016												1,971				117	3,863		147	2,093
% of all trips	22.7												5.1				0.3	10.0		1.1	5.4
Hours fished for that species	8,784												1,971				117	3,863		428	2,093
(per acre)	(38.87)												(8.72)				(0.52)	(17.09)		(1.90)	(9.26)
No. harvested fishing for that species	3,031												7,719				307	1,718		159	
Lb harvested fishing for that species	11,517.5												3,608.6				85.9	5,395.0		631.4	
No./hour harvested fishing for that species	0.41												6.79				6.62	0.39		0.22	
% success fishing for that species	36.1												65.6				80	45.0		43.2	16.6

t = < 0.005

Table 36. Length distribution (lengths of released fish are estimated) for each species of fish harvested or released at Kentucky Dam tailwater during the March 2006 to February 2007 creel survey.

Species		Inch class																							
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Blue catfish	H						11	11	83	87	549	556	1,268	1,253	965	928	896	777	639	423	491	246	336	318	282	213
	R		7	18	119		165	176	439	11	259	22	86	90	11	7	25		58		14		14	11	11	7
Channel catfish	H							64	39	99	124	127	254	237	244	194	201	113	134	95	117	46	74	78	60	25
	R		11	134	170	14	217	138	261	14	51	43	94	14	29		25	4	11		14	4	22			
Flathead catfish	H							4	4	4	7	14	21	46	14	14	18	18	25	25	11	18	11	11		
	R						10		3		20	10		13	7	3	7		10		3		3			
White bass	H						17	24	81	148	229	349	245	91	64	17	5									
	R	3	14	59	136	35	168	45	269	105	360	91	133	80	56	14	5									
Yellow bass	H					28	90	107	50																	
	R		7	109	485	352	615	160	34	13																
Hybrid rockfish	H								3	3	28	24	17	10	7	3		3	7	10	14	7	21	7	3	
Legal	R	20	20		7		47		34	3	77	3	47	44	7	24	27		7	7	7	10	17	20	13	17
Striped bass	H													117	109	153	58	87	69	77	62	77	91	109	182	164
Legal	R													267	95	151	113	21	134	21	137	63	183	60	106	91
Sub-legal	R	3	14	21	63	7	133	21	377	112	468	108	517													
Sauger	H												552	575	249	65	23		3							
Legal	R												349	51	12	4	8		19							
Sub-legal	R		4	7	37	18	187	18	289	102	519	1,006														
Walleye	H										3		3													
Yellow perch	H								9	3																
	R							2																		
Smallmouth bass	H										7	18	14	7	28	11	11		2							
Legal	R										40	58	62	18	18	15	4		15	7				2		
Sub-legal	R		4	14	39	64	57	114	39																	
Spotted bass	H														4											
	R					3	3		13	3		7														
Largemouth bass	H										8	4	20	27	16	16		2								
Legal	R										128	40	138	50	67	30	40	7	20	17						
Sub-legal	R	4	7		18	4	41	59	44	25																
White crappie	H						21	70	199	206	101	63	31	11												
	R				41	10	65	48	17	7	3															
Black crappie	H						69	96	154	216	92	23	8	4												
	R			12	53	89	32	8	24	24	4		4													
Bluegill	H		11	29	321	815	985	206	2																	
	R	4	127	554	1,137	508	92	46																		
Longear sunfish	H				19	7																				
	R		24	10	24	2																				
Redear sunfish	H					3		3	6	3																
	R						3	3	3																	
Warmouth sunfish	H						3	3																		
	R			9																						
Spoonbill	H														11	7	4	7	18	50	68	68	103	103	107	143
	R																		3					3		
Gar	H																									
	R							3			7		13	7	3		33		40	3	20		130	10		
Suckers	R													2												
Blue Suckers	R																			8	12		12	4		5
Buffalo	H									4	4	7	19	15	11	60	52	19	37	15	26	7	22	15	7	4
	R				3			6			13		3	6	6		16		16		6		6	6		
Carp	H																								3	
	R										4						4		8					3		
Bighead carp	H																		4							
	R										4													4		
Silver carp	H																	4		8		4	4	4	4	
	R												4				4		8					3		
Drum	H						4						4		7		11	7	11	4	15	7	7	11		
	R				3	10	14	7	55	14	164	38	96	157	147	21	202		314	24	82	21	171	48	31	3
Skipjack herring	H		489	649	838	83	846	110	846	652	1,991	668	1,422	944	732	243	95	5								
	R			11	47	4	83	14	163	14	558	120	235	264	159	178	109	4		4						
Goldeye	H													3												
Mooneye	H					22	70	38	122	26	51		4													
Shad	H			16	6		16			16	3															
Bowfin	R													3			3		7		3		10			

Table 36. [continued] Length distribution (lengths of released fish are estimated) for each species of fish harvested or released at Kentucky Dam tailwater during the March 2006 - February 2007 creel survey.

Species		Inch class																							
		28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	51	Total
Blue catfish	H	231	134	123	65	148	141	87	69	94	40	43	29	33	11	18	4	18	11	4				4	11,639
	R			4														7							1,561
Channel catfish	H	25	14	7	4	7	3																		2,385
	R	4	4						5																1,283
Flathead catfish	H	11	14	4	4	4		4																	306
	R	7				3	3									2									104
White bass	H																								1,270
	R																								1,573
Yellow bass	H																								275
	R																								1,775
Hybrid rockfish	H	7																							174
Legal	R		3																						461
Striped bass	H	230	153	171	69	47	29	15		8															2,077
Legal	R	134	56	56	25	39		7	4	4			2												1,769
Sub-legal	R																								1,844
Sauger	H																								1,467
Legal	R																								443
Sub-legal	R																								2,187
Walleye	H																								6
Yellow perch	H																								12
	R																								2
Smallmouth bass	H																								98
Legal	R																								239
Sub-legal	R																								331
Spotted bass	H																								4
	R																								29
Largemouth bass	H																								93
Legal	R																								537
Sub-legal	R																								202
White crappie	H																								702
	R																								191
Black crappie	H																								662
	R																								250
Bluegill	H																								2,369
	R																								2,468
Longear sunfish	H																								26
	R																								60
Redear sunfish	H																								15
	R																								9
Warmouth sunfish	H																								6
	R																								9
Spoonbill	H	136	111	175	100	150	103	82	54	64	50	32	11	7	11	7							54"-4	61"-1	1,787
	R			3				10		3				6								3	55"-3	60"-4	38
Gar	H						5																		5
	R		3	20						17					3							15			327
Suckers	H																								2
Blue Suckers	R																								41
Buffalo	H	4		4																					332
	R																								87
Carp	H																								3
	R																								19
Bighead carp	H				12	12	4		4	12	4	4		4						2					62
	R			7	4			18	4	7						4								55"-1	53
Silver carp	H					4			4		2														38
	R																								19
Drum	H	3																							91
	R	17	3	51			10	3	17	3				3											1,729
Skipjack herring	H																								10,613
	R																								1,967
Goldeye	H																								3
Mooneye	H																								333
Shad	H																								57
Bowfin	R																								26

Table 37. Monthly catfish angling success at Kentucky Dam tailwater during the March 2006 - February 2007 creel survey.

Month	Total catch of catfish by all anglers	Total catfish harvested by all anglers	No. of trips for catfish	Hours fished for catfish	Number caught by catfish anglers	Catfish caught / hour by catfish anglers	Number harvested by catfish anglers	Catfish harvested / hour by catfish anglers
March	915	835	194	566	862	1.07	832	1.03
April	3,399	3,093	732	2,131	3,350	1.19	3,048	1.08
May	1,716	1,489	763	2,223	1,531	0.61	1,355	0.54
June	1,543	1,100	815	2,375	1,390	0.52	979	0.37
July	1,198	941	712	2,073	1,031	0.41	803	0.32
Aug	771	524	385	1,122	651	0.49	450	0.34
Sept	1,581	1,210	500	1,456	1,277	0.72	963	0.55
Oct	1,920	1,546	416	1,210	1,710	1.21	1,407	1.00
Nov	1,997	1,595	191	556	1,993	2.55	1,591	2.04
Dec	1,530	1,307	246	715	1,487	1.76	1,303	1.54
Jan	547	527	58	167	541	2.32	521	2.23
Feb	161	161	34	98	7	0.01	7	0.07
Total	17,278	14,328	5,045	14,693	15,830		13,259	
Mean						0.93		0.72

Table 38. Monthly *Morone* angling success at Kentucky Dam tailwater during the March 2006 - February 2007 creel survey.

Month	Total catch of *Morone's* by all anglers	Total *Morone's* harvested by all anglers	No. of trips for *Morone's*	Hours fished for *Morone's*	Number caught by *Morone* anglers	*Morone's* caught / hour by *Morone* anglers	Number harvested by *Morone* anglers	*Morone's* harvested / hour by *Morone* anglers
March	684	352	154	448	225	0.78	145	0.50
April	1,035	400	300	874	498	0.85	227	0.39
May	1,010	211	268	782	678	1.34	154	0.30
June	1,065	379	381	1,108	742	0.68	360	0.33
July	1,458	664	404	1,177	1,140	0.98	642	0.55
Aug	1,305	496	275	802	943	1.29	489	0.67
Sept	1,287	572	464	1,352	1,096	0.87	504	0.40
Oct	1,529	513	488	1,420	1,281	1.02	448	0.36
Nov	737	55	97	283	168	0.87	22	0.11
Dec	783	114	75	219	102	0.70	0	0.00
Jan	307	42	63	183	153	1.17	40	0.30
Feb	22	0	46	135	7	0.08	0	0.00
Total	11,223	3,797	3,016	8,784	7,033		3,031	
Mean						0.96		0.41

Table 39. Monthly black bass angling success at Kentucky Dam tailwater during the March 2006 - February 2007 creel survey.

Month	Total catch of black bass by all anglers	Total black bass harvested by all anglers	No. of trips for black bass	Hours fished for black bass	Number caught by black bass anglers	Black bass caught / hour by black bass anglers	Number harvested by black bass anglers	Black bass harvested / hour by black bass anglers
March	59	9	10	29	21	0.70	0	0.00
April	182	31	75	219	146	0.76	13	0.07
May	179	19	34	98	96	1.05	3	0.04
June	414	26	117	342	330	0.96	19	0.06
July	107	7	57	166	69	0.39	7	0.04
Aug	176	16	58	168	120	0.76	0	0.00
Sept	221	46	36	104	61	2.61	0	0.00
Oct	102	34	24	70	23	0.62	0	0.00
Nov	69	7	17	49	4	0.11	0	0.00
Dec	16	0	0	0	0	0.00	0	0.00
Jan	11	2	2	5	2	1.00	0	0.00
Feb	0	0	0	0	0	0.00	0	0.00
Total	1,538	197	429	1,249	872		42	
Mean						0.78		0.04

Table 40. Monthly crappie angling success at Kentucky Dam tailwater during the March 2006 - February 2007 creel survey.

Month	Total catch of crappie by all anglers	Total crappie harvested by all anglers	No. of trips for crappie	Hours fished for crappie	Number caught by crappie anglers	Crappie caught / hour by crappie anglers	Number harvested by crappie anglers	Crappie harvested / hour by crappie anglers
March	246	184	114	331	221	0.73	168	0.55
April	418	355	161	470	392	1.83	329	1.54
May	144	115	39	114	79	1.27	73	1.17
June	41	16	31	92	32	0.43	13	0.17
July	68	49	20	58	62	0.85	49	0.67
Aug	32	10	18	51	22	0.43	6	0.12
Sept	191	98	77	223	154	1.29	61	0.52
Oct	61	44	31	90	44	1.13	34	0.80
Nov	153	150	87	254	143	0.65	143	0.65
Dec	391	290	102	296	361	1.51	259	1.08
Jan	62	56	37	107	61	0.56	55	0.50
Feb	0	0	30	86	0	0.00	0	0.00
Total	1,808	1,365	745	2,170	1,571		1,190	
Mean						0.93		0.72

Table 41. Species composition, relative abundance, and CPUE of black bass collected during 11 hours (22 runs; each 0.50 hours) of diurnal electrofishing at Lake Barkley on 23 April to 2 May 2007.

		Inch Class																						
Area	Species	1	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std Err
Lower																									
Donaldson Cr.	Smallmouth bass																						0		
	Spotted bass									1													1	1.00	1.00
	Largemouth bass					1			5	10	7	14	24	20	26	8	9	7	3	1	3		138	138.00	24.00
Ford's Bay	Smallmouth bass																						0		
	Spotted bass		1					1	5	1	3		2										13	8.67	8.67
	Largemouth bass				2	1	2	3	6	9	31	29	26	54	44	25	14	10	5	1	2	1	265	176.67	23.70
Parsons Bay	Smallmouth bass																						0		
	Spotted bass			1																			1	1.00	1.00
	Largemouth bass	1				2	3		1	4	8	10	15	21	15	11	3	2		1			97	97.00	35.00
Middle																									
Little River	Smallmouth bass													1									1	0.40	0.40
	Spotted bass																						0		
	Largemouth bass		1	1	4	4	2	2	7	27	28	63	74	57	64	47	21	10	11	4	1		428	171.20	22.15
Eddy Cr.	Smallmouth bass											1											1	0.40	0.40
	Spotted bass																						0		
	Largemouth bass		1		1	2	5	3	8	17	34	53	53	50	45	24	13	16	11	6			342	136.80	16.72
Upper																									
Willow Cr.	Smallmouth bass				3		1		1	1													6	4.00	0.00
	Spotted bass						1			2	7	3	3	3		1							20	13.30	8.51
	Largemouth bass			5	4	4	1	1	1	5	9	29	34	39	10	11	4	4	1				162	108.00	12.17
Demumbers Bay	Smallmouth bass																						0		
	Spotted bass									2	5	7	1										15	15.00	15.00
	Largemouth bass				2	1	3				9	21	27	18	13	8	7	2					111	111.00	39.00
Total	Smallmouth bass				3		1		1	1		1		1									8	0.73	0.31
	Spotted bass		1	1			1	1	5	6	15	10	6	3		1							50	4.55	2.13
	Largemouth bass	1	2	6	13	15	16	9	28	72	126	219	253	259	217	134	71	51	31	13	6	1	1,543	140.27	9.73

(wfdpsdb.d07)

Table 42. Spring diurnal electrofishing CPUE of each length group of largemouth bass collected at Lake Barkley during late April/early May since 1985.

	Length Group											
	< 8.0 in		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in		≥ 20.0 in		Total	
Year	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err
1985	3.0	1.0	11.6	1.7	4.7	1.0	3.6	1.0	0.2	0.2	22.90	2.60
1986	6.1		7.3		39.0		12.2		1.2		64.60	
1987	64.9	12.4	84.1	11.2	14.5	3.0	25.9	6.1	2.2	1.3	189.40	27.70
1988	39.5	6.6	98.2	12.6	76.9	21.8	29.0	9.5	2.9	1.6	243.60	45.50
1989	28.7	8.7	74.6	7.4	34.8	4.2	25.0	4.5	0.9	0.5	163.20	15.50
1990	10.4	2.5	47.2	6.9	33.8	5.3	26.6	3.5	3.4	1.1	118.00	12.90
1991	57.8	7.6	72.9	7.5	59.4	6.1	34.0	3.9	1.9	0.7	224.10	16.40
1992	30.7	4.8	79.0	7.6	20.5	1.7	29.5	2.3	2.7	0.7	159.70	9.00
1993	40.2	12.1	65.0	6.0	69.2	6.1	32.2	4.5	3.4	1.0	206.60	15.20
1994	49.2	8.4	51.0	6.3	72.8	6.2	36.0	5.3	4.2	1.1	209.00	19.80
1995	12.2	2.8	55.6	6.4	42.2	4.3	56.0	5.9	7.6	1.2	166.00	12.30
1996	14.4	5.9	36.0	4.0	45.6	7.8	43.2	6.4	7.6	1.5	139.20	16.60
1997	7.2	1.0	23.0	2.9	22.4	2.1	35.8	3.3	6.2	1.2	88.40	5.70
1998	22.2	4.7	26.2	4.2	28.6	3.0	29.8	3.5	7.1	1.0	106.80	5.90
1999	16.3	1.9	21.0	2.2	22.7	2.5	34.0	2.6	4.7	0.7	93.90	6.00
2000	32.8	4.2	28.6	2.3	24.7	2.3	27.9	2.4	2.7	0.7	114.10	6.00
2001	70.4	8.3	61.2	5.1	31.1	2.5	19.0	1.5	1.6	0.7	181.70	10.80
2002	26.4	3.6	49.7	5.9	40.6	4.1	16.3	1.8	1.3	0.4	133.00	8.50
2003	41.1	5.2	38.5	3.9	75.3	5.3	26.9	2.3	1.7	0.4	181.80	10.40
2004	11.3	1.3	40.9	2.9	29.3	1.6	24.7	2.2	1.8	0.4	106.20	5.10
2005	36.6	4.9	19.3	1.9	59.4	4.8	37.5	3.3	2.0	0.6	152.70	10.30
2006	15.6	2.2	26.7	2.2	51.8	3.9	30.8	2.4	2.1	0.6	124.20	7.40
2007	4.8	0.9	21.36	2.57	66.5	4.7	47.6	4.5	1.8	0.5	140.27	9.73
Average	27.9		45.2		42.0		29.7		3.1		144.76	

(Barkley_LMB_Database.xls)

Table 43. PSD and RSD values calculated for each black bass species collected during 11.0 hours (22 runs; each 0.50 hours) of spring diurnal electrofishing at each area of Lake Barkley from 23 April to 2 May 2007. 95% confidence intervals are in parentheses

Area	Species	No. fish ≥ 8.0 in	PSD (± 95% CI)	RSD[A] (± 95% CI)
Donaldson	Largemouth bass	137	84 (6)	42 (9)
Ford's	Largemouth bass	260	81 (5)	39 (6)
	Spotted bass	12	42 (30)	*
Parson's	Largemouth bass	91	86 (8)	35 (10)
Little River	Largemouth bass	416	85 (4)	38 (5)
Eddy Creek	Largemouth bass	333	81 (4)	35 (6)
Willow	Largemouth bass	148	89 (5)	20 (6)
	Spotted bass	20	85 (16)	20 (18)
Demumber's	Largemouth bass	105	91 (5)	29 (9)
	Spotted bass	15	87 (18)	*
Total	Largemouth bass	1490	84 (2)	35 (2)
	Spotted bass	48	73 (13)	8 (8)

[A] Largemouth bass = RSD_{15}, spotted bass and smallmouth bass = RSD_{14}.

[1] Upper Lake Barkley samples consisted of Demumbers Bay, Nickel Branch and Willow Creek.

[2] Middle Lake Barkley samples consisted of Little River and Eddy Creek.

[3] Lower Lake Barkley samples consisted of Donaldson Creek, Fords Bay and Parsons Bay.

* No fish of sufficient size were collected during sampling.

(wfdpsdb.d07)

Table 44. Mean back-calculated length (in) at each annulus of largemouth bass including the range in length at each age and the 95% confidence interval of each age group. Otoliths were collected from Lake Barkley in spring 2007.

		Age											
Year-Class	N	1	2	3	4	5	6	7	8	9	10	11	12
2006	14	6.8											
2005	27	7.0	10.4										
2004	23	7.4	10.9	12.6									
2003	1	6.6	10.2	12.7	14.0								
2002	12	8.4	11.0	13.5	14.5	15.6							
2001	6	8.2	10.6	12.9	13.8	14.6	15.2						
2000	7	8.1	11.3	13.6	14.9	16.0	16.7	17.4					
1999	2	6.4	10.8	12.9	14.8	15.9	17.0	18.0	18.7				
1998	2	6.4	11.1	13.3	14.8	15.9	17.4	18.3	19.5	19.8			
1997	1	7.8	12.3	14.1	15.9	17.1	17.7	18.0	18.3	18.6	18.9		
1995	1	7.9	11.6	14.2	15.4	16.5	17.5	18.4	19.3	19.6	20.0	20.3	20.5
Mean		7.4	10.8	13.0	14.5	15.6	16.4	17.7	18.9	19.3	19.5	20.3	20.5
Smallest		3.9	7.6	9.4	12.3	13.2	13.5	15.3	18.3	18.6	18.9	20.3	20.5
Largest		11.3	13.9	15.9	17.3	18.7	19.1	19.5	19.5	19.8	20.0	20.3	20.5
Std. Error		0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.4	0.6		
Low 95% CI		7.1	10.5	12.7	14.1	15.1	15.8	17.2	18.4	18.6	18.4		
High 95% CI		7.7	11.0	13.3	15.0	16.1	17.0	18.3	19.4	20.0	20.6		

* Intercept = 0.

wfdpsdb.d07, wfdlbagb.d07

Table 45. Age frequency and CPUE of largemouth bass collected during diurnal electrofishing at Lake Barkley in May 2007.

	Inch Class																			
Age	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%	CPUE	Std Err
1	13	15	16	9		8	13										74	4.8	6.69	0.68
2					25	56	76	40									197	12.9	17.90	1.89
3					3	8	38	179	184	43							455	29.8	41.34	3.12
4										43							43	2.8	3.92	0.36
5									46	130	87	45	28	10			346	22.6	31.42	2.41
6									23	43	87	45					198	13.0	17.97	1.50
7											43	45	28	10	16		142	9.3	12.92	1.23
8														20			20	1.3	1.85	0.29
9													14		16		30	2.0	2.70	0.38
10														10			10	0.7	0.93	0.14
12																13	13	0.9	1.18	0.41
Total	13	15	16	9	28	72	127	219	253	259	217	135	70	50	32	13	1,528		138.82	
%	0.9	1.0	1.0	0.6	1.8	4.7	8.3	14.3	16.6	17.0	14.2	8.8	4.6	3.3	2.1	0.9		100		

wfdpsdb.d07, wfdlbagb.d07

Table 46. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Lake Barkley spring samples from 1998-2007.

	Year									
Age	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	23.03	17.33	23.40	76.86	25.10	59.04	29.00	42.50	18.43	6.69
2	15.16	18.01	21.50	70.04	72.40	13.11	17.80	9.10	27.78	17.90
3	23.81	11.71	15.20	8.88	10.70	65.91	25.50	50.90	28.63	41.34
4	8.14	15.33	14.90	11.04	10.80	33.67	23.30	35.70	23.30	3.92
5	16.09	4.98	4.90	0.48	0.70	5.72	5.50	8.30	14.06	31.42
6		10.86	10.60	5.29	4.70	0.00	2.10	2.70	7.68	17.97
7			1.32	0.48	0.40	1.64	1.20	1.70	1.48	12.92
8				1.48	0.10	0.00	0.20	0.30	0.74	1.85
9				0.48	0.70	1.00	0.70	0.90		2.70
10						0.21				0.93
11						0.55				
12										1.18

(Barkley_LMB_Database.xls)

Table 47. Lake specific population assessment of largemouth bass based on spring sampling at Lake Barkley from 2003-2007.

	2003		2004		2005		2006		2007	
Parameter	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Growth (Mean length at capture of age-3)	12.9	3	12.9	3	12.9	3	13.6	4	12.6	2
Recruitment (Spring CPUE of age-1)	59.20	4	29.20	2	42.50	3	18.40	1	6.69	1
Size Structure (Spring CPUE of 12.0-14.9 in.)	75.30	4	29.30	2	59.40	4	51.80	3	66.50	4
Size Structure (Spring CPUE of ≥ 15.0 in.)	26.90	2	24.70	2	37.50	3	30.80	3	47.60	4
Size Structure (Spring CPUE of ≥ 20.0 in.)	1.70	1	1.80	1	2.00	1	2.00	1	1.80	1
Instantaneous Mortality (Z)							0.431		0.317	
Annual Mortality (A)%							40		27	
Total Score		14		10		14		12		12
Assessment Rating		G		F		G		G		G

Rating
5-7 = Poor (P)
8-11 = Fair (F)
12-16 = Good (G)
17-20 = Excellent (E)

(Barkley_LMB_Database.xls)

Table 48. Spring diurnal electrofishing CPUE of each length group of largemouth bass collected at Lake Barkley during May from 1985 - 2007. This table also includes the other parameters that are included in the BLFMP and used in calculating the black bass assessment.

	Mean length age-3 at	age-1		Length Group 12.0 - 14.9 in		≥15.0 in		≥20.0 in		Total	
Year	capture	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err
1985	10.6	*	*	4.70	1.00	3.60	1.00	0.20	0.20	22.90	2.60
1986	10.8	*	*	39.00	0.00	12.20	0.00	1.20	*	64.60	0.00
1987	11.1	*	*	14.50	3.00	25.90	6.10	2.20	1.29	189.40	27.70
1988	11.2	*	*	76.90	21.80	29.00	9.50	2.90	1.57	243.60	45.50
1989	*	*	*	34.80	4.20	25.00	4.50	0.90	0.45	163.20	15.50
1990	11.7	*	*	33.80	5.30	26.60	3.50	3.40	1.08	118.00	12.90
1991	11.4	*	*	59.40	6.10	34.00	3.90	1.90	0.69	224.10	16.40
1992	11.0	*	*	20.50	1.70	29.50	2.30	2.70	0.67	159.70	9.00
1993	11.3	*	*	69.20	6.10	32.20	4.50	3.40	1.03	206.60	15.20
1994	11.1	*	*	72.80	6.20	36.00	5.30	4.20	1.05	209.00	19.80
1995	11.0	*	*	42.20	4.30	56.00	5.90	7.60	1.19	166.00	12.30
1996	10.9	*	*	45.60	7.80	43.20	6.40	7.60	1.47	139.20	16.60
1997	10.9	3.00	0.59	22.40	2.10	35.80	3.30	6.20	1.16	88.40	5.70
1998	12.0	23.00	4.77	28.60	3.00	29.80	3.50	7.00	1.02	106.80	5.90
1999	12.6	17.30	1.34	22.70	2.50	34.00	2.60	4.70	0.73	93.90	6.00
2000	12.6[A]	37.30	2.93	24.70	2.30	27.90	2.40	2.70	0.67	114.10	6.00
2001	14.7	81.00	8.59	31.10	2.50	19.00	1.50	1.60	0.67	181.70	10.80
2002	14.7[A]	28.90	3.21	40.60	4.10	16.30	1.80	1.30	0.37	133.00	8.50
2003	12.9	59.20	6.36	75.30	5.30	26.90	2.30	1.70	0.35	181.80	10.40
2004	12.9[A]	29.20	2.42	29.30	1.60	24.70	2.20	1.80	0.43	106.20	5.09
2005	12.9[A]	42.50	5.44	59.40	4.80	37.50	3.30	2.00	0.55	152.70	10.30
2006	13.4	18.40	2.35	51.80	3.87	30.80	2.40	2.00	0.57	124.20	7.36
2007	12.6	6.70	0.68	66.50	4.70	47.60	4.50	1.80	0.50	140.27	9.73
Average	11.7	31.50		41.99		29.72		3.22		144.76	

(Barkley LMB Database.xls) * Data not available [A] Previous years data used

Table 49. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected during 5.0 hours of diurnal electrofishing (10 runs; each 0.50 hours) for black bass in each area of Lake Barkley on 14 and 18 October 2007.

	Inch Class																							
Area/Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std Err
Middle																								
Eddy Creek																								
Largemouth bass	1	1	23	10	6	32	77	40	10	20	12	26	26	27	13	6	8	3	1	1		343	137.20	29.77
Spotted bass							1															1	0.40	0.40
Smallmouth bass			1										1									2	0.80	0.49
Lower																								
Little River																								
Largemouth bass			8	3	16	37	57	17	11	12	18	22	35	16	11	8	4	3	2	3	1	284	113.60	10.61
Spotted bass					1							1										2	0.80	0.49
Smallmouth bass													1									1	0.40	0.40
Total																								
Largemouth bass	1	1	31	13	22	69	134	57	21	32	30	48	61	43	24	14	12	6	3	4	1	627	125.40	15.41
Spotted bass					1		1					1										3	0.60	0.31
Smallmouth bass			1										2									3	0.60	0.31

(wfdwrb.d07)

Table 50. Number of fish and the relative weight (Wr) values for each size-class of largemouth, spotted, and smallmouth bass collected at Lake Barkley during 5.0 hours (10 runs; each 0.50 hours) of diurnal electrofishing on 14 and 18 October 2007.

		Length Group											
		8.0 - 11.9 in			12.0 -14.9 in			≥15.0 in			Total		
Species	Area	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err
Largemouth bass													
	Eddy Creek	82	99.8	1.14	79	94.6	1.31	32	100.4	1.71	193	97.8	0.79
	Little River	58	96.5	1.16	73	94.4	1.11	32	105.3	1.68	163	97.3	0.79
	Total	140	98.5	0.83	152	94.5	0.86	64	102.9	1.23	356	97.6	0.56
		7.0 - 10.9 in			11.0 - 13.9 in			≥14.0 in			Total		
		N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err
Spotted bass													
	Eddy Creek	1	96.4								1	96.4	
	Little River				1	81.8					1	81.8	
	Total	1	96.4		1	81.8					2	89.1	7.28
Smallmouth bass													
	Eddy Creek				1	92.0					1	92.0	
	Little River				1	91.6					1	91.6	
	Total				2	91.8	0.2				2	91.8	0.20

(wfdwrb.d07)

Table 51. Fall collected age-0 CPUE and mean length (in) of largemouth bass collected in the fall, and CPUE of age-1 largemouth bass collected the following spring during diurnal electrofishing at Lake Barkley.

	Age-0[A]		Age-0[A]		Age-0 ≥ 5.0 in[A]		Age-1[B]	
Year-class	Mean Length	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err
2001	5.4		21.20	4.00	16.00		32.6[C]	3.40
2002	5.3		26.70	2.40	10.10		59.00	6.40
2003	5.1		35.20	4.40	20.90		29.2[D]	2.40
2004	5.4	0.8	39.80	5.75	30.40	4.27	42.5[D]	5.40
2005	5.4	0.14	5.40	1.20	4.80	1.20	18.43	2.35
2006	4.8	0.15	9.33	1.73	4.00	1.29	6.69	0.68
2007	6.8	0.09	68.68	11.78	59.40	10.7	*	

[A] Data collected by fall (October) diurnal electrofishing. Mean lengths were determined by analysis of otoliths, removed from a subsample of LMB < 8.0 in.

[B] Data collected during the following spring (April/May) diurnal electrofishing sample.

[C] Age and growth data was not collected during the spring of 2002. Age and growth data collected during the spring of 2001 and 2003 was used to determine CPUE of each individual age-class.

[D] Age and growth data was not collected during the spring of 2004. Age and growth data collected during the spring of 2003 will be used to determine CPUE of each individual age-class.

* Data will be collected during the spring, diurnal electrofishing sample of 2008.

wfdwrb.dxx, wfdpsdb.dxx

Table 52. Species composition, relative abundance, and CPUE (# of fish/hour) of redear sunfish collected during 1.5 hours (6 runs; each 900s) of diurnal electrofishing at Lake Barkley (Devil's Elbow and Lick Creek) on 5 and 10 April, 2007.

	Inch Class															
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std Err
Redear Sunfish			1	1		6	9	32	57	35	6	2		149	99.33	27.89

wfdpsdr.d07

Table 53. Spring diurnal electrofishing CPUE of each length group of redear sunfish collected at Lake Barkley during late April/early May in 2005 and 2007.

	Length Group											
	< 3.0 in		3.0 - 5.9 in		6.0 - 7.9 in		≥ 8.0 in		≥ 10.0 in		Total	
Year	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err
2005			0.40	0.40	8.40	3.66	33.60	14.50	23.60	14.66	42.40	11.82
2007			1.33	0.84	10.00	4.10	88.00	25.17	28.67	9.40	99.33	27.89
Average			0.87		9.20		60.80		26.14		70.87	

wfdpsdr.dxx

Table 54. Mean back-calculated length (in) at each annulus of redear sunfish including the range in length at each age and the 95% confidence interval of each age group. Otoliths were collected from Lake Barkley in the spring 2007.

		Age								
Year-Class	N	1	2	3	4	5	6	7	8	9
2006	1	4.4								
2005	9	4.4	7.6							
2004	7	4.1	7.1	9.1						
2002	2	4.0	6.2	7.8	8.8	9.6				
2001	6	3.7	5.9	7.6	8.8	9.8	10.4			
2000	1	4.1	6.6	7.7	8.2	8.7	9.6	9.9		
1998	1	2.8	5.5	6.8	7.5	7.9	8.1	8.4	8.8	9.2
Mean		4.0	6.9	8.2	8.6	9.5	10.0	9.2	8.8	9.2
Smallest		2.8	5.1	6.8	7.5	7.9	8.1	8.4	8.8	9.2
Largest		5.3	8.9	9.7	9.5	11.1	11.2	9.9	8.8	9.2
Std Err		0.1	0.2	0.2	0.2	0.3	0.4	0.7		
Low 95% CI		3.8	6.5	7.8	8.1	8.8	9.3	7.7		
High 95% CI		4.3	7.2	8.6	9.1	10.1	10.8	10.6		

* Intercept = 0.

wfdreagb.d07

Table 55. Age frequency and CPUE of redear sunfish collected during 1.5 hours (6 runs; 900s each) of electrofishing at Lake Barkley during late April and early May 2007.

	Inch Class												
Age	3	4	5	6	7	8	9	10	11	Total	Percent	CPUE	Std Err
1		1								1	0.7	0.67	0.67
2				6	9	11	11			37	25.3	24.71	7.09
3						18	11	7		36	24.7	24.12	6.42
4										0	0.0	0.00	0.00
5						4		7		11	7.5	7.04	2.07
6							23	14	6	43	29.5	28.53	8.53
7								7		7	4.8	4.67	1.57
9							11			11	7.5	7.60	2.20
Total		1		6	9	33	56	35	6	146		97.34	
%		0.0		4.1	6.2	22.6	38.4	24.0	4.0		100.0		

wfdpsdr.d07
wfdreagb.d07

Table 56. Lake-specific population assessment of redear sunfish based on spring sampling at Lake Barkley in 2005 and 2007.

	2005		2007	
Parameter	Value	Score	Value	Score
Mean Length age-3 at capture	8.3	4	8.3	4
Years to 8.0 inches	3	4	3	4
Spring CPUE ≥8.0 inches	33.60	4	88.00	4
Spring CPUE ≥ 10.0 inches	23.60	4	28.67	4
Instantaneous Mortality (z)				
Annual Mortality (A)%				
Total Score		16		16
Assessment Rating		E		E

Rating
4-6 = Poor (P)
7-10 = Fair (F)
11-13 = Good (G)
14-16 = Excellent (E)

Barkley_Redear_Sunfish_Database.xls

Table 57. Length frequency and CPUE (fish/trotline) of blue and channel catfish collected by trotline at Lake Barkley from 21-25 May 2007. A total of 18 trotline nights were conducted.

	Inch Class																										
Species	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	28	29	30	34	Total	CPUE	Std Err
Blue catfish	2	2	7	13	13	10	11	21	15	21	19	26	25	20	16	14	18	9	3	4	5	1	1	1	1	278	14.63	1.58
Channel catfish			1	3	2	1	5	11	16	26	16	11	5	4	1	2		1			1					102	5.58	0.91

(wfdcatb.d07)

Table 58. Relative weight (Wr) of each length group of blue and channel catfish collected at Lake Barkley from 21-25 May 2007. Fish were collected during 18 trotline-nights.

Species	Length Group											
Blue Catfish	12.0 - 19.9 in.			20.0 - 29.9 in.			≥ 30.0 in.			Total		
	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err
	158	100.25	1.17	71	104.5	2.0	2	106.82	1.98	231	101.6	1.02
Channel Catfish	11.0 - 15.9 in.			16.0 -23.9 in.			≥ 24.0 in.			Total		
	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err	N	Wr	Std Err
	59	97.4	2.37	40	96.8	1.8	1	110.6		100	97.3	1.57

(wfdcatb.d07)

Table 59. Age frequency and CPUE of blue catfish collected during 18 trotline-nights at Lake Barkley from 21-25 May 2007.

	Inch Class																						Std
Age	8	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total	Percent	CPUE	Err
2	7																			7	2.8	0.37	0.14
3		10	11																	21	8.5	1.11	0.24
4				21	15	11		4												51	20.6	2.68	0.41
5						11	19	13	19			2	9	5						78	31.5	4.06	0.50
6								9	6	20	12	5	6	5	1	2	3		1	70	28.2	3.65	0.48
7											4	5	3		2		2	1		17	6.9	0.86	0.15
8												2								2	0.8	0.12	0.03
9																2				2	0.8	0.11	0.05
Total	7	10	11	21	15	22	19	26	25	20	16	14	18	10	3	4	5	1	1	248		12.96	
%	3	4	4	8	6	9	8	10	10	8	6	6	7	4	1	2	2	0	0		100		

(wfdcatb.d07) (wfdbcagb.d04)

Table 60. Age frequency and CPUE of channel catfish collected during 18 trotline-nights at Lake Barkley during 21-25 May 2007.

	Inch Class																		
Age	8	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	Percent	CPUE	Std Err
2	1															1	1.0	0.05	0.05
3		2			2											4	4.1	0.22	0.08
4			1	3	4	5										13	13.4	0.74	0.19
5				2	4	8	10	6	2	1						33	34.0	1.79	0.33
6						3	10	6								19	19.6	1.15	0.20
7							5	3	2							10	10.3	0.56	0.10
8									2	2						4	4.1	0.20	0.07
9										2	2		1			5	5.2	0.27	0.09
10										6			1		1	8	8.2	0.38	0.10
Total	1	2	1	5	10	16	25	15	6	11	2		2		1	97		5.36	
%	1	2.1	1	5.2	10	16	26	15	6.2	11	2.1	0	2.1	0	1		100		

(wfdcatb.d07) (wfdccagb.d04)

Table 61. Length frequency and CPUE (fish/net-night) of each inch-class of white and black crappie collected by trap-net (79 net-nights) at Lake Barkley from 29 October-2 November 2007.

Location	Species	Inch Class														Total	CPUE	Std Err
		1	2	3	4	5	6	7	8	9	10	11	12	13	14			
Little River																		
	White Crappie		8	26	69	8	3	29	24	4	12	28	17	2	1	231	6.08	0.89
	Black Crappie	1	16	15	1		1		2	12	10	6				64	1.68	0.34
Donaldson Creek																		
	White Crappie	1	14	3					1	5	11	29	6	1	1	72	1.80	0.29
	Black Crappie		1	1				1	26	34	16	4	2			85	2.13	0.53
Total																		
	White Crappie	1	22	29	69	8	3	29	25	9	23	57	23	3	2	303	3.88	0.52
	Black Crappie	1	17	16	1		1	1	28	46	26	10	2			149	1.91	0.32

(wfdtpntb.d07)

Table 62. CPUE for length-groups of crappie collected from multiple years of trap netting on Barkley Lake. Includes mean lengths at capture for age 2 crappie and % of trap netting catch that is age-4 or older (catch excludes age-0 fish).

Year	CPUE ≥ 8.0 in			CPUE ≥ 10.0 in			Mean Length @ age 2		% Age 4 and Older		
	WC	BC	WC & BC	WC	BC	WC & BC	WC	BC	WC	BC	WC & BC
1985	3.39	0.12	3.51	1.22	0.05	1.27	9.5	8.4	0.10	0.04	0.20
1986	5.88	0.16	6.04	2.29	0.04	2.33	10.9	9.9	1.05	0.00	1.00
1987	2.04	0.35	2.39	1.51	0.11	1.63	11.4	10.8	0.78	0.00	0.72
1988	3.46	0.16	3.63	1.48	0.09	1.56	10.1	10.0	3.01	8.33	3.22
1989	1.26	0.11	1.38	0.50	0.05	0.55	8.8	9.1	10.70	0.00	9.95
1990	4.55	0.15	4.71	1.95	0.01	1.96	11.0	10.9	0.00	0.00	0.00
1991	3.19	0.23	3.41	1.06	0.06	1.13	10.5	10.4	0.98	0.00	0.69
1992	2.10	1.99	4.09	0.91	0.39	1.30	10.2	9.4	0.00	0.00	0.00
1993	1.35	0.49	1.85	0.52	0.27	0.78	9.8	9.4	0.59	13.73	3.64
1994	3.41	0.82	4.23	1.13	0.65	1.78	10.5	10.4	1.06	10.91	3.53
1995	4.44	0.74	5.18	1.01	0.22	1.23	11.0	9.2	0.22	2.05	0.47
1996	5.60	0.74	6.34	2.89	0.18	3.06	10.4	9.1	0.67	0.00	0.46
1997	2.51	0.60	3.11	1.10	0.11	1.20	10.5	8.8	0.26	1.47	0.44
1998	4.50	1.51	6.01	1.25	0.21	1.46	9.5	8.2	5.11	0.63	2.99
1999	1.92	1.00	2.92	1.35	0.09	1.44	10.3	9.2	1.03	1.65	1.27
2000	2.03	1.86	3.89	0.79	0.60	1.39	11.4	10.5	9.19	0.95	3.99
2001	1.08	1.55	2.63	0.94	1.03	1.96	11.3	10.2	2.17	7.78	5.79
2002	2.56	2.74	5.30	1.10	0.64	1.74	10.4	10.0	2.71	6.80	4.88
2003	2.26	1.63	3.89	1.09	1.13	2.21	11.1	10.3	4.20	4.27	4.24
2004	5.47	1.82	7.29	1.04	0.74	1.78	11.1*	10.3*	1.83	3.43	2.30
2005	3.8	1.4	5.20	2.75	0.62	3.37	11.3	10.8	0.00	0.01	0.01
2006	2.68	0.96	3.64	0.96	0.38	1.34	10.7	10.5	0.01	0.01	0.02
2007	1.82	1.44	3.26	1.38	0.49	1.82	10.7*	10.5*	0.02	0.01	0.02
Average	3.1	1.0	4.1	1.3	0.4	1.7	10.5	9.8	2.1	2.8	2.3

(Barkley_Crappie_Database.xls)

* Age and growth not collected; value from previous year used

Table 63. Proportional stock density (PSD) and relative stock density (RSD) of white and black crappie collected by trap-nets (79 net-nights) at Lake Barkley from 29 October-2 November 2007. Numbers in parentheses represent 95% confidence intervals.

Location	Species	N	PSD	RSD_{10}
Little River	White Crappie	88	69 (±8)	47 (±9)
	Black Crappie	30	97 (±6)	52 (±18)
Donaldson	White Crappie	54	100 (±0)	89 (±8)
	Black Crappie	82	99 (±2)	27 (±10)
Total	White Crappie	182	78 (±6)	59 (±7)
	Black Crappie	114	98 (±2)	33 (±9)

(wfdtpntb.07)

Table 64. Age frequency and CPUE of black crappie collected during 79 net-nights at Lake Barkley during 29 October-2 November 2007.

	Inch Class														
Age	2	3	4	5	6	7	8	9	10	11	12	Total	Percent	CPUE	Std Err
0	17	16	1									34	23.0	0.44	0.15
1					1	1	23	26	2			53	36.0	0.68	0.15
2							5	20	21	9		55	38.0	0.71	0.15
3									2	1	1	4	3.0	0.06	0.01
4											1	1	0.0	0.01	0.01
Total	17	16	1		1	1	28	46	25	10	2	147		1.90	
%	11	11	1		1	1	19	31	18	7	1		100		

(wfdtpntb.d07) (wfdtnagb.d06)

Table 65. Age frequencies and CPUE of white crappie collected during 79 net-nights at Lake Barkley during 29 October-2 November 2007. Age and growth data from 2006 was used to calculate the age-frequencies.

	Inch Class																
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	Percent	CPUE	Std Err
0	22	29	69	1										121	39.8	1.55	0.34
1				7	3	27	25	8	2					72	23.7	0.93	0.17
2						2		1	17	29	6			55	18.1	0.70	0.08
3									4	29	17	2		52	17.1	0.65	0.08
4														0	0.0		
5												2	2	4	1.3	0.04	0.02
Total	22	29	69	8	3	29	25	9	23	58	23	4	2	304		3.87	
%	7	10	23	3	1	10	8	3	8	19	8	1	1		100		

(wfdtpntb.d07) (wfdtnagb.d06)

Table 66. Lake-specific population assessment for crappie from Lake Barkley trap-net data collected in November 2003-2007.

	2003		2004		2005		2006		2007	
Parameter	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Population Density (CPUE of age-1 and older crappie)	7.33	2	9.18	2	6.50	1	7.60	2	3.78	1
Recruitment (CPUE of age-1 crappie)	4.80	2	6.32	2	3.10	1	6.00	2	1.80	1
Recruitment (CPUE of age-0 crappie)	12.03	2	3.23	1	8.60	1	0.20	1	2.00	1
Size Structure (CPUE of > 8.0 in)	3.89	2	7.29	4	5.20	3	3.60	2	3.20	2
Growth (Mean age-2 length at capture)	10.7	4	10.7	4	10.7	4	10.6	3	10.6	3
Instantaneous Mortality (Z)		1.14		1.51		1.42		1.49		0.91
Annual Mortality (A)%		68.0		77.8		75.8		77.5		59.9
Total Score:		12		13		10		10		8
Assessment Rating:		G		G		F		F		F

(Barkley_Crappie_Database.xls)

Table 67. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected during diurnal electrofishing at Lake Beshear during 2007.

		Inch Class																				
Season	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std Err
Spring	Largemouth bass		8	24	5	8	26	16	7	4	13	14	18	13	19	26	12	22	9	5	249	83.00	12.76
Fall	Largemouth bass	4	26	22	5	2	8	12	3	5	3	8	5	2	4	2	1				112	44.80	4.96

wfdpsdlb.d07 and wfdwrlb.d07

Table 68. Spring diurnal electrofishing CPUE for each length group of largemouth bass collected at Lake Beshear. Nocturnal sampling was conducted from 1995 to 2002. CPUE = fish/hour

	Mean length age-3 at	Age-1		Length Group													
				≤8.0 in		≥12.0 in		12.0 - 14.9 in		≥15.0 in		≥18.0 in		≥20.0 in		Total	
Year	capture	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err
1986				4.83		18.50		4.03		14.50		4.84		0.80		34.70	
1987				4.03		9.68		4.03		5.65		1.61		0.00		56.70	
1988				1.80		38.40		7.92		30.49		15.24		4.87		22.60	
1989				9.80		54.90		28.40		26.50		6.85		0.00		80.40	
1990		1.33		4.70	1.8	38.70	3.3	9.30	1.8	29.30	4.8	13.30	1.3	3.30	0.7	50.70	2.9
1991		7.50		15.00	2.4	34.00	5.7	10.50	1.9	23.50	4.0	10.50	3.9	5.00	2.1	65.00	6.0
1992		1.33		2.70	0.7	65.30	0.7	20.00	1.2	45.30	1.8	18.00	1.2	6.00	1.2	92.00	5.3
1993		4.00		6.50	1.7	37.50	13.7	6.00	2.9	31.50	10.8	17.00	5.6	5.00	2.6	48.00	15.4
1994		6.00		11.20	2.9	48.80	10.8	14.80	3.9	34.00	9.5	14.80	5.0	6.80	2.9	68.00	10.1
1995	9.5	15.60	8.3	13.50	3.7	51.00	16.5	15.50	4.1	35.50	12.6	16.50	5.9	4.00	1.8	87.00	21.6
1996		2.00		5.50	2.2	55.50	5.1	16.50	1.9	39.00	4.2	19.50	4.6	8.00	2.4	73.50	6.2
1997		2.50		4.50	2.5	39.00	7.0	10.50	2.9	28.50	4.8	14.00	2.6	4.00	1.8	53.50	8.3
1998		0.00		5.00	1.3	70.00	8.7	17.00	4.4	53.00	5.3	22.00	2.2	8.50	1.7	88.00	8.3
1999		3.50		4.00	1.8	39.50	6.7	14.00	2.9	25.50	4.9	8.00	2.7	1.00	1.0	55.00	8.8
2000		3.20		11.20	3.7	36.00	8.7	4.00	2.1	32.00	7.6	16.40	3.1	2.80	0.5	65.20	10.9
2001	14.1	1.00	2.0	5.00	2.4	26.00	6.1	10.50	2.5	15.50	3.8	5.50	1.3	1.50	1.0	73.00	6.7
2002		3.50		11.50	1.7	64.50	10.7	28.00	4.2	36.50	8.6	11.50	2.9	3.50	1.3	100.00	16.4
2003	14.0	0.80	3.8	5.20	2.9	33.60	7.8	8.00	1.9	25.60	7.2	3.60	0.7	2.00	1.1	45.20	9.5
2004		6.40		4.40	1.6	52.00	9.3	9.60	2.6	42.40	8.5	16.00	3.7	2.80	1.4	68.40	11.7
2005		38.80		30.80	4.9	51.60	6.2	7.20	2.1	44.40	5.9	19.60	2.4	3.60	1.2	94.80	8.5
2006	12.7	24.80	7.8	27.60	8.2	41.20	5.6	7.20	2.9	34.00	3.0	18.00	1.9	4.80	1.5	84.00	13.3
2007		13.00	2.4	15.00	3.3	50.33	8.6	15.00	4.2	35.33	5.2	16.00	2.6	4.67	1.0	83.00	12.8
Average	12.6	7.51		9.26		43.46		12.18		31.27		13.12		3.77		67.67	

wfdpsdlb.dxx

Table 69. Age frequency and CPUE of largemouth bass collected from Lake Beshear in May 2007 during 3.0 hours of diurnal sampling. Used WFDLBAGB.d06 data set to determine age frequencies.

	Inch Class																				
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	Std Err
1	8	24	5	2															39	15.7	13.00	2.4
2				6	26	16	3												51	20.5	17.00	3.7
3							4	4	13	14	18	3							56	22.5	18.67	4.3
4												3	15	5	2				25	10.0	8.33	1.5
5												7	4	10	2				23	9.2	7.67	1.1
6														11	6	7	4		28	11.2	9.33	1.3
7																7		5	12	4.8	4.00	0.7
8															2		5		7	2.8	2.33	0.5
11																8			8	3.2	2.67	0.4
Total	8	24	5	8	26	16	7	4	13	14	18	13	19	26	12	22	9	5	249		83.00	
%	3	10	2	3	10	6	3	2	5	6	7	5	8	10	5	9	4	2		100		

wfdpsdlb.D07, wfdlbbag.D06

Table 70. Population assessment determined from largemouth bass based on spring sampling at Lake Beshear from 2003-2007 using the Lake Beshear specific assessment.

	2003		2004		2005		2006		2007	
Parameter	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Growth (Mean length at capture of age-3)	14.0	4	14.0	4	14.0	4	12.7	3	12.7	3
Recruitment (Spring CPUE of age-1)	0.80	1	6.40	1	38.80	4	24.80	3	13.00	2
Size Structure (Spring CPUE of 12.0-14.9 in.)	8.00	1	9.60	1	7.20	1	7.20	1	15.00	2
Size Structure (Spring CPUE of ≥ 15.0 in.)	25.60	2	42.40	4	44.40	4	34.00	3	35.33	3
Size Structure (Spring CPUE of ≥ 20.0 in.)	2.00	2	2.80	2	3.60	2	4.80	3	4.67	3
Instantaneous Mortality (Z)	0.547		0.430		0.262		0.344		0.349	
Annual Mortality (A)%	54.7		34.9		23.0		29.1		29.4	
Total Score		10		12		15		13		13
Assessment Rating		F		G		G		G		G

Rating
5-7 = Poor (P)
8-11 = Fair (F)
12-16 = Good (G)
17-20 = Excellent (E)

Lake Beshear Bass Data Base

Table 71. Fall collected age-0 CPUE and mean length (in) of largemouth bass collected in the fall, and CPUE of age-1 largemouth bass collected the following spring during diurnal electrofishing at Lake Beshear.

	Age 0[A]		Age 0[A]		Age 0 ≥ 5.0 in[A]		Age 1[B]	
Year-class	Mean Length	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err
2001	4.5	0.2	4.40	1.60	0.80	0.49	15.00	2.94
2002	4.2	0.2	5.00	1.29	0.00		13.50	1.33
2003	3.3	0.1	24.00	4.76	0.50	0.5	4.32	1.94
2004	3.8	0.1	17.60	4.12	0.00		38.80	1.80
2005	4.4	0.1	21.00	7.68	0.00		37.04	9.50
2006	4.2	0.1	23.00	7.51	3.00	1.91	25.00	4.24
2007	4.8	0.1	21.60	3.49	9.6	2.32		

[A] Data collected by fall (October) diurnal electrofishing. Mean lengths were determined by analysis of otoliths, removed from a subsample of LMB < 8.0 in, which were extrapolated to the entire catch of the fall sample, and length frequencies.

[B] Data collected during the following spring (April/May) diurnal electrofishing sample.

WFDWRLB.Dxx, WFDWRAGB.Dxx, WFDPSDLB.Dxx

Table 72. Species composition, relative abundance, and CPUE (fish/hour) of largemouth bass, bluegill and redear sunfish collected during 1.5 hours (6 runs; each 900s) of diurnal electrofishing at Lake Pennyrile on 4 April, 2007

	Inch Class																								
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std Err
Largemouth bass				17	33	4	8	19	22	21	37	12	7	2	1		2			1			186	124.00	5.16
Bluegill	1	5	14	20	19	17	18	2															96	64.00	15.87
Redear Sunfish	3		9	12	11	8	17	13	3														76	50.67	16.35

wfdpsdp.d07

Table 73. Spring, diurnal electrofishing CPUE of each length group of largemouth bass collected at Pennyrile Lake from 1990-2007.

	Length Group								Total	
	< 8.0 in		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in			
Year	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err
1990	28.00	2.00	87.00	1.00	3.00	1.00	0.00	0.00	118.00	0.00
1994	47.00	9.00	52.00	6.00	2.00	2.00	1.00	1.00	102.00	12.00
1998	12.00	8.00	70.00	1.00	7.00	1.00	2.00	2.00	91.00	21.00
1999[A]	26.00	8.00	102.00	8.00	3.00	1.00	2.00	2.00	133.00	1.00
2000[A]	46.00	4.00	87.00	5.00	11.00	7.00	3.00	3.00	147.00	1.00
2001[A]	54.00	0.00	138.00	10.00	12.00	4.00	5.00	1.00	209.00	15.00
2002	132.30	24.20	116.20	14.70	30.80	5.40	5.40	3.30	284.00	36.90
2003	96.60	17.60	118.80	9.40	24.80	4.80	0.90	0.90	241.00	27.30
2004	27.50	7.10	63.70	10.70	26.40	4.70	2.20	1.40	119.80	14.40
2005	101.10	11.60	127.50	21.00	25.30	5.80	6.60	2.60	260.40	22.90
2006	81.00	21.60	105.00	11.80	26.00	5.03	6.00	2.58	218.00	30.31
2007	41.33	2.46	66.00	3.97	14.00	2.25	2.67	1.33	124.00	5.20
Mean	57.74		94.43		15.44		3.06		170.60	

[A] Data collected by spring, nocturnal electrofishing.

wfdpsdp.dxx

Table 74. PSD and RSD values obtained for largemouth bass, bluegill and redear sunfish collected during 1.5 hours of diurnal electrofishing (6 runs; each 900s) at Lake Pennyrile on 4 April 2007.

Species	N	PSD (+/- 95% CI)	RSD* (+/- 95% CI)
Largemouth bass	124	20 (7)	3 (3)
Bluegill	90	41 (11)	2 (2)
Redear sunfish	64	52 (12)	5 (5)

* Bluegill = RSD_8, Redear sunfish = RSD_9.

wfdpsdp.d07

Table 75. Lake specific population assessment of the largemouth bass population based on spring diurnal electrofishing at Lake Pennyrile from 2003-2007.

	2003		2004[B]		2005[B]		2006[B]		2007[B]	
Parameter[A]	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Growth (Mean length at capture of age-3)	9.7	1	9.7	1	9.7	1	9.7	1	9.7	1
Recruitment (Spring CPUE of age-1)	59.39	3	13.10	1	85.70	4	68.30	3	33.10	2
Size Structure (Spring CPUE of 12.0-14.9 in.)	24.80	2	26.40	2	25.30	2	26.00	2	14.00	1
Size Structure (Spring CPUE of ≥ 15.0 in.)	0.90	1	2.20	1	6.60	2	6.00	2	2.70	1
Size Structure (Spring CPUE of ≥ 20.0 in.)	0.00	1	0.00	1	3.30	3	0.00	0	2 0.67	1
Instantaneous Mortality (Z)	0.457									
Annual Mortality (A)%	36.7									
Total Score		8		6		12		8		6
Assessment Rating		Fair		Poor		Good		Fair		Poor

[A] Population assessment scores are obtained for lakes < 1000 acres.

[B] Age and growth data was not collected. Age and growth data collected during 2003 was us

Rating
5-7 = Poor (P)
8-11 = Fair (F)
12-16 = Good (G)
17-20 = Excellent (E)

Pennyrile_LMB_Database.xls

Table 76. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Lake Pennyrile spring samples.

	Year									
Age	1998	1999[AB]	2000[AB]	2001[A]	2002[C]	2003	2004[D]	2005[D]	2006[D]	2007[D]
1	5.00	22.69	41.06	26.00	111.51	59.39	13.05	85.65	68.27	33.11
2	9.30	22.34	37.53	103.76	49.89	83.41	38.09	55.89	39.09	28.72
3	28.30	40.07	25.23	39.13	34.77	23.39	12.83	28.37	25.68	12.97
4	26.60	20.26	14.88	6.25	28.38	33.92	26.06	35.10	34.38	21.40
5	7.70	15.18	15.11	21.57	31.52	25.75	17.50	29.18	25.91	17.21
6	3.00	6.21	3.76	4.14	9.99	7.26	5.39	7.82	8.38	3.45
7	5.00	2.62	2.31	3.00	8.02	3.42	1.95	3.54	3.11	2.74
8	4.00	2.58	1.63	0.00	2.54	3.63	2.70	3.91	4.19	1.73
9		0.00	0.00	0.00	0.00		0.00			
		0.06	0.50	1.14	1.10		2.21			

[A] Spring electrofishing samples were collected nocturnally.

[B] Age and growth data was not collected. Age and growth data collected during 1998 and 2001 was used as surrogate data.

[C] Age and growth data was not collected. Age and growth data collected during 2001 and 2003 was used as surrogate data.

[D] Age and growth data was not collected. Age and growth data collected during 2003 was used as surrogate data.

Pennyrile_LMB_Database.xls

Table 77. Spring electrofishing CPUE for each length group of bluegill and redear sunfish collected at Lake Pennyrile during May from 1990-2007.

		Length Group									
		< 3.0 in		3.0 - 5.9 in		6.0 - 7.9 in		≥ 8.0 in		Total	
Species	Year	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err
Bluegill											
	2007	4.00	1.79	35.33	8.60	23.33	7.55	1.33	0.84	64.00	15.87
	2005	51.70	20.00	262.60	64.00	45.10	13.40	1.10	1.10	360.40	72.30
	2004	3.10	3.10	38.50	10.60	23.10	11.90	6.20	4.50	70.80	21.70
	2003	27.70	5.20	80.00	14.50	18.50	5.20	12.30	5.20	138.50	8.80
	2002	77.60	22.90	98.40	32.00	29.60	7.30	1.60	1.10	207.20	52.10
	2001	0.0	0.0	21.00	3.00	65.90	53.90	3.00	3.00	89.80	53.90
	2000	80.80	9.00	95.80	18.00	65.90	12.00	9.00	3.00	251.50	35.90
	1999	6.00	0.0	61.00	15.00	72.00	2.00	4.00	0.0	143.00	17.00
	1998	16.00	4.00	40.00	2.00	16.00	6.00	1.00	1.00	73.00	11.00
	1994	5.00	5.00	27.00	5.00	8.00	4.00	0.0	0.0	40.00	6.00
	1990	2.00	2.00	48.00	4.00	6.00	0.0	12.00	2.00	68.00	4.00
	Mean	27.39		73.42		33.95		5.15		136.93	
Redear sunfish											
	2007	2.00	1.37	21.33	7.91	16.67	8.09	10.67	1.69	50.67	16.35
	2005	1.10	1.10	37.40	12.80	27.50	10.70	23.10	5.30	89.00	28.70
	2004	0.0	0.0	20.00	12.80	40.00	17.10	9.20	2.90	69.20	31.10
	2003	0.0	0.0	55.40	12.70	26.20	3.10	21.50	2.90	103.10	13.00
	2002	0.0	0.0	59.20	11.40	49.20	9.90	53.80	20.90	162.30	27.30
	2001	0.0	0.0	21.00	15.00	12.00	6.00	9.00	3.00	44.90	21.00
	2000	3.00	3.00	41.90	18.00	24.00	0.0	134.70	68.90	206.60	50.90
	1999	0.0	0.0	11.00	3.00	40.00	4.00	65.00	11.00	119.00	11.00
	1998	0.0	0.0	6.00	2.00	16.00	8.00	9.00	1.00	32.00	12.00
	1994	0.0	0.0	8.00	8.00	5.00	5.00	7.00	3.00	21.00	7.00
	Mean	2.03		28.12		25.66		34.30		89.78	

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Table 78. Lake-specific population assessment of the bluegill sunfish population at Lake Pennyrile from 2001-2007.

	2002		2003[A]		2004[A]		2005[A]		2007[A]	
Parameter	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Growth (Mean length at capture of age-2)	2.9	1	2.9	1	2.9	1	2.9	1	2.9	1
Growth (Years to reach 6.0 in)	4	2	4	2	4	2	4	2	4	2
Size Structure (CPUE ≥ 6.0 in)	30.00	2	30.80	2	29.23	2	46.20	3	24.70	2
Size Structure (CPUE ≥ 8.0 in)	1.50	1	12.30	4	6.15	2	1.10	1	1.30	1
Total Score:		6		9		7		7		6
Assessment Rating:		P		F		F		F		P

[A] Age and growth data was not collected. Age and growth data from 2002 was used as surrogate data.

(Pennyrile_BLG_Database)

2006 data was not collected on Bluegill

Rating
4-6 = Poor (P)
7-10 = Fair (F)
11-13 = Good (G)
14-16 = Excellent (E)

Table 79. Lake-specific population assessment of the redear sunfish population at Lake Pennyrile from 2002-2007.

	2002		2003		2004		2005		2007	
Parameter	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Growth (Mean length at capture of age-3)	5.4	1	5.4[B]	1	5.4[B]	1	5.4[B]	1	5.4	1
Growth (Years to reach 8.0 in)	5	2	5[B]	2	5[B]	2	5[B]	2	5	2
Size Structure (CPUE ≥ 8.0 in)	53.8	2	21.5	1	9.2	1	23.1	1	10.7	1
Size Structure (CPUE ≥ 10.0 in)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Score:		7		8		6		8		7
Assessment Rating:		F		F		P		F		F

[B] Age and growth data was not collected. Age and growth data collected during 2002 was used as surrogate data. (Pennyrile_RDR_Database)
No population data was collected in 2006

Rating
4-6 = Poor (P)
7-10 = Fair (F)
11-13 = Good (G)
14-16 = Excellent (E)

Table 80. Relative species abundance, size distribution, and CPUE of fish collected during diurnal electrofishing at Hematite Lake on 14 April 2007. Five sample runs, each 600 seconds were made. Only bass were collected during the fifth run for a effort of 0.833 hours, while effort for other species was 0.667 hours.

	Inch Class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	Std Err
Largemouth bass	3	7		2	5				2		2	4	5	6	2	4	1	1	44	52.80	9.37
Redear sunfish	1	127	87	18	2	2													237	355.50	118.32
Bluegill	22	116	174	18	6														336	504.00	145.26
Black Crappie								2	1	2									5	7.50	2.63

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Table 81. Spring electrofishing CPUE for each length group of redear sunfish collected at Hematite Lake.

		Length Group									
		< 3.0 in		3.0 - 5.9 in		6.0 - 7.9 in		≥ 8.0 in		Total	
Species	Year	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err	CPUE	Std Err
Redear											
	2007	1.50	1.18	348.00	115.76	6.00	2.20			355.50	118.32
	2006	12.00	3.20	132.00	16.00	2.00	2.00			146.00	14.00
	2005	3.99	4.00	147.70	34.80	35.93	19.00			187.62	49.00
	2004	8.40	3.60	216.00	26.10	27.50	3.60	1.20	1.20	253.90	25.80
	2002	1.00	1.00	73.00	17.50	69.00	10.00	16.00	4.00	159.00	22.90
	Mean	5.38		183.34		28.09		3.44		220.40	

wfdpsdhl.dxx

Table 82. Species composition, relative abundance, and CPUE (fish/hour) of largemouth bass, crappie, and redear sunfish collected during 1.75 hours (7 runs; each 900s) of diurnal electrofishing at Lake Blythe on 5 April, 2007

	Inch Class																				
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std Err
Largemouth bass	4	3	5	1	1	7	23	14	3	2	1	1		1			1		1	68	38.86	5.50
Redear Sunfish	4	8	2	15	3															32	18.29	3.01
White Crappie				1		1	2													4	2.29	1.48
Black Crappie		2			1		1													4	2.29	0.81

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Table 83. PSD and RSD values obtained for largemouth bass and redear sunfish collected during 1.75 hours of diurnal electrofishing (7 runs; each 900s) at Lake Blythe on 5 April 2007.

Species	N	PSD (+ 95% CI)	RSD_{15} (+ 95% CI)
Largemouth bass	68	18 (10)	7 (7)
Redear sunfish	32	56 (17)	

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Table 84. Mean back-calculated length (in) at each annulus on otoliths from largemouth bass collected by electrofishing at Lake Blythe on 05 April 2007, including the range in length of largemouth bass at each age and the 95% confidence interval.

		Age				
Year-Class	N	1	2	3	4	5
2006	15	4.9				
2005	15	6.0	9.1			
2004	3	6.5	9.6	11.4		
2003	4	6.6	9.4	10.9	12.0	14.3
2002	1	6.6	9.1	11.0	12.1	12.7
Mean		5.7	9.2	11.1	12.0	13.5
Smallest		3.6	7.2	9.7	10.8	12.7
Largest		7.3	10.7	11.9	13.0	14.3
Std Err		0.2	0.2	0.3	0.5	0.8
Low 95% CI		5.4	8.8	10.6	11.1	11.8
High 95% CI		6.0	9.6	11.6	12.9	15.1

* Intercept = 0.

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Table 85. Age frequency and CPUE of largemouth bass collected from electrofishing at Lake Blythe on 5 April 2007. Age data was obtained using otoliths.

	Inch Class															
Age	4	5	6	7	8	9	10	11	12	13	14	15	Total	%	CPUE	Std Err
1	4	3	5	1	1	2							16	24.6	9.14	2.81
2						5	23	12					40	61.5	22.86	3.35
3									2				2	3.1	1.14	0.61
4								2	1		1	1	5	7.7	2.86	0.91
5										2			2	3.1	1.14	0.74
Total	4	3	5	1	1	7	23	14	3	2	1	1	65		37.14	
%	6	5	8	2	2	11	35	22	5	3	2	2		100		

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NORTHWESTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Table 1 presents a summary of field conditions encountered during sampling periods at state-owned lakes and ACOE reservoirs during 2007.

Nolin River Lake

Black Bass Sampling

Electrofishing to monitor Nolin River Lakes' black bass population was performed during April 2007 (Tables 2-7). The 2007 catch rate for largemouth bass <8.0 in is a dramatic increase from 2006, or any other recent survey. Nolin River Lake has a stable largemouth bass population, and with the exception of this size range, population parameters remain consistent with prior collections. The increase in the CPUE of <8.0 in largemouth bass is reflected in the population assessment rating which increased from 11 (fair) in 2006 to 15 (good) in 2007. Fall electrofishing to determine CPUE and mean length of age 0 largemouth bass (Tables 8 and 9) was conducted in October. Both parameters declined in 2007 compared to 2005 and 2006 collections, but are similar to 2001-2004 collections. The higher CPUE and mean length of age 0 fish in 2005 resulted in the highest CPUE of age 1 fish collected. Sampling in 2008 will determine if the strong 2006 year class also produces a greater than average CPUE for age 1 fish. The Nolin Lake Strategic Management Plan (SMP) objectives for largemouth bass state: a mean length at age 3 at capture of ≥12.5 in, a CPUE of ≥30.00 f/h for age 1 fish, a CPUE of ≥25.50 f/h for 12.0-14.9 in fish, a CPUE of ≥12.50 f/h for ≥15.0 in fish, and a CPUE of ≥1.00 f/h for ≥20.0 in fish. The first three objectives were met while the CPUE of ≥15.0 and ≥20.0 in bass objectives were not met.

Crappie Sampling

Trap netting was conducted during October 2007 to assess Nolin Lakes' crappie population (Tables 10-14). A total of 703 crappie were collected during 80 net nights of effort for a CPUE of 8.79 crappie/net night (nn). Of the 703 crappie collected, 625 (89%) were white and 78 (11%) were black. Otoliths were removed from a representative sample of white crappie to document growth rates. Age 1 fish averaged 5.2 in, age 2 fish 8.5 in, and age 3 fish 9.9 in. Growth rates are good and nearly identical to past collections. The total CPUE (excluding age 0 fish) increased due to an increase in the catch rate of white crappie ≥8.0 in. The decline in age 0 fish is possibly due to a very dry year with low water levels in spring and summer, or to the high water levels at sampling time. The length-weight equation is log W = -3.63 + 3.29 (log L). Nolin Lake SMP objectives for white crappie management state: a CPUE (excluding age 0 fish) of ≥10.00 f/nn, a CPUE for age 1 fish of ≥6.00 f/nn, a CPUE of age 0 fish of ≥3.00 f/nn, a CPUE of ≥8.0 in fish of ≥7.00 f/nn, and a mean length of age 2+ fish at capture of ≥9.6 in. The only management objective met in 2007 was mean length at capture (10.4 in).

Walleye Sampling

Gill netting to assess the walleye population was conducted during November 2007 (Tables 15-19). The 2007 catch rate was significantly less than in 2006. The 2006 catch rate was substantially greater than any collected since 1998. Incidental angler reports and conservation officer observations during the spring and summer of 2007 indicated angler catch rates were greater than previous years. The low sampling catch rate in 2007 is probably the result of sampling anomalies rather than any dramatic shift in the population. The $\log_{10}$ length weight equation is log W = -3.13 + 2.69 (log L). The Nolin Lake SMP objectives state: a CPUE of ≥4.00 f/nn for ≥age 1 fish, a mean length of ≥17.0 in for age 2+ fish, a CPUE of ≥0.75 f/nn for ≥20.0 in fish, and a CPUE of ≥1.50 f/nn for age 1 fish. No walleye management objective was met in 2007.

White Bass Sampling

White bass were gill netted during November 2007 to assess population parameters (Tables 20-24). The catch rates observed in 2007 were substantially greater than those observed in 2006 and were greater than any recorded since 1996. Growth rate, and length and age distributions are very good. The low catch rates observed in 2006 are obviously due to sampling inefficiencies as good numbers of age 2 and age 3 fish were collected in 2007. The $\log_{10}$ length weight equation is log W = -3.56 + 3.19(Log L). The Nolin Lake SMP objectives for white bass management state: a CPUE of ≥20.00 f/nn for age 1 and older fish, a mean length of ≥13.0 in for age 2+ fish at capture, a CPUE of ≥10.00 f/nn for ≥12.0 in fish, and a CPUE of ≥10.00 f/nn for age 1 fish. All management objectives were met in 2007.

Channel Catfish Sampling

Channel catfish were sampled in conjunction with walleye and white bass during gill netting in November 2007. Length frequency and CPUE data are contained in Tables 25 and 26. This is the second year population statistics have been collected for channel catfish at Nolin Lake. The catch rate declined from 9.53 fish/nn in 2006 to 5.00 fish/nn in 2007. This decline was the result of a decrease in the number of ≤15.0 in fish collected. The number of channel catfish >15.0 in collected in 2007 was similar to 2006.

Rough River Lake

Black Bass Sampling

Electrofishing to assess the black bass population was accomplished during April 2007 (Tables 27-31). Largemouth bass catch rates in 2007 are similar to those collected over the last few years and indicate a stable population. Rough River Lake was again electrofished in September to assess the CPUE and mean length of age 0 fish (Table 32). A decline in the mean length, total CPUE of age 0 fish, and CPUE of age 0 fish ≥5.0 in was observed in 2007 (Table 33). Rough River Lake underwent an early fall drawdown to facilitate repair work to the control tower. This necessitated a sampling time that was approximately two weeks early at which time the lake level was 6.0 feet lower than normal. The early sample date and/or the low lake level may be responsible for the depressed age 0 catch rates. Sampling in 2008 will determine the influence on age 1 catch rates. Rough River Lake SMP objectives for largemouth bass management state: a mean length age 3 fish at capture of ≥12.5 in, a spring CPUE of age 1 fish ≥30.00 f/h, a spring CPUE of ≥25.50 f/h for 12.0-14.9 in fish, a spring CPUE of ≥12.20 f/h for ≥15.0 in fish, and a spring CPUE of ≥0.50 f/h for fish ≥20.0 in. Objectives for the length of age 3 fish at capture, and the spring CPUE of 12.0-14.9 and ≥15.0 in fish were met. The spring CPUE of age 1 fish objective was nearly met, while the CPUE objective of ≥20.0 in fish was not.

Crappie, hybrid striped bass, and channel catfish sampling

Sampling to assess the crappie, hybrid striped bass, and catfish populations could not be conducted in 2007 due to the early fall drawdown and extremely low water levels during the sampling timeframe. Sampling for these species will resume in 2008.

Lake Malone

Largemouth Bass Sampling

Electrofishing to monitor the largemouth bass population was performed during April 2007 (Tables 34-39). The catch rate for largemouth bass 8.0-11.9 in has steadily increased for the last 5-6 years. During the same time period the catch rate of bass 12.0-14.9 in has slowly decreased. A decrease has been observed in the CPUE bass over 15.0 in and over 20.0 in the last two years. Growth rates have also declined since last determined in 2001. Mean length of age 3 fish at capture declined from 12.9 inches in 2001 to 10.3 inches in 2007. Largemouth bass <12.0 in are not protected under the 12.0-15.0 in protective slot limit. Efforts to educate anglers on the need to harvest <12.0 in bass at Lake Malone will include signs posted in informational kiosks and meetings with sportsmen's groups during 2008.

Lake Malone was again electrofished in October for mean length and CPUE of age 0 fish for a year class strength index (Tables 40-41). Data collected since 2002 indicate age-0 mean length, total CPUE and CPUE ≥5.0 in is highly variable and not indicative of age 1 CPUE. Lake Malone SMP objectives for management of largemouth bass state: a mean length of ≥12.0 in at age 3 at capture, a CPUE of ≥20.00 f/h for age 1 fish, a CPUE of ≥35.00 f/h for 12.0-14.9 in fish, a CPUE of ≥40.00 f/h for ≥15.0 in fish, and a CPUE of ≥6.00 f/h for ≥20.0 in fish. The only objective met in 2007 was spring CPUE of age 1 fish.

Bluegill/Redear Sunfish Sampling

Electrofishing to assess the bluegill and redear sunfish populations at Lake Malone was conducted during May 2007 (Tables 42-45). The increased CPUE of 6.0-7.9 in bluegill in 2006 was again observed in 2007. There continues to be an abundance of 3.0-5.9 in bluegill. This has been the case since 2000 and is probably the result of a long-term decrease in the number of 8.0-11.9 in largemouth bass following the implementation of a 12.0-14.9 in protective slot limit in 1996. Although there has been an increase in the number of 8.0-11.9 in bass for the last 5-6 years, these numbers are lower than those collected during the early 1990's. The Lake Malone SMP objectives for bluegill management state: a mean length of 4.5 in for age 2 fish at capture, 3-3+ years to reach 6.0 in, a CPUE of ≥50.00 f/h for ≥6.0 in fish, and a CPUE of at least 1.00 f/h for ≥8.0 in fish. With the exception of the CPUE of ≥8.0 in fish, all objectives were met.

The redear sunfish CPUE of 31.20 f/h in 2007 is greater than any collected since 1995 (Table 43). The number of redear sunfish collected at Lake Malone began to decline in the mid 1990s. The estimated number of redear sunfish caught and harvested declined significantly between creel surveys conducted in 1998 and 2006. Since 1996 the number of redear sunfish collected has been too few to calculate a population assessment. If numbers continue to improve population assessments will be calculated in the future.

Mauzy Lake

Largemouth Bass

Electrofishing to assess the largemouth bass population at Mauzy was performed during April 2007 (Tables 46-50). Catch rates for largemouth bass at Mauzy in 2007 were similar to those collected in 2006 and appear to be stabilizing. Following a drawdown and renovation in 2003, an increase and subsequent decrease progressed through the length groups, presumably due to an increase in available forage and poor recruitment during the drawdown. Low recruitment documented the last couple of years has been a concern, but there was a slight increase in 2007. Age-growth data collected in 2007 were much improved since last collected in 2004. Age 2 fish averaged 9.6 inches in 2007 and 8.6 inches in 2004. Age 3 fish averaged 12.4 inches in 2007 and 10.1 inches in 2004. Mauzy was electrofished again in October (Tables 51-52) to begin an index of mean length and catch rate of age 0 bass.

Bluegill/Redear Sunfish Sampling

Electrofishing to determine bluegill and redear sunfish population statistics was accomplished during May 2007 (Table 53-61). Following the 2003 renovation, and subsequent low recruitment of largemouth bass, the number of 3.0-5.9 in bluegill increased tremendously. Without adequate predation these smaller bluegill began to stunt and few were entering the 6.0-7.9 in length group. Although the number of 3.0-5.9 in bluegill remained at the elevated levels observed since 2005, the CPUE of 6.0-7.9 in bluegill increased from 10.00 f/h in 2006 to 38.67 f/h in 2007. The increase in largemouth bass recruitment observed in 2007 should begin to reduce the abundance of 3.0-5.9 in bluegill and allow a continued increase of larger bluegill. The bluegill population continues to be dominated by an abundant 2003 year class.

Redear Sunfish

Redear sunfish were stocked in Lake Mauzy in 2004 and 2005 following renovation in 2003. Less than 10 redear sunfish were collected per electrofishing survey prior to 2007, during which 49 were collected (Table 53). Hopefully numbers will continue to increase and this will become a viable fishery. Additional redear sunfish population data are presented in Tables 59-61.

Carpenter Lake

Largemouth Bass

Largemouth bass were electrofished at Carpenter Lake during April 2007 to assess the population (Tables 62-68). Data presented for 2006 in the CPUE by size class table (Table 63) was incorrectly entered last year. That led to an incorrect value being determined in the population assessment table (Table 66). The corrected 2006 data and values are presented in the 2007 tables.

The total largemouth bass CPUE declined during 2007 due to a decline in the CPUE of <8.0 and 12.0-14.9 in fish. Catch rates for the 8.0-11.9 and ≥15.0 in length groups were similar to 2006 data. For the last few years there has been a somewhat erratic, but general increase in the number of 8.0-11.9 in bass and decrease in the number of bass ≥12.0 in. Age growth data collected in 2007 indicated mean length for ages 1, 2 and 3 have decreased approximately 1.0 in for each age group since last collected in 2003. In addition, gizzard shad were first discovered in Carpenter Lake in April 2006. Annual monitoring will continue to see what impacts this has on the largemouth bass population. Carpenter Lake SMP objectives for largemouth bass management state: a mean length of ≥11.5 in at age 3 at capture, a CPUE of ≥46.00 f/h for age 1 fish, a CPUE of ≥35.00 f/h for 12.0-14.9 in fish, a CPUE of ≥20.00 f/h for ≥15.0 in fish and a CPUE of ≥1.00 f/h for ≥20.0 in fish. None of these management objectives were met in 2006.

Largemouth bass were electrofished in October to begin an index of mean length and CPUE data for age 0 fish (Tables 67-68).

Bluegill Redear Sunfish Sampling

Electrofishing for bluegill and redear sunfish population assessments was conducted in May 2007 (Tables 69-74). Bluegill catch rates at Carpenter Lake are highly variable, but the number of bluegill ≥6.0 in has increased over the last 4 years. Age-growth data indicate growth rates have declined since last collected in 2003. Mean length of age 2 and age 3 fish both declined approximately 1.0 in for each age class. Annual monitoring will continue to determine the gizzard shad's impact on the bluegill population. Carpenter Lake SMP bluegill management objectives state: a mean length of ≥5.0 in at age 2 at capture, 2-2+ years to reach 6.0 in, a CPUE of at least 50.00 f/h for bluegill ≥6.0 in, and a CPUE of at least 15.00 f/h for bluegill ≥8.00 in. The only objective met in 2007 was the CPUE objective for bluegill ≥6.0 in.

Kingfisher Lake

Largemouth Bass

Electrofishing to assess the largemouth bass population on Kingfisher Lake was performed in April 2007 (Tables 75-79). As it has been for the last several years, Kingfisher Lake's largemouth bass population is dominated by an abundance of slow-growing 8.0-11.0 in fish. The CPUE of largemouth bass >12.0 in did increase somewhat from 2006, but is still at a low level. Age-growth data collected during 2007 is similar to that collected in 2003 and reveals poor growth. Sub-legal bass were removed again in 2007 by electrofishing in an effort to reduce competition and increase growth. Additional fish will be removed in 2008. Kingfisher Lake was again electrofished in October (Table 80) to begin an index of mean length and CPUE of age 0 fish (Table 81).

Bluegill Sampling

The bluegill population was electrofished during May 2007 to determine population statistics (Tables 82-87). Bluegill catch rates at Kingfisher Lake are erratic, but the general trend has been a decreasing number of >6.0 in bluegill and an increasing number of <6.0 in bluegill. That trend reversed in 2007 with an increase in the number of >6.0 in bluegill and a decrease in the number of <6.0 in bluegill. The abundance of small bass in Kingfisher Lake should produce a bluegill population composed mainly of larger fish, but this has not been the case at Kingfisher Lake.

Washburn Lake

Largemouth Bass

Electrofishing to assess largemouth bass population parameters at Washburn Lake was conducted during April 2007 (Tables 88-92). The largemouth bass population at Washburn Lake is attempting to achieve stability following renovation in 2000. From 2002-2004 the population was dominated by an abundance of slow growing 8.0-11.9 in fish. A fertilizer program was initiated in 2004 and age-growth data collected in 2007 significantly improved from age data collected in 2004. Washburn Lake was again electrofished for largemouth bass in October to begin indexing the CPUE and mean length of age 0 fish (Tables 93-94).

Bluegill Sampling

Sampling to assess Washburn Lake's bluegill population was conducted in May 2007 (Tables 95-99). The CPUE of 3.0-5.9 in bluegill increased substantially in 2007. This could be a sampling anomaly, but could also be due to the lower numbers of 8.0-12.0 in bass collected during 2005 and 2006. The catch rate for bluegill 6.0-7.9 in increased slightly in 2007. A general trend for the last few years has been a decrease in bluegill ≥6.0 in. Bluegill ≥8.0 in have not been collected since 2004. Age data collected during 2006 indicate excellent growth rates. Washburn Lake receives substantial bluegill angling pressure during the spring and may account for this decrease.

Peabody WMA

SCUBA transects were conducted during June to assess fish populations in 3 lakes on Peabody WMA. The SCUBA transects were initiated in 2005 to survey the fish population of lakes where clear water and high conductivity make electrofishing ineffective. Three transects are swam at the 10-foot depth contour parallel to shoreline for 30 minutes each at Goose Lake (Table 100), and 20 minutes each at Musky Lake (Table 101) and Bottom Lake (Table 102).

Table 1. Annual summary of sampling conditions by waterbody, species sampled and date for NWFD lakes during 2007.

Water body	Species	Date	Time (24hr)	Gear	Weather	Water temp. F	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Nolin River Lake	LMB	5/7-8/07	1000	shock	Sun/breezy	71	513	40	poor/fair	Sunny, water clear, fish deep. Sampled later than normal due to low lake level.
Nolin River Lake	LMB	10/16/07	930	shock	Cloudy/misty	72	511	60	fair	Clear water hampered dipping, fish deep
Nolin River Lake	Crappie	10/24/07		trap net	Cloudy/rain	65	512.5	6 to 30	poor	Heavy rain night of 24th. Lake rose 4.5 ft by a.m. on 25th. Nets removed.
Nolin River Lake	Crappie	10/30/07		trap net	Sunny/55	60	515	12	good/fair	Nets reset for remaining 3 days. Lake level started at 515 and dropped 1.5 ft/day
Nolin River Lake	WE/WB	11/05-08/07		gill net	Cool/mid 30's-50	54	505	24	good	Lake dropping 0.5ft/day. Few walleye collected - many white bass
Rough River Lake	LMB	5/9-10/07	930	shock	Sunny/warm	75	492	40	fair	Water clear and warm.- sampled late because of low lake level. Vol. dipper
Rough River Lake	LMB	9/18-19/07	1000	shock	Sunny/warm	78	488	24-48	fair	Water clear, warmer and lower than normal. Early drawdown for tailwater repair
Lake Malone	LMB	4/25/07	900	shock	Sunny/windy	67	pool		good	
Lake Malone	BG/RE	5/15/07	900	shock	Sun then cloudy	78	pool	36	good	
Lake Malone	LMB	10/15/07	900	shock	Clouds/ windy	71	1.5 ft low		fair	Windy, water dark, lake turnig over. Boom broke during 5th sample - only four completed
Mauzy Lake	LMB	4/20/07	900	shock	Sunny - cool	58	2 ft low	20	good	Lake 2 ft low from leaking control tower - good sample
Mauzy Lake	BG/RE	5/14/07	900	shock	Sunny windy	76	2.5 ft low	40	fair	Water clear, 2.5 ft low from leaking control tower. Good bit of milfoil
Mauzy Lake	LMB	10/2/07	900	shock	Sunny windy	75	2.5 ft low	30	good - fair	Lots of milfoil made sampling difficult in some areas
Carpenter Lake	LMB	4/24/07	900	shock	Cloudy	67	pool	20	good	
Carpenter Lake	BG/RE	5/17/07	900	shock	Sun,windy,cool	76	pool	30	fair	BG tight to banks under trees - hard to dip. Fish deep on steeper banks - came up slowly
Carpenter Lake	LMB	10/4/07	900	shock	Sunny	75	1.5 ft low	20	good	Many small fish - few legal ones. Water low from drought.
Kingfisher Lake	LMB	4/23/07	900	shock	Cloudy-windy	65	pool	clear	good-fair	fish deeper due to clear water
Kingfisher Lake	LMB	10/4/07	900	shock	Few clouds	75	1.5ft low	20	good	
Washbum	LMB	4/19/2007	900	shock	Cloudy-breezy	60	0.5 ft high	22	good	
Washbum	LMB	10/5/2007	900	shock	Cloudy	75	1.5 ft low	> 48	fair-poor	Water very clear - larger fish deep- hard to dip

Table 2. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 4.5 hours of 30-minute diurnal electrofishing runs at Nolin River Lake in April 2007.

		Inch class																					
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std. error
Upper	Largemouth bass	9	34	42	44	31	10	15	9	15	32	24	21	9	3	6	2	3	0	1	309	123.60	15.77
	Spotted bass	1	1	0	0	1	2	1	4	2	2	0	0	0	0	0	0	0	0	0	14	5.60	1.72
Lower	Largemouth bass	0	6	31	28	15	9	4	5	11	23	13	11	3	3	2	3	0	2	1	170	85.00	22.83
	Spotted bass	1	2	13	9	17	13	2	9	6	11	11	1	1	1	0	0	0	0	0	97	48.50	18.14
Total	Largemouth bass	9	40	73	72	46	19	19	14	26	55	37	32	12	6	8	5	3	2	1	479	106.44	14.21
	Spotted bass	2	3	13	9	18	15	3	13	8	13	11	1	1	1	0	0	0	0	0	111	24.67	10.60

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Table 3. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Nolin River Lake during April 2007; 95% confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD (± 95%)	RSD[a] (± 95%)
Upper	Largemouth bass	149	67 (8)	15 (6)
	Spotted bass	11	33 (28)	0
Lower	Largemouth bass	90	68 (10)	15 (8)
	Spotted bass	55	43 (12)	4 (5)
Total	Largemouth bass	239	67 (6)	15 (5)
	Spotted bass	66	42 (11)	4 (4)

[a] Largemouth bass = RSD_{15}, spotted bass = RSD_{14}.

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Table 4. Spring electrofishing CPUE for each length group of largemouth bass collected at Nolin River Lake during spring electrofishing 1999-2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	53.33	9.95	17.33	2.24	27.56	4.86	8.22	1.31	0.67	0.47	106.44	14.21
2006	17.78	2.82	15.78	1.54	23.56	2.68	7.56	1.48	0.44	0.44	64.67	5.68
2005	27.11	4.98	27.11	4.14	25.33	3.86	14.22	2.32	0.44	0.29	93.78	10.08
2004	23.74	1.61	16.44	3.65	16.22	2.41	8.89	2.58	0.44	0.29	65.33	6.76
2003	12.89	3.73	10.22	2.3	8.89	2.21	7.56	1.99	0.00		39.56	9.16
2002	4.00	1.33	9.78	2.59	8.00	3.13	8.00	1.63	0.00		29.78	5.44
2001	5.50	1.68	27.00	7.44	18.00	3.30	9.00	2.80	0.00		59.50	11.72
2000	9.50	3.11	35.00	6.27	41.50	5.12	14.00	4.34	0.50	0.50	100.00	13.07
1999	n/d		61.33	16.84	56.89	9.18	8.00	1.76	0.44	0.44	126.22	26.01

Table 5. Age-frequency and CPUE (fish/hr) per inch class of largemouth bass electrofished at Nolin River Lake in April 2007. Numbers in parentheses are standard errors.

	Inch class																				
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	No.	CPUE	Std. error	Age (%)
1	9	40	73	72	38														232	51.63	9.65	48.54
2					8	19	19	14	17	6									82	18.16	2.29	17.15
3									7	39	19	5							69	15.26	2.16	14.44
4										11	19	23	8	3	3				66	14.67	2.67	13.81
5									2			5	4		3				14	3.02	0.55	2.93
6																	3		3	0.67	0.33	0.63
7														3	3	5			11	2.37	0.71	2.30
8																		2	2	0.44	0.44	0.42
Total	9	40	73	72	46	19	19	14	26	56	38	33	12	6	9	5	3	2	479			
(%)	1.9	8.4	15.2	15.0	9.6	4.0	4.0	2.9	5.4	11.7	7.9	6.9	2.5	1.3	1.9	1.0	0.6	0.4				

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Table 6. Population assessment using statewide criteria for largemouth bass based on spring electrofishing at Nolin River Lake from 1999-2007.

	Year																	
	1999		2000		2001		2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	13.09	4	13.09	4	13.09	4	13.09	4	13.09	4	13.09	4	13.09	4	12.64	4	12.64	4
Spring CPUE age 1 fish	n/d		9.00	1	5.00	1	3.78	1	11.33	1	22.89	2	26.22	2	17.04	1	51.63	4
Spring CPUE 12.0-14.9 in fish	56.89	4	41.50	4	18.00	2	8.00	1	8.89	1	16.22	2	25.33	3	23.56	2	27.56	3
Spring CPUE ≥15.0 in fish	8.00	2	14.00	3	9.00	2	8.00	2	7.56	2	8.89	2	14.22	3	7.56	2	8.22	2
Spring CPUE ≥20.0 in fish	0.44	2	0.50	2	0.00	0	0.00	0	0.00	0	0.22	2	0.44	2	0.44	2	0.67	2
Instantaneous Mortality (z)									0.534		0.684		0.617		0.447		0.609	
Annual Mortality (A)%									41.4		49.5		46.0		36.0		45.0	
Total score				14		9		8		8		12		14		11		15
Assessment rating				G		F		F		F		G		G		F		G

Table 7. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Nolin River Lake during April 2007.

	Year					
Age	2002	2003	2004	2005	2006	2007
1	3.78	11.33	22.89	26.22	17.04	51.63
2	8.33	9.64	14.82	23.38	15.39	18.16
3	8.90	9.08	16.35	27.24	12.81	15.26
4	1.59	1.57	1.86	3.57	13.12	14.67
5	0.73	0.82	0.97	1.60	2.53	3.02
6	1.78	2.44	2.44	3.11	0.67	0.67
7					2.67	2.37
8					0.44	0.44

nwdnlpsd.d07, nwdnlmag.d06

Table 8. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 4.5 hours of 30-minute diurnal electrofishing runs at Nolin River Lake in October 2007.

		Inch class																				
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	Std. error
Upper	Largemouth bass	23	114	47	14	12	23	17	27	35	22	30	16	8	9	5	1	0	2	0	405	162.00	26.47
	Spotted bass	7	81	30	4	1	8	6	5	3	3	4	2	0	0	0	0	0	0	0	154	61.60	14.33
Lower	Largemouth bass	8	37	12	5	6	2	4	8	10	8	10	14	3	5	2	1	1	0	0	136	68.00	16.27
	Spotted bass	11	42	9	3	9	8	5	6	8	1	1	0	0	0	0	0	0	0	0	103	51.50	3.59
Total	Largemouth bass	31	151	59	19	18	25	21	35	45	30	40	30	11	14	7	2	1	2	0	541	120.22	22.62
	Spotted bass	18	123	39	7	10	16	11	11	11	4	5	2	0	0	0	0	0	0	0	257	57.11	7.90

nwdnllmb.d07

Table 9. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall electrofishing samples at Nolin River Lake.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2001	Total	3.0		76.00	29.20	7.30	0.90	3.78	1.10
2002	Total	4.5		28.60	11.80	14.40	1.40	11.33	3.11
2003	Total	4.4		28.40	4.90	14.20	2.60	22.89	1.57
2004	Total	4.1	0.07	41.30	11.20	9.60	1.60	26.22	4.70
2005	Total	5.0	0.08	92.00	34.94	41.78	15.36	17.04	2.67
2006	Total	4.9	0.07	84.00	22.97	40.22	7.47	51.63	9.65
2007	Total	4.1	0.07	66.44	14.34	12.89	2.81		

Table 10. Length frequency and CPUE for each species of crappie collected in 80 net-nights of sampling at Nolin River Lake during October 2007.

	Inch class													
Species	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std. error
White crappie	13	16	13	14	78	136	170	131	45	8	1	625	7.81	1.01
Black crappie	8	7	1	12	15	13	12	8	2	0	0	78	0.98	0.22

nwdnltn.d07

Table 11. PSD and RSD_{10} values calculated for crappie collected in trap nets from Nolin River Lake during October 2007; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD_{10}
White Crappie	625	82 (3)	31 (4)
Black Crappie	78	56 (12)	16 (9)

nwdnltn.d07

Table 12. Mean back calculated lengths (in) at each annulus for white crappie collected at Nolin River Lake in October 2007.

Year		Age							
class	No.	1	2	3	4	5	6	7	8
2006	46	4.8							
2005	34	5.5	8.6						
2004	5	6.5	8.5	10.4					
2003	1	6.8	9.0	10.4	11.4				
2002	3	5.5	8.0	10.0	11.0	11.8			
2001	1	4.4	7.4	9.2	10.0	11.1	11.6		
2000	1	5.2	6.3	8.1	10.1	11.1	12.2	12.8	
1999	1	5.1	7.5	8.4	9.5	10.0	10.7	11.3	11.6
Mean		5.2	8.5	9.9	10.6	11.3	11.5	12.0	11.6
No.		92	46	12	7	6	3	2	1
Smallest		3.8	6.3	8.1	9.5	10.0	10.7	11.3	11.6
Largest		12.3	10.4	11.2	11.4	11.9	12.2	12.8	11.6
Std error		0.1	0.1	0.3	0.3	0.3	0.4	0.7	
95% CI (±)		0.3	0.3	0.6	0.6	0.6	0.9	0.5	

nwdnweag.d07

Table 13. Age-frequency and CPUE (no./net-night) per inch class of white crappie trap netted for 79 net-nights at Nolin River Lake in October 2007. Numbers in parentheses are standard errors.

	Inch class														
Age	3	4	5	6	7	8	9	10	11	12	13	No.	CPUE	Std. error	Age (%)
0	13	16										29	0.38		4.6
1			13	14	78	136	49	7				297	3.71	0.53	47.5
2							109	124	33			266	3.32	0.47	42.6
3							12		8	2		23	0.28	0.04	3.7
4										1		1	0.01	0.01	0.1
5								4		2		6	0.08	0.02	1.0
6										1		1	0.01	0.01	0.1
7											1	1	0.01	0.01	0.1
8										1		1	0.01	0.01	0.1
Total	13	16	13	14	78	136	170	135	41	7	1	625	7.81		
(%)	2.1	2.6	2.1	2.2	12.5	21.8	27.2	21.6	6.6	1.1	0.2				

nwdnltn.d07, nwdnlcag.d07

Table 14. Population assessment using statewide criteria for white crappie based on fall trapnetting at Nolin River Lake from 1999-2007.

	Year															
	1999		2001		2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE (excluding age 0)	8.72	2	10.21	2	11.99	2	13.23	3	8.56	2	8.76	2	5.91	2	7.43	2
CPUE age 1	4.85	2	4.82	2	10.02	3	8.00	3	4.15	2	3.64	2	3.20	2	3.71	2
CPUE age 0	0.18	1	2.62	1	4.26	2	2.04	1	5.09	2	1.42	1	2.02	1	0.38	1
CPUE ≥8.0 in fish	5.55	3	3.87	2	8.78	3	8.65	3	6.93	3	7.41	3	4.37	2	6.14	3
Mean length age 2+ at capture	9.8	4	9.1	3	9.5	3	9.8	4	9.7	4	9.7	4	9.7	4	10.40	4
Instantaneous Mortality (z)	1.040		0.910		1.571		1.107		0.630		0.749		0.876		0.882	
Annual Mortality (A)%	64.7		59.7		79.2		66.9		46.7		52.7		58.3		58.6	
Total score		12		10		13		14		13		12		11		12
Assessment rating		F		F		G		G		G		F		F		F

Table 15. Length frequency and CPUE for walleye collected in 15 net-nights of gill netting at Nolin River Lake during November 2007.

	Inch class																
Species	8	9	10	11	12	13	14	15	16	17	18	19	20	25	Total	CPUE	Std. error
Walleye	1	1	1	0	0	2	11	3	0	0	1	3	1	1	25	2.27	0.59

nwdnlgn.d07

Table 16. Mean back calculated lengths (in) at each annulus for walleye collected at Nolin River Lake in November 2007.

Year		Age							
class	No.	1	2	3	4	5	6	7	8
2007	12	11.4							
2006	5	10.0	14.1						
2005	4	10.5	14.7	16.9					
2000	1	7.3	13.1	16.4	18.9	20.8	23.0	23.7	24.8
Mean		10.7	14.3	16.8	18.9	20.8	23.0	23.7	24.8
No.		22	10	5	1	1	1	1	1
Smallest		7.3	10.9	13.0	18.9	20.8	23.0	23.7	24.8
Largest		12.3	17.2	19.2	18.9	20.8	23.0	23.7	24.8
Std error		0.3	0.6	1.1					
95% CI (±)		0.6	1.2	2.1					

nwdnweag.d07

Table 17. Age-frequency and CPUE (no./net-night) per inch class of walleye gill netted for 15 net-nights at Nolin River Lake in November 2007.

	Inch class													
Age	8	9	10	13	14	15	18	19	20	25	No.	CPUE	Std. error	Age %
0	1	1	1								3	0.28		12.0
1				2	8	1					11	1.02	0.34	44.0
2					2	2		2			6	0.48	0.13	24.0
3					1		1	2	1		4	0.40	0.11	16.0
8										1	1	0.09	0.09	4.0
Total	1	1	1	2	11	3	1	4	1	1	25	2.27		
(%)	4.0	4.0	4.0	8.0	44.0	12.0	4.0	16.0	4.0	4.0				

nwdnlgn.d07, nwdnweag.d07

Table 18. Population assessment using statewide criteria for walleye based on fall gill netting at Nolin River Lake from 1999-2007.

	Year																	
	1991		1996		1998		2000		2001		2002		2003		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE age 1 and older fish	5.70	3	3.00	2	6.28	4	1.25	1	1.00	1	2.56	2	1.85	1	6.27	4	1.99	1
Mean length age 2+ at capture	15.8	1	15.0	1	15.5	1	16.2	2	17.8	3	17.5	3	16.9	2	16.6	2	15.9	1
CPUE ≥20.0 in fish	0.50	2	0.00	1	0.00	1	0.13	1	0.25	1	0.42	1	0.57	2	0.00	0	0.18	1
CPUE age 1 fish	2.20	3	2.08	3	1.71	2	0.75	1	0.00	0	0.33	1	0.40	1	1.71	2	1.02	2
Instantaneous Mortality (z)															1.152		0.5324	
Annual Mortality (A)%															68.4		41.3	
Total score		9		7		8		5		5		7		6		8		5
Assessment rating		F		F		F		P		P		F		F		F		P

Table 19. Number of fish and the relative weight (Wr) for each length group of walleye collected at Nolin River Lake during November 2007. Standard errors are in parentheses.

Length group					
10.0-14.9 in		15.0-19.9 in		≥20.0 in	
No.	Wr	No.	Wr	No.	Wr
10	89.52 (2.25)	4	79.89 (2.73)	2	74.22 (2.02)

nwdnlgn.d07

Table 20. Length frequency and CPUE for white bass collected in 10 net-nights of sampling at Nolin River Lake during November 2007.

	Inch class												
Species	7	8	9	10	11	12	13	14	15	16	Total	CPUE	Std. error
White Bass	27	4	2	18	93	52	73	126	15	0	410	41.00	5.69

nwdnlgn.d07

Table 21. Mean back calculated lengths (in) at each annulus for white bass collected at Nolin River Lake in November 2007.

Year		Age					
class	No.	1	2	3	4	5	6
2006	31	8.5					
2005	19	9.8	12.4				
2004	18	9.1	12.3	13.7			
2003	5	7.7	11.6	13.2	14.3		
2002	2	9.6	11.9	13.5	14.2	14.8	
2001	1	7.2	9.6	11.0	12.3	13.7	14.7
Mean		8.9	12.2	13.5	14.0	14.4	14.7
No.		76	45	26	8	3	1
Smallest		5.5	8.0	10.2	12.3	13.7	14.7
Largest		11.0	13.3	14.6	14.9	14.8	14.7
Std error		0.1	0.2	0.2	0.3	0.4	
95% CI (±)		0.3	0.3	0.4	0.6	0.7	

nwdnwbag.d07

Table 22. Age-frequency and CPUE (no./net-night) per inch class of white bass gill netted for 10 net-nights at Nolin River Lake in November 2007. Numbers in parentheses are standard errors.

	Inch class												
Age	7	8	9	10	11	12	13	14	15	No.	CPUE	Std. error	Age (%)
0	27	4								31	3.10		7.56
1			2	18	93	47				160	15.98	2.69	39.02
2							66	47		114	11.36	2.50	27.80
3						5	7	68	5	85	8.51	2.21	20.73
4								11	5	16	1.55	0.45	3.90
5									3	3	0.33	0.11	0.73
6									2	2	0.17	0.06	0.49
Total	27	4	2	18	93	52	73	126	15	410	41.00		
(%)	6.59	0.98	0.49	4.39	22.68	12.68	17.80	30.73	3.66				

nwdnwbag.d07, nwdnlgn.d07

Table 23. Population assessment using statewide criteria for white bass based on fall gill netting at Nolin River Lake from 1996-2007.

	Year															
	1996		1998		2000		2001		2002		2003		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE ≥age 1 fish	26.10	4	27.40	4	3.90	1	2.50	1	10.23	3	18.70	3	7.93	2	37.9	4
Mean length age 2+ at capture	13.3	4	12.00	3	13.8	4	13.6	4	13.3	4	13.4	4	13.3	4	13.9	4
CPUE ≥12.0 in fish	14.80	4	22.00	4	2.80	2	1.60	1	5.25	3	6.21	3	4.27	2	26.6	4
CPUE age 1 fish	15.10	4	7.50	3	1.40	1	1.10	1	5.20	3	15.27	4	5.38	3	15.98	4
Instantaneous Mortality (z)											1.387		1.134		0.717	
Annual Mortality (A)%											75.1		67.8		51.18	
Total score		16		14		8		7		13		14		11		16
Assessment rating		E		E		F		F		G		E		G		E

Table 24. Number of fish and the relative weight (Wr) for each length group of white bass collected at Nolin River Lake during November 2007. Standard errors are in Parentheses.

Length group					
6.0-8.9 in		9.0-11.9 in		≥12.0 in	
No.	Wr	No.	Wr	No.	Wr
14	84.85 (2.18)	74	87.28 (0.70)	107	90.34 (0.60)

nwdnlgn.d07

Table 25. Length-frequency and CPUE of channel catfish collected during 15 net nights of gill netting at Nolin River Lake in November 2007.

	Inch class																								
Species	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total	CPUE	Std. error
Channel catfish			1		1	1	3	2	5	2	2	4	4	9	7	2	2	2		1	1	1	50	5.00	1.11

nwdnlgn.d07

Table 26. Number of fish and the relative weight (Wr) for each length group of channel catfish collected at Nolin River Lake during November 2007. Standard errors are in Parentheses.

Length group					
11.0-15.9 in		16.0-23.9 in		≥24.0 in	
No.	Wr	No.	Wr	No.	Wr
13	74.12 (1.83)	30	81.52 (1.56)	3	100.2 (5.90)

nwdnlgn.d07

Table 27. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 4.5 hours of 30-minute diurnal electrofishing runs at Rough River Lake in April 2007.

		Inch class																				
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	CPUE	Std. error
Upper	Largemouth bass	16	8	6	22	15	3	10	22	10	11	23	12	11	9	2	3	3	0	186	93.00	9.81
	Spotted bass	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	25	12.50	6.24
Lower	Largemouth bass	7	9	7	12	17	14	21	20	23	27	35	17	12	10	3	4	1	1	240	96.00	15.09
	Spotted bass	1	1	2	5	7	14	4	3	5	5	1	0	0	0	0	0	0	0	48	19.20	4.84
Total	Largemouth bass	23	17	13	34	32	17	31	42	33	38	58	29	23	19	5	7	4	1	426	94.67	8.92
	Spotted bass	2	1	2	5	11	23	11	7	5	5	1	0	0	0	0	0	0	0	73	16.22	3.79

nwdrrpsd.d07

Table 28. Spring electrofishing CPUE for each length group of largemouth bass collected at River River Lake during April 2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	26.44	3.46	27.33	4.70	27.78	4.06	13.11	1.16	0.22	0.22	94.67	8.92
2006	21.11	2.58	28.67	10.06	28.22	4.38	11.33	2.81	0.44	0.29	89.33	16.73
2005	26.89	6.15	34.00	7.60	38.89	5.15	14.22	2.48	0.67	0.33	114.00	41.65
2004	31.11	3.86	35.56	5.12	12.89	2.16	9.78	1.08	0.22	0.22	89.33	9.50
2003	61.56	7.01	27.78	6.93	20.00	5.56	18.44	3.18	0.67	0.33	127.78	15.36
2002	7.33	1.70	7.11	2.29	2.00	0.88	1.56	0.44	0.00	0.00	18.00	3.82
2001	30.67	7.45	21.33	4.47	16.44	4.96	3.11	1.74	0.00	0.00	71.56	11.18
2000	15.11	3.45	32.89	4.31	21.78	2.76	5.33	2.11	1.78	0.97	75.11	6.42
1999	n/d		28.44	2.05	21.33	4.11	8.89	2.38	0.44	0.44	58.67	4.57

nwdrrpsd.d07

Table 29. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Rough River Lake during April 2007; 95% confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD (+/- 95%)	RSD[a] (+/- 95%)
Upper	Largemouth bass	119	62 (9)	24 (8)
	Spotted bass	20		
Lower	Largemouth bass	188	59 (7)	11 (5)
	Spotted bass	32	28 (14)	
Total	Largemouth bass	307	56 (9)	19 (4)
	Spotted bass	52	18 (6)	

[a] Largemouth bass = RSD_{15}, spotted bass = RSD_{14}.

nwrrlpsd.d07

Table 30. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Rough River Lake during spring samples 2002- 2007.

	Year					
Age	2002	2003	2004	2005	2006	2007
1	7.93	44.30	32.82	28.04	21.98	27.06
2	6.19	25.63	34.10	34.65	29.91	28.42
3	2.33	11.40	12.00	32.94	24.57	25.36
4	0.22	8.00	5.75	12.33	7.76	8.79
5	0.00	0.00	1.01	1.14	0.58	0.86
6	0.00	0.00	2.31	2.44	1.20	1.51
7	0.00	0.00	0.89	0.44	1.78	1.56

nwdrrpsd.d03, nwdrrlag.d02, nwdrrpsd.d04, nwdrrlag.d04, nwdrrpsd.d05, nwdrrpsd.d06,nwdrrpsd.d07

Table 31. Population assessment using statewide criteria for largemouth bass based on spring electrofishing at Rough River Lake from 1999-2007.

	Year																	
	1999		2000		2001		2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	12.5	4	12.5	4	12.5	4	12.5	4	12.5	4	13.6	4	13.6	4	13.6	4	13.6	4
Spring CPUE age 1 fish	2.96	1	10.52	1	28.00	2	7.93	1	44.30	3	32.82	3	28.04	2	21.98	2	27.06	2
Spring CPUE 12.0-14.9 in fish	21.33	2	21.78	2	16.44	2	2.00	1	20.00	2	12.89	1	38.89	4	28.22	3	27.78	3
Spring CPUE ≥15.0 in fish	8.89	2	5.33	2	3.11	1	1.56	1	18.4	3	9.78	2	14.22	3	11.33	2	13.11	3
Spring CPUE ≥20.0 in fish	0.44	2	1.78	2	0.00	1	0.00	1	0.67	2	0.22	2	0.67	2	0.44	2	0.22	2
Instantaneous Mortality (z)									0.797		0.862		0.759		0.773		0.576	
Annual Mortality (A)%									54.9		57.8		53.2		53.8		42.3	
Total score		11		12		10		8		14		12		15		13		14
Assessment rating		F		G		F		F		G		G		G		G		G

Table 32. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 4.5 hours of 30-minute diurnal electrofishing runs at Rough River Lake in September 2007.

		Inch class																					
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	CPUE	Std. error
Upper	Largemouth bass	8	44	29	23	49	26	27	43	42	15	33	30	12	8	9	4	2	4	3	411	164.40	25.87
	Spotted bass	10	25	5	7	5	2	9	10	6	8	2	2	0	0	0	0	0	0	0	91	36.40	3.97
Lower	Largemouth bass	5	18	22	6	15	22	25	14	16	10	7	5	9	8	6	1	3	1	2	195	97.50	11.93
	Spotted bass	4	24	14	13	16	8	8	5	4	5	0	1	1	0	0	0	0	0	0	103	51.50	13.38
Total	Largemouth bass	13	62	51	29	64	48	52	57	58	25	40	35	21	16	15	5	5	5	5	606	134.67	18.65
	Spotted bass	14	49	19	20	21	10	17	15	10	13	2	3	1	0	0	0	0	0	0	194	43.11	6.42

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Table 33. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall electrofishing samples at Rough River Lake.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2001	Total	4.0		38.6	3.90	29.3	0.9	7.93	1.70
2002	Total	5.0		60.5	18.30	34.3	2.6	44.30	5.61
2003	Total	4.8		34.9	3.20	20.0	2.9	32.82	3.85
2004	Total	4.0	0.06	100.4	18.57	24.2	5.9	28.04	5.91
2005	Total	4.3	0.08	72.4	10.40	22.4	4.4	21.98	2.82
2006	Total	4.9	0.09	64.0	18.70	30.2	7.4	27.06	3.33
2007	Total	4.2	0.07	37.1	7.33	9.11	2.43		

Table 34. Relative abundance, and CPUE (fish/hr) of largemouth bass collected during 2.5 hours of 30-minute diurnal electrofishing runs at Lake Malone in April 2007.

	Inch class																					
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std. error
Largemouth bass	15	35	20	3	27	75	47	52	29	21	27	12	24	23	11	15	4	3	2	445	178.00	17.80

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Table 35. Spring electrofishing CPUE for each length group of largemouth bass collected at Lake Malone 1999-2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err	CPUE	Std. err.
2007	29.20	3.98	80.40	10.40	30.80	1.96	37.60	10.34	3.60	1.33	178.00	17.80
2006	31.60	3.71	81.60	14.33	22.40	2.14	28.00	5.87	5.20	1.62	163.60	19.82
2005	32.40	4.83	69.20	14.31	32.00	8.74	53.60	5.71	8.40	1.17	187.20	30.12
2004	28.40	3.87	53.60	5.74	26.40	4.17	53.20	3.93	6.00	1.55	161.60	12.75
2003	57.00	3.32	76.50	6.75	35.00	5.00	57.50	4.86	9.50	2.75	226.00	12.08
2002	8.57	3.32	43.43	4.97	43.43	8.48	41.71	7.55	8.00	3.02	137.14	17.45
2001	18.00	8.05	66.00	12.03	50.00	7.98	31.33	6.32	0.67	0.67	165.33	15.55
2000	13.33	3.37	46.00	4.23	51.33	7.83	24.00	4.00	2.00	0.89	134.67	14.52
1999	n/d		48.67	9.82	61.33	6.98	23.33	4.89	2.67	1.33	133.33	12.72

Table 36. Population assessment using statewide criteria for largemouth bass based on spring electrofishing at Lake Malone from 1999-2007.

	Year																	
	1999		2000		2001		2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	12.9	4	12.9	4	12.9	4	11.5	4	11.5	4	11.5	4	11.5	4	11.5	4	10.3	2
Spring CPUE age 1 fish	n/d		2.44	1	14.00	1	6.00	1	35.00	2	19.00	2	19.00	2	20.20	2	29.20	2
Spring CPUE 12.0-14.9 in fish	61.33	4	51.33	4	50.00	4	43.43	4	35.00	3	26.40	3	32.00	3	22.40	2	30.80	2
Spring CPUE ≥15.0 in fish	23.33	3	24.00	3	31.33	4	41.71	4	48.00	4	53.20	4	53.60	4	28.00	3	37.60	4
Spring CPUE ≥20.0 in fish	2.67	3	2.00	3	0.67	1	8.00	4	8.50	4	6.00	4	8.40	4	5.20	4	3.60	3
Instantaneous Mortality (z)									0.416		0.365		0.387		0.526		0.330	
Annual Mortality (A)%									34.1		31.1		32.0		40.9		28.1	
Total score		14+		15		14		17		17		17		17		15		13
Assessment rating				G		G		E		E		E		E		G		G

Table 37. PSD and RSD_{15} values obtained for largemouth bass taken in spring electrofishing samples at Lake Malone, Carpenter Lake, Kingfisher, Mauzy Lake, and Washburn Lake during April 2007; 95% confidence intervals are in parentheses.

Lake	No. ≥8.0 in	PSD (+/- 95%)	RSD_{15} (+/- 95%)
Malone	372	46 (5)	25 (5)
Carpenter	113	15 (7)	7 (5)
Kingfisher	156	6 (4)	1 (1)
Mauzy	153	68 (7)	42 (8)
Washburn	44	32 (14)	18 (12)

Table 38. Mean back calculated lengths (in) at each annulus for largemouth bass collected at Lake Malone in April 2007.

Year		Age									
class	No.	1	2	3	4	5	6	7	8	9	10
2006	27	5.8									
2005	30	6.1	9.2								
2004	7	5.2	8.7	10.3							
2003	21	5.5	8.5	10.4	11.9						
2002	19	5.9	8.4	10.5	11.7	12.8					
2001	19	5.7	9.0	10.5	11.8	13.3	14.3				
2000	6	4.9	8.4	10.3	12.1	13.2	14.2	15.4			
1997	1	5.8	9.6	11.0	12.5	13.9	14.9	17.3	18.2	19.2	19.2
Mean		5.7	8.8	10.4	11.9	13.1	14.3	16.3	18.2	19.2	19.2
No.		130	103	73	66	45	26	7	1	1	1
Smallest		4.0	5.3	7.0	8.5	10.0	10.0	14.3	18.2	19.2	19.2
Largest		8.7	11.3	14.0	15.0	17.4	17.9	17.3	18.2	19.2	19.2
Std error		0.1	0.1	0.1	0.2	0.3	0.4	1			
95% CI (±)		0.15	0.2	0.3	0.35	0.5	0.7	1.9			

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Table 39. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Lake Malone during spring samples 2002-2007.

	Year					
Age	2002*	2003	2004	2005	2006	2007
1	6.00	35.00	19.00	19.00	20.20	29.20
2	28.3	69.16	37.54	49.74	59.13	43.00
3	28.85	34.51	29.81	37.52	36.43	9.62
4	31.09	30.13	23.43	27.49	20.01	23.74
5	15.78	16.03	13.93	13.87	8.65	21.14
6	6.84	9.31	8.74	8.34	4.45	25.04
7	7.37	12.39	12.24	11.85	5.42	12.25
8	2.86	7.03	6.77	7.89	3.17	0.00
9	5.71	9.53	7.57	9.49	4.37	0.00
10	1.49	1.90	1.36	1.60	0.96	6.00

*nocturnal sample
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Table 40. Relative abundance and CPUE (fish/hr) of largemouth bass collected during 2.5 hours of 30-minute diurnal electrofishing runs at Lake Malone in October 2007.

		Inch class																					
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	Std. error
Total	Largemouth bass	6	30	12	15	4	10	22	37	33	25	39	28	9	5	3	4	2	5	1	290	116.00	25.93

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Table 41. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall electrofishing samples at Lake Malone.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2002	Total	4.3		39.20		14.40		35.00	5.12
2003	Total	3.1		103.20		2.40		19.00	2.88
2004	Total	4.1	0.07	49.20	10.73	8.40	1.72	19.00	3.48
2005	Total	4.9	0.09	50.00	10.00	25.50	5.00	20.20	2.08
2006	Total	5.2	0.07	65.60	5.15	42.40	3.71	29.20	3.98
2007	Total	4.5	0.17	30.40	7.36	11.20	2.58		

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Table 42. Length frequency and CPUE for bluegill and redear sunfish collected in 1.25 hours of electrofishing at Lake Malone in May 2007.

	Inch class														
Species	1	2	3	4	5	6	7	8	9	10	11	12	Total	CPUE	Std. error
Bluegill	15	79	187	134	84	92	21						612	489.60	39.89
Redear sunfish					6	9	3	3	3	7	7	1	39	31.20	9.35

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Table 43. Spring electrofishing CPUE for each length group of bluegill and redear sunfish collected at Lake Malone. CPUE = fish/hr.

Bluegill	Length group											
	<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	75.20	17.12	324.00	28.85	90.40	9.77	0.00		0.00		489.60	39.89
2006	48.00	18.51	320.00	36.19	92.80	13.76	0.80	0.80			461.60	57.01
2005	27.69	8.21	376.92	44.63	46.15	10.76	0.00				450.77	54.06
2004	16.15	9.62	300.77	49.90	73.08	15.44	0.00				390.00	56.47
2003	25.38	6.49	173.08	24.06	22.31	6.22	0.00				220.77	25.54
2002	16.67	6.21	331.67	40.59	59.17	10.50	0.00				407.50	50.54
2001	7.33	2.17	222.00	30.51	46.67	8.98	0.67	0.67			276.67	34.54
2000	21.33	5.23	130.67	21.95	50.67	15.79	2.00	0.89			204.67	30.51
1999	53.33	14.30	20.67	4.31	0.67	0.67	0.00				74.67	18.03

Redear	Length group											
	<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	0.00		4.80	3.99	9.60	4.74	16.80	4.84	12.00	4.50	31.20	9.35
2006	0.00		4.80	2.13	1.60	1.60	5.60	3.38	2.40	2.40	12.00	6.56
2005	0.00		0.77	0.77	3.08	1.26	9.23	3.59	4.62	2.61	13.08	3.98
2004	0.00		1.54	1.03	0.77	0.77	2.31	1.64	0.77	0.77	4.62	2.05
2003	0.00		0.00		0.77	0.77	4.62	1.70	1.54	1.03	5.38	2.00

Table 44. PSD and RSD_8 values calculated for bluegill and redear sunfish collected by electrofishing from Lake Malone during May 2007; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD_8
Bluegill	518	22 (4)	
Redear sunfish	39	62 (15)	46 (16)

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Table 45. Population assessment using statewide assessment for bluegill based on spring electrofishing at Lake Malone from 1999-2007.

	Year																	
	1999		2000		2001		2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age 2+ at capture	3.9	2	3.9	2	3.9	2	3.9	2	3.9	2	3.9	2	3.9	2	4.4	2	4.4	2
Years to 6.0 in	3-3+	3	3-3+	3	3-3+	3	3-3+	3	3-3+	3	3-3+	3	3-3+	3	3-3+	3	3-3+	3
CPUE ≥6.0 in fish	21.33	1	52.67	3	47.33	2	56.80	3	7.75	1	73.08	3	48.00	2	93.60	4	90.40	4
CPUE ≥8.0 in fish	0.67	2	2.00	2	0.67	2	0.00	1	0.00	1	0.00	1	0.00	1	0.80	2	0.00	1
Instantaneous Mortality (z)									1.028						0.452		0.573	
Annual Mortality (A)%									64.2						36.4		43.6	
Total score		8		10		9		9		7		9		8		11		10
Assessment rating		F		F		F		F		P		F		F		G		F

Table 46. Length-frequency and CPUE (fish/hr) of largemouth bass collected during 1.00 hours of diurnal electrofishing runs at Mauzy Lake in April 2007.

	Inch class																		
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	Std. error
Largemouth bass	2	16	3	25	23	15	5	6	8	13	19	15	18	20	7	4	199	199.00	31.00

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Table 47. Mean back calculated lengths (in) at each annulus for largemouth bass collected at Mauzy Lake in April 2007.

Year		Age					
class	No.	1	2	3	4	5	6
2006	10	5.4					
2005	22	6.1	8.6				
2004	40	6.3	10.2	12.2			
2003	3	5.6	9.5	13.5	14.9		
2002	6	6.8	9.7	13.9	15.6	16.5	
2001	2	6.0	9.7	11.7	14.8	15.7	16.9
Mean		6.1	9.6	12.4	15.2	16.3	16.9
No.		83	73	51	11	8	2
Smallest		2.9	6.4	8.4	14.4	15.4	16.2
Largest		11.6	13.2	15.0	16.9	18.2	17.5
Std error		0.2	0.2	0.3	0.2	0.3	0.7
95% CI (±)		0.35	0.4	0.55	0.45	0.65	1.25

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Table 48. Spring electrofishing CPUE for each length group of largemouth bass collected at Mauzy Lake during spring 1999-2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	46.00	5.29	49.00	12.26	40.00	2.83	64.00	17.51	0.00		199.00	31.0
2006	68.00	14.05	40.00	4.00	24.00	4.00	60.00	4.62	0.00		192.00	21.17
2005	52.00	8.64	25.00	6.61	147.00	11.47	21.00	7.90	4.00	1.63	245.00	22.29
2004	20.00	9.24	132.00	2.31	5.33	1.33	6.67	1.33	0.00		164.00	10.58
2003*	98.61	18.69	163.19	31.92	73.61	6.05	20.83	6.36	2.78	2.78	356.25	58.72
2002	36.00	14.05	169.33	40.55	9.33	1.33	6.67	2.67	1.33	1.33	221.33	45.39
2001	12.00	2.31	246.67	53.53	26.67	10.67	4.00	2.31	0.00		289.33	64.18
2000	37.33	5.81	224.00	20.53	2.67	1.33	5.33	3.53	0.00		269.33	25.33
1999	n/d		165.33	8.74	17.33	5.35	4.00	2.31	1.33	1.33	186.67	14.11

* Mauzy renovated summer 2003

Table 49. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Mauzy Lake during spring samples 2004 - 2007.

	Year			
Age	2004	2005	2006	2007
1	2.67	34.00	24.00	21.00
2	80.80	34.40	34.40	50.58
3	52.27	5.60	15.47	64.20
4	8.13	6.17	5.87	6.72
5	9.87	10.33	8.53	33.50
6	2.27	0.50	1.07	19.00

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Table 50. Population assessment using statewide criteria for largemouth bass based on spring electrofishing at Mauzy Lake from 2000-2007.

	Year															
	2000		2001		2002		2003*		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	10.3	2	10.3	2	10.3	2	10.3	2	10.3	2	10.3	2	10.3	2	12.2	4
Spring CPUE age 1 fish	25.33	2	5.33	1	25.33	2	86.81	4	2.67	1	34.00	2	24.00	2	21.00	2
Spring CPUE 12.0-14.9 in fish	2.67	1	26.67	2	9.33	1	73.61	4	5.33	1	147.00	4	24.00	2	40.00	3
Spring CPUE ≥15.0 in fish	5.33	2	4.00	2	6.67	2	20.83	3	6.67	2	21.00	3	60.00	4	64.00	4
Spring CPUE ≥20.0 in fish	0.00	0	0.00	0	1.33	2	2.78	3	0.00	0	4.00	4	0.00	0	0.00	0
Instantaneous Mortality (z)									0.884				0.755		0.3737	
Annual Mortality (A)%									58.7				53.0		31.18	
Total score		7		7		9		16		6		15		10		13
Assessment rating		P		P		F		G		P		G		F		G

*Mauzy renovated summer2003

Table 51. Length-frequency and CPUE (fish/hr) of largemouth bass collected during 1.00 hour of diurnal electrofishing runs at Mauzy Lake in October 2007.

	Inch class																					
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std. error
Largemouth bass	2	18	40	9	6	24	38	43	14	6	3	8	10	10	9	5	9	2	1	257	257.00	37.68

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Table 52. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall electrofishing samples at Mauzy Lake during October 2007.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2007	Total	5.3	0.08	71.00	11.24	51.00	9.98		

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Table 53. Length frequency and CPUE for bluegill collected during 0.75 hours of electrofishing at Mauzy Lake in May 2007.

	Inch class										
Species	1	2	3	4	5	6	7	8	Total	CPUE	Std. error
Bluegill	13	63	188	219	59	28	1		571	761.33	44.51
Redear sunfish		2	13	6	12	8	3	5	49	65.33	12.64

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Table 54. Spring electrofishing CPUE for each length group of bluegill collected at Mauzy Lake during spring 1999-2007. CPUE = fish/hr.

	Length group											
	<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	101.33	11.06	621.33	39.61	38.67	8.86	0.00		0.00		761.33	44.51
2006	96.00	27.90	614.00	137.73	10.00	7.57	0.00		0.00		720.00	163.43
2005	289.74	45.54	596.15	101.27	14.10	5.76	0.00		0.00		900.00	86.60
2004	101.10	18.03	84.62	17.53	64.84	11.97	1.10	1.10	0.00		251.65	36.11
2003*												
2002	9.33	3.53	94.67	19.64	125.33	29.24	1.33	1.33	0.00		230.67	48.02
2001	5.33	3.53	65.33	16.22	137.33	27.94	1.33	1.33	0.00		209.33	40.68
2000	1.33	1.33	52.00	4.00	73.33	5.33	4.00	2.31	0.00		130.67	10.91
1999			28.00	6.11	114.67	6.67	4.00	0.00	0.00		146.67	5.33

*Mauzy could not be sampled during 2003 due to renovation drawdown

Table 55. PSD and RSD_8 values calculated for bluegill collected by electrofishing from Mauzy Lake during May 2007; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD_8
Redear	34	24 (15)	0
Bluegill	495	6 (2)	0

nwdmzbg.d07

Table 56. Mean back calculated lengths (in) at each annulus for bluegill collected at Mauzy Lake in May 2007.

Year		Age			
class	No.	1	2	3	4
2006	9	2.1			
2005	10	2.2	3.2		
2004	6	2.1	3.5	4.3	
2003	24	2.3	3.9	5.1	5.7
Mean		2.2	3.7	5.0	5.7
No.		49	40	30	24
Smallest		1.3	2.6	3.5	3.9
Largest		4.9	6.3	7.3	7.6
Std error		0.1	0.1	0.2	0.2
95% CI (±)		0.15	0.25	0.4	0.4

nwdmzbag.d07

Table 57. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Mauzy Lake during spring samples 2004-2007.

	Year			
Age	2004	2005	2006	2007
1	0.00	0.00	124.60	87.33
2	84.62	596.15	162.60	239.60
3	7.97	1.28	416.80	179.81
4	24.45	5.77	0.00	254.00
5	26.92	5.56	0.00	0.00
6	5.49	1.50	0.00	0.00

nwdmzbg.d07, nwdmzbag.d07

Table 58. Population assessment using statewide criteria for bluegill based on spring electrofishing at Mauzy Lake from 2001-2007.

	Year											
	2001		2002		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-2 at capture	4.3	2	4.3	2	4.3	2	4.3	2	3.7	2	3.3	1
Years to 6.0 in	2-2+	4	2-2+	4	2-2+	4	2-2+	4	4-4+	1	4-4+	1
CPUE ≥6.0 in fish	138.66	4	126.66	4	65.94	3	14.10	1	10.00	1	38.67	2
CPUE ≥8.0 in fish	1.33	2	1.33	2	1.10	2	0.00	0	0.00	0	0.00	0
Insantaneous Mortality (z)									0.755		0.642	
Annual Mortality (A)%									53.0		35.81	
Total score		12		12		11		7		4		4
Assessment rating		G		G		G		F		P		P

*2003 not sample due to renovation drawdown

Table 59. Mean back calculated lengths (in) at each annulus for Redear collected at Mauzy Lake in May 2007.

Year class	No.	Age 1	2	3
2006	16	2.9		
2005	22	3.5	5.7	
2004	7	3.6	6.9	8.2
Mean		3.3	6.0	8.2
No.		45.0	29.0	7.0
Smallest		1.8	4.4	7.8
Largest		5.7	7.9	8.5
Std error		0.1	0.2	0.1
95% CI (±)		0.25	0.35	0.2

nwdmzbag.d07

Table 60. Electrofishing catch rate (fish/hr) for each age of Redear collected from Mauzy Lake during spring samples May 2007.

Age	2007
1	20.00
2	37.07
3	8.27

nwdmzbg.d07, nwdmzbag.d07

Table 61. Population assessment using statewide criteria for redear based on spring electrofishing at Mauzy Lake from 2001-2007.

Parameter	2007 Value	2007 Score
Mean length age-2 at capture	5.7	2
Years to 8.0 in	2-2+	4
CPUE ≥8.0 in fish	6.67	2
CPUE ≥10.0 in fish	0.00	1
Insantaneous Mortality (z)	0.79	
Annual Mortality (A)%	54.55	
Total score		9
Assessment rating		F

*2003 not sample due to renovation drawdown

Table 62. Length frequency and CPUE (fish/hr) of largemouth bass collected during 0.75 hours of 15-minute diurnal electrofishing runs at Carpenter Lake in April 2007.

	Inch class																			
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	Std. error
Largemouth bass	6	14	11	3	33	37	20	6	7	1	1	0	2	3	1	1	1	147	196.00	31.75

nwdcapsd.d07

Table 63. Spring electrofishing CPUE for each length group of largemouth bass collected at Carpenter Lake during April 2007. CPUE = fish/hr.

	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	45.33	7.42	128.00	24.33	12.00	2.31	10.67	3.53	196.00	31.75
2006	97.33	12.00	134.67	8.74	24.00	1.33	9.33	2.31	265.33	55.44
2005	157.33	3.53	165.33	48.57	30.67	3.53	2.67	1.33	356.00	54.60
2004	80.00	16.65	128.00	28.00	22.67	3.53	21.33	8.74	252.00	47.72
2003	181.33	49.33	97.33	11.39	18.67	4.81	36.00	12.22	333.33	63.43
2002	12.00	4.62	52.00	4.62	12.00	0.00	21.33	3.53	97.33	4.81
2001	14.67	8.74	29.33	5.33	90.67	9.33	66.67	2.67	201.33	17.64
2000	2.67	1.33	45.33	7.06	48.00	2.31	0.00		96.00	8.33
1999	1.33	1.33	142.67	18.52	29.33	13.53	1.33	1.33	174.67	31.01

Table 64. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Carpenter Lake during spring samples 2002-2007.

	Year					
Age	2002	2003	2004	2005	2006	2007
1	12.00	162.67	56.00	132.00	78.67	39.87
2	36.93	57.60	90.13	88.93	101.60	64.27
3	25.73	55.73	56.53	107.07	55.73	61.20
4	1.33	2.67	4.00	0.00	1.33	17.33
5	0.00	0.00	0.00	0.00	5.33	1.33
6	10.67	14.67	8.00	0.00	0.00	0.00

nwdcllag.d03, nwdcapsd.d07

Table 65. Mean back calculated lengths (in) at each annulus for largemouth bass collected at Carpenter Lake in April 2007.

Year class	No.	Age 1	2	3	4	5
2006	29	5.4				
2005	17	5.9	8.3			
2004	20	5.9	9.1	10.2		
2003	11	6.0	9.1	10.7	11.6	
2002	1	6.0	8.6	9.9	10.6	11.2
Mean		5.7	8.8	10.4	11.5	11.2
No.		78	49	32	12	1
Smallest		4.0	6.7	9.3	10.1	11.2
Largest		7.5	12.0	12.8	12.8	11.2
Std error		0.1	0.1	0.1	0.3	
95% CI (±)		0.15	0.2	0.3	0.55	

nwdcabag.d07

Table 66. Population assessment using statewide criteria for largemouth bass based on spring electrofishing at Carpenter Lake from 1999-2007.

	Year																	
	1999		2000		2001		2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	11.6	4	11.6	4	11.6	4	11.6	4	11.6	4	11.6	4	11.6	4	11.6	4	10.3	2
Spring CPUE age 1 fish	n/d		2.67	1	8.00	1	12.00	1	162.67	4	56.00	4	132.00	4	78.67	4	39.87	2
Spring CPUE 12.0-14.9 in fish	29.33	2	48.00	3	90.67	4	12.00	1	54.67	4	22.67	2	30.67	2	24.00	2	12.00	1
Spring CPUE ≥15.0 in fish	1.33	1	0.00	1	66.67	4	21.33	4	36.00	4	21.33	3	2.67	1	9.33	2	10.67	2
Spring CPUE ≥20.0 in fish	0.00	0	0.00	0	1.33	2	0.00	0	1.33	2	2.67	3	0.00	0	0.00	1	1.33	2
Instantaneous Mortality (z)									0.943		1.155				1.160		0.560	
Annual Mortality (A)%									61.1		68.5				68.67		42.86	
Total score		7+		9		15		9		18		16		11		13		9
Assessment rating		F		F		G		F		E		G		G		G		F

nwdcllag.d03 nwdcapsd.d07

Table 67. Length frequency and CPUE (fish/hr) of largemouth bass collected during 0.75 hours of 15-minute diurnal electrofishing runs at Carpenter Lake in October 2007.

	Inch class														
Species	4	5	6	7	8	9	10	11	12	13	14	15	Total	CPUE	Std. error
Largemouth bass	11	18	18	5	11	44	24	12	1	2	1	1	148	148.00	53.69

nwdcalmb.d07

Table 68. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall electrofishing samples at Carpenter Lake during October 2007.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2007	Total	5.7	0.12	52.00	20.72	41.00	15.00		

nwdcalmb.d07

Table 69. Length frequency and CPUE for bluegill and redear sunfish collected during 0.75 hours of electrofishing at Carpenter Lake in May 2007.

	Inch class											
Species	2	3	4	5	6	7	8	9	10	Total	CPUE	Std. error
Bluegill	2	8	15	23	92	34	1			175	233.33	45.60
Redear sunfish						5	2	3	1	11	14.67	9.10

nwdcabg.d07

Table 70. Spring electrofishing CPUE for each length group of bluegill collected at Carpenter Lake during spring 1999-2007. CPUE = fish/hr.

	Length group											
	<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	2.67	2.67	61.33	17.73	168.00	38.53	1.33	1.33	0.00		233.33	9.10
2006	1.33	1.33	57.33	10.00	102.67	12.12	0.00		0.00		161.33	21.31
2005	12.09	9.77	190.11	17.09	98.90	6.80	18.68	9.02	0.00		319.78	23.07
2004	12.31	4.62	26.15	7.13	46.15	11.41	1.54	1.54	0.00		86.15	20.41
2003	7.69	2.81	102.56	22.96	47.44	13.24	3.85	1.72	0.00		161.54	34.11
2002	2.30		8.05		17.24		1.15		0.00		28.74	0.00
2001			198.67	74.7	152.00	22.74	41.33	12.72	0.00		392.00	108.89
2000			4.00	2.31	10.67	4.81	12.00	6.11	0.00		26.67	9.61
1999			10.67	2.57	82.67	10.91	12.00	8.00	0.00		105.33	17.99

Table 71. PSD and RSD_8 values calculated for bluegill and redear sunfish collected by electrofishing from Carpenter Lake during May 2007; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD_8
Bluegill	173	73 (7)	1 (1)
Redear sunfish	11	100 (100)	36 (30)

nwdcabg.d07

Table 72. Mean back calculated lengths (in) at each annulus for bluegill collected at Carpenter Lake in May 2007.

Year		Age				
class	No.	1	2	3	4	5
2006	10	3.3				
2005	12	2.1	4.5			
2004	16	2.3	5.0	6.2		
2003	11	1.9	4.8	6.3	6.9	
2002	1	3.6	6.2	7.1	7.7	7.9
Mean		2.4	4.8	6.3	7.0	7.9
No.		50	40	28	12	1
Smallest		1.0	3.1	5.1	6.0	7.9
Largest		4.1	6.2	7.4	7.7	7.9
Std error		0.1	0.1	0.1	0.2	
95% CI (±)		0.2	0.2	0.2	0.3	

nwdcabag.d07

Table 73. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Carpenter Lake during spring samples 2002- 2007.

	Year					
Age	2002	2003	2004	2005	2006	2007
1	2.30	7.69	12.31	10.99	4.39	15.11
2	14.71	98.80	25.23	180.24	121.69	27.42
3	9.43	27.26	33.23	66.76	32.09	108.67
4	2.30	7.26	6.15	26.62	2.22	80.80
5	0.00	0.00	0.00	0.00	0.00	1.33

nwdcabg.d07, nwdcbgag.d02

Table 74. Population assessment using statewide criteria for bluegill based on spring electrofishing at Carpenter Lake from 1999-2007.

	Year																	
	1999		2000		2001		2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-2+ at capture	5.6	4	5.6	4	5.6	4	5.6	4	5.6	4	5.6	4	5.6	4	5.6	4	4.6	3
Years to 6.0 in	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	3-3+	3
CPUE ≥6.0 in fish	94.67	4	22.67	1	145.67	4	18.39	1	53.33	3	47.69	2	117.58	4	84.61	4	169.33	4
CPUE ≥8.0 in fish	12.00	3	12.00	3	41.33	4	1.15	1	4.00	2	1.54	2	18.68	4	0.00	0	1.33	2
Instantaneous Mortality (z)									1.427						1.657			0.386
Annual Mortality (A)									76.0						80.9			32.0
Total score		15		12		16		10		13		12		16		12		12
Assessment rating		E		G		E		F		G		G		E		G		G

Table 75. Length frequency, and CPUE (fish/hr) of largemouth bass collected during 0.37 hours of 7.5-minute diurnal electrofishing runs at Kingfisher Lake in April 2007.

	Inch class													
	4	5	6	7	8	9	10	11	12	13	17	Total	CPUE	Std. error
Largemouth bass	1	26	9	1	16	71	46	14	5	3	1	193	514.67	112.79

nwdkfpsd.d07

Table 76. Spring electrofishing CPUE for each size class of largemouth bass collected at Kingfisher Lake during April 1999-2007. CPUE = fish/hr.

	Inch class									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		>15.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	98.67	27.84	392.00	92.72	21.33	2.67	2.67	2.67	514.67	112.79
2006	189.33	14.11	333.33	46.26	10.67	2.67	0.00		533.33	62.88
2005	287.18	97.44	428.21	53.54	41.03	6.78	12.82	5.13	769.23	141.21
2004	161.54	45.07	243.59	45.58	12.82	6.78	2.56	2.56	420.51	92.45
2003	105.56	28.19	425.00	55.49	8.33	4.81	0.00		538.89	59.77
2002	116.28		258.14		4.65		0.00		379.07	
2001	89.74		364.10		20.51		2.56		476.91	
2000	137.78		493.33		24.44		6.67		662.22	
1999	n/d		315.56		17.78		2.22		335.56	

Table 77. Mean back calculated lengths (in) at each annulus for largemouth bass collected at Kingfisher Lake in April 2007.

Year		Age						
class	No.	1	2	3	4	5	6	7
2006	22	5.5						
2005	23	6.2	8.8					
2004	10	6.6	9.6	10.6				
2003	7	5.9	9.0	10.0	10.8			
2002	7	6.5	9.1	10.2	10.9	11.3		
2001	2	6.9	9.4	10.5	11.6	12.3	12.6	
2000	1	3.3	5.2	5.9	7.1	7.8	8.5	9.3
Mean		6.0	9.0	10.2	10.7	11.2	11.2	9.3
No.		72	50	27	17	10	3	1
Smallest		3.3	5.2	5.9	7.1	7.8	8.5	9.3
Largest		8.0	10.4	11.9	12.6	12.8	12.6	9.3
Std error		0.1	0.1	0.2	0.3	0.5	1.4	
95% CI (±)		0.2	0.3	0.5	0.6	0.9	2.7	

nwdkfbag.d0x

Table 78. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Kingfisher Lake during April 2007.

	Year					
Age	2002	2003	2004	2005	2006	2007
1	116.28	57.69	94.87	248.72	149.33	96.00
2	193.45	16.67	169.00	215.62	246.79	226.33
3	60.51	3.42	66.90	175.66	74.55	67.67
4	5.74	6.84	16.24	65.98	20.00	60.67
5	0.00	5.13	1.71	11.97	2.67	39.00
6	0.00	0.00	0.00	0.00	0.00	6.67
5	0.00	0.00	0.00	0.00	0.00	7.67

nwdkflag.d04, nwdkfpsd.d07

Table 79. Population assessment using statewide criteria for largemouth bass based on spring electrofishing at Kingfisher Lake from 1999-2007.

	Year																	
	1999		2000		2001		2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	11.0	3	11.0	3	11.0	3	11.0	3	11.0	3	11.0	3	11.0	3	11.0	3	10.5	1
Spring CPUE age 1 fish	n/d		135.56	4	89.74	4	116.28	4	100.00	4	94.87	4	248.72	4	149.33	4	96.00	4
Spring CPUE 12.0-14.9 in fish	17.78	1	24.44	2	20.51	2	4.65	1	8.33	1	12.82	1	41.03	3	10.67	1	21.33	2
Spring CPUE ≥15.0 in fish	2.22	1	6.67	2	2.56	1	0.00	0	0.00	0	2.56	1	12.82	2	0.00	0	2.67	1
Spring CPUE ≥20.0 in fish	0.00	0	4.44	4	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Instantaneous Mortality (z)									1.330		1.230				1.335		0.608	
Annual Mortality (A)%									73.6		70.8				73.7		39.2	
Total score		5+		15		10		8		8		9		12		8		8
Assessment rating				G		F		F		F		F		G		F		F

Table 80. Length frequency, and CPUE (fish/hr) of largemouth bass collected during 0.37 hours of 7.5-minute diurnal electrofishing runs at Kingfisher Lake in October 2007.

	Inch class												
Species	2	3	4	5	7	8	9	10	11	12	Total	CPUE	Std. error
Largemouth bass	1	24	16	5	1	2	7	7	3	5	71	189.33	56.44

nwdkflmb.d07

Table 81. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall electrofishing samples at Kingfisher Lake during October 2007.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2007	Total	4.0	0.10	122.67	50.67	13.33	2.67		

nwdlmlmb.d07

Table 82. Length frequency and CPUE for bluegill collected in 0.37 hours of electrofishing at Kingfisher Lake in May 2007.

	Inch class									
Species	2	3	4	5	6	7	8	Total	CPUE	Std. error
Bluegill	2	6	18	2	11	6		45	120.00	33.31
Redear							2	2	5.33	2.67

nwdkfbg.d07

Table 83. Spring electrofishing CPUE for each length group of bluegill collected at Kingfisher Lake during spring 1999-2007. CPUE = fish/hr.

	Length group											
	<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	5.33	2.67	69.33	26.26	45.33	5.33	0.00		0.00		120.00	33.31
2006	16.00	13.47	104.00	33.78	14.00	2.00	0.00		0.00		134.00	43.98
2005	0.00		53.85	7.69	12.82	6.78	10.26	6.78	0.00		76.92	8.88
2004	0.00		15.38	8.88	23.08	11.75			0.00		38.46	4.44
2003	12.82	6.78	56.41	2.56	15.38	7.69	5.13	2.56	0.00		89.74	5.13
2002			9.30		62.79		6.98		0.00		79.07	0.00
2001			61.54		66.67		7.69		0.00		135.90	0.00
2000			31.11		66.67		11.11		0.00		108.99	0.00
1999			6.67		20.00		4.44		0.00		31.11	0.00

Table 84. PSD and RSD_8 values calculated for bluegill collected by electrofishing from Kingfisher Lake during May 2007; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD_8
Bluegill	43	40 (15)	0

nwdfkbg.d07

Table 85. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Kingfisher Lake during spring samples 2002- 2007.

	Year					
Age	2002	2003	2004	2005	2006	2007
1	7.56	57.69	13.46	32.69	115.00	5.33
2	22.67	16.67	4.49	21.15	7.00	74.22
3	13.95	3.42	6.84	4.27	3.33	35.56
4	27.91	6.84	13.68	8.55	6.67	4.89
5	6.98	5.13	0.00	10.26	0.00	0.00

nwdkfbg.d07, nwdkfgbag.d07

Table 86. Mean back calculated lengths (in) at each annulus for bluegill collected at Kingfisher Lake in May 2007.

Year		Age			
class	No.	1	2	3	4
2006	2	2.1			
2005	20	1.9	4.2		
2004	11	2.1	5.2	7.0	
2003	1	2.6	4.9	5.9	6.7
Mean		2.0	4.6	6.9	6.7
No.		34	32	12	1
Smallest		1.0	3.2	5.9	6.7
Largest		3.9	6.9	7.4	6.7
Std error		0.1	0.1	0.1	
95% CI (±)		0.2	0.3	0.3	

nwdkfbag.d07

Table 87. Population assessment using statewide criteria for bluegill based on spring electrofishing at Kingfisher Lake from 1999-2007.

	Year																	
	1999		2000		2001		2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-2 at capture	5.7	4	5.7	4	5.7	4	5.7	4	5.7	4	5.7	4	5.7	4	5.7	4	4.3	2
Years to 6.0 in	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	3-3+	3
CPUE ≥6.0 in fish	24.44	1	77.78	4	64.44	3	69.77	3	21.62	1	23.08	1	23.08	1	14.00	1	45.33	2
CPUE ≥8.0 in fish	4.44	2	11.11	3	6.67	2	6.98	2	5.40	2	0.00	0	10.26	3	0.00	0	0.00	0
Instantaneous Mortality (z)									0.865						1.587		0.574	
Annual Mortality (A)%									57.9						79.5		42.6	
Total score		11		15		13		13		11		9		12		9		7
Assessment rating		G		E		G		G		G		F		G		F		F

*2003 and 2007age data

Table 88. Relative abundance, and CPUE (fish/hr) of largemouth bass collected during 0.37 hours of 7.5-minute diurnal electrofishing runs at Washburn Lake in April 2007.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	Std. error
Largemouth bass	1	10	17	18	4	4	18	6	2	2	3	1	2	3	1	1	1	94	250.67	30.75

nwdwapsd.d07

Table 89. Spring electrofishing CPUE for each length group of largemouth bass collected at Washburn Lake* during April 2001-2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		>15.0 in		>20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	133.33	35.28	80.00	4.62	16.00	4.62	21.33	9.61	0.00		250.67	30.75
2006	96.00	9.24	98.67	39.28	64.00	0.00	18.67	5.33	2.67	2.67	277.33	25.44
2005	43.59	11.18	146.15	16.01	28.21	5.13	2.56	2.56	2.56	2.56	220.51	25.25
2004	46.15	4.44	353.85	49.45	0.00		0.00		0.00		400.00	51.22
2003	123.08	33.53	438.46	49.45	0.00		0.00		0.00		561.54	52.36
2002	50.00		321.43		0.00		0.00		0.00		371.43	0.00
2001	260.00		8.00		0.00		0.00		0.00		268.00	0.00

*Washburn Lake renovated summer 1999 and restocked spring 2000

Table 90. Mean back calculated lengths (in) at each annulus for largemouth bass collected at Washburn Lake in April 2007.

Year		Age				
class	No.	1	2	3	4	5
2006	34	5.5				
2005	31	6.4	9.9			
2004	7	6.5	11.1	13.1		
2003	1	7.1	11.0	13.7	16.3	
2002	2	8.0	9.2	10.3	12.6	13.2
Mean		6.1	10.1	12.6	13.8	13.2
No.		75	41	10	3	2
Smallest		3.6	7.6	9.4	11.1	11.5
Largest		9.9	12.6	15.1	16.3	14.8
Std error		0.2	0.2	0.6	1.5	1.7
95% CI (±)		0.30	0.40	1.15	2.90	3.25

nwdwabag.d07

Table 91. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Washburn Lake during spring samples 2003-2007.

	Year				
Age	2003	2004	2005	2006	2007
1	131.62	48.29	41.03	94.67	131.20
2	380.96	218.38	53.38	36.73	81.98
3	8.16	27.56	27.21	17.88	19.09
4	40.79	105.77	65.56	42.73	8.00
5	0.00	0.00	0.00	0.00	2.40

nwdwapsd.d07 nwdwalag.d07

Table 92. Population assessment using statewide criteria for largemouth bass based on spring electrofishing at Washburn Lake from 2003-2007*.

	Year									
	2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	11.2	3	11.2	3	11.2	3	11.2	3	13.1	4
Spring CPUE age 1 fish	131.62	4	48.29	3	41.03	3	94.67	4	131.20	4
Spring CPUE 12.0-14.9 in fish	0.00	0	0.00	0	28.21	2	64.00	4	16.00	1
Spring CPUE ≥15.0 in fish	0.00	0	0.00	0	2.56	1	18.67	3	21.33	3
Spring CPUE ≥20.0 in fish	0.00	0	0.00	0	2.56	3	2.67	3	0.00	0
Instantaneous Mortality (z)							0.669		0.944	
Annual Mortality (A)%							48.8		61.1	
Total score		7		6		12		17		12
Assessment rating		P		P		G		E		G

*Washburn Lake renovated and restocked spring 2000

Table 93. Length frequency, and CPUE (fish/hr) of largemouth bass collected during 0.37 hours of 7.5-minute diurnal electrofishing runs at Washburn Lake in October 2007.

	Inch class												
Species	4	5	6	7	8	9	10	11	12	14	Total	CPUE	Std. error
Largemouth bass	18	80	59	19	13	47	8	3	1	1	249	664.00	92.03

nwdwalmb.d07

Table 94. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall electrofishing samples at Kingfisher Lake during October 2007.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. Error	CPUE	Std. Error
2007	Total	5.9	0.06	472.00	60.40	424.00	56.19		

nwdwalmb.d07

Table 95. Length frequency and CPUE for bluegill collected in 0.37 hours of electrofishing at Washburn Lake in May 2007.

	Inch class								
Species	2	3	4	5	6	7	Total	CPUE	Std. error
Bluegill	22	31	41	20	13	2	129	344.00	54.45

nwdwabg.d07

Table 96. PSD and RSD_8 values calculated for bluegill collected by electrofishing from Washburn Lake during May 2007; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD_8
Bluegill	107	14 (7)	0

nwdwabg.d07

Table 97. Spring electrofishing CPUE for each length group of bluegill collected at Washburn Lake during May 2007. CPUE = fish/hr.

	Length group											
	<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	58.67	14.11	245.33	37.05	40.00	12.22	0.00		0.00		344.00	54.45
2006	58.67	50.67	138.67	39.28	32.00	16.00	0.00		0.00		229.33	81.63
2005	161.54	31.87	155.77	18.94	9.62	3.68	0.00		0.00		326.92	39.29
2004	80.77	7.36	48.08	3.68	11.54	4.97	21.15	10.59	0.00		161.54	12.95
2003	7.69	3.14	71.15	12.71	113.46	39.89					192.31	39.85
2002			46.51		102.33						148.84	0.00
2001			28.00		64.00		4.00				96.00	0.00

*Washburn Lake renovated summer 1999 and restocked spring 2000

Table 98. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Washburn Lake during spring samples 2003- 2007.

	Year				
Age	2003	2004	2005	2006	2007
1	0.00	0.00	0.00	141.87	163.20
2	100.34	16.35	71.57	71.47	176.80
3	72.73	8.65	5.36	16.00	4.00

nwdwabg.d07, nwdwbgag.d06

Table 99. Population assessment using statewide criteria for bluegill based on spring electrofishing at Washburn Lake 2003-2007.

	Year									
	2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-2+ at capture	5.4	4	5.4	4	5.4	4	5.3	4	5.3	4
Years to 6.0 in	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4
CPUE ≥6.0 in fish	118.00	4	32.69	2	9.62	1	32.00	2	40.00	2
CPUE ≥8.0 in fish	0.00	0	22.00	4	0.00	0	0.00	0	0.00	0
Instantaneous Mortality (z)									1.05	
Annual Mortality (A)%									64.99	
Total score		12		14		5		10		10
Assessment rating		G		E		P		G		G

Table 100. Length frequency, composition, and number per hour of fish observed during 1.50 hours of 30-minute scuba transects swam at Goose Lake (Peabody WMA) in June 2005-2007.

		Length group						
Species	Year	5.0-8.0 in	8.9-12.0 in	12.0-15.0 in	>15.0 in	Total	Fish/hr	Std. error
Largemouth bass	2005	14	29	15	9	67	44.67	8.17
	2006	18	28	8	2	56	37.33	8.21
	2007	7	14	8	3	32	21.33	1.45

		Length group						
		3.0-5.0 in	5.0-8.0 in	8.0-10.0 in	>10.0 in	Total	Fish/hr	Std. error
Bluegill	2005	141	62	12		215	143.33	42.10
	2006	181	106	1		288	192.00	23.06
	2007	135	106	11	2	254	169.33	23.79
Redear sunfish	2005	0	0	8		8	5.33	2.67
	2006	5	23	3		32	20.67	1.45
	2007	6	19	17	1	43	28.67	3.18

Table 101. Length frequency, composition, and number per hour of fish observed during 1.00 hours of 20-minute scuba transects swam at Musky Lake (Peabody WMA) in June 2005-2007.

		Length group						
Species	Year	5.0-8.0 in	8.9-12.0 in	12.0-15.0 in	>15.0 in	Total	Fish/hr	Std. error
Largemouth bass	2005	9	26	18	7	60	60.00	
	2006	27	44	26	13	110	110.00	8.00
	2007	13	26	18	2	59	59.00	5.17

		Length group						
		3.0-5.0 in	5.0-8.0 in	8.0-10.0 in	>10.0 in	Total	Fish/hr	Std. error
Bluegill	2005	91	55	13		159	159.00	
	2006	320	125	10		455	455.00	7.84
	2007	431	91	8	2	532	532.00	22.81
Redear sunfish	2005	33	38	15	0	86	86.00	
	2006	17	44	18	2	81	81.00	6.56
	2007	7	41	12	4	64	64.00	1.76

Table 102. Length frequency, composition, and number per hour of fish observed during 1.00 hours of 20-minute scuba transects swam at Bottom Lake (Peabody WMA) in July 2006-2007.

		Length group						
Species	Year	5.0-8.0 in	8.9-12.0 in	12.0-15.0 in	>15.0 in	Total	Fish/hr	Std. error
Largemouth bass	2006	23	7	1	2	33	33.00	2.00
	2007	15	25	4	1	45		2.08

		Length group						
		3.0-5.0 in	5.0-8.0 in	8.0-10.0 in	>10.0 in	Total	Fish/hr	Std. error
Bluegill	2006	40	59	7	1	107	107.00	3.76
	2007	128	18	19	1	166	166.00	3.93
Redear sunfish	2006	1	11	16		28	28.00	2.40
	2007	19	45	28	1	93	93.00	6.66

SOUTHWESTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Table 1 summarizes lake sampling conditions in 2007. Noteworthy in 2007 was the fact that Barren River Lake never achieved summer pool (4-foot shy) at anytime during the year. The highest lake level (548-ft msl) at Barren was not achieved until late July and the lake level remained there until the guide curve caught up to it in late-October.

Barren River Lake (10,000 acres)

Black bass were collected by diurnal electrofishing on April 30 and results are found in Tables 2-5. A total of 968 black bass were collected at a rate of 161.30 fish/hr. Largemouth bass accounted for 82% (CPUE=131.00 fish/hr), spotted bass accounted for 18 % (CPUE=29.00 fish/hr) and smallmouth bass accounted for less than 1% (CPUE =1.00 fish/hr) of the total catch. Largemouth bass length group catch rates and size structure indices (PSD=63 RSD_{15}=31) were similar to the previous year averages. The largemouth bass population assessment remains "Good", similar to previous years. The spotted bass population continues to be low density, but high quality (PSD=65 RSD_{14}=13). The smallmouth population statistics are unknown due to the chronic small sample sizes.

Fall diurnal black bass sampling on September 17 indicated a lower than average number of young of the year (Table 6). With the lake never achieving summer pool level; reduced habitat and nutrient inflow were likely contributing factors to reduced YOY bass numbers.

Trap netting for crappie resulted in the collection of 760 total crappie (713 black crappie and 47 white crappie) in 105 net nights (Tables 7-15). Most crappie fell within the 6.0-9.0 inch classes. Age and growth assessment shows black crappie reach 9.0 in between ages 2 and 3; white crappie reach the same between ages 1 and 2 (Tables 9-10). Recruitment in 2007 for both species appears to be extremely low. This again was possibly due to low water levels and low nutrient inflow experienced in 2007. White crappie recruitment has been chronically low since the late 1990's. Assessment for black crappie was "Fair" and white crappie was also "Fair". The combined crappie assessment was "Fair" as it has been for past years (Tables 13-15).

Gill netting effort for white bass and hybrid was increased this year with three more historic sites added. Even with increased effort, white bass and hybrid catch rates were again low.

Creel survey: Results of a roving, daytime creel survey are presented in Tables (16-23). Anglers made an estimated 46,827 trips and fished for 127,882 hours with the average trip approximating 2.73 hours. Declines in total trips and man-hours from previous creels were 47,000 and 350,000 respectively. Black bass remain as the most sought after fish species, accounting for 56% of trips followed by Crappie (15%), Morone (12%), anything (10 %) and catfish (7%).

Crappie harvest rate (0.51 fish/hr) was down from both the 1999 (0.807 fish/hr) and 2004 (0.969 fish/hr). Crappie catch rates (1.00 fish/hr) also dropped since the past two creel surveys: 2004 (1.584 fish/hr) and 1999 (1.236 fish/hr). Angler hours (19,196) declined 75% from the 2004 creel and 71% from the 1999 creel. Angler trips (7,029) declined 53% from the 2004 creel and 39% from the 1999 creel.

Morone harvest rate (0.34 fish/hr) was down from 0.425 fish/hr in the 2004 creel. Angler hours (14,840) declined 85% from the 2004 creel (100,949 hours). Angler trips (5,434) declined 72% from the 2004 creel.

Bass angler trips (25,873) dipped from 40,443.94 in 2004, but were similar to 1999 (24,519). Angler hours (70,659) was down in comparison to both the 1999 (141,029 hours) and 2004 (207,758 hours) creel surveys. However, catch rate (0.52 fish/hr) was similar to both the 1999 (0.474 fish/hr) and 2004 (0.65 fish/hr) creel surveys.

Overall most data in this year's creel was lower than previous years. This is potentially explainable by low water conditions during the creel. The area experienced one of the worst droughts on record and Barren River Lake only reached a maximum pool level of 547 (5 feet below summer pool).

Angler attitude survey: Results of the angler attitude survey are presented in Appendix A. Anglers identified black bass (51%), crappie (16%) channel catfish (7%) and hybrid striped bass (6%) as the species they targeted most. Overall, 62% of anglers fished for bass, 29% for crappie, 16% for hybrid striped bass, 15% for channel catfish and 6% for bluegill. Overall satisfaction (very to somewhat satisfied) for all fisheries (black bass, crappie, hybrid striped bass, channel catfish and white bass) ranged from 69-88%. Satisfaction (75%) with the white bass fishery was very surprising given their poor representation in the creel; but may be indicative of anglers inability to distinguish between white bass and hybrids. Overall angler satisfaction with current fishing regulations at Barren River Lake was 97%.

Crappie anglers strongly supported (64%, 15% no opinion) a reduction of the crappie creel limit and overwhelming supported (60% for 20; 32% for 15; 3% for 10) a reduction to at least a 20 fish limit. Catfish angler opinion of noodling or hand grabbing for catfish at Barren River Lake ranged from uninformed to supportive.

General angler response to the "1 fish under 15-inch" for largemouth and smallmouth bass size limit question was mildly supportive (57%) of removing the "one fish under" and going with just a 15.0-in size limit. Anglers opposing removal were equally partitioned in reasoning for keeping "one fish under" with: 27% for kid's sake, 23% for bass tournaments and 21% "like the way it is".

Barren River Lake anglers were generally aware (62%) that KDFWR produced a fish attractor map for the lake; however, only 44% used the map. Sixty-three percent of crappie anglers and 60% of bass anglers used the map. Comparatively, KDFWR fish attractor map awareness of Green River Lake anglers in 1998 was only 45% with 68% using the map. Green River Lake bass angler's use was 47% and crappie angler use was 81%. The majority of Kentucky anglers fishing Barren River Lake (62.4%) traveled 30 miles or less; 37.6% traveled greater than 30 miles.

Briggs Lake (18 acres)

Diurnal largemouth electrofishing samples were collected on April 26 (Table 24). This year had the highest catch rate in the past 8 years (Table 25) due to good year classes produced in 2005 and 2006. However, these stronger year classes have heightened the size structure problems as the bass population continues to stock pile below 12.0 in (PSD=5; Table 26).

The sunfish population was sampled by diurnal electrofishing on the May 3 (Tables 27-36). Bluegill assessment was "Excellent", similar to previous years. The bluegill size structure remains good with a PSD of 57. Age and growth assessment of bluegill (n=71) in 2007 indicates they achieve 6.0 in between ages 2 and 3. The redear population assessment fell to "Good" due to a decreased catch rate of larger fish (≥8.0 in). Decrease in larger redear CPUE is likely due to sample timing as these fish were noted in the spring bass sample. Redear size structure was dominated by fish less than 8.0 in (PSD=2). Age and growth assessment (n=45) indicated they achieved 10.0 in between ages 2 and 3.

Marion County Lake (25 acres)

Results of nocturnal largemouth bass electrofishing on May 1 are presented in Tables 37-39. The bass population is dominated by fish less than 12.0 in (PSD=10). The previous year's increase in 15.0-in + fish was not sustained as this CPUE returned to chronic lower levels.

Diurnal electrofishing for bluegill and redear on May 15 is presented in Tables 40-49. The bluegill assessment was "Fair" this year. The population is dominated by fish less than 5.0 in (PSD=13). Age and growth assessment (N=80) revealed that bluegill reach 6.0 in between ages 3 and 4. The redear assessment dropped to "good", due to a decrease in catch rate of fish ≥8.0 in (PSD=39). Only 35 fish were taken for an age and growth assessment; of these, 66% were age 2. Numbers of larger and older fish were too small to make quality estimates of age and growth.

Sample timing was likely a culprit in the poor representation of larger bluegill and redear as these length groups seemed more prevalent in bass samples collected earlier in the season.

Spurlington Lake (25 acres)

Nocturnal largemouth bass electrofishing samples were collected on May 1 (Tables 50-52). The overall catch rate (184.00 fish/hr) was the lowest in the past 6 years; however, this was likely due to a heavy algae bloom which hampered visibility (seechi depth of 12.0 in). Largemouth bass size structure remained diverse (PSD = 47) with fish up to 21.0 in noted.

The bluegill population assessment remained "Good". Overall CPUE (1156.00 fish/hr) nearly tripled from 2006 (482.00 fish/hr) due to a jump in <3.0-in fish. Bluegill sampling results are presented in Tables 53-55.

West Fork Drakes (88 Acres)

This was the first year for sampling black bass and sunfish at this lake. The lake was drawn down in 2005 and 2006 for dam repairs. Diurnal largemouth bass sampling was collected on April 19 (Table 56-58). The bass population seems diverse with a PSD of 53. One muskie was also sampled during spring bass sampling.

Similarly, bluegill and redear were sampled with diurnal electrofishing on April 19 (Tables 59-60). The bluegill population had good numbers of 4.0 to 6.0 in fish (PSD=28). The redear population had good numbers of 6.0 to 8.0 in fish (PSD=51).

Green River Lake (8,210 Acres)

Muskellunge sampling was curtailed due to unsuitable sampling conditions (water clarity too high); however, limited results are presented in Tables 61-62 . Since the change to reservoir drawdown and guide curve in 2003, historical sampling conditions (stained – muddy water) have been limited and may warrant a change in sampling strategy to improve sampling efficiency and future data comparability. Modified trapnets from EFD were tried (2 nights; 5 nets per night) in late March and met with mixed results. Net catch ranged from 0 to as many as 8 fish, but net mesh was too small yielding too much by-catch. Additionally, muskellunge captured in nets were in "rough shape" such that recovery (regaining of health) of captured fish was very questionable.

Nocturnal black bass sampling (Tables 63-66) was conducted on the upper and lower sites of each lake arm (Green River and Robinson Creek) on May 8. Largemouth CPUE (54.00 fish/hr) in the Smith Ridge area (upper Robinson Creek arm) was nearly half of the previous year (98.00 fish/hr); all other areas were similar to the previous year. Overall largemouth bass size structure remains diverse (PSD = 73; RSD = 29) with the strong year class of 2004 bolstering a higher than average PSD. Population assessment for largemouth bass returned to "Good" rating.

Fall YOY sampling (Table 67) suggests a weak 2007 year class (overall CPUE=21.83 fish/hr; ≥5.0-in=5.83 fish/hr). Supplementary stocked (16,000; 2 fish/acre) 5.0-in largemouth added in the fall of 2006 have never been sampled.

Results from trap netting for white crappie are presented in Tables 68-70. The moderate year classes of 2003 & 2004 appear to be carrying the fishery. The crappie population assessment for Green River Lake maintained a "Good" status. YOY CPUE (4.39 fish/nn) suggest another poor year class; however, age-0 CPUE has not always been a reliable indicator of year class strength.

Results of the experimental gill net sampling for white bass and walleye are presented in Tables 71-75. The white bass population continues to plummet due to successive weak year classes since 2004. Overall CPUE reached an all time low of 3.19 fish/nn; however, the white bass population assessment remained "Fair". Walleye CPUE (7.00 fish/nn) continues to rebound from previous lows with fair recruitment of the 2005 year class. The walleye population assessment achieved an "Excellent" rating for the first time ever due to strong influence of the 2005 year class. A confounding factor for white bass and walleye population assessments/recruitment is the recent alewife establishment. Alewives are now firmly established in this system since being noted in 2004 gill net by-catch.

Shanty Hollow Lake (136 acres)

Nocturnal bass sampling results are presented in Tables 76-79. Overall CPUE of largemouth (154.00 fish/hr) dipped to less than half of 2006 CPUE (342.00 fish/hr). Size structure index remained poor (PSD =16) and similar to last year. Poor recruitment of the 2006 year class and poor recruitment/survival of the seemingly stronger year classes of 2004 and 2005 to larger sizes (12.0-in +) are likely causes for depressed population numbers and poor size structure.

The bluegill population assessment remained "good" and similar to previous years. The redear population continues to remain at a lower density and maintained a "fair" assessment rating. Sunfish sampling results are presented in Tables 80-85.

This lake experiences notable water level fluctuations due to a leak. Water level fluctuations range from 2-12 feet below normal pool within a year depending on rainfall. Erratic population shifts in sunfish and bass whether due to heightened predation, spawning interruptions, etc., may be symptoms of these frequent water level changes.

Metcalfe County Lake (22 acres)

Results of the diurnal bluegill sampling are presented in Tables 86-91. Size structure remains deceptively diverse (PSD=39); as most fish rarely achieve 7.0-in in length. The bluegill population assessment remained "Fair". Bluegill need at least 4 years to achieve 6.0 inches in length. The lake is highly productive and supports a substantial and varied sunfish population along with gizzard shad.

Lebanon City Lake (140 A)

Nocturnal bass electrofishing results are presented in Tables 92-96. The bass population assessment remains "Fair" despite continued slow growth. Largemouth bass need at least 4.5 years to achieve 12.0 in. Institution of a 12.0-15.0 in slot length limit in 2000 and subsequent signage to encourage anglers to keep smaller bass has failed to improve bass growth rates. The lake's low productivity and its obligation to remain so (back up water supply for city of Lebanon) combined with current angler attitude of catch and release will likely continue to encumber bass growth and population improvements.

Despite the lake's low productivity, it supports a good bluegill and excellent redear fishery. Size structure for both populations in 2007 was excellent (bluegill PSD = 70; redear PSD = 79). Nocturnal bluegill and redear electrofishing results are presented in Tables 97-100.

Three Springs Lake (30 A)

Results of diurnal bass electrofishing are presented in Tables 101-102. The largemouth bass population showed a higher density in 2007 (502.00 fish/hr) than in 2005 (345.00 fish/hr) with few fish achieving 15.0 inches in length.

Diurnal bluegill and redear elcetrofishing results are presented in Tables 103-105 Bluegill size structure indices have remained average over time (2005 PSD = 34; 2007 PSD =27). The redear size structure has been more chaotic (2005 PSD=40; 2007 PSD=11), but growth potential is excellent as the lake consistently yields individuals well over 11.0 in. This lake is shallow and very productive (goose haven) and receives substantial bank fishing pressure.

Table 1. Lake sampling conditions in the Southwestern Fisheries District in 2007.

Lake	Date	Species	Weather	Surface water temp (F)	Secchi (in)	Comments
Barren River Lake	30-Apr	Bass	Sunny	68-73	36	12 feet below normal/summer pool
	17-Sep	YOY bass	Sunny/Hot	75		4 feet below summer pool
	6-Nov	Hybirds & white bass	Windy	56-58		7.5 feet below summer pool & falling slowly
	14-Nov	Crappie	Windy	49-54		11 feet below summer pool
Green River Lake	10-Jan	Muskie	Sunny	46		4.5 feet below summer pool & falling
	8-May	Bass	Clear & cool	71-74		0.5 feet above summer pool & falling
	2-Oct	YOY bass	Sunny & calm	74-77		1.5 feet below summer pool & stable
	27-Nov	White bass & walleye	Cloudy & cool	53-54		2.4 feet below summer pool & rising
	4-Dec	Crappie	Cool & windy	45-49		4.5 feet below summer pool & falling slowly
Three Springs Lake	17-Apr	Bass, BG & RE	Sunny & clear	60	48	
W. Fk. Drakes Res.	19-Apr	Bass, BG & RE	NW winds	58		
Briggs Lake	26-Apr	Bass	Clear	66		
	10-May	Bluegill & redear	Partly sunny	76	24	
	18-Sep	YOY bass	Sunny			Rookie drove boat
Marion Co. Lake	1-May	Bass	Clear	71		
	15-May	Bluegill & redear	Sunny	76	84	
Metcalfe Co. Lake	18-May	Bluegill	Sunny	76	32	
Spurlington Lake	1-May	Bass	Clear	73	15	Heavy algae bloom/poor visibility
	15-May	Bluegill	Sunny	76	29	
	25-Sep	YOY bass	Sunny/Hot			
Lebanon City Lake	1-May	Bass, BG & RE	Clear	68	15-ft	
Shanty Hollow Lake	3-May	Bass	Cloudy	72		
	17-May	Bluegill & redear				
	1-Oct	YOY bass		71	36	Lake 8-foot below summer pool

Table 2. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 6.0 hours (12- 0.50-hour runs) of diurnal electrofishing at Barren River Lake on 30 April 2007.

		Inch class																			
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	Std err
Peninsula	Smallmouth bass		1	1		1	1				1	1								6	4.00	1.15
	Spotted bass	3	1		1	5	6	19	11	16	24	14	7	4	1					112	74.67	21.36
	Largemouth bass	1		1	5	9	11	15	21	22	19	6	12	15	13	11	5	1	2	169	112.67	4.67
Beaver Creek	Smallmouth bass																			0	0.00	0.00
	Spotted bass									4	1		1							6	4.00	2.00
	Largemouth bass				4	5	6	4	9	22	19	24	33	25	11	2	1	1	1	167	111.33	6.77
Peter Creek	Smallmouth bass																			0	0.00	0.00
	Spotted bass					1	1	1	7	9	7	6	4	3	1					40	26.67	7.69
	Largemouth bass				4	15	27	16	17	34	19	10	15	19	15	7	3	2		203	135.33	67.59
Walnut Creek	Smallmouth bass																			0	0.00	0.00
	Spotted bass							1	5	3	1	3	1							14	9.33	6.36
	Largemouth bass		1	2	11	18	10	6	24	21	23	20	26	30	24	21	9	2	3	251	167.33	26.77
TOTAL	Smallmouth bass		1	1		1	1				1	1								6	1.00	0.58
	Spotted bass	3	1		1	6	7	21	23	32	33	23	13	7	2					172	28.67	9.80
	Largemouth bass	1	1	3	24	47	54	41	71	99	80	60	86	89	63	41	18	6	6	790	131.67	17.03

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Table 3. Spring diurnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Barren River Lake during April/early March since 1997. Bolded years represent consistent site selection (same areas sampled).

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
1997	6.67	1.40	31.11	5.23	48.40	6.44	49.30	6.48	3.33	0.67	135.60	11.61
1998	17.20	4.15	11.40	2.68	23.20	3.10	32.20	2.66	1.20	0.44	83.80	8.27
1999	10.67	2.40	31.33	5.62	41.67	6.90	36.33	4.66	2.33	0.64	120.80	11.16
2000	8.29	1.67	24.14	3.45	33.00	3.19	27.29	2.42	1.43	0.51	92.70	7.29
2001	11.81	1.64	42.29	4.02	49.33	6.34	61.90	4.10	1.14	0.40	165.30	9.60
2002	12.55	2.24	22.36	2.87	30.36	4.03	37.64	4.22	1.27	0.41	102.91	9.50
2003	21.69	3.42	22.46	3.47	20.46	2.90	39.54	4.71	0.31	0.21	104.15	10.58
2004	47.66	13.97	37.66	6.25	16.67	3.96	18.44	3.25	0.67	0.47	120.22	22.15
2005	17.67	2.93	66.00	7.73	31.50	4.65	36.83	3.36	2.00	0.68	152.00	8.62
2006	22.83	4.71	46.17	6.88	57.17	9.80	44.00	5.96	1.33	0.42	170.17	21.78
2007	12.67	3.09	44.17	10.94	37.67	5.00	37.17	5.84	1.00	0.58	131.67	17.03
Average	17.25		34.46		35.40		38.24		1.46		125.4	

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Table 4. PSD and RSD values obtained for each black bass species collected during 6 hours (12-0.50-hour runs) of spring diurnal electrofishing at each area of Barren River Lake on April 30, 2007. 95% confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD (± 95% CI)	RSD[A] (± 95% CI)
Peninsula	Largemouth bass	153	55 (8)	31 (8)
	Spotted bass	107	62 (9)	11 (6)
	Smallmouth bass	4	50 (57)	*
Beaver Creek	Largemouth bass	158	74 (7)	26 (7)
	Spotted bass	6	100	17 (32)
	Smallmouth bass	0	*	*
Peter Creek	Largemouth bass	184	49 (7)	25 (6)
	Spotted bass	40	75 (14)	20 (13)
	Smallmouth bass	0	*	*
Walnut Creek	Largemouth bass	219	72 (6)	41 (6)
	Spotted bass	14	57 (27)	7 (14)
	Smallmouth bass	0	*	*
Total	Largemouth bass	714	63 (3)	31 (4)
	Spotted bass	167	65 (7)	13 (5)
	Smallmouth bass	4	50 (57)	*

[A] Largemouth bass = RSD_{15}, spotted bass and smallmouth bass = RSD_{14}.

* No fish of sufficient size were collected during sampling.

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Table 5. Population assessment of largemouth bass based on spring sampling at Barren River Lake from 2002-2007.

	2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	14.1	4	14.1	4	14.1	4	14.1	4	14.1	4	14.1	4
Spring CPUE age-1	14.95	1	19.60	1	26.90	2	13.48	1	17.52	1	9.67	1
Spring CPUE 12.0-14.9 in	30.36	3	20.46	2	16.67	2	31.50	3	57..17	4	37.67	4
Spring CPUE ≥15.0 in	37.64	4	39.54	4	18.44	3	36.83	4	44.00	4	37.17	4
Spring CPUE ≥20.0 in	1.27	2	0.31	2	0.67	2	2.00	2	1.33	2	1.00	2
Instantaneous Mortality (z)				0.462								
Annual Mortality (A)%				37.02								
Total Score		14		13		13		14		15		15
Assessment Rating		Good		Good		Good		Good		Good		Good

swdbrlbb.D02-D07

Table 6. Indices of year-class strength at age 0 and age 1 and mean length (in) of largemouth bass collected during diurnal fall electrofishing at Barren River Lake.

	Age 0[A]		Age 0[A]		Age 0 ≥5.0 in[A]		Age 1[B]	
Year-class	Mean length	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
2002	4.0	0.05	171.67	25.76	34.17	4.06	26.90	3.71
2003	4.4	0.04	198.00	30.81	84.00	18.74	44.90	13.25
2004	3.7	0.04	108.44	22.20	20.78	3.85	11.20	2.51
2005	3.7	0.04	160.67	25.63	25.33	4.20	17.50	3.63
2006	3.4	0.02	299.67	87.22	21.83	5.62	18.00	4.78
2007	4.2	0.06	61.50	12.80	14.00	2.47		

[A] Data collected by fall (October) diurnal electrofishing. Mean lengths were determined by analysis of otolith, removed from a subsample of LMB <9.0 in, and extrapolated to the entire catch of the fall sample.

[B] Data collected during the following spring (April/May) diurnal electrofishing sample.

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Table 7. Length frequency and CPUE (fish/nn) of each inch-class of white and black crappie collected by trap-net (105 net-nights) at Barren River Lake from early to mid November 2007.

Location	Species	Inch class											Total	CPUE	Std. Error
		3	4	5	6	7	8	9	10	11	12	13			
Walnut Creek															
	White Crappie			5		7	15	8	2			1	38	0.63	0.13
	Black Crappie	2		7	73	94	112	48	8	2	1		347	5.78	0.86
Beaver Creek															
	White Crappie		1	3	1		1		1	1	1		9	0.20	0.07
	Black Crappie	2	6	29	127	83	41	58	16	4			366	8.13	1.35
Total															
	White Crappie		1	8	1	7	16	8	3	1	1	1	47	0.45	0.08
	Black Crappie	4	6	36	200	177	153	106	24	6	1		713	6.79	0.76

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Table 8. Proportional stock density (PSD) and relative stock density (RSD_{10}) of white and black crappie collected by trap-nets (105 net-nights) at Barren River lake from early to mid November 2007. Numbers in parentheses represent 95% confidence intervals.

Location	Species	Number ≥5.0 in	PSD	RSD_{10}
Barren River Lake				
	White Crappie	46	65 (14)	13 10)
	Black Crappie	703	41 (4)	5 (1)

swdbrltn.D07

Table 9. Mean back-calculated length (in) at each annulus of black crappie collected by trap-netting and gillnetting at Barren River Lake from early to mid November 2007, including the range in length of black crappie at each age and the 95% confidence interval for each age class.

		Age							
Year-Class	N	1	2	3	4	5	6	7	8
2006	107	3.7							
2005	129	4.3	7.4						
2004	14	4.5	7.4	9.6					
2003	8	4.4	7.3	9.2	10.5				
2002	3	4.9	8.2	9.9	11.0	12.0			
2001	2	5.0	8.4	10.5	11.6	12.1	12.7		
1999	1	4.5	6.4	7.2	8.8	9.6	10.2	10.6	11.0
Mean	264	4.1	7.4	9.5	10.6	11.6	11.9	10.6	11.0
Smallest		2.7	5.0	7.2	8.8	9.6	10.2	10.6	11.0
Largest		5.5	9.1	11.1	12.0	12.3	12.9	10.6	11.0
Std. Error		0.0	0.1	0.2	0.3	0.4	0.8		
Low 95% CI		4.0	7.3	9.1	10.1	10.8	10.2		
High 95% CI		4.2	7.6	9.9	11.2	12.4	13.5		

Otoliths were used to make age determinations. Intercept = 0.

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Table 10. Mean back-calculated length (in) at each annulus of white crappie collected by trap-netting and gillnetting at Barren River Lake from early to mid November 2007, including the range in length of black crappie at each age and the 95% confidence interval for each age

		Age		
Year-Class	N	1	2	3
2006	37	4.2		
2005	14	5.1	9.4	
2004	1	5.5	9.8	11.9
Mean	52	4.5	9.4	11.9
Smallest		3.1	8.3	11.9
Largest		5.9	10.3	11.9
Std. Error		0.1	0.2	
Low 95% CI		4.3	9.0	
High 95% CI		4.6	9.7	

Otoliths were used to make age determinations. Intercept = 0.

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Table 11. Age frequency and CPUE (fish/nn) of black crappie collected during 105 net-nights at Barren River Lake during early to mid November 2007.

	Inch class													Std.
Age	3	4	5	6	7	8	9	10	11	12	Total	Percent	CPUE	Error
0	4	6	7	4							21	3.0	0.16	0.04
1			29	193	96	21		1			340	47.0	3.23	0.41
2				4	81	132	97	18			332	47.0	3.16	0.36
3							9	3	4		16	2.0	0.15	0.02
4								2	2	1	5	1.0	0.04	0.01
5										1	1	0.0	0.00	0.00
6														
7														
8									1		1	0.0	0.10	0.00
Total	4	6	36	201	177	153	106	24	7	2	716	100		
%	0	1	5	28	25	22	15	3	1	0	100			

2007 age file includes fish taken from white bass gill nets in 2007

swdbrltn.d07; swdbrlag.d07

Table 12. Age frequency and CPUE (fish/nn) of white crappie collected during 105 net-nights at Barren River Lake during early to mid November 2007.

	Inch class														
Age	3	4	5	6	7	8	9	10	11	12	13	Total	Percent	CPUE	Std. Error
0		1	8									9	19.0	0.08	0.03
1				1	7	16	8	1				33	71.0	0.32	0.07
2								2	1	1		4	7.0	0.03	0.02
3											1	1	2.0	0.01	0.01
4															
Total		1	8	1	7	16	8	3	1	1	1	47	100		
%		2	17	2	15	34	17	6	2	2	2	100			

2007 age file includes fish taken from white bass gill nets in 2007

swdbrltn.d07; swdbrlag.d07

Table 13. Black crappie assessment from trap netting at Barren River Lake from 1985-2007.

	Black crappie											
	CPUE excluding age 0		CPUE age 1		CPUE age 0		CPUE ≥8.0 in		Mean length age-2 at capture			
Year	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Total score	Rating
1985	3.53	1	0.72	1	0.33	1	0.78	1	7.4	1	5	P
1986	10.72	2	6.94	3	3.83	2	2.80	1	8.7	2	10	F
1987	3.27	1	1.90	1	2.82	1	1.34	1	9.6	4	8	F
1988	6.18	2	5.68	2	0.10	1	0.44	1	9.3	3	9	F
1989	9.19	2	1.48	1	7.51	3	5.90	2	8.2	1	9	F
1990	29.12	4	26.11	4	0.10	1	1.92	1	8.8	2	12	F
1991	3.53	1	0.95	1	0.86	1	3.55	1	7.6	1	5	F
1992	9.20	2	3.49	2	0.07	1	4.24	2	7.7	1	8	F
1993	12.61	2	1.06	1	0.29	1	9.13	2	8.1	1	7	P
1994	0.74	1	0.10	1	0.82	1	0.70	1	8.8	2	6	P
1995	7.39	2	6.54	2	1.29	1	0.53	1	8.9	2	8	F
1996	9.03	2	0.79	1	0.48	1	4.16	2	7.8	1	7	P
1997	9.12	2	1.45	1	0.87	1	5.98	2	7.6	1	7	P
1998	1.71	1	0.12	1	1.79	1	1.56	1	8.2	1	5	P
1999	4.66	1	3.82	2	0.26	1	0.85	1	8.6	2	7	P
2000	1.81	1	0.18	1	0.22	1	0.65	1	7.8	1	5	P
2001	5.72	2	0.33	1	0.41	1	4.47	2	7.6	1	7	P
2002	4.58	1	1.02	1	3.09	2	3.34	1	8.7	2	7	P
2003	2.37	1	1.19	1	5.35	2	0.89	1	9.7	4	9	F
2004	6.90	2	4.36	2	0.65	1	2.20	1	9.2	3	9	F
2005*	6.40	2	2.30	1	2.00	1	4.40	2	9.1	3	9	F
2006*	2.70	1	1.40	1	0.60	1	1.30	1	8.9	3	7	P
2007	6.59	2	3.26	2	0.16	1	1.30	1	8.5	2	8	F

* Age assessment data extrapolated from previous age data

swdbrltn.D85 - D07

Table 14. White crappie assessment from trap netting at Barren River Lake from 1985 - 2007.

	White crappie											
	CPUE excluding age 0		CPUE age 1		CPUE age 0		CPUE ≥8.0 in		Mean length age-2 at capture			
Year	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Total score	Rating
1985	30.98	4	24.40	4	0.42	1	2.20	1	9.4	3	13	G
1986	13.56	3	3.61	2	1.91	1	8.87	2	9.0	2	10	F
1987	3.99	1	1.26	1	0.41	1	2.48	1	10.8	4	8	F
1988	3.07	1	2.49	1	0.24	1	2.48	1	11.1	4	8	F
1989	4.15	1	1.69	1	3.25	2	2.56	1	11.0	4	9	F
1990	22.83	4	20.80	4	0.50	1	13.38	2	10.8	4	15	G
1991	30.98	4	0.52	1	0.98	1	8.86	2	9.8	4	12	F
1992	6.82	2	5.09	2	0.07	1	4.04	2	11.5	4	11	F
1993	5.77	2	0.59	1	0.04	1	5.22	2	10.0	4	10	F
1994	0.66	1	0.11	1	0.65	1	0.44	1	10.6	4	8	F
1995	7.95	2	7.69	3	0.64	1	5.47	2	11.5	4	12	F
1996	6.34	2	0.80	1	1.40	1	5.59	2	9.7	4	10	F
1997	6.71	2	5.12	2	1.04	1	5.16	2	10.2	4	11	F
1998	1.22	1	0.68	1	2.03	1	0.93	1	10.9	4	8	F
1999	6.48	2	5.91	2	0.54	1	2.93	1	10.9	4	10	F
2000	2.50	1	0.32	1	0.03	1	2.38	1	9.3	3	7	P
2001	1.58	1	0.51	1	0.21	1	1.34	1	10.5	4	8	F
2002	1.41	1	0.29	1	1.16	1	0.80	1	10.7	4	8	F
2003	1.37	1	1.02	1	0.43	1	1.05	1	11.5	4	8	F
2004	1.55	1	0.88	1	0.16	1	1.29	1	11.1	4	8	F
2005*	0.70	1	0.60	1	0.01	1	0.70	1	11.0	4	8	F
2006*	0.30	1	0.20	1	0.00	0	0.20	1	10.6	4	7	P
2007	0.37	1	0.32	1	0.80	1	0.29	1	11.2	4	8	F

* Age Assessment data extrapolated from previous age data

swdbrltn.D85 - D07

Table 15. Population assessment for all crappie from Barren River trap-net data collected in November 2001-2007.

	2006		2007	
Parameter	Value	Score	Value	Score
Population Density (CPUE age-1 and older crappie)	2.90	1	6.96	2
Recruitment (CPUE age-1)	1.60	1	3.58	2
Recruitment (CPUE age-0)	0.60	1	0.96	1
Size Structure (CPUE ≥8.0 in)	1.50	1	1.59	1
Growth (Mean length age-2 at capture)	10.2	4	8.6	2
Instantaneous Mortality (Z)			-1.586	
Annual Mortality (A)%			79.9	
Total Score:		8		8
Assessment Rating:		Fair		Fair

swdbrltn.D06 - D07

Table 16. Fish harvest statistics derived from a creel survey at Barren River Lake from 1 April through 31 October 2007.

		Number	Std. error
Fishing trips			
	Number of fishing trips	46,827	4.68
	Average trip length (hours)	2.73	
Fishing pressure			
	Total man-hours	127,882	3789.30
Catch/harvest			
	Number of fish caught	107,257	10234.34
	Number of fish harvested	35,486	4050.88
	Pounds of fish harvested	42,640	
Harvest rates			
	Fish/hour	0.28	
	Lb/hour	0.38	
	Fish/acre	3.55	
	Lb/acre	4.26	
Catch rates			
	Fish/hour		
Miscellaneous characteristics (%)			
	Male	88.94	
	Female	11.06	
	Resident	92.06	
	Non-resident	7.94	
Method (%)			
	Still fishing	28.39	
	Casting	65.05	
	Fly	0.25	
	Trolling	6.09	
	Spider Rigging	0.22	
Mode (%)			
	Boat	90.5	
	Bank	9.43	
	Dock	0.07	

Table 17. Fish harvest statistics derived from a creel survey at Barren River Lake from 1 April to 31 October 2007.

	Flathead catfish	Channel catfish	Hybrid	White bass	Yellow Bass	Bluegill	Smallmouth bass	Spotted bass	Largemouth bass	White crappie	Black Crappie
No. caught	69	6,374	12941.44	529	1,867	20,845	1151.16	5,194	35,781	9,882	11180.58
No. Harvested	34.28	3,663	5246.82	0	132	5,315	289.61	1593.92	8,322	4,436	6123.68
% total harvest	0.1	10.32	14.79	0	0.37	14.98	0.82	4.5	23.45	12.5	17.26
Lb harvested	248.8	4574.6	10199	0	21.3	834.2	520.6	1573.8	17794.6	2277	4065.1
% of total lb harvested	0.58	10.73	23.92	0	0.05	1.96	1.22	3.69	41.73	5.34	9.53
Mean length (in)	25	16.8	15.27		7.83	6.11	15.57	13.41	16.12	9.94	10.13
Mean weight (lb)	6.92	1.65	1.87		0.19	0.15	1.86	1.01	2.17	0.45	0.55

	Catfish group	Morone Group	Panfish group	Black bass group	Crappie Group	Anything
No. of fishing trips for that species	3070.11	5434.08	1001.95	25873.49	7029.34	4381.81
% of all trips	6.55	11.64	2.14	55.25	15.01	9.36
Hours fishing for that species	8384.32	14840.22	2736.26	70659.26	19196.79	11966.52
No. harvested fishing for that species	2653.00	4378.00	3682.00	9692.00	10014.00	
Lb harvested fishing for that species	3353.90	9709.80	532.60	19233.50	5974.00	
No./hour harvested for that species	0.35	0.34	1.88	0.13	0.51	
% success fishing for that species	29.18	25.66	21.70	17.63	41.13	

Table 18. Length distribution and species composition (released fish lengths were estimates) for each species of fish harvested at Barren River Lake from 1 April to 31 October 2007.

		Inch class																										
Species	Status	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Channel	Harvest				17	85			153	204	562	221	239	170	613	221	409	51	358	51	102	34	68	68	37				
catfish	Released			17	17	35	175	472	420	227	402	35	210	157	122	17	157	17	17	35	52	17	52			17			41
Flathead	Harvest																		17										17
catfish	Released													17					17										
White	Harvest																												
bass	Released				71	53	159	18	141	18	53	15																	
Hybrid	Harvest						36	125	160	356	978	551	356	285	462	320	480	249	302	89		267	125	36	53	16			
striped bass	Released		18	354	920	301	973	1008	1221	354	991	318	566	53	124			18	159	35	177	18	71					15	
Bluegill	Harvest		100	802	1972	2323	117																						
	Released	252	1328	8740	4488	252	336		134																				
Smallmouth	Harvest										54		36	36	54	72	37												
bass	Released						51	85	135	220	118	51	101	17	33	17	17						16						
Spotted	Harvest								35	89	390	443	319	177	106	34													
bass	Released				103	86	241	224	448	413	861	362	620	121	86	35													
Largemouth	Harvest							35	18	53	141	406	866	1431	2421	1042	1219	371	141	88	71	18							
bass	Released				407	602	1452	531	3700	1452	4656	3116	4230	2479	2039	1301	826	352	211	18	35	18	34						
White	Harvest							649	2139	1350	210	18	53		16														
crappie	Released			144	379	775	3713	335	67	17	16																		
Black	Harvest							970	2101	1814	790	126	305		17														
crappie	Released		142	178	516	409	2950	752	37	37	35																		

Table 19. Monthly black bass angling success at Barren River Lake during the 2007 creel survey period.

Month	Total number of black bass caught	Total number of black bass harvested	Number of black bass fishing trips	Hours fished by black bass anglers	Number caught by bass anglers	Number caught/hour by bass anglers	Number harvested by bass anglers	Number harvested/hour by bass anglers
April	8,021	12,887	4,719	12,887	6,715	0.53	2,462	0.19
May	9,812	14,461	5,295	14,461	9,110	0.57	2,516	0.16
June	8,234	12,745	4,667	12,745	7,842	0.58	2,353	0.17
July	4,995	7,214	2,642	7,214	4,872	0.51	646	0.07
August	1,904	4,369	1,600	4,369	1,850	0.42	367	0.08
September	5,221	11,379	4,167	11,379	5,080	0.43	1,007	0.08
October	3,938	7,604	2,784	7,604	3,631	0.44	341	0.04
Total	42,126	70,659	25,873	70,659	39,100	0.52	9,692	0.13

Table 20. Monthly crappie angling success at Barren River Lake during the 2007 creel survey period.

Month	Total number of crappie caught	Total number of crappie harvested	Number of crappie fishing trips	Hours fished by crappie anglers	Number caught by crappie anglers	Number caught/hour by crappie anglers	Number harvested by crappie anglers	Number harvested/hour by crappie anglers
April	13,841	6,902	3,700	10,104	13,039	1.14	6,603	0.58
May	3,391	1,625	973	2,656	3,156	1.31	1,469	0.61
June	822	317	358	977	728	0.62	280	0.24
July	524	140	231	632	507	0.85	140	0.23
August	0	0	29	78	0	0	0	0
September	444	181	446	1,217	402	0.41	161	0.16
October	2,042	1,394	1,293	3,532	1,993	0.63	1,361	0.43
Total	21,063	10,559	7,029	19,197	19,825	1	10,014	0.51

Table 21. Monthly catfish angling success at Barren River Lake during the 2007 creel survey period.

Month	Total number of catfish caught	Total number of catfish harvested	Number of catfish fishing trips	Hours fished by catfish anglers	Number caught by catfish anglers	Number caught/hour by catfish anglers	Number harvested by catfish anglers	Number harvested/hour by catfish anglers
April	672	448	133	363	38	0.14	19	0.07
May	2,344	1,578	973	2,656	1,468	0.6	1,234	0.5
June	1,643	803	835	2,280	1,250	0.65	709	0.37
July	1,065	489	667	1,822	768	0.49	437	0.28
August	421	275	186	507	202	0.21	165	0.18
September	202	40	155	423	121	0.41	40	0.14
October	97	65	122	332	49	0.14	49	0.14
Total	6,444	3,697	3,070	8,384	3,896	0.5	2,653	0.35

Table 22. Monthly Morone angling success at Barren River Lake during the 2007 creel survey period.

Month	Total number of Monore caught	Total number of Morone harvested	Number of Morone fishing trips	Hours fished by Morone anglers	Number caught by Morone anglers	Number caught/hour by Morone anglers	Number harvested by Morone anglers	Number harvested/hour by Morone anglers
April	2,817	410	731	1,997	522	0.28	37	0.02
May	1,906	609	774	2,115	782	0.47	391	0.23
June	1,867	803	745	2,036	1,288	0.61	691	0.33
July	4,314	1,816	1,688	4,611	3,230	0.9	1,519	0.42
August	3,589	1,740	1,200	3,277	3,388	1.2	1,740	0.62
September	423	0	97	265	101	0.32	0	0
October	421	0	198	540	130	0.42	0	0
Total	15337.63	5378.53	5434.08	14840.22	9441	0.73	4378	0.34

Table 23. Black bass catch and harvest statistics derived from a creel survey at Barren River Lake (10,000 acres) for each species of black bass.

	Largemouth bass				Spotted bass				Smallmouth Bass			
	Harvest	Catch and release			Harvest	Catch and release			Harvest	Catch and release		
		12.0-14.9 in	≥15.0 in	Total		12.0-14.9 in	≥15.0 in	Total		12.0-14.9 in	≥15.0 in	Total
Total number of bass	8,322	12002	7313	35781	1594	1843	242	5194	290	270	100	1151
% of black bass harvested by number	81.54				15.61				2.84			
Total weight of fish (lb)	17,795				1573.8				520.6			
% of bass harvested by weight	89.47				7.91				2.62			
Mean length (in)	16.12				13.42				15.57			
Mean weight (lb)	2.17				1.01				1.86			
Rate (fish/hour)	0.06				0.01				0.002			

Table 24. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 0.50 hours (4runs;each 0.125 hours) of nocturnal electrofishing at Briggs Lake on 26 April 2007.

	Inch class																	
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	Std err
Largemouth bass	1	5	3	10	46	65	71	24	6	2	1				1	235	470.00	31.39

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Table 25. Spring nocturnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Briggs Lake during late-April to early May 2000-2007.

	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
2000	27.94	8.10	92.63	19.12	64.71	12.01	10.29	2.82	195.60	35.97
2001	120.59	21.57	73.53	10.87	41.18	9.30	5.88	4.16	241.00	24.96
2002	27.45	10.38	109.80	8.55	39.22	7.07	21.57	5.19	202.00	17.48
2003	28.85	13.82	175.00	39.02	19.23	4.97	26.92	4.97	260.00	51.07
2004	11.54	4.97	117.30	3.68	51.92	10.59	7.69	3.14	196.00	20.26
2005	46.00	6.83	194.00	21.26	28.00	5.16	26.00	5.03	294.00	27.40
2006	56.00	4.38	171.20	9.67	25.60	4.66	11.20	5.43	264.00	12.13
2007	38.00	6.83	412.00	32.41	18.00	2.00	2.00	2.00	470.00	31.39

swdbrgbb.D00 - D07

Table 26. PSD and RSD_{15} values obtained for each largemouth bass collected during 0.50 hours (4- 0.125-hour runs) of spring nocturnal electrofishing at Briggs Lake on April 26, 2007. 95% confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD (± 95% CI)	RSD_{15} (± 95% CI)
Largemouth bass	216	5 (3)	1 (1)

swdbrgbb.D07

Table 27. Length frequency and CPUE (fish/hr) of bluegill and redear collected by diurnal electrofishing at Briggs Lake on 3 May 2007.

	Inch class											
Species	2	3	4	5	6	7	8	9	10	Total	CPUE	Std. Error
Bluegill	5	3	19	30	14	39	16			126	201.60	33.70
Redear				5	25	14	5	2	1	52	83.20	16.89

swdbrgbg.D07

Table 28. Spring electrofishing CPUE (fish/hr) for each length group of bluegill collected at Briggs Lake from early-mid May 2005-2007. Standard error in parentheses.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	Total
2005	14.00	80.00	84.00	18.00	196.00
	(14.00)	(16.33)	(14.79)	(8.25)	(12.44)
2006	4.00	86.00	100.00	52.00	242.00
	(2.31)	(33.53)	(42.90)	(14.00)	(72.07)
2007	8.00	83.20	84.80	25.60	201.60
	(4.38)	(9.93)	(26.12)	(9.93)	(33.70)

swdbrgbg.D05 - D07

Table 29. Spring electrofishing CPUE (fish/hr) for each length group of redear sunfish collected at Briggs Lake durng early-mid May 2005-2007. Standard error in parentheses.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
2005	0.00	14.00	2.00	4.00	0.00	20.00
		(8.87)	(2.00)	(4.00)		(6.93)
2006	4.00	2.00	70.00	22.00	2.00	98.00
	(2.31)	(2.00)	(8.25)	(6.00)	(2.00)	(10.52)
2007	0.00	8.00	62.40	12.80	1.60	83.20
		(3.60)	(13.00)	(6.50)	(1.60)	(16.90)

swdbrgbg.D05 - D07

Table 30. Proportional stock density (PSD) and relative stock density (RSD_8) of bluegill and redear collected by diurnal electrofishing at Briggs lake on 3 May 2007. Numbers in parentheses represent 95% confidence intervals

Species	N	PSD	RSD_8
Bluegill	121	57 (9)	13 (6)
Redear	52	42 (14)	6 (6)

swdbrgbg.D07

Table 31. Mean back-calculated length (in) at each annulus of bluegill collected by diurnal electrofishing at Briggs Lake on 3 May 2007, including the range in length of bluegill at each age and the 95% confidence interval

		Age					
Year-Class	N	1	2	3	4	5	6
2006	1	4.3					
2005	32	2.4	4.9				
2004	14	2.4	4.7	6.6			
2003	12	2.8	4.8	6.8	7.9		
2002	8	3.2	5.0	6.5	7.3	7.9	
2001	4	4.0	6.0	6.6	7.2	7.7	8.2
Mean		2.7	4.9	6.6	7.6	7.8	8.2
Smallest		1.2	2.8	5.3	6.9	7.4	8.0
Largest		4.8	6.5	7.7	8.6	8.3	8.4
Std. Error		0.1	0.1	0.1	0.1	0.1	0.1
Low 95% CI		2.5	4.8	6.5	7.4	7.6	8.0
High 95% CI		2.9	5.1	6.8	7.7	8.0	8.4

Otoliths were used to make age determinations. Intercept = 0.

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Table 32. Mean back-calculated length (in) at each annulus of redear collected by diurnal electrofishing at Briggs Lake on 3 May 2007, including the range in length at each age and the 95% confidence interval.

		Age				
Year-Class	N	1	2	3	4	5
2005	35	3.2	6.4			
2004	8	3.8	6.9	8.6		
2003	1	4.0	7.1	9.6	10.7	
2002	1	3.0	5.0	6.4	7.0	7.6
Mean	45	3.3	6.5	8.5	8.8	7.6
Smallest		2.0	4.3	6.4	7.0	7.6
Largest		5.2	7.8	9.6	10.7	7.6
Std. Error		0.1	0.1	0.3	1.9	
Low 95% CI		3.1	6.2	7.9	5.2	
High 95% CI		3.5	6.7	9.1	12.5	

[A] Otoliths were used to make age determinations. Intercept = 0.

swdbrltn.d07 swdbrlag.d07

Table 33. Age frequency and CPUE (fish/hr) of bluegill collected during diurnal electrofishing at Briggs Lake on 3 May 2007.

	Inch class									Std.
Age	3	4	5	6	7	8	Total	Percent	CPUE	Error
0										
1		1					1	1.0	1.90	0.62
2	3	18	26	3			50	41.0	79.42	8.74
3			4	11	13		28	23.0	45.08	10.15
4					18	6	24	20.0	38.26	13.75
5					8	6	14	11.0	21.62	7.64
6						5	5	4.0	7.31	2.84
Total	3	19	30	14	39	16	121	100		
%	2	16	25	12	32	13				

swdbrgbg.D07 swdbrgag.D07

Table 34. Age frequency and CPUE (fish/hr) of redear collected during diurnal electrofishing at Briggs Lake on 3 May 2007.

	Inch class													Std.
Age	3	4	5	6	7	8	9	10	11	12	Total	Percent	CPUE	Error
0														
1														
2			5	25	11						41	80.0	66.33	11.15
3					1	5	2				8	16.0	13.24	5.67
4								1			1	2.0	1.60	1.60
5					1						1	2.0	2.04	0.36
6														
Total			5	25	14	5	2	1			52	100		
%			10	48	27	10	4	2						

swdbrgbg.D07 swdbrgag.D07

Table 35. Bluegill population assessment for Briggs Lake in 2006 and 2007.

	2006		2007	
Parameter	Value	Score	Value	Score
Growth Mean length age-2 at capture	5.2	4	5.1	4
Growth Years to 6.0 in	2.3	4	2.5	4
Size Structure CPUE ≥6.0 in	152.00	4	110.40	4
Size Structure CPUE ≥8.0 in	52.00	4	25.60	4
Total Score:		16		16
Assessment Rating:		Excellent		Excellent

swdbrgbg.D06 - D07

Table 36. Redear population assessment for Briggs Lake in 2006 and 2007

	2006		2007	
Parameter	Actual Value	Score	Actual Value	Score
Growth Mean length age-3 at capture	6.8	4	8.8	4
Growth Years to 8.0 in	3.0	4	2.5	4
Size Structure CPUE ≥8.0 in	22.00	4	12.80	3
Size Structure CPUE ≥10.0 in	2.00	2	1.60	2
Total Score:		14		13
Assessment Rating:		Excellent		Good

swdbrgbg.D06 - D07

Table 37. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 1.0 hours (8-0.125-hour runs) of nocturnal electrofishing at Marion Co. Lake during 2007.

Species	Inch class																	Total	CPUE	Std err
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Largemouth bass	7	33	13	168	221	71	40	39	10	8	10	2	2	1	2	4	1	632	632.00	47.69

Table 38. Spring nocturnal electrofishing CPUE of each length group of largemouth bass collected at Marion Co. Lake during April / early March since 1999.

	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
1999	106.70	29.30	46.20	15.00	39.50	10.60	1.70	1.10	194.10	42.00
2000	88.20	14.90	177.50	22.40	6.90	3.20	9.80	2.00	282.40	25.40
2001	170.60	17.60	173.50	15.90	1.00	1.00	1.00	2.90	384.00	31.30
2002	104.90	23.90	152.90	13.20	15.70	3.60	3.90	1.20	277.50	39.40
2003	42.90	10.60	226.40	18.10	40.70	7.30	7.70	3.40	317.60	13.30
2004	110.30	16.90	197.40	25.80	62.80	9.80	7.70	3.40	378.20	36.60
2005	101.70	17.70	123.40	13.40	133.70	20.20	9.10	2.70	368.00	44.80
2006	112.00	20.80	170.30	30.60	59.40	5.50	38.90	4.07	380.60	53.83
2007	221.00	23.90	371.00	32.18	28.00	6.93	12.00	3.02	632.00	47.69

swdmclbb.D99 - D07

Table 39. PSD and RSD_{15} values obtained for largemouth bass collected during 1 hour (8- 0.125-hour runs) of spring nocturnal electrofishing at Marion Co. Lake on 1 May 2007. 95% confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD (± 95% CI)	RSD_{15} (± 95% CI)
Largemouth bass	411	10 3)	3 (2)

swdmclbb.D07

Table 40 Length frequency and CPUE (fish/hr) of each inch-class of bluegill and redear collected by diurnal electrofishing at Marion Co. Lake on 15 May 2007 .

	Inch class												Std.
Species	1	2	3	4	5	6	7	8	9	10	Total	CPUE	Error
Bluegill	29	44	101	135	55	32	7	3			406	406.00	50.05
Redear			1	14	6	3	4	4	6	1	39	39.00	11.85

swdmclbg.D07

Table 41. Spring electrofishing CPUE (fish/hr) for each length group of bluegill collected at Marion Co. Lake. Standard error in parentheses.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	Total
2005	94.30	182.20	61.10	3.00	394.00
	(22.10)	(40.23)	(17.50)	(2.10)	(70.10)
2006	77.30	501.30	25.30	4.00	608.00
	(15.10)	(25.50)	(7.60)	(2.70)	(34.10)
2007	73.00	291.00	39.00	3.00	406.00
	(22.75)	(39.54)	(7.47)	(1.46)	(50.05)

swdmclbg.D05 - D07

Table 42. Spring electrofishing CPUE (fish/hr) for each length group of redear sunfish collected at Marion Co. Lake. Standard error in parentheses.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
2005	0.00	28.50	25.20	22.10	3.00	89.00
	(0.00)	(6.60)	(10.20)	(7.90)	(1.50)	(19.00)
2006	0.00	17.30	17.30	24.00	2.70	58.70
	(0.00)	(6.70)	(7.00)	(6.20)	(1.70)	(12.80)
2007	0.00	21.00	7.00	11.00	1.00	39.00
	(0.00)	(6.22)	(2.36)	(6.58)	(1.00)	(11.87)

swdmclbg.D05 - D07

Table 43. Proportional stock density (PSD) and relative stock density (RSD_8) of bluegill and redear collected by diurnal electrofishing at Marion Co. Lake on 15 May 2007. Numbers in parentheses represent 95% confidence intervals

Species	N	PSD	RSD_8
Bluegill	333	13 (3)	1 (1)
Redear	38	39 (15)	18 (12)

swdbrgbg.D07

Table 44. Mean back-calculated length (in) at each annulus of bluegill collected by diurnal electrofishing at Marion Co. Lake on 15 May 2007, including the range in length at each age and the 95% confidence interval.

		Age						
Year-Class	N	1	2	3	4	5	6	7
2005	28	2.4	3.7					
2004	22	2.0	3.5	4.9	5.6			
2003	24	1.5	3.3	4.9	6.4			
2002	4	2.1	3.5	5.0	6.3	7.0		
2001	1	2.8	5.1	6.7	7.1	7.4	8.2	
2000	1	2.1	4.1	6.1	6.7	7.2	7.7	8.0
Mean	80	2.0	3.5	5.0	6.4	7.1	8.0	8.0
Smallest		0.8	2.0	3.0	4.9	6.0	7.7	8.0
Largest		3.4	5.1	6.7	8.3	9.0	8.2	8.0
Std. Error		0.1	0.1	0.1	0.2	0.4	0.2	
Low 95% CI		1.9	3.4	4.7	6.1	6.2	7.5	
High 95% CI		2.1	3.7	5.2	6.7	7.9	8.4	

[A] Otoliths were used to make age determinations. Intercept = 0.

swdmclbg.D07 swdmclag.D07

Table 45. Mean back-calculated length (in) at each annulus of redear collected by diurnal electrofishing at Marion Co. Lake on 15 May 2007, including the range in length at each age and the 95% confidence interval

		Age										
Year-Class	N	1	2	3	4	5	6	7	8	9	10	11
2005	23	3.0	5.0									
2004	3	3.0	5.7	7.7								
2003	5	2.4	5.0	6.8	7.8							
2002	2	4.3	6.8	7.7	8.5	9.3						
2000	1	2.0	4.4	6.4	7.7	8.1	8.5	9.2				
1996	1	1.7	4.0	5.4	9.3	6.4	7.4	7.7	8.1	8.8	9.1	9.6
Mean	35	2.9	5.1	7.0	8.1	8.3	8.0	8.5	8.1	8.8	9.1	9.6
Smallest		1.6	4.0	5.4	6.7	6.4	7.4	7.7	8.1	8.8	9.1	9.6
Largest		5.6	8.2	8.2	9.3	9.3	8.5	9.2	8.1	8.8	9.1	9.6
Std. Error		0.1	0.2	0.2	0.2	0.7	0.6	0.7				
Low 95% CI		2.7	4.8	6.5	7.6	6.9	6.9	7.1				
High 95% CI		3.2	5.4	7.5	8.6	9.6	9.1	9.9				

[A] Otoliths were used to make age determinations. Intercept = 0.

swdbrltn.d07 swdbrlag.d07

Table 46. Age frequency and CPUE (fish/hr) of bluegill collected during diurnal electrofishing at Marion Co. Lake 15 May 2007.

	Inch class									Std.
Age	3	4	5	6	7	8	Total	Percent	CPUE	Error
1										
2	92	56	4				151	45%	151.07	22.64
3	9	71	29	6			116	35%	115.99	17.30
4		8	22	20	7		57	17%	56.94	8.32
5				6			6	2%	6.00	1.20
6						2	2	0%	1.50	0.73
7						2	2	0%	1.50	0.73
Total	101	135	55	32	7	4	333	100%		
%	30	41	17	10	2	1	100			

swdmclbg.D07 swdmclag.D07

Table 47. Age frequency and CPUE (fish/hr) of redear collected during diurnal electrofishing at Marion Co. Lake on 15 May 2007.

	Inch class									Std.
Age	4	5	6	7	8	9	Total	Percent	CPUE	Error
1										
2	14	6	3				23	61	22.50	5.78
3				2	1		3	9	3.33	1.53
4			1	2	3		5	14	5.17	2.41
5						3	3	8	3.00	1.65
6										
7						2	2	4	1.50	0.82
11						2	2	4	1.50	0.82
Total	14	6	4	4	4	6	37	100		
%	38	16	8	11	11	16	100			

swdmclbg.D07 swdmclag.D07

Table 48. Bluegill population assessment for Marion County Lake in 2006 and 2007.

	2006		2007	
Parameter	Value	Score	Value	Score
Growth Mean length age-2 at capture	4.7	3	4.0	2
Growth Years to 6.0 in	3.5	3	3.5	3
Size Structure CPUE ≥6.0 in	29.30	2	42.00	2
Size Structure CPUE ≥8.0 in	4.00	2	3.00	2
Total Score:		10		9
Assessment Rating:		Fair		Fair

swdmclbg.D06 - D07

Table 49. Redear population assessment for Marion County Lake in 2006 and 2007.

	2006		2007	
Parameter	Actual Value	Score	Actual Value	Score
Growth Mean length age-3 at capture	7.0	4	7.8	4
Growth Years to 8.0 in	4.0	3	4.0	3
Size Structure CPUE ≥8.0 in	24.00	4	11.00	3
Size Structure CPUE ≥10.0 in	2.70	3	1.00	2
Total Score:		14		12
Assessment Rating:		Excellent		Good

swdmclbg.D06 - D07

Table 50. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 0.50 hours (4- 0.125-hour runs) of nocturnal electrofishing at Spurlington Lake during 2007.

Species	Inch class																		Total	CPUE	Std err
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Largemouth bass	1			5	12	10	7	17	18	8	7	2	2	1		1		1	92	184.00	3.27

swdsplbb.D07

Table 51. Spring nocturnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Spurlington Lake during April / early March since 2002.

	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
2002	21.60	3.90	145.10	14.10	174.50	22.10	35.30	3.40	384.00	32.80
2003	61.50	14.40	233.90	29.20	123.10	11.40	12.30	3.10	448.00	47.20
2004	28.90	6.60	200.00	40.60	109.60	10.60	19.20	5.00	372.00	39.80
2005	42.00	13.20	130.00	26.20	146.00	12.40	20.00	2.30	338.00	23.20
2006	30.40	11.70	168.00	26.90	137.60	22.70	28.80	7.40	364.80	19.70
2007	12.00	5.16	92.00	6.93	66.00	6.00	14.00	3.83	184.00	3.27

swdsplbb. D02 - D07

Table 52. PSD and RSD_{15} values obtained for largemouth bass collected during 0.50 hour (4- 0.125-hour runs) of spring nocturnal electrofishing at Spurlington Lake on 1 May 2007. 95% confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD (± 95% CI)	RSD_{15} (± 95% CI)
Largemouth bass	86	47 (10)	8 (6)

swdsplbb.D07

Table 53. Length frequency and CPUE (fish/hr) of bluegill collected by diurnal electrofishing at Spurlington Lake on 15 May 2007 .

Species	Inch class 1	2	3	4	5	6	7	8	Total	CPUE	Std. Error
Bluegill	92	156	170	95	38	13	12	2	578	1156.00	137.39

swdsplLbg.D07

Table 54. Diurnal spring electrofishing CPUE for each length group of bluegill collected at Spurlington Lake from 2005-2007. Standard error in parentheses.

Year	Length group <3.0 in	3.0-5.9 in	6.0-7.9 in	>8.0 in	Total
2005	66.00	216.00	50.00	16.00	348.00
	(14.38)	(45.72)	(15.79)	(8.64)	(68.90)
2006	138.00	302.00	46.00	14.00	482.00
	(47.71)	(54.69)	(8.87)	(2.00)	(100.18)
2007	496.00	606.00	50.00	4.00	1156.00
	(85.23)	(73.49)	(18.29)	(4.00)	(137.39)

swdmclbg.D05 - D07

Table 55. Bluegill population assessment for Spurlington Lake from 2002-2007.

Parameter	2002 Score	2003 Score	2004 Score	2005 Score	2006 Score	2007 Score
Mean length age-2 at capture	2	2	2	2	2	2
Years to 6.0 in	4	4	4	4	4	4
CPUE ≥6.0 in	2	3	3	3	3	3
CPUE ≥8.0 in	2	4	4	4	3	2
Instantaneous mortality (z)						
Annual Mortality (A)						
Total Score:	14	13	13	13	12	11
Assessment Rating:	Excellent	Good	Good	Good	Good	Good

swdsplbg.D02 - D07

Table 56. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 1.0 hours (6- 0.167-hour runs) of diurnal electrofishing at West Fork Drakes during 2007.

Species	Inch class																			Total	CPUE	Std err
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Largemouth bass	4	11	4	5	3	3	10	11	8	10	11	9	2			2		1	1	95	94.81	23.72

swdfcrbb.d07

Table 57. Spring nocturnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at West Fork Drakes by year.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
2007	26.95	15.30	31.94	5.70	29.94	5.80	5.99	2.60	2.00	1.26	94.81	23.72

swdfcrbb.D07

Table 58. PSD and RSD_{15} values obtained for largemouth bass collected during 1 hour (6- 0.167-hour runs) of spring diurnal electrofishing at West Fork Drakes on 19 April 2007. 95% confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD (± 95% CI)	RSD_{15} (± 95% CI)
Largemouth bass	68	53 (12)	9 (7)

swdfcrbb.d07

Table 59. Length frequency and CPUE (fish/hr) of each inch-class of bluegill and redear collected by diurnal electrofishing at West fork Drakes on 19 April 2007 .

Species	Inch class 2	3	4	5	6	7	8	Total	CPUE	Std. Error
Bluegill	5	34	85	77	51	27		279	588.00	89.30
Redear		1	15	3	3	13	9	44	88.00	36.51

swdfcrbb.d07

Table 60. Proportional stock density (PSD) and relative stock density (RSD_8) of bluegill and redear collected by diurnal electrofishing at West Fork Drakes on 19 April 2007. Numbers in parentheses represent 95% confidence intervals

Species	Number ≥3.0 in	PSD	RSD_8
Bluegill	274	28 (6)	
Redear	43	51 (15)	

swdfcrbb.d07

Table 61. Length frequency and CPUE (fish/hr) of muskellunge collected with diurnal electrofishing (4.25 hours; 17- 0.25-hour runs) during late-winter/early spring at Green River Lake in 2007.

	Inch class 14	15	16	18	20	23	14	25	26	33	39	40	41	44	Total	CPUE	Std err
Muskellunge	2	9	3	1	1	2	3	3	2	1	2	1	2	1	33	7.76	1.70

swdgrlmy.d07

Table 62. Muskellunge population assessment for Green River Lake diurnal late-winter/early spring electrofishing from 1990-2007.

	CPUE age-1		CPUE ≥20.0 in		CPUE ≥30.0 in		CPUE ≥36.0 in		CPUE ≥40.0 in			
Year	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Total score	Rating
1990	12.68	4	7.04	3	2.11	2	1.17	3	0.00	0	12	G
1991	10.19	4	3.86	3	1.38	1	0.38	1	0.15	1	9	F
1992	2.25	2	6.13	3	1.71	2	0.65	2	0.09	1	10	F
1993	13.37	4	6.98	3	4.36	4	1.26	3	0.55	4	17	E
1994	4.11	3	8.94	3	3.9	3	2.25	4	0.93	4	17	E
1995	15.73	4	6.95	3	2.78	3	0.82	2	0.44	3	15	G
1996	5.16	3	16.01	4	3.54	3	0.84	2	0.24	2	14	G
1997	5.80	3	13.03	4	6.81	4	1.18	3	0.53	3	17	E
1998	9.24	4	9.01	3	5.05	4	1.94	4	0.47	3	18	E
1999	8.75	3	9.83	3	4.81	4	1.42	3	0.34	3	16	G
2000	2.57	2	7.64	3	4.18	4	2.03	4	0.78	3	17	E
2001	10.76	4	6.41	3	4.48	4	1.45	3	0.55	3	17	E
2002	5.83	3	10.63	4	4.46	4	2.86	4	0.91	4	19	E
2003	4.49	3	9.88	3	6.20	4	1.71	4	0.82	4	18	E
2004	6.52	3	8.26	3	5.16	4	1.81	4	0.19	1	18	E
2005	2.40	2	7.20	3	4.80	4	1.92	4	0.96	4	17	E
2006	4.74	3	5.48	3	4.30	4	2.22	4	0.74	4	18	E
2007	3.76	3	4.24	2	1.65	2	1.41	4	0.94	4	15	G

swdgrlmy.d90 - d07

Table 63. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 6.0 hours (12- 0.50-hour runs) of nocturnal electrofishing at Green River Lake May 8, 2007.

		Inch class																			
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	Std err
Green River Arm																						
Homles Bend	Smallmouth bass								1		1					1				3	2.00	2.00
	Spotted bass			1		4	4	3	6	2	2									22	14.67	4.81
	Largemouth bass	1	1	2	2	5	1	3	12	16	25	21	15	8	10	10			1	134	89.33	33.81
Ramp 1	Smallmouth bass		1			1	1		1	2	1		1							8	5.33	2.40
	Spotted bass			1	1	4	8	6	9	6	2		1							38	25.33	7.69
	Largemouth bass		1		2	1		1	10	14	11	19	25	12	14	7	6	2		126	84.00	16.17
Robinson Creek Arm																						
Smith Ridge	Smallmouth bass																			0	0.00	0.00
	Spotted bass		2	2	1		7	10	3	5	2		1	2						35	23.33	5.70
	Largemouth bass				3	3	2	3	16	16	11	5	4	8	3	2	3	1		81	54.00	7.21
Lone Valley	Smallmouth bass			1			1	2	2			3	3				1			13	8.67	4.06
	Spotted bass	5	1	1	4	4	11	24	15	18	10	3	4	1						101	67.33	4.37
	Largemouth bass			1	1		2	5	9	13	17	19	30	15	13	8	5	2		140	93.33	20.34
TOTAL	Smallmouth bass		1	1		1	2	2	4	2	2	3	4			1	1			24	4.00	1.48
	Spotted bass	5	3	5	6	12	30	43	33	31	16	3	6	3						196	32.67	6.63
	Largemouth bass	1	2	3	8	9	5	12	47	59	64	64	74	43	40	27	15	5	1	481	80.17	10.33

swdgrlbb.d07

Table 64. Spring diurnal electrofishing CPUE (fish/hr) of largemouth bass by length group collected at Green River Lake during early May since 1997.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
1997	3.67	1.04	22.33	2.46	23.33	2.82	23.17	2.10	1.17	0.46	72.50	5.18
1998	33.50	7.66	9.00	1.82	8.83	2.04	17.50	1.84	2.00	0.70	68.83	8.61
1999	21.38	3.76	53.54	7.18	19.38	4.00	14.31	1.66	2.77	0.77	108.62	12.51
2000	2.50	0.89	41.00	4.37	24.17	3.41	14.67	3.37	3.17	0.97	82.33	8.59
2001	10.17	2.50	26.67	2.99	32.17	6.45	12.50	1.50	1.67	0.41	81.50	7.77
2002	5.00	1.14	9.50	1.46	20.50	2.49	13.00	2.46	1.17	0.39	48.00	4.24
2003	5.83	1.38	12.33	2.07	5.83	1.78	18.17	2.96	1.83	0.67	42.17	4.12
2004	17.33	2.74	22.80	2.10	11.60	1.81	15.60	2.55	0.93	0.27	67.33	6.41
2005	67.83	7.98	30.67	2.78	11.67	1.86	16.83	2.52	1.50	0.66	127.00	12.53
2006	15.07	2.01	44.40	3.56	23.07	2.81	18.93	2.13	0.27	0.18	96.17	5.25
2007	3.83	1.03	20.50	2.51	33.67	5.78	22.17	3.61	0.50	0.26	80.17	10.33

swdgrlbb.D97-D07

Table 65. PSD and RSD values for each black bass species collected during 6 hours (12- 0.50-hour runs) of nocturnal electrofishing at each area of Green River Lake on Mayil 30, 2007. 95% confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD (± 95% CI)	RSD[A] (± 95% CI)
Green River Arm				
Holmes Bend	Largemouth bass	123	74 (8)	24 (8)
	Spotted bass	21	19 (17)	
Ramp 1	Largemouth bass	122	80 (7)	34 (8)
	Spotted bass	36	25 (14)	
Robinson Creek Arm				
Smith Ridge	Largemouth bass	75	51 (12)	24 (10)
	Spotted bass	30	33 (17)	
Lone Valley	Largemouth bass	138	79 (7)	31 (8)
	Spotted bass	90	40 (11)	
	Smallmouth bass	12	58 (31)	33 (28)
Total	Largemouth bass	458	73 (4)	29 (5)
	Spotted bass	177	33 (7)	5 (3)
	Smallmouth bass	22	59 (21)	27 (19)

[A] Largemouth bass = RSD_{15}, spotted bass and smallmouth bass = RSD_{14}.

swdgrlbb.d07

Table 66. Population assessment of largemouth bass based on nocturrnal spring sampling at Green River Lake from 2002-2007.

	2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	12.7	4	14.4	4	13.2	4	13.2	4	13.2	4	13.2	4
Spring CPUE age-1	5.00	1	7.30	1	13.80	1	65.30	4	14.30	1	3.83	1
Spring CPUE 12.0-14.9 in	20.50	2	5.83	1	11.60	1	11.67	1	23.07	2	33.67	3
Spring CPUE ≥15.0 in	13.00	3	18.17	4	15.60	3	16.83	2	18.93	3	22.17	4
Spring CPUE ≥20 in	1.27	2	1.83	3	0.93	2	1.50	2	0.27	1	0.50	2
Instantaneous Mortality (z)			0.42									
Annual Mortality (A)%			34.45									
Total Score		12		13		11		13		11		14
Assessment Rating		Good		Good		Good		Good		Fair		Good

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swdgrlbb.D02-D07

Table 67. Largemouth bass mean length (in) at age-0 and catch rates at age 0 and age 1 collected at Green River Lake since 2002.

	Age 0[A]		Age 0[A]		Age 0 ≥5.0 in[A]		Age 1[B]	
Year-class	Mean length	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
2002	3.9	0.07	32.67	9.70	5.33	1.16	7.25	1.58
2003	3.9	0.08	32.83	9.69	5.50	1.23	11.87	2.09
2004	5.0	0.07	60.83	8.97	28.00	3.62	65.33	7.66
2005	5.2	0.09	31.67	7.44	16.83	4.33	14.33	2.36
2006	4.3	0.13	13.50	3.41	3.67	1.20	3.83	1.03
2007	4.2	0.11	21.83	5.31	5.83	2.18		

[A] Data collected by fall (October) diurnal electrofishing. Mean lengths were determined by otolith taken from a subsample of LMB <9.0 in and extrapolated to the entire catch of the fall sample.

[B] Data collected during the following spring (April/May) nocturnal electrofishing.

swdgrlbb.D02 - D07

swdgrlag. D02 - D07

swdgrlyy. D02 - D07

Table 68. Length frequency and CPUE (fish/nn) of each inch-class of crappie collected by trap-net (62 net-nights) at Green River Lake from early December 2007.

	Inch class												Std.
Species	3	4	5	6	7	8	9	10	11	12	Total	CPUE	Error
White Crappie	20	224	28	196	349	239	94	44	27	9	1230	19.84	3.39
Black Crappie						1	1				2	0.03	0.02
Total	20	225	28	196	349	240	95	44	27	9	1232	19.87	3.39

swdgrltn.d07

Table 69. Proportional stock density (PSD) and relative stock density (RSD_{10}) of white crappie collected by trap-nets (62 net-nights) at Green River Lake from early December 2007. Numbers in parentheses represent 95% confidence intervals.

Species	Number ≥5.0 in	PSD	RSD_{10}
White crappie	986	42 (3)	8 (2)

swdgrltn.D07

Table 70. White crappie assessment from trap net samples at Green River Lake from 1986-2007.

	White crappie											
	CPUE excluding age 0		CPUE age 1		CPUE age 0		CPUE ≥8.0 in		Mean length age-2 at capture			
Year	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Total score	Rating
1986	16.87	3	3.23	2	1.23	1	3.99	2	7.9	1	9	F
1987	15.43	3	4.06	2	19.16	4	5.16	3	8.1	1	13	G
1988	15.87	3	8.87	3	18.62	4	4.52	2	8.0	1	13	G
1989	26.30	4	20.24	4	1.29	1	6.38	3	9.6	4	16	G
1990	12.61	2	5.87	2	0.42	1	7.57	3	9.2	3	11	F
1991	8.68	2	2.93	2	6.88	2	6.15	3	9.3	3	12	F
1992	28.34	4	24.48	4	1.84	1	8.54	3	10.0	4	16	G
1993	24.81	4	6.99	3	1.22	1	15.53	4	9.0	2	14	G
1994	8.65	2	2.47	1	11.78	3	6.08	3	9.3	3	12	F
1995	16.18	3	11.12	3	13.22	3	10.74	3	10.0	4	16	G
1996	13.36	3	6.51	2	3.17	2	5.96	2	9.2	3	12	F
1997	14.08	3	3.94	2	1.89	1	8.11	3	8.7	2	11	F
1998	9.21	2	2.48	1	3.78	2	8.01	3	9.3	3	11	F
1999	7.38	2	5.21	2	0.99	1	2.86	1	9.9	4	10	F
2000	6.29	2	1.45	1	0.01	1	5.17	2	9.7	4	10	F
2001	4.27	1	0.15	1	10.78	3	4.17	2	9.5	3	10	F
2002	10.87	2	9.69	3	0.53	1	4.11	2	9.8	4	12	F
2003	12.95	3	5.08	2	3.30	2	6.80	3	9.1	3	13	G
2004	17.67	3	9.60	3	3.84	2	7.93	3	8.4	1	12	F
2005	13.82	3	3.00	2	1.70	1	8.00	3	8.4	1	10	F
2006	16.39	3	10.21	3	1.42	0	6.46	3	9.7	4	13	G
2007*	15.90	3	10.45	3	4.39	2	6.66	3	9.1	3	14	G

* Age assessment data extrapolated from previous years age data

swdgltn.D86 - D07

swdgrlag.d86-06

Table 71. Length frequency and CPUE (fish/nn) for white bass and walleye collected by experimental gillnets (14 net-nights) during late-November at Green River Lake, KY 2007.

	Inch class																				
Species	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	26	Total	CPUE	Std. Error
White Bass		1		3	5	6	15	14	6	1									51	3.19	1.17
Walleye	1	1	1	1	2	3	13	23	12	8	11	12	12	5	3	2	1	1	112	7.00	0.99

swdgrlgn.d07

Table 72. Age frequency and CPUE (fish/nn) of white bass collected from experimental gillnets during late-November at Green River Lake, 2007.

	Inch class												Std.
Age	8	9	10	11	12	13	14	15	16	Total	Percent	CPUE	Error
0													
1	1		3	5	4	5		1		18	36.0	1.14	0.40
2					1	8	8			17	33.0	1.04	0.42
3					1	2	3	2		8	15.0	0.48	0.18
4						2	3	2	1	8	15.0	0.47	0.18
5													
6							1			1	2.0	0.05	0.03
Total	1		3	5	6	15	14	6	1	51	100		
%	2		6	10	12	29	27	12	2	100			

swdgrlgn.D07, swdgrlag.D07

Table 73. Age frequency and CPUE (fish/nn) of walleye collected from experimental gillnets during late-November at Green River Lake, 2007.

	Inch class																					Std.
Age	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	26	Total	Percent	CPUE	Error
0	1		1	1	1														4	3.0	0.22	0.11
1				1	1	3	11	22	10	7	4	4							63	57.0	3.93	0.54
2								1	1	1	5	6	11	3	1				29	26.0	1.81	0.33
3							2		1		2	2			2	1	1		10	9.0	0.62	0.13
4													1	2	1	1			5	4.0	0.29	0.08
5																						
6																						
7																		1	1	1.0	0.06	0.06
Total	1		1	1	2	3	13	23	12	8	11	12	12	5	3	2	1	1	51	100		
%	1		1	1	2	3	12	21	11	7	10	11	11	5	3	2	1	1	100			

swdgrlgn.D07, swdgrlag.D07

Table 74. Walleye population assessment from experimental gillnetting at Green River Lake 1996-2007.

	CPUE*		Mean length age-2+ at capture		CPUE ≥12.0 in		CPUE age 1					
Year	Value	Score	Value	Score	Value	Score	Value	Score	Instantaneous mortality (z)	Annual mortality (A)	Total score	Rating
1991	22.19	4	14.0	4	10.69	4	14.56	4	1.204	70.0	16	E
1992	33.75	4	13.4	4	16.75	4	10.14	4	1.542	78.6	16	E
1993	32.31	4	13.7	4	16.31	4	14.95	4	0.964	61.9	16	E
1994	22.56	4	13.4	4	15.62	4	4.49	2	0.347	29.4	14	E
1995	17.56	3	13.5	4	11.94	4	9.13	3	NA		14	E
1996	33.06	4	13.6	4	18.88	4	18.38	4	1.012	63.7	16	E
1997	17.12	3	12.9	3	10.88	4	3.81	2	0.680	49.3	12	G
1998	19.06	3	12.9	3	6.31	3	6.43	3	1.187	69.5	12	G
1999	26.60	4	13.3	4	13.40	4	16.22	4	1.117	67.3	16	E
2000	11.54	3	13.6	4	9.42	3	2.77	2	0.619	46.2	12	G
2001	8.00	2	14.0	4	4.88	2	0.07	1	0.646	47.6	9	F
2002	10.17	3	13.8	4	4.43	2	5.41	3	0.735	52	12	G
2003	18.88	3	12.5	3	1.31	1	2.29	1	0.660	48.3	8	F
2004	5.75	2	12.8	3	0.50	1	3.50	2	1.320	73.3	8	F
2005	7.38	2	12.4	3	3.50	2	5.75	3	NA		10	G
2006	5.78	2	13.8	4	4.14	2	2.07	1	0.341	28.9	9	F
2007	3.19	1	14.0	4	2.63	2	1.13	1	0.575	43.7	8	F

* excluding age-0 fish

NA - catch data not amenable to mortality estimates

swdgrlgn. d91-d07

swdgrlag.d91-07

Table 75. Walleye population assessment from experimental gillnetting at Green River Lake 1996-2007.

	CPUE*		Mean length age-2+ at capture		CPUE ≥20 in		CPUE age 1					
Year	Value	Score	Value	Score	Value	Score	Value	Score	Instantaneous mortality (z)	Annual mortality (A)	Total score	Rating
1996	1.81	1	18.51	4	0.12	1	1.44	2	NA		8	F
1997	0.75	1	17.30	3	0.19	1	0.44	1	NA		6	F
1998	0.50	1	17.64	3	0.06	1	0.29	1	NA		6	F
1999	3.20	2	17.31	3	0.13	1	1.67	2	NA		8	F
2000	5.04	3	18.11	4	0.17	1	4.07	4	0.684	49.6	12	G
2001	5.75	3	17.79	3	0.00	1	5.03	4	NA		11	G
2002	2.57	2	17.82	3	0.39	1	0.74	1	0.778	54.1	7	F
2003	2.12	2	18.27	4	0.50	2	1.62	2	NA		10	G
2004	1.13	1	16.43	2	0.00	1	0.75	1	NA		5	P
2005	0.63	1	17.75	3	0.13	1	0.50	1	NA		6	F
2006	2.29	2	17.94	3	0.14	1	1.64	2	0.489	38.7	8	F
2007	6.75	4	18.61	4	0.75	2	3.88	4	0.689	49.8	14	E

* excluding age-0 fish

NA - catch data not amenable to mortality estimates

swdgrlgn.d96-07

swdgrlag.d96-07

Table 76. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected during 2.0 hours (8- 0.25-hour runs) of nocturnal electrofishing at Shanty Hollow Lake on 3 May 2007.

	Inch class																					
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std err
Largemouth bass	3	6	4	3	49	100	54	46	13	11	2	3	2	1	2	1	5	1	2	308	154.00	20.95

swdshlbb.D07

Table 77. Spring nocturnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Shanty Hollow Lake during mid-late April, 2001-2007.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
2001	17.14	3.35	49.14	7.34	45.14	8.63	21.71	3.58	1.71	0.81	133.14	6.52
2002	20.00	4.09	52.00	7.95	69.71	6.16	16.00	2.62	1.14	0.74	157.71	11.07
2003	17.71	3.99	125.14	12.49	76.57	6.73	32.00	5.01	8.00	1.95	251.43	18.02
2004	19.43	3.64	133.71	9.67	36.57	4.97	24.00	2.76	3.43	0.57	213.71	16.99
2005	76.67	10.75	174.00	18.15	44.67	3.78	16.00	3.58	1.33	1.33	311.33	27.95
2006	86.00	15.76	214.67	11.44	30.00	3.06	11.33	3.78	5.33	1.98	342.00	26.66
2007	8.00	2.39	124.50	16.77	13.00	3.09	8.50	1.40	4.00	1.07	154.00	20.95

swdshlbb.D00 - D07

Table 78. PSD and RSD_{15} values from spring nocturnal electrofishing (2.0 hours; 8- 0.25-hour runs) for largemouth bass at Shanty Hollow Lake on May 3, 2007. 95% confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD (± 95% CI)	RSD_{15} (± 95% CI)
Largemouth bass	292	15 (4)	6 (3)

swdshlbb.D07

Table 79. Population assessment of largemouth bass based on nocturrnal spring sampling at Shanty Hollow Lake from 2002-2007.

	2002		2003		2004		2005		2006		2007	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	11.1	3	11.1	3	11.1	3	11.1	3	11.1	3	11.1	3
Spring CPUE age-1	20.00	2	17.71	2	19.43	2	76.67	4	86.00	4	8.00	1
Spring CPUE 12.0-14.9 in	69.71	4	76.57	4	36.57	3	44.67	3	30.00	2	13.00	1
Spring CPUE ≥15.0 in	16.00	2	32.00	4	24.00	3	16.00	2	11.33	2	8.50	2
Spring CPUE ≥20 in	1.14	2	8.00	4	3.43	3	1.33	2	5.33	4	4.00	4
Instantaneous Mortality (z)	0.388		ND		ND		ND		ND		ND	
Annual Mortality (A)%	32.2											
Total Score		13		17		14		14		15		11
Assessment Rating		Good		Good		Good		Good		Good		Fair

ND = no age data collected

swdshlag.d02

swdshlbb.D02-D07

Table 80. Length frequency and CPUE (fish/hr) of each inch-class of bluegill and redear collected by diurnal electrofishing (1.375 hours; 11- 450-second runs) at Shanty Hollow Lake on 17 May 2007 .

	Inch class											Std.
Species	1	2	3	4	5	6	7	8	9	Total	CPUE	Error
Bluegill	111	160	106	195	141	98	32	1		844	613.82	64.23
Redear		2	9	1	3	18	29	3	1	66	48.00	7.32

swdshlbg.D07

Table 81. Spring electrofishing CPUE (fish/hr) for each length group of bluegill collected at Shanty Hollow Lake from 2001-2007. Standard error in parentheses.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	>8.0 in	Total
2001	99.89	224.68	239.39	4.41	573.30
	(28.18)	(57.47)	(67.81)	(3.53)	(153.34)
2002	78.00	391.33	121.33	10.67	601.33
	(15.16)	(55.17)	(14.99)	(2.84)	(67.13)
2003	43.33	346.67	106.00	5.33	501.33
	(10.35)	(34.58)	(17.00)	(2.84)	(47.55)
2004	85.71	285.16	157.14		590.77
	(26.67)	(52.96)	(27.58)		(100.08)
2005	76.31	194.46	124.31	1.23	396.31
	(16.52)	(23.22)	(15.34)	(0.83)	(43.33)
2006	134.00	78.67	98.67	12.67	324.00
	(45.28)	(8.91)	(13.87)	(4.67)	(50.15)
2007	197.09	321.45	94.55	0.73	613.82
	(32.99)	(38.23)	(18.21)	(0.73)	(64.23)

swdshlbg.D01 - D07

Table 82. Spring electrofishing CPUE (fish/hr) for each length group of redear sunfish collected at Shanty Hollow Lake from 2001-2007. Standard error in parentheses.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	>8.0 in	>10.0 in	Total
2001	0.00	0.84	13.76	42.12	0	60.00
		(0.84)	(5.31)	(8.69)		(8.29)
2002	0.00	3.33	6.67	6.67	0	16.67
		(1.19)	(2.16)	(3.09)		(5.07)
2003	0.00	2.67	1.33	10.67	0	14.67
		(1.14)	(0.90)	(6.02)		(5.89)
2004	1.23	8.00	8.00	9.85	0	27.08
	(0.83)	(2.56)	(2.22)	(3.16)		(4.84)
2005	1.23	3.69	9.23	3.69	0	17.85
	(1.23)	(1.46)	(2.69)	(1.46)		(3.75)
2006	0.00	8.00	6.00	8.67	0	22.67
		(3.27)	(2.23)	(2.86)		(5.64)
2007	1.45	9.45	34.18	2.91	0	48.00
	(0.98)	(2.82)	(6.39)	(1.22)		(7.32)

swdshlbg.D01 - D07

Table 83. Proportional stock density (PSD) and relative stock density (RSD_8) of bluegill and redear collected by diurnal electrofishing at Shanty Hollow Lake on 17 May 2007. Numbers in parentheses represent 95% confidence intervals

Species	Number ≥3.0 in	PSD	RSD_8
Bluegill	573	23 (3)	0.17 (.34)
Redear	64	60 (5)	2 (2)

swdshlbg.D07

Table 84. Bluegill population assessments from 2002-2007 at Shanty Hollow Lake.

Parameter	2002	2003	2004	2005	2006	2007
Mean Length age-2 at capture	3	3	3	3	3	3
Years to 6.0 in	3	3	3	3	3	3
CPUE ≥6.0 in	4	4	4	4	4	4
CPUE ≥8.0 in	3	2	1	2	3	2
Instantaneous mortality (z)	1.014	ND	ND	ND	ND	ND
Annual mortality (A)	63.8					
Total Score:	13	12	11	12	13	12
Assessment rating	G	G	G	G	G	G

ND = no age data
swdshlag.d02
swdshlbg.D02 - D07

Table 85. Redear population assessments from 2002-2007 at Shanty Hollow Lake.

Parameter	2002	2003	2004	2005	2006	2007
Mean Length age-2 at capture	4	4	4	4	4	4
Years to 8.0 in	3	3	3	3	3	3
CPUE ≥8.0 in	2	3	2	1	2	1
CPUE ≥10.0 in	0	0	0	0	0	0
Instantaneous mortality (z)	ND	ND	ND	ND	ND	ND
Annual mortality (A)						
Total Score:	9	10	9	8	9	8
Assessment rating	F	F	F	F	F	F

ND = no age data or age data not applicable
swdshlag.d02
swdshlbg.D02 - D07

Table 86. Length frequency and CPUE (fish/hr) of bluegill collected by diurnal electrofishing (0.5 hours; 4- 300-second runs) at Metcalfe County Lake on 18 May 2007 .

	Inch class								
Species	2	3	4	5	6	7	Total	CPUE	Std. Error
Bluegill	54	31	146	266	275	9	781	1562.00	270.10

swdmetbg.D07

Table 87. Spring electrofishing CPUE (fish/hr) for each length group of bluegill collected at Shanty Hollow Lake from 2001-2007. Standard error in parentheses.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	>8.0 in	Total
2005	66.83 (9.42)	807.69 (113.51)	366.15 (61.76)	0.00	1240.66 (165.06)
2007	108.00 (33.07)	886.00 (171.69)	568.00 (132.79)	0.00	1562.00 (270.10)

swdmetbg.D05 & D07

Table 88. Proportional stock density (PSD) and relative stock density (RSD_8) of bluegill collected by diurnal electrofishing at Metcalfe County Lake on 18 May 2007. Numbers in parentheses represent 95% confidence intervals.

Species	Number ≥3.0 in	PSD	RSD_8
Bluegill	727	39 (4)	0

swdmetbg.D07

Table 89. Bluegill population assessment for Metcalfe County Lake in 2005 & 2007.

Parameter	2005	2007
Mean length age-2 at capture	3	3
Years to 6.0 in	2	2
CPUE ≥6.0 in	4	4
CPUE ≥8.0 in	0	0
Instantaneous mortality (z)	ND	1.07187
Annual mortality (A)		66.0
Total Score:	9	9
Assessment Rating:	F	F

swdshlbg.D07
swdmetag.d07

Table 90. Age frequency and CPUE (fish/hr) of bluegill collected during diurnal electrofishing at Metcalfe County Lake on 18 May 2007.

	Inch class									Std.
Age	2	3	4	5	6	7	Total	Percent	CPUE	Error
1	54	21					75	10.0	150.92	33.90
2		10	107	41			158	20.0	315.06	73.29
3			39	143	59		241	31.0	482.19	95.19
4				82	98	1	181	23.0	362.37	72.01
5					118	7	125	16.0	249.21	57.46
6						1	1	0.0	2.25	1.03
Total	54	31	146	266	275	9	121	100		
%	7	4	19	34	35	1				

swdmetbg.D07, swdmetag.D07

Table 91. Mean back-calculated length (in) at each annulus of bluegill collected by diurnal electrofishing at Metcalfe County Lake on 18 May 2007, including the range in length of bluegill at each age and the 95% confidence interval.

		Age					
Year-Class	N	1	2	3	4	5	6
2006	10	3.2					
2005	17	2.8	4.4				
2004	14	3.3	4.7	5.5			
2003	10	2.7	4.5	5.5	6.2		
2002	12	2.8	4.4	5.7	6.5	6.9	
2001	1	2.3	3.9	5.1	6.0	6.9	7.2
Mean	71	3.0	4.5	5.6	6.3	6.9	7.2
Smallest		1.5	3.3	4.5	5.1	6.4	7.2
Largest		4.7	5.7	6.6	7.2	7.4	7.2
Std. Error		0.1	0.1	0.1	0.1	0.1	
Low 95% CI		2.8	4.4	5.4	6.1	6.7	
High 95% CI		3.1	4.6	5.7	6.5	7.1	

[A] Otoliths were used to make age determinations. Intercept = 0.

swdmetbg.d07 swdmetag.d07

Table 92. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected during 1.25 hours (5-0.25-hour runs) of nocturnal electrofishing at Lebanon City Lake on May 1, 2007.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	Std err
Largemouth bass	1	14	9	22	60	82	58	50	63	53	22	16	6	2		1		1	460	368.00	24.27

swdlclbb.d07

Table 93. Spring nocturnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Lebanon City Lake during late-April/early May from 1999.

	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
1997	17.60	6.01	239.20	20.21	24.80	5.57	0.00		281.60	30.90
1999	2.67	1.33	149.33	14.03	17.33	1.33	1.33	0.84	170.67	13.69
2000	10.00	3.83	88.00	9.41	64.00	13.82	0.67	0.67	162.67	18.64
2001	23.33	4.31	34.00	3.83	110.67	8.11	2.67	1.33	170.67	7.64
2002	16.00	5.64	50.46	9.15	99.69	5.95	8.00	3.20	174.15	12.92
2005	105.60	19.21	173.60	19.70	76.80	4.63	15.20	2.94	371.20	39.14
2007	84.80	18.22	202.40	4.49	72.80	5.57	8.00	3.58	368.00	24.27

swdlclbb.D97 - D07

Table 94. Population assessment of largemouth bass based on nocturrnal spring sampling at Lebanon City Lake from 1997-2007. Years in bold type are post 12-15 in slot length limit (instituted in 2002).

	1997		1999		2000		2001		2002		**2005**		**2007**	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	11.5	3	11.5	3	11.5	3	11.5	3	11.5	3	11.5	3	10.6	2
Spring CPUE age-1	0.00	0	2.67	1	4.67	1	17.33	2	16.00	2	44.00	3	20.80	2
Spring CPUE 12.0-14.9 in	24.80	2	17.33	1	64.00	4	110.67	4	100.57	4	76.80	4	72.80	4
Spring CPUE ≥15.0 in	0.00	0	1.33	1	0.67	1	2.67	1	8.57	2	15.20	2	8.00	2
Spring CPUE ≥20.0 in	0.00	0	0.67	1	0.00	0	0.00	0	0.00	0	0.00	0	0.80	1
Instantaneous Mortality (z)	ND		ND		0.361		ND		ND		ND		0.629	
Annual Mortality (A)%					30.3								46.7	
Total Score		5		7		9		11		12		12		11
Assessment Rating		Poor		Poor		Fair		Fair		Good		Good		Fair

ND = no age data collected
swdlclag.d00 & d07
swdshlbb.D02-D07

Table 95. Age frequency and CPUE (fish/hr) of largemouth bass collected during nocturnal electrofishing at Lebanon City Lake on 1 May 2007.

	Inch class																			
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20	Total	Percent	CPUE	Std. Error
1	1	14	9	2													26	6.0	20.96	4.98
2				20	60	82	42										204	44.0	163.19	18.80
3							11	38		5							53	12.0	42.29	5.52
4							5	13	63	34	6						120	26.0	96.00	7.56
5											8	4		2			14	3.0	11.04	1.59
6										14	8	11	1				35	8.0	27.90	1.43
7													2				2	0.0	1.20	0.58
11												2					2	0.0	1.42	0.36
12															1		1	0.0	0.80	0.80
13													3			1	4	1.0	3.20	1.85
Total	1	14	9	22	60	82	58	50	63	53	22	16	6	2	1	1	460	100		
%	0	3	2	5	13	18	13	11	14	12	5	3	1	0	0	0	100			

swdlclbb.D07, swdlclag.D07

Table 96. Mean back-calculated length (in) at each age of largemouth bass collected by nocturnal electrofishing at Lebanon City Lake on 1 May 2007, including the range in length of bass at each age and the 95% confidence interval

		Age												
Year-Class	N	1	2	3	4	5	6	7	8	9	10	11	12	13
2006	26	4.9												
2005	35	4.8	7.9											
2004	12	4.9	8.7	10.4										
2003	24	4.4	8.5	10.6	11.7									
2002	7	4.7	8.8	11.7	13.4	14.5								
2001	13	4.5	8.5	10.7	12.1	13.1	13.7							
2000	1	4.5	7.6	9.7	11.2	13.0	14.2	15.1						
1996	1	3.8	5.6	6.8	8.0	9.1	10.3	11.3	12.2	12.9	13.6	14.3		
1995	1	3.3	6.3	7.8	9.4	10.9	12.4	13.3	14.5	15.4	16.6	17.5	18.1	
1994	3	4.6	5.5	6.9	8.1	9.3	10.4	11.4	12.5	13.5	14.5	15.5	16.3	17.2
Mean	123	4.6	8.2	10.4	11.7	12.8	13.0	12.3	12.8	13.8	14.8	15.7	16.8	17.2
Smallest		2.9	4.6	6.1	7.5	8.8	10.1	10.9	11.7	12.6	13.4	14.2	14.9	15.5
Largest		6.3	10.4	12.7	14.8	16.4	15.1	15.1	14.5	15.4	16.6	17.5	18.8	20.2
Std. Error		0.1	0.1	0.2	0.2	0.4	0.4	0.7	0.5	0.5	0.6	0.7	1.0	1.5
Low 95% CI		4.5	7.9	10.0	11.2	12.0	12.3	11.0	11.9	12.7	13.5	14.2	14.9	14.2
High 95% CI		4.8	8.4	10.7	12.1	13.5	13.7	13.6	13.7	14.8	16.0	17.1	18.7	20.1

[A] Otoliths were used to make age determinations. Intercept = 0.

swdlclbb.d07 swdlclag.d07

Table 97. Length frequency and CPUE (fish/hr) of bluegill and redear collected by nocturnal electrofishing (0.5 hours; 4- 450-second runs) at Lebanon City Lake on 1 May 2007 .

Species	Inch class 1	2	3	4	5	6	7	8	9	10	Total	CPUE	Std. Error
Bluegill	5	33	16	5	4	6	33	18			120	240.20	47.78
Redear		6	5	8	7	3	15	25	24	8	101	202.00	69.54

swdlclbg.D07

Table 98. Proportional stock density (PSD) and relative stock density (RSD_8) of bluegill and redear collected by nocturnal electrofishing at Lebanon City Lake on 1 May 2007. Numbers in parentheses represent 95% confidence intervals

Species	Number ≥3.0 in	PSD	RSD_8
Bluegill	82	70 (10)	22 (9)
Redear	95	80 (8)	36 (10)

swdshlbg.D07

Table 99. Spring electrofishing CPUE (fish/hr) for each length group of redear sunfish collected at Lebanon City Lake from 2001 -2007. Standard error in parentheses.

Year	Length group <3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
1997	0.00	2.40 (1.60)	25.60 (6.76)	12.80 (4.63)	0.00	40.80 (9.99)
1999	1.33 (1.33)	1.33 (1.33)	10.00 (3.06)	8.00 (2.53)	4.00 (1.46)	20.67 (5.41)
2000	0.00	0.00	1.33 (0.84)	4.67 (1.23)	1.33 (1.33)	6.00 (0.89)
2001	0.00	3.00 (1.00)	27.03 (6.58)	9.01 (2.33)	3.00 (1.90)	39.04 (9.21)
2005	0.00	24.77 (9.99)	58.56 (16.65)	31.53 (9.38)	2.25 (2.25)	114.86 (22.18)
2007	12.00 (12.00)	40.00 (16.97)	36.00 (20.00)	114.00 (43.00)	16.00 (8.64)	202.00 (69.54)

SWDLCLBG.D97 - D07

Table 100. Spring electrofishing CPUE (fish/hr) for each length group of bluegill collected at Lebanon City Lake from 1997-2007. Standard error in parentheses.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	>8.0 in	>10.0 in	Total
1997	7.20	31.20	108.80	11.20	0.00	158.40
	(1.96)	(9.41)	(12.03)	(3.44)		(8.29)
1999	5.33	20.00	46.00	4.00	0.00	75.33
	2.23	(8.33)	(9.62)	(2.07)		(14.03)
2000	16.67	32.00	47.33	6.67	0.00	102.67
	6.48	(8.26)	(6.40)	(2.23)		(10.77)
2001	99.1	102.1	105.11	22.52	0.00	328.83
	(46.05)	(48.89)	(32.70)	(9.52)		(97.86)
2005	74.32	198.20	42.79	42.79	0.00	319.82
	(18.89)	(30.55)	(11.85)	(11.85)		(37.60)
2007	76.00	50.00	78.00	36.00	0.00	240.20
	(11.55)	(20.75)	(24.08)	(20.78)		(47.78)

SWDLCLBG.D01 - D07

Table 101. Relative abundance and CPUE (fish/hr) of largemouth bass collected during 0.5 hours (4- 0.125-hour runs) of diurnal electrofishing at Threes Springs on April 17, 2007.

	Inch class														
Species	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE	Std err
Largemouth bass	1	28	68	31	4	9	52	42	13	1	1	1	251	502.00	101.36

swdtspbb.d07

Table 102. Spring diurnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Three Springs Lake during mid-late April in 2005 and 2007.

	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
2005	171.09	39.99	153.01	18.53	19.28	2.95	3.61	2.41	345.60	31.51
2007	265.06	24.10	232.93	85.78	6.02	3.48	0.00		502.00	101.36

swdtsppd.D97 - D07

Table 103. Length frequency and CPUE (fish/hr) of bluegill and redear collected by diurnal electrofishing at Three Springs Lake on 17 April 2007 .

Species	Inch class 2	3	4	5	6	7	8	9	10	11	Total	CPUE	Std. Error
Bluegill	2	13	16	19	8	6	4				68	102.41	18.89
Redear		4	36	67	6	3	3	2	4	2	127	191.27	47.52

swdmclbg.D07

Table 104. Spring electrofishing CPUE (fish/hr) for each length group of bluegill and redear collected at Three Springs Lake in 2005 and 2007. Standard error in parentheses.

Year	Length group <3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
Bluegill						
2005	3.61	136.14	55.42	15.66		210.84
	(2.41)	(27.51)	(14.31)	(6.76)		(45.28)
2007	3.01	72.29	21.08	6.02		102.41
	(3.01)	(22.41)	(11.67)	(2.46)		(18.89)
Redear						
2005	0.00	27.71	7.23	12.05	8.43	46.99
		(4.89)	(3.51)	(1.90)	(1.48)	(3.51)
2007	0.00	161.14	13.55	16.57	9.04	191.27
		(54.96)	(3.79)	(10.25)	(7.17)	(47.96)

swdtspbg.D05 & D07

Table 105. Proportional stock density (PSD) and relative stock density (RSD_8) of bluegill and redear collected by diurnal electrofishing at Three Springs Lake in mid-April 2005 & 2007. Numbers in parentheses represent 95% confidence intervals

	Number ≥3.0 in	PSD	RSD_8
Bluegill			
2005	172	34 (6)	8 (4)
2007	66	27 (11)	6 (6)
Redear			
2005	39	40 (17)	26 (15)
2007	127	11 (6)	7 (4)

swdtspbg.D05 & 07

BARREN RIVER LAKE ANGLER ATTITUDE SURVEY 2007 (n=1011)

1. Have you been surveyed this year? Yes - stop survey No – continue

2. Name and Zip code (n=742): ≤ 30 miles (62.4%) > 30 miles (37.6) out of state (n=58)

3. Which species of fish do you fish for at Barren River Lake (**check all that apply**)?
Bass (62%) Crappie (28.7%) Hybrid Striped Bass (16%) Channel Catfish (14.7%) Bluegill (5.7%) White Bass (1.4%)

4. Which one species do you fish for most at Barren River Lake (**check only one**)?
Bass (51.8%) Crappie (16.3%) Hybrid Striped Bass (6.3%) Channel Catfish (6.9%) Bluegill (2.1%)

-Following questions for each species addressed to anglers based on response to question 3

Bass Anglers (n=625)

5. What level of satisfaction do you have with bass fishing at Barren River Lake?
Very satisfied (61.6%) Somewhat satisfied (25.4%) Neutral (8.5%) Somewhat dissatisfied (3.2%) Very dissatisfied (0.3%) No opinion (1%)

5a. If you responded with somewhat or very dissatisfied in question (5) – what is the single most important reason for your dissatisfaction?

No bites/not catching/fishing slow (76.6%) 1st time at lake (8.6%) Fish too small (4.9%) Weather (3.7%)

Catfish Anglers (n=149)

6. What level of satisfaction do you have with the catfish fishing at Barren River Lake?
Very satisfied (59.4%) Somewhat satisfied (28.8%) Neutral (4.7%) Somewhat dissatisfied (4.7%) Very dissatisfied (1.2%) No opinion (1.2%)

6a. If you responded with somewhat or very dissatisfied in question (6) – what is the single most important reason for your dissatisfaction?

Not catching/slow fishing (100%)

7. Do you noodle or hand grab for catfish at Barren River Lake? Yes (7.6%) No (92.6%)

7a. If yes, how many days per year? 20 (11.1%) 10 (44.4%) ≥ 5 (22.2%)

Do you support or oppose the use of this method (hand grabbing) of fishing for catfish at Barren River Lake?

Support (45.7%) Oppose (13.9%) No opinion (40.4%)

8a. If you oppose this method of fishing for catfish, what level of impact do you feel it is having on the catfish population at Barren River Lake?

Very negative (4.1%) Somewhat negative (58.3%) None/Neutral (20.9%) No opinion 16.7%)

Crappie Anglers (n=290)

8. What level of satisfaction do you have with the crappie fishing at Barren River Lake?
Very satisfied (30.2%) Somewhat satisfied (38.5%) Neutral (12.7%) Somewhat dissatisfied (15.5%) Very dissatisfied (2.8%) No opinion (0.3%)

9a. If you responded with somewhat or very dissatisfied in question (9) – what is the single most important reason for your dissatisfaction?

Not catching/slow fishing (67.3%) Fish too small (11.8%) Need 10-inch size limit (12.5%) Hybrids (5.6%)

9. Would you support or oppose a reduction in the current statewide 30 fish daily crappie creel limit?

Support (64%) Oppose (20.6%) No opinion (15.4%)

10a. What reduced daily creel limit would you support ? 20 (60.3%) 15 (32.1%) 25 (3.9%) 10 (3.2%)

Hybrid Striped Bass Anglers (n=162)

10. What level of satisfaction do you have with the hybrid striped bass fishing at Barren River Lake?
Very satisfied (55.6%) Somewhat satisfied (29.6%) Neutral (7.4%) Somewhat dissatisfied (3.1%) Very dissatisfied (1.9%) No opinion (2.5%)

11a. If you responded with somewhat or very dissatisfied in question (11) – what is the single most important reason for your dissatisfaction?

No fish (50%) Fishing slow (25%) Fish too small (16.7%)

White Bass Anglers (n=16)

1. What level of satisfaction do you have with the white bass fishing at Barren River Lake?

Very satisfied (12.5%) Somewhat satisfied (62.5%) Neutral (0%) Somewhat dissatisfied (18.8%) Very dissatisfied (6.3%) No opinion (0%)

11a. If you responded with somewhat or very dissatisfied in question (12) – what is the single most important reason for your dissatisfaction?

Slow fishing (42.9%) Lack of fish (28.6%) Need to stock (28.6%)

All Anglers

2. Would you support or oppose removing the "1 fish under" portion of the current 15 inch size limit on largemouth and smallmouth bass at Barren River Lake? This would result in a straight 15-inch minimum size limit with a daily creel limit of 6 fish.

Support (56.7%) Oppose (20.6%) No opinion (22.7%)

12a. If you do not support removing the "1 fish under" portion of the current 15 inch size limit, what is your primary reason for keeping it?

Allow kids to keep (26.9%) Bass tournaments (23.4%) Like it way it is (21.4%) To eat (12.4%) Doesn't hurt (5.5) Helps population (4.1%)

3. Are you **satisfied with the current fishing** regulations at Barren River Lake? Yes (96.9%) No (3.1%)

If NO:

14a. If you are not satisfied, what size or creel limit would you prefer?

	Size	**Creel**
Bass	≥ 18 (44.4%)	
	16 (22.2%)	
	12 (22.2%)	
Crappie	10 (96.6%)	20 (48%)
	8 (3.7%)	15 (40%)
		25 (8%)
Other	Too many tournaments (40%)	

15. Are you aware that KDFWR prints a fish attractor map for Barren River Lake? Yes (62.1%) No (37.9%) if yes go to 15a.

15a. Do ever you use this map? Yes (43.8%) No (56.2%)

CENTRAL FISHERIES DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Taylorsville Lake

Spring diurnal electrofishing was completed in May to monitor the black bass population. Spring electrofishing samples were delayed from April to early May due to cold water temperatures and muddy water conditions (Table 1). Upper, middle, and lower sections of the lake were sampled for 7.5 hours. Length distribution and CPUE for largemouth bass are presented in Tables 2 and 3. Numbers of bass collected were nearly identical to last year. Catch rate of 8.0–11.9 in largemouth bass (35.50 f/h) was consistent with the 10-year average (38.00 f/h). Catch rate for bass 12.0–14.9 in (33.70 f/h) was higher than last year and the 10-year average (27.00 f/h). Catch rate for bass ≥15.0 in was 14.40 f/h, slightly lower than the 10-year average (17.40 f/h) for these harvestable-size fish. The middle section (Big Beech Creek and Little Beech Creek area) had the highest catch rate for largemouth bass. The PSD for largemouth bass increased from 48 in 2006 to 58 in 2007 (Table 4). The RSD_{15} value decreased from 22 in 2006 to 17 in 2007. Largemouth bass age frequency (Table 5) showed high numbers of age 2 and 3 bass (mostly 11.0 to 14.0 in), with a distinct decline beginning at age 4 (≥12.0 in). Very few bass were present beyond age 6. There still appears to be significantly lower numbers of bass ≥18.0 in, or bass older than age 5 (Table 6). The largemouth bass population assessment score, based on spring electrofishing data, increased from 12 to 13 (both "Good", Table 7). Length frequency, relative weight (Wr), and age 0 and age 1strength of largemouth bass based on September electrofishing are presented in Tables 8–10. The year class strength model indicated largemouth bass fingerlings should be stocked. Fingerlings (4.0 to 4.5 in) were stocked in September at a rate of 10 f/a, totaling 30,502 fish. Relative weight data collected indicated good body condition for ≥15.0 in bass. Mean length of age 0 and age 0 ≥5.0 in largemouth bass captured decreased from 2006, as did their average length. Largemouth bass fingerlings have been stocked annually since 2000 at rates ranging from 5 f/a to 10 f/a. and from 1985 to 1992 at various rates. The need for stocking and the numbers stocked in reservoirs are based (since 2004) on results of the age 0 year class strength sampled in early September and the predicted age 1 year class strength the next spring.

Trap netting efforts for crappie (Table 11) resulted in the collection of only 14 white crappie and 84 black crappie, the lowest seen in thirteen years. Crappie were sampled during 48 net-nights. Most crappie were 9.0 in or less. PSD and RSD values are shown in Table 12. Age and growth determinations were completed using otoliths removed from 14 white crappie and 84 black crappie (Tables 13–16). Age studies indicate white crappie reach 9.0 in between age 2 and 3. Black crappie, on average reached 9.0 in between age 2 and 3 in 2007, compared to age 3 and 4 in 2006. White crappie collected were mostly age 3+ (86%). The black crappie population was dominated by age 1+ fish (81%). The crappie population assessment score (Table 17) based on the Colvin and Vasey assessment method was 7 ("Fair") compared to 8 ("Fair") in 2006. Ratings for each species were also "Fair". The cause for the continued increase in catch rate of black crappie and the decrease in white crappie catch rates in recent years is not entirely known. The crappie population appears to be cyclic. Peaks may occur every 7 to 9 years, though more sampling will be needed in this 24 year old reservoir. The latest peak appears to have been in 2004.

Fall gill netting for hybrid striped bass and white bass was conducted during the last week of October 2007 (Tables 18–26). A total of 144 hybrid striped bass were collected compared to 89 in 2006. Hybrid striped bass were captured in 8 net-nights (4 nets for 2 nights) for a CPUE of 18.00 (± 6.76) f/nn. Standardized sampling procedures were followed with sampling terminated after 100 fish was collected after 8 net-nights instead of the recommended 16 net-nights. The hybrid striped bass population has exhibited notable fluctuations since 1990. The density of hybrid striped bass in Taylorsville Lake appears to be negatively related to the amount of tailwater discharge (due to rainfall) and fishing pressure. It is theorized that above-normal discharge leads to escapement of hybrid striped bass but has little effect on the white bass density in the lake. The majority (85%) of hybrid striped bass collected were age 1+ and 2+ (≤18.0 in). Annual stocking rates for hybrid striped bass have been about 20 f/a (1.4 to 2.0 in) for the last 11 years. Age and growth studies were completed for hybrid striped bass using otoliths. Studies indicate hybrid striped bass reach harvestable size (15.0 in) between age 2 and 3, typical growth at Taylorsville Lake. The relative weight (Wr) index for hybrid striped bass shows below average body weight.

The population assessment for hybrid striped bass was rated at "Good" compared to "Fair" in 2006. A total of 63,196 (20 f/a) hybrid striped bass (1.4 in) were stocked in Taylorsville Lake in 2007.

Data for white bass collected during fall 2007 gillnetting studies are presented in Tables 18 and 23-26. White bass comprised about 39% of the *Morones* sampled, compared to 71% in 2006. No white bass older than age 4 were collected and only one exceeded 12.0 in. Of those collected, 46% were age 0, and 41% were age 1 (Table 24). Relative weight values revealed fair to good body weights for all sizes (Table 25). The white bass population assessment gave a rating of "Fair" (Table 26).

See the Black Bass Investigation (F-40) Annual Performance Report for channel catfish and blue catfish sampling data.

Herrington Lake

Diurnal electrofishing studies were completed in April to monitor the black bass population. Upper, middle, and lower sections were sampled for a total of 7.5 hours. Species composition, relative abundance, and CPUE of black bass collected in the spring are presented in Table 27. The lower section of the lake had about a third the number of bass sampled in the middle and upper sections combined. Largemouth bass dominated the black bass fishery, with spotted bass comprising almost 7% of the bass sampled (half the percentage seen last year). Numbers of bass <8.0 in increased greatly, as did numbers of bass 8.0 to 11.9 in. Numbers of 12.0–14.9 in largemouth bass decreased while bass ≥15.0 in stayed about the same (Table 28). The PSD for largemouth bass was 35 compared to 61 in 2006. The RSD_{15} was 16 compared to 20 in 2006 (Table 29). Age and growth data from otoliths collected from largemouth bass (n = 150) is presented in Tables 30-32. Largemouth bass continued to show fast growth at Herrington Lake. Bass reach harvestable size (12.0 in) between age 2 and 3, one year faster than the state average. They reached 15.0 in, on average between ages 3 and 4. A total of 83% of the largemouth bass collected were age 2. Age 3 and 4 largemouth bass (12.0 to 16.0 in) comprised 11% of the sample. Mortality appears to be high beyond the 12.0-in size limit. Overall, numbers of older bass have declined during the last five years. The population assessment based on spring electrofishing data indicated a "Good" population (Table 33), as was seen last year. Fall electrofishing evaluated largemouth bass relative weight index and index of year class strength (Tables 34-36). Average body weights for largemouth bass were acceptable, with bass ≥15.0 in having the highest weight ratio. Bass of all sizes in the lower lake area had the lowest relative weights. Year class strength at age 0 and age 1 are shown in Table 36. CPUE of age 0 bass declined considerably from last year, though their mean length increased slightly. Indices showed bass did not need to be stocked. Kentucky Utilities made a concerted effort to keep the lake level stable during the largemouth bass spawn (mid-April through mid-May).

Diurnal electrofishing studies were completed in March to monitor the crappie population (Table 37). Upper, middle, and lower lake sections were sampled for a total of 4.5 hours (six 15-min runs per section). A total of 81 crappie were collected, compared to 84 in 2006, and 367 in 2005. Catch was dominated by black crappie in the middle and lower sections. PSD values are shown in Table 38. Age and growth studies of white crappie indicated they reach 9.0 in by age 2, and over 10.0 in by age 3 (Table 39). Age frequency of white crappie shows that excellent year classes were produced in 2003 and 2005 (Table 40). Black crappie also reach 9.0 in by age 2 and 11.0 in by age 3 (Table 41). Age 2 and 4 fish dominated the black crappie sample (Table 42) indicating good spawns in 2003 and 2005. A population assessment method for crappie using electrofishing data has not been established.

Gill netting for hybrid striped bass and white bass was completed in October 2007. During the 16 net-night sampling period 111 hybrid striped bass and 90 white bass were collected (Table 43). Otoliths were taken from both species for age and growth determinations. Results of these studies indicate excellent growth rates (Tables 44 and 47). Hybrid striped bass reach 15.0 in between age 1 and 2, as they have historically. Hybrid striped bass may reach 20.0 in between age 2 and 3. Of the hybrid striped bass sampled, 92% were age 1+ or younger (Table 45). The population assessment for hybrid striped bass indicates a "Good" population, an improvement from last year's "Fair" rating (Table 46). White bass age and growth determinations show they reach 9.0 in by age 1 and 12.0 in by age 2 (Table 47). Good year classes were produced in 2006, 2005 and 2003 (Table 48). The white bass population assessment indicated a "Good" population, also an improvement from the "Fair" population rating last year (Table 49). Herrington Lake was stocked with 49,996 (20 f/a; 1.5 inch) hybrid striped bass in June 2007.

Guist Creek Lake

Spring electrofishing studies were completed for length frequency, CPUE, age frequency and population assessment for largemouth bass in April 2007 (Table 50). Total largemouth bass catch rate (of all sizes) was the lowest seen in five years (Table 51), but the number of bass 12.0-14.9 in did show an increase. The PSD for largemouth bass was 63 compared to 59 in 2006 (Table 52). The RSD15 decreased from 41 in 2006 to 36 in 2007. Age frequency indicated largemouth bass were age 4 or younger (Tables 53 and 54). Over 49% of the bass collected were ≤13.0 in. About 18% were ≥16.0 in, and 8% were ≥18.0 in. The population assessment gave a rating of "Good", the same as seen in 2006 (Table 55). Fall sampling was conducted for relative weight and index for year class strength at age 0 and age 1 (Tables 56–58). Relative weights indicated excellent body condition for bass, particularly larger fish. Mean length of age 0 fish decreased slightly from last year and their catch rate decreased as well. The catch rate of age 0 bass ≥5.0 in decreased greatly from last year. As a result, 4,863 (15 f/a) largemouth bass fingerlings (4.6 in) were stocked in October 2007.

Gill netting was completed in October for hybrid striped bass (Table 59). Four nets were fished for two nights (8 net-nights) in similar sites as in past years. A total of 70 hybrid striped bass were captured compared to 27 in 2006. Age and growth studies were completed using otoliths. Calculations indicate hybrid striped bass reach 15.0 in between age 2 and 3, and 20.0 in between age 3 and 4 (Table 60). Most hybrid striped bass were age 2, measuring 16.0 to 20.0 in (Table 61). Good numbers of age 4 fish were also seen. Relative weights of these fish indicated they were below average in weight for their size (Table 62). The population assessment indicated an improved rating of "Good", compared to "Fair" in 2006 (Table 63). Length frequency and CPUE of yellow bass captured while netting for hybrid striped bass is also shown in Table 59.

Age 0 fish continue to be tough to sample with gill nets. Few age 1 fish were sampled in 2005–2007 when advanced fingerlings were stocked at lower rates. Stocking of these larger fingerlings was not advantageous. The best catch rate of hybrid striped bass in 2006 was of age 3 fish that were stocked at 60 f/a and averaged 1.5 in. Stocking of this size hybrid striped bass was resumed in 2007, with 19,076 (60 f/a) 1.8-2.6 in fish stocked in June.

Results of the third year of channel catfish sampling at Guist Creek Lake with baited tandem hoop nets by the Black Bass Research Project are presented in their Annual Performance Report.

Beaver Lake

The sport fish population continues to improve following gizzard shad removal in 1998. Beaver Lake was sampled for largemouth bass in April 2007 (Tables 64 and 65). The CPUE for all sizes was 259.50 f/h compared to 382.50 f/h in 2006. Catch rates for bass <8.0 in decreased from last year. Numbers of bass between 8.0 and 11.9 in also decreased, while bass between 12.0 and 14.9 in remained about the same over the last three years. Largemouth bass ≥15.0 in remained about the same as last year. Thick aquatic vegetation may have hampered sampling in the spring (Table 1). The PSD and RSD_{15} for largemouth bass respectively were 62 and 3, compared to 19 and 4 in 2006 (Table 66). Age and growth rates show typical growth with bass reaching 12.0 in by age 4 and 15.0 in (legal harvest size) between age 5 and 6 (Table 67). Most bass collected (79%) were between age 2 and 4 (Table 68). Spring electrofishing catch rates by age from 1999 through 2007 are shown in Table 69. The population assessment score indicated a "Fair" bass population (Table 70), compared to "Good" in 2006. Fall electrofishing results for relative weight and the index of largemouth bass year class strength are presented in Tables 71-73. The relative weight index reflected below-average weights for all three length groups, possibly due to crowding and dense aquatic vegetation. Mean length of age 0 bass continued to increase (Table 73). Catch rates of age 0 bass increased sharply from 2006, as did CPUE for age 0 largemouth bass ≥5.0 in. Beaver Lake does not contain gizzard shad.

Bluegill and redear sunfish were sampled in May 2007 for CPUE, PSD, age and growth, and age frequency (Tables 74–85). Length frequency results showed many bluegill in the 7.0 in range, with most redear sunfish between 7.0 and 8.0 in (Table 74). The PSD for bluegill was 62 compared to 51 in 2006. The RSD_8 was 3 compared to 7 in 2006. Redear sunfish PSD and RSD_9 respectively were 62 and 2 (Table 75). CPUE for bluegill ≥8.0 in was 2.4, lower than last year, while catch rate for 6.0–7.9 in bluegill was about the same. No bluegill 10.0 in or larger were captured (Table 76).

Age and growth studies indicated bluegill reached 6.0 in between age 2 and 3 (one year earlier than last year), and 8.0 in between age 7 and 8 (Table 77). Age frequency of bluegill is shown in Table 78. Catch rate at each age of bluegill shows an increasing number of older and larger bluegill present since the gizzard shad removal in 1998 (Table 79). The population assessment for bluegill indicated a "Fair" population rating, the same as in 2006 (Table 80). High density of bluegill is attributed to thick aquatic vascular plant growth. Catch rate of redear sunfish ≥8.0 in was 32.40 f/h compared to 35.70 f/h in 2006 (Table 81). Overall, catch rates for all sizes were lower than last year. Age and growth studies continue to show redear sunfish reaching 6.0 in between age 2 and 3, and 8.0 in between age 4 and 5 (Table 82). No fish ≥10.0 in were collected. Age frequency (Table 83) indicates a good number of age 3 and 4 (5.0-8.0 in) redear sunfish in the fishery. Redear sunfish numbers have increased since the shad removal as a result of increased aquatic vegetation. This was most likely from rotenone induced mortality of triploid grass carp (Table 84). The population assessment indicated a "Fair" redear sunfish fishery (Table 85). Relative weight data for bluegill and redear sunfish is shown in Table 86, with both species showing slightly below-average weights for all length groups.

Aquatic vegetation was prevalent in shallow areas of the lake during spring and summer. One application of an aquatic herbicide (10 gal, diquat dibromide) was made to submerged aquatic vascular plants around the fishing pier and embayments to maintain fishing and boating access on May 15. No liquid fertilizer applications have been made since 2001. Triploid grass carp (475 – 3 f/a) were stocked in October to help reduce, but not eliminate, aquatic plant growth.

Boltz Lake

Spring electrofishing for largemouth bass length frequency, CPUE, PSD, age frequency and population assessment was done in April 2007 (Tables 87–92). Results indicate a slight increase in bass numbers from last year. Bass fingerlings were stocked for three years (21.7 f/a in 2003, 22 f/a in 2004, and 10.8 f/a in 2005). Most bass (79%) were age 4 or younger (≤15.0 in, Table 90), similar to last year. The population assessment indicated a "Fair" bass population as it did in 2006 (Table 92). Electrofishing for largemouth bass relative weight and YOY data was conducted in September (Tables 93–95). Relative weights indicated below average condition for bass. A decline in numbers of age 0 and age 0 ≥5.0 in bass was seen. CPUE of age 1 bass fingerlings increased. Boltz Lake does not contain a population of gizzard shad.

Boltz Lake has been a blue catfish study lake (Black Bass Research Project) since 1998. Stocking of blue catfish ended in 2004.

Spring electrofishing for bluegill and redear sunfish was conducted in May 2006 (Tables 96–102). All sizes of bluegill decreased, while redear sunfish were almost absent (Table 98). Age and growth data indicated bluegill reached 6.0 in between age 2 and age 3, better than last year. The majority (73%) of bluegill collected were age 1. Age 4 and older bluegill were not present in spring samples. The population assessment for bluegill indicated a "Fair" population present—same as last year (Table 102). Bluegill relative weights indicated below average body weight for larger fish (≥6.0 in) in September (Table 103).

A daytime roving creel survey was conducted at Boltz Lake in 2007. The last creel survey was completed in 1988. In 2007, fishing trips totaled 3,287 (Table 104), about 1,000 less than in 1988. Catch and harvest rates for all fish were also lower, while miscellaneous characteristics, methods and mode were about the same. Largemouth bass harvest was almost double that seen in 1988 (Table 105). Crappie harvest was much higher, as was catfish and panfish in 2007. Blue catfish were not part of the fishery in 1988. Length distribution of harvested and released fish is shown in Table 106. Black bass harvest, release, and monthly angling success are shown in Tables 107 and 108. Crappie harvest, release and monthly angling success are shown in Tables 109 and 110. Channel catfish and blue catfish harvest, release and monthly angling success are presented in Tables 111 and 112. Flathead catfish and bullhead catfish were caught in low numbers. An angler attitude survey was conducted but only 14 surveys were returned, therefore validity may be questionable. According to this survey, largemouth bass were sought after the most (69.2%), and the majority of angler's time was spent fishing for them (85.7%). Most bass anglers were satisfied with bass fishing, while most crappie anglers were not satisfied. Most bluegill and catfish anglers had no opinion on satisfaction with their respective species.

Bullock Pen Lake

Bullock Pen Lake was electrofished in April 2007 for largemouth bass length frequency, CPUE, age frequency and population assessment (Tables 113–118). Catch rates were close to last year's values. Catch rates of bass <12.0 in increased, while those for largemouth bass ≥15.0 in decreased (Table 114). Largemouth bass fingerlings were stocked (20.5 f/a) in 2004 through the bass stocking initiative. Numbers and year class strength are widely distributed and numerous through age 13 (Table 116), with most (58%) being age 4 or younger. The population assessment for largemouth bass indicated a "Fair" population present, the same as last year (Table 118). Electrofishing was conducted in September to determine the relative weights and YOY year class strength for largemouth bass (Tables 119–121). CPUE for Age 0 and Age 0 ≥5.0 in decreased from last year (Table 121). As a result, largemouth bass fingerlings were stocked in October at the rate of 10 f/a. Bullock Pen Lake has hosted a population of gizzard shad for decades.

Bullock Pen Lake has been a blue catfish study lake (Black Bass Research Project, F-40) since 1998. Stocking of blue catfish ended in 2004.

A daytime roving creel survey was conducted at Bullock Pen Lake in 2007 (same clerk worked Boltz Lake survey). The last survey was completed in 1989. The number of fishing trips remained nearly the same as the number seen 18 years ago (Table 122). Fishing pressure, catch and harvest were nearly the same as well. Miscellaneous characteristics, method and mode were also close to those seen in 1989. Fishing pressure at Bullock Pen Lake was higher than that observed at Boltz Lake during the same year. When comparing fishing at these two lakes, care should be taken to consider habitat, productivity, drainage size and physiological differences. Bluegill continued to be the species with the highest catch rate (Table 123). Next were channel catfish, crappie, blue catfish then largemouth bass. Largemouth bass attracted the most trips. Panfish had the highest harvest (no./hour) and success rates. Length distribution of fish harvested and released is shown in Table 124. The majority of fish of all species and sizes were released. Largemouth bass catch, harvest and monthly angling success are shown in Tables 125 and 126. Crappie catch, harvest and monthly angling success are shown in Tables 127 and 128. Catfish catch, harvest and monthly angling success are shown in Tables 129 and 130. An angler attitude survey was conducted but only 9 surveys were returned. Results are shown in the attached survey form but validity is questionable due to low frequency.

Corinth Lake

Corinth Lake was electrofished in April 2007 to collect largemouth bass length frequency, CPUE, PSD, age and growth, age frequency and population assessment information (Tables 131–137). Catch rate for largemouth bass ≥15.0 in decreased from 2006, but smaller length groups increased (Table 132). Bass stocking in 2004 was reflected in the catch rates of 8.0-11.9 in fish (primarily age 3). The PSD for largemouth bass was 29, lower than in 2006 (Table 133). The RSD_{15} decreased from 25 in 2006 to 15 in 2007. Growth rate for each age at capture is shown in Table 134. Age frequency and CPUE are shown in Table 135 and indicate 65% of the bass collected were age 2 or younger. Overall, catch rates of older, larger fish decreased from last year (Table 136).The population assessment for largemouth bass was rated "Good", the same as in 2006 (Table 137). Fall electrofishing for largemouth bass was conducted to determine year class strength and relative weight (Tables 138–140). Relative weights of largemouth bass are still below average (Table 139). Largemouth bass mean length at age 0 increased by 0.2 inch, with catch rates of all age 0 sizes remaining similar to last year (Table 140).

Electrofishing for bluegill and redear sunfish was done in May 2007 to obtain length frequency, CPUE, age and growth, age frequency and population assessment data (Tables 141–151). Most bluegill were 4.0 to 7.0 in (Table 141). The bluegill PSD was 40 compared to 13 in 2006 (Table 142). Collection of larger bluegill (6.0 to 8.0 in) showed the biggest increase since 2001 (Table 143). Age and growth studies showed that bluegill reach 6.0 in between age 3 and 4 (Table 144). The population assessment indicated a "Fair" population (Table 147). Redear sunfish numbers and quality continue to decline, with most found to be between 7.0 and 8.0 in. Redear sunfish PSD was 90. Catch rate for redear sunfish ≥8.0 in increased from 7.60 f/h in 2006 to 21.20 f/h in 2007 (Table 148). Catch rates for redear sunfish ≥10.0 in, however, declined from 0.40 f/h in 2006 to 0.00 f/h in 2007. Age and growth studies show redear sunfish reaching 6.0 in between age 1 and 2 (Table 149). The population assessment for redear sunfish continued to be rated "Good" (Table 151).

Relative weights for bluegill and redear sunfish were collected in the fall (Table 152). Relative weights indicated poor body condition for all bluegill and redear sunfish sizes, particularly bluegill in the 6.0-7.0 in range.

A gizzard shad removal was conducted in January 2006 at Corinth Lake. A concentration of 0.2 ppm of 5% emulsified liquid rotenone is recommended. In an effort to reduce impact on the quality redear sunfish population, a concentration of 0.175 ppm was used—a rate within the range known to eradicate gizzard shad with minimal harm to other fish species. The lake water level was not lowered. Measurements indicated a surface acreage of 78.6 acres, less than the historical 96a as thought. The lake was divided in to five areas: 15.57a, 17.36a, 11.12a, 13.41a, and 21.09a for treatment by seven crews. Spring sampling in 2006 revealed that these efforts failed to remove all the gizzard shad. A second attempt for the removal of gizzard shad will be determined at a later date.

Elmer Davis Lake

Elmer Davis Lake was sampled for largemouth bass in April 2007. Length frequency, CPUE, PSD, age frequency and population assessment data were collected (Tables 153–158). Catch rates of largemouth bass of most sizes decreased (Table 153). Numbers of bass in the protected slot (12.0 to 15.0 in) were similar to last year, as were bass ≥15.0 in (Table 154). The PSD remained almost unchanged at 27 (Table 155). The RSD_{15} remained at 4. The most numerous year classes were from 2005 and 2004 (Table 156), but year classes from 2002 and 2001 still stand out (Table 157). Population assessment data indicated a "Fair" population, down from "Good" last year (Table 158). Fall electrofishing for relative weights and year class strength of largemouth bass was done in September 2007 (Tables 159–161). Relative weights indicate low average condition (Table 160) as would be expected in a bass-crowded population. Studies indicate fair numbers of age 0 bass, though numbers decreased. Numbers of age 0 bass ≥5.0 in increased (Table 161). This data may reflect the effect of the presence and increasing numbers of gizzard shad.

Electrofishing for length frequency, CPUE, age and growth, age frequency and population assessment was conducted for bluegill and redear sunfish in May 2007 (Tables 162–174). Bluegill catch rates for all sizes were the lowest seen since 1998 (Tables 162 and 164), contrasting to the high level seen last year. Catch rates of bluegill ≥8.0 in were almost half those seen last year. The PSD value for bluegill was 39, compared to 34 in 2006 (Table 163). The RSD_8 decreased to 7, compared to 9 in 2006. Age and growth studies on bluegill showed that they reach 6.0 in between age 2 and 3, and 8.0 in by age 6 (Table 165). Most bluegill were age 2 and 3 (Table 166). The population assessment for bluegill was found to be "Good" compared to "Excellent" last year (Table 168). CPUE for all redear sunfish length groups continued to decrease from 2006 (Table 169). The numbers of redear sunfish ≥8.0 in decreased by 50%, as did the numbers of redear sunfish ≥10.0 in. The PSD for redear sunfish was 86 compared to 92 last year. The RSD_9 was 34 compared to 46 in 2006 (Table 163). Age and growth studies indicated good growth rates with redear sunfish reaching 6.0 in by age 2, 8.0 in by age 3, and 10.0 in by age 5 (Table 170), the same as last year. Relative weight results for bluegill indicated declining body condition with increasing size, while the index for redear sunfish indicated excellent body condition (Table 174).The redear sunfish population assessment indicated an "Excellent" population present as it did in 2006 (Table 173). Growth of aquatic vegetation may have helped this species at Elmer Davis Lake. Gizzard shad removal efforts were done in 1994 and 1997 with success. The source for gizzard shad invasions is attributed to the city of Owenton's water supply reservoir, Lower Thomas Lake, located in the drainage of Elmer Davis Lake. Gizzard shad have again become established due to overflow from Lower Thomas Lake during spring high water events.

Kincaid Lake

Spring electrofishing studies were conducted in April 2007 for PSD, length frequency, age frequency and CPUE for largemouth bass (Tables 175–180). Total catch rate of all sizes remained high. This rate was 252.00 f/h in 2006, while in 2007 it was 215.50 f/h (Table 176). Numbers of bass ≥15.0 in decreased slightly. The largemouth bass PSD and RSD_{15} respectively were 74 (65 in 2006) and 49 (nearly the same as in 2006) in 2007 (Table 177). Age frequency studies indicate good numbers of all age classes (through age 12), with a particularly good year class present from 2003 (Table 178). The population assessment indicated a "Good" bass population, the same as in 2006 (Table 180).

Fall electrofishing for relative weight and index of year class strength at age 0 was done in September (Tables 181–183). Relative weight of all largemouth bass length groups was about average except for fish less than 12.0 in (Table 182). Catch rates of age 0 largemouth bass appear cyclic (Table 183).

McNeely Lake

McNeely Lake was electrofished for largemouth bass population analysis in April 2007. Data for length frequency, CPUE, PSD, age frequency and population assessment were collected (Tables 184–189). Overall catch rates for all sizes of largemouth bass continued to increase (Table 185). Catch rate for fish ≥15.0 in was almost twice that seen last year and was the highest rate seen in over ten years. Largemouth bass PSD was 46, same as last year, and the RSD_{15} increased from 18 last year to 22 (Table 186). Age frequency studies indicated good numbers of age 2 through age 5 bass, ranging from 7.0-16.0 in (Table 187). The population assessment continued to be "Good" in 2007 (Table 189). Electrofishing for largemouth bass in September 2007 was done to collect relative weight and the index of year class strength at age 0 (Table 190-192). All values increased from last year: age 0 mean length and their catch rate, and catch rate of age 0 that were ≥5.0 in. The relative weights seen indicated below-average body condition for largemouth bass, probably a reflection of dense aquatic vegetation growth in spring and summer (Table 191).

Bluegill and redear sunfish were sampled in May 2007 for length frequency, CPUE, age and growth, age frequency and population assessment (Tables 193–204). Catch rates for all sizes of bluegill decreased from 2006 with the exception of 6.0–7.9 in fish (Table 195). The bluegill PSD was 51 compared to 41 in 2006 (Table 194). RSD_8 was 0 for both years. Age and growth data for bluegill indicate they now reach 6.0 in between age 2 and 3 compared to age 3 and 4 last year (Table 196). No 8.0 in bluegill were collected. The population assessment for bluegill continues to be "Good" (Table 199). Catch rates for redear sunfish decreased from 2006 to 2007 (Table 200). A decrease was seen in redear sunfish numbers ≥8.0 in. The PSD for redear sunfish was 54 compared to 41 last year, and the RSD_9 remained 0. Age and growth studies showed redear reaching 8.0 in between age 3 and 4 (Table 201). The redear sunfish fishery was rated "Fair", down from "Good" in 2006 (Table 204). Relative weight data for bluegill and redear sunfish were collected in the fall (Table 205). Good body condition was exhibited by both species.

A.J. Jolly Lake

Spring electrofishing for largemouth bass length frequency, CPUE, PSD, age frequency, and population assessment was done in May 2007 (Tables 206-211). Results demonstrated that the majority of largemouth bass collected were in an intermediate size range (8.0-12.0 in) (Tables 206-207). Catch rates of largemouth bass were higher in 2007 compared to 2006 for all length groups, and they represented the highest overall CPUE from spring largemouth bass sampling since 2001 (Table 207). PSD and RSD_{15} values for 2007 have increased since the previous year's values of 15 for PSD and 8 for RSD_{15} (Table 208). Age 1 and 3 largemouth bass were the most frequently encountered age group during spring sampling (Table 209). Three year old largemouth bass also exhibited the highest variation in inch classes. Even though catch rates of age 1 fish were lower than 2005, results showed that older largemouth bass were being sampled at catch rates not seen since 2002 (Table 210). Although A.J. Jolly received a population assessment rating of "Fair" (Table 211), improvements in length structure and catch rates were noticeable for 2007. Results from spring 2007 electrofishing might be indicative of a resurgence in the largemouth bass population, but further sampling will need to take place to follow the largemouth bass population.

Fall electrofishing for largemouth bass at A.J. Jolly sampled more intermediate-sized largemouth bass (Table 212). Relative weight values increased as fish size increased (Table 213). Mean length of age 0 largemouth bass has gradually increased since 2004, yet catch rates of these fish were at their lowest value in three years (Table 214). Fewer age 0 largemouth bass were being caught, but the fish that do make it to that stage were longer than their counterparts from previous years. This might translate into increased survival for the age 0 largemouth bass.

Bluegill were sampled in spring 2007 to quantify length frequency, CPUE, PSD, age frequency, and population assessment. No bluegill longer than 6.0 in were found in A.J. Jolly (Table 215). PSD and catch rates showed a decline in abundance and quality of bluegill that has not been observed since 2001 (Tables 216-217). Catch rates of bluegill over 6.0 in took a sharp decline in 2007 compared to previous years.

Age and growth analysis revealed bluegill reach a maximum age of 5 years, with growth reaching a plateau of 5.5 in (Table 218). The highest catch rates of bluegills sampled in the spring were either age 2 or 3 (Table 219). Age 2 and 3 bluegill have historically shown the highest catch rate at A.J. Jolly (Table 220). Indicators such as these, as well as low catch rates of larger fish and high annual mortality, lead to a "Poor" rating for bluegill populations at A.J. Jolly (Table 221). Condition of bluegill, based on 31 fish, was also considered poor (Wr=75) (Table 222). Overall, the bluegill population at A.J. Jolly is showing cause for concern due to poor length frequencies, catch ranges, and population assessment and should be monitored to see if this is a continuing trend or temporary fluctuation.

Spring length frequency results for channel catfish from tandem hoop net sampling showed the vast majority of channel catfish caught were between the 8.0-11.0 in size ranges (Table 223). The largest channel catfish sampled was 19.0 in. Low PSD values (Table 224), highly variable age frequencies (Table 225), and fair condition (Table 226) of channel catfish showed that growth of these fish was density dependent in this system. The bottleneck appeared to occur between the 8.0-11.0 in size classes, which was consistent with historical data for this lake.

Many attempts to improve the sportfish population at A.J. Jolly have been implemented over the years. Techniques such as stocking intermediate-sized largemouth bass to improve recruitment and stocking blue catfish to consume stunted bluegill have proven to be unsuccessful. In the summer of 2007, KDFWR stocked flathead catfish, hypothesizing that an additional top predator would reduce stunted bluegill and channel catfish populations in the lake. Four hundred and seventeen flathead catfish were obtained from the Georgia Department of Natural Resources and stocked into A.J. Jolly on June 29, 2007. The stocked fish ranged in length from 8.4 to 36.0 in with weights ranging from 0.5 to 20 pounds. Flathead catfish were stocked at a rate of 2.0 f/a and 6.5 pounds per acre. These fish, along with largemouth bass, sunfish, and channel catfish, will be sampled on a regular basis to determine if flathead catfish can improve sportfish populations at A.J. Jolly.

Lincoln Homestead Lake

Lincoln Homestead Lake was sampled for largemouth bass in April and May 2007. Data for length frequency, CPUE, PSD, age frequency and population assessment were collected (Tables 227–231). Catch rates for all length groups of bass decreased slightly from 2006, though numbers of largemouth bass ≥15.0 in increased (Table 228). The largemouth bass PSD was 64 compared to 66 in 2006 (Table 229). The RSD_{15} was 26 compared to 16 last year, indicating an improvement in quality size. Of bass captured, 81% were ≤age 4 (Table 230). The population assessment indicated a "Poor" fishery (Table 231). This 9-acre lake sustains steady fishing pressure with questionable adherence to size and creel limits by some anglers.

Electrofishing for bluegill and redear sunfish data was done in May 2007 (Tables 232–237). Data for length frequency, CPUE, PSD and population assessment were collected. Most length groups of bluegill have declined since 2003 (Table 234). The PSD for bluegill was 47 compared to 56 in 2006 and the RSD_8 was 0 (Table 233). The PSD for redear sunfish was 63 compared to 82 in 2006 and the RSD_9 was 50 (16 in 2006). The bluegill population assessment was determined to be "Fair" compared to "Good" last year (Table 235). Total numbers of redear sunfish declined from last year (Table 236), though redear sunfish ≥10.0 in increased greatly. The population assessment for redear sunfish dropped from "Excellent" in 2006 to "Good" in 2007 (Table 237).

Sympson Lake

Relative abundance and CPUE of largemouth bass collected in the spring are shown in Table 238. All sizes of largemouth bass were represented with good numbers of bass above the 15.0-in size limit. Largemouth bass up to 21.0 in were collected. Fall sampling was done to determine bass spawning success. Young of the year were found (Table 239).

Lake Jericho

Largemouth bass were sampled for relative abundance and CPUE in May (Table 240). Good numbers of bass of all sizes were collected.

Electrofishing was done at Lake Jericho in September for length frequency and CPUE for largemouth bass and bluegill (Table 241). Largemouth bass were collected up to 20.0 in, with good numbers of fish between 12.0 and 16.0 in. Bluegill ranged up to 6.0 in. Gizzard shad are not present in this lake but bluegill size and quality are considered fair at best for unknown reasons.

Doe Run Lake

Length frequency, relative abundance and CPUE of fish collected by electrofishing at Doe Run Lake (Kenton Co.) in May 2007 are shown in Table 242. A successful gizzard shad removal was done in January 2006. Fall electrofishing for length frequency and CPUE of largemouth bass and bluegill was done (Table 243). Studies indicate an excellent largemouth bass spawn following the shad removal. Supplemental bass stocking has been needed in years past. Bluegill quality is expected to improve.

Williamstown Lake

This lake was sampled in the spring and fall for largemouth bass population status (Tables 244 and 245). In the May study, largemouth bass from 3.0 to 19.0 in were collected with good numbers of fish just under the 12.0-in size limit. Bass stocking was done in 2003 and are reflected in the numbers of 14.0 in fish. Stocking was also done in October 2007 (6 f/a) with available surplus largemouth bass. Successful largemouth bass spawns, and possible lake productivity, may be hampered by lack of suitable habitat and impact of water skiing at this lake.

Jacobson Park Lake

Length frequency and CPUE of largemouth bass collected in April 2007 at Jacobson Park Lake are presented in Table 246. Largemouth bass were present in fair numbers. Advanced fingerling largemouth bass were stocked annually (20 f/a to 30 f/a) between 1995 and 2004. Fall sampling was done to evaluate largemouth bass spawning success (Table 247). Surplus largemouth bass (1,500) were stocked in December. Stocking of bass may need to be done on an annual basis to maintain the fishery. Gizzard shad is the primary forage fish for bass in this the only public fishing lake in Lexington.

General Butler State Park Lake

Length frequency, relative abundance and CPUE of largemouth bass were collected in October 2007 at General Butler State Park Lake. Results are shown in Table 248. Largemouth bass ranging from 2.0 to 19.0 in were collected. Largemouth bass fingerlings have been stocked annually since 1999. A successful gizzard shad removal was done in December 2005 using liquid 5% rotenone at 0.15 ppm. This lake has the potential for development of a controlled access trophy largemouth bass fishery.

Kleber Pond

Length frequency, relative abundance, and CPUE of fishes collected in May, 2007 at Kleber WMA Pond are presented in Table 249. Largemouth bass ranging from 4.0 to 18.0 in were present in low numbers in the heavily fished pond. Excess fish from Pfeiffer Fish Hatchery are occasionally brought here to supplement public fishing.

Lower Sportsman's (Game Farm) Lake

Species composition, relative abundance, and CPUE of the fish sampled in the Lower Game Farm Lake in 2007 are presented in Table 250. The most numerous species in the lake were bluegill. Largemouth bass were present up to 19.0 in. Rainbow trout and channel catfish are stocked as maintenance stockings and periodically for kid's fishing events. This lake, by regulation, is for children 12 years of age and younger. There are no size limits on any species, just a three-fish (any species) creel limit.

Leary Lake

Species composition, length frequency, and CPUE of fishes collected from Leary Lake in May 2007 are presented in Table 251. This Lloyd WMA lake (3a) receives heavy fishing pressure. Aquatic vegetation (cattails, duckweed, watermeal and naiads) removal was done this year. Studies show largemouth bass from 6.0 to 17.0 inches in fair numbers. This is similar to previous year's results. Bluegill up to 9.0 in were once again collected.

Table 1. Yearly summary of sampling conditions by waterbody, species sampled and date.

Water body	Species	Date	Time (24hr)	Gear	Weather	Water temp. F	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Herrington	Crappie	3/21	1000	shock	partly cloudy	52	725	48	good	lower lake was sampled; 1 dipper
Herrington	Crappie	3/22	1000	shock	overcast/windy	53	725	8-18	fair	middle (CFD-A) and upper (CFD-B) sampled; very windy; water was choppy; 1 dipper per crew
Lower Sportsman's	ALL	3/30	1300	shock	sunny	64	normal		good	good sample
Guist Creek	LMB	4/2	1100	shock	sunny/clear	64	normal	25	good	good sample; lake a little turbid
Boltz	LMB	4/2	2015	shock	clear/cool	65	normal	34	good	good sample;
Herrington	LMB	4/3	1000	shock	sunny	66	727.2	48	good	Prefrontal conditions; major storm expected in the evening. Lower section (CFD-B) and middle section (CFD-A) sampled.
Herrington	LMB	4/5	1000	shock	overcast/cold	59	728.9	6	poor	Post frontal conditions; cold (lower 40's); lake was muddy. Upper section of lake
Logan Hubble	LMB	4/8	1000	shock	mostly sunny	74	normal	40	good	good sample
Jacobson	LMB	4/17	1200	shock	sunny/breezy	51	normal	18	good	good sample; lake a little turbid
McNeely	LMB	4/23	1030	shock	cloudy/windy	53	normal	66	good	good sample; lake choppy due to wind
Beaver	LMB	4/24	1000	shock	partly cloudy	64	normal	60	fair	curly leaf pondweed very thick; hard to see fish
Bullock Pen	LMB	4/24	2030	shock	after storms	68	normal	38	good	good sample; lake a little murkey
Corinth	LMB	4/26	2030	shock	after storms	67	normal	78	good	strong storm passed a few hours before sampling (tornado watch); good sample
Elmer Davis	LMB	5/1	1000	shock	sunny/warm	68	normal	108	good	good sample
Taylorsville	LMB	5/2	1000	shock	partly cloudy	72	547.4	18-20	good	good sample
Kincaid	LMB	5/2	2000	shock	cloudy/rain	72	normal	26	good	good sample; lake a little turbid; light intermittent rain
General Butler	LMB	5/4	1100	shock	cloudy / light rain	68	normal	15	good	good sample; murky water color
Williamstown	LMB	5/4	1030	shock	overcast		normal	18	good	good sample; lake a little turbid
Sympson	LMB	5/7	1230	shock	clear/ sunny	69	≥ 1 ft pool	37	good	good sample; lake above normal pool; few areas hard to sample due to water in trees.
Jericho	LMB	5/7	1000	shock	sunny/clear	68	normal	36	good	good sample
Lincoln Homestead	LMB	5/8	1100	shock	mostly sunny	73	normal	40	fair	major algae bloom; heavy duckweed in areas
Kleber	ALL	5/8	1100	shock	sunny	69	normal	30	good	good sample
Leary	ALL	5/9	1000	shock	sunny	71	normal	126	good	good sample
Doe Run	LMB	5/9	1030	shock	sunny	72	normal	41	good	good sample; a lot of floating debris
McNeely	BG/RESF	5/15	1100	shock	mostly sunny/windy	76	above normal	102	fair	curly leaf pondweed very thick; hard to see fish
Lincoln Homestead	BG/RESF	5/16	1100	shock	partly cloudy		normal	30	fair	cold front passed night before; major plankton bloom
Jericho	BG	5/17	1000	shock	clear/sunny	72	normal	48	good	good sample
Boltz	BG	5/17	1100	shock	mostly sunny		normal		good	good sample
Beaver	BG/RESF	5/21	1000	shock	clear/sunny	72	normal	24	fair	curly leaf pondweed very thick; hard to see fish; murky green (bloom)
Elmer Davis	BG/RESF	5/22	1000	shock	clear/hot	78	normal		good	good sample; curly leaf pondweed thick along shoreline
Corinth	BG/RESF	5/23	0900	shock	mostly sunny	76	normal		good	good sample
Taylorsville	LMB	9/4	1000	shock	sunny	82 U 85 L	below normal	13 U 50 L	fair	fair sample; hot water; fish running from field
Herington	LMB	9/5 9/6	1000 1100	shock	Sunny/cloudy/windy	83 L 82 U		84 L 36 U	fair	fair sample; hot water; fish were deep

Table 1 (cont).

Boltz	LMB/ BG	9/6	1000	shock	cloudy	79	below normal	24	good	good sample
Bullock Pen	LMB	9/7	1030	shock	partly sunny	79	below normal	28	good	good sample
Guist Creek	LMB	9/10	1000	shock	cloudy	79	below normal	25	good	good sample; lake level down 8-10 ft.
Lincoln Homestead	LMB	9/17	1100	shock	sunny	73	below normal	11	good	good sample; lake level down @ 2 ft; much duckweed
New Haven	ALL	9/17	1400	shock	sunny	79	below normal		good	good sample
General Butler	LMB/BG	9/18	1000	shock	sunny	73	below normal	17	good	good sample; water murky
Jericho	LMB/BG/RESF	9/20	1030	shock	sunny		below normal	24	good	good sample
Kincaid	LMB	9/24	1030	shock	mostly sunny	78	below normal	48	good	good sample; lake level down 10 inches
Corinth	LMB/BG/RESF	9/25	1030	shock	cloudy/muggy	76	below normal	60	good	good sample;
Doe Run	LMB/BG	9/28	1000	shock	sunny	75	below normal	53	good	good sample;
McNeely	LMB/BG/RESF	10/2	1000	shock	mostly sunny	74	below normal	28	good	good sample; lake level down 7 inches
Williamstown	LMB	10/2	1000	shock	sunny	71	below normal	27	good	good sample; lake level down 3-4 ft.
Jacobson	LMB	10/4	1100	shock	cloudy	78	below normal	22	good	good sample
Sympson	LMB	10/4	1100	shock	mostly sunny	78	below normal	42	good	good sample; lake level down 10-12 ft.
Herrington	Morones	10/15 10/16 10/17 10/18	1000 1000 1000 0800	gillnet	sunny rain mostly sunny rain	72 70 71	722.1 722.0 721.9 721.8		good	good sample
Guist Creek	Morones	10/22 10/23 10/24	1000 1000 1000	gillnet	partly cloudy rain rain	65	below normal	48	good	good sample; lake level was low 9 ft below pool, however lake rose 5 ft due to 6+ inches of rain during sampling.
Taylorsville	Morones/ Crappie	10/29 10/30 10/31 11/01 11/02	1000 1000 1000 1000 1000		sunny sunny mostly sunny sunny sunny	58	547		good	good sample

Table 2. Length distribution and CPUE (fish/hr) of largemouth bass collected in 7.5 hours of 30-minute electrofishing runs for black bass in Taylorsville Lake in April 2007; numbers in parentheses are standard errors.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	CPUE
Van Buren																				
Largemouth bass		1	2		4	4	6	17	22	24	28	35	6	5	6		2		162	64.80 (10.20)
Ashes Creek																				
Largemouth bass	1	6	6	10	17	15	12	33	30	22	27	13	17	18	7	3		1	238	95.20 (12.30)
Big Beech Creek																				
Largemouth bass	1	5	21	12	15	6	20	34	67	58	27	19	19	12	3	6	2	1	328	131.20 (7.70)
Total																				
Largemouth bass	2	12	29	22	36	25	38	84	119	104	82	67	42	35	16	9	4	2	728	97.10 (9.10)

Dataset = cfdpstvl.d07

Table 3. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Taylorsville Lake from 1984-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1984	50.4 (1.8)	88.0 (6.0)	6.0 (2.2)	0.0 (0.0)	144.40 (5.60)
1985	0.8 (0.6)	43.8 (5.4)	74.8 (9.2)	3.4 (1.0)	122.20 (14.40)
1986	1.8 (0.2)	11.2 (1.4)	21.0 (1.8)	24.4 (3.0)	59.00 (5.40)
1987	3.6 (0.6)	5.4 (0.6)	9.2 (1.0)	29.2 (2.6)	48.00 (3.80)
1988	3.2 (0.8)	8.4 (1.2)	6.0 (1.0)	19.6 (3.0)	37.20 (4.80)
1989	58.6 (15.6)	33.4 (5.8)	22.2 (3.4)	13.8 (3.0)	128.20 (24.00)
1990	57.0 (8.4)	54.2 (6.8)	22.8 (2.6)	21.8 (3.4)	154.40 (15.00)
1991	26.0 (2.8)	37.2 (2.8)	22.8 (2.1)	11.8 (1.4)	98.60 (5.20)
1992	58.5 (5.5)	42.6 (2.5)	36.9 (2.9)	17.6 (1.6)	155.60 (7.30)
1993	21.0 (3.6)	53.2 (4.8)	36.4 (13.8)	14.8 (1.9)	128.30 (8.60)
1994	25.1 (3.0)	39.9 (3.6)	40.7 (5.1)	15.0 (1.5)	122.30 (9.80)
1995	28.2 (3.5)	69.6 (3.9)	20.3 (1.3)	11.6 (1.4)	129.60 (6.80)
1996	16.2 (2.4)	41.0 (3.9)	49.8 (3.2)	16.0 (3.2)	122.60 (9.80)
1997	33.2 (6.3)	43.4 (4.0)	46.4 (1.8)	15.2 (1.8)	138.30 (7.70)
1998	20.0 (3.0)	26.4 (2.7)	30.5 (2.6)	21.7 (2.6)	98.70 (7.20)
1999	19.1 (2.8)	38.7 (3.2)	20.9 (3.0)	22.7 (2.6)	101.30 (7.10)
2000	17.7 (3.3)	33.1 (3.9)	16.1 (2.6)	10.5 (1.5)	77.50 (6.10)
2001	32.4 (4.1)	44.1 (3.7)	27.6 (3.6)	15.5 (2.7)	119.60 (8.30)
2002	33.7 (4.4)	22.3 (2.2)	12.8 (2.2)	9.6 (1.8)	78.40 (7.00)
2003	19.5 (2.9)	58.5 (4.8)	24.9 (2.2)	15.2 (2.1)	118.10 (9.20)
2004	14.1 (2.5)	26.7 (2.7)	42.9 (3.4)	13.2 (1.6)	96.90 (5.20)
2005	35.5 (5.9)	35.7 (4.9)	40.3 (4.3)	34.3 (3.4)	145.70 (12.70)
2006	20.3 (4.0)	39.6 (3.7)	20.3 (3.7)	16.5 (2.7)	96.70 (11.00)
2007	13.5 (2.5)	35.5 (4.1)	33.7 (3.6)	14.4 (2.4)	97.10 (9.10)

Dataset = cfdpstvl.d07

Table 4. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in each area of Taylorsville Lake in 2007 confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD	RSD_{15}
Big Beech	Largemouth bass	274	54 (± 6)	16 (± 4)
Ashes Creek	Largemouth bass	198	55 (± 7)	23 (± 6)
Van Buren	Largemouth bass	155	68 (± 7)	12 (± 5)
Total	Largemouth bass	627	58 (± 4)	17 (± 3)

Dataset = cfdpstvl.d07

Table 5. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 7.5 hours of electrofishing at Taylorsville Lake during April 2007. Fish were collected in 30-minute runs.

	Inch class																				STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	%	CPUE	ERR
1	2	12	29	22	12														77	11	10.27	2.04
2					24	25	38	56	53	12									207	28	27.66	3.09
3								28	66	81	64	28	13						279	38	37.24	3.79
4										12	18	17	17						63	9	8.44	0.79
5												6	8	35	16	6			71	10	9.46	1.61
6												17	4				4		25	3	3.33	0.49
7																3			3	0	0.40	0.19
8																			0	0	0.00	0.00
9																		2	2	0	0.27	0.18
Total	2	12	29	22	36	25	38	84	119	104	82	67	42	35	16	9	4	2	728	100	97.07	9.09
%	0	2	4	3	5	3	5	12	16	14	11	9	6	5	2	1	1	0	100			

Dataset = cfdagtvl.d06 and cfdpstvl.d07

Table 6. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from Taylorsville Lake from 1998-2007.

	Year									
Age	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	12.00	17.80	14.10	20.50	34.80	21.20	14.90	38.30	17.50	10.30
2	18.80	27.40	12.40	26.70	16.70	46.10	19.80	27.80	36.70	27.70
3	28.50	14.30	17.70	24.80	13.10	26.30	33.40	27.30	21.30	37.20
4	10.80	17.80	10.80	12.50	6.20	12.60	16.60	29.00	6.70	8.40
5	9.10	6.70	7.70	16.60	3.60	5.90	6.10	13.00	10.60	9.50
6	11.90	6.50	6.90	9.70	1.40	2.90	3.50	4.30	3.30	3.30
7	5.20	6.80	4.50	4.80	0.70	0.70	0.80	1.90	0.40	0.40
8	1.20	1.00	1.50	1.70	0.40	0.50	0.60	1.00	0.00	0.00
9	0.40	2.30	0.90	1.50	1.60	1.30	1.30	3.10	0.10	0.30
10	0.50	0.60	0.20	0.30						
11			0.50	0.20						
12			0.30	0.30						

Table 7. Population assessment for largemouth bass collected from Taylorsville Lake during April 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture	12.9 ± 0.3*	4
Spring CPUE age 1	10.27 ± 2.04	1
Spring CPUE 12.0-14.9 in	33.73 ± 3.64	3
Spring CPUE ≥15.0 in	14.40 ± 2.38	3
Spring CPUE ≥20.0 in	0.27 ± 0.18	2
Instantaneous mortality (z)	-0.391	
Annual mortality (A)	32.3 (weighted)	
Total Score		13
Assessment Rating		Good

* 2006 Age and growth dataset was used

Table 8. Length distribution and CPUE (fish/hr) of largemouth bass collected in 4.5 hours of 15-minute electrofishing runs for black bass in Taylorsville Lake in September 2007: numbers in parentheses are standard errors.

	Inch class																
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total	CPUE
Van Buren																	
Largemouth bass		9	6	6	4	3	5	12	6	4	3	4	4	3	1	70	46.70 (10.90)
Ashes Creek																	
Largemouth bass		6	19	5	2	15	18	11	11	6	7	5	11	13	2	131	87.30 (8.60
Big Beech Creek																	
Largemouth bass	3	13	15	16		5	14	7	2	7	8	3			1	94	62.70 (10.70)
Total																	
Largemouth bass	3	28	40	27	6	23	37	30	19	17	18	12	15	16	4	295	65.60 (6.80)

Dataset = cfdwrtvl.d07

Table 9. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Taylorsville Lake on 4 September 2007. Standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Van Buren	27	97 (2)	11	102 (3)	4	97 (4)	42	98 (2)
	Ashes	46	91 (1)	23	102 (2)	15	95 (2)	84	95 (1)
	Big Beech	30	88 (1)	11	90 (3)	1	119 (-)	42	89 (2)
	Total	103	92 (1)	45	99 (2)	20	97 (2)	168	94 (1)

Dataset = cfdwrtvl.d07

Table 10. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Taylorsville Lake.

Year class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2001	Total	4.6	1.3	63.60	11.70	13.30	1.00	34.80	4.30
2002	Total	5.3	0.1	29.10	4.80	18.70	3.50	21.20	2.80
2003	Total	5.4	0.1	32.20	5.40	19.10	3.40	14.90	2.50
2004	Total	4.4	0.1	50.00	6.20	15.10	3.60	38.30	6.20
2005	Total	4.9	0.1	31.80	4.20	15.30	2.50	17.50	3.80
2006	Total	4.9	0.1	54.70	4.90	25.80	2.90	10.30	2.00
2007	Total	4.4	0.1	22.40	3.20	6.70	1.80		

Dataset = cfdwrtvl.d07

Table 11. Length distribution and CPUE (fish/nn) of each species of crappie collected at Taylorsville Lake in 48 net-nights during October and November 2007.

Species	Inch class									Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11			
White crappie		2				2	7	1	2	14	0.29	0.09
Black crappie	1			6	31	25	11	7	3	84	1.75	0.35

Dataset = cfdtntvl.d07

Table 12. PSD and RSD_{10} values calculated for crappie collected at Taylorsville Lake in 48 net-nights during October 2007.

Species	No. ≥5.0 in	PSD	RSD_{10}
White crappie	12	100	25 (± 25)
Black crappie	83	55 (± 11)	12 (± 7)

Dataset = cfdtntvl.d07

Table 13. Mean back calculated lengths (in.) at each annulus for otoliths from white crappie trap netted at Taylorsville Lake in 2007.

		Age		
Year class	No.	1	2	3
2004	12	4.8	7.5	8.8
Mean	12	4.8	7.5	8.8
Smallest		4.2	6.9	7.9
Largest		5.9	8.3	10.4
Std Error		0.1	0.1	0.2
95% ConLo		4.5	7.2	8.3
95% ConHi		5.1	7.7	9.2

Intercept value = 0.00
Dataset = cfdagtvl.d07

Table 14. Age frequency and CPUE (fish/nn) per inch class of white crappie trap netted for 48 net-nights at Taylorsville Lake in 2007.

	Inch class								STD
Age	4	8	9	10	11	Total	%	CPUE	ERR
0+	2					2	14	0.04	0.03
3+		2	7	1	2	12	86	0.25	0.09
Total	2	2	7	1	2	14	100	0.29	0.09
(%)	14	14	50	7	14	100			

Dataset = cfdtntvl.d07 and cfdagtvl.d07
CPUE of ≥8.0 in white crappie = 0.25 ± 0.09 fish/nn; ≥10.0 in = 0.06 ± 0.04 fish/nn

Table 15. Mean back calculated lengths (in.) at each annulus for otoliths from black crappie trap netted at Taylorsville Lake in 2007.

		Age			
Year class	No.	1	2	3	4
2006	68	4.6			
2005	2	4.3	7.9		
2004	8	4.9	7.6	9.0	
2003	5	4.7	7.9	9.1	10.1
Mean	83	4.7	7.7	9.1	10.1
Smallest		3.7	6.6	7.9	9.6
Largest		5.9	8.6	10.0	10.8
Std Error		0.1	0.1	0.2	0.3
95% ConLo		4.6	7.5	8.7	9.6
95% ConHi		4.8	8.0	9.4	10.5

Intercept value = 0.00
Dataset = cfdagtvl.d07

Table16. Age frequency and CPUE (fish/nn) per inch class of black crappie trap netted for 48 net-nights at Taylorsville Lake in 2007.

	Inch class												STD
Age	3	4	5	6	7	8	9	10	11	Total	%	CPUE	ERR
0+	1									1	1	0.02	0.02
1+				3	31	24	6	1		68	81	1.42	0.29
2+							2			2	2	0.04	0.01
3+						1	3	3	1	8	10	0.17	0.04
4+								3	2	5	6	0.10	0.03
Total	1	0	0	3	31	25	11	7	3	84	100	1.75	0.35
%	1			7	37	30	13	8	4	100			

Dataset = cfdtntvl.d07 and cfdagtvl.d07
CPUE of ≥8.0 in black crappie = 0.96 ± 0.26 fish/nn; ≥10.0 in = 0.21 ± 0.07 fish/nn

Table 17. Population assessment for crappie trap netted at Taylorsville Lake in October 2007.

	White Crappie Only		Black Crappie Only		White and Black Crappie Combined	
Parameter	Actual Value	Assessment Value	Actual Value	Assessment Value	Actual Value	Assessment Value
CPUE of crappie (excluding age 0)	0.26 ± 0.10	1	1.80 ± 0.36	1	2.07 ± 0.38	1
CPUE age 1	0.00	0	1.42 ± 0.29	1	1.42 ± 0.27	1
CPUE age 0	0.04 ± 0.03	1	0.02 ± 0.02	1	0.06 ± 0.04	1
CPUE ≥8.0 in	0.25 ± 0.09	1	0.96 ± 0.26	1	1.21 ± 0.28	1
Mean length age-2+ at capture	NS	0	9.15 ± 0.15	3	9.15 ± 0.15	3
Assessment Total		3		7		7
Assessment Rating		Poor		Poor		Poor

Table 18. Length distribution and CPUE (fish/nn) of white bass and hybrid striped bass collected during 8 net-nights of gill netting in Taylorsville Lake in October 2007: numbers in parentheses are standard errors.

	Inch class																					
Species	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	25	28	Total	CPUE
White bass	2	28	11	4	25	15	2	4													91	11.38 (3.54)
Hybrid striped bass		3	6	1		6	15	17	10	34	26	14	1	2	2	3	1	1	1	1	144	18.00 (6.76)

Dataset = cfdgntvl.d07

Table 19. Mean back calculated lengths (in.) at each annulus for otoliths from hybrid striped bass gill netted at Taylorsville Lake in 2007.

		Age					
Year class	No.	1	2	3	4	5	6
2006	47	7.9					
2005	74	8.2	13.8				
2004	7	9.4	16.2	19.0			
2003	2	7.8	15.8	18.8	21.1		
2001	2	11.1	16.9	21.1	23.0	24.5	25.9
Mean	132	8.2	14.1	19.3	22.1	24.5	25.9
Smallest		5.0	12.4	16.8	20.1	23.7	24.9
Largest		13.8	17.9	22.4	23.9	25.4	26.9
Std Error		0.1	0.1	0.5	0.8	0.9	1.0
95% ConLo		7.9	13.9	18.4	20.5	22.8	23.9
95% ConHi		8.4	14.3	20.3	23.6	26.2	27.9

Intercept Value = 0.00
Dataset = cfdagtvl.d07

Table 20. Age frequency and CPUE (fish/nn) per inch class of hybrid striped bass gill netted for 8 net-nights at Taylorsville Lake in 2007.

	Inch class																					STD
Age	7	8	9	11	12	13	14	15	16	17	18	19	20	21	22	23	25	28	Total	%	CPUE	ERR
0+	3	6	1																10	7	1.25	1.11
1+				6	15	17	7	2		1									48	33	6.00	2.61
2+							3	32	26	13	1								75	52	9.38	3.72
3+												2	2	2	1				7	5	0.88	0.88
4+														1		1			2	1	0.25	0.16
5+																			0	0	0.00	0.00
6+																	1	1	2	1	0.25	0.16
Total	3	6	1	6	15	17	10	34	26	14	1	2	2	3	1	1	1	1	144	100	18.00	6.76
%	2	4	1	4	10	12	7	24	18	10	1	1	1	2	1	1	1	1	100			

Dataset = cfdagtvl.d07 and cfdgntvl.d07

Table 21. Number of fish and the relative weight (Wr) for each length group of hybrid striped bass collected at Taylorsville Lake in October 2007.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Hybrid striped bass	Total	13	88 (2)	421	86 (1)	86	82 (1)	141	83 (1)

Dataset = cfdgntvl.d07

Table 22. Population assessment for hybrid striped bass gill netted at Taylorsville Lake in October 2007.

Parameter	Actual Value	Assessment Value
CPUE of hybrid striped bass (excluding age 0)	16.75 ± 6.94	3
Mean length age-2+ at capture	16.2 ± 0.1	2
CPUE ≥15.0 in	10.75 ± 4.49	4
CPUE age 1+	6.00 ± 2.61	3
Assessment Total		12
Assessment Rating		Good

Table 23. Mean back calculated lengths (in.) at each annulus for otoliths from white bass gill netted at Taylorsville Lake in 2007.

		Age			
Year class	No.	1	2	3	4
2006	38	7.6			
2005	6	6.7	10.7		
2004	5	6.9	9.8	11.7	
2003	1	5.1	9.2	10.8	12.6
Mean	50	7.4	10.2	11.5	12.6
Smallest		4.7	9.2	10.8	12.6
Largest		9.1	12.3	12.4	12.6
Std Error		0.2	0.3	0.3	
95% ConLo		7.1	9.7	11.0	
95% ConHi		7.7	10.7	12.0	

Intercept Value = 0.00
Dataset = cfdagtvl.d07

Table 24. Age frequency and CPUE (fish/nn) per inch class of white bass gill netted for 8 net-nights at Taylorsville Lake in 2007

	Inch class											STD
Age	6	7	8	9	10	11	12	13	Total	%	CPUE	ERR
0+	2	28	10	1	1				42	46	5.26	1.22
1+			1	3	24	9			37	41	4.61	1.90
2+						4	1	1	6	7	0.75	0.27
3+						2	1	2	5	5	0.63	0.30
4+								1	1	1	0.13	0.08
Total	2	28	11	4	25	15	2	4	91	100	11.38	3.54
%	2	31	12	4	27	16	2	4	100			

Dataset = cfdagtvl.d07 and cfdgntvl.d07

Table 25. Number of fish and the relative weight (Wr) for each length group of white bass collected at Taylorsville Lake in October 2007.

Species	Area	Length group						Total	
		6.0–8.9 in		9.0–11.9 in		≥12.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
White bass	Total	40	97 (1)	44	89 (2)	6	89 (4)	90	92 (1)

Dataset = cfdgntvl.d07

Table 26. Population assessment for white bass gill netted at Taylorsville Lake in October 2007.

Parameter	Actual Value	Assessment Value
CPUE of white bass (excluding age 0)	6.38 ± 2.63	2
Mean length age-2+ at capture	11.7 ± 0.2	2
CPUE ≥12.0 in	0.75 ± 0.53	1
CPUE age 1	4.61 ± 1.90	2
Assessment Total		7
Assessment Rating		Fair

Table 27. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected in 7.5 hours of 15-minute electrofishing runs in Herrington Lake, April 2007; numbers in parentheses are standard errors.

	Inch class																					
Location/Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Upper																						
Largemouth bass	3	26	29	56	70	92	67	33	30	52	25	9	9	7	4	2	2	2			518	207.20 (37.21)
Spotted bass								1		1	1										3	1.20 (0.61)
Middle																						
Largemouth bass		7	4	27	85	100	88	42	33	32	25	8	25	13	15	13	8	3	3		531	212.40 (25.43)
Spotted bass			1	2	2	1	2	5	7	9	2										31	12.40 (2.19)
Lower																						
Largemouth bass	1	5	8	16	23	34	32	41	36	30	17	17	15	19	24	8	5	1		1	333	133.20 (18.59)
Spotted bass	1	4	2	6	5	17	3	4	9	7	4	2									64	25.60 (5.85)
Total																						
Largemouth bass	4	38	41	99	178	226	187	116	99	114	67	34	49	39	43	23	15	6	3	1	1382	184.27 (17.06)
Spotted bass	1	4	3	8	7	18	5	10	16	17	7	2									98	13.07 (2.74)

dataset = cfdpsher.d07

Table 28. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Herrington Lake from 1994-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1994	4.90 (0.90)	30.10 (4.40)	21.50 (2.60)	17.90 (1.80)	74.40 (5.40)
1995	8.80 (2.30)	20.00 (4.40)	25.60 (4.00)	20.40 (1.40)	74.80 (9.60)
1996	9.50 (2.40)	24.40 (3.90)	20.30 (2.80)	26.50 (2.60)	80.90 (6.70)
1997	15.60 (2.30)	19.90 (3.40)	27.30 (2.60)	22.00 (1.70)	84.80 (6.10)
1998	37.20 (3.80)	45.30 (4.10)	30.90 (2.50)	21.30 (2.20)	134.80 (7.20)
1999	43.20 (5.20)	69.10 (6.70)	40.40 (3.90)	21.60 (2.40)	174.30 (14.20)
2000	15.60 (3.90)	53.50 (6.60)	26.90 (2.20)	12.20 (1.40)	108.30 (10.80)
2001	37.10 (6.70)	40.10 (6.30)	34.10 (4.50)	12.50 (1.50)	123.90 (15.30)
2002	19.50 (2.60)	32.10 (4.70)	25.50 (3.50)	24.00 (2.20)	101.10 (9.70)
2003	20.80 (4.40)	23.90 (2.40)	30.10 (2.80)	17.90 (1.70)	92.70 (4.20)
2004	29.60 (5.50)	64.80 (12.20)	38.70 (5.70)	29.70 (3.40)	162.80 (23.90)
2005	70.90 (9.70)	59.60 (7.10)	23.50 (3.00)	22.30 (3.40)	176.30 (15.40)
2006	24.70 (4.80)	36.70 (4.80)	38.40 (3.80)	19.30 (1.80)	119.10 (9.20)
2007	78.10 (10.40)	68.80 (7.30)	20.00 (2.50)	17.30 (2.30)	184.30 (17.10)

Dataset = cfdpsher.d07

Table 29. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in each area of Herrington Lake in 2007; confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD	RSD_{15}
Lower	Largemouth bass	246	43 (± 6)	24 (± 5)
Middle	Largemouth bass	308	37 (± 5)	18 (± 4)
Upper	Largemouth bass	242	25 (± 5)	7 (± 3)
Total	Largemouth bass	796	35 (± 3)	16 (± 3)

Dataset = cfdpsher.d07

Table 30. Mean back calculated lengths (in.) at each annulus for otoliths from largemouth bass collected at Herrington Lake in 2007.

		Age											
Year class	No.	1	2	3	4	5	6	7	8	9	10	11	12
2006	59	6.1											
2005	42	6.1	10.7										
2004	14	6.9	11.6	13.7									
2003	18	5.7	10.5	13.1	14.7								
2002	3	6.2	10.8	14.6	16.3	17.3							
2001	4	7.1	12.2	14.9	16.4	17.2	17.9						
2000	6	7.8	11.3	13.6	14.9	16.0	16.6	17.0					
1999	1	6.0	12.5	15.7	18.2	19.0	19.8	20.3	20.6				
1998	2	8.8	12.6	14.5	16.0	17.4	18.4	19.1	19.4	19.7			
1995	1	9.8	13.3	16.0	17.8	18.9	19.5	20.1	20.4	20.7	21.0	21.3	21.6
Mean	150	6.3	11.0	13.8	15.3	17.0	17.6	18.1	20.0	20.0	21.0	21.3	21.6
Smallest		2.7	7.2	11.8	13.0	13.7	14.1	14.6	19.4	19.7	21.0	21.3	21.6
Largest		9.8	14.9	16.3	18.2	19.0	19.8	20.3	20.6	20.7	21.0	21.3	21.6
Std Error		0.2	0.2	0.2	0.2	0.4	0.5	0.6	0.3	0.3			
95% ConLo		6.0	10.7	13.4	14.8	16.3	16.7	16.9	19.3	19.4			
95% ConHi		6.6	11.3	14.1	15.8	17.8	18.6	19.3	20.6	20.7			

Intercept Value = 0.00
Dataset = cfdagher.d07

Table 31. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 7.5 hours of electrofishing at Herrington Lake during April 2007 Fish were collected in 15-minute runs.

	Inch class																						STD
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1	4	38	41	99	178	188	140	35													723	52	96.45	11.61
2						38	47	81	99	114	49	6									433	31	57.73	6.58
3											18	14	27	3							63	5	8.39	1.03
4												14	16	29	22						81	6	10.83	1.25
5																17					17	1	2.30	0.55
6														3			10	2			15	1	1.97	0.47
7													5	3	22	6	5	2			42	3	5.66	0.77
8																			3		3	0	0.40	0.29
9																		3			3	0	0.40	0.15
10																					0	0	0.00	0.00
11																					0	0	0.00	0.00
12																				1	1	0	0.13	0.13
Total	4	38	41	99	178	226	187	116	99	114	67	34	49	39	43	23	15	6	3	1	1382	100	184.27	17.06
%	0	3	3	7	13	16	14	8	7	8	5	2	4	3	3	2	1	0	0	0	100			

Dataset = cfdagher.d07 and cfdpsher.d07

Table 32. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from Herrington Lake from 1998-2007.

	Year									
Age	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	38.50	17.80	13.10	28.20	16.70	20.90	33.50	72.10	25.10	96.50
2	33.40	27.40	24.90	41.40	27.90	28.00	65.20	60.70	43.20	57.70
3	26.30	14.30	24.20	15.10	11.90	26.90	37.00	23.80	31.40	8.40
4	11.60	17.80	28.40	17.40	13.30	6.00	10.00	6.40	6.40	10.80
5	9.30	6.70	9.10	9.80	12.50	4.10	7.10	5.80	6.00	2.30
6	6.30	6.50	4.30	4.40	6.20	2.90	4.70	3.40	2.80	2.00
7	2.90	6.80	1.20	2.60	5.40	1.60	2.40	1.90	2.10	5.70
8	2.90	1.00	1.70	2.30	3.20	0.50	0.40	0.20	0.40	0.40
9	2.00	2.30	1.30	1.60	1.80	0.50	0.80	0.80	1.00	0.40
10	1.20	0.60	0.10	1.00	2.20	0.30	0.30	0.20	0.30	0.00
11	0.50					0.90	1.33	0.80	0.30	0.00
12										0.10

Table 33. Population assessment for largemouth bass collected from Herrington Lake during May 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture	13.7 ± 0.3	4
Spring CPUE age 1	96.45 ± 11.61	4
Spring CPUE 12.0-14.9 in	20.00 ± 2.49	2
Spring CPUE ≥15.0 in	17.33 ± 2.34	3
Spring CPUE ≥20.0 in	0.53 ± 0.32	2
Instantaneous mortality (z)	-0.485	
Annual mortality (A)	38.4%	
Total Score		15
Assessment Rating		Good

Table 34. Length distribution and CPUE (fish/hr) of black bass collected in 4.5 hours of 15-minute electrofishing runs for black bass in Herrington Lake in September 2007: numbers in parentheses are standard errors.

	Inch class																			
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Lower																				
Largemouth bass		2	1	4	2	5	8	8	6	6	6	8		1					57	38.00 (15.10)
Spotted bass	1			5	4	1		1	2		1								15	10.00 (2.90)
Smallmouth bass			1																1	0.70 (0.70)
Middle																				
Largemouth bass			7	7			4	4	7	6	3	3	1	2	2	1	1		48	32.00 (12.70)
Spotted bass			1	3	2	1		1											8	5.30 (2.50)
Upper																				
Largemouth bass		1	1	10	2	7	17	27	25	30	19	9	5	10	3	5	2	1	174	116.00 (13.30)
Spotted bass					1						1	1							3	2.00 (0.90)
Total																				
Largemouth bass		3	9	21	4	12	29	39	38	42	28	20	6	13	5	6	3	1	279	62.00 (11.90)
Spotted bass	1		1	8	7	2		2	2		2	1							26	5.80 (1.50)
Smallmouth bass			1																1	0.20 (0.20)

Dataset = cfdwrher.d07

Table 35. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Herrington Lake on 5-6 September 2007. Standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Lower	28	88 (4)	14	87 (2)	1	94 (-)	43	88 (2)
	Middle	21	95 (3)	7	91 (2)	6	91 (3)	34	94 (2)
	Upper	99	90 (1)	33	88 (2)	21	101 (3)	153	91 (1)
	Total	148	90 (1)	54	88 (1)	28	99 (3)	230	91 (1)

Dataset = cfdwrher.d07

Table 36. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Herrington Lake.

Year class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2001	Total	4.5	0.1	18.30	2.90	5.90	0.90	16.70	2.20
2002	Total	4.6	0.2	9.80	2.00	4.90	1.20	20.90	4.30
2003	Total	4.6	0.1	51.10	6.00	27.30	5.30	33.50	6.00
2004	Total	4.9	0.1	15.60	3.00	9.00	2.10	72.10	9.50
2005	Total	5.3	0.1	24.20	5.10	16.90	4.50	25.10	4.90
2006	Total	4.8	0.1	40.90	5.80	20.40	4.30	96.50	11.60
2007	Total	5.1	0.1	8.00	2.50	5.30	1.90		

Table 37. Species composition, relative abundance, and CPUE (fish/hr) of crappie collected in 4.5 hours of 15-minute electrofishing runs in Herrington Lake, March 2007; numbers in parentheses are standard errors.

Location/Species	Inch class									Total	CPUE
	5	6	7	8	9	10	11	12	13		
Upper											
White crappie	1	1	1	5	5	2	2	2		19	12.67 (7.96)
Black crappie				2	4	3	1	1		11	7.33 (1.91)
Middle											
White crappie				1	2		1	3		7	4.67 (1.91)
Black crappie			3	4	7	2	1	1	2	20	13.33 (7.98)
Lower											
White crappie					1	2		2		5	3.33 (2.62)
Black crappie			1	1	8	1	1	2	5	19	12.67 (4.31)
Total											
White crappie	1	1	1	6	8	4	3	7		31	6.89 (2.87)
Black crappie			4	7	19	6	3	4	7	50	11.11 (2.97)

Dataset = cfdpsher.d07

Table 38. PSD and RSD_{10} values calculated for crappie collected at Herrington Lake in electrofished during April 2007.

Species	No. >5.0 in	PSD	RSD_{10}
White crappie	31	90 (± 11)	45 (± 18)
Black crappie	50	92 (± 8)	40 (± 14)

Dataset = cfdpsher.d07

Table 39. Mean back calculated lengths (in.) at each annulus for otoliths from white crappie electrofished at Herrington Lake in 2007.

		Age				
Year class	No.	1	2	3	4	5
2006	2	6.1				
2005	17	4.3	9.2			
2004	1	3.7	8.2	9.9		
2003	10	4.3	8.8	10.8	12.2	
2002	1	3.9	8.0	8.7	9.4	10.1
Mean	31	4.4	9.0	10.5	11.9	10.1
Smallest		3.0	7.6	8.7	9.4	10.1
Largest		6.6	10.6	11.4	12.8	10.1
Std Error		0.1	0.1	0.2	0.3	
95% ConLo		4.2	8.7	10.1	11.4	
95% ConHi		4.7	9.3	11.0	12.5	

Intercept value = 0.00
Dataset = cfdagher.d07

Table 40. Age frequency and CPUE (fish/hr) per inch class of white crappie electrofished at Herrington Lake in 2007.

	Inch class											STD
Age	5	6	7	8	9	10	11	12	Total	%	CPUE	ERR
1	1	1							2	6	0.44	0.44
2			1	6	7	3			17	55	3.78	2.07
3					1				1	3	0.22	0.12
4							3	7	10	32	2.22	0.66
5						1			1	3	0.22	0.13
Total	1	1	1	6	8	4	3	7	31	100	6.89	2.87
(%)	3	3	3	19	26	13	10	23	100			

Dataset = cfdpsher.d07 and cfdagher.d07
CPUE of ≥8.0 in crappie = 6.22 ± 2.27 fish/hr; ≥10.0 in = 3.11 ± 0.89 fish/hr

Table 41. Mean back calculated lengths (in.) at each annulus for otoliths from black crappie electrofished at Herrington Lake in 2007.

		Age			
Year class	No.	1	2	3	4
2005	38	4.6	9.4		
2003	10	4.9	9.4	11.7	13.0
Mean	48	4.7	9.4	11.7	13.0
Smallest		3.2	7.3	10.6	12.2
Largest		7.7	11.5	12.6	13.8
Std Error		0.1	0.1	0.2	0.1
95% ConLo		4.4	9.1	11.3	12.7
95% ConHi		4.9	9.6	12.0	13.3

Intercept value = 0.00
Dataset = cfdagher.d07

Table 42. Age frequency and CPUE (fish/hr) per inch class of black crappie collected during 4.5 hours of electrofishing at Herrington Lake in 2007.

	Inch class										STD
Age	7	8	9	10	11	12	13	Total	%	CPUE	ERR
1								0	0	0.00	0.00
2	4	7	19	6	3			39	78	8.67	2.53
3								0	0	0.00	0.00
4						4	7	11	22	2.44	0.98
Total	4	7	19	6	3	4	7	50	100	11.11	2.97
%	8	14	38	12	6	8	14	100			

Dataset = cfdpsher.d07 and cfdagher.d07
CPUE of ≥8.0 in crappie = 10.22 ± 2.49 fish/hr; ≥10.0 in = 4.44 ± 1.21 fish/hr

Table 43. Length distribution and CPUE (fish/nn) of white bass and hybrid striped bass collected during 16 net-nights of gill netting in Herrington Lake in October 2007: numbers in parentheses are standard errors.

	Inch class																	
Species	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	CPUE
White bass	1		5	23	24	15	16	5	1								90	5.63 (1.45)
Hybrid striped bass	1	2	8	1	2	6	12	37	28	5		1	5	2		1	111	6.94 (1.57)

Dataset = cfdgnher.d07

Table 44. Mean back calculated lengths (in.) at each annulus for otoliths from hybrid striped bass gill netted at Herrington Lake in 2007.

		Age					
Year class	No.	1	2	3	4	5	6
2006	90	10.6					
2005	8	13.3	18.4				
2001	1	12.7	18.7	20.6	21.7	22.6	23.1
Mean	99	10.8	18.5	20.6	21.7	22.6	23.1
Smallest		4.4	17.1	20.6	21.7	22.6	23.1
Largest		14.5	19.2	20.6	21.7	22.6	23.1
Std Error		0.2	0.2				
95% ConLo		10.4	18.0				
95% ConHi		11.2	18.9				

Intercept Value = 0.00
Dataset = cfdagher.d07

Table 45. Age frequency and CPUE (fish/nn) per inch class of hybrid striped bass gill netted for 16 net-nights at Herrington Lake in 2007.

	Inch class																	STD
Age	8	9	10	11	12	13	14	15	16	17	19	20	21	23	Total	%	CPUE	ERR
0+	1	2	8	1											12	11	0.75	0.34
1+					2	6	12	37	28	5					90	81	5.63	1.42
2+											1	5	2		8	7	0.50	0.26
3+															0	0	0.00	0.00
4+															0	0	0.00	0.00
5+															0	0	0.00	0.00
6+														1	1	1	0.06	0.06
Total	1	2	8	1	2	6	12	37	28	5	1	5	2	1	84	100	6.94	1.57
%	1	2	7	1	2	5	11	33	25	5	1	5	2	1	100			

Dataset = cfdagher.d07 and cfdgnher.d07

Table 46. Population assessment for hybrid striped bass gill netted at Herrington Lake in October 2007.

Parameter	Actual Value	Assessment Value
CPUE of hybrid striped bass (excluding age 0)	6.19 ± 1.46	2
Mean length age-2+ at capture	20.6 ± 0.2	4
CPUE ≥15.0 in	4.94 ± 1.05	2
CPUE age 1	5.29 ± 1.34	3
Instantaneous mortality (z)	0.384	
Annual mortality (A)	31.9%	
Assessment Total		11
Assessment Rating		Good

Table 47. Mean back calculated lengths (in.) at each annulus for otoliths from white bass gill netted at Herrington Lake in 2007.

		Age					
Year class	No.	1	2	3	4	5	6
2006	47	9.0					
2005	24	9.6	12.3				
2004	4	9.9	13.0	14.1			
2003	13	10.0	12.8	13.7	14.4		
2001	1	10.5	11.8	13.4	14.4	15.0	15.2
Mean	89	9.4	12.5	13.8	14.4	15.0	15.2
Smallest		4.6	9.4	12.1	12.9	15.0	15.2
Largest		11.1	14.0	15.0	16.0	15.0	15.2
Std Error		0.1	0.1	0.2	0.2		
95% ConLo		9.2	12.3	13.4	14.0		
95% ConHi		9.6	12.8	14.1	14.8		

Intercept Value = 0.00
Dataset = cfdagher.d07

Table 48. Age frequency and CPUE (fish/nn) per inch class of white bass gill netted for 16 net-nights at Herrington Lake in 2007.

	Inch class												STD
Age	8	9	10	11	12	13	14	15	16	Total	%	CPUE	ERR
0+	1									1	1	0.06	0.06
1+			5	23	19					47	52	2.94	1.00
2+					5	12	7			24	27	1.50	0.41
3+							3	1		4	4	0.25	0.08
4+						3	6	3	1	13	14	0.81	0.23
5+										0	0	0.00	0.00
6+								1		1	1	0.06	0.03
Total	1	0	5	23	24	15	16	5	1	90	100	5.63	1.45
%	1	0	6	26	27	17	18	6	1	100			

Dataset = cfdagher.d07 and cfdgnher.d07

Table 49. Population assessment for white bass gill netted at Herrington Lake in October 2007.

Parameter	Actual Value	Assessment Value
CPUE of white bass (excluding age 0)	5.56 ± 1.46	2
Mean length age-2+ at capture	13.6 ± 0.1	4
CPUE ≥12.0 in	3.81 ± 0.92	2
CPUE age 1	2.94 ± 1.00	2
Assessment Total		10
Assessment Rating		Good

Table 50. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected in 3.0 hours of 15-minute electrofishing runs in Guist Creek Lake, April 2007; numbers in parentheses are standard errors.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	14	19	15	18	4	15	63	47	53	48	44	34	39	40	36	31	17	8	3	548	182.67 (11.59)

Dataset = cfdpsgcl.d07

Table 51. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Guist Creek Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1992	12.00 (2.10)	16.80 (2.70)	38.40 (5.20)	41.20 (4.70)	108.40 (7.20)
1993	22.70 (2.60)	25.50 (2.70)	23.80 (2.70)	51.60 (5.00)	123.60 (9.10)
1994	19.20 (2.70)	29.80 (3.70)	19.60 (2.60)	40.20 (3.90)	108.80 (8.60)
1995	18.20 (3.00)	40.60 (3.80)	23.20 (2.40)	47.20 (5.50)	129.20 (9.20)
1996	32.60 (5.50)	28.80 (3.60)	44.80 (2.80)	58.20 (5.20)	164.40 (10.60)
1997			NS		
1998	20.30 (3.10)	45.30 (4.90)	18.70 (3.50)	72.70 (12.30)	157.00 (14.50)
1999	53.50 (6.90)	56.80 (10.20)	41.70 (6.30)	51.30 (3.40)	203.30 (19.40)
2000	26.70 (6.10)	19.30 (2.40)	23.00 (2.90)	41.30 (5.40)	110.30 (7.60)
2001	39.00 (5.30)	42.00 (3.60)	17.30 (2.70)	46.30 (5.20)	144.70 (10.10)
2002	43.30 (9.90)	32.30 (7.70)	23.30 (3.10)	41.30 (7.80)	134.30 (18.60)
2003	27.70 (6.70)	96.70 (9.90)	31.00 (4.60)	49.70 (4.00)	205.00 (19.70)
2004	30.70 (6.00)	62.70 (6.50)	58.00 (7.00)	54.30 (5.90)	205.70 (17.00)
2005	84.30 (12.20)	67.00 (6.30)	63.00 (5.60)	70.30 (7.50)	284.70 (25.60)
2006	30.00 (6.60)	69.30 (8.20)	30.30 (3.30)	68.70 (6.40)	198.30 (19.00)
2007	23.30 (3.00)	59.30 (6.30)	42.00 (4.30)	58.00 (5.50)	182.70 (11.60)

Dataset = cfdpsgcl.d07

Table 52. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Guist Creek Lake in 2007; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	478	63 (± 4)	36 (± 4)

Dataset = cfdpsgcl.d07

Table 53. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 7.5 hours of electrofishing at Guist Creek Lake during April 2007. Fish were collected in 15-minute runs.

	Inch class																					STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1	14	19	14																	47	8	15.50	2.18
2			2	18	4	15	57	10												106	19	35.21	3.29
3							6	37	35	35	6									119	22	39.53	4.29
4									18	4	22	27	26	8						105	19	35.08	1.80
5										9	17	7	13	24						69	13	23.01	2.17
6														8	27					35	6	11.67	1.98
7															9	16				25	4	8.17	1.47
8																				0	0	0.00	0.00
9																16	17			33	6	10.83	1.22
10																		8		8	1	2.67	1.14
11																				0	0	0.00	0.00
12																			3	3	1	1.00	0.52
Total	14	19	15	18	4	15	63	47	53	48	44	34	39	40	36	31	17	8	3	548	100	182.67	11.59
%	3	3	3	3	1	3	11	9	10	9	8	6	7	7	7	6	3	1	1	100			

Dataset = cfdaggcl.d05 and cfdpsgcl.d07

Table 54. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from Guist Creek Lake from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	50.80	16.80	25.70	23.80	16.30	22.10	21.40	15.20	15.50
2	31.30	19.80	32.90	30.10	58.30	33.80	106.50	49.30	35.20
3	12.90	4.50	7.50	6.30	18.30	9.90	36.70	36.60	39.50
4	32.90	11.40	11.20	12.00	29.90	32.10	54.50	34.80	35.10
5	17.10	17.10	20.30	19.70	33.70	47.30	32.90	22.30	23.00
6	11.00	13.80	15.40	11.60	16.90	21.60	11.30	17.50	11.70
7	14.60	6.10	10.30	8.90	10.60	10.80	7.30	9.10	8.70
8	8.80	10.00	8.30	8.60	8.80	10.60	0.00	0.00	0.00
9	9.40	4.70	6.40	7.30	6.90	9.10	9.30	10.30	10.80
10	9.80	2.20	3.70	3.40	4.60	4.10	2.70	2.30	2.70
11	1.90	3.90	1.80	1.60	2.00	2.70	0.00	0.00	0.00
12	1.30		0.60	1.10	1.60	1.70	2.00	1.00	1.00

Table 55. Population assessment for largemouth bass collected from Guist Creek Lake during April 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture*	11.5 ± 0.2	4
Spring CPUE age 1	15.50 ± 2.18	1
Spring CPUE 12.0-14.9 in	42.00 ± 4.25	3
Spring CPUE ≥15.0 in	58.00 ± 5.54	4
Spring CPUE ≥20.0 in	3.67 ± 1.15	3
Instantaneous mortality (z)	-0.307	
Annual mortality (A)	26.4%	
Total Score		15
Assessment Rating		Good

* 2005 age and growth dataset was used

Table 56. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Guist Creek Lake in September 2007: numbers in parentheses are standard errors.

	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	CPUE
Largemouth bass	4	8	3	8	47	26	8	14	9	23	16	10	12	13	6	8	2	1	1	219	146.00 (12.20)

Dataset = cfdwrgcl.d07

Table 57. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Guist Creek Lake on 7 September 2007. Standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	54	96 (1)	38	101(1)	31	104 (2)	123	100 (1)

Dataset = cfdwrgcl.d07

Table 58. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Guist Creek Lake.

Year class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2000	Total	3.6	0.1	19.50	4.00	0.00		25.70	5.30
2001	Total	3.9	0.1	65.30	14.00	1.00	0.50	23.80	6.70
2002	Total	4.7	0.1	47.30	7.60	19.30	2.80	16.30	3.30
2003	Total	4.0	0.1	30.70	8.20	6.00	2.00	22.10	4.80
2004	Total	4.0	0.1	40.70	6.00	0.70	0.70	21.40	4.20
2005	Total	4.5	0.1	24.50	4.40	5.00	2.00	15.20	4.50
2006	Total	3.9	0.1	50.70	8.50	10.00	4.20	15.50	2.20
2007	Total	3.8	0.2	12.70	4.20	2.70	1.70		

Table 59. Length distribution and CPUE (fish/nn) of hybrid striped bass and yellow bass collected during 8 net-nights of gill netting in Guist Creek Lake in October 2007: numbers in parentheses are standard errors.

	Inch class																						
Species	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Total	CPUE
Hybrid striped bass			2		1		1				2	11	15	8	4	5	8	5	2	4	2	70	8.75 (2.49)
Yellow bass	36	70	2																			108	13.50 (4.97)

Dataset = cfdgngcl.d07

Table 60. Mean back calculated lengths (in.) at each annulus for otoliths from hybrid striped bass gill netted at Guist Creek Lake in 2007.

		Age								
Year class	No.	1	2	3	4	5	6	7	8	9
2006	4	6.2								
2005	40	8.8	14.8							
2004	7	9.0	15.6	19.2						
2003	10	8.2	15.3	18.8	21.3					
2002	3	9.6	14.6	18.8	21.3	23.1				
2000	2	9.6	11.9	17.1	20.8	23.3	24.7	25.6		
1999	2	7.6	14.5	18.7	21.7	22.8	23.8	24.4	24.7	
1998	2	8.2	14.7	19.8	21.9	22.8	23.7	24.5	25.1	25.6
Mean	70	8.6	14.8	18.9	21.4	23.0	24.1	24.8	24.9	25.6
Smallest		5.3	10.0	16.9	20.1	22.0	23.2	23.8	24.1	25.4
Largest		11.9	17.4	20.6	22.7	23.9	24.9	25.9	25.4	25.7
Std Error		0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.1
95% ConLo		8.3	14.6	18.5	21.0	22.6	23.5	24.2	24.3	25.3
95% ConHi		9.0	15.1	19.2	21.7	23.5	24.7	25.4	25.5	25.9

Intercept Value = 0.00
Dataset = cfdaggcl.d07

Table 61. Age frequency and CPUE (fish/nn) per inch class of hybrid striped bass gill netted for 8 net-nights at Guist Creek Lake in 2007.

	Inch class																	STD
Age	8	10	12	16	17	18	19	20	21	22	23	24	25	26	Total	%	CPUE	ERR
1+	2	1	1												4	6	0.50	0.27
2+				2	11	15	8	3							39	56	4.88	1.75
3+								1	4	3					8	11	1.00	0.35
4+									1	5	4				10	14	1.25	0.35
5+											1	1	1		3	4	0.38	0.11
6+															0	0	0.00	0.00
7+													1	1	2	3	0.25	0.12
8+												1	1		2	3	0.25	0.09
9+													1	1	2	3	0.25	0.12
Total	2	1	1	2	11	15	8	4	5	8	5	2	4	2	70	100	8.75	2.49
%	3	1	1	3	16	21	11	6	7	11	7	3	6	3	100			

Dataset = cfdaggcl.d07 and cfdgngcl.d07

Table 62. Number of fish and the relative weight (Wr) for each length group of hybrid striped bass collected at Guist Creek Lake in October 2007.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Hybrid striped bass	Total	3	72 (6)	1	76	66	82 (1)	70	81 (1)

Dataset = cfdgngcl.d07

Table 63. Population assessment for hybrid striped bass gill netted at Guist Creek Lake in October 2007.

Parameter	Actual Value	Assessment Value
CPUE of hybrid striped bass (excluding age 0)	8.75 ± 2.49	2
Mean length age-2+ at capture	18.4 ± 0.2	4
CPUE ≥15.0 in	8.25 ± 2.49	3
CPUE age 1+	0.50 ± 0.27	1
Assessment Total		10
Assessment Rating		Good

Table 64. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Beaver Lake, April 2007; numbers in parentheses are standard errors.

	Inch class																					
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE
Largemouth bass		3	1	8	49	59	53	111	130	66	11	8	6	1	1	3	3	4	1	1	519	259.50 (40.42)

Dataset = cfdpsbvr.d07

Table 65. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Beaver Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1992	7.10 (2.10)	105.30 (8.60)	4.90 (1.10)	19.10 (4.80)	136.40 (5.60)
1993	22.50 (3.90)	59.50 (5.30)	76.00 (7.90)	13.00 (4.30)	171.00 (12.20)
1994	22.50 (2.80)	5.50 (2.50)	41.50 (3.30)	28.50 (4.50)	96.50 (6.90)
1995	73.00 (8.40)	37.50 (5.90)	10.00 (3.80)	34.00 (7.00)	154.50 (9.90)
1996	81.00 (11.60)	47.00 (6.30)	8.00 (2.00)	37.50 (2.90)	173.50 (17.80)
1997	84.50 (12.20)	99.50 (16.70)	8.50 (2.10)	42.50 (9.60)	235.00 (34.10)
1998	36.00 (4.20)	206.50 (17.60)	14.50 (4.80)	30.50 (6.60)	287.50 (22.80)
1999	42.00 (11.00)	71.50 (7.30)	17.00 (2.60)	22.00 (3.50)	152.50 (18.10)
2000	56.00 (7.70)	26.50 (5.60)	28.50 (2.20)	24.50 (2.90)	137.00 (9.80)
2001	142.50 (8.60)	66.50 (8.60)	25.50 (1.50)	39.00 (6.10)	273.50 (17.10)
2002	55.50 (10.80)	97.00 (13.60)	16.00 (2.10)	32.00 (4.90)	200.50 (26.80)
2003	142.50 (9.10)	131.50 (12.90)	20.00 (3.00)	18.00 (2.40)	312.00 (20.40)
2004	154.50 (5.50)	198.00 (15.10)	48.00 (7.50)	17.00 (3.70)	417.50 (20.30)
2005	68.50 (11.40)	298.00 (22.70)	42.00 (7.70)	15.00 (3.50)	423.50 (21.60)
2006	115.00 (11.30)	217.50 (36.50)	40.00 (3.70)	10.00 (2.30)	382.50 (34.90)
2007	30.50 (4.80)	176.50 (31.10)	42.50 (9.60)	10.00 (2.70)	259.50 (40.40)

Dataset = cfdpsbvr.d07

Table 66. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Beaver Lake in 2007; confidence intervals are in parentheses.

Species	No. >8.0 in	PSD	RSD_{15}
Largemouth bass	458	62 (± 6)	3 (± 2)

Dataset = cfdpsbvr.d07

Table 67. Mean back calculated lengths (in.) at each annulus for otoliths from largemouth bass collected at Beaver Lake in 2007.

		Age								
Year class	No.	1	2	3	4	5	6	7	8	9
2006	4	5.0								
2005	28	5.5	7.7							
2004	14	5.3	8.9	10.3						
2003	22	5.6	8.4	10.2	11.2					
2002	21	6.6	9.0	11.0	12.3	13.5				
2001	8	5.9	9.2	11.2	12.7	13.8	14.7			
2000	3	5.3	8.7	11.2	12.9	14.2	15.5	16.3		
1999	5	8.2	12.6	14.5	16.1	17.0	18.0	18.8	19.4	
1998	2	6.3	11.9	14.4	15.7	17.0	17.7	18.3	19.1	19.6
Mean	107	5.8	8.7	11.0	12.4	14.2	16.1	18.0	19.3	19.6
Smallest		3.6	6.5	8.0	8.7	9.1	11.4	12.1	15.2	19.3
Largest		10.9	14.3	16.6	18.1	19.0	20.1	20.7	21.3	19.8
Std Error		0.1	0.2	0.2	0.3	0.4	0.6	0.9	0.8	0.3
95% ConLo		5.6	8.4	10.6	11.9	13.5	14.8	16.3	17.9	19.1
95% ConHi		6.1	9.0	11.4	13.0	14.9	17.3	19.6	20.8	20.0

Intercept Value = 0.00

Table 68. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Beaver Lake during April 2007. Fish were collected in 15-minute runs.

	Inch class																				STD
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1	3	1																	4	1	2.00	1.10
2			8	49	52	8													117	23	58.40	8.20
3					7	20	44	22	17										110	21	55.20	10.40
4						20	56	87	17		1	1							181	35	90.60	16.70
5						4	11	11	25	8	5	2		1					68	13	33.90	6.30
6								11		3	2	1	1		1				19	4	9.30	1.40
7									8						2				10	2	5.10	1.40
8												1				1	4	1	7	1	3.60	1.00
9																2			2	0	1.00	0.50
Total	3	1	8	49	59	53	111	130	66	11	8	6	1	1	3	3	4	1	518	100	259.50	40.40
%	1	0	2	9	11	10	21	25	13	2	2	1	0	0	1	1	1	0	100			

Dataset = cfdagbvr.d07 and cfdpsbvr.d07

Table 69. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from Beaver Lake from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	25.50	33.10	47.80	35.40	133.20	97.60	38.70	108.30	2.00
2	25.40	36.80	149.00	96.80	68.80	160.90	160.70	74.60	58.40
3	27.70	7.50	14.40	19.90	29.80	44.80	68.30	58.30	55.20
4	50.40	29.40	14.30	11.50	64.40	97.00	141.20	131.90	90.60
5	3.40	13.30	15.30	9.50	5.60	5.60	4.10	2.50	33.90
6	0.40	6.20	15.60	9.40	0.00	0.00	0.00	0.00	9.30
7	5.30	1.90	4.80	4.60	3.50	4.60	3.00	2.30	5.10
8	3.50	1.30	2.60	2.50	5.30	5.00	3.00	2.10	3.60
9	2.60	1.20	5.70	7.10	0.50	0.00	0.00	0.00	1.00
10	0.70	0.30	1.40	1.90	0.00	0.00	0.00	0.00	0.00
11	5.80	1.40	0.50	0.80	0.50	2.00	4.50	2.50	0.00
12	1.80	0.70	2.20	1.20	0.50	0.00	0.00	0.00	0.00

Table 70. Population assessment for largemouth bass collected from Beaver Lake during April 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture	10.3 ± 0.31	2
Spring CPUE age 1	2.00 ± 1.07	1
Spring CPUE 12.0-14.9 in	42.50 ± 9.59	3
Spring CPUE ≥15.0 in	10.00 ± 2.73	2
Spring CPUE ≥20.0 in	3.00 ± 1.00	3
Instantaneous mortality (z)	0.303	
Annual Mortality (A)	26.1%	
Total Score		11
Assessment Rating		Fair

Table 71. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Beaver Lake in September 2007: numbers in parentheses are standard errors.

	Inch class																
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18	Total	CPUE
Largemouth bass	57	136	52	18	1	20	73	152	117	55	10	3	1	1	1	697	464.70 (45.00)

Dataset = cfdwrbvr.d07

Table 72. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Beaver Lake on 24 September 2007. Standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	91	83 (1)	38	80 (1)	3	92 (10)	132	82 (1)

Dataset = cfdwrbvr.d07

Table 73. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Beaver Lake.

Year Class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2000	Total	3.7	0.1	127.30	32.90	6.70	2.20	47.80	5.70
2001	Total	4.6	0.1	139.30	28.10	40.70	13.90	35.40	8.90
2002	Total	4.4	0.1	104.00	7.50	19.30	4.60	133.20	9.30
2003	Total	3.7	0.1	117.30	22.00	0.00		97.60	5.00
2004	Total	3.7	0.1	86.70	17.10	3.30	1.60	38.70	10.70
2005	Total	4.0	0.03	199.30	26.30	18.70	4.10	108.30	10.20
2006	Total	4.3	0.1	8.00	2.70	0.00		2.00	1.10
2007	Total	4.6	0.1	175.30	31.20	46.70	4.60		

Table 74. Species composition, relative abundance, and CPUE (fish/hr) of bluegill and redear sunfish collected in 2.50 hours of 7.5-minute electrofishing runs in Beaver Lake, May 2007; numbers in parentheses are standard errors.

Species	Inch class								Total	CPUE
	2	3	4	5	6	7	8	9		
Bluegill	30	32	27	27	39	95	6		256	102.40 (10.42)
Redear sunfish		8	17	38	68	117	76	5	329	131.60 (23.57)

Dataset = cfdpsbvr.d07

Table 75. PSD and RSD values calculated for sunfish collected during 2.50 hours of electrofishing at Beaver Lake during May 2007. Fish were collected in 7.5-minute runs.

Species	No. fish ≥stock size	PSD	RSD
Bluegill	226	62 (± 6)	3 (± 2)
Redear sunfish	321	62 (± 5)	2 (± 1)

Bluegill = RSD_8; Redear = RSD_9
Dataset = cfdpsbvr.d07

Table 76. Electrofishing CPUE (fish/hr) for each length group of bluegill collected from Beaver Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group					
Year	<3.0 in	3.0–5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
1992	1.30 (0.90)	54.20 (10.20)	80.90 (15.10)	0.00	0.00	136.40 (24.00)
1993	2.50 (1.10)	47.00 (6.20)	79.50 (10.00)	0.00	0.00	129.00 (12.60)
1994	2.50 (1.10)	130.00 (21.00)	20.00 (4.00)	0.00	0.00	152.50 (24.20)
1995	2.00 (1.10)	174.00 (18.40)	16.50 (4.70)	0.00	0.00	192.50 (17.30)
1996	0.50 (0.50)	184.50 (27.30)	65.50 (11.50)	0.00	0.00	250.50 (34.50)
1997	2.50 (1.10)	58.00 (12.60)	86.50 (14.40)	0.50 (0.50)	0.00	147.50 (27.40)
1998	0.50 (0.50)	28.00 (4.30)	88.00 (15.00)	0.50 (0.50)	0.00	117.00 (19.00)
1999	14.00 (4.50)	13.00 (5.50)	10.50 (3.00)	0.00	0.00	37.50 (8.30)
2000	50.00 (12.70)	322.00 (23.10)	32.00 (13.60)	7.50 (3.80)	0.00	411.50 (41.20)
2001	19.00 (5.10)	211.50 (16.00)	122.00 (15.20)	0.00	0.00	352.50 (20.20)
2002	5.60 (1.70)	175.20 (22.90)	152.80 (27.70)	0.00	0.00	333.60 (44.70)
2003	33.60 (6.40)	141.60 (17.50)	128.80 (21.90)	0.00	0.00	304.00 (30.10)
2004	36.00 (16.00)	118.40 (32.40)	143.20 (29.30)	0.00	0.00	297.60 (56.40)
2005	21.60 (4.50)	109.60 (14.60)	97.60 (19.30)	4.00 (2.20)	0.00	232.80 (19.70)
2006	20.10 (4.90)	60.90 (8.60)	55.70 (13.50)	8.30 (2.90)	0.00	145.10 (24.70)
2007	12.00 (2.60)	34.40 (4.60)	53.60 (9.50)	2.40 (1.70)	0.00	102.40 (10.40)

Dataset = cfdpvr.d07

Table 77. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Beaver Lake in 2007.

		Age							
Year class	No.	1	2	3	4	5	6	7	8
2006	9	2.5							
2005	19	2.0	3.7						
2004	17	2.6	4.5	6.1					
2003	14	2.4	4.3	5.8	6.9				
2002	2	2.8	4.4	6.4	7.2	7.6			
2001	4	2.6	4.7	6.0	6.9	7.5	7.9		
2000	1	2.7	4.6	6.1	6.6	7.3	7.7	8.1	
1999	4	2.9	4.6	5.6	6.2	6.8	7.3	7.8	8.1
Mean	70	2.4	4.2	6.0	6.8	7.2	7.6	7.8	8.1
Smallest		1.3	2.5	4.0	5.1	6.6	7.2	7.6	8.0
Largest		4.7	6.6	7.6	8.2	8.0	8.1	8.1	8.1
Std Error		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
95% ConLo		2.3	4.0	5.7	6.5	7.0	7.4	7.7	8.0
95% ConHi		2.6	4.5	6.2	7.0	7.5	7.8	8.0	8.1

Intercept value = 0.00
Dataset = cfdagbvr.d07

Table 78. Age frequency and CPUE (fish/hr) per inch class of bluegill collected during 2.50 hours of electrofishing at Beaver Lake during May 2007. Fish were collected in 7.5-minute runs.

	Inch class											STD
Age	1	2	3	4	5	6	7	8	Total	%	CPUE	ERR
1		24	3						27	10	10.67	2.15
2		6	29	17	4				56	22	22.43	3.95
3				10	19	18	26		73	29	29.33	3.09
4					4	21	43	1	69	27	27.48	4.58
5							9	1	9	4	3.72	0.87
6							17	1	19	7	7.44	1.73
7								1	1	0	0.27	0.18
8								3	3	1	1.07	0.70
Total		30	32	27	27	39	95	6	256	100	102.40	10.42
%		12	13	11	11	15	37	2	100			

Dataset = cfdagbvr.d07 and cfdpsbvr.d07

Table 79. Electrofishing catch rate (fish/hr) of each age of bluegill collected from Beaver Lake from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	12.70	62.00	44.80	10.20	31.10	31.70	13.60	6.90	10.70
2	11.90	243.20	167.70	70.40	100.10	102.20	63.20	45.10	22.40
3	3.90	52.10	140.00	201.70	26.40	17.90	62.00	33.80	29.30
4	6.30	43.50		49.50	119.60	50.60	37.80	36.20	27.50
5	0.70	3.20		1.80	26.80	79.90	32.30	11.90	3.70
6						15.30	15.80	0.90	7.40
7								10.30	0.30
8									1.10

Table 80. Population assessment for bluegill collected from Beaver Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	3.7 ± 0.2	2
Years to 6.0 in	3 - 3+	3
CPUE ≥6.0 in	56.00 ± 10.75	3
CPUE ≥8.0 in	2.40 ± 1.65	1
Instantaneous mortality (z)	0.519	
Annual Mortality (A)	40.5%	
Assessment Total		9
Assessment Rating		Fair

Table 81. Electrofishing CPUE (fish/hr) for each length group of redear sunfish collected from Beaver Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
1992	0.40 (0.40)	10.20 (2.80)	90.20 (12.90)	1.80 (1.00)	0.40 (0.40)	102.70 (13.20)
1993	0.00	2.00 (1.50)	57.00 (10.70)	5.00 (2.00)	0.00	64.00 (12.20)
1994	0.00	6.50 (1.80)	8.00 (2.60)	2.50 (1.30)	0.00	17.00 (4.10)
1995	0.00	2.00 (1.10)	12.50 (3.60)	7.00 (2.70)	0.00	21.50 (5.20)
1996	0.00	6.00 (2.00)	5.50 (2.50)	8.00 (2.60)	0.00	19.50 (5.10)
1997	0.00	13.00 (1.80)	9.00 (2.10)	8.00 (1.70)	0.00	30.00 (1.50)
1998	0.00	3.50 (1.20)	9.00 (2.00)	9.50 (4.60)	0.00	22.00 (5.70)
1999	0.00	0.00	0.50 (0.50)	7.50 (1.80)	2.00 (1.10)	8.00 (2.00)
2000	1.00 (0.70)	5.50 (2.00)	3.50 (1.80)	6.00 (2.00)	1.50 (1.10)	16.00 (3.70)
2001	0.50 (0.50)	34.50 (6.90)	30.00 (6.80)	8.50 (2.90)	0.50 (0.50)	73.50 (10.50)
2002	0.00	49.60 (11.10)	77.60 (18.10)	7.20 (3.90)	0.80 (0.80)	134.40 (27.80)
2003	0.80 (0.80)	21.60 (6.10)	87.20 (15.00)	7.20 (3.30)	0.00	116.80 (20.00)
2004	0.00	38.40 (9.00)	44.00 (8.70)	26.40 (7.40)	0.00	108.80 (17.10)
2005	1.60 (1.10)	46.40 (7.00)	80.80 (12.40)	62.40 (10.80)	0.00	191.20 (22.60)
2006	0.40 (0.40)	46.10 (6.20)	82.20 (6.20)	35.70 (5.70)	0.00	164.40 (13.80)
2007	0.00	25.20 (6.10)	74.00 (13.50)	32.40 (6.60)	0.00	125.30 (23.20)

Dataset = cfdpsbvr.d07

Table 82. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from Beaver Lake in 2007.

		Age						
Year	No.	1	2	3	4	5	6	7
2005	18	2.6	4.5					
2004	17	2.7	4.6	6.2				
2003	13	2.7	4.9	6.5	7.8			
2002	11	3.0	5.0	6.8	7.8	8.6		
2001	4	3.6	6.1	7.5	8.2	9.0	9.7	
2000	1	3.7	6.5	8.0	8.6	8.8	9.1	9.3
Mean	64	2.8	4.8	6.6	7.9	8.7	9.5	9.3
Smallest		2.0	3.3	5.1	6.4	7.9	9.0	9.3
Largest		4.3	8.9	8.0	9.0	9.9	10.5	9.3
Std Error		0.1	0.1	0.1	0.1	0.1	0.3	
95% ConLo		2.7	4.6	6.4	7.7	8.4	9.0	
95% ConHi		2.9	5.1	6.9	8.1	9.0	10.1	

Intercept value = 0.00
Dataset = cfdagbvr.d07

Table 83. Age frequency and CPUE (fish/hr) per inch class of redear sunfish collected during 2.50 hours of electrofishing at Beaver Lake during May 2007. Fish were collected in 7.5-minute runs.

	Inch class										STD
Age	3	4	5	6	7	8	9	Total	%	CPUE	ERR
2	8	17	16					41	12	16.33	4.51
3			22	60	21	8		111	34	44.22	7.94
4				9	74	38		121	37	48.38	8.66
5					21	30	3	54	17	21.78	4.05
6							2	2	1	0.67	0.26
7							1	1	0	0.22	0.09
Total	8	17	38	68	117	76	5	329	100	131.60	23.57
%	2	5	12	21	36	23	2	100			

Dataset = cfdagbvr.d07 and cfdpsbvr.d07

Table 84. Electrofishing catch rate (fish/hr) of each age of redear sunfish collected from Beaver Lake from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	0.00	2.00	11.40	0.30	2.40	8.80	0.00	0.40	16.30
2	0.00	3.70	48.60	37.90	18.30	28.50	23.60	27.30	44.20
3	1.00	2.80	4.50	61.70	37.80	14.00	97.10	41.10	48.40
4	1.20	5.20	4.50	30.80	58.30	57.50	9.90	71.80	21.80
5	1.40	0.70	4.00	2.90			54.10	0.00	0.70
6	4.50	1.80		0.80			5.00	14.00	0.20
7								9.90	

Table 85. Population assessment for redear sunfish collected from Beaver Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	6.3 ± 0.2	3
Years to 8.0 in	4 -4+	3
CPUE ≥8.0 in	32.40 ± 6.60	4
CPUE ≥10.0 in	0.00	0
Assessment Total		10
Assessment Rating		Fair

Table 86. Number of fish and the relative weight (Wr) for each length group of bluegill and redear sunfish collected at Beaver Lake on 24 September 2007. Standard errors are in parentheses.

Species	Length group								Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0–5.9 in		6.0–7.9 in							
Bluegill	68	86 (3)	18	79 (3)					86	85 (2)
	1.0–3.9 in		4.0–6.9 in		7.0–9.0 in		≥9.0 in			
Redear sunfish	3	84 (5)	74	89 (1)	22	93 (1)			99	90 (2)

Dataset = cfdwrbvr.d07

Table 87. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Boltz Lake, April 2007; numbers in parentheses are standard errors.

Species	Inch class																		Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Largemouth bass	2	14	19	6	16	37	13	7	17	19	11	4	9	12	6	9	2	2	205	102.50 (11.78)

Dataset = cfdpsbol.d07

Table 88. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Boltz Lake from 1991-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1991		43.60 (4.90)	10.80 (2.00)	6.50 (1.20)	60.80 (6.60)
1993	25.20 (6.40)	70.00 (4.80)	12.00 (2.30)	7.30 (2.20)	114.80 (8.90)
1994	48.40 (9.50)	45.00 (5.70)	32.40 (6.50)	3.60 (1.40)	129.60 (9.60)
1995	155.20 (10.80)	50.00 (3.30)	31.50 (3.90)	6.00 (1.70)	242.40 (10.40)
1997	34.80 (8.60)	183.60 (29.40)	36.80 (4.60)	14.40 (2.20)	268.80 (38.60)
1998	43.20 (6.00)	172.00 (18.80)	22.40 (3.30)	9.60 (2.20)	247.20 (24.80)
1999	87.20 (16.60)	184.80 (42.40)	90.40 (16.00)	13.80 (6.80)	560.00 (31.20)
2000	92.00 (30.40)	148.00 (7.70)	226.40 (18.40)	8.80 (2.90)	475.20 (16.80)
2001	24.00 (5.20)	212.80 (15.80)	133.60 (13.00)	9.60 (3.50)	380.00 (26.30)
2002	5.60 (2.70)	101.60 (20.10)	67.20 (11.40)	45.60 (9.20)	220.00 (27.30)
2003	10.70 (2.90)	39.30 (10.40)	61.30 (12.90)	40.00 (5.00)	151.30 (25.10)
2004	64.00 (12.90)	38.50 (4.90)	19.50 (4.40)	25.50 (5.90)	147.50 (22.90)
2005	69.00 (10.10)	39.50 (4.00)	21.00 (2.40)	20.00 (6.20)	149.50 (8.40)
2006	11.50 (1.40)	48.00 (4.70)	17.00 (3.70)	18.00 (2.90)	94.50 (9.90)
2007	28.50 (3.80)	37.00 (2.40)	17.00 (3.90)	20.00 (3.90)	102.50 (11.80)

Dataset = cfdpsbol.d07

Table 89. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Boltz Lake in 2007; confidence intervals are in parentheses.

Species	No. >8.0 in	PSD	RSD_{15}
Largemouth bass	148	50 (± 8)	27 (± 7)

Dataset = cfdpsbol.d07

Table 90. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Boltz Lake during April 2007. Fish were collected in 15-minute runs.

	Inch class																				STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%	CPUE	ERR
1	2	14	19	6															41	20	20.50	3.58
2					16	37	6	1											60	29	30.15	1.70
3							7	6	15										27	13	13.63	2.39
4									2	16	8	2	6						35	17	17.28	3.43
5												1							1	0	0.40	0.21
6										3		1		4	6				14	7	6.76	2.07
7											3	1	3	4					11	5	5.28	0.53
8														4		5			9	4	4.25	1.33
9																5	1		6	3	2.75	1.25
10																	1		1	0	0.50	0.33
11																		2	2	1	1.00	0.65
Total	2	14	19	6	16	37	13	7	17	19	11	4	9	12	6	9	2	2	189	100	102.50	11.78
%	1	7	9	3	8	18	6	3	8	9	5	2	4	6	3	4	1	1	100			

Dataset = cfdagbol.d06 and cfdpsbol.d07

Table 91. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from Boltz Lake from 1998-2007.

	Year									
Age	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	25.90	77.70	55.00	0.80	0.80	0.00	51.00	15.50	7.00	20.50
2	45.80	86.10	52.60	29.60	11.20	16.10	27.40	68.80	28.70	30.20
3	71.40	212.20	50.80	115.30	101.80	23.80	16.30	17.40	22.90	13.60
4	70.50	92.20	115.00	81.60	27.20	47.00	21.10	19.50	14.30	17.30
5	11.80	47.80	132.00	42.30	18.80	16.50	5.60	6.10	1.20	0.40
6	7.90	30.20	62.20	55.30	18.10	15.40	7.80	6.30	6.30	6.80
7	6.10	3.50	5.20	41.90	23.00	20.90	10.20	9.20	5.00	5.30
8	2.20	3.40	1.60	10.10	12.00	8.20	4.30	4.70	3.50	4.30
9	3.20	3.50	0.80	3.20	7.00	2.60	2.80	1.30	3.50	2.80
10	1.00	2.70				0.80	1.00	0.80	1.50	0.50
11	1.00	1.10							0.50	1.00

Table 92. Population assessment for largemouth bass collected from Boltz Lake during April 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture*	10.3 ± 0.2	2
Spring CPUE age 1	20.50 ± 3.58	2
Spring CPUE 12.0-14.9 in	17.00 ± 3.91	1
Spring CPUE ≥15.0 in	20.00 ± 3.93	3
Spring CPUE ≥20.0 in	1.00 ± 0.65	2
Instantaneous mortality (z)	0.331	
Annual Mortality (A)	28.2%	
Total Score		10
Assessment Rating		Fair

* 2006 age and growth dataset was used

Table 93. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Boltz Lake in September 2007: numbers in parentheses are standard errors.

	Inch class																		
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Largemouth bass	8	6	2	3	19	12	4	5	5	5	4	3	5	2	2	3	1	89	59.30 (7.30)

Dataset = cfdwrbol.d07

Table 94. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Boltz Lake on 6 September 2007. Standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	26	87 (2)	12	93 (4)	13	98 (2)	51	91 (1)

Dataset = cfdwrbol.d07

Table 95. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Boltz Lake.

Year Class	No. of fish	Age 0 Mean length	Age 0 Std. error	Age 0 CPUE	Age 0 Std. error	Age 0 ≥5.0 in CPUE	Age 0 ≥5.0 in Std. error	Age 1 CPUE	Age 1 Std. error
1997	145	4.2	(0.04)	96.70	(11.30)	6.70	(1.70)	25.90	(4.40)
1998	147	5.0	(0.05)	98.0 0	(12.00)	48.00	(5.80)	77.70	(31.00)
1999	170	5.2	(0.07)	113.30	(16.20)	68.70	(13.00)	55.00	(24.70)
2000	19	3.0	(0.27)	12.7 0	(6.70)	1.30	(1.30)	0.80	(0.80)
2001	46	3.2	(0.09)	30.7 0	(6.90)	0.70	(0.70)	0.80	(0.80)
2002	50	3.7	(0.10)	28.6 0	(7.40)	1.70	(1.20)	0.00	(0.00)
2003*	27	3.7	(0.15)	18.00	(4.50)	1.30	(0.80)	7.00	(2.20)
2004*	80	4.1	(0.07)	53.30	(7.10)	6.70	(2.70)	15.00	(3.40)
2005*	34	3.9	(0.11)	22.70	(5.00)	1.30	(0.80)	4.00	(1.10)
2006	90	4.6	(0.06)	60.00	(7.50)	18.70	(3.70)	20.50	(3.60)
2007	17	4.2	(0.21)	11.30	(2.60)	2.00	(0.90)		

*Only include wild largemouth bass CPUE for age-1 year class, stocked largemouth bass were marked by fin clip and removed from dataset.

Table 96. Species composition, relative abundance, and CPUE (fish/hr) of bluegill collected in 1.25 hour of 7.5-minute electrofishing runs in Boltz Lake, May 2007; numbers in parentheses are standard errors.

Species	Inch class 1	2	3	4	5	6	Total	CPUE
Bluegill	8	253	101	44	24	38	468	374.40 (44.33)

Dataset = cfdpsbol.d07

Table 97. PSD and RSD_8 values calculated for bluegill collected during 1.00 hour of electrofishing at Boltz Lake during May 2007. Fish were collected in 7.5-minute runs.

Species	No. ≥3.0 in	PSD	RSD_8
Bluegill	207	18 (± 5)	0 (± 0)

Dataset = cfdpsbol.d07

Table 98. Electrofishing CPUE (fish/hr) for each length group of bluegill collected from Boltz Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	Total
1991	0.50 (0.50)	60.80 (8.50)	10.80 (2.10)		72.40 (9.60)
1993	15.20 (7.40)	57.20 (15.80)	10.00 (5.20)		82.80 (24.00)
1994	26.00 (7.30)	131.60 (17.60)	30.50 (5.10)	0.50 (0.50)	188.40 (25.60)
1995	50.00 (9.80)	232.50 (31.70)	57.60 (12.80)	1.50 (0.70)	347.60 (46.00)
1997	91.50 (16.90)	43.00 (7.50)	39.20 (7.00)	5.40 (2.00)	179.20 (19.90)
1998	886.90 (210.80)	94.60 (13.80)	53.10 (7.70)	13.10 (2.30)	1047.70 (216.90)
1999	144.60 (30.70)	140.00 (51.50)	35.40 (6.90)	6.90 (3.10)	326.20 (62.30)
2000	1799.20 (73.50)	393.80 (19.40)	10.80 (3.20)	0.80 (0.80)	2204.60 (63.80)
2001	167.80 (51.50)	257.70 (40.00)	11.50 (3.80)	0.80 (0.80)	437.70 (60.00)
2002	174.60 (26.80)	396.20 (45.60)	16.90 (3.60)		587.70 (62.40)
2003	156.90 (49.40)	373.10 (26.30)	51.50 (16.50)		581.50 (47.70)
2004	313.30 (29.90)	261.10 (27.20)	31.80 (12.00)		606.20 (58.80)
2005	131.50 (16.00)	205.40 (34.30)	15.40 (5.40)		352.30 (35.80)
2006	229.00 (42.00)	367.00 (41.60)	39.00 (12.00)		635.00 (63.50)
2007	208.80 (29.90)	135.20 (23.10)	30.40 (8.20)		374.40 (44.30)

Table 99. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Boltz Lake in 2007.

		Age		
Year	No.	1	2	3
2006	19	2.9		
2005	20	2.9	4.8	
2004	12	2.6	4.7	6.2
Mean	51	2.9	4.8	6.2
Smallest		1.8	3.8	5.3
Largest		3.9	5.8	6.7
Std Error		0.1	0.1	0.1
95% ConLo		2.7	4.6	6.0
95% ConHi		3.0	5.0	6.4

Intercept value = 0.00
Dataset = cfdagbvr.d07

Table 100. Age frequency and CPUE (fish/hr) per inch class of bluegill collected during 1.25 hours of electrofishing at Boltz Lake during May 2007. Fish were collected in 7.5-minute runs.

	Inch class								STD
Age	2	3	4	5	6	Total	%	CPUE	ERR
1	253	81				334	73	267.04	33.89
2		20	44	19		83	18	66.72	14.09
3				5	38	43	9	34.24	8.79
Total	253	101	44	24	38	460	100	374.40	44.33
%	55	22	10	5	8	100			

Dataset = cfdagbol.d07 and cfdpsbol.d07

Table 101. Electrofishing catch rate (fish/hr) of each age of bluegill collected from Boltz Lake from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	12.70	62.00	44.80	10.20	31.10	31.70	13.60	537.00	267.00
2	11.90	243.20	167.70	70.40	100.10	102.20	63.20	41.80	66.70
3	3.90	52.10	140.00	201.70	26.40	17.90	62.00	16.10	34.20
4	6.30	43.50		49.50	119.60	50.60	37.80	32.40	
5	0.70	3.20		1.80	26.80	79.90	32.30	6.70	
6						15.30	15.80	1.00	

Table 102. Population assessment for bluegill collected from Boltz Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.8 ± 0.1	3
Years to 6.0 in	2 – 2+	4
CPUE ≥6.0 in	30.40 ± 8.16	2
CPUE ≥8.0 in	0.00	0
Instantaneous mortality (z)	1.028	
Annual Mortality (A)	64.2%	
Assessment Total		9
Assessment Rating		Fair

Table 103. Number of fish and the relative weight (Wr) for each length group of bluegill collected at Boltz Lake on 6 September 2007. Standard errors are in parentheses.

	Length group							
Species	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0–5.9 in		6.0–7.9 in		≥8.0 in		Total	
Bluegill	62	100 (4)	21	81 (3)			83	95 (3)

Dataset = cfdwrbol.d07

Table 104. Fishery statistics derived from a daytime creel survey at Boltz Lake (92 acres) during 01 April through 31 October 2007.

Fishing Trips		
No. of fishing trips (per acre)	3,287	(38.2)
Fishing Pressure		
Total man-hours (S.E.)[a]	13,152	(557.48)
Man-hours/acre	152.93	
Catch / Harvest		
No. of fish caught (S.E.)	17,723	(3,183.65)
No. of fish harvested (S.E.)	6,228	(1,476.60)
Lb of fish harvested	1,736	
Harvest Rates		
Fish/hour	0.48	
Lb/hour	0.33	
Fish/acre	72.42	
Lb/acre	20.19	
Catch Rates		
Fish/hour	1.32	
Fish/acre	206.08	
Miscellaneous Characteristics		
Male	85.93	
Female	14.07	
Resident	96.00	
Non-resident	4.00	
Method (%)		
Still fishing	59.85	
Casting	38.52	
Fly	1.33	
Trolling	0.30	
Mode (%)		
Boat	64.89	
Bank	27.11	
Dock	8.00	

[a] S.E. = Standard Error

Table 105. Fish harvest derived from a creel survey on Boltz Lake (92 acres) from 01 April to 31 October 2007.

	Black bass group	Largemouth bass	Crappie group	White crappie	Catfish group	Channel catfish	Blue catfish	Flathead catfish	Bullhead	Illegal catfish
No. caught	2,386.19	2,386.19	5,412.43	5,412.43	2,548.91	1,674.33	796.01	19.16	40.24	19.16
(per acre)	(27.74)	(27.74)	(62.94)	(62.94)	(29.64)	(19.47)	(9.26)	(0.22)	(0.47)	(0.22)
No. harvested	188.74	188.74	2,397.90	2,397.90	675.07	319.56	336.35			19.16
(per acre)	(2.19)	(2.19)	(27.88)	(27.88)	(7.85)	(3.72)	(3.91)			(0.22)
% of total no. harvested	3.03	3.03	38.50	38.50	10.84	5.13	5.40			0.31
Lb harvested	209.1	209.1	418.8	418.8	756.4	288.1	468.3			
(per acre)	(2.43)	(2.43)	(4.87)	(4.87)	(8.80)	(3.35)	(5.45)			
% of total lb harvested	12.04	12.04	24.12	24.12	43.57	16.59	26.97			
Mean length (in)		13.1		7.6		13.6	15.5			9.0
Mean weight (lb)		1.13		0.18		0.82	1.33			
No. of fishing trips for that species	1,101.31		100.15		509.81					
% of all trips	33.50		3.05		15.51					
Hours fished for that species (per acre)	4,406.57 (51.24)		400.72 (4.66)		2,039.87 (23.72)					
No. harvested fishing for that species	149		644		286					
Lb harvested fishing for that species	166.5		130.9		395.5					
No./hour harvested fishing for that species	0.033		1.223		0.118					
% success fishing for that species	5.80		57.89		12.87					

Table 105 (cont).

	Panfish group	Bluegill	Warmouth	Green sunfish	Carp	Anything
No. caught	7,368.37	7,006.88	354.46	7.02	4.02	
(per acre)	(85.68)	(81.48)	(4.12)	(0.08)	(0.08)	
No. harvested	2,966.65	2,932.19	27.44	7.02		
(per acre)	(34.50)	(34.10)	(0.32)	(0.08)		
% of total no. harvested	47.63	47.08	0.44	0.11		
Lb harvested	351.8	346.5	5.0	0.3		
(per acre)	(4.09)	(4.03)	(0.06)	(t)		
% of total lb harvested	20.26	19.96	0.29	0.02		
Mean length (in)		5.6	6.3	4.0		
Mean weight (lb)		0.12	0.18	0.05		
No. of fishing trips for that species	153.42					1,422.40
% of all trips	4.67					43.27
Hours fished for that species	613.85					5,691.32
(per acre)	(7.14)					(66.18)
No. harvested fishing for that species	839					
Lb harvested fishing for that species	102.0					
No./hour harvested fishing for that species	1.799					
% success fishing for that species	48.38					20.96

Table 106. Length distribution (length of released fish are estimated) for each species of fish harvested at Boltz Lake (92 acres) from 01 April to 31 October 2007.

	Inch class																										
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Largemouth bass																											
Harvested											89	40	40	10	10												
Released					400	107	448	224	478	214	145	127	45				9										
White crappie																											
Harvested					57	1146	1108	10	38	10	19	10															
Released		103	41	710	1492	463	195	11																			
Bluegill																											
Harvested		45	306	872	1160	540	9																				
Released	10	233	1572	1717	437	106																					
Warmouth																											
Harvested				9		18																					
Released		10	50	178	30	40		10	9																		
Green sunfish																											
Harvested			7																								
Channel catfish																											
Harvested											53	62	80	62	53												
Released					447	79	99	40	278	309	34	11	58														
Blue catfish																											
Harvested									20	10	20	20	20	143	10	20	31			20	10				12		
Released				10		20		10	72	61	266		10		11												
Flathead catfish																											
Released													10				9										
Bullhead																											
Released							24				16																
Illegal catfish																											
Harvested								19																			
Carp																											
Released																											7

Table 107. Black bass catch and harvest statistics derived from a creel survey at Boltz Lake (92 acres) for black bass caught and released by all anglers from 01 April to 31 October 2007.

		Largemouth bass Catch and Release		
	Harvest	12.0–14.9 in	≥15.0 in	Total
Total no of bass	188.74	317.0	9.0	2,386.19
% of black bass harvested by no.	100.0			
Total weight of fish (lbs)	209.1	335.0	8.5	1,111.4
% of black bass harvest by weight	100.0			
Mean length	13.1			
Mean weight	1.13			
Rate (fish/h)	0.014			

Table 108. Monthly black bass angling success at Boltz Lake during the 2007 creel survey.

Month	Total no. of black bass caught by all anglers	Total no. of black bass harvested by anglers	No. of fishing trips for black bass	Hours fished by black bass anglers	Black bass caught by black bass anglers	Black bass caught/hr by black bass anglers	Black bass harvested by black bass anglers	Black bass harvested/hr by black bass anglers
April	180.82	16.44	140.71	563.02	156	0.24	8	0.013
May	604.95	56.01	204.12	816.74	359	0.54	34	0.050
June	456.61	35.12	209.20	837.05	414	0.49	35	0.042
July	280.45	10.01	119.23	477.08	250	0.53	10	0.021
August	354.52	19.16	91.83	367.43	287	0.65	10	0.022
September	370.74	42.78	287.43	1,150.05	371	0.34	43	0.039
October	138.11	9.21	48.79	195.20	110	0.40	9	0.033
Total	2,386.19	188.74	1,101.31	4,406.57	1,947		149	0.033
Mean						0.44		

t = < 0.01

Table 109. Crappie catch and harvest statistics derived from a creel survey at Boltz Lake (92 acres) for crappie caught and released by all anglers from 01 April to 31 October 2007.

		White crappie Catch and Release		
	Harvest	<9.0 in	≥9.0 in	Total
Total no of crappie	2,397.90	3,004.0	10.5	5,412.43
% of crappie harvested by no.	100.0			
Total weight of fish (lbs)	418.8	235.0	1.0	654.8
% of crappie harvest by weight	100.0			
Mean length	7.6			
Mean weight	0.18			
Rate (fish/h)	0.18			

Table 110. Monthly crappie angling success at Boltz Lake during the 2007 creel survey.

Month	Total no. of crappie caught by all anglers	Total no. of crappie harvested by all anglers	No. of fishing trips for crappie	Hours fished by crappie anglers	Crappie caught by crappie anglers	Crappie caught/hr by crappie anglers	Crappie harvested by crappie anglers	Crappie harvested/hr by crappie anglers
April	1,438.31	871.20	33.97	135.90	617	3.41	288	1.59
May	3,024.76	1,153.89	38.62	154.52	784	2.75	336	1.18
June	238.84	112.40						
July	430.69	260.41	9.17	36.70	170	8.50	20	1.00
August	38.33							
September	213.89		10.27	41.07	185	4.33		
October	27.62		8.13	32.53				
Total	5,412.43	2,397.90	100.15	400.73	1,756		644	
Mean						3.19		1.22

Table 111. Catfish catch and harvest statistics derived from a creel survey at Boltz Lake (92 acres) for catfish caught and released by all anglers from 01 April to 31 October 2007.

	Channel catfish				Blue catfish				Flathead catfish				Bullhead			
	Harvest	Catch and Release 12.0-14.9 in	Catch and Release ≥15.0 in	Total	Harvest	Catch and Release 12.0-14.9 in	Catch and Release ≥15.0 in	Total	Harvest	Catch and Release 12.0-14.9 in	Catch and Release ≥15.0 in	Total	Harvest	Catch and Release 12.0-14.9 in	Catch and Release ≥ 15.0 in	Total
Total no of catfish	319.6	102.8		1,674.3	336.3	276.0	10.7	796.0		10.0	9.2	19.2		16.2		40.2
% of catfish harvested by no.	47.3%				49.8%											
Total weight of fish (lbs)	288.1	77.7		624.7	468.3	116.0	4.5	661.8		16.0	15.0	31.0		7.7		18.7
% of catfish harvest by weight	38.1%				61.9%											
Mean length	13.6				15.5											
Mean weight	0.82				1.33											
Rate (fish/h)	0.026				0.024											

Table 112. Monthly catfish angling success at Boltz Lake during the 2007 creel survey.

Month	Total no. of catfish caught by all anglers	Total no. of catfish harvested by all anglers	No. of fishing trips for catfish	Hours fished by catfish anglers	Catfish caught by catfish anglers	Catfish caught/hr by catfish anglers	Catfish harvested by catfish anglers	Catfish harvested/hr by catfish anglers
April	24.66	24.66						
May	627.36	324.88	154.47	618.07	213	0.43	112	0.22
June	428.52	189.67	120.87	483.63	224	0.37	91	0.15
July	590.94	50.08	128.41	513.78	551	0.73	40	0.05
August	479.08	28.75	61.22	244.95	325	1.02		
September	370.74	57.04	35.93	143.76	257	1.33	43	0.22
October	27.62		4.07	16.27	9	3.33		
Total	2,548.91	675.07	509.81	2,039.87	1,579		286	
Mean						0.63		0.12

BOLTZ LAKE ANGLER ATTITUDE SURVEY 2007

(based on only 14 surveys)

1. Which species of fish do you fish for at Boltz Lake (**check all that apply**)?
   Bass **85.7%** Crappie **50.0%** Bluegill **42.8%** Channel catfish **35.7%** Blue catfish **21.4%**
2. Which one species do you fish for most at Boltz Lake (**check only one**)?
   Bass **69.2%** Crappie **0.0%** Bluegill **15.4%** Channel catfish **15.4%** Blue catfish **0.0%**

Bass Anglers

3. What level of satisfaction do you have with bass fishing at Boltz Lake?
   Very satisfied **21.4%** Somewhat satisfied **28.6%** Neutral **7.1%** Somewhat dissatisfied **28.6%** Very dissatisfied **0.0%**
   No opinion **14.3%**

3a. If you responded with somewhat or very dissatisfied in question (5) – what is the single most important reason for your dissatisfaction?

Lack of Weeds; concern of over-harvest; all fish are undersized; few fish;

Crappie Anglers

4. What level of satisfaction do you have with the crappie fishing at Boltz Lake?
   Very satisfied **0.0%** Somewhat satisfied **14.3%** Neutral **7.1%** Somewhat dissatisfied **28.6%** Very dissatisfied **7.1%**
   No opinion **42.9%**

4a. If you responded with somewhat or very dissatisfied in question (6) – what is the single most important reason for your dissatisfaction?

Poor size quality; Lack of cover;

Would you support or oppose a reduction in the current statewide 30 fish daily crappie creel limit?

Support **35.7%** Oppose **14.3%** No opinion **50.0%**

4b. What reduced daily creel limit would you support ? 20 fish

Bluegill Anglers

5. What level of satisfaction do you have with the bluegill fishing at Boltz Lake?
   Very satisfied **14.3%** Somewhat satisfied **7.1%** Neutral **28.6%** Somewhat dissatisfied **7.1%** Very dissatisfied **0.0%**
   No opinion **42.9%**

5a. If you responded with somewhat or very dissatisfied in question (8) – what is the single most important reason for your dissatisfaction?

Need more fish; small size

Catfish Anglers

6. What level of satisfaction do you have with the catfish fishing at Boltz Lake?
   Very satisfied **7.1%** Somewhat satisfied **21.4%** Neutral **21.4%** Somewhat dissatisfied **7.1%** Very dissatisfied **0.0%**
   No opinion **42.9%**

6a. If you responded with somewhat or very dissatisfied in question (9) – what is the single most important reason for your dissatisfaction?

Need larger fish

Are you **satisfied with the current fishing** regulations at Boltz Lake? Yes **64.3%** No **28.6%** No opinion **7.1%**

Table 113. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Bullock Pen Lake, April 2007; numbers in parentheses are standard errors.

	Inch class																		
Location/Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Largemouth bass	6	1	7	21	18	14	22	35	34	14	16	21	26	17	14	9	1	276	138.00 (6.09)

Dataset = cfdpsbpl.d07

Table 114. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Bullock Pen Lake from 1991-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1991		36.60	22.80	16.40	75.20
1994	10.00 (2.30)	17.50 (2.80)	37.60 (3.60)	40.00 (9.90)	104.00 (12.40)
1995	7.00 (1.60)	36.40 (4.70)	33.20 (4.40)	40.80 (5.60)	117.60 (9.90)
1996	10.50 (2.50)	26.50 (4.60)	26.00 (6.00)	30.50 (6.10)	93.60 (11.60)
1997	18.00 (3.50)	71.60 (8.70)	34.40 (3.30)	34.40 (6.10)	158.40 (17.30)
1998	18.00 (4.40)	43.60 (4.80)	39.60 (9.20)	33.20 (7.20)	139.20 (19.20)
1999	14.00 (3.60)	40.40 (4.00)	35.20 (4.00)	38.40 (12.00)	128.00 (14.00)
2000	15.10 (4.80)	35.50 (5.00)	21.00 (3.10)	42.40 (9.80)	113.50 (6.50)
2001	9.00 (3.20)	33.50 (4.30)	38.50 (7.20)	66.00 (15.20)	147.20 (16.40)
2002	6.50 (1.70)	29.50 (3.00)	41.50 (7.20)	54.50 (10.40)	132.00 (16.50)
2003	9.00 (2.50)	19.50 (2.30)	32.50 (4.10)	56.50 (8.80)	117.50 (9.80)
2004	6.50 (1.30)	31.50 (3.70)	45.00 (8.50)	57.50 (11.40)	140.50 (13.40)
2005	9.50 (1.30)	17.00 (2.60)	38.00 (5.80)	63.00 (13.70)	127.50 (15.50)
2006	13.50 (4.30)	35.50 (6.00)	25.50 (3.90)	62.50 (8.40)	137.00 (8.70)
2007	17.50 (3.50)	44.50 (6.70)	32.00 (2.80)	44.00 (8.10)	138.00 (6.10)

Dataset = cfdpsbpl.d07

Table 115. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Bullock Pen Lake in 2007; confidence intervals are in parentheses.

Species	No. >8.0 in	PSD	RSD_{15}
Largemouth bass	241	63 (± 6)	37 (± 6)

Dataset = cfdpsbpl.d07
Dataset = cfdagbpl.d06

Table 116. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Bullock Pen Lake during April 2007. Fish were collected in 15-minute runs.

	Inch class																			STD
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%	CPUE	ERR
1	6	1																7	2	3.40	1.13
2			7	19	14	6												47	17	23.27	4.16
3				2	5	5	17	21	8									57	21	28.58	3.72
4						2	5	7	15	8	7	5						49	18	24.65	1.83
5								7	4	5	4	5						24	9	12.13	0.69
6									4	2	4	3	13					25	9	12.26	1.01
7									4			3			5	6		17	6	8.53	1.98
8											2		13		5			19	7	9.72	1.63
9												5		6	5	3		19	7	9.29	2.05
10														6			1	6	2	3.08	0.88
11																		0		0.00	
12																	1	1	0	0.25	0.25
13														6				6	2	2.83	0.73
Total	6	1	7	21	18	14	22	35	34	14	16	21	26	17	14	9	1	276	100	138.00	6.09
%	2	0	3	8	7	5	8	13	12	5	6	8	9	6	5	3	0	100			

Dataset = cfdagbpl.d06 and cfdpsbpl.d07

Table 117. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from Bullock Pen Lake from 1997-2007.

	Year									
Age	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	3.00	4.00	6.80	0.00	0.50	1.80	0.00	1.30	2.50	3.40
2	21.40	18.60	13.00	17.70	11.40	14.60	17.10	9.00	23.10	23.30
3	25.70	26.80	15.40	19.60	32.90	13.80	24.80	19.70	19.10	28.60
4	30.50	29.60	12.50	19.30	14.30	18.40	23.80	20.30	20.50	24.70
5	16.70	22.70	13.70	20.50	35.50	21.10	23.50	21.10	10.10	12.10
6	10.90	5.40	11.10	18.90	13.60	16.40	16.20	15.90	13.20	12.30
7	7.20	6.20	9.90	25.80	11.30	15.90	15.30	15.60	11.20	8.50
8	9.50	11.30	14.50	12.30	6.60	5.80	6.20	7.10	11.30	9.70
9	2.60	2.40	9.00	10.20	2.70	5.20	6.00	7.20	14.50	9.30
10	2.80	0.60	6.50	2.60	1.40	1.20	2.00	3.00	5.60	3.10
11	2.70		0.80			2.80	3.80	4.30	0.00	0.00
12	0.60				0.70	0.60	2.00	3.00	0.30	0.30
									5.30	2.80

Table 118. Population assessment for largemouth bass collected from Bullock Pen Lake during April 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture*	10.2 ± 0.3	2
Spring CPUE age 1	3.40 ± 1.13	1
Spring CPUE 12.0-14.9 in	32.00 ± 2.83	2
Spring CPUE ≥15.0 in	44.00 ± 8.14	4
Spring CPUE ≥20.0 in	0.50 ± 0.50	1
Instantaneous mortality (z)	0.194	
Annual Mortality (A)	17.6%	
Total Score		10
Assessment Rating		Fair

* 2006 age and growth dataset was used

Table 119. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Bulllock Pen Lake in September 2007: numbers in parentheses are standard errors.

	Inch class																		
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Largemouth bass	4	5	1	4	5	4	7	15	22	7	16	5	5	15	1	11	1	128	85.30 (11.30)

Dataset = cfdwrbpl.d07

Table 120. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Bullock Pen Lake on 7 September 2007. Standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	47	89 (1)	28	94 (2)	33	99 (3)	108	93 (1)

Dataset = cfdwrbpl.d07

Table 121. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Bullock Pen Lake.

Year Class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
1997	Total	3.6	(0.1)	34.00	(11.90)	0.70	(0.70)	3.00	(1.70)
1998	Total	3.5	(0.1)	28.00	(8.40)	1.30	(1.30)	4.00	(0.90)
1999	Total	3.7	(0.1)	30.00	(6.10)	2.00	(1.40)	6.80	(2.60)
2000	Total	3.8	(0.3)	6.30	(1.50)	0.00		0.00	
2001	Total	3.6	(0.2)	12.00	(2.70)	1.30	(0.80)	0.50	(0.50)
2002	Total	3.1	(0.1)	17.30	(4.60)	0.00		1.80	(0.70)
2003	Total	3.3	(0.1)	22.00	(8.10)	0.00		0.00	
2004	Total	4.1	(0.2)	16.00	(3.70)	4.00	(1.50)	*	
2005	Total	3.5	(0.1)	28.00	(8.10)	2.00	(0.90)	2.50	(1.30)
2006	Total	4.2	(0.2)	4.00	(1.50)			3.40	(1.10)
2007	Total	4.1	(0.2)	6.70	(2.00)	0.70	(0.70)		

*Largemouth bass were stocked, and were not able to be distinguished from the wild age-1 largemouth bass

Table 122. Fishery statistics derived from a daytime creel survey at Bullock Pen Lake (134 acres) during 01 April through 31 October 2007.

Fishing Trips		
No. of fishing trips (per acre)	4,574	(31.3)
Fishing Pressure		
Total man-hours (S.E.)[a]	18,555	(609.07)
Man-hours/acre	127.09	
Catch / Harvest		
No. of fish caught (S.E.)	22,593	(2,910.54)
No. of fish harvested (S.E.)	3,719	(556.80)
Lb of fish harvested	1,935	
Harvest Rates		
Fish/hour	0.19	
Lb/hour	0.14	
Fish/acre	25.47	
Lb/acre	13.25	
Catch Rates		
Fish/hour	1.18	
Fish/acre	154.75	
Miscellaneous Characteristics		
Male	85.33	
Female	14.67	
Resident	93.05	
Non-resident	6.95	
Method (%)		
Still fishing	65.38	
Casting	34.49	
Trolling	0.13	
Mode (%)		
Boat	61.13	
Bank	31.27	
Dock	7.59	

[a] S.E. = Standard Error

Table 123. Fish harvest derived from a creel survey on Bullock Pen Lake (134 acres) from 01 April to 31 October 2007.

	Black bass group	Largemouth bass	Crappie group	White crappie	Catfish group	Channel catfish	Blue catfish	Flathead catfish	Bullhead	Illegal catfish
No. caught	1,976.78	1,976.78	2,683.13	2,683.13	6,722.93	3,579.66	2,050.23	42.60	1,001.95	48.49
(per acre)	(13.54)	(13.54)	(18.38)	(18.38)	(46.05)	(24.52)	(14.04)	(0.29)	(6.86)	(0.33)
No. harvested	526.18	526.18	287.72	287.72	1,501.80	541.54	720.83		190.94	48.49
(per acre)	(3.60)	(3.60)	(1.97)	(1.97)	(10.29)	(3.71)	(4.94)		(1.31)	(0.33)
% of total no. harvested	14.15	14.15	7.74	7.74	40.38	14.56	19.38		5.13	1.30
Lb harvested	735.5	735.5	69.3	69.3	998.9	364.9	585.5		48.5	
(per acre)	(5.04)	(5.04)	(0.47)	(0.47)	(6.84)	(2.50)	(4.01)		(0.33)	
% of total lb harvested	38.01	38.01	3.58	3.58	51.63	18.86	30.26		2.51	
Mean length (in)		13.9		8.4		12.8	15.1		8.2	11.0
Mean weight (lb)		1.37		0.29		0.68	1.64		0.30	
No. of fishing trips for that species	1,375.61		99.81		1,021.29					
% of all trips	30.08		2.18		22.33					
Hours fished for that species	5,580.71		404.91		4,143.25					
(per acre)	(38.22)		(2.77)		(28.38)					
No. harvested fishing for that species	501		77		851					
Lb harvested fishing for that species	717.4		29.6		703.8					
No./hour harvested fishing for that species	0.068		0.184		0.222					
% success fishing for that species	14.83		29.41		18.39					

Table 123 (cont).

	Panfish group	Bluegill	Warmouth	Green sunfish	Redear sunfish	Carp	Anything
No. caught	11,196.03	9,553.74	1,449.50	123.29	69.49	14.36	
(per acre)	(76.69)	(65.44)	(9.93)	(0.84)	(0.48)	(0.10)	
No. harvested	1,403.62	1.202.53	145.95	43.07	12.06		
(per acre)	(9.61)	(8.24)	(1.00)	(0.30)	(0.08)		
% of total no. harvested	37.74	32.33	3.92	1.16	0.32		
Lb harvested	131.2	124.0	4.2	1.2	1.8		
(per acre)	(0.90)	(0.85)	(0.03)	(0.01)	(0.01)		
% of total lb harvested	6.78	6.41	0.22	0.06	0.09		
Mean length (in)		4.8	4.1	3.3	6.0		
Mean weight (lb)		0.07	0.05	0.03	0.15		
No. of fishing trips for that species	90.48						1,986.60
% of all trips	1.98						43.43
Hours fished for that species (per acre)	367.06 (2.51)						8,059.41 (55.20)
No. harvested fishing for that species	600						
Lb harvested fishing for that species	59.2						
No./hour harvested fishing for that species	1.627						
% success fishing for that species	50.00						15.06

Table 124. Length distribution (length of released fish are estimated) for each species of fish harvested at Bullock Pen Lake (134 acres) from 01 April to 31 October 2007.

	Inch class																									
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	26	28	31	32	38
Largemouth bass																											
Harvested											137	158	74	32	74	11	32		8								
Released					184	72	194	102	317	246	77	86	19	10	19	38	58		29								
White crappie																											
Harvested					92	92	23		12	35	34																
Released		12	97	474	985	268	255		146	12		146															
Bluegill																											
Harvested		24	228	385	505	61																					
Released	95	1229	3141	2941	735	200			10																		
Warmouth																											
Harvested	91	9			36	10																					
Released	20	149	468	478	109	60	20																				
Redear sunfish																											
Harvested					12																						
Released			57																								
Green sunfish																											
Harvested		29	14																								
Channel catfish																											
Harvested											286	167	20	59	10												
Released				21	246	224	353	299	1122	354	235	113	31	20			21										
Blue catfish																											
Harvested						19			57	19	247	209	66	9	19	9	28					9	19	11			
Released				103	28	103	234	84	365	159	131	9	37	9	19			9							19	9	11
Flathead catfish																											
Released									10							21	11										
Bullhead																											
Harvested					70		100	10			11																
Released			10	20	119	198	356	108																			
Illegal catfish																											
Harvested										48																	
Carp																											
Released													14														7

Table 125. Black bass catch and harvest statistics derived from a creel survey at Bullock Pen Lake (134 acres) for black bass caught and released by all anglers from 01 April to 31 October 2007.

		Largemouth bass Catch and Release		
	Harvest	12.0–14.9 in	≥15.0 in	Total
Total no of bass	526.18	182.0	154.0	1,976.78
% of black bass harvested by no.	100.0			
Total weight of fish (lbs)	735.5	317.0	267.3	1,708.8
% of black bass harvest by weight	100.0			
Mean length	13.9			
Mean weight	1.37			
Rate (fish/h)	0.027			

Table 126. Monthly black bass angling success at Bullock Pen Lake during the 2007 creel survey.

Month	Total no. of black bass caught by all anglers	Total no. of black bass harvested by anglers	No. of fishing trips for black bass	Hours fished by black bass anglers	Black bass caught by black bass anglers	Black bass caught/hr by black bass anglers	Black bass harvested by black bass anglers	Black bass harvested/hr by black bass anglers
April	274.76	68.69	275.18	1,116.38	224	0.20	69	0.063
May	416.37	157.93	267.60	1,085.62	388	0.33	144	0.120
June	360.43	64.69	217.48	882.29	333	0.20	65	0.039
July	518.53	132.65	304.52	1,235.41	446	0.30	121	0.080
August	256.21	82.89	169.77	688.75	234	0.28	83	0.099
September	82.83		60.56	245.67	8	0.03		
October	67.65	19.33	80.50	326.58	57	0.14	19	0.046
Total	1,976.78	526.18	1,375.61	5,580.71	1,690		501	0.068
Mean						0.23		

t = < 0.01

Table 127. Crappie catch and harvest statistics derived from a creel survey at Bullock Pen Lake (134 acres) for crappie caught and released by all anglers from 01 April to 31 October 2007.

		White crappie Catch and Release		
	Harvest	<9.0 in	≥9.0 in	Total
Total no of crappie	287.72	2,091.0	304.4	2,683.13
% of crappie harvested by no.	100.0			
Total weight of fish (lbs)	69.3	255.0	37.0	361.3
% of crappie harvest by weight	100.0			
Mean length	8.5			
Mean weight	0.28			
Rate (fish/h)	0.014			

Table 128. Monthly crappie angling success at Bullock Pen Lake during the 2007 creel survey.

Month	Total no. of crappie caught by all anglers	Total no. of crappie harvested by all anglers	No. of fishing trips for crappie	Hours fished by crappie anglers	Crappie caught by crappie anglers	Crappie caught/hr by crappie anglers	Crappie harvested by crappie anglers	Crappie harvested/hr by crappie anglers
April	420.73		20.77	84.26	404	3.24		
May	1,837.77	157.93	50.63	205.39	388	2.08	29	0.15
June	129.39	73.94						
July	72.35							
August	7.54	7.54						
September	99.39							
October	115.97	48.32	28.41	115.27	48	0.47	48	0.47
Total	2,683.13	287.72	99.81	404.91	840		77	
Mean						2.07		0.18

Table 129. Catfish catch and harvest statistics derived from a creel survey at Bullock Pen Lake (134 acres) for catfish caught and released by all anglers from 01 April to 31 October 2007.

	Channel catfish				Blue catfish				Flathead catfish				Bullhead			
		Catch and Release				Catch and Release				Catch and Release				Catch and Release		
	Harvest	12.0-14.9 in	≥15.0 in	Total	Harvest	12.0-14.9 in	≥15.0 in	Total	Harvest	12.0-14.9 in	≥15.0 in	Total	Harvest	12.0-14.9 in	≥15.0 in	Total
Total no of catfish	541.5	379.0	40.6	3,579.7	720.8	177.0	76.4	2,050.2			31.6	42.6	190.9			1,002.0
% of catfish harvested by no.	36.1%				48.0%								12.7%			
Total weight of fish (lbs)	364.9	262.0	28.4	1,314.9	585.5	56.0	22.4	996.9			52.1	69.1	48.5			242.0
% of catfish harvest by weight	36.5%				58.6%								4.9%			
Mean length	12.8				15.1								8.3			
Mean weight	0.68				1.63								0.30			
Rate (fish/h)	0.030				0.042								0.010			

Table 130. Monthly catfish angling success at Bullock Pen Lake during the 2007 creel survey.

Month	Total no. of catfish caught by all anglers	Total no. of catfish harvested by all anglers	No. of fishing trips for catfish	Hours fished by catfish anglers	Catfish caught by catfish anglers	Catfish caught/hr by catfish anglers	Catfish harvested by catfish anglers	Catfish harvested/hr by catfish anglers
April	214.66	8.59	72.69	294.89	105	0.28	9	0.02
May	1,234.75	215.36	238.67	968.26	760	0.78	143	0.15
June	1,081.29	341.95	183.50	744.43	359	0.77	55	0.12
July	1,603.81	192.94	165.50	671.42	434	0.76	48	0.08
August	640.54	150.71	107.22	435.05	400	0.74	76	0.14
September	1,242.40	273.33	121.11	491.35	712	1.36	240	0.46
October	705.48	318.92	132.59	537.90	473	0.86	280	0.51
Total	6,722.93	1,501.80	1,021.29	4,143.25	3,243		851	
Mean						0.82		0.22

BULLOCK PEN LAKE ANGLER ATTITUDE SURVEY 2007

(based on only 9 surveys)

1. Which species of fish do you fish for at Boltz Lake (**check all that apply**)?
   Bass **55.5%** Crappie **55.5%** Bluegill **66.7%** Channel catfish **66.7%** Blue catfish **55.5%**

2. Which one species do you fish for most at Boltz Lake (**check only one**)?
   Bass **37.5%** Crappie **12.5%** Bluegill **12.5%** Channel catfish **12.5%** Blue catfish **25.0%**

Bass Anglers

3. What level of satisfaction do you have with bass fishing at Boltz Lake?
   Very satisfied **11.1%** Somewhat satisfied **44.4%** Neutral **0.0%** Somewhat dissatisfied **22.2%** Very dissatisfied **0.0%**
   No opinion **22.2%**

3a. If you responded with somewhat or very dissatisfied in question (5) – what is the single most important reason for your dissatisfaction?

All fish are undersized; poor success

Crappie Anglers

4. What level of satisfaction do you have with the crappie fishing at Boltz Lake?
   Very satisfied **0.0%** Somewhat satisfied **22.2%** Neutral **0.0%** Somewhat dissatisfied **22.2%** Very dissatisfied **22.2%**
   No opinion **33.3%**

4a. If you responded with somewhat or very dissatisfied in question (6) – what is the single most important reason for your dissatisfaction?

Poor size quality

Would you support or oppose a reduction in the current statewide 30 fish daily crappie creel limit?

Support **44.4%** Oppose **22.2%** No opinion **33.3%**

4b. What reduced daily creel limit would you support ? 10 to 20 fish

Bluegill Anglers

5. What level of satisfaction do you have with the bluegill fishing at Boltz Lake?
   Very satisfied **11.1%** Somewhat satisfied **22.2%** Neutral **22.2%** Somewhat dissatisfied **11.1%** Very dissatisfied **11.1%**
   No opinion **22.2%**

5a. If you responded with somewhat or very dissatisfied in question (8) – what is the single most important reason for your dissatisfaction?

Small Size

Catfish Anglers

6. What level of satisfaction do you have with the catfish fishing at Boltz Lake?
   Very satisfied **11.1%** Somewhat satisfied **66.7%** Neutral **0.0%** Somewhat dissatisfied **0.0%** Very dissatisfied **11.1%**
   No opinion **11.1%**

6a. If you responded with somewhat or very dissatisfied in question (9) – what is the single most important reason for your dissatisfaction?

Need larger fish

7. Are you **satisfied with the current fishing** regulations at Boltz Lake? Yes **77.8%** No **11.1%** No opinion **11.1%**

Table 131. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Corinth Lake, April 2007; numbers in parentheses are standard errors.

	Inch class																					
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE
Largemouth bass	1	55	72	45	4	35	95	39	43	19	11	13	6	9	11	5	3	8	1	2	306	153.00 (8.81)

Dataset = cfdpscor.d07

Table 132. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Corinth Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1992	31.00 (9.30)	22.50 (5.30)	5.00 (2.60)	0.00	58.50 (9.80)
1993	34.00 (8.20)	111.30 (11.50)	7.30 (2.40)	2.00 (1.40)	154.70 (13.50)
1996	53.50 (10.10)	174.50 (16.70)	14.50 (2.00)	4.50 (1.60)	247.00 (18.10)
1998	15.50 (3.20)	111.50 (9.80)	19.00 (3.00)	4.00 (1.70)	150.00 (14.40)
1999	137.00 (14.20)	56.50 (5.20)	24.50 (4.30)	3.50 (1.20)	221.50 (16.40)
2000	312.80 (47.00)	136.00 (18.20)	22.40 (6.50)	4.80 (2.30)	476.00 (63.70)
2001	127.20 (16.60)	231.20 (8.00)	20.80 (5.10)	9.60 (3.20)	388.80 (13.50)
2002	40.70 (8.10)	153.30 (21.70)	13.30 (2.90)	16.70 (2.80)	224.00 (28.70)
2003	58.00 (13.60)	146.00 (16.40)	23.30 (3.80)	6.00 (2.00)	233.30 (28.20)
2004	23.00 (4.80)	77.50 (5.00)	40.00 (4.30)	5.00 (1.50)	145.50 (8.00)
2005	45.50 (3.90)	115.00 (9.30)	72.00 (10.00)	20.50 (3.00)	253.00 (16.00)
2006	15.00 (2.70)	74.50 (6.80)	29.00 (1.30)	34.50 (4.70)	153.00 (8.80)
2007	88.50 (14.80)	106.00 (7.00)	21.50 (3.40)	22.50 (3.50)	238.50 (17.60)

Dataset = cfdpscor.d07

Table 133. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Corinth Lake in 2007; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	300	29 (± 5)	15 (± 4)

Dataset = cfdpscor.d07

Table 134. Mean back calculated lengths (in.) at each annulus for otoliths from largemouth bass collected at Corinth Lake in 2007.

		Age									
Year class	No.	1	2	3	4	5	6	7	8	9	10
2006	32	5.4									
2005	27	5.5	8.9								
2004	9	5.4	9.0	11.1							
2003	33	5.6	9.1	11.0	12.8						
2002	9	6.9	10.3	12.7	14.2	15.3					
2001	3	7.0	10.6	12.6	14.2	15.2	16.4				
2000	2	6.9	10.3	13.1	14.9	16.8	17.9	18.8			
1999	5	6.7	9.6	11.4	13.3	14.5	15.8	16.7	17.6		
1997	3	6.9	11.0	13.1	15.2	16.7	17.9	18.7	20.4	20.1	20.8
Mean	150	5.8	9.3	11.5	13.3	15.4	16.7	17.7	18.6	20.1	20.8
Smallest		3.5	7.4	8.9	10.4	11.1	12.0	12.9	13.6	18.6	19.3
Largest		8.3	11.9	14.1	16.9	18.9	19.7	20.3	22.1	21.4	22.0
Std Error		0.1	0.1	0.2	0.2	0.4	0.7	0.6	0.9	0.8	0.8
95% ConLo		5.6	9.1	11.2	12.9	14.7	15.4	16.5	16.8	18.5	19.2
95% ConHi		5.9	9.5	11.8	13.8	16.2	18.0	19.0	20.4	21.7	22.3

Intercept Value = 0.00
Dataset = cfdagcor.d07

Table 135. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Corinth Lake during April 2007. Fish were collected in 15-minute runs.

	Inch class																					STD
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	ERR
1	55	72	45	1																173	36	86.67	14.25
2				3	35	95	4													137	29	68.50	7.43
3							13	22												35	7	17.25	1.82
4							22	22	14	10	9		3							79	17	39.71	4.03
5									2		4	6	6	4						22	5	10.97	1.71
6									2						3					5	1	2.44	0.46
7															1	2				3	1	1.38	0.63
8										1				7	1		8			18	4	8.84	1.59
10																2		1	2	5	1	2.25	1.49
Total	55	72	45	4	35	95	39	43	19	11	13	6	9	11	5	3	8	1	2	476	100	153.00	8.81
%	12	15	9	1	7	20	8	9	4	2	3	1	2	2	1	1	2	0	0	100			

Dataset = cfdagcor.d07 and cfdpscor.d07

Table 136. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from Corinth Lake from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	120.40	293.20	63.40	35.30	54.30	21.10	32.40	11.10	86.70
2	36.60	57.00	134.20	26.30	68.00	37.10	71.30	41.10	68.50
3	34.50	62.50	119.10	114.10	53.80	25.30	34.60	25.10	17.30
4	9.80	34.00	34.00	24.30	49.30	54.80	88.60	40.60	39.70
5	15.70	19.00	25.50	2.40	3.30	4.30	14.60	17.50	11.00
6	1.00	3.90	8.20	6.40	1.90	1.50	6.10	9.70	2.40
7	2.00	2.40	2.70	2.20	0.70	0.30	1.30	2.90	1.40
8	5.00	0.80	1.60	2.90	0.80	0.30	1.30	2.60	8.80
9	2.60	3.20			1.30	1.00	2.80	2.40	
10	0.70								2.30
11	5.80								
12	1.80								

Table 137. Population assessment for largemouth bass collected from Corinth Lake during April 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture	11.1 ± 0.2	3
Spring CPUE age 1	86.67 ± 14.25	4
Spring CPUE 12.0-14.9 in	21.50 ± 3.38	2
Spring CPUE ≥15.0 in	22.50 ± 3.46	3
Spring CPUE ≥20.0 in	5.50 ± 2.38	4
Instantaneous mortality (z)	0.437	
Annual mortality (A)	35.4%	
Total Score		16
Assessment Rating		Good

Table 138. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Corinth Lake on 25 September 2007: numbers in parentheses are standard errors.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Largemouth bass	4	91	115	19	10	74	41	18	13	17	2	3	0	1	1	0	2	1	412	274.7 (38.4)

Dataset = cfdwrcor.d07

Table 139. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Corinth Lake on 25 September 2007. Standard errors are in parentheses.

Species	Area	Length group							
		8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	88	80 (2)	22	86 (1)	5	93 (2)	115	82 (1)

Dataset = cfdwrcor.d07

Table 140. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Corinth Lake.

Year class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
1999	Total	4.3	0.1	74.00	12.30	8.00	2.90	293.20	46.00
2000	Total	4.3	0.1	35.30	7.40	3.30	1.90	63.40	10.90
2001	Total	4.6	0.1	112.70	15.60	32.00	6.80	35.30	7.40
2002	Total	4.6	0.1	163.30	13.70	42.00	4.50	54.30	13.40
2003	Total	4.1	0.1	73.70	9.20	4.60	1.80	21.10	5.10
2004	Total	4.0	0.1	74.00	6.20	2.70	1.30	32.40	4.20
2005	Total	4.4	0.1	41.30	2.70	4.70	1.20	11.10	2.70
2006	Total	4.9	0.1	176.50	15.20	78.00	9.940	86.70	14.30
2007	Total	5.1	0.04	152.70	31.20	89.30	28.80		

Table 141. Species composition, relative abundance, and CPUE (fish/hr) of bluegill and redear sunfish collected in 2.50 hours of 7.5-minute electrofishing runs in Corinth Lake, May 2007; numbers in parentheses are standard errors.

Species	Inch class									Total	CPUE
	1	2	3	4	5	6	7	8	9		
Bluegill	1	32	64	186	122	118	127			650	260.00 (17.86)
Redear sunfish			12	1		14	80	49	4	160	64.00 (11.68)

Dataset = cfdpscor.d07

Table 142. PSD and RSD values calculated for sunfish collected during 2.50 hours of electrofishing at Corinth Lake during May 2007. Fish were collected in 7.5-minute runs.

Species	No. ≥stock size	PSD	RSD
Bluegill	617	40 (± 4)	0
Redear sunfish	148	90 (± 5)	3 (± 3)

Bluegill = RSD_8; Redear = RSD_9
Dataset = cfdpscor.d07

Table 143. Electrofishing CPUE (fish/hr) for each length group of bluegill collected from Corinth Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group					
Year	<3.0 in	3.0–5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
1992	3.00 (1.70)	36.00 (24.90)	49.00 (8.50)	10.00 (5.50)		98.00 (30.40)
1993	2.70 (1.30)	42.00 (13.10)	54.00 (10.90)	20.70 (5.20)		119.30 (26.20)
1996	6.00 (3.90)	75.00 (12.00)	54.50 (14.50)	1.50 (0.70)		137.00 (25.90)
1998	2.00 (1.10)	80.00 (19.40)	50.50 (10.30)	3.00 (1.00)		135.50 (23.70)
1999	42.00 (17.10)	113.00 (16.50)	32.50 (7.20)	17.00 (5.80)		204.50 (26.60)
2000	8.80 (2.50)	270.40 (20.10)	100.80 (12.00)	20.80 (3.60)		400.80 (25.90)
2001	7.20 (4.00)	185.60 (18.00)	140.00 (14.80)	5.60 (2.10)		338.40 (23.50)
2002	2.40 (1.20)	140.00 (16.70)	56.80 (12.10)	0.00		199.20 (26.60)
2003	14.20 (6.20)	164.40 (14.10)	91.60 (10.70)	0.90 (0.90)		271.10 (23.30)
2004	17.60 (4.90)	174.40 (15.90)	61.60 (10.90)	0.00		253.60 (22.70)
2005	12.00 (4.20)	262.40 (32.70)	82.40 (22.20)	0.00		356.80 (47.80)
2006	40.40 (6.00)	211.20 (17.90)	32.80 (6.40)	0.00		284.40 (14.70)
2007	13.20 (2.60)	148.80 (12.10)	98.00 (10.20)	0.00		260.00 (17.90)

Dataset = cfdpscor.d07

Table 144. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Corinth Lake in 2007.

		Age				
Year	No.	1	2	3	4	5
2006	18	2.7				
2005	23	2.6	4.6			
2004	5	2.9	4.7	6.4		
2003	16	2.4	4.5	5.6	6.7	
2002	2	2.3	4.2	5.6	6.4	7.2
Mean	64	2.6	4.5	5.8	6.7	7.2
Smallest		1.6	3.3	4.6	5.8	7.1
Largest		3.7	5.7	7.1	7.5	7.3
Std Error		0.1	0.1	0.1	0.1	0.1
95% ConLo		2.5	4.4	5.6	6.4	7.0
95% ConHi		2.7	4.7	6.0	6.9	7.4

Intercept value = 0.00
Dataset = cfdagcor.d07

Table 145. Age frequency and CPUE (fish/hr) per inch class of bluegill collected during 2.50 hours of electrofishing at Corinth Lake during May 2007. Fish were collected in 7.5-minute runs.

	Inch class										STD
Age	1	2	3	4	5	6	7	Total	%	CPUE	ERR
1	1	32	41					74	11	29.49	5.96
2			23	186	100			309	48	123.64	15.73
3					11	32	13	56	9	22.39	2.79
4					11	86	89	186	29	74.32	5.64
5							25	25	4	10.16	0.30
Total	1	32	64	186	122	118	127	650	100	260.00	17.86
%	0	5	10	29	19	18	20	100			

Dataset = cfdagcor.d07 and cfdpscor.d07

Table 146. Electrofishing catch rate (fish/hr) of each age of bluegill collected from Corinth Lake from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	37.70	32.00	11.50	2.40	14.20	23.30	12.00	47.70	29.50
2	81.20	295.50	167.50	108.40	153.80	142.00	200.80	168.30	123.60
3	8.90	37.90	140.90	71.80	47.80	33.60	98.30	27.20	22.40
4	26.10	2.20	1.50	16.60	22.10	20.60	34.20	40.40	74.30
5	6.40	13.30	3.90		33.20	34.20	11.50	0.70	10.20
6	2.30	2.20							
7	2.10	2.20							

Table 147. Population assessment for spring-collected bluegill collected from Corinth Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.6 ± 0.1	3
Years to 6.0 in	3 - 3+	3
CPUE ≥6.0 in	98.00 ± 10.23	4
CPUE ≥8.0 in	0.00	0
Instantaneous mortality (z)	0.628	
Annual mortality (A)	46.7%	
Assessment Total		10
Assessment Rating		Fair

Table 148. Electrofishing CPUE (fish/hr) for each length group of redear sunfish collected from Corinth Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
1992	0.00	0.00	0.00	0.00	0.00	0.00
1993	0.00	0.00	0.00	2.00 (2.00)	1.30 (1.30)	2.00 (2.00)
1996	0.50 (0.50)	7.00 (2.80)	5.50 (2.70)	10.50 (3.50)	4.00 (1.70)	23.50 (3.90)
1998	0.00	4.00 (0.80)	0.50 (0.50)	19.00 (4.30)	15.50 (3.30)	23.50 (4.00
1999	0.00	3.70 (1.60)	2.70 (1.10)	5.30 (1.50)	3.20 (1.10)	21.50 (3.50)
2000	0.00	14.40 (4.10)	33.60 (15.80)	52.80 (6.60)	16.80 (4.20)	100.80 (21.90)
2001	1.60 (1.10)	20.80 (5.00)	54.40 (9.20)	72.80 (10.00)	44.00 8.70)	149.60 (15.60)
2002	0.00	4.00 (1.80)	6.40 (2.00)	82.40 (15.40)	52.00 (8.70)	92.80 (15.90)
2003	0.90 (0.90)	11.60 (3.60)	11.60 (2.40)	28.40 (5.20)	24.90 (5.60)	52.40 (6.10)
2004	0.80 (0.80)	13.60 (1.70)	17.60 (5.20)	19.20 (5.20)	14.40 (3.30)	51.20 (6.80)
2005	0.00	38.40 (4.40)	28.80 (6.40)	31.20 (11.10)	3.20 (1.80)	98.40 (17.30)
2006	0.00	19.60 (3.90)	54.00 (6.60)	7.60 (1.50)	0.40 (0.40)	81.20 (7.20)
2007	0.00	5.20 (1.30)	37.60 (7.10)	21.20 (5.50)	0.00	64.00 (11.70)

Dataset = cfdpscor.d07

Table 149. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from Corinth Lake in 2007.

		Age				
Year	No.	1	2	3	4	5
2006	8	3.4				
2005	10	3.7	6.5			
2004	9	3.6	6.1	7.6		
2003	18	3.3	6.2	7.5	8.1	
2002	4	3.3	6.1	7.7	8.3	8.8
Mean	49	3.5	6.2	7.6	8.1	8.8
Smallest		2.1	5.0	6.3	6.8	8.4
Largest		4.5	7.2	8.2	9.1	9.1
Std Error		0.1	0.1	0.1	0.1	0.2
95% ConLo		3.3	6.1	7.4	8.0	8.4
95% ConHi		3.6	6.4	7.8	8.3	9.1

Intercept value = 0.00
Dataset = cfdagcor.d07

Table 150. Age frequency and CPUE (fish/hr) per inch class of redear sunfish collected during 2.50 hours of electrofishing at Corinth Lake during May 2007. Fish were collected in 7.5-minute runs.

	Inch class										STD
Age	3	4	5	6	7	8	9	Total	%	CPUE	ERR
1	12	1						13	8	5.20	1.33
2				12	13			26	16	10.31	2.21
3				2	33	9		44	27	17.41	3.30
4					33	35	1	69	43	27.70	5.79
5						6	3	8	5	3.37	0.99
Total	12	1	0	14	80	49	4	160	100	64.00	11.68
%	8	1	0	9	50	31	3	100			

Dataset = cfdagcor.d07 and cfdpscor.d07

Table 151. Population assessment for redear sunfish collected from Corinth Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	7.6 ± 0.2	4
Years to 8.0 in	3 - 3+	4
CPUE ≥8.0 in	21.20 ± 5.54	4
CPUE ≥10.0 in	0.00	x
Assessment Total		12
Assessment Rating		Good

Table 152. Number of fish and the relative weight (Wr) for each length group of bluegill and redear sunfish collected at Corinth Lake on 24 September 2007. Standard errors are in parentheses.

	Length group							
Species	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0–5.9 in		6.0–7.9 in		≥8.0 in		Total	
Bluegill	80	99 (3)	41	83 (1)			121	93 (2)
	4.0–6.9 in		7.0–8.9 in		≥9.0 in		Total	
Redear sunfish	47	93 (1)	11	91 (1)			59	92 (1)

Dataset = cfdwrcor.d07

Table 153. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected in 2.0 hours of 15-minute electrofishing runs in Elmer Davis Lake, April 2007; numbers in parentheses are standard errors.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	10	22	18	5	10	87	40	66	81	54	18	11	7	3	1	2	1	0	2	438	219.00 (28.85)

Dataset = cfdpselm.d07

Table 154. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Elmer Davis Lake from 1996-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1996	102.00 (15.30)	163.50 (19.50)	37.00 (6.20)	9.00 (3.40)	312.00 (32.70)
1997	113.50 (20.10)	252.00 (27.20)	39.00 (5.60)	19.00 (3.70)	423.50 (43.90)
1998	52.50 (9.50)	93.30 (6.80)	16.80 (2.30)	7.50 (1.70)	170.10 (15.10)
1999	247.10 (29.70)	50.20 (8.00)	34.20 (6.40)	16.40 (4.90)	348.00 (40.50)
2000	134.50 (14.70)	136.50 (11.00)	31.50 (6.00)	29.00 (4.40)	331.50 (21.30)
2001	121.00 (17.00)	220.00 (21.20)	18.50 (2.40)	21.00 (4.10)	380.50 (24.90)
2002	99.00 (16.30)	124.00 (12.30)	4.00 (1.30)	10.00 (2.70)	237.00 (26.20)
2003	96.00 (10.20)	189.50 (16.50)	14.50 (3.90)	15.00 (2.70)	315.00 (25.10)
2004	107.50 (10.00)	123.50 (10.00)	22.00 (3.50)	15.00 (1.70)	268.00 (17.40)
2005	93.00 (10.60)	197.00 (11.20)	60.00 (10.40)	15.00 (2.40)	365.00 (27.20)
2006	74.50 (11.50)	123.50 (12.20)	40.50 (7.90)	6.50 (1.80)	245.00 (15.40)
2007	32.50 (5.80)	137.00 (16.40)	41.50 (10.30)	8.00 (2.80)	219.00 (28.90)

Dataset = cfdpselm.d07
Shad eradication in fall of 1997

Table 155. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Elmer Davis Lake in 2007; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	373	27 (± 4)	4 (± 2)

Dataset = cfdpselm.d07

Table 156. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Elmer Davis Lake during April 2007. Fish were collected in 15-minute runs.

	Inch class																						STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1	10	22	18	4																54	12	26.88	6.10
2				1	10	87	20													118	27	59.13	8.10
3							16	46	36	5										102	23	51.10	6.04
4							4	5		14										23	5	11.29	2.25
5								15	18	27	6	6								72	16	35.87	6.17
6									27	9	12	6	2	2						58	13	28.75	3.84
7													4	1	1	1	1			6	1	3.21	0.96
8													2			1	1			3	1	1.46	0.41
9																			2	2	0	1.00	0.50
10																1				1	0	0.33	0.33
Total	10	22	18	5	10	87	40	66	81	54	18	11	7	3	1	2	1	0	2	490	100	219.00	28.85
%	0	10	14	6	1	6	8	19	17	10	3	3	0	1	0	0	0	0	0	100			

Dataset = cfdagelm.d04 and cfdpselm.d07

Table 157. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from Elmer Davis Lake from 2000-2007.

	Year							
Age	2000	2001	2002	2003	2004	2005	2006	2007
1	73.80	52.80	80.60	57.50	94.40	78.10	68.10	26.90
2	123.70	151.20	45.00	96.10	66.10	93.10	31.10	59.10
3	80.30	103.30	67.70	85.40	47.90	72.90	61.10	51.10
4	12.40	42.50	30.90	52.40	10.30	16.00	11.80	11.30
5	14.50	10.70	3.80	8.60	22.60	50.20	39.00	35.90
6	17.60	4.20	1.50	1.40	14.40	43.50	29.20	28.80
7	4.30	4.30	1.40	1.30	5.30	5.30	2.50	3.20
8	2.00	5.10	2.20	1.80	2.40	2.10	0.80	1.50
9	0.50	2.50	1.40	1.80	1.00	1.00	0.50	1.00
10	1.50	3.00	1.90	4.80	1.20	0.30	0.30	0.30
11	1.00	0.50	0.90	0.60	2.50	2.50	0.50	
12				3.00				
13				0.50				
14		0.50						

Table 158. Population assessment for largemouth bass collected from Elmer Davis Lake during April 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture*	10.5 (0.2)	2
Spring CPUE age 1	26.88 (6.10)	2
Spring CPUE 12.0-14.9 in	41.50 (10.25)	3
Spring CPUE ≥15.0 in	8.00 (2.83)	2
Spring CPUE ≥20.0 in	1.00 (0.65)	2
Instantaneous mortality (z)	0.549	
Annual mortality (A)	42.3%	
Total Score		11
Assessment Rating		Fair

* 2004 age and growth dataset was used.

Table 159. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Elmer Davis Lake in September 2007: numbers in parentheses are standard errors.

	Inch class																
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	18	20	Total	CPUE
Largemouth bass	47	98	23	9	39	47	68	78	44	26	13	6	4	1	1	504	336.00 (25.57)

Dataset = cfdwrelm.d07

Table 160. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Elmer Davis Lake on 25 September 2007. Standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	102	84 (1)	45	81 (2)	6	88 (4)	153	83 (1)

Dataset = cfdwrelm.d07

Table 161. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Elmer Davis Lake.

Year Class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2000	Total	3.8	(0.1)	269.60	(33.20)	14.40	(2.00)	52.80	(9.70)
2001	Total	4.5	(0.1)	210.70	(25.00)	47.30	(3.00)	80.60	(13.30)
2002	Total	4.3	(0.1)	67.30	(10.00)	13.30	(3.20)	57.50	(7.90)
2003	Total	4.2	(0.1)	179.00	(32.00)	27.00	(10.00)	94.40	(9.90)
2004	Total	4.3	(0.03)	180.00	(38.50)	24.70	(4.30)	78.10	(9.90)
2005	Total	4.4	(0.04)	190.00	(29.60)	33.30	(5.30)	68.10	(10.20)
2006	Total	3.7	(0.04)	166.00	(17.40)	8.00	(2.50)	26.90	(6.10)
2007	Total	4.3	(0.05)	114.00	(24.60)	17.30	(5.40)		

Table 162. Species composition, relative abundance, and CPUE (fish/hr) of bluegill and redear sunfish collected in 2.50 hours of 7.5-minute electrofishing runs in Elmer Davis Lake, May 2007; numbers in parentheses are standard errors.

Species	Inch class										Total	CPUE
	1	2	3	4	5	6	7	8	9	10		
Bluegill		19	61	85	57	46	61	23			352	140.80 (14.87)
Redear sunfish		1		1	3	8	37	9	25	5	89	35.60 (5.61)

Dataset = cfdpselm.d07

Table 163. PSD and RSD values calculated for sunfish collected during 2.50 hours of electrofishing at Elmer Davis Lake during May 2007. Fish were collected in 7.5-minute runs.

Species	No. ≥stock size	PSD	RSD
Bluegill	333	39 (± 5)	7 (± 3)
Redear sunfish	88	86 (± 7)	34 (± 10)

Bluegill = RSD_8; Redear = RSD_9
Dataset = cfdpselm.d07

Table 164. Electrofishing CPUE (fish/hr) for each length group of bluegill collected from Elmer Davis Lake from 1994-2007; numbers in parentheses are standard errors.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	Total
1994	1.00 (0.70)	12.00 (3.00)	29.00 (5.70)	1.50 (1.10)	43.50 (6.00)
1995	NS				
1996	42.00 (7.90)	75.00 (9.70)	55.00 (11.20)	20.00 (5.40)	192.00 (22.50)
1997	0.50 (0.50)	79.50 (12.50)	59.00 (16.30)	5.50 (2.10)	144.50 (28.60)
1998	2.70 (1.10)	17.10 (4.50)	7.70 (1.60)	2.90 (1.10)	30.40 (5.80)
1999	579.50 (74.50)	502.00 (65.40)	23.00 (7.60)	5.00 (3.40)	1,109.50 (130.90)
2000	NS				
2001	1.50 (0.80)	109.50 (28.00)	157.00 (23.50)	0.50 (0.50)	268.50 (49.60)
2002	33.60 (11.80)	78.40 (19.30)	272.80 (55.30)	0.80 (0.80)	385.60 (78.20)
2003	17.60 (4.70)	89.60 (12.90)	151.20 (30.10)	2.40 (1.70)	260.80 (37.10)
2004	40.00 (8.70)	100.80 (13.70)	119.20 (29.80)	8.80 (3.90)	268.80 (44.70)
2005	38.40 (11.40)	92.80 (16.10)	59.20 (9.80)	8.80 (3.00)	199.20 (23.90)
2006	162.40 (35.90)	115.20 (20.10)	42.40 (8.50)	16.00 (4.50)	336.00 (43.80)
2007	7.60 (1.80)	81.20 (7.40)	42.80 (9.70)	9.20 (2.40)	140.80 (14.90)

Dataset = cfdpselm.d07

Table 165. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Elmer Davis Lake in 2007.

		Age						
Year	No.	1	2	3	4	5	6	7
2006	3	2.4						
2005	35	2.3	4.1					
2004	12	2.2	4.8	6.6				
2003	9	2.2	4.6	6.5	7.5			
2002	5	3.1	5.2	6.6	7.4	8.0		
2001	2	3.9	5.7	6.7	7.2	7.6	8.0	
2000	3	3.0	5.1	6.3	7.0	7.6	8.2	8.7
Mean	69	2.4	4.5	6.5	7.4	7.8	8.1	8.7
Smallest		1.1	2.4	5.7	6.5	7.1	7.6	8.1
Largest		4.2	6.2	8.2	8.3	8.3	8.5	9.1
Std Error		0.1	0.1	0.1	0.1	0.1	0.2	0.3
95% ConLo		2.2	4.3	6.4	7.1	7.6	7.8	8.1
95% ConHi		2.6	4.7	6.7	7.6	8.0	8.5	9.3

Intercept value = 0.00
Dataset = cfdagelm.d07

Table 166. Age frequency and CPUE (fish/hr) per inch class of bluegill collected during 2.50 hours of electrofishing at Elmer Davis Lake during May 2006. Fish were collected in 7.5-minute runs.

	Inch class										STD
Age	2	3	4	5	6	7	8	Total	%	CPUE	ERR
1	6							6	2	2.53	0.60
2	13	61	85	47				205	58	82.12	6.85
3				10	36	12	3	61	17	24.36	4.71
4					10	31	5	46	13	18.33	3.98
5						12	8	20	6	7.95	1.64
6						6	3	9	2	3.46	0.73
7							5	5	1	2.04	0.54
Total	19	61	85	57	46	61	23	352	100	140.80	14.87
%	5	17	24	16	13	17	7	100			

Dataset = cfdagcor.d07 and cfdpscor.d07

Table 167 Electrofishing catch rate (fish/hr) of each age of bluegill collected from Elmer Davis Lake from 2001-2007.

	Year						
Age	2001	2002	2003	2004	2005	2006	2007
1	2.60	35.80	21.20	43.10	21.20	237.80	2.50
2	45.40	69.40	75.90	95.00	97.20	41.60	82.10
3	212.90	20.00	34.60	45.40	47.40	26.90	24.40
4	7.60	246.30	21.30	29.60	12.20	19.80	18.30
5		14.20	107.80	7.80	6.00	9.90	8.00
6				46.80	5.00		3.50
7				1.10	3.90		2.00

Table 168. Population assessment for bluegill collected from Elmer Davis Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.1 ± 0.2	2
Years to 6.0 in	2 – 2+	4
CPUE ≥6.0 in	52.00 ± 10.55	3
CPUE ≥8.0 in	9.20 ± 2.41	2
Instantaneous mortality (z)	0.721	
Annual mortality (A)	51.4%	
Assessment Total		11
Assessment Rating		Good

Table 169. Electrofishing CPUE (fish/hr) for each length group of redear sunfish collected from Elmer Davis Lake from 1994-2007; numbers in parentheses are standard errors.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
1994	0.00	0.50 (0.50)	0.50 (0.50)	2.50 (2.00)	1.50 (1.50)	3.50 (1.90)
1995	NS					
1996		7.50 (1.60)	23.50 (3.30)	4.00 (1.10)	1.00 (0.70)	35.00 (4.60)
1997	0.00	1.00 (1.00)	0.50 (0.50)	13.00 (3.80)	0.50 (0.50)	14.50 (4.60)
1998	0.00	0.30 (0.30)	0.00	0.00	0.00	0.30 (0.30)
1999	0.00	19.00 (4.40)	13.00 (2.20)	20.50 (5.30)	0.00	52.50 (7.50)
2000	NS					
2001	0.00	3.50 (2.10)	21.00 (5.10)	3.50 (1.60)	1.00 (0.70)	28.00 (4.80)
2002	0.80 (0.80)	4.00 (1.80)	8.80 (4.70)	15.20 (4.20)	0.80 (0.80)	28.80 (6.10)
2003	1.60 (1.10)	7.20 (5.50)	31.20 (7.40)	19.20 (6.20)	0.80 (0.80)	59.20 (13.50)
2004	4.00 (2.70)	8.00 (3.40)	66.40 (18.40)	24.80 (9.70)	3.20 (2.40)	103.20 (29.10)
2005	0.00	11.20 (2.40)	54.40 (16.70)	63.20 (18.60)	4.80 (1.80)	128.80 (26.90)
2006	0.00	12.80 (4.00)	4.80 (1.80)	30.40 (6.50)	4.00 (1.30)	51.20 (10.00)
2007	0.40 (0.40)	1.60 (0.70)	18.00 (3.50)	15.60 (3.40)	2.00 (1.10)	35.60 (5.60)

Dataset = cfdpselm.d07

Table 170. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from Elmer Davis Lake in 2007.

		Age				
Year	No.	1	2	3	4	5
2006	1	2.1				
2005	21	3.5	6.9			
2004	10	3.1	6.7	8.6		
2003	11	3.4	6.6	8.9	9.9	
2002	4	3.2	6.2	8.4	9.3	10.1
Mean	47	3.3	6.7	8.7	9.8	10.1
Smallest		2.1	4.5	6.8	9.1	9.9
Largest		5.5	8.5	10.0	10.5	10.2
Std Error		0.1	0.1	0.1	0.1	0.1
95% ConLo		3.1	6.4	8.5	9.5	10.0
95% ConHi		3.5	7.0	9.0	10.0	10.2

Intercept value = 0.00
Dataset = cfdagelm.d07

Table 171. Age frequency and CPUE (fish/hr) per inch class of redear sunfish collected during 2.50 hours of electrofishing at Elmer Davis Lake during May 2006. Fish were collected in 7.5-minute runs.

	Inch class												STD
Age	2	3	4	5	6	7	8	9	10	Total	%	CPUE	ERR
1	1									1	1	0.40	0.40
2			1	3	7	37	3			50	57	20.17	3.42
3					1		6	9		17	19	6.66	1.31
4								14	3	17	19	6.70	1.64
5								2	2	4	5	1.66	0.51
Total	1		1	3	8	37	9	25	5	89	100	35.60	5.61
%	1		1	3	9	42	10	28	6	100			

Dataset = cfdagelm.d07 and cfdpselm.d07

Table 172. Electrofishing catch rate (fish/hr) of each age of redear sunfish collected from Elmer Davis Lake from 2001-2007.

	Year						
Age	2001	2002	2003	2004	2005	2006	2007
1	0.00	35.80	7.20	7.20	0.00	16.00	0.40
2	0.50	69.40	34.40	78.80	61.30	4.80	20.20
3	13.50	20.00	4.10	8.70	53.60	23.40	6.70
4	7.90	246.30	13.50	8.50	10.10	7.00	6.70
5	5.60	14.20			1.00		1.70
6	0.50				2.80		

Table 173. Population assessment for redear sunfish collected from Elmer Davis Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	8.6 ± 0.2	4
Years to 8.0 in	2 – 2+	4
CPUE ≥8.0 in	15.60 ± 3.41	4
CPUE ≥10.0 in	2.00 ± 1.14	2
Assessment Total		14
Assessment Rating		Excellent

Table 174. Number of fish and the relative weight (Wr) for each length group of bluegill and redear sunfish collected at Elmer Davis Lake on 25 September 2007. Standard errors are in parentheses.

Species	Length group							
	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0–5.9 in		6.0–7.9 in		≥8.0 in		Total	
Bluegill	78	96 (2)	36	85 (2)	6	77 (3)	120	92 (2)
	4.0–6.9 in		7.0–8.9 in		≥9.0 in		Total	
Redear sunfish	41	100 (2)	9	103 (3)	3	105 (5)	55	101 (1)

Dataset = cfdwrelm.d07

Table 175. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected in 2.0 hours of 15-minute electrofishing runs in Kincaid Lake, April 2007; numbers in parentheses are standard errors.

	Inch class																			
Species	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE
Spotted bass	1			1	1	1	3	2	4										16	8.00 (2.83)
Largemouth bass	4	14	25	24	15	24	38	32	25	38	34	33	37	29	28	14	13	4	431	215.50 (13.64)

Dataset = cfdpskin.d07

Table 176. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Kincaid Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1992	4.00 (0.00)	34.00 (3.10)	13.30 (1.80)	53.30 (4.10)	104.70 (3.50)
1995	27.50 (3.40)	38.50 (4.50)	17.50 (2.90)	65.00 (6.50)	148.50 (11.90)
1997	13.50 (2.90)	59.00 (6.20)	53.00 (4.20)	92.00 (14.30)	217.50 (18.00)
1999	15.00 (4.30)	60.00 (8.60)	55.00 (3.70)	94.00 (6.80)	224.00 (8.60)
2000	15.30 (5.70)	64.50 (7.00)	36.50 (5.50)	70.00 (7.80)	186.00 (16.30)
2001	16.00 (2.90)	99.30 (13.70)	35.30 (5.80)	102.70 (10.60)	253.30 (23.50)
2002	10.00 (4.50)	35.30 (9.40)	36.70 (8.40)	110.00 (14.80)	192.00 (29.20)
2003	23.40 (5.80)	70.30 (12.10)	32.60 (4.00)	94.90 (15.80)	221.10 (22.80)
2004	7.00 (2.90)	76.00 (12.50)	38.50 (5.00)	71.00 (10.00)	192.50 (16.50)
2005	22.00 (3.70)	56.00 (8.20)	69.50 (9.30)	113.00 (18.50)	260.50 (30.70)
2006	14.50 (3.50)	82.00 (8.30)	43.00 (5.00)	112.50 (9.80)	252.00 (14.90)
2007	21.50 (5.30)	50.50 (6.10)	47.50 (5.30)	96.00 (6.70)	215.50 (13.60)

Dataset = cfdpskin.d07

Table 177. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Kincaid Lake in 2007; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	388	74 (± 4)	49 (± 5)

Dataset = cfdpskin.d07

Table 178. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Kincaid Lake during April 2007. Fish were collected in 15-minute runs.

	Inch class																				STD
Age	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	ERR
1																			0	0	0.00	0.00
2	4	14	25	24	6														73	17	36.50	5.82
3					8	17	16												40	9	20.24	2.79
4					2	7	19	29	22	21	14	7							119	28	59.65	5.25
5							3	3	3	14	7		11						40	9	20.17	1.36
6										3	14	20	21						58	13	29.00	2.42
7												7	5	10	7				29	7	14.28	1.38
8														19	14				33	8	16.67	2.02
9															7	7			14	3	7.00	1.34
10																		4	4	1	2.00	1.07
11																7			7	2	3.50	1.05
12																	7		7	2	3.25	0.53
17																	7		7	2	3.25	0.53
Total	4	14	25	24	15	24	38	32	25	38	34	33	37	29	28	14	13	4	431	100	215.50	13.64
%	1	3	6	6	3	6	9	7	6	9	8	8	9	7	6	3	3	1	100			

Dataset = cfdagkin.d05 and cfdpskin.d07

Table 179. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from Kincaid Lake from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	3.50	1.50	0.00	0.00	0.00	1.00	0.00	1.50	0.00
2	26.00	26.80	17.40	15.50	39.90	12.50	36.10	36.30	36.50
3	32.50	28.10	26.90	24.80	48.10	61.00	25.70	36.77	20.20
4	28.60	27.60	45.60	43.60	31.20	35.70	81.30	64.95	59.70
5	31.30	23.20	29.80	22.30	26.70	23.90	25.30	22.59	20.20
6	10.20	15.40	28.60	35.00	30.00	20.90	35.40	36.53	29.00
7	28.30	11.00	20.90	4.50	6.50	5.10	17.20	16.15	14.30
8	11.10	17.30	13.40	5.30	28.40	22.80	19.90	17.58	16.70
9	16.00	15.20	9.30	1.30	6.50	5.10	10.10	7.88	7.00
10	7.30	5.80	9.20		0.60	1.00	0.50	2.50	2.00
11		9.50	9.20		3.10	3.60	5.50	4.75	3.50
12	13.30	3.30	2.30				1.80	2.25	3.30
13	3.50	0.50	0.60						
14		1.00							
15				5.30					
16				1.30					
17							1.80		3.30

Table 180. Population assessment for largemouth bass collected from Kincaid Lake during April 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture*	10.5 ± 0.2	2
Spring CPUE age 1	0.00 ± 0.00	0
Spring CPUE 12.0-14.9 in	47.50 ± 5.32	3
Spring CPUE ≥15.0 in	96.00 ± 6.68	4
Spring CPUE ≥20.0 in	15.50 ± 2.44	4
Instantaneous mortality (z)	0.275	
Annual mortality (A)	24.1%	
Total Score		13
Assessment Rating		Good

*2005 age and growth dataset was used.

Table 181. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for largemouth bass in Kincaid Lake in September 2007: numbers in parentheses are standard errors.

	Inch class																					
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	14	10	4	1	11	14	16	20	24	22	9	8	11	8	14	7	6	4	2	2	207	138.00 (10.32)

Dataset = cfdwrkin.d07

Table 182. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Kincaid Lake on 24 September 2007. Standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	82	88 (1)	28	92 (2)	43	101 (1)	153	92 (1)

Dataset = cfdwrkin.d07

Table 183. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Kincaid Lake.

Year Class	No. of fish	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
1999	25	3.1	(0.2)	16.70	(5.70)	0.00		1.50	(1.10)
2000	11	3.1	(0.2)	4.70	(1.60)	0.00		0.00	
2001	36	2.9	(0.1)	20.60	(6.70)	0.00		0.00	
2002	76	2.6	(0.1)	43.40	(10.60)	0.00		0.00	
2003	33	2.8	(0.1)	22.00	(4.70)	0.00		1.00	(0.70)
2004	19	3.0	(0.1)	12.70	(4.30)	0.00		0.00	
2005	259	2.5	(0.03)	129.50	(19.30)	0.00		1.50	(0.70)
2006	64	2.7	(0.1)	42.70	(11.90)	0.00		0.00	
2007	29	3.2	(0.1)	19.30	(4.80)	0.70	(0.70)		

Dataset = cfdwrkin.d07

Table 184. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected in 1.5 hours of 15-minute electrofishing runs in McNeely Lake, April 2007; numbers in parentheses are standard errors.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Largemouth bass	2	2	3	1	14	48	40	29	30	35	14	21	16	17	9	5	11	2	299	199.33 (30.803)

Dataset = cfdpsmcl.d07

Table 185. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from McNeely Lake from 1996-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1996	77.3 (9.2)	6.7 (2.0)	18.0 (3.4)	23.3 (2.8)	125.3 (11.0)
1998	80.0 (11.1)	134.7 (18.6)	7.3 (2.2)	14.0 (3.4)	236.0 (26.0)
1999	71.0 (10.6)	161.0 (4.4)	27.0 (7.4)	22.0 (5.3)	281.0 (7.5)
2000	44.7 (5.0)	144.7 (13.4)	104.7 (13.8)	20.7 (2.2)	314.7 (24.7)
2001	71.3 (10.1)	144.0 (6.4)	97.7 (16.4)	31.3 (3.8)	346.0 (28.1)
2002	28.7 (3.0)	48.0 (12.5)	43.3 (4.8)	9.3 (1.7)	129.3 (30.3)
2003	44.7 (8.2)	96.0 (12.4)	56.0 (10.7)	27.3 (3.2)	224.0 (19.7)
2004	27.3 (4.3)	58.0 (8.9)	23.3 (4.3)	28.0 (3.9)	136.7 (15.6)
2005	23.3 (6.3)	76.7 (5.9)	46.0 (4.9)	30.0 (6.2)	176.0 (8.6)
2006	56.0 (5.6)	72.7 (12.1)	37.3 (6.5)	24.0 (2.5)	190.0 (14.6)
2007	14.7 (1.7)	98.0 (11.9)	46.7 (13.1)	40.0 (8.9)	199.3 (30.8)

Dataset = cfdpsmcl.d07

Table 186. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in McNeely Lake in 2007; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	277	46 (± 6)	22 (± 5)

Dataset = cfdpsmcl.d07

Table 187. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 1.50 hours of electrofishing at McNeely Lake during April 2007. Fish were collected in 15-minute runs.

	Inch class																				STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%	CPUE	ERR
1	2	2	3	1															8	3	5.33	1.69
2					14	48	13												75	25	50.22	6.33
3							27	24	24			4							78	26	52.22	6.78
4								5	6	35	7	7							60	20	39.89	9.37
5											4	7	5	13					29	10	19.06	4.31
6											4		5	4	2				15	5	10.22	3.10
7												4	5		5				13	4	8.89	2.94
8																5		2	7	2	4.67	2.40
9																			0	0	0.00	0.00
10															2		11		13	4	8.83	2.57
Total	2	2	3	1	14	48	40	29	30	35	14	21	16	17	9	5	11	2	299	100	199.33	30.80
%	1	1	1	0	5	16	13	10	10	12	5	7	5	6	3	2	4	1	100			

Dataset = cfdagmcl.d04 and cfdpsmcl.d07

Table 188. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from McNeely Lake from 2001-2007.

	Year						
Age	2001	2002	2003	2004	2005	2006	2007
1	70.00	23.30	20.00	24.70	12.70	50.70	5.30
2	53.10	22.60	72.90	13.80	27.60	26.90	50.20
3	35.60	10.60	22.80	41.40	51.10	45.90	52.20
4	62.10	22.10	26.90	21.40	43.70	29.90	39.90
5	47.50	17.90	22.50	11.60	12.10	12.10	19.10
6	31.40	14.40	20.60	6.30	9.60	8.00	10.20
7	23.00	13.20	20.00	5.90	8.60	5.60	8.90
8	7.80	3.60	9.20	7.30	5.30	7.30	4.70
9	5.10	1.00	3.90	0.00	0.00	0.00	0.00
10	5.10		1.70	4.20	5.50	3.70	8.80
11	4.50	0.70	3.10				
12	0.80		0.40				

Table 189. Population assessment for largemouth bass collected from McNeely Lake during April 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture*	11.0 ± 0.4	3
Spring CPUE age 1	5.33 ± 1.69	1
Spring CPUE 12.0-14.9 in	46.67 ± 13.05	3
Spring CPUE ≥15.0 in	40.00 ± 8.94	4
Spring CPUE ≥20.0 in	1.33 ± 1.33	2
Instantaneous mortality (z)	0.386	
Anural mortality (A)	32.1%	
Total Score		13
Assessment Rating		Good

*2004 age and growth dataset was used.

Table 190. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.25 hours of 15-minute electrofishing runs for black bass in McNeely Lake in September 2007: numbers in parentheses are standard errors.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Largemouth bass	3	70	105	54	15	33	27	43	40	13	17	4	3	2	2	1	432	345.60 (60.47)

Dataset = cfdwrmcl.d07

Table 191. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at McNeely Lake on 2 October 2007. Standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	143	88 (1)	34	90 (2)	8	91 (2)	185	88 (1)

Dataset = cfdwrmcl.d07

Table 192. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at McNeely Lake.

Year Class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2000	Total	3.8	(0.1)	87.30	(16.10)	10.00	(2.30)	70.00	(9.40)
2001	Total	4.1	(0.9)	20.70	(1.60)	2.00	(1.40)	23.30	(2.40)
2002	Total	4.7	(0.1)	24.00	(5.80)	10.70	(3.80)	20.00	(2.50)
2003	Total	4.1	(0.1)	56.00	(14.00)	7.00	(1.90)	24.70	(3.50)
2004	Total	4.0	(0.1)	49.00	(2.40)	3.50	(0.90)	12.70	(2.40)
2005	Total	4.7	(0.1)	193.30	(17.20)	88.00	(12.10)	50.70	(7.20)
2006	Total	4.5	(0.1)	108.70	(23.30)	33.30	(5.70)	5.30	(1.70)
2007	Total	5.2	(0.04)	174.40	(49.00)	116.00	(28.30)		

Table 193. Species composition, relative abundance, and CPUE (fish/hr) of bluegill and redear sunfish collected in 1.25 hours of 7.5-minute electrofishing runs in McNeely Lake, May 2007; numbers in parentheses are standard errors.

Species	Inch class							Total	CPUE
	2	3	4	5	6	7	8		
Bluegill	11	18	60	65	107	41		302	241.6 (30.8)
Redear sunfish				3	19	18	8	48	38.4 (8.8)

Dataset = cfdpsmcl.d07

Table 194. PSD and RSD values calculated for sunfish collected during 1.25 hours of electrofishing at McNeely Lake during May 2007. Fish were collected in 7.5-minute runs.

Species	No. ≥stock size	PSD	RSD
Bluegill	291	51 (± 6)	0
Redear sunfish	48	54 (± 14)	0

Bluegill = RSD_8; $Redear_9$
Dataset = cfdpsmcl.d06

Table 195. Electrofishing CPUE (fish/hr) for each length group of bluegill collected from McNeely Lake from 1994-2007; numbers in parentheses are standard errors.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	Total
1994	17.60 (3.70)	303.20 (59.60)	13.60 (2.40)	0.00	334.40 (59.10)
1996	2.70 (1.30)	187.30 (52.60)	95.30 (20.50)	0.00	285.30 (68.30)
1998	0.00	72.00 (31.80)	68.70 (15.40)	0.00	140.70 (44.80)
1999	8.00 (4.30)	108.00 (20.60)	108.00 (27.70)	0.00	224.00 (44.80)
2000	2.00 (0.90)	204.70 (36.60)	110.00 (23.30)	0.00	316.70 (46.30)
2001	73.60 (23.80)	152.00 (17.00)	200.80 (29.10)	1.60 (1.10)	428.00 (35.20)
2002	53.60 (11.70)	270.40 (33.20)	335.20 (33.80)	0.80 (0.80)	660.00 (41.90)
2003	12.00 (2.20)	132.00 (31.90)	30.40 (10.60)	0.00	174.40 (40.90)
2004	4.00 (1.80)	181.60 (25.20)	74.40 (8.60)	0.00	260.00 (27.30)
2005	22.00 (3.30)	159.00 (16.70)	174.00 (27.60)	0.00	355.00 (33.50)
2006	47.00 (11.10)	145.00 (23.70)	101.00 (27.60)	0.00	293.00 (40.60)
2007	8.80 (2.80)	114.40 (18.60)	118.40 (22.50)	0.00	241.60 (30.80)

Dataset = cfdpsmcl.d07

Table 196. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from McNeely Lake in 2007.

		Age					
Year	No.	1	2	3	4	5	6
2006	10	2.6					
2005	31	2.8	4.8				
2004	13	3.0	5.2	6.6			
2003	4	2.1	4.3	6.0	6.9		
2002	2	2.4	4.1	5.3	6.3		
2000	1	1.6	3.3	4.1	5.3	6.4	7.2
Mean	61	2.7	4.8	6.2	6.5	6.4	7.2
Smallest		1.3	3.2	4.1	5.3	6.4	7.2
Largest		4.4	6.8	7.4	7.3	6.4	7.2
Std Error		0.1	0.1	0.2	0.3		
95% ConLo		2.5	4.6	5.9	6.0		
95% ConHi		2.9	5.0	6.6	7.0		

Intercept value = 0.00
Dataset = cfdagmcl.d07

Table 197. Age frequency and CPUE (fish/hr) per inch class of bluegill collected during 1.25 hours of electrofishing at McNeely Lake during May 2007. Fish were collected in 7.5-minute runs.

	Inch class									STD
Age	2	3	4	5	6	7	Total	%	CPUE	ERR
1	11	2					13	4	10.40	3.00
2		16	60	52	33		161	53	128.74	17.83
3				13	58	18	89	29	71.07	11.62
4					16	9	26	8	20.46	4.02
5						9	9	3	7.29	2.21
6							0	0	0.00	0.00
7						5	5	2	3.64	1.10
Total	11	18	60	65	107	41	302	100	241.60	30.75
%	4	6	20	22	35	14	100			

Dataset = cfdagmcl.d07 and cfdpsmcl.d07

Table 198. Electrofishing catch rate (fish/hr) of each age of bluegill collected from McNeely Lake from 2001-2007.

	Year						
Age	2001	2002	2003	2004	2005	2006	2007
1	131.70	53.60	27.40	5.50	29.10	82.40	10.40
2	76.00	244.70	39.20	79.30	103.30	110.80	128.70
3	142.10	128.00	96.60	108.30	79.40	33.60	71.10
4	40.20	186.10	9.50	64.90	111.40	22.80	20.50
5	37.20	14.90	0.50		31.80	38.10	7.30
6		32.60	0.50			5.40	
7			0.90	2.00			3.60
8	0.80						

Table 199. Population assessment for spring-collected bluegill collected from McNeely Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.8 ± 0.2	3
Years to 6.0 in	2 – 2+	4
CPUE ≥6.0 in	118.4 ± 22.50	4
CPUE ≥8.0 in	0.00	0
Assessment Total		11
Assessment Rating		Good

Table 200. Electrofishing CPUE (fish/hr) for each length group of redear sunfish collected from McNeely Lake from 1998-2007; numbers in parentheses are standard errors.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
1998	0.00	0.70 (0.70)	5.30 (2.20)	1.30 (1.30)	0.00	7.80 (3.40)
1999	0.00	10.00 (3.80)	3.00 (1.90)	1.00 (1.00)	0.00	14.00 (3.50)
2000	0.00	3.30 (2.60)	14.70 (2.50)	0.70 (0.70)	0.00	18.70 (3.40)
2001	2.40 (1.70)	8.80 (3.00)	15.20 (4.80)	8.00 (4.80)	0.00	34.40 (7.80)
2002	1.60 (1.10)	49.60 (10.60)	22.40 (5.80)	6.40 (2.00)	0.00	80.00 (13.40)
2003	0.80 (0.50)	5.20 (1.20)	20.40 (3.80)	2.40 (1.20)	0.00	28.80 (5.40)
2004	0.00	4.80 (1.80)	24.80 (6.50)	25.60 (7.00)	0.00	55.20 (9.90)
2005	1.00 (1.00)	25.00 (5.90)	16.00 (6.60)	33.00 (11.80)	0.00	75.00 (17.00)
2006	1.00 (1.00)	15.00 (3.80)	20.00 (4.00)	16.00 (2.60)	0.00	52.00 (6.20)
2007		2.40 (1.70)	29.60 (6.80)	6.40 (2.30)	0.00	38.40 (8.80)

Dataset = cfdpsmcl.d07

Table 201. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from McNeely Lake in 2007.

		Age			
Year	No.	1	2	3	4
2005	18	4.4	6.8		
2004	9	3.0	6.2	8.0	
2003	2	2.5	4.6	6.7	8.0
Mean	29	3.8	6.5	7.8	8.0
Smallest		2.2	3.9	5.8	7.4
Largest		6.0	7.6	8.6	8.5
Std Error		0.2	0.2	0.3	0.5
95% ConLo		3.5	6.1	7.2	6.9
95% ConHi		4.2	6.8	8.3	9.0

Intercept value = 0.00
Dataset = cfdagmcl.d07

Table 202. Age frequency and CPUE (fish/hr) per inch class of redear sunfish collected during 1.25 hours of electrofishing at McNeely Lake during May 2007. Fish were collected in 7.5-minute runs.

	Inch class							STD
Age	5	6	7	8	Total	%	CPUE	ERR
1					0	0	0.00	0.00
2	2	19	14		35	74	28.32	7.14
3	1		2	7	10	20	7.84	2.31
4			2	1	3	6	2.24	0.43
Total	3	19	18	8	48	100	38.40	8.83
%	6	40	38	17	100			

Dataset = cfdagmcl.d07 and cfdpsmcl.d07

Table 203. Electrofishing catch rate (fish/hr) of each age of redear sunfish collected from McNeely Lake from 2001-2007.

	Year					
Age	2001	2003	2004	2005	2006	2007
1	0.00	3.60	0.80	1.00	14.00	0.00
2	8.80	8.80	15.20	39.30	15.90	28.30
3	7.40	16.40	39.20	20.60	18.50	7.80
4	8.60			7.40	3.60	2.20
5	5.60			4.00		
6				2.70		
7						
8	1.60					

Table 204. Population assessment for spring collected redear sunfish collected from McNeely Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	8.0 ± 0.3	4
Years to 8.0 in	3 - 3+	4
CPUE ≥8.0 in	6.40 ± 2.32	2
CPUE ≥10.0 in	0.00	0
Assessment Total		10
Assessment Rating		Fair

Table 205. Number of fish and the relative weight (Wr) for each length group of bluegill and redear sunfish collected at McNeely Lake on 2 September 2007. Standard errors are in parentheses.

	Length group							
Species	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0–5.9 in		6.0–7.9 in		≥8.0 in		Total	
Bluegill	74	94 (3)	50	129 (40)	1	55	125	108 (16)
	4.0–6.9 in		7.0–8.9 in		≥9.0 in		Total	
Redear sunfish	51	96 (1)	32	101 (2)	3	93 (6)	90	96 (1)

Dataset = cfdwrmcl.d07

Table 206. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.5 hours of 15-minute electrofishing runs in AJ Jolly Lake, May 2007; numbers in parentheses are standard errors.

	Inch class																	
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Largemouth bass	30	24	15	10	27	24	16	25	14	10	14	12	8	7	4	4	244	97.60 (11.20)

Dataset = uflb05aj.d07

Table 207. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from AJ Jolly Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1996	18.40 (2.80)	13.60 (1.70)	24.00 (5.60)	9.60 (2.50)	65.60 (7.40)
1997	11.60 (1.90)	37.20 (3.80)	19.60 (1.20)	20.40 (2.60)	88.80 (4.70)
1998	11.60 (1.90)	42.40 (8.00)	24.40 (2.40)	25.60 (3.60)	104.00 (11.60)
1999	5.20 (2.40)	21.20 (6.00)	32.00 (6.40)	26.00 (4.40)	84.00 (13.60)
2000	27.00 (5.40)	25.00 (4.30)	9.50 (1.50)	20.00 (3.30)	81.50 (7.80)
2001	35.60 (5.90)	48.40 (5.70)	12.00 (2.40)	26.00 (5.20)	122.00 (13.50)
2002	10.00 (2.10)	44.50 (8.20)	9.50 (1.50)	18.00 (3.10)	82.00 (10.50)
2003	14.50 (4.30)	40.50 (4.20)	19.00 (4.30)	7.50 (2.20)	81.50 (7.70)
2004*					
2005	55.50 (10.40)	19.50 (4.00)	12.50 (1.80)	7.00 (2.00)	94.50 (14.90)
2006	28.00 (6.90)	23.50 (3.50)	5.50 (2.00)	2.50 (1.10)	59.50 (7.60)
2007	31.60 (4.40)	36.80 (5.90)	15.20 (2.30)	14.00 (2.80)	97.60 (11.20)

Dataset = uflb05aj.d07
*No spring sample was done in 2004

Table 208. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in AJ Jolly Lake in 2007; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	165	44 (± 8)	21 (± 6)

Dataset = uflb05aj.d07

Table 209. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 2.5 hours of electrofishing at AJ Jolly Lake during May 2007. Fish were collected in 15-minute runs.

	Inch class																				STD
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1	30	24	15	2															71	29	28.49	4.45
2				8	22	7	1												38	15	15.09	2.96
3					5	17	15	18	6	3		2							65	27	26.10	3.35
4								7	8	6	13	5							38	16	15.36	2.11
5											1	5	8	2					16	7	6.49	1.43
6										1									1	0	0.40	0.10
7												2		2	2				6	3	2.49	0.63
8														2	1	3			6	2	2.32	0.81
10															1				1	0	0.32	0.18
13																1			1	1	0.53	0.29
Total	30	24	15	10	27	24	16	25	14	10	14	12	8	7	4	4			244	100		
%	12	10	6	4	11	10	7	10	6	4	6	5	3	3	2	2			100			

Dataset = bbrscajj.d03 and uflb05aj.d07

Table 210. Electrofishing catch rate (fish/hr) of each age of largemouth bass collected from AJ Jolly Lake from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004*	2005	2006	2007
1	4.00	24.50	6.50	5.50	11.40		49.80	23.70	28.49
2	9.30	6.70	40.00	15.30	13.70		11.40	14.80	15.09
3	12.90	12.70	28.10	39.90	32.40		14.20	13.50	26.10
4	17.50	8.30	10.50	4.60	16.90		11.60	5.10	15.36
5	18.40	6.10	7.50	9.30	3.90		3.00	1.20	6.49
6	7.30	3.70	4.10		0.60		0.20	0.30	0.40
7	5.40	6.20	5.80	3.50	1.10		2.00	0.60	2.49
8	0.60	7.30	7.20	3.30	1.00		0.90	0.30	2.32
9	2.50	3.20	3.30						0.00
10	2.70	2.40	2.50		0.20		0.40	0.10	0.32
11	2.00	0.50	2.50	0.50					
12			1.00						
13			1.00		0.30				0.53

*No spring sample was done in 2004

Table 211. Population assessment from largemouth bass collected from AJ Jolly Lake during May 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture	11 ± 6.3	2
Spring CPUE age 1	28.49 ± 4.50	2
Spring CPUE 12.0-14.9 in	15.20 ± 2.30	1
Spring CPUE ≥15.0 in	14.00 ± 2.80	2
Spring CPUE ≥20.0 in	0.00	1
Instantaneous mortality (z)*	0.373	
Annual Mortality (A)*	31.2%	
Total Score		8
Assessment Rating		Fair

*Weighted regressions used to calculate z and A

Table 212. Length distribution and CPUE (fish/hr) of largemouth bass collected in 2.5 hours of 15-minute electrofishing runs for black bass in A.J. Jolly Lake in September 2007: numbers in parentheses are standard errors.

	Inch class																
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	Total	CPUE
Largemouth bass	2	2	5	5	2	10	12	5	7	7	7	3	2	3	1	73	29.20 (4.20)

Dataset = uflb09aj.d07

Table 213. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at A.J. Jolly Lake on September 2007. Standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	31	87 (1)	12	90 (2)	4	97 (1)	47	89 (1)

Dataset = uflb09aj.d07

Table 214. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at A.J. Jolly Lake.

Year Class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2004	Total	3.5	0.1	36.70	5.20	2.00	0.90	49.80	9.20
2005	Total	4.3	0.1	16.00	3.70	2.70	1.30	23.70	5.70
2006	Total	4.1	0.2	8.70	2.80	0.70	0.70	28.49	4.45
2007	Total	4.4	0.3	5.60	1.80	2.00	0.90		

Table 215. Species composition, relative abundance, and CPUE (fish/hr) of bluegill collected in 1.25 hours of 7.5-minute electrofishing runs in A.J. Jolly Lake, June 2007; numbers in parentheses are standard errors.

Species	Inch class				Total	CPUE
	3	4	5	6		
Bluegill	70	99	98	4	271	197.10 (25.90)

Dataset = ufsf06aj.d07

Table 216. PSD and RSD_8 values calculated for bluegill collected during 1.25 hours of electrofishing at A.J. Jolly Lake during June 2007. Fish were collected in 7.5-minute runs.

Species	No. ≥3.0 in	PSD	RSD_8
Bluegill	271	1.5 (± 1.4)	0

Dataset = ufsf06aj.d07

Table 217. Electrofishing CPUE (fish/hr) for each length group of bluegill collected from A.J. Jolly Lake from 1992-2007; numbers in parentheses are standard errors.

	Length group					
Year	<3.0 in	3.0–5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
1995	15.70 (4.00)	228.80 (24.80)	26.40 (4.70)			270.40 (27.20)
1997	39.90 (7.20)	249.50 (31.90)	21.60 (5.00)			311.50 (36.2)
1998	231.50 (61.50)	137.70 (23.80)	50.80 (11.40)			420.00 (75.3)
1999	88.50 (17.70)	450.00 (33.10)	63.80 (15.40)			602.30 (45.3)
2000	64.40 (12.90)	333.80 (49.50)	43.10 (9.70)			441.50 (53.4)
2001	36.20 (13.20)	160.80 (25.20)	40.80 (7.90)			237.70 (42.3)
2002	46.20 (9.50)	365.40 (60.20)	113.90 (35.00)			525.40 (94.0)
2003	42.30 (10.60)	258.50 (47.90)	90.00 (25.90)			390.80 (67.1)
2004	59.20 (10.10)	535.40 (89.10)	78.50 (12.40)			673.10 (101.70)
2005	63.90 (13.20)	406.90 (34.10)	47.70 (5.60)			518.50 (45.20)
2007		194.20 (26.50)	2.90 (1.20)			197.10 (25.90)

Dataset = ufsf06aj.d07

Table 218. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from A.J. Jolly Lake in 2007.

		Age				
Year	No.	1	2	3	4	5
2006	2	3.7				
2005	11	2.4	3.7			
2004	11	2..9	4.2	5.0		
2003	6	2.6	4.1	5.1	5.8	
2002	3	2.4	3.3	4.2	4.9	5.3
Mean	33	2.7	3.9	4.9	5.5	5.3
Smallest		2.1	3.3	4.1	4.7	5.2
Largest		4.2	5.3	6.3	6.7	5.5
Std Error		0.1	0.1	0.1	0.3	0.1
95% ConLo		2.5	3.8	4.7	5.0	5.2
95% ConHi		2.9	4.1	5.2	6.0	5.5

Intercept value = 0.00
Dataset = ufbgoajj.d07

Table 219. Age frequency and CPUE (fish/hr) per inch class of bluegill collected during 1.25 hours of electrofishing at A.J. Jolly Lake during June 2007. Fish were collected in 7.5-minute runs.

	Inch class							STD
Age	3	4	5	6	Total	%	CPUE	ERR
1	7	10			17	6	12.30	2.00
2	63	20			83	31	60.20	11.00
3		59	44	1	104	38	75.60	9.70
4		10	22	3	35	13	25.20	2.90
5			33		33	12	23.80	3.60
Total	70	99	98	4	271			
%	26	37	36	1	100			

Dataset = ufbgoajj.d07 and ufsf06aj.d07

Table 220. Electrofishing catch rate (fish/hr) of each age of bluegill collected from A.J. Jolly Lake from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006*	2007
1	158.10	82.40	53.50	80.00	120.80	85.80	94.30		12.30
2	205.60	102.20	23.20	148.50	85.20	195.80	141.00		60.20
3	96.70	152.00	91.40	80.70	98.10	213.40	175.70		75.60
4	74.20	81.50	53.40	126.80	59.70	92.90	74.10		25.20
5	61.40	19.60	8.20	66.00	27.00	42.60	9.50		23.80
6	6.40	3.90	8.20	11.30		7.90	19.10		
7				12.10		7.90			
8						26.90	4.80		

*bluegill were not sampled in 2006

Table 221. Population assessment for bluegill collected from A.J. Jolly Lake in June 2007.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	3.7 ± 0.1	2
Years to 6.0 in	3.75 ± 0.25	1
CPUE ≥6.0 in	2.90 ± 1.2	1
CPUE ≥8.0 in	0.00	1
Instantaneous mortality (z)	0.386	
Annual Mortality (A)	32%	
Assessment Total		5
Assessment Rating		Poor

Table 222. Number of fish and the relative weight (Wr) for each length group of bluegill collected at A.J. Jolly Lake on 24 September 2007. Standard errors are in parentheses.

Species	Length group					
	No.	Wr	No.	Wr	No.	Wr
	3.0 – 5.9 in				Total	
Bluegill	31	75 (3)			31	75 (3)

Dataset = ufsf09aj.d07

Table 223. Length composition, relative abundance, and CPUE (fish/net set) of channel catfish at A.J. Jolly Lake. Channel catfish were collected using baited, tandem hoop nets (72 hours soak time) that were set on 7 June and 27 September 2007. Nets were pulled three days after setting them and 5 sets of tandem nets were used each sampling event.

Month	Inch class														Total	Average per set
	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
June		2	129	327	223	73	10	6	1	2	1	1	1	2	778	155.6
September	1	10	75	132	76	29	7	6	1	1		1	1		340	68.0

Table 224. PSD and RSD_{15} values obtained for channel catfish from spring tandem hoop net samples in AJ Jolly Lake in 2007; confidence intervals are in parentheses.

Species	No. ≥stock size	PSD	RSD_{15}
Channel catfish	97	5 (± 0.7)	

Dataset = ufcf06aj.d07

Table 225. Age frequency and CPUE (fish/net set) per inch class of channel catfish collected during a 72 hour set of tandem hoop nets at AJ Jolly Lake during May 2007. Fish were collected in 15-minute runs.

	Inch class																STD
Age	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	%	CPUE	ERR
2		55												55	7	11.10	2.90
3	2		65	45		1								113	15	22.60	3.10
4		37	131	67		4								239	31	47.70	7.50
5		37	65	45	40	1	1							189	24	37.80	6.10
6			65	22	7	1		1	2					98	13	19.70	2.70
7				45	13	1	1					1		61	8	12.20	2.10
8					7	2								9	1	1.70	0.30
9							2			1			1	4	0	0.70	0.20
10							1						1	2	0	0.40	0.10
11					7					1				8	1	1.40	0.30
12													1	1	0	0.10	0.10
Total	2	129	327	223	73	10	6	1	2	1		1	2	778	100		
%	0	17	42	29	9	1	1	0	0	0		0	0	100			

Dataset = ufcfoajj.d07 and ufcf06aj.d07

Table 226. Number of fish and the relative weight (Wr) for each length group of channel catfish collected at A.J. Jolly Lake in September 2007. Standard errors are in parentheses.

	Length group							
Species	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	11.0 – 15.9 in		16.0 – 24.0 in.				Total	
Channel catfish	30	86 (2)	2	85 (5)			32	86 (2)

Dataset = ufcf09aj.d07

Table 227. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 1.25 hours of 15-minute electrofishing runs in Lincoln Homestead Lake, April and May 2007; numbers in parentheses are standard errors.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	3	4	18	11	2		2	9	11	13	7	3	8	3	1	3		1		99	79.20 (5.43)

Dataset = cfdpslhl.d07

Table 228. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Lincoln Homestead Lake from 1999-2007; numbers in parentheses are standard errors.

	Length group				
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	Total
1999	164.00 (8.00)	10.00 (6.00)	68.00 (4.00)	16.00 (4.00)	258.00 (6.00)
2000	14.40 (2.00)	33.60 (5.20)	2.40 (1.00)	12.00 (2.50)	62.40 (5.60)
2001	64.00 (13.80)	26.00 (9.60)	17.00 (5.50)	14.00 (3.50)	121.00 (13.70)
2002	24.00 (6.90)	22.70 (5.80)	5.30 (2.70)	2.70 (1.30)	54.70 (5.30)
2003	188.00 (62.90)	65.30 (3.50)	40.00 (9.20)	4.00 (2.30)	297.30 (68.70)
2004	45.30 (13.90)	109.30 (25.40)	69.30 (17.90)	16.00 (8.30)	240.00 (54.30)
2005	16.00 (3.30)	47.00 (5.70)	74.00 (12.40)	11.00 (3.00)	148.00 (19.90)
2006	24.00 (4.00)	38.00 (2.00)	56.00 (8.00)	18.00 (10.00)	136.00 (4.00)
2007	30.40 (8.00)	17.60 (4.70)	18.40 (4.80)	12.80 (2.30)	79.20 (5.40)

Dataset = cfdpslhl.d06

Table 229. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Lincoln Homestead Lake in 2007; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	61	64 (± 12)	26 (± 11)

Dataset = cfdpslhl.d07

Table 230. Age frequency and CPUE (fish/hr) per inch class of largemouth bass collected during 0.75 hours of electrofishing at Lincoln Homestead Lake during April 2007. Fish were collected in 5-minute runs.

	Inch class																				STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	Total	%	CPUE	ERR
1	3	4	18	6														31	31	24.40	7.33
2				6	1		2											9	9	7.14	0.97
3					1			9		13								23	23	18.06	5.43
4									11		7							18	18	14.40	2.99
5												2						2	2	1.20	0.49
6												2	3	1				5	6	4.36	0.52
7													3	2	1			6	6	4.56	1.29
8													2	1		3	1	6	6	5.08	1.54
Total	3	4	18	11	3	0	2	9	11	13	7	3	8	3	1	3	1	99	100	79.20	5.43
%	1	3	1	12	16	6	3	3	9	21	12	4	1	1	3	1	1	100			

Dataset = cfdaglhl.d00 and cfdpslhl.d07

Table 231. Population assessment for largemouth bass collected from Lincoln Homestead Lake during April 2007.

Parameter	Value	Assessment Score
Mean length age 3 at capture*	9.5 ± 0.7	1
Spring CPUE age 1	24.40 ± 7.33	2
Spring CPUE 12.0-14.9 in	18.40 ± 4.83	1
Spring CPUE ≥15.0 in	12.80 ± 2.33	2
Spring CPUE ≥20.0 in	0.80 ± 0.80	1
Total Score		7
Assessment Rating		Poor

* 2000 age and growth dataset was used.

Table 232. Species composition, relative abundance, and CPUE (fish/hr) of bluegill and redear sunfish collected in 0.625 hours of 7.5-minute electrofishing runs in Lincoln Homestead Lake, May 2007; numbers in parentheses are standard errors.

	Inch class										
Species	2	3	4	5	6	7	8	9	10	Total	CPUE
Bluegill	10	16	10	8	10	20				74	118.4 (13.7)
Redear sunfish			1	1	1	1		2	2	8	12.8 (5.4)

Dataset = cfdpslhl.d07

Table 233. PSD and RSD values calculated for sunfish collected during 0.625 hours of electrofishing at Lincoln Homestead Lake during May 2007 Fish were collected in 7.5 minute runs.

Species	No. ≥stock size	PSD	RSD
Bluegill	64	47 (± 12)	
Redear sunfish	8	63(± 36)	50 (± 37)

Bluegill = RSD_8; Redear = RSD_9
Dataset = cfdpslhl.d07

Table 234. Electrofishing CPUE data (fish/hr) for each length group of bluegill collected from Lincoln Homestead Lake from 1999-2007; numbers in parentheses are standard errors.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	Total
2000	1.30 (1.30)	732.00 (69.30)	134.70 (31.00)	6.70 (3.20)	874.70 (91.50)
2001	0.00	50.00 (13.40)	60.00 (15.30)	2.70 (1.10)	112.70 (27.20)
2002	5.30 (2.30)	105.80 (12.80)	84.40 (12.20)	0.90 (0.90)	196.40 (19.10)
2003	70.90 (33.70)	234.30 (94.10)	109.70 (23.10)	8.00 (1.70)	422.90 (136.90)
2004	34.70 (22.80)	208.00 (70.20)	25.30 (5.80)	0.00	268.00 (92.00)
2005	45.30 (20.80)	144.00 (60.60)	24.00 (9.20)	0.00	213.30 (67.00)
2006	3.20 (3.20)	67.20 (18.40)	84.80 (32.70)	1.60 (1.60)	156.80 (51.50)
2007	16.00 (6.20)	54.40 (8.20)	48.00 (11.00)	0.00	118.40 (13.70)

Dataset = cfdpslhl.d07

Table 235. Population assessment for bluegill collected from Lincoln Homestead Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.3 ± 0.1*	2
Years to 6.0 in	2 – 2+*	4
CPUE ≥6.0 in	48.00 ± 11.03	2
CPUE ≥8.0 in	0.00	0
Assessment Total		8
Assessment Rating		Fair

*2005 age and growth dataset was used.

Table 236. Electrofishing CPUE data (fish/hr) for each length group of redear sunfish collected from Lincoln Homestead Lake from 2000-2007; numbers in parentheses are standard errors.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
2000	0.00	16.00 (2.90)	105.30 (34.70)	5.30 (2.70)	0.00	126.70 (37.00)
2001	0.00	32.00 (10.10)	6.00 (4.10)	18.00 (7.70)	0.00	56.00 (16.90)
2002	0.00	29.30 (5.30)	76.40 (6.00)	15.10 (5.70)	2.70 (1.90)	120.90 (11.20)
2003	0.00	145.10 (32.80)	29.70 (11.90)	18.30 (7.40)	0.00	193.10 (36.80)
2004	5.30 (3.50)	34.70 (16.70)	41.30 (2.70)	2.70 (2.70)	0.00	84.00 (20.00)
2005	2.70 (2.70)	37.30 (29.30)	18.70 (7.10)	5.30 (2.70)	0.00	64.00 (40.00)
2006	0.00	3.20 (2.00)	30.40 (12.50)	27.20 (5.40)	1.60 (1.60)	60.80 (16.90)
2007	0.00	3.20 (3.20)	3.20 (2.00)	6.40 (3.00)	3.20 (2.00)	12.80 (5.40)

Dataset = cfdpslhl.d07

Table 237. Population assessment for redear sunfish collected from Lincoln Homestead Lake in May 2007.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture*	7.7 ± 0.5	4
Years to 8.0 in*	3 - 3+	4
CPUE ≥8.0 in	6.40 ± 2.99	2
CPUE ≥10.0 in	3.20 ± 1.96	2
Assessment Total		12
Assessment Rating		Good

*2005 age and growth dataset was used.

Table 238. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.00 hours of electrofishing in Sympson Lake, May 2007; numbers in parentheses are standard errors.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	2	9	3	1	29	54	18	19	11	9	14	16	16	17	11	7	7	2	2	247	123.50 (15.20)

Dataset = cfdpssym.d07

Table 239. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 1.50 hours of electrofishing in Sympson Lake, September 2007; numbers in parentheses are standard errors.

	Inch class																		
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Largemouth bass	3	2	17	22	25	34	25	26	6	3	11	7	12	7	3		1	204	136.00 (13.35)

Dataset = cfdwrsym.d07

Table 240. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 1.50 hours of electrofishing in Jericho Lake, May 2007; numbers in parentheses are standard errors.

	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	1	12	3	2	11	26	27	12	10	24	32	31	32	22	23	12	5	6	3	1	295	196.67 (21.05)

Dataset = cfdpsjer.d07

Table 241. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass and bluegill collected in 1.50 hours of electrofishing in Jericho Lake, September 2007; numbers in parentheses are standard errors.

	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Largemouth bass	2	9	3	4	13	10	12	7	12	8	10	16	16	17	4	3	3	0	1	149	99.33 (9.60)
Bluegill	9	24	20	15	8															76	50.67 (22.60)

Dataset = cfdwrjer.d07

Table 242. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 1.00 hours of electrofishing in Doe Run Lake, May 2007; numbers in parentheses are standard errors.

	Inch class																		
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	Total	CPUE
Largemouth bass	16	9				3	4	5	5	12	5	1	4	4	2	2	4	76	76.00 (11.89)

Dataset = cfdpsdoe.d07

Table 243. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass and bluegill collected in 1.25 hours of electrofishing in Doe Run Lake, September 2007; numbers in parentheses are standard errors.

	Inch class																		
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Largemouth bass		1	8	10	13	11		1	3	2	2	2	3	1			2	59	47.20 (4.96)
Bluegill	18	12	28	26	16													100	80.00 (36.57)

Dataset = cfdwrdoe.d07

Table 244. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.00 hours of 15-minute electrofishing runs in Williamstown Lake, May 2007; numbers in parentheses are standard errors.

	Inch class																		
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	CPUE
Largemouth bass	1	7	7	5	6	20	22	17	17	10	7	12	7	4	1	2	1		146	73.00 (10.84)

Dataset = cfdpswil.d07

Table 245. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 1.50 hours of 15-minute electrofishing runs in Williamstown Lake, October 2007; numbers in parentheses are standard errors.

	Inch class																		
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	CPUE
Largemouth bass	2	5	3	3	10	11	5	12	13	11	11	6	3		3				98	65.33 (10.62)

Dataset = cfdpswil.d07

Table 246. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 1.00 hours of 15-minute electrofishing runs in Jacobson Park Lake, April 2007; numbers in parentheses are standard errors.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Largemouth bass	2		1	1	8	5	4	2	3	4	3	6	5	6	1	1	52	52.00 (7.48)

Dataset = cfdpsjac.d07

Table 247. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 1.00 hours of 15-minute electrofishing runs in Jacobson Park Lake, October 2007; numbers in parentheses are standard errors.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Largemouth bass	7	15	6	4	1	6	2	8	8	4	11	7	16	17	8	4	124	124.00 (9.38)

Dataset = cfdwrjac.d07

Table 248. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 1.00 hours of 15-minute electrofishing runs in General Butler State Park Lake, October 2007; numbers in parentheses are standard errors.

	Inch class																		
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Largemouth bass		2	4	7	9	3	3	2		1	1	3	3	1	1	1	1	1	43	43.00 (12.58)
Bluegill	3	20	22	24	1														70	70.00 (24.58)

Dataset = cfdwrgbs.d07

Table 249. Species composition, relative abundance, and CPUE (fish/hr) of fish collected in 0.25 hours of 15-minute electrofishing runs in Kleber Pond, May 2007.

Species	Inch class																	Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
Largemouth bass			4	1	1	15	8	4	6	4	1		1				1	46	184.00
Bluegill	1	10	12	8	27	1												59	236.00
Redear sunfish				1	2	1	1											5	20.00
Black crappie				1	1													2	8.00
Blue catfish														1	1	2		4	16.00
Channel catfish									5	5	2	1						13	52.00

Dataset = cfdpsklb.d07

Table 250. Species composition, relative abundance, and CPUE (fish/hr) of fish collected in 0.25 hours of in the Lower Sportsman's Lake (formerly Lower Game Farm Lake), March 2007.

Species	Inch class																					Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	26	28		
Largemouth bass			2	5		2		2	5	1	6	3	4		2	3	3	1				39	156.0
Bluegill	8	28	48	40	26	1																151	604.0
Redear sunfish	1		5	9	5	1		1														22	88.0
Black crappie							4															4	16.0
Channel catfish													1						1	1	1	4	16.0
Hybrid striped bass							1	1	1													3	12.0
Yellow bass				14		8	2	2														26	104.0

Dataset = cfdpsgfl.d07

Table 251. Species composition, relative abundance, and CPUE (fish/hr) of fish collected in 0.595 hours of electrofishing in Leary Lake, May 2007.

Species	Inch class															Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17		
Largemouth bass		2			1	3	5	7	9	16	14	10	5	2	1	75	126.05
Bluegill	1	3	12	15	5	21	2	1								60	100.84
Longear sunfish				1												1	1.68
Green sunfish						1										1	1.68
Black crappie							1	2		1						4	6.72

Dataset = cfdpslry.d07

NORTHEASTERN FISHERY DISTRICT

Project 1: Lake and Tailwaters Fishery Surveys

FINDINGS

Cave Run Lake (8,720a)
Environmental conditions at the time of sampling are shown in Table 1.

Muskellunge Sampling

Muskellunge were sampled 02-05 and 09-11 April 2007 for a total of 18 hours (30 min. runs) within all sections of the lake. A total of eighty-eight muskellunge were captured and an additional 46 were observed but not captured (22 = 13.0-19.9 in, 7 = 20.0-29.9 in, 14 = 20.0-39.9 in, and 3 = 40.0-49.9 in). Including those observed and known to be age-1 (23), the catch rate was 111 muskellunge or 7.16 fish/hour (Table 2). Of these, 59.5% were 11.0-19.9 in, 11.7% = 20.0-29.9 in, 22.5% = 30.0-39.9 in, and 6.3% = ≥ 40.0 in; none were sampled ≥50.0 in long. If the numbers of muskellunge captured (88) were added to those "observed but not captured" (46), the grand total would be 134, or 7.44 f/h. The largest muskellunge captured in 2007 was a 45.9 inch long female that weighed 26.25 pounds. One fin clipped (fin clipping ended in 1997) muskellunge from the 1997 year class (10 year old) was captured; it was a 41.6 in long male that weighed 17.40 pounds. Assessment values determined for muskellunge in 2007, compared with values since 1995, are shown in Table 3; values for 2007 rated the population as *good*. Table 3 also compares muskellunge actually captured along with to those observed but not captured. One of the five CPUE objectives set up for muskellunge were met. If those observed and not captured were included, three objectives were met (CPUE of age 1, ≥20.0 in, and ≥40.0 in).

Black Bass Sampling (Spring)

Shoreline areas within the upper, middle and lower sections of Cave Run Lake were sampled (boat electrofishing) for black bass during the nights of 30 April-02 May 2007. Black bass research personnel assisted in order to sample additional hours in each section (4h ea-12h total) of the lake; this was 6 additional hours than was sampled in 2005 and 2006. Of the black bass sampled (Table 4), 60.8% were largemouth bass (138.70 f/h), 35.6% were spotted bass (81.10 f/h) and 3.6 % (8.20 f/h) were smallmouth bass. No smallmouth bass were sampled from the upper lake area, 37 (8.20 f/h) from the middle section and 62 (15.5 f/h) from the lower lake section. Most of the smallmouth bass ranged in size from 4.0-10.0 in while 3 were larger (1 = 19.0 in). CPUE of fin clipped largemouth bass stocked in 2005 (31,795) as part of the largemouth bass stocking initiative was also evaluated. Of the 1,641 largemouth bass sampled, 46 were fin-clipped (2.8%) and ranged in size from 8.0-11.0 in (Table 5). Management objectives (which are currently being revised) were met only for the CPUE of largemouth bass ≥15.0 in. Below is a comparison of these objectives which can also be compared to past years in Table 6.

Inch Class	8.0-11.9	12.0-14.9	≥ 15.0
2007 CPUE	43.30	19.90	7.90
NEFD CPUE objectives	70.00	≥ 30.00	≥ 6.00
BBR CPUE objectives	≥ 35.00	≥ 30.00	≥ 5.80

In recent years the CPUE of largemouth bass from various size groups has been declining (see below). Although the total CPUE has remained somewhat similar, is it time to change the 13.0-15.9 in slot regulation?

Year	8.0 - 12.9 in CPUE	%	13.0 - 15.9 in CPUE	%	≥16.0 in CPUE	%	Total CPUE
2007	37.10	40.1	9.80	7.0	5.80	4.2	138.70
2006	55.30	44.6	11.20	9.0	6.80	5.5	124.00
2005	49.20	35.5	10.50	7.6	3.80	2.8	138.50
2004	75.30	58.1	16.50	12.7	8.90	6.9	129.80
2003	72.80	48.4	22.80	15.2	13.90	9.2	150.60
Average	51.90		14.20		7.80		136.30

Table 7 shows and compares proportional and relative stock density by lake sections for the three black bass species sample within the lake. Otoliths were removed from 131 largemouth bass (approximately 10 per inch class) in order to determine growth based upon back calculated lengths. Aged bass ranged from age-1 (2006 year class) to age-10 (1997 year class). No age 9 (1998 year class) bass were found (Table 8). It took, on the average, between 4 and 5 years for largemouth bass to reach 15.0 in and 5 to 6 years to reach 16.0 in. Table 9 shows that 74% of the bass collected were age-1 (4.0-8.0 in) and age-2 (7.0-12.0 in). The CPUE for age 1 bass was 66.50 f/h. Table 10 compares the CPUE by age and year from 1999-2006. Overall assessment values (Table 11) for the largemouth bass population at Cave Run Lake produced a rating of *good* (13). Table 12 shows three comparisons of assessment ratings: 1) values based on original standard methods for LMB in lakes ≥1,000 acres, 2) these same parameters using values based only upon Cave Run Lake findings, and 3) new parameters established to better evaluate the 13-15.9 in slot limit. In 2007, the higher assessment values were from two parameters, mean age-3 length at capture and age-1 CPUE. Objectives developed for the slot limit show that four of the five CPUE objectives were met in 2007 (CPUE age 1, 11.0-12.0 in, ≥16.0 in, and ≥20 in).

Black Bass Sampling (Fall)

Four hours (2h upper and 2 h lower) were spent sampling for black bass 10-11 September 2007 (Table 13). In 2007, fewer largemouth bass were sampled (423= 105.80 f/h) than were sampled during this same time period in 2006 (522= 130.50 f/h). Slightly more than 80% of the largemouth bass sampled in 2007 were collected within the upper section of the lake. Relative weight (Wr) values (Table 14) for largemouth bass within the three length group categories averaged 85 from the lower lake section and exceeded 90 for the same length groups collected from the upper lake section. Spotted bass ≤ 10.9 in from each lake section were found to have Wr values close to 100, while smallmouth bass of this size had a Wr value of 81. Indices of year class strength (Table 15) revealed age 0 (50.50 f/h) and age 0 ≥5.0 in (20.30 f/h) were sufficient enough that largemouth bass stocking was not warranted at that time.

Crappie Trap Netting

Trap nets were set 22 October 2007, checked daily and pulled on 25 October 2007 in an attempt to sample crappie. Fifteen nets were set within the upper section of the lake for a total of 60 net nights; numbers by inch class of crappie sampled are shown in Table 16. The vast majority of the crappie species found in the upper section of the lake were white crappie (85.5%). As shown in Table 16, there were 201 white crappie sampled for a net-night CPUE of 3.40; compared to 687 (10.60 f/nn) sampled in 2006. Only 6 % of the white crappie captured were ≥8.0 in. Table 17 shows PSD and RSD_{10} values for these fish. Age 0+ (16%) and 1+ (22%) white crappie made up 38% of those captured. Most were age 2+ and represented 55% of the total number of white crappie captured (Table 18). In 2006, age 0+ and 1+ crappie comprised 83% of the population while only 9% were age 2+. In 2007, age 0+ white crappie were 2.0-4.0 in, age 1+ were 5.0-6.0 in, and age 2+ were 5.0-9.0 (most 6.0-8.0) in. A management goal of ≥0.75 f/nn for 8.0 in crappie was not met. For white crappie the catch rate for this size (8.0 in) was 0.60 f/nn. Including black crappie this CPUE was 0.68 f/nn, still below that management goal. The assessment values (Table 19) determined for white crappie rated the population sampled in 2007 as being *poor* (5). According to anglers, fishing for crappie was fair. These assessment values can be somewhat misleading as in 2005, a good year for catching crappie, the assessment was rated as poor (5); and in 2004, one of the better years (excellent) for catching good numbers and sizes of crappie in recent memory, this value was fair (11). None of the three CPUE objectives set for crappie at Cave Run Lake were met based on 2007 sampling.

White Bass Gill Netting

Experimental gill nets were set and run concurrently with crappie trap nets (22-26 October 2007). Four gill nets were set, two in the upper area of the lake and 2 in the middle section on the lake for a total of 16 net nights. During this period 68 (4.31 f/nn) white bass, primarily 11.0-14.0 in were captured (Table 20). The catch in 2005, when white bass were last sampled, was 148 fish (12.33 f/nn). Condition factor expressed as Relative weight (Wr) was good for all length groups (Table 21). Of note, while electrofishing for black bass in the upper section of the lake in September, many 3.0-5.0 in white bass were observed. Age 2 mean length at capture was 12.9 in and most of the white bass reached 13.0 in by age 3 (Table 22) with 57% of those captured of this age (Table 23). Population assessment ratings for white bass are shown in Table 24 and are compared to past years findings. Previous assessment values have rated the white bass population as good. Results of the 2007 assessment rating for white bass showed the population as *fair* with a total score of 7 which was 5 points less than any previous years total score. None of the 3 management plan objectives for CPUE were met.

Miscellaneous

117 donated Christmas trees were placed at several sites with assistance from MCFH and USFS personnel. During the fall 3,006 muskellunge which averaged 12.9 in were stocked into the lake. In September an angler caught a pacu while fishing from the bank within the Scott's Creek area of the lake; interestingly we captured another large pacu from the same general area as well as a grass carp (the first from CRL).

Creel Survey

A roving creel survey was carried out at Cave Run Lake form April 01- October 31, 2007. All past surveys have begun in March and this should be kept in mind since March can be a good month to fish for crappie and muskellunge. Creel information for these two species in 2007 might be slightly lower than if anglers had been creeled in March as well. A total of 23,316 fishing trips were recorded in 2007 and 26,208 during the last creel survey in 2003 (Table 25). Anglers fished for a total of 120,079 hours (177,202 in 2003). Catch and harvest rates were lower that that recorded from the 2003 creel survey but higher than findings for the two surveys preceding 2003 (1998 and 1994). The majority of the anglers were males (the number of female anglers increased over 2003 findings), "casting" (closely followed by "still" fishing) from a boat. Table 26 shows the majority of anglers were fishing for black bass (28.7%), very closely followed by crappie (28.5%), and muskie anglers (26.0%).

	2007		2003		1998		1994	
Fishing for	Trips	%	Trips	%	Trips	%	Trips	%
Black bass	6,698	28.7	8,276	31.6	11,843	35.5	7,332	28.0
Crappie	6,636	28.5	6,440	24.6	8,399	25.2	5,680	23.0
Muskellunge	6,057	26.0	8,764	33.4	9,433	28.3	6,813	30.0

The most successful anglers were those fishing for crappie (58.7%), panfish (51.9%), catfish (28.0%), and anything (26.1%). Black bass anglers were slightly (6.1%) more successful than muskie anglers (5.2%). Table 27 shows the length distribution of all species harvested and/or released. Catch and harvest findings by month for black bass and muskellunge are shown in Table 28. Specific catch and harvest statistics for each species of bass is shown in Table 29 and that for muskellunge in Table 30. The majority of the bass were caught in May with October being the most successful month for catching muskie. Crappie anglers were most successful in May, followed by April and September (Table 31).

Creel survey management objectives were re-written in 2007. Creel objectives for muskellunge were met for total angler catch. The objective was a total catch of 1,600 muskellunge and 2,180 were caught in 2007. The catch objective (harvest and release) for muskie ≥30.0 in (objective=800; 2007=1,618) was met as well as the catch of >40.0 in muskie (objective=200, 2007=307). Creel management objectives for largemouth bass was a catch of ≥7,500 bass ≥13.0 in; however only 4,674 were reportedly caught of this size in 2007. The management objective for ≥16.0 in largemouth bass was set at 1,850 but only 1,493 bass of this size were caught.

For crappie, a management objective of ≥1.61 crappie harvested per hour of fishing was not met (2007=1.38 f/h). The harvest goal for those fishing for white bass was met (objective=0.8 f/h; 2007=1.2).

Angler Attitude Survey

In conjunction with the creel survey anglers were asked several additional questions (Table 32). Anglers were only asked these questions once during the year. Findings from this questionnaire revealed that the majority of the anglers fish for muskellunge (67.8%), crappie (58.7%), and bass (38.3%). However, when asked what species they fish for most often, anglers replied bass (42.7%), crappie (33.3%), and muskellunge (22.9%). Of the bass anglers, 65.0% were very or somewhat satisfied with bass fishing at the lake. Crappie anglers (86.9%), muskellunge anglers (83.3%), and white bass anglers (84.9%) were very or somewhat satisfied fishing for their preferred species at Cave Run Lake. Most anglers had no opinion (47.6%) or supported (32.5%) the 13.0-16.0 in slot size limit for largemouth bass or had no opinion (56.3%) or opposed (33.6%) increasing the current size limit on muskellunge at the lake. See Table 32 for other responses and comments.

Grayson Lake (1,512a)

Black Bass Sampling (Spring)

Upper, middle and lower sections (areas) of Grayson Lake were sampled (boat electrofishing) for black bass on the nights of 23, 24 and 25 April 2007. Half hour (1800 sec) sampling runs totaling two hours were conducted within each section of the lake for a total effort of six hours (two hours each section). Length frequency and catch effort from each section (and total) is shown in Table 33. Largemouth bass continued to be the dominant bass species within Grayson Lake comprising 69.2% of the total black bass numbers sampled. This was followed by spotted bass (30.8%). No smallmouth bass were sampled. Of the total black bass captured, largemouth bass comprised 54.5%, 71.1% and 93.4% of the total found within the lower, middle, and upper sections of the lake, respectively. Largemouth bass were stocked into Grayson Lake from 1998 to 2004 as part of a project to try and improve their numbers in the lake. Of the total numbers of largemouth bass sampled during spring of 2007, only 3.7% (4.30 f/h) were stocked bass. These stocked bass ranged in size from 10.5 to 16.1 in. Most were 11.0 to 13.0 in (73.1%). Of the total largemouth bass sampled, stocked fish comprised 10.5% in 2006 and 19.4% in 2005 (note: total effort in 2005 was 9h as compared to 6h in 2006 and 2007). Total catch rates of largemouth bass have declined from 255.90 f/h in 2004 to 103.30 f/h in 2006. In 2007 the total catch rate for largemouth bass (115.80 f/h) showed a slight increase. This catch rate remains below the mean total catch rate (173.00 f/h) for a five year period (98-93) prior to the stocking program. Along with the cessation of the stocking program and natural mortality; drought conditions experienced in the past two years may be contributing to the decline in total catch rates.

Table 34 compares catch rates for various length groups of largemouth bass. Catch rates (fish/hour) for bass <8.0 in (48.00 f/h) and 8.0 to 11.9 in (46.80 f/h; 45.30 f/h wild, 1.50 f/h stocked) were found to be the most abundant. The Management Objective or goal (MO) for 8.0 to 11.9 in fish (60.00 f/h) has not been attained since 2005. Largemouth bass 12.0 to 14.9 in were collected at a rate of 16.00 f/h or 13.8% of the total bass sampled. Of those, 13.80 f/h were wild and 2.20 f/h were stocked largemouth bass. The MO for this size range is 20.00 f/h and has only been met in 2006, 2005 and 1999. Of the largemouth bass collected ≥15.0 in, 4.30 f/h were wild and 1.50 f/h were stocked. Combined, this size class accounted for 5.00 f/h (4.3%) of the total largemouth bass sampled. The catch rate was 5.30 f/h in 2006. Only in 2000 (6.70 f/h) was the catch rate for ≥15.0 in bass higher than 2006 and 2007 values; the MO is 6.00 f/h. Largemouth bass ≥15.0 in were captured relatively evenly among all three sections sampled.

Proportional and relative stock values are shown in Table 35. Table 36 compares 2007 largemouth bass catch rates by age to that found in past years. The overall assessment value for largemouth bass was rated fair as it was in 2006; however the overall score based on prescribed values was higher in 2007 than that found in 2006 (Table 37).

Black Bass Sampling (Fall)

On September 04, 05 and 06 2007, the upper, middle, and lower reaches of the lake were sampled for black bass (4.5 h, 1.5h each section). Length frequency and catch rates from this sampling are shown in Table 38. High water temperatures (85° F), low water level and sampling earlier than past years may have contributed to the decrease in largemouth bass CPUE. CPUE was 83.80 f/h (133.10 f/h in 2006) for largemouth bass, 79.10 f/h (96.00 f/h in 2006) for spotted bass, and 1.60 f/h (0.90 f/h in 2006) for smallmouth bass. Of 740 (1,035 in 2006) black bass sampled, 50.9% were largemouth bass, 48.1% were spotted bass and 0.9% were smallmouth bass. Of the total largemouth bass ≥8.0 in sampled in all areas (32.40 f/h), 17.8% were ≥12.0 in and 4.1% were ≥15.0 in. Relative weight (Wr) values can be compared in Table 39, and were highest for largemouth bass ≥15.0 in collected from the middle and upper sections of the lake. The MO Wr value is ≥90 and this was met only in these two areas by that size fish. The indices of largemouth bass year class strength are presented in Table 40. The mean length of age 0 largemouth bass increased from 4.1 inches in 2006 to 4.3 inches in 2007. CPUE of age 0 largemouth bass decreased from 87.10 f/h in 2006 to 44.90 f/h in 2007. Based on the 2007 year class strength, supplemental stocking of largemouth bass averaging 4.2 in was not needed.

Crappie Electrofishing (Fall)

Crappie were sampled from the upper section of Grayson Lake on 16 October for 3.0 hours using electrofishing gear. In 2007, a trail boat was used for the first time. In all, 66 (671 in 2006) white crappie were collected that ranged in size from 3.0 to 12.0 in (Table 41). The total CPUE for white crappie was 22.00 f/h; 6.00 f/h from crappie ≥8.0 in and 2.30 f/h for those ≥10.0 in. These values were a significant decrease over the same values found in 2006 when the total CPUE was 268.40 f/h. Five black crappie were also collected. Table 42 shows PSD and RSD_{10} values from this sampling. Age frequency data for white crappie is shown in Table 43. Age 2+ and 3+ crappie ranging in size from 6.0 to 10.0 in were most numerous comprising 83.3% of the total catch. Those fish in the 6.0 and 7.0 in class accounted for 65.1 % of the total catch and 78.2% of these fish were 2+ and 3+. As this crappie data was gathered using electrofishing and not trap netting, assessment values and ratings could not be made. However, Table 44 compares 2007 values generally used for assessment purposes to those found in previous years.

Lake Carnico (114a)

Black Bass Electrofishing (Spring)

On 10 May 2007, the shoreline of Lake Carnico (Nicholas County) was nocturnally electrofished for black bass. Water temperatures during sampling were 10 degrees (F) warmer than 2006. In total 292 largemouth bass were captured ranging in size from 3.0 to 20.0 in (Table 45). Population assessments again rated Lake Carnico as a "Fair" largemouth bass fishery (Table 46). Catch rates by length groups showed an increase over previous years (Table 47) although the PSD and the RSD_{15} decreased from the 2006 level (Table 48).

Bluegill / Redear Sunfish Sampling

On 29 May, the shoreline of Lake Carnico was diurnally electrofished for sunfish species. Water temperature was 78° F which was 10 degrees warmer than when fish were sampled in 2006. A total of 503 fish were captured, of which 245 were bluegill, 7 were redear sunfish and the remainder was green sunfish, longear sunfish and hybrid sunfish (Table 49). Numbers were down significantly from 2006; most likely due to the poor sampling conditions in the warm water. CPUE for the various length groups of bluegill and redear sunfish were also down from 2006 (Table 50). PSD for bluegill was slightly higher in 2007 (Table 51), and the overall assessment for the bluegill population remained classified as "Fair" (Table 52).

Black Bass Electrofishing (Fall)

On 17 September the shoreline of Lake Carnico was nocturnally electrofished for black bass. A total of 216 largemouth bass were sampled ranging in size from 2.0 to 19.0 in (Table 53). The relative weight of 8.0 - 11.9 in bass was higher in 2007 than in 2006, but relative weight of the 12.0 – 14.9 and ≥15.0 in bass, on the other hand, was slightly lower in 2007 (Table 54).

Clear Creek Lake (40a)

Black bass electrofishing (Spring)

Spring nocturnal electrofishing along the shoreline of Clear Creek Lake (Bath County) for largemouth bass was accomplished on 03 May 2007. Table 55 shows length frequencies and CPUE of all largemouth bass sampled during that time. The total CPUE for all size classes (405.30 f/h) has increased since 2004 (Table 56). The most notable increase was for those fish in the <8.0 in length group (197.30 f/h in 2007; 136.00 f/h in 2006). Increasing aquatic vegetation may be contributing to the survival of these fish. The PSD value for largemouth bass was 28 (Table 57) and continues to remain below the desired level.

Bluegill/redear sunfish electrofishing

Bluegill and redear sunfish sampling was conducted on 22 May during the daytime (4-7.5 minutes runs). Increasing aquatic vegetation prohibited a fifth sample, which has been the norm, and may have contributed to the lack of capturing bluegill <3.0 in. A total of 112 (351 in 2006) bluegill and 130 (94 in 2006) redear sunfish were collected. Tables 58 and 59 show length frequencies and CPUE for each size class of sunfish collected. Age frequency distributions are found in (Table 60). The PSD value was within the desirable range (Table 61). The population assessment (Table 62) rates the bluegill fishery as "Good".

Black bass electrofishing (Fall)

Fall sampling for largemouth bass was not conducted due to Eurasian watermilfoil covering approximately 80% of the lake.

Miscellaneous

Seventy five 20.0 in surplus grass carp from Minor Clark Fish Hatchery were stocked in October 2007.

Greenbo Lake (181a)

Black bass electrofishing (Spring)

The shoreline of Greenbo Lake (Greenup County) was nocturnally electrofished on May 07 2007. Six 900-second runs produced 247 largemouth bass. Table 63 shows length frequency and CPUE of all fish sampled during that time. Catch rates for largemouth bass exceeded designated levels as specified in the lake management plan for ≥8.0 in bass (desired=100.00 f/h, actual=125.00 f/h) and ≥12.0 in bass (desired=50.00 f/h, actual=57.00 f/h), but fell below the desired goal for ≥15.0 in bass (desired=15.00 f/h, actual=9.00 f/h). Largemouth bass PSD (Table 64) remained within the desired range with a value in 2007 of 46 (2006=51, 2005 = 41, 2004 = 39). Age-growth data for largemouth bass collected in 2007 is shown in Table 65. The age frequency of largemouth bass is shown in Table 66. This table does not include age data from 21 YOY bass and 2 bass exceeding 20.0 in which were collected. CPUE by length group is shown in Table 67. Electrofishing catch rates for each age of largemouth bass from 1999 through 2007 are shown in Table 68. The population assessment rated Greenbo Lake as a "Fair" bass fishery (Table 69).

Bluegill/redear sunfish electrofishing (Spring)

On 21 May 2007 Greenbo Lake was electrofished during the daytime (10-7.5 minute runs) for bluegill and redear sunfish. A total of 663 bluegill and 20 redear sunfish were captured. Table 70 shows length frequencies and CPUE of sunfish sampled. Catch-per-hour for each length group of bluegill and redear sunfish is shown in Table 71. Bluegill PSD was 22 (Table 72) in 2007 as compared to 26 in 2006. Age frequency is shown in Table 73. Age 1 bluegill accounted for 75% of the total catch. The population assessment for bluegill (Table 74) remains "Good" and should remain the same or improve due to the 15-fish creel limit implemented in 2005.

Black bass electrofishing (Fall)

Nocturnal electrofishing for largemouth bass relative weight and length frequency was accomplished on 13 September. A total of 160 largemouth bass were collected during 1.5 hours of sampling (six 900 second runs). Table 75 shows length frequency and CPUE from fall sampling. Largemouth bass indices of year class strength at age 0 and age 1 are found in Table 76. The year class strength was determined to be insufficient and warranted a supplemental stocking of 925 young-of-year bass in the fall of 2007. Largemouth bass Wr values (Table 77) showed improvement from 2006 values.

Miscellaneous

The 15-fish creel limit for sunfish, initiated on 01 March 2005, remains in effect. Efforts continued in establishing aquatic vegetation with the transplantation of American pondweed, arrowhead, curly pondweed, giant smartweed and lizard tail from various locations throughout the district. Various amounts of the aforementioned species were planted in June and again in September. Results are basically the same as they have been in the past with some minute sprigs found outside of the enclosures which were not purposefully transplanted. Two new enclosures (5 x 20 ft) were constructed in 2006 and intentional efforts continued in transplanting aquatic vegetation outside of the enclosures along the littoral zone. Grass carp continue to be observed from their original stocking in 1989. During the year, 4,254 channel catfish and 15,000 rainbow trout were stocked.

Mill Creek Lake (41a)

Black Bass Electrofishing (Spring)

On 15 May the shoreline of Mill Creek Lake (Powell/Wolfe Counties) was nocturnally electrofished for black bass. A total of 141 largemouth bass were captured ranging in size from 3.0 to 19.0 in (Table 78). Population assessments rate this lake as a "Poor" largemouth bass fishery, which was down from the previous two years of a "Fair" rating (Table 79). In spite of this, the 1999 management objective for CPUE of 12.0-14.9 in bass (15.00 f/h) was met, as was the objective for the CPUE of fish ≥15.0 in (5.00 f/h) (Table 80). However, the objective for PSD (≥40) was not met in spite of the fact that this measure showed an increase over the 2006 value (Table 81).

Bluegill / Redear Sunfish Sampling

On 07 June the shoreline of Mill Creek Lake was diurnally electrofished for sunfish species. A total of 141 fish were captured, of which 101 were bluegill, 27 were longear sunfish and 13 were green sunfish (Table 82). Overall, this season showed a decrease in CPUE, especially in the 6.0–7.9 in length group, but the management objective for CPUE of ≥8.0 in fish (5.00 f/h) was met (Table 83). PSD for bluegill showed a slight decrease and RSD_8 stayed fairly consistent when compared to 2006 values. The PSD objective (≥30) was met in 2007 (Table 84).

Using age-growth data that was collected this year, bluegill reach 6.0 in between their third and fourth year (Table 85) and the majority of the fish we captured were 2-3 years old (Table 86). The assessment rating for bluegill was again "fair" but continued to show a decreasing trend that has been observed for the last 3 seasons (2005-13, 2006-10, 2007-9) (Table 87).

Black Bass Electrofishing (Fall)

On the 19 September 2007 the shoreline of Mill Creek Lake was nocturnally electrofished for largemouth bass. In total, 82 fish were collected ranging in size from 1.0 to 15.0 in (Table 88). Relative weights were also calculated for fish in the 8.0, 12.0-14.9, and ≥15.0 in length groups and they were fairly stable when compared to the values from 2005 (Table 89).

Miscellaneous

In March of 2008, 33 Christmas trees were place into Mill Creek Lake in order to provide habitat near the areas frequented by bank fisherman. These trees were place into units of 6 trees and will provide habitat in 3 different areas of the lake. The last management plan for Mill Creek Lake was written in 1999 and it is currently being revised for the 2008 season.

Lake Reba (76a)

Largemouth bass sampling (spring)

Lake Reba was sampled on the night of 09 May 2007 for largemouth bass. This 1.5 hour sampling effort yielded 646 (430.70 f/h) largemouth bass (Table 90). Similar sampling in 2006 produced 430 (292.00 f/h) largemouth bass. Table 91 shows the catch rates for various length groups of largemouth bass. As can be seen, the total CPUE in 2007 was higher than any year since the lake was renovated. This table shows that the 8.0-11.9 in largemouth bass were most abundant. However, most were 7.0 and 8.0 (172.70 f/h-40.1%) and 4.0 and 5.0 (86.70 f/h-20.9%) in bass. PSD and RSD_{15} values compared to previous years are shown in Table 92. Catch rates for each age largemouth bass are shown in Table 93. No fish were captured exceeding 6 years of age. The population assessment for largemouth bass rated the current population as good; during the previous three years it was fair (Table 94).

Bluegill/redear sunfish sampling (June)

Lake Reba was again sampled during the day on 04 June 2007 for a total of 1 hour and target species were primarily bluegill and redear sunfish. At this time, mats of algae and submerged aquatic vegetation were extensive creating conditions that made sampling, especially for small fish, extremely difficult. This difficulty is reflected in catch rates shown in Table 95. Bluegill <3.0 in were sampled at a rate of 35.00 f/h in 2007. In 2006, the catch rate for these size fish was 991.00 f/h. Similarly the total catch rate for bluegill ≥3.0 in was 385.00 f/h in 2006, but only 102.00 f/h in 2007. As in 2006, no bluegill larger than 7.9 in were captured in 2007. Interestingly, more warmouth sunfish were sampled than bluegill and more exceeded ≥7.0 in than bluegill (Table 95). The difficulty in capturing bluegill and redear sunfish resulted in smaller numbers of all sizes which is reflected in Table 96. Overall, CPUE for bluegill was less in 2007 than any other year sampled. Bluegill PSD is shown in Table 97 and electrofishing catch rates for each age of bluegill are shown in Table 98. The bluegill assessment values and ratings can be found in Table 99, with assessment ratings from 2003-2007 found to be fair or poor. In both 2006 and 2007, the assessment rating for bluegill in Lake Reba was fair, but in 2007 the total score was 2 points less that that for 2006 and 2005. This was primarily related to the lower catch rates of ≥6.0 and ≥8.0 in bluegill.

Table 95 also provided the length frequency and CPUE values for redear sunfish which showed a decline (for similar reasons as that discussed above for bluegill) during 2007 (157.00 f/h) versus results found in 2006 (439.20 f/h). Table 100 compares CPUE of various length groups of redear sunfish and compares these findings to that of previous years. The 3.0-5.9 and ≥8.0 in length group showed improvement over the previous years. Catch rates for each age redear sunfish are shown in Table 101.

Assessment ratings in both 2006 and 2007 were rated as "poor" (Table 102). There have been very few redear sunfish sampled from Lake Reba ≥8.0 in and none ever ≥10.0 in. As a result, the redear sunfish rating at this lake will always be poor unless growth rates improve or rating values are changed.

Largemouth bass electrofishing (fall)

Largemouth bass were once again sampled at Lake Reba on the night of 12 September 2007 in order to obtain weights for determining relative condition (Wr), CPUE values for year class strength, and growth for YOY and age 1 largemouth bass. During sampling, the lake was down 3-4 feet, visibility was less than 1 foot due to phytoplankton blooms and submerged aquatic vegetation also hindered sampling success. Results of this 1.5 hour nocturnal sampling effort are shown in Table 103. Total CPUE for largemouth bass sampled in 2007 was 271.30 f/h with 32.2% of these bass in the 7.0-7.9 in class. Catch rate for largemouth bass during the fall of 2006 was 476.00 f/h. Most of the bass collected in 2006 were within the 4.0-4.9, 7.0-7.9, and 8.0-8.9 in classes. Relative weights for largemouth bass collected during the fall of 2007 are shown in Table 104. Relative weight was typically above 90 in 2007 except for those bass 12.0-14.9 in. Indices of year class strength are shown in Table 105. CPUE for these indices were much lower than in the past and were at a level that would suggest the need for supplemental stocking. Poor visibility due to the algae bloom and large amount of submerged aquatic vegetation was thought to be the chief reason for the lower CPUE as many bass were observed but not captured.

Rebel Trace Lake (19a)

Rebel Trace Lake (Menifee County) was nocturnally electrofished for largemouth bass on 03 May 2007. Table 106 shows length frequency and CPUE for largemouth bass collected. Largemouth PSD (32) was below the desirable range (Table 107). CPUE for each length group of largemouth bass is presented in Table 108. On 22 May, the lake was electrofished during the daytime for sunfish. Length frequency of sunfish collected is found in Table 109 and CPUE for selected length groups is presented in Table 110. Bluegill PSD was below the desirable range (Table 111). Fall sampling for largemouth bass could no be accomplished due to the extensive coverage of Eurasian watermilfoil. Approximately 33% of the shoreline around this 19-acre lake can no longer be sampled due to increased sediment loading.

Smoky Valley Lake (36a)

Largemouth Bass Electrofishing (Spring)

On the night of 08 May 2007, Smoky Valley Lake was sampled for largemouth bass. There were 387 largemouth bass captured during the 1 hour sample period. Bass ranged from 2.0-17.0 in with most being 7.0–11.0 in (Table 112). Only two bass were collected greater than 14.0 in. Catch rates for various length groups of largemouth bass compared to that found from past years are shown in Table 113. As seen in the table, relatively few bass have been collected ≥15.0 inches in recent years. PSD and RSD values can be found in Table 114. Otoliths were removed from 89 largemouth bass to determine age and growth characteristics (Table 115). Bass were collected from the 1997 (age-10) to 2006 (age-1) year classes plus one from the 1994 year class (age-13). However, the majority was from the 2004 and 2005 year classes (age-3 and 4). It took the majority of the largemouth bass from 5 to 6 years to reach 12.0 in. Looking at the mean lengths per age it is obvious that the bass practically stop growing at around age 6 in this lake, with the mean length hardly above 13.0 in for bass 8 to 13 years old. Table 116 further illustrates this by showing catch rates by age and inch class with no age 11 and 12 year old bass collected. With the current 15.0 in minimum size limit for largemouth bass at Smoky Valley Lake, very few bass will ever reach a harvestable length. Plans are currently under way to change the size limit for largemouth bass at this lake and to have DOW personnel check water quality within the lake in case there are some intrinsic problems we might not currently be aware of. The bass population assessment rating for 2007 was poor (6), while in 2006, this rating was good (14) (Table 117).

Bluegill / Sunfish Sampling

During the daylight hours on 23 May 2007, the lake was sampled for sunfish. A total of 100.60 bluegill ≥3.0 in (3.0-8.0 in) were sampled per hour of electrofishing effort. In 2006, the CPUE for bluegill was 104.00 f/h (not including 1.0 and 2.0 in bluegill). Green (40.00 f/h) and longear (5.70 f/h) sunfish were also collected (Table 118). Annual (since 2003) comparisons of CPUE by length group for bluegill are shown in Table 119, with 2.0–5.9 in bluegill comprising the greatest proportion of the population. Bluegill ≥8.0 in are rarely observed in this lake. PSD and RSD values are provided in Table 120. Assessment scores for bluegill (Table 121) rated the population as poor (6) in 2007. Ratings for 2006 were also poor (4).

Largemouth Bass Electrofishing (Fall)

In order to determine relative weights of largemouth bass, attempts were made to sample their population nocturnally on 18 September 2007 (Table 122). This was the first time since 2004 that largemouth bass were sampled during the fall. Relative weight indices for 8.0-11.9 and 12.0–14.9 in bass were less than the 90 minimum preferred value (Table 123).

Lake Wilgreen (169a)

Black Bass Electrofishing (Spring)

On 14 May 2007, the shoreline of Lake Wilgreen (Madison County) was nocturnally electrofished for black bass. Water temperature was 75° F which was almost 10 degrees warmer than when fish were sampled in 2006. A total of 851 largemouth bass were captured ranging in size from 4.0 to 21.0 in (Table 124). Population assessments (Table 125) again rated Lake Wilgreen as an "Excellent" largemouth bass fishery even though catch rates by length groups showed a slight decrease over previous years for most size classes (Table 126). PSD and RSD_{15} values also declined (Table 127).

Bluegill / Redear Sunfish Sampling

On 24 May, the shoreline of Lake Wilgreen was diurnally electrofished for sunfish species. The water temperature was 76° F which was 10 degrees warmer than when fish were sampled in 2006. In total, 487 fish were captured, of which 465 were bluegill and 22 were redear sunfish (Table 128). These numbers were down significantly from 2006 most likely due to the poor sampling conditions with the warm water. CPUE of bluegill and redear sunfish in the 6.0 – 7.9 in length group was up slightly from 2006, whereas the CPUE of both species in the rest of the length groups was down from 2006 (Table 129). PSD and RSD_8 values, for bluegill were higher in 2007 than previous years (Table 130), and the overall assessment for the bluegill population remained classified as "Good" (Table 131)

Black Bass Electrofishing (Fall)

On 24 September, the shoreline of Lake Wilgreen was nocturnally electrofished for black bass. The water temperature at this time was 78.7° F which was 10 degrees warmer than in 2006. The timing of the sampling was about 2 weeks earlier than the 2005 sampling date. In total, 541 largemouth bass were sampled ranging in size from 3.0 to 17.0 in (Table 132). The relative weights for all length groups was down in 2007 when compared to previous years (Table 133).

Table 1: Yearly summary of sampling conditions by waterbody, species sampled and date.

Water body	Species	Date (2007)	Time (24hr)	Gear	Weather	Water Temp (°F)	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Cave Run Lake	Muskie	4/2	830	shock	clear/windy	56	725.89	36	good	lower lake
Cave Run Lake	Muskie	4/3	900	shock	couldy/windy	60	725.98	36	good	lower lake day 2
Cave Run Lake	Muskie	4/4	900	shock	cold/windy	60	726.26	9	poor	upper lake
Cave Run Lake	Muskie	4/5	900	shock	snow/windy	59	726.59	12	poor	upper lake day 2
Cave Run Lake	Muskie	4/9	900	shock	part. cloudy	50	727.62	33	fair	middle lake
Cave Run Lake	Muskie	4/11	900	shock	cloudy/rain	53	727.77	36	good	middle lake day 2
Cave Run Lake	LMB	4/30	2100	shock	clear/calm	-	730.06	-	fair	upper lake
Cave Run Lake	LMB	5/1	2155	shock	-	68	730.33	-	-	middle lake
Cave Run Lake	LMB	5/2	2045	shock	-	65	730.31	-	-	lower lake
Cave Run Lake	LMB	9/10	2000	shock	overcast/calm	80	729.62	36	fair	higher than usual water temperature
Cave Run Lake	LMB	9/11	2000	shock	clear/breezy	79.9	729.62	120	good	last run windy and choppy- hard to see fish
Cave Run Lake	WC/BC	10/23	900	trap net	rain/cloudy	65.5	727.57	-	good	2'4" below summer pool
Cave Run Lake	WC/BC	10/24	900	trap net	cloudy/rain	66	725.57	-	good	2'4" below summer pool
Cave Run Lake	WC/BC	10/25	900	trap net	windy/cloudy	66	728.04	-	good	none
Cave Run Lake	WC/BC	10/26	900	trap net	cloudy/sunny	66	728.06	-	good	none
Cave Run Lake	WB	10/23	900	gill net	rain/cloudy	65.5	727.57	-	good	2'4" below summer pool
Cave Run Lake	WB	10/24	900	gill net	cloudy/rain	66	725.57	-	good	2'4" below summer pool
Cave Run Lake	WB	10/25	900	gill net	windy/cloudy	66	728.04	-	good	none
Cave Run Lake	WB	10/26	900	gill net	cloudy/sunny	66	728.06	-	good	none
Grayson Lake	LMB	4/23	2045	shock	cloudy/clear	64	645.39	24	good	upper lake, water level lower than when normally shocked
Grayson Lake	LMB	4/24	2000	shock	rain	67	645.49	24	poor	middle lake, lots of debris-hard to sample shoreline in places
Grayson Lake	LMB	4/25	2040	shock	calm/pt- cloudy	63	-	48	good	lower lake
Grayson Lake	LMB	9/4	2000	shock	clear/hot	85.5	642.73	20	poor	2-3' below summer pool, plankton bloom present
Grayson Lake	LMB	9/5	2000	shock	clear/hot	84.7	642.73	70	poor	2-3' below summer pool, very high water temperature
Grayson Lake	LMB	9/6	2000	shock	cloudy/hot	82.4	642.73	84	poor	overall lake level down; very high water temperature
Grayson Lake	WC/BC	10/16	900	shock	cloudy	61.6	641.4	18	poor	trail boat used, water level 3-6' below summer pool, lower than usual
Lake Carnico	LMB	5/10	2100	shock	clear/calm	74	normal	84	good	none
Lake Carnico	BG/RE	5/29	900	shock	hot/calm	78	normal	54	good	high water temperature
Lake Carnico	LMB	9/17	2000	shock	clear/cool	75.5	low	42	fair	visibility was reduced to ~6" for runs 3-6; water level down ~12"
Clear Creek	LMB	5/3	2200	shock	mild/clear	68	low	84	good	eurasian millfoil prevented sampling close to shore
Clear Creek	BG/RE	5/22	1115	shock	sunny	75	low	75	good	aquatic vegetation prevented a fifth run; did not pick up sunfish <3
Clear Creek	LMB	fall	-	-	-	-	-	-	-	could not sample due to eurasion milfoil infestation
Greenbo Lake	LMB	5/7	2100	shock	warm/clear	70	normal	120	good	none
Greenbo Lake	BG/RE	5/21	900	shock	mild/clear	71	normal	192	good	none
Greenbo Lake	LMB	9/13	2000	shock	mild/cool	79.5	~6" low	156	fair	high water temperature
Mill Creek Lake	LMB	5/15	2110	shock	calm/clear	74	-	42	fair	water much murkier than normal
Mill Creek Lake	BG/RE	6/7	915	shock	sunny/clear	-	-	~120	fair	none
Mill Creek Lake	LMB	9/19	2000	shock	clear/warm	76.7	~6" low	108	fair	more submerged vegetation than normal

Table 1 cont.

Water body	Species	Date (2007)	Time (24hr)	Gear	Weather	Water Temp (°F)	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Lake Reba	LMB	5/9	2120	shock	clear/calm	76	-	60	fair	abundance of aquatic vegetation
Lake Reba	BG/RE	6/4	930	shock	sunny/windy	79	-	84	fair/poor	fish capture loww because of vegetation and algae
Lake Reba	LMB	9/12	2000	shock	clear/cool	78.3	~3-4' low	6	fair	used small electrofishing boat
Rebel Trace Lake	LMB	5/3	2045	shock	mild/clear	68	low	54	fair	none
Rebel Trace Lake	BG/RE	5/22	800	shock	clear/warm	75	~ 1' low	54	fair	did not pick up sunfish <3-0
Rebel Trace Lake	LMB	fall	-	-	-	-	-	-	-	could not sample due to eurasion milfoil infestation
Smoky Valley	LMB	5/8	2115	shock	clear/mild	71	-	30	good	none
Smoky Valley	BG/RE	5/30	900	shock	-	78	-	54	good	water turbid
Smoky Valley	LMB	9/18	2000	shock	clear/calm	78.2	-	36	fair	abundant ammounts of aquatic vegetation;
Lake Wilgreen	LMB	9/24	2000	shock	clear/warm	78.7	~1.5' low	48	fair	none
Lake Wilgreen	BG/RE	5/24	1015	shock	overcast/windy	76	6.8" low	36	fair	difficult to sample paralleling the bank
Lake Wilgreen	LMB	5/14	2115	shock	clear/cool	75	-	72	fair	none

Cave Run Lake Normal Summer Pool = 730.00 msl
Grayson Lake Normal Summer Pool = 645.00 msl

Table 2. Relative abundance and CPUE (fish/hour) of muskellunge collected (includes ≤20.0 in observed but not collected) during 18.00 hours of electrofishing at Cave Run Lake (2, 3, 4, 5, 9 and 11 April 2007).

	Inch class																														
Species	11	12	13	14	15	16	17	18	19	20	21	24	28	29	30	32	33	34	35	36	37	38	39	40	41	42	45	Total	CPUE	SE
Muskellunge	1	1	11	11	25	11	4	1	1	6	2	2	1	2	3	2	1	2	3	1	6	6	1	3	2	1	1	111	7.16	0.91

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Table 3. Muskellunge assessment using statewide criteria for Cave Run Lake spring electrofishing 1995-2007. Numbers in parentheses include those observed but not collected.

Year	CPUE age 1 fish		CPUE ≥20.0 in		CPUE ≥30.0 in		CPUE ≥36.0 in		CPUE ≥40.0 in		Total Score	Rating
	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment		
1995	2.87 (4.69)	2 (3)	4.52 (6.17)	2 (3)	2.83 (4.18)	3 (4)	1.56 (1.65)	4 (4)	0.55 (0.63)	3 (4)	14 (18)	G (E)
1996	5.23 (6.69)	3 (3)	4.16 (5.44)	2 (3)	2.36 (3.22)	2 (3)	0.83 (0.90)	2 (3)	0.42 (0.48)	3 (3)	12 (15)	G (G)
1997	*Lake flooded, muddy water, too few muskellunge collected for comparison purposes*											
1998	3.75 (4.75)	3 (3)	2.82 (5.32)	3 (3)	2.82 (3.64)	2 (3)	1.04 (1.14)	3 (3)	0.25 (0.36)	2 (3)	13 (15)	G (G)
1999	1.64 (2.67)	1 (2)	3.15 (3.82)	2 (2)	2.30 (2.85)	2 (3)	0.67 (0.67)	2 (2)	0.24 (0.24)	2 (2)	9 (11)	F (F)
2000	1.72 (2.44)	1 (2)	2.78 (3.11)	1 (2)	1.78 (2.00)	2 (2)	0.94 (1.00)	3 (3)	0.28 (0.33)	3 (3)	10 (12)	F (G)
2001	2.32 (3.19)	2 (2)	4.41 (5.68)	2 (3)	3.07 (4.12)	3 (4)	1.51 (1.68)	4 (4)	0.64 (0.81)	4 (4)	15 (17)	G (E)
2002	*Lake flooded, muddy water, did not sample*											
2003	1.94 (3.22)	1 (2)	3.22 (4.33)	2 (2)	2.33 (3.17)	2 (3)	1.00 (1.17)	3 (3)	0.33 (0.50)	3 (3)	11 (13)	F (G)
2004	1.28 (1.72)	1 (1)	3.17 (4.67)	2 (2)	2.61 (3.83)	3 (3)	1.28 (1.67)	3 (4)	0.44 (0.83)	3 (4)	12 (14)	G (G)
2005	2.87 (3.80)	2 (3)	5.53 (7.67)	3 (3)	4.00 (5.60)	4 (4)	2.00 (2.07)	4 (4)	0.80 (0.86)	4 (4)	17 (18)	E (E)
2006	2.44 (3.56)	2 (2)	2.89 (4.17)	1 (2)	2.17 (3.22)	2 (3)	1.22 (1.56)	3 (4)	0.44 (0.78)	3 (4)	11 (15)	F (G)
2007	3.61 (4.89)	3 (3)	2.50 (3.83)	1 (2)	1.78 (2.17)	2 (2)	1.17 (1.33)	3 (3)	0.39 (0.56)	3 (3)	12 (13)	G (G)

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Table 4. Length frequency and CPUE (fish/hour) of black bass collected in 4.0 hours (12 hours total) of 30-minute nocturnal electrofishing runs in each area of Cave Run Lake from 30 April - 02 May 2007.

		Inch class																				Std.
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	error
Upper	Smallmouth bass																			0	0.00	0.00
	Spotted bass	1	2	1		1	1	1	2											9	2.25	1.44
	Largemouth bass	5	57	104	84	20	15	47	65	37	51	36	12	14	5	2	6	8	3	571	142.75	14.81
Middle	Smallmouth bass		6	9	1	3	10	5	3											37	9.25	4.58
	Spotted bass	1	100	147	48	26	57	43	30	6	1									459	114.75	16.86
	Largemouth bass		22	95	91	33	15	45	58	32	41	12	3	3	2	6	7		1	466	116.50	17.31
																		1				
Lower	Smallmouth bass		14	11	2	6	13	10	3			1	1							62	15.50	6.66
	Spotted bass	11	87	65	31	87	91	70	40	9	8	4		2						505	126.25	20.56
	Largemouth bass	1	44	120	106	28	18	61	56	71	55	26	3	8	10	7	8	5		627	156.75	22.33
Total	Smallmouth bass		20	20	3	9	23	15	6			1	1					1		99	8.25	2.90
	Spotted bass	13	189	213	79	14	149	114	72	15	9	4		2						973	81.08	14.42
	Largemouth bass	6	123	319	281	81	48	153	179	140	147	74	18	25	17	15	21	13	4	1664	138.67	10.74

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Table 5. Length frequency and CPUE (fish/hour) of stocked* and wild largemouth bass collected in 12.0 hours (4.0 hrs in each area) of nocturnal electrofishing at Cave Run Lake from 30 April - 02 May 2007.

		Inch class																				Std.
Area	Type	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	error
Upper	Wild	5	57	104	84	20	15	47	65	37	51	36	12	14	5	2	6	8	3	571	142.75	14.81
	Stocked																					
Middle	Wild		22	95	91	33	14	40	58	32	41	12	3	3	2	6	7		1	460	115.00	17.06
	Stocked						1	5												6	3.00	0.58
Lower	Wild	1	44	120	106	28	14	52	55	68	55	26	3	8	10	7	8	5		610	152.50	21.36
	Stocked						4	9	1	3										17	4.86	0.96
Total	Wild	6	123	319	281	81	43	139	178	137	147	74	18	25	17	15	21	13	4	1641	136.75	10.44
	Stocked						5	14	1	3										23	4.18	0.69

*stocked in 2005 as part of the largemouth bass stocking initiative.
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Table 6. Spring 2007 electrofishing catch-per-unit-effort (CPUE-fish/hour) for each length group of largemouth bass collected at Cave Run Lake compared to past years.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total		Sections	TTL
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	Sampled*	hours
2007	67.50	7.21	43.33	3.50	19.92	2.84	7.92	1.33	138.67	10.74	L,M,U	12
2006	50.67	10.14	48.50	7.70	14.67	1.99	10.17	1.42	124.00	19.07	L,M,U	6
2005	75.00	13.08	41.67	6.41	14.67	2.67	7.17	1.64	138.50	22.18	L,M,U	6
2004	29.00	3.02	60.67	5.88	26.00	3.03	14.08	1.35	129.75	10.14	L,M,U	12
2003	41.00	5.99	64.58	5.15	24.75	2.28	20.25	2.85	150.58	13.02	L,M,U	12
2002	No data collected											
2001	22.83	3.68	54.67	5.41	27.58	2.33	12.58	1.55	117.67	8.60	L,M,U	12
2000	45.08	4.88	78.33	6.48	26.83	2.89	9.00	1.51	159.25	10.69	L,M,U	12
1999	67.58	7.18	51.25	3.47	21.58	1.79	8.58	1.49	149.00	8.73	L,M,U	12
1998	18.71	3.52	17.86	2.94	20.57	2.14	6.86	1.54	64.00	7.64	L,M	7

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* L - lower, M - middle, U - upper

Table 7. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Cave Run Lake from 30 April - 02 May 2007; 95% confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD (± 95%)	RSD* (± 95%)
Lower	Smalllmouth bass	35	9 (± 9)	6 (± 7)
	Spotted bass	311	7 (± 3)	1 (± 1)
	Largemouth bass	328	37 (± 5)	12 (± 3)
Middle	Smallmouth bass	21		
	Spotted bass	163	4 (± 3)	
	Largemouth bass	225	33 (± 6)	8 (± 4)
Upper	Largemouth bass	301	45 (± 6)	13 (± 4)
Total	Smallmouth bass	56	5 (± 6)	4 (± 4)
	Spotted bass	479	6 (± 2)	0.4 (± .5)
	Largemouth bass	854	39 (± 3)	11 (± 2)

* Largemouth bass = RSD_{15}, spotted and smallmouth bass = RSD_{14}

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Table 8. Mean back-calculated lengths (in) at each annulus for largemouth bass collected from Cave Run Lake from 30 April - 02 May 2007, including the range of length of bass at each age and the 95% confidence intervals for each age class.

		Age									
Year	No.	1	2	3	4	5	6	7	8	9	10
2006	31	6.3									
2005	33	5.8	9.6								
2004	24	6.5	9.8	12.4							
2003	10	6.4	10.5	12.9	14.8						
2002	13	6.3	9.8	12.2	14.0	15.5					
2001	10	5.9	10.1	12.6	14.3	15.8	17.0				
2000	4	6.2	10.5	13.5	15.2	16.4	17.2	17.9			
1999	4	5.1	9.5	12.4	14.8	16.3	17.5	18.4	19.2		
1997	2	6.9	11.2	14.0	15.7	17.0	18.0	18.6	19.1	19.4	19.9
Mean		6.2	9.9	12.6	14.5	15.9	17.2	18.2	19.1	19.4	19.9
Number		131	100	67	43	33	20	10	6	2	2
Smallest		4.4	7.8	10.9	12.9	14.1	15.3	16.6	18.1	19.0	19.5
Largest		8.1	12.1	15.9	17.7	17.7	18.6	19.7	20.7	19.8	20.3
Std error		0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.4
95% CI (±)		0.3	0.3	0.5	0.6	0.7	0.9	1.1	1.5	1.7	1.6

Otoliths were used for age-determinations; Intercept=0

nedaagcr.d07

Table 9. Age frequency and CPUE of largemouth bass from Cave Run Lake captured during 12.0 hours of nocturnal electrofishing from 30 April - 02 May 2007.

	Inch class																			Std.
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%	CPUE	Error
1	123	319	281	71	4													798	48	66.52	7.13
2				10	44	153	179	38	11									435	26	36.27	3.02
3								102	136	42								280	17	23.32	2.78
4										32	9	6		3				49	3	4.06	0.70
5											9	14	6	5				34	2	2.80	0.47
6												6	9	5	11			30	2	2.46	0.40
7													3	3	4	4		13	1	1.10	0.19
8															7	4	2	13	1	1.11	0.19
10																4	2	6	< 1	0.53	0.14
Total	123	319	281	81	48	153	179	140	147	74	18	25	17	15	21	13	4	1,658	100		
%	7	19	17	5	3	9	11	8	9	4	1	2	1	1	1	1	0	100			

nedpsdcr.d07, nedaagcr.d07

Table 10. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected during spring sampling at Cave Run Lake from 1999 - 2007.

	Year							
Age	1999	2000	2001	2003	2004	2005	2006	2007
1	61.64	42.44	20.65	39.76	28.09	63.36	49.21	66.52
2	43.46	61.41	47.10	55.77	46.55	42.80	42.04	36.27
3	27.09	34.71	26.53	24.17	31.96	19.99	16.37	23.32
4	11.20	14.46	15.35	17.34	14.19	7.58	9.57	4.06
5	3.69	3.76	5.03	7.19	5.30	2.37	3.50	2.80
6	1.17	1.10	1.58	3.27	2.06	0.86	1.69	2.46
7	0.13	0.15	0.18	0.50	0.28	0.13	0.27	1.10
8	0.53	0.47	0.71	1.50	0.86	0.52	0.96	1.11
10	0.08	0.08	0.28	0.33	0.14	0.22	0.22	0.53
13		0.33	0.17	0.75	0.08	0.33	0.17	

Note: Did not sample in 2002 due to high water.
nedpsdcr.d99,00,01,03,04,05,06,07.
nedaagcr.d03,07

Table 11. Population assessment using statewide criteria for largemouth bass based on spring sampling from 2004 through 2007 at Cave Run Lake.

Parameter	2004		2005		2006		2007	
	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Mean length age 3 at capture*	12.4	3	12.4	3	12.4	3	12.4	3
Spring CPUE of Age 1 Fish	28.09	2	63.36	4	49.21	3	66.52	4
Spring CPUE 12.0-14.9-in. fish	26.00	3	14.67	1	14.67	1	19.92	2
Spring CPUE ≥15.0-in. fish	14.08	3	7.17	2	10.17	2	7.92	2
Spring CPUE ≥20.0-in fish	0.33	2	0.67	2	0.17	1	0.33	2
Instantaneous mortality (z)		0.846		0.897		0.799		-0.703
Annual mortality (A)		57.0%		59.0%		55.0%		51.0%
Total score		13		12		10		13
Assessment rating		Good		Good		Fair		Good

* **Note:** 04-06 age and growth data based on 2003 findings; 07 age and growth data based on 07 findings.
nedpsdcr.d04, 05, 06, 07; nedaagcr.d03,07

Table 12. Cave Run Lake largemouth bass assessment values comparing old values and those figured for Cave Run Lake itself and also comparing the 13.0-16.0 in slot limit values determined for the lake.

Year	Mean age-3 Length at Capture[a]	Age-1 CPUEa	**11 & 12 in CPUEa**	12.0-14.9 in CPUE	***13.0-15.9 in CPUEa***	≥ 15.0 in CPUE	***≥ 16.0 in CPUEa***	≥ 20.0 in CPUE	Total Assessment Score (old)	*Total Assessment Score (New)*	***Total Assessment Score***	Hours sampled
15-inch minimum size limit												
1987	11.2 (2)	6.8 (1)		19.1 (2)		13.7 (3)		0.92 (2) *4*	10 - F	*12 - G*		12.0
1988	10.6 (1)	10.1 (1)		9.7 (1)		8.5 (2)		0.92 (2) *4*	7 - P	*9 - F*		12.0
1989	11.4 (2) *3*	27.9 (2)		12.2 (1)		4.8 (2) *1*		0.42 (2) *3*	9 - F	*10 - F*		12.0
1990	11.3 (2)	18.8 (1)		17.8 (2) *1*		3.3 (1)		0.23 (2)	8 - F	*7 - P*		13.0
1991	11.5 (2) *3*	29.3 (2)		31.0 (3) *4*		6.3 (2) *1*		0.42 (2) *3*	11 - F	*13 - G*		12.0
1992	10.9 (1) *2*	43.5 (3)		22.0 (2) *3*		2.8 (1)		0.17 (1)	8 - F	*10 - F*		11.9
1993	11.3 (2)	41.0 (3)		36.2 (4)		4.9 (2) *1*		0.25 (2)	13 - G	*12 - G*		12.0
1994	11.5 (2) *3*	50.8 (4)		38.8 (4)		3.7 (1)		0.33 (2)	13 - G	*14 - G*		12.0
1995	10.8 (1)	22.7 (2) *1*		36.6 (4)		6.4 (2) *1*		0.09 (1)	10 - F	*8 - F*		11.9
13.0-15.9 Inch slot limit												
1996	11.1 (2)	50.8 (4) *3*	**22.8 (2)**	15.2 (2) *1*	***9.4 (1)***	4.0 (1)	***1.1 (1)***	0.00 (0)	9 - F	*7 - P*	**9 - F**	11.5
1997	10.8 (1)	23.8 (2) *1*	**22.3 (2)**	24.6 (2) *4*	***15.5 (2)***	4.4 (2) *1*	***2.5 (1)***	0.08 (1)	8 - F	*8 - F*	**7 - P**	12.0
1998*	10.7 (1)	10.8 (1)	**12.6 (1)**	20.6 (2)	***15.6 (2)***	6.9 (2) *1*	***2.9 (1)***	0.00 (0)	7 - P	*5 - P*	**6 - P**	8.0
1999	11.0 (1) *2*	50.2 (4) *3*	**22.3 (2)**	21.6 (2) *3*	***16.4 (2)***	8.6 (2)	***5.0 (2)***	0.00 (0)	9 - F	*10 - F*	**11 - F**	12.0
2000	10.3 (1)	35.5 (2)	**29.0 (2)**	26.8 (3) *4*	***21.5 (4)***	9.0 (2)	***5.0 (2)***	0.42 (2) *3*	10 - F	*12 - G*	**11 - F**	12.0
2001	10.7 (1)	15.1 (1)	**19.0 (1)**	27.6 (3) *4*	***24.0 (4)***	12.6 (3) *2*	***6.7 (2)***	0.25 (2)	10 - F	*10 - F*	**9 - F**	
2002						High water, not sampled						
2003	12.4 (3) *4*	39.8 (3)	**16.8 (1)**	24.8 (2) *4*	***22.8 (4)***	20.2 (4)	***13.9 (4)***	0.75 (2) *4*	14 - G	*19 - E*	**16 - G**	12.0
2004	12.4 (3) *4*	28.1 (2)	**32.2 (3)**	26.0 (3) *4*	***16.5 (2)***	14.1 (3)	***8.9 (3)***	0.33 (2)	13 - G	*15 - G*	**14 - G**	12.0
2005	12.4 (3) *4*	43.0 (3)	**18.3 (1)**	14.7 (1)	***10.5 (1)***	7.2 (2) *1*	***3.8 (1)***	0.67 (2) *4*	11 - F	*13 - G*	**10 - F**	6.0
2006	12.4 (3) *4*	49.2 (3)	**13.8 (1)**	14.7 (1)	***11.2 (1)***	10.2 (2)	***6.8 (2)***	0.17 (1)	10 - F	*11 - F*	**11 - F**	6.0
2007	12.4 (3) *4*	66.5 (4)	**23.9 (2)**	19.9 (2)	***9.8 (1)***	7.9 (2) *1*	***5.8 (2)***	0.33 (2)	13 - G	*13 - G*	**13 - G**	12.0

Numbers in italics outside parenthesis are assessment ratings using figures based on Cave Run Lake alone. If no numbers appear outside parenthesis the assessment rating was the same using both methods. Parameter assessment values range from 1-4 (1 being the low value, 4 being the high value; overall assessment rating: 5-7 = Poor (P), 8-11 = Fair (F), 12-16 = Good (G), 17-20 = Excellent (E)

1987-1989 based on in grp all other years in class.

[a]Using these parameters for 1996-2007only (mean age-3 length at capture, age 1 CPUE, 11 & 12 in CPUE, 13-15.9 in CPUE, ≥ 16 in CPUE).

*1998 upper lake section not sampled.

Table 13. Length frequency and CPUE (fish/hour) of black bass collected in 4.0 hours (2 hours in each area; 8-30 min. runs) of nocturnal electrofishing in Cave Run Lake on September 10-11 2007.

	Inch class																			
Area/Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18	19	Total	CPUE	Std. error
Lower																				
Smallmouth bass		1	4			4	3				1							13	6.50	3.90
Spotted bass	4	13	8	8	43	51	26	11	9	6	1	1						181	90.50	12.50
Largemouth bass		1	7	2	1	13	21	16	9	6	4	1			1	1	1	84	42.00	16.10
Upper																				
Spotted bass	1	5	2	1				1										10	5.00	0.60
Largemouth bass		37	76	65	16	3	25	52	23	12	14	14	1	1				339	169.50	11.50
Total																				
Smallmouth bass		1	4			4	3				1							13	3.30	2.20
Spotted bass	3	18	10	9	43	51	26	12	9	5	1	1						191	47.80	17.20
Largemouth bass		37	83	67	17	16	46	67	32	18	18	15	1	1	1	1	1	423	105.80	25.80

nedwrscr.d07

Table 14. Number of fish and mean relative weight (W_r) values for length groups of black bass collected in Cave Run Lake sampled by nocturnal electrofishing on 10-11 2007. Standard errors are in parentheses.

Species	Area	Length group					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
		No.	W_r	No.	W_r	No.	W_r
Largemouth bass	Lower	52	85 (1.1)	5	85 (4.1)	3	85 (1.0)
	Upper	111	92 (1.0)	29	90 (1.4)	1	100
	Total	163	90 (0.9)	34	89 (1.4)	4	89 (3.8)
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	W_r	No.	W_r	No.	W_r
Spotted bass	Lower	97	94 (1.1)	7	85 (1.7)		
	Upper	1	96				
	Total	98	94 (1.1)	7	85 (1.7)		
Smallmouth bass	Lower	7	81 (3.7)	1	88		
	Total	7	81 (3.7)	1	88		

nedwrscr.d07

Table 15. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall while nocturnal electrofishing at Cave Run Lake.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2007	Total	4.7	0.06	50.50	19.00	20.30	7.70		
2006	Total	4.8	0.05	68.50	26.20	31.50	13.10	66.50	7.10
2005	Total	4.1	0.07	51.50	19.40	10.80	3.50	49.20	9.90
2004	Total	5.3	0.06	86.00	26.30	53.50	14.00	63.40	9.90
2003	Total	4.7	0.04	70.70	19.00	23.50	6.40	28.10	3.00

nedwrscr.d07, 06, 05, 04, 03
nedaagcr.d03,07

Table 16. Length frequency and CPUE for each species of crappie collected at Cave Run Lake (upper section only) in 60 net-nights during 22-26 October 2007.

Species	Inch class										Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12			
White crappie	13	20	25	36	71	24	3	4	3	2	201	3.40	0.62
Black crappie	2	2	6	11	8	3	1	1			34	0.57	0.20

nedctncr.d07

Table 17. PSD and RSD_{10} values for crappie collected in trap nets on Cave Run Lake during October 2007; 95% confidence limits are in parentheses.

	No.	PSD	RSD_{10}
White crappie	168	21 (± 6)	5 (± 3)
Black crappie	30	17 (± 14)	3 (± 5)

nedctncr.d07

Table 18. Age frequency and CPUE of white crappie collected from trap nets fished in Cave Run Lake for 60 net nights during October 2007.

	Inch class													Std
Age	3	4	5	6	7	8	9	10	11	12	Total	%	CPUE	error
0+	13	20									33	16	0.55	0.21
1+			23	22							44	22	0.74	0.17
2+			3	14	71	22	2				112	55	1.86	0.33
3+						2	1	3	1		7	4	0.12	0.03
4+								1	1		2	3	0.03	0.01
5+										1	1	0	0.02	0.01
6+									1	1	2	1	0.03	0.01
Total	13	20	25	36	71	24	3	4	3	2	201	100		
%	6	10	12	18	35	12	1	2	1	1	100			

CPUE of ≥8.0 in (quality size) crappie = 0.60
CPUE of ≥10.0 in (preferred size) crappie = 0.15
nedctncr.d07, nedaagcr.d07

Table 19. Population assessment using statewide criteria for white crappie from Cave Run Lake in October 2007 compared to previous years.

	2003		2004		2005		2006		2007	
Parameter	Assessment value	Assessment score	Assessment value	Assessment score	Assessment value	Assessment score	Assessment value	Assessment score	Assessment value	Assessment score
CPUE of crappie (excluding age 0)	1.60	1	9.30	2	2.20	1	6.89	2	2.80	1
CPUE of age 1 crappie	0.22	1	4.20	2	0.70	1	5.14	2	0.74	1
CPUE of age 0 crappie	0.11	1	6.40	3	1.70	1	3.75	2	0.55	1
CPUE of crappie ≥8.0 in	0.70	1	3.00	2	0.90	1	0.65	1	0.60	1
Mean age 2 length at capture	7.8	1	7.9	1	7.90	1	7.9	1	7.7	1
Instantaneous mortality (Z)	0.391		0.762		0.572		0.951		1.41	
Annual mortality (A)	32.30%		53.30%		43.60%		66.30%		75.50%	
Total score:		5		11		5		8		5
Assessment rating:		P		F		P		F		P

nedctncr.d07, 06, 05, 04, 03; nedaagcr.d04, 07

Table 20. Length frequency and CPUE for white bass collected in 16 net nights of sampling at Cave Run Lake from 22-26 October 2007.

	Inch class											
Species	7	8	9	10	11	12	13	14	15	Total	CPUE	Std. Error
White bass	4			1	15	4	20	20	5	69	4.31	0.90

nedwtbcr.d07

Table 21. Number of fish and relative weight (Wr) for each length group of white bass collected at Cave Run Lake from 22 - 26 October 2007. Standard errors are in parentheses.

	Length group					
	6.0-8.9 in		9.0-11.9 in		≥12.0 in	
Year	No.	Wr	No.	Wr	No.	Wr
2007	4	94.5 (3.9)	16	87.5 (1.8)	49	92.6 (1.0)

nedwtbcr.d07

Table 22. Mean back calculated lengths (in) at each annulus for white bass collected from Cave Run Lake in October 2007, includes 95% confidence interval (CI) for mean length for each age class.

		Age				
Year	No.	1	2	3	4	5
2007	0					
2006	13	7.9				
2005	3	8.0	11.5			
2004	21	8.7	11.7	13.1		
2003	1	7.8	11.5	12.1	12.9	
2002	2	7.7	11.4	12.8	13.7	14.4
Mean		8.3	11.6	13.0	13.4	14.4
Number	40	40	27	24	3	2
Smallest		6.7	10.8	12.1	12.9	14.3
Largest		10.0	12.9	14.1	13.8	14.4
Std. Error		0.1	0.1	0.1	0.3	0.0
95% CI (±)		8.3	11.6	13.05	13.45	14.35

Otoliths were used for age determination; Intercept = 0.00
nedaagcr.d07

Table 23. Age frequency and CPUE of white bass sampled using gill nets for 16 net nights at Cave Run Lake from 22-26 October 2007.

	Inch class										Std.
Age	7	10	11	12	13	14	15	Total	%	CPUE	Error
0	4							4	4	0.25	0.11
1		1	15	2				18	26	1.13	0.33
2				2	2			4	6	0.25	0.08
3					16	20	3	39	57	2.44	0.58
4					2			2	3	0.13	0.03
5							2	2	3	0.13	0.06
TOTAL	4	1	15	4	20	20	5	69	100		
%	6	1	22	6	29	29	7	100			

nedaagcr.d07, nedwtbcr.d07

Table 24. Population assessment using statewide criteria for white bass based on fall sampling from 1993 through 2007 at Cave Run Lake.

	1993		1998		2003		2005		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
CPUE age-1 fish and older	10.00	3	13.60	3	17.90	3	13.30	3	4.31	1
Mean length age-2 at capture	13.0	4	13.4	4	13.6	4	12.9	3	12.9	3
CPUE fish ≥12.0 in	6.80	3	9.30	3	4.90	2	7.50	3	3.06	2
CPUE of age-1 fish	3.10	2	4.40	2	15.10	4	5.10	3	1.13	1
Instantaneous Mortality (z)								0.816		-1.83
Annual Mortality (A)								55.80%		84.00%
Total Score		12		12		13		12		7
Assessment Rating		G		G		G		G		F

nedwtbcr.d07, d05, d03, d98, d93

Table 25. Fishery statistics derived from a daytime creel survey at Cave Run Lake (8,270 a) during 01 April through 31 October 2007 compared to findings from 2003, 1998, and 1994.

	2007	2003	1998	1994
Fishing trips				
No. of fishing trips (per acre)	23,316 (2.82)	26,208 (3.17)	33,354 (4.03)	24,406 (2.95)
Fishing pressure				
Total man-hours (S.E.)	120,079 (2,644)	177,202 (2,653)	134,650 (2,311)	117,788 (8,358)
Man hours/acre	14.52	21.43	16.28	14.24
Catch/harvest				
No. of fish caught (S.E.)	130,113 (10,507)	187,881 (11,843)	128,352 (12,798)	124.513 (12,143)
No. of fish harvested (S.E.)	61,966 (5,672)	99,936 (7,249)	64,507 (6,564)	53,778
Lbs. of fish harvested	29,248	54,818	31,197	31,347
Harvest rate				
Fish/hour	0.51	0.54	0.47	0.46
Fish/acre	7.49	12.08	7.80	6.50
Lbs/acre	3.54	6.63	3.77	3.79
Catch rates				
Fish/hour	1.05	1.03	0.96	1.06
Fish/acre	15.73	22.72	15.52	15.06
Misc. characteristics (%)				
Male	89.4	90.1	86.8	84.3
Female	10.6	9.9	13.2	15.8
Resident	91.0	91.3	85.5	79.9
Non-resident	9.0	8.7	14.2	20.1
Method (%)				
Still fishing	40.5	34.2	34.9	38.8
Casting	56.7	57.6	58.1	55.5
Fly fishing	0	0	0.1	0.1
Trolling	2.8	7.7	6.9	5.6
Mode				
Boat	90.6	92.4	94.0	91.6
Bank	9.3	7.4	5.6	7.8
Dock	0.1	0.2	0.4	0.6

(S.E.) Standard error

Table 26. Fish harvest statistics derived from a creel survey at Cave Run Lake (8,270 a) from 01 April through 31 October 2007.

	Muskellunge	Largemouth bass	Smallmouth bass	Spotted bass	Bluegill	Rock bass	Warmouth	Black crappie	White crappie	White bass	Channel catfish	Flathead catfish	Drum	Carp	Black bass group	Illegal bass	Panfish group	Crappie group	Catfish group	Anything
No. caught	2,180	24,405	362	2,853	15,677	66	17	7,606	72,014	3,023	1,441	100	85	218	27,620	65	15,761	79,620	1,541	
(per acre)	(0.26)	(2.95)	(0.04)	(0.34)	(1.90)	(0.01)	(tr)	(0.92)	(8.71)	(0.37)	(0.17)	(0.01)	(0.01)	(0.03)	(3.34)	(0.01)	(1.91)	(9.63)	(0.19)	
No.harvested	580	4,763	0	956	7,643	0	0	5,685	38,189	2,723	1,149	100	38	76	5,719	65	7,643	43,874	1,249	
(per acre)	(0.07)	(0.58)		(0.12)	(0.92)			(0.69)	(4.62)	(0.33)	(0.14)	(0.01)	(tr)	(0.01)	(0.69)	(0.01)	(0.92)	(5.30)	(0.15)	
% of ttl no. harvested	0.94	7.69		1.54	12.33			9.17	61.63	4.39	1.85	0.16	0.06	0.12	9.23	0.10	12.33	70.80	2.02	
Lbs. harvested	7,001	2,888		353	1,044			2,327	12,587	1,742	932	221	30	37	3,241	86	1,044	14,914	1,153	
(per acre)	(0.85)	(0.35)		(0.04)	(0.13)			(0.28)	(1.52)	(0.21)	(0.11)	(0.03)	(tr)	(tr)	(0.39)	(0.01)	(0.13)	(1.80)	(0.14)	
% of total lbs harvested	23.94	9.87		1.21	3.57			8.00	43.00	5.96	3.19	0.75	0.10	0.13	11.08	0.29	3.57	51.00	3.94	
Mean length (in)	35.8	10.6		8.9	5.8			9.3	8.9	12.4	13.5	17.5	12.0	10.0		13.8				
Mean weight (lb)	11.51	0.61		0.33	0.13			0.42	0.31	0.81	0.85	2.36	0.79	0.48		1.32				
No. fishing trips for that species	6,057									151					6,698		611	6,636	622	2,532
% of all trips	26.0									0.65					28.74		2.62	28.47	2.7	10.86
Hours fished for that species	31,192									778					34,497		3,148	34,175	3,205	13,040
(per acre)	(3.77)									(0.09)					(4.17)		(0.38)	(4.13)	(0.39)	(1.58)
No. harvested fishing for that sp	489									986					1,583		3,326	42,621	491	5,130
Lbs. harvested fishing for that sp	6,260									727					1,034		484	14,485	598	1,187
No. harvested per hour fishing for that sp	0.015									1.2					0.04		0.97	1.38	0.11	0.6
% success fishing for that species	5.2									73.3					6.1		51.9	58.5	28.0	26.1

tr= > 0.01

Table 27. Length distribution (length of released fish are estimates) for each species of fish harvested (H) and/or released (R) at Cave Run Lake (8,270 a) from 01 April through 31 October 2007.

Species		Inch class																																									
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Muskellunge	H																													53	70	35	88		70	105	35	35			35		35				19
	R																58	58	38				38	19		77	96	19	40	100	140	200	100	80	160	120	20		60	60	40		20	20	18		
Largemouth bass	H				156	19	505	680	1,147	817	1,244				19	78	39	39				20																							
	R				2,416	158	3,029	713	3,861	1,841	3,208	851	1,406	673	416	238	328	277	20	39																								
Illegal bass	H											16	49																																
Smallmouth bass	R*				142		41		20		61	20	41					18	19																										
Spotted bass	H						348	174	434																																				
	R				626		1,050	55	167																																				
Bluegill	H		298	781	5,877	502			185																																				
	R	563	6,101	94	1,201	75																																						
Rock bass	R*						66																																						
Warmouth	R*		17																																									
Black crappie	H				285	44	1,010	2,019	1,844	417	66																																		
	R			234	1,386		305																																						
White crappie	H		160		2,875	1,717	10,081	9,063	10,161	1,996	1,876	200	20	20			20																												
	R		4,428	3,321	24,230	799	492		82	143	225	61	20	23																														
White bass	H				70		141	299	229	404	948	492	88	35		18																												
	R						16		111		95			78																														
Channel catfish	H			18	106				18	35	88	124	424	53	212	53			18																									
	R		156		19		58		19						19	21																												
Flathead catfish	H**												17		50		17				16																								
Drum	H										38																																	
	R								24						23																													
Carp	H								76																																			
	R				89												18				18	17																						

* None harvested

**None released

Table 28. Monthly black bass and muskellunge angling success at Cave Run Lake during the 2007 creel survey period.

	Total no. caught*		Total no. harvested		Total no. of trips for		Hours fished for		Catch fishing for		Catch / hour fishing for		No. harvested fishing for		No. harvested / hour fishing for	
Month	Bass	Muskie	Bass	Muskie	Bass	Muskie	Bass	Muskie	Bass	Muskie	Bass	Muskie	Bass	Muskie	Bass	Muskie
Apr	3,750	315	1,008	0	656	1,094	3,380	5,633	2,176	284	0.577	0.045	316	0	0.084	0
May	8,849	243	1,504	66	1,691	1,061	8,706	5,463	6,792	199	0.685	0.029	177	44	0.018	0.006
Jun	4,319	70	787	17	1,327	365	6,835	1,880	2,885	34	0.428	0.013	35	17	0.005	0.006
Jul	1,547	109	250	63	714	232	3,677	1,197	1,408	78	0.335	0.058	204	47	0.049	0.035
Aug	2,309	167	577	76	574	419	2,954	2,156	1,170	152	0.502	0.052	46	61	0.020	0.021
Sep	2,639	338	711	118	843	1,312	4,341	6,758	1,844	338	0.529	0.042	372	118	0.092	0.015
Oct	4,207	937	882	239	894	1,574	4,603	8,106	3,345	844	0.728	0.091	331	202	0.072	0.022
Total	27,620	2,180	5,719	580	6,698	6,057	34,497	31,192	19,908	1,929			1,583	489		
Mean											0.546	0.052			0.044	0.015

*all sizes

Table 29. Black bass catch and harvest statistics derived from a creel survey carried out at Cave Run Lake (8,270 a) in 2007.

	Largemouth bass								Spotted bass			Smallmouth bass		
	Harvest			Catch and release			Released	Illegal	Harvest	Catch & release				
	<13.0 in	≥16.0 in	Total	<13.0 in	≥16.0 in	Total	13.0-15.9 in	Harvest	Total	No size limit	Total	<16.0 in	≥16.0 in	Total
Total No of bass	4,568	195	4,763	15,226	1,484	16,710	2,930	65	956		1,898	325	37	362
% of black bass harvested by number			82.3					1.1	16.5					0
Total weight of fish (lb)			2,888	7,851	765	8,616	4,047	86	353		404	130	129	259
% of black bass harvested by weight			86.8					2.7	10.6					0
Mean length (in)			10.6					13.8	8.85					0
Mean weight (lb)			0.61					1.32	0.33					0
Rate (f/h)			0.039					0.001	0.007					0

Table 30. Muskellunge catch and harvest statistics by month derived from a creel survey at Cave Run Lake in 2007.

	Harvest ≥30.0 in			Legal release			Sub-legal release <30.0 in				
Month	No.	Mean length (in)	Mean weight (lb)	No.	Mean length (in)	Mean weight (lb)	No.	Mean length (in)	Mean weight (lb)	Total	Grand ttl
Apr	None harvested			221 (31)	36.1 (36.0)	11.80 (11.64)	63	25.5	3.63	284 (31)	315
May	44 (22)	37.0 (36.7)	12.77 (12.39)	111	32.4	8.15	44 (22)	28.5 (28.0)	5.29 (4.98)	199 (44)	243
Jun	18	34.0	9.60	17	31.0	7.02	(35)	(13.0)	(0.37)	35 (35)	70
Jul	47 (16)	35.3 (35.0)	10.93 (10.58)	31	33.0	8.86	(16)	(24.0)	(3.96)	78 (32)	110
Aug	61 (15)	38.8 (37.8)	14.93 (13.75)	61	35.5	11.10	30	28.0	4.98	152 (15)	167
Sep	118	33.7	9.33	118	34.9	10.44	102	21.8	2.15	338	338
Oct	202 (37)	38.7 (37.5)	14.90 (13.41)	569 (19)	36.3 (36.1)	11.96 (11.78)	73 (37)	24.8 (22.8)	3.28 (2.50)	844 (93)	937
Total	490 (90)			1,128 (50)			312 (110)			1,930 (250)	2,180
Mean		(35.8)	(11.51)		(34.1)	(9.83)		(23.3)	(3.08)		

* Numbers not in parenthesis represent catch and harvest data from those anglers **fishing for** muskellunge. Numbers in parenthesis are catch and harvest in addition to those caught by muskie anglers; if only one number is shown, that number was fishing for or if in parenthesis they were those caught by non muskie anglers.

Table 31. Monthly catch and harvest of crappie (white and black combined) derived from a creel survey at Cave Run Lake during 2007.

	Trips	Hours	Catch		Harvest		Harvest	
Month	fishing for	fishing for	Fishing for	Total	Fishing for	Total	Length (in)	Weight (lb)
Apr	1,458	7,510	18,086	18,119	9,169	9,169	9.9 (9.9)	0.44 (0.52)
May	1,657	8,537	23,183	23,914	12,786	13,295	9.3 (8.9)	0.35 (0.37)
Jun	973	5,013	6,592	7,169	3,550	3,812	8.2 (8.3)	0.23 (0.29)
Jul	598	3,078	4,453	4,860	2,031	2,203	8.3 (10.0)	0.24 (0.53)
Aug	504	2,595	6,820	7,200	4,299	4,496	8.6 (9.7)	0.27 (0.47)
Sep	853	4,390	11,353	11,505	6,818	6,819	8.6 (8.7)	0.27 (0.34)
Oct	593	3,052	6,742	6,852	3,968	4,078	9.0 (9.5)	0.32 (0.45)
Total	6,636	34,175	77,229	79,619	42,621	43,874		
Mean							8.9 (9.3)	0.31 (0.42)

* For length and weight, white crappie is the first number follwed by black crappie in parenthesis, these are average values based on total harvest.

Table 32. Results of an angler attitude survey carried out in conjunction with the 2007 creel survey.

3. *Which species of fish do you fish for at Cave Run Lake (check all that apply)?*

Bass= 38.3% **Crappie**= 58.7% **Muskie**= 67.8% **White bass**= 8.2%
Other: **Anything**= 0.6% **Bluegill**= 1.8% **Catfish**= 2.7% **Other**= 0.3%

4. *Which species do you fish for most at Cave Run Lake (check only one)?*

Bass= 27.4% **Crappie**= 43.2% **Muskie**= 21.0% **White bass**= 0.6%
Other: **Anything**= 0.3% **Bluegill**= 0.3% **Catfish**= 3.0% **Other**= 0.3% **no answer**= 4.0%

5. *Are you dissatisfied with any size or creel limit regulation on any of the fish species you fish for at Cave Run Lake?*

Yes= 29.9% **NO**= 70.1%

5a. *If you are dissatisfied with a size or creel limit regulation, which fish species is it on?*

Bass= 42.7% **Crappie**= 33.3% **Muskie**= 22.9% **White bass**= 1.0% **Other**= 0

What size or creel limit would you prefer on that species?
(Note: numbers below are percentages **only** from the anglers that answered yes in number 5- 29.9%)

Bass size limit: 16in= 17.2% **12**in= 11.8% **14**in= 1.1% **15**in= 1.1% **15 or 16**in= 1.1% **Don't like slot=**
Bass creel limit: 3= 1.1% **5**= 1.1%
Crappie size limit: 10in= 20.4% **9**in= 3.2% **8**in= 2.2% **12**in= 1.1%
Crappie creel limit: 60= 9.7% **15**= 1.1%
Muskie size limit: 36in= 16.1% **40**in= 4.3% **45**in= 1.1%
Muskie creel limit: 2= 1.1%
White bass creel limit: 30= 1.1%
Other: Too small= 2.2% **Not enough quality fish**= 1.1% **Four legal fish**= 1.1%

Answer the following questions for each species you fish for - (see question3)

Bass Anglers

6. *What level of satisfaction do you have with bass fishing at Cave Run lake?*

Very satisfied= 8.6% **Somewhat satisfied**= 56.4% = (65.0% total)
Neutral= 0.8% **No opinion**= 0.8%
Somwhat dissatisfied= 27.4% **Very dissatisfied**= 6.0% = (33.4% total)

6a. *If you responded with somewhat or very dissatisfied in question (6) - What is the single most important reason for your dissatisfaction?* (Note: numbers below are percentages **only** from those dissatisfied- 33.4%)

Don't like slot= 46.5%
Too many small fish being taken= 16.3%
Size= 14.0%
Not enough quality fish= 9.3%
Should have asked= 7.0%
Fish horrible compared to 5 years ago= 2.3%
Not enough legal size bass= 2.3%
Not very many= 2.3%

Table 32 cont.

Crappie Anglers

7. What level of satisfaction do you have with the crappie fishing at Cave Run Lake?

Very satisfied= 19.9% **Somewhat satisfied**= 67.0% = (86.9% total)
Neutral= 0.6% **No opinion**= 0
Somwhat dissatisfied= 9.5% **Very dissatisfied**= 3.9% = (13.4% total)

7a. If you responded with somewhat or very dissatisfied in question (7) - what is the single most important reason for your dissatisfaction? (Note: numbers below are percentages **only** from those dissatisfied- 13.4%)

Can't keep enough= 22.3%
Size= 37.0%
Too many small fish= 11.1%
Should have asked= 7.4%
Size limit= 7.4%
Creel limit should be 60= 3.7%
Not catching as many= 3.7%
Not enough quality fish= 3.7%
Number and size= 3.7%

8. Would you support or oppose a reduction in the current statewide 30 fish daily crappie creel limit?

Support= 5.1% **Oppose**= 93.5% **No opinion**= 1.4%

8a. What reduced daily creel limit would you support?

15 = 100% (note: all 5.1% supporting said 15)

Muskellunge Anglers

9. What level of satisfaction do you have with the muskie fishing at Cave Run Lake?

Very satisfied= 33.3% **Somewhat satisfied**= 50.0% = (83.3% total)
Neutral= 2.1% **No opinion**= 2.1%
Somewhat dissatisfied= 10.4% **Very dissatisfied**= 2.1% = (12.5% total)

9a. If you responded with somewhat or very dissatisfied in question (9) - what is the single most important reason for your dissatisfaction? (Note: numbers below are percentages **only** for those dissatisfied- 12.5%)

Size limit= 30.8%
Too many small fish taken= 23.1%
Need more fish per acre= 15.4%
Cant keep enough= 7.7%
Don't catch enough- 7.7%
Would like a 40 in size limit= 7.7%
Size= 7.7%

Table 32 cont.

White bass anglers

10. What level of satisfaction do you have with the white bass fishing at Cave Run Lake?

Very satisfied= 36.4% **Somewhat satisfied**= 48.5% = (84.9% of total)
Neutral= 3.0% **No opinion**= 9.1%
Somewhat dissatisfied= 0 **Very dissatisfied**=3.0% = (3.0% of total)

10a If you responded with somewhat or very dissatisfied in question (10) - what is the single most important reason for your dissatisfaction? (Note: numbers below are percentages **only** for those dissatisfied-3.0%)

Creel and size= 100% (Note: all 3.0% dissatisfied answered size and creel)

All Anglers

11. Do you support or oppose the current 13-16 inch slot limit on largemouth bass at Cave Run Lake?

Support= 32.5% **Oppose**= 19.9% **No opinion**= 47.6%

11a. If you oppose the 13-16 inch slot limit on largemouth bass at Cave Run Lake - what size limit would you prefer? (Note: numbers below are percentages **only** from the 19.9% anglers in opposition).

In order of preference

16 inch= 38.2%
12 inch= 32.7%
15 inch= 20.0%
10 inch= 1.8%
14 inch= 3.6%
15 or 16 inch= 1.8%
Should have asked= 1.8%

12. Would you support or oppose increasing the current size limit on muskie at Cave Run Lake?

Support= 10.1% **Oppose**= 33.6% **No opinion**= 56.3%

12a If you support increasing the muskie size limit at Cave Run Lake - What size limit would you prefer?
(Note: numbers below are percentages **only** from the 10.1% in support)

In order of preference

36 inch= 68.8%
40 inch= 15.6%
35 inch= 6.2%
45 inch= 3.1%
Don't give a rats ass= 3.1%
Limit 5, size 30 inch= 3.1%

Table 33. Length frequency and CPUE (fish/hour) of black bass collected in 6.0 hours of nocturnal electrofishing (12-30 minute runs, four in each area) at Grayson Lake on 23-25 April 2007.

		Inch class																					Std.
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	CPUE	error
Lower	Spotted bass	3	14	11	23	37	28	19	16	11	6	2	1								171	85.50	9.71
	Largemouth bass		2	22	27	12	8	17	15	11	38	24	8	10	7	2		1	1		205	102.50	11.15
Middle	Spotted bass		15	34	13	24	22	5	8	1	3										125	62.50	13.40
	Largemouth bass		2	53	76	22	6	33	32	25	15	14	12	7	4	4	1	1			307	153.50	16.46
Upper	Spotted bass			4	2	1			4	1		1									13	6.50	1.50
	Largemouth bass		5	17	18	11	7	39	20	20	16	8	5	8	4		2		2	1	183	91.50	19.10
Total	Spotted bass	3	29	49	38	62	50	24	28	13	9	3	1								309	51.50	11.19
	Largemouth bass		9	92	121	45	21	89	67	56	69	46	25	25	15	6	3	2	3	1	695	115.83	11.64

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Table 34. Spring electrofishing CPUE (fish/hour) for each length group of largemouth bass collected at Grayson Lake from 1999-2007.

	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007	48.00	8.03	46.80	3.70	16.00	2.09	5.00	0.80	115.80	11.60
2006	18.83	2.88	55.50	7.40	23.67	3.91	5.33	1.11	103.33	10.07
2005	47.47	7.97	66.53	7.87	23.79	3.71	2.74	0.51	140.53	16.92
2004	162.33	21.99	77.78	10.10	12.89	1.38	2.89	0.59	255.89	31.87
2003	128.33	10.65	79.50	6.51	6.33	0.77	2.17	0.63	216.33	15.11
2002	132.50	17.87	54.50	5.48	4.83	1.42	3.00	0.76	194.83	22.74
2001	220.78	30.58	54.22	3.23	6.67	0.89	2.22	0.48	283.89	30.19
2000	143.33	20.56	65.67	5.86	13.44	1.51	6.67	1.04	229.11	25.92
1999	172.67	21.58	102.44	10.12	24.11	2.13	4.56	0.66	303.78	31.25

nedpsdgl.d07,06,05,04,03,02,01,00,99.

Table 35. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Grayson Lake from 23-25 April 2007; 95% confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD (± 95%)	RSD* (± 95%)
Lower	Spotted bass	83	11 (± 7)	
	Largemouth bass	134	39 (± 8)	8 (± 5)
Middle	Spotted bass	39	8 (± 8)	
	Largemouth bass	148	29 (± 7)	7 (± 4)
Upper	Spotted bass	6	17 (± 25)	
	Largemouth bass	125	24 (± 7)	7 (± 4)
Total	Spotted bass	128	10 (± 5)	
	Largemouth bass	407	31 (± 4)	7 (± 2)

Largemouth bass = RSD_{15}, spotted and smallmouth bass = RSD_{14}.
nedpsdgl.d07

Table 36. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Grayson Lake during spring sampling from 1999 - 2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	167.02	130.80	218.11	127.20	125.23	158.93	44.34	17.33	45.90
2	68.45	63.35	36.37	40.52	57.68	50.79	35.12	26.41	28.90
3	21.00	9.04	11.76	10.94	14.31	16.01	18.01	16.26	10.60
4	16.49	7.52	4.97	4.08	5.41	9.84	15.54	14.72	10.00
5	18.48	8.30	7.37	6.48	8.55	12.22	17.37	15.84	10.40
6	9.69	6.12	3.58	3.44	3.57	5.68	7.90	9.98	7.20
7	0.39	0.81	0.24	0.43	0.35	0.25	0.31	0.50	0.50
8	1.19	1.21	0.61	0.33	0.25	0.62	0.62	1.24	1.40
9	0.22	0.11	0.11	0.67		0.22	0.11	0.17	
10	0.17	0.55	0.13	0.35	0.26	0.18	0.22	0.28	0.30
11		0.11	0.11	0.17	0.50	0.11	0.11	0.17	0.20
13		0.30	0.07	0.22	0.06	0.15		0.11	0.20

nedpsdgl.d99,00,01,02,03,04,05,06,07
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Table 37. Population assessment using statewide criteria for largemouth bass based on spring sampling at Grayson Lake from 2005-2007.

Year		Mean age 3 length at capture	Spring CPUE Age 1	Spring CPUE 12.0-14.9 in	Spring CPUE >15.0 in	Spring CPUE >20.0 in	Instantaneous mortality (Z)	Annual mortality (A)	Total score	Assessment rating
2007	Actual value	10.7	45.90	16.00	5.00	0.17	-0.538	41.6		
	Score	1	3	2	2	1			9	Fair
2006	Actual value	10.7	17.30	23.70	5.30	0.30	-0.535	41.5		
	Score	1	1	2	2	2			8	Fair
2005	Actual value	10.7	46.80	25.10	2.90	0.20	-0.731	51.9		
	Score	1	3	3	1	2			10	Fair

nedpsdgl.07,06,05; nedaaggl.d03

Table 38. Length frequency and CPUE (fish/hour) of black bass collected in 4.5 hours (1.5 hours in each area) of nocturnal electrofishing (9-30 min runs) in Grayson Lake on September 04-06, 2007.

	Inch class																	Std.
Area/Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	Total	CPUE	error
Lower																		
Smallmouth bass	1	1														2	1.33	0.67
Spotted bass	12	23	7	16	34	17	11	9	6	1	2	2				140	93.33	14.44
Largemouth bass		3	9	3	6	8	7	3	4	4	1	4	2	1	1	56	37.33	9.68
Middle																		
Smallmouth bass	2	2				1										5	3.33	2.40
Spotted bass	45	74	13	12	22	17	12	5	1		1					202	134.67	22.58
Largemouth bass	12	26	32	15	4	5	17	11	6	5	2	3	1		1	140	93.33	13.97
Upper																		
Spotted bass		3	4		1	3	1	1	1							14	9.33	2.91
Largemouth bass	9	22	31	29	7	10	23	13	17	10	3	2	2	2	1	181	120.67	7.42
Total																		
Smallmouth bass	3	3				1										7	1.56	0.87
Spotted bass	57	100	24	28	57	37	24	15	8	1	3	2				356	79.11	20.01
Largemouth bass	21	51	72	47	17	23	47	27	27	19	6	9	5	3	3	377	83.78	13.38

nedwrsgl.d07

Table 39. Number of fish and mean relative weight (Wr) values for length groups of black bass collected in Grayson Lake sampled by nocturnal electrofishing on 04-06, 2007. Standard errors are in parentheses.

Species	Area	Length group					
		8.0-11.9 in		12.0-14.9 in		≥ 15.0 in	
		No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Lower	18	82.0 (1.3)	7	80.5 (3.3)	2	92.6 (6.6)
	Middle	39	83.3 (0.9)	6	89.5 (4.2)	1	102.6
	Upper	63	83.5 (0.7)	7	86.5 (2.5)	3	96.3 (4.5)
	Total	120	83.3 (0.5)	20	85.6 (1.8)	6	96.2 (3.1)
		7.0-10.9 in		11.0-13.9 in			
		No.	Wr	No.	Wr		
Spotted bass	Lower	43	87.4 (1.2)	5	82.7 (1.0)		
	Middle	35	90.1 (2.5)	1	84.5		
	Upper	6	117.4 (18.8)				
	Total	84	90.6 (1.9)	6	83.0 (0.9)		
		7.0-10.9 in		11.0-13.9 in			
		No.	Wr	No.	Wr		
Smallmouth bass	Middle	1	90.9				
	Total	1	90.9				

nedwrsgl.d07

Table 40. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in September 2007 while nocturnal electrofishing at Grayson Lake.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2007	Total	4.3	0.07	44.90	9.20	12.90	2.80		
2006	Total	4.1	0.04	87.10	17.94	12.00	2.58	45.90	8.00
2005	Total	4.0	0.04	72.30	17.01	11.70	2.23	17.30	2.80
2004	Total	4.3	0.08	40.40	5.74	11.30	2.08	46.80	7.80
2003	Total	4.3	0.03	59.10	6.82	10.40	1.72	158.90	21.73

nedwrsgl.d07,06, 05, 04, 03; nedpsdgl.d07,06, 05, 04; nedaaggl.d03

Table 41. Length frequency and CPUE for each species of crappie collected at Grayson Lake while electrofishing 3.0h (6-30 minute runs) on 16 October 2007.

	Inch class											
Species	3	5	6	7	8	9	10	11	12	Total	CPUE	Std. error
White crappie	1	2	20	25	7	4	3	2	2	66	22.00	4.90
Black crappie	2		1	1	1					5	1.67	0.95

nedcwrgl.d07

Table 42. PSD and RSD_{10} values for crappie collected while electrofishing Grayson Lake during October 2007; 95% confidence limits are in parentheses.

	No.	PSD	RSD_{10}
White crappie	65	28 (± 11)	11 (± 15)
Black crappie	3	33 (± 99)	

nedcwrgl.d07

Table 43. Age frequency and CPUE of white crappie collected while electrofishing (6-30 minute runs) at Grayson Lake during October 2007.

	Inch class												Std
Age	3	5	6	7	8	9	10	11	12	Total	%	CPUE	error
0	1									1	2	0.33	0.33
1		2	2							4	6	1.33	0.53
2			18	19	2					39	59	13.03	3.34
3				6	5	4	1			16	24	5.19	1.06
4							1	1		2	3	1.62	0.21
5							1	1	1	3	4	0.94	0.34
6									1	1	1	0.28	0.09
7									1	1	1	0.17	0.11
Total	1	2	20	25	7	4	3	2	2	66	100		
%	2	3	30	38	11	6	5	3	3	100			

CPUE of ≥8.0 in (quality size) crappie = 6.00 f/h
CPUE of ≥10.0 in (preferred size) crappie = 1.20 f/h
nedcwrgl.d07; nedaaggl.d06

Table 44. Comparison of various white crappie findings based on electrofishing at Grayson Lake during fall sampling*.

	2004	2005	2006	2007
CPUE excluding age- 0	158.30	43.70	268.40	10.80
CPUE age 1	64.60	9.90	83.30	1.33
CPUE age 0	31.30	1.30	36.30	0.33
CPUE ≥8.0 in	49.00	16.70	42.40	6.00
Mean age-2 length at capture	5.6	5.1	5.6	5.6

* Electrofishing data for comparison purposes. Assessment values only available for trap net data.

Table 45. Length frequency and CPUE (fish/hour) for largemouth bass collected in 1.5 hours of nocturnal electrofishing (6 - 15 minute runs) at Lake Carnico (Nicholas Co.) on 10 May 2007.

	Inch class																				Std.
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	Error
Largemouth bass	5	13	14	4	24	78	34	20	31	19	17	11	3	10	3	2	2	2	292	194.67	10.26

nedpsdlc.d07

Table 46. Population assessment using statewide criteria of largemouth bass based on samples collected at Lake Carnico in May 2004-2007.

	2004		2005		2006		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-3 at capture	12.2	4	12.2	4	12.2	4	12.2	4
Spring CPUE of age 1 fish	54.10	3	23.20	2	27.50	2	39.50	2
Spring CPUE of 12.0-14.9 in fish	36.00	3	24.70	2	18.00	1	31.30	2
Spring CPUE of ≥15.0 in fish	19.30	3	14.00	2	9.30	2	14.70	2
Spring CPUE of ≥20.0 in fish	0.70	1	0.70	1	0.67	1	1.30	2
Instantaneous Mortality (z)		-0.631		-0.511		-0.505		-0.679
Annual Mortality (A)		46.90%		40.00%		39.60%		49.30%
Total Score		14		11		10		12
Assessment Rating		G		F		F		F

nedpsdlc.d07, d06, d05, d04, nedaaglc.d03

Table 47. Spring electrofishing CPUE (f/h) for various length groups of largemouth bass collected at Lake Carnico from 2000 to 2007.

	Length group											
	< 8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2007	40.00	8.07	108.67	8.97	31.33	3.92	14.67	2.46	1.33	1.33	194.67	10.26
2006	28.67	5.10	41.33	8.56	18.00	3.69	9.33	2.86	0.67	0.67	97.33	18.12
2005	24.00	5.56	64.67	8.48	24.67	3.33	14.00	1.71	0.67	0.67	127.33	12.62
2004	56.67	13.36	121.33	15.62	36.00	5.16	19.33	3.00	0.67	0.67	233.33	34.71
2003	42.67	9.50	47.67	6.25	34.00	4.70	13.33	4.09	1.33	0.84	164.67	15.78
2002	49.00	9.43	51.00	17.08	30.00	7.75	9.00	1.91	-		139.00	29.59
2001	35.00	5.00	51.00	8.54	28.00	5.89	6.00	2.58	-		123.00	11.31
2000	28.00	6.32	41.00	3.00	16.00	5.66	9.00	3.00	1.00	1.00	94.00	15.87

nedpsdlc.d07,06,05,04,03,02,01,00

Table 48. Largemouth bass PSD and RSD_{15} values from spring electrofishing at Lake Carnico; confidence limits are in parentheses.

Year	No. ≥8.0 in	PSD (±95%)	RSD_{15} (±95%)
2007	232	29.7 (± 5.9)	9.5 (± 3.8)
2006	103	39.8 (± 9.5)	13.6 (± 6.7)
2005	155	37.4 (± 7.6)	13.5 (± 6.4)
2004	265	31.3 (± 5.6)	10.9 (± 3.8)
2003	183	38.8 (± 7.1)	10.9 (± 4.5)
2002	90	43.3 (± 10.3)	10.0 (± 6.2)
2001	85	40.0 (± 10.5)	7.1 (± 5.5)
2000	66	37.9 (± 11.8)	13.6 (± 8.3)

nedpsdlc.d07, d06, d05, d03, d00

Table 49. Length frequency and CPUE (fish/hour) for sunfish collected in 1.5 hours of diurnal electrofishing (6 - 15 minute runs) at Lake Carnico on 29 May 2007.

Species	Inch class						Total	CPUE	Std. Error
	3	4	5	6	7	8			
Green sunfish	123	72	26	3			224	179.20	49.61
Bluegill	51	70	55	66	2	1	245	196.00	38.33
Longear sunfish	5	16	3				24	19.20	7.65
Redear sunfish	2		3	2			7	5.60	2.40
Hybrid sunfish	2		1				3	2.40	1.22

nedsunlc.d07

Table 50. Spring electrofishing CPUE (f/h) for various length groups of sunfish collected at Lake Carnico in 2003, 2006 and 2007.

		Length group							
		<3.0 in		3.0-5.9 in		6.0-7.9 in		Total	
Species	Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
Bluegill	2003	160.80	23.81	134.40	22.43	24.00	6.85	319.20	39.45
	2006	540.00	73.10	3.82.4	31.00	47.20	11.20	969.60	93.57
	2007	140.80	27.41	54.40	14.00	0.80	0.80	196.00	38.33
Redear sunfish	2003	0.80	0.80	0.80	0.80	0.80	0.80	4.00	1.79
	2006	2.40	1.22	4.80	2.72	8.80	3.86	22.86	5.90
	2007			4.00	1.79	1.60	1.07	5.60	2.40

nedsunlc.d03, d06, d07

Table 51. Bluegill PSD and RSD_8 values from spring electrofishing at Lake Carnico; confidence limits are in parentheses.

Year	No. ≥3.0 in	PSD (±95%)	RSD_8 (±95%)
2007	245	15.2 (± 5.0)	
2006	537	11.0 (± 2.6)	
2003	198	28.2 (± 5.6)	0.4 (± 0.8)

nedpsdlc.d07, d06, d03

Table 52. Population assessment using statewide criteria of bluegill based on samples collected at Lake Carnico in May of 2006 and 2007.

	2006		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-2 at capture	5.3	4	5.3	4
Years to 6.0 in	4	2	4	2
CPUE of ≥6.0 in fish	47.20	2	0.80	1
CPUE of ≥8.0 in fish	0.00	1	0.00	0
Instantaneous Mortality (z)		-0.037		-0.561
Annual Mortality (A)		31.10%		42.90%
Total Score		9		7
Assessment Rating		Fair		Fair

nedsunlc.d07, d06, d05, d02

Table 53. Length frequency and CPUE (fish/hour) for largemouth bass collected in 1.5 hours of nocturnal electrofishing (6 - 15 minute runs) at Lake Carnico on 17 September 2007.

	Inch class																					
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	Std.Error
Largemouth bass	1	5	17	13	9	3	28	41	20	17	23	11	11	9	3	1	3	0	1	216	144.00	16.23

nedpsdlw.d07

Table 54. Number of fish and relative weights (Wr) for each length group of largemouth bass captured at Lake Carnico on 17 September 2007. Standard errors are in parentheses.

Species	Year	Length group					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
		N	W_r	N	W_r	N	W_r
Largemouth bass	2007	101	95.9 (7.4)	31	87.8 (0.9)	8	89.8 (2.4)
	2006	87	82.6 (0.7)	41	84.9 (0.9)	13	91.2 (2.2)

nedwrslc.d07, d06

Table 55. Length frequency and CPUE (fish/hour) of largemouth bass collected in 0.37 hours of nocturnal electrofishing (3-7.5 minute runs) at Clear Creek Lake (Bath Co.) on 03 May 2007.

Species	Inch class																Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14	18	19	20	22			
Largemouth bass	8	12	3	14	37	17	16	16	7	9	3	4	1	2	2	1	152	405.33	35.28

nedpsdcc.d07

Table 56. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Clear Creek Lake (Bath Co.) in May. CPUE=fish/hour.

Year	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
	CPUE	Std. err.	CPUE	Std.err	CPUE	Std. err	CPUE	Std. err.	CPUE	Std. err.
2007	197.30	23.20	149.30	11.60	46.70	19.20	16.00	8.00	405.30	35.30
2006	136.00	20.10	189.30	13.30	10.70	7.10	13.30	7.10	349.30	16.20
2005	168.00	42.30	80.00	28.80	13.30	7.10	5.30	2.70	266.70	65.70
2004	122.70	27.10	109.30	26.30	16.00	8.00	13.30	2.70	261.30	34.70

nedpsdcc.d07, 06, 05, 04

Table 57. PSD and RSD_{15} values for largemouth bass collected while electrofishing Clear Creek Lake (Bath Co.) during May 2007; 95% confidence limits are in parentheses.

Species	No. ≥8.0 in	PSD (± 95%)	RSD_{15} (± 95%)
Largemouth bass	78	28 (± 10)	8 (± 6)

nedpsdcc.d07

Table 58. Length frequency and CPUE (fish/hour) of sunfish collected in 0.50 hour of electrofishing (4-7.5 minute runs) at Clear Creek Lake (Bath Co.) on 22 May 2007.

	Inch class										Std.
Species	3	4	5	6	7	8	9	10	Total	CPUE	error
Bluegill	24	12	25	29	22				112	224.00	50.28
Redear sunfish	2	18	36	22	30	17	4	1	130	260.00	52.51

nedsuncc.d07

Table 59. Spring electrofishing CPUE for each length group of sunfish collected at Clear Creek Lake (Bath Co.). CPUE=fish/hour.

	Length group									
	<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		Total	
Specie/year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
Bluegill										
2007			122.00	16.50	102.00	33.84			224.00	50.28
2006	164.00	83.40	268.00	54.60	32.00	18.60	2.70	1.70	561.60	139.70
Redear sunfish										
2007			112.00	14.97	104.00	35.33	44.00	6.93	260.00	52.51
2006	60.80	18.70	60.80	18.00	24.00	10.40	4.80	2.00	150.40	23.40

nedsuncc.d07,06

Table 60. Age frequency and CPUE of bluegill collected during spring electrofishing in Clear Creek Lake (Bath Co.) on 22 May 2006.

	Inch class								Std.
Age	3	4	5	6	7	Total	%	CPUE	error
1	12	4	6			22	19	43.11	6.13
2	12	8	19	23	7	69	61	137.2	28.16
3				6	13	20	18	39.29	14.86
4					2	2	2	4.40	1.97
Total	24	12	25	29	22	112	100		
%	21	11	22	26	20	100			

nedaagcc.d02; nedsuncc.d07

Table 61. PSD and RSD_8 values obtained for bluegill collected at Clear Creek Lake (Bath Co.) on 22 May 2007; 95% confidence intervals are in parentheses.

Species	No. ≥3.0 in	PSD (± 95%)	RSD_8 (± 95%)
Bluegill	112	45 (± 9)	

nedsuncc.d07

Table 62. Population assessment using statewide criteria for spring collected bluegill collected from Clear Creek Lake (Bath Co.) in 2006 and 2007.

	2006		2007	
Parameter	Actual value	Assessment score	Actual value	Assessment score
Mean length age-2 at capture	5.1	4	5.1	4
Years to 6.0 in	3-3+	3	3-3+	3
CPUE ≥6.0 in	35.60	2	102.00	4
CPUE ≥8.0 in	1.30	2	0.00	1
Instantaneous mortality		-1.93		-1.77
Annual mortality		86%		83%
Total score:		11		12
Assessment rating:		G		G

nedaagcc.d02, nedsuncc.d06,07

Table 63. Length frequency and CPUE (fish/hour) of black bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) at Greenbo Lake (Greenup Co.) on 07 May 2007.

	Inch class																						Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	22	24	Total	CPUE	error
Largemouth bass	5	11	5	3	8	27	28	16	24	34	36	26	11	2	4	1	1	3	1	1	247	164.67	21.45

nedpsdgb.d07

Table 64. PSD and RSD_{15} values for largemouth bass collected while electrofishing Greenbo Lake (Greenup Co.) during May 2007; 95% confidence limits are in parentheses.

Species	No. ≥8.0 in	PSD (± 95%)	RSD_{15} (± 95%)
Largemouth bass	188	47 (± 7)	7 (± 4)

nedpsdgb.d07

Table 65. Mean back-calculated lengths (in) at each annulus for largemouth bass collected from Greenbo Lake (Greenup Co.) in April 2007, including 95% confidence intervals for each mean length per age class.

		Age							
Year	No.	1	2	3	4	5	6	7	8
2006	3	5.3							
2005	34	3.9	7.9						
2004	24	3.9	8.0	10.7					
2003	11	4.8	8.4	10.8	12.4				
2002	6	5.0	9.3	11.5	13.1	14.5			
2001	5	4.8	8.4	11.3	13.0	14.0	15.1		
2000	3	5.3	9.0	10.8	13.0	14.4	15.6	16.9	
1999	1	5.5	9.4	12.3	13.5	15.0	16.4	17.4	18.3
Mean		4.2	8.2	10.9	12.8	14.4	15.4	17.1	18.3
Number		87	84	50	26	15	9	4	1
Smallest		2.7	5.5	8.8	10.7	11.9	12.6	14.4	18.3
Largest		6.2	11.0	13.6	15.1	16.9	18.1	19.1	18.3
Std error		0.1	0.1	0.1	0.2	0.4	0.6	1.0	
95% CI (±)		0.1	0.2	0.5	0.4	0.4	1.2	1.9	

Otoliths were used for age-determinations; Intercept=0

nedaaggb.d07

Table 66. Age frequency and CPUE (no./hour) of largemouth bass collected in 1.5 hours of nocturnal electrofishing at Greenbo Lake (Greenup Co.) in May 2007.

	Inch class																		Std
Age	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	%	CPUE	error
1	2	1														3	1	2.10	1.03
2	1	7	27	28	9		4									76	34	50.35	6.96
3					7	24	26	7								64	29	42.73	5.38
4							4	26	9	2						41	18	27.22	6.86
5									17	4	1	1				24	11	16.04	4.17
6								3		2	1	3				9	4	6.09	1.45
7										2			1		3	6	3	4.13	1.67
8														1		1		0.67	0.67
Total	3	8	27	28	16	24	34	36	26	11	2	4	1	1	3	224	100		
%	1	4	12	13	7	11	15	16	12	5	1	2	0	0	1				

nedaaggb.d07, nedpsdgb.d07

Table 67. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Greenbo Lake (Greenup Co.) in May. CPUE = fish/hour.

	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2007			39.33	11.84	48.67	13.32	8.67	2.40	164.67	21.45
2006	28.00	5.27	66.00	12.17	50.00	7.78	18.67	4.70	162.67	19.83
2005	42.00	20.34	58.67	9.56	28.00	3.43	13.33	3.53	142.00	22.46
2004	14.00	2.88	116.80	9.87	58.80	7.45	16.80	2.97	206.40	14.09
2003	101.33	20.57	76.00	18.68	45.33	4.34	10.67	3.37	233.33	41.37
2002	No data collected									
2001	79.00	8.06	64.00	3.27	42.00	8.08	5.00	1.00	190.00	4.76
2000	41.00	9.00	90.00	15.71	26.00	2.58	4.00	1.63	161.00	24.84
1999	88.00	14.33	84.00	5.66	26.00	8.08	6.00	3.83	204.00	17.44
1998	77.00	26.65	119.00	16.68	57.00	8.06	7.00	2.52	260.00	27.18

nedpsdgb.d07,06,05,04,03,02,01,00,99,98.

Table 68. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Greenbo Lake (Greenup Co.) from 1999-2007.

	Year							
Age	1999	2000	2001	2003	2004	2005	2006	2007
1	103.13	52.87	83.87	105.33	33.63	46.71	35.64	2.10
2	61.87	66.13	34.13	31.33	87.17	19.96	35.69	50.35
3	16.00	29.00	56.00	71.33	28.80	51.33	50.67	42.73
4	11.33	6.00	6.67	9.78	26.67	7.11	14.22	27.22
5	6.67	4.00	5.33	7.56	17.73	6.89	8.44	16.04
6	1.00	2.00	1.00	3.33	3.20	2.67	6.67	6.09
7	1.00	1.00	1.00	2.67	5.20	4.00	3.33	4.13
8								0.67

Note: Did not sample in 2002 due to lake draw down.
nedpsdgb.d99,00,01,03,04,05,06,07.
nedaaggb.d07,03

Table 69. Population assessment using statewide criteria for largemouth bass based on spring sampling at Greenbo Lake (Greenup Co.) from 2003-2007.

	2003		2004		2005		2006		2007	
Parameter	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Mean length age-3 at capture	11.7	4	11.7	4	11.7	4	11.7	4	10.7	2
Spring CPUE age 1 fish	105.30	4	33.60	2	46.70	3	35.60	2	16.00	2
Spring CPUE 12.0-14.9 in fish	45.30	3	58.80	4	28.00	2	50.00	4	48.70	3
Spring CPUE >15.0 in fish	10.70	2	16.80	2	13.30	2	18.70	3	8.70	2
Spring CPUE >20.0 in fish	2.00	3	4.00	4	3.30	3	7.30	4	1.30	2
Instantaneous mortality (z)		-0.619		-0.557		-0.493		-0.521		-0.687
Annual mortality (A)		46.2		42.7		39.0		40.7		49.7
Total score:		16		16		14		17		11
Assessment rating:		Good		Good		Good		Excellent		Fair

nedpsdgb.d03,04,05,06,07; nedaaggb.d03,07

Table 70. Species composition, relative abundance and CPUE (fish/hour) of sunfish collected in 1.25 hours of electrofishing (10-7.5 minute runs) in Greenbo Lake (Greenup Co.) on 21 May 2007.

	Inch class										Std.
Species	1	2	3	4	5	6	7	8	Total	CPUE	error
Bluegill	140	218	124	62	53	37	20	9	663	530.40	80.36
Redear sunfish		3	6	2	7	1	1		20	16.00	6.85
Green sunfish	2	5	6	9	7	6	1		36	28.80	4.65
Longear sunfish	10	70	82	30	8	5			205	164.00	25.92
Hybrid sunfish	3	15	4	2	1				25	20.00	6.88

nedsungb.d07

Table 71. Spring electrofishing CPUE for each length group of sunfish collected at Greenbo Lake (Greenup Co.) for 2003 and 2005-2007. CPUE=fish/hour.

	Length group											
	<3.0 in		3.0-5.9 in		6.0-7.9 in		>8.0 in		≥10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
Bluegill												
2003	366.00	41.71	187.00	29.41	11.00	4.73	11.00	5.00	1.00	1.00	575.00	26.10
2005	116.00	25.53	44.40	59.22	46.40	8.83	3.20	1.77			580.00	89.93
2006	94.40	28.01	159.20	37.27	46.40	5.03	9.60	3.92			309.60	61.57
2007	286.40	50.78	191.20	47.35	45.60	15.09	7.20	2.78			530.40	80.36
Redear sunfish												
2003	9.00	5.26	1.00	1.00							10.00	5.77
2005	2.40	1.71	2.40	1.22	1.60	1.07	4.80	3.20			11.20	3.99
2006	15.20	4.04	7.20	2.78	0.80	0.80	0.80	0.08			24.00	5.84
2007	2.40	1.17	12.00	6.11	1.60	1.07					16.00	6.85

nedsungb.d07,06,05,03

Table 72. PSD and RSD_8 values obtained for bluegill collected at Greenbo Lake (Greenup Co.) on 21 May 2007; 95% confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD (± 95%)	RSD_8 (± 95%)
Bluegill	305	22 (± 5)	3 (± 2)

nedsungb.d07

Table 73. Age frequency and CPUE of bluegill collected during spring electrofishing in Greenbo Lake (Greenup Co.) on 21 May 2007.

	Inch class											Std.
Age	1	2	3	4	5	6	7	8	Total	%	CPUE	error
1	140	218	99	41					499	75	398.83	60.96
2			25	21	53	22			121	18	96.53	20.99
3						15	20	5	39	6	31.44	11.41
4								3	3	0	2.40	0.93
6								2	2	0	1.20	0.46
Total	140	218	124	62	53	37	20	9	663	100		
%	21	33	19	9	8	6	3	1	100			

nedaaggb.d03; nedsungb.d07

Table 74. Population assessment using statewide criteria for spring collected bluegill from Greenbo Lake 21 May 2007.

	2003		2005		2006		2007	
Parameter	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Mean length age-2 at capture	5.2	4	5.2	4	5.2	4	5.2	4
Years to 6.0 in	3	3	3	3	3	3	3	3
CPUE ≥6.0 in	22.00	1	49.60	2	28.00	2	52.80	3
CPUE ≥8.0 in	11.00	3	3.20	2	4.80	2	7.20	2
Instantaneous mortality				1.27		1.31		1.35
Annual mortality				71.9		73.2		74.2
Total score:		11		11		11		12
Assessment rating:		Good		Good		Good		Good

nedaaggb.d03, nedsungb.d07,06, 05, 03

Table 75. Length frequency and CPUE (fish/hour) of black bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) at Greenbo Lake (Greenup Co.) on 13 September 2007.

	Inch class																	
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	19	Total	CPUE	Std. error
Largemouth bass	7	30	25	5	17	12	4	5	9	12	13	13	3	2	3	160	106.67	9.28

nedwrsgb.d07

Table 76. Indices of year class strength at age 0 and age 1, and mean lengths (in) of largemouth bass collected in the fall while nocturnal electrofishing at Greenbo Lake (Greenup Co.).

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2007	Total	3.9	0.09	44.70	11.29	3.33	1.19		
2006	Total	3.6	0.10	45.30	9.16	2.67	1.69	2.10	1.03
2005	Total	3.8	0.12	32.00	7.00	4.00	1.03	35.60	5.45
2004	Total	3.6	0.17	20.00	6.02	2.67	1.33	46.70	21.20
2003	Total	4.4	0.12	45.00	7.72	14.00	3.46	33.60	2.11

nedwrsgb.d03,04,05,06,07; nedpsdgb.d07,06,05,04; and nedaaggb.d03,07

Table 77. Number of fish and mean relative weight (Wr) values for length groups of black bass collected in Greenbo Lake (Greenup Co.) by nocturnal electrofishing in September 2007. Standard error in parentheses.

	Length group					
Species	8.0-11.9 in		12.0-14.9 in		≥15.0 in	
	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	30	88 (1.5)	29	88 (0.9)	5	96 (5.3)

nedwrsgb.d07

Table 78. Length frequency and CPUE (fish/hour) for largemouth bass collected in 1 hour of nocturnal electrofishing (4 - 15 minute runs) at Mill Creek Lake (Powell/Wolfe Co.) on 15 May 2007.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	Std.Error
Largemouth bass	1	6	4	4	16	28	17	26	13	24	6	1	1	1	3	1	1	153	153.00	22.29

nedpsdmc.d07

Table 79. Population assessment using statewide criteria of largemouth bass based on samples collected at Mill Creek Lake in May of 2007.

	2004		2006		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-3 at capture	10.5	2	10.5	2	10.5	2
Spring CPUE of age 1 fish	16.90	2	19.60	2	14.10	1
Spring CPUE of 12.0-14.9 in fish	17.60	1	22.00	1	31.00	2
Spring CPUE of ≥15.0 in fish	5.60	2	7.00	2	7.00	2
Spring CPUE of ≥20.0 in fish	1.60	2	1.60	2	0.00	0
Instantaneous Mortality (z)		-0.315		-0.425		-0.825
Annual Mortality (A)		27.10%		34.90%		56.20%
Total Score		9		9		7
Assessment Rating		F		F		P

nedpsdmc.d04, d06, d07

Table 80. Spring electrofishing CPUE (f/h) for various length groups of largemouth bass collected at Mill Creek Lake (Powell/Wolfe Co.) from 2000, 2001, 2004 and 2006-2007.

	Length Group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2007	31.00	5.30	84.00	15.90	31.00	9.00	7.00	2.50	153.00	22.29
2006	45.00	18.50	108.00	10.90	22.00	2.00	7.00	4.40	182.00	28.70
2004	50.40	16.10	52.00	68.00	17.60	2.00	5.60	1.60	141.60	18.00
2001*	36.00	8.50	59.00	10.60	13.00	3.00	7.00	2.50	115.00	17.50
2000*	39.00	11.40	70.00	11.50	12.00	3.30	4.00	0.00	125.00	21.60

* All species sampled

nedpsdmc.d07, d06, d04, d01, d00

Table 81. Largemouth Bass PSD and RSD_{15} values from spring electrofishing at Mill Creek Lake (Powell/Wolfe Co.); confidence limits are in parentheses.

Year	No. ≥8.0 in	PSD (±95%)	RSD_{15} (±95%)
2007	122	31.1 (± 8.3)	5.7 (± 4.1)
2006	137	21.2 (± 6.9)	5.1 (± 3.7)
2004	114	25.4 (± 8.0)	6.1 (± 4.4)

nedpsdmc.d07, d06, d04

Table 82. Length frequency and CPUE (fish/hour) for sunfish collected in 1.5 hours of diurnal electrofishing (8 - 7.5 minute runs) at Mill Creek Lake (Powell/Wolfe Co.) on 7 June 2007.

	Inch class								Std.
Species	3	4	5	6	7	8	Total	CPUE	Error
Bluegill	38	27	11	9	9	7	101	101.00	14.02
Green sunfish	3	3	2	4	1		13	13.00	5.00
Longear sunfish	20	4	3				27	27.00	6.40

nedsunmc.d07

Table 83. Spring electrofishing CPUE (f/h) for various length groups of sunfish collected at Mill Creek Lake (Powell/Wolfe Co.) from 2005-2007.

		Length group									
		<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		Total	
Species	Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
Bluegill	2007			76.00	14.74	18.00	6.19	7.00	3.18	101.00	14.02
	2006	123.90	48.90	73.90	16.20	33.00	8.10	9.10	7.90	241.10	73.90
	2005	42.00	8.10	98.30	16.20	77.70	12.30	22.90	7.50	241.10	17.90

nedsunmc.d07, d06, d05

Table 84. Bluegill PSD and RSD_8 values from spring electrofishing at Mill Creek Lake (Powell/Wolfe Co.); confidence limits are in parentheses.

Year	No. ≥3.0 in	PSD (±95%)	RSD_8 (±95%)
2007	101	24 (± 8)	7 (± 5)
2006	102	36 (± 9)	8 (± 5)

nedpsdmc.d07, d06

Table 85. Mean back-calculated lengths (in) at each annulus for bluegill collected from Mill Creek Lake (Powell/Wolfe Co.) in the spring of 2007. Includes 95% confidence intervals for each mean length per age class.

		Age					
Year	No.	1	2	3	4	5	6
2006	14	2.6					
2005	21	2.4	4.0				
2004	18	2.2	4.0	5.7			
2003	6	2.5	4.3	6.0	7.1		
2002	1	1.5	3.3	4.6	5.8	6.5	
2001	4	2.1	3.7	5.2	6.4	7.0	7.8
Mean		2.4	4.0	5.6	6.7	6.9	7.8
Number	64	64	50	29	11	5	4
Smallest		1.1	2.0	2.9	5.8	6.5	7.7
Largest		4.0	6.0	7.3	7.5	7.2	8.0
Std Error		0.1	0.1	0.2	0.2	0.1	0.1
95% CI (±)		0.15	0.25	0.35	0.35	0.25	0.2

Otoliths were used for age determination; Intercept = 0
nedaagmc.d07

Table 86. Age frequency and CPUE of bluegill collected from Mill Creek Lake (Powell/Wolfe Co.) in the Spring of 2007.

Age	Inch class						Total	%	CPUE	Std. Error
	3	4	5	6	7	8				
2	24	18	6		1		49	49	49.47	9.12
3	3	5	5	9	3	1	26	25	25.67	4.64
4					4	2	6	6	6.00	2.45
5					1		1	1	1.00	0.52
6						4	4	4	4.00	1.82
Total	38	27	11	9	9	7	101	100		
%	38	27	11	9	9	7	100			

nedsunmc.d07; nedaagmc.d07

Table 87. Population assessment using statewide criteria of bluegill based on samples collected at Mill Creek Lake (Powell/Wolfe Co.).

	2005		2006		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-2 at capture	4.2	2	4.2	2	4.4	2
Years to 6.0 in	3	3	3	3	3	3
CPUE of ≥6.0 in fish	100.00	4	42.00	2	25.00	2
CPUE of ≥8.0 in fish	22.70	4	9.10	3	7.00	2
Instantaneous Mortality (z)		-0.451		-0.691		-1.391
Annual Mortality (A)		36.40%		49.90%		75.10%
Total Score		13		10		9
Assessment Rating		G		F		F

nedsunmc.d07, d06, d05

Table 88. Length frequency and CPUE (fish/hour) for largemouth bass collected in 1.0 hour of nocturnal electrofishing (4 - 15 minute runs) at Mill Creek Lake (Powell/Wolfe Co.) on 19 September 2007.

	Inch class																	
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	CPUE	Std.Error
Largemouth bass	1	4	7	2	3	2	10	11	6	16	9	6	3	1	1	82	82.00	12.70

nedpsdmc.d07

Table 89. Number of fish and relative weights (W_r) for each length group of largemouth bass captured at Mill Creek Lake (Powell/Wolfe Co.) on 19 September 2007. Standard errors are in parentheses.

Species	Year	Length group					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
		N	W_r	N	W_r	N	W_r
Largemouth Bass	2007	42	85 (0.91)	10	82 (2.37)	1	89
	2005	58	87 (0.76)	12	85 (1.80)	3	90 (1.17)

nedwrsmc.d07, d05

Table 90. Length frequency and CPUE (fish/hour) for largemouth bass collected at Lake Reba (Madison Co.) during 1.5 hours (6-900 sec. runs) of nocturnal electrofishing 9 May 2007.

Species	Inch class																		Total	CPUE	Std. Error
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Largemouth Bass	5	60	75	29	33	147	112	36	30	33	33	25	11	9	2	2	3	1	646	430.67	52.20

nedpsdlr.d07

Table 91. Spring electrofishing CPUE for various length groups of largemouth bass sampled at Lake Reba (Madison Co.) in 2007 compared to past years findings.

Year	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2007	134.67	20.93	216.67	45.87	60.67	5.21	18.67	4.09	0.67	0.67	430.67	52.20
2006	189.30	18.90	70.70	13.50	26.00	4.90	6.00	4.90	-		292.00	27.10
2005	53.30	9.30	57.30	8.10	45.30	4.30	13.30	2.20	0.70	0.70	169.30	16.40
2004	30.00	8.90	125.30	21.50	51.30	9.20	6.70	2.20	-		213.30	26.00
2003	110.00	17.90	126.00	10.90	52.00	6.10	8.00	2.50	0.70	0.70	296.00	27.30
2002	138.00	33.60	140.00	31.30	31.00	6.60	5.00	1.00	-		314.00	67.00
2001	196.00	25.00	30.70	15.40	9.30	5.30	4.00	2.30	-		240.00	33.60
2000	103.70	17.20	34.90	6.60	4.60	0.60	8.00	3.30	-		151.20	11.00
1999	115.20	34.90	11.20	4.10	8.80	2.30	20.00	5.20	-		155.20	33.10

nedpsdlc.d07, d06, d05, d04, d03, d02, d01, d00, d99

Table 92. PSD and RSD_{15} values for largemouth bass collected while electrofishing Lake Reba (Madison Co.)during May 2007; 95% confidence limits in parenthesis.

Year	No. ≥8.0 in	PSD (±95%)	RSD_{15} (±95%)
2007	444	27 (± 4)	6 (± 2)
2006	154	31 (± 7)	6 (± 4)
2005	174	51 (± 15)	12 (± 10)
2004	275	32 (± 6)	4 (± 3)
2003	279	32 (± 6)	4 (± 3)
2002	176	20 (± 6)	3 (± 2)
2001	33	30 (± 32)	9 (± 22)
2000	43	36 (± 17)	22 (± 15)

nedpsdlr.d07 through d00

Table 93. Age frequency and CPUE (fish/hour) of largemouth bass collected in 1.5 hours of nocturnal electrofishing at Lake Reba (Madison Co.) in May 2007.

	Inch class																		Std.
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	Total	%	CPUE	Error
1	5	60	75	29	33	74										276	43	183.67	22.09
2						74	104	8								186	29	123.67	30.58
3							8	28	30	11	11					88	14	58.67	7.91
4										22	17	19	11			68	11	45.50	5.35
5											6	6		9		21	3	13.83	1.50
6															2	2	0	1.33	0.84
Total	5	60	75	29	33	147	112	36	30	33	33	25	11	9	2	640	100		
%	1	9	12	5	5	23	18	6	5	5	5	4	2	1	0	100			

nedpsdlr.d07, nedaaglr.d06

Table 94. Population assessment values and scores using statewide criteria for largemouth bass based on spring sampling at Lake Reba (Madison Co.) in 2007 compared to past years findings.

	2003		2004		2005		2006		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-3 at capture	10.1	2	10.1	2	10.1	2	11.2	3	11.2	3
Spring CPUE of age 1 fish	52.10	3	23.20	2	41.20	2	192.00	4	183.67	4
Spring CPUE of 12.0-14.9 in fish	52.00	4	51.30	4	45.30	3	26.00	2	60.67	4
Spring CPUE of ≥15.0 in fish	8.00	2	6.70	2	13.30	3	6.00	2	18.67	3
Spring CPUE of ≥20.0 in fish	0.70	1	0.00	0	0.70	1	0.00	0	0.67	1
Instantaneous Mortality (z)		-0.5		-0.29		-0.25		-0.79		-1.04
Annual Mortality (A)		39.00%		25.00%		22.00%		55.00%		65.00%
Total Score		12		10		11		11		15
Assessment Rating		G		F		F		F		G

nedpsdlr.d07 through d02, nedaaglr.d06

Table 95. Length frequency and CPUE (fish/hour) of sunfish collected during 1 hour (8-7.5 min runs) at Lake Reba (Madison Co.) 4 June 2007

Species	Inch class							Total	CPUE	Std. Error
	<3	3	4	5	6	7	8			
Bluegill		35	26	12	25	4		102	102.00	10.88
Redear sunfish		16	22	84	21	12	2	157	157.00	20.28
Warmouth		17	23	27	39	12	3	121	121.00	21.35
Green sunfish	1	5	2	1				9	9.00	7.92
Hybrid bluegill			1	2				3	3.00	1.46

nedsunlr.d07

Table 96. Spring electrofishing CPUE for various length groups of bluegill collected at Lake Reba (Madison Co.) on 4 June 2007 compared to past years values. No bluegill >8.0 in were collected in any year.

		Length group							
		<3.0 in		3.0-5.9 in		6.0-7.9 in		Total	
Species	Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
Bluegill	2003	178.40	27.90	356.00	49.70	49.60	20.10	584.00	75.30
	2004	191.50	37.90	180.00	25.90	22.30	6.70	393.90	56.00
	2005	279.20	37.00	308.00	42.70	97.60	19.40	684.80	74.40
	2006	843.20	140.70	228.80	22.90	79.20	20.30	1151.20	158.50
	2007	0.00		73.00	10.84	29.00	7.70	102.00	10.88

nedsunlr.d03 through d07

Table 97. PSD and RSD_8 values obtained for bluegill collected at Lake Reba (Madison Co.) on 4 June 2007 compared to past years values.

Year	No. ≥3.0 in	PSD (±95%)	RSD_8 (±95%)
2007	102	28 (± 9)	
2006	385	26 (± 4)	*not enough large*
2005	211	24 (± 7)	*bluegills to*
2004	263	11 (± 11)	*determine* RSD_8
2003	507	12 (± 3)	

nedpsdlr.d07 through d03

Table 98. Electrofishing catch rates (f/h) for each age bluegill collected at Lake Reba from 2003-2007.

	Year				
Age	2003	2004	2005	2006	2007
1	178.40	191.50	279.20	843.20	
2	297.40	156.40	290.80	198.50	63.40
3	93.30	39.20	84.40	85.20	27.10
4	5.00	2.20	9.60	7.80	2.50

nedsunlr.d07 through d03; nedaaglr.d03

Table 99. Population assessment values and scores using statewide criteria for bluegill collected at Lake Reba (Madison Co.) on 4 June 2007 compared to past years' findings.

	2003		2004		2005		2006		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-2 at capture	4.1	2	4.1	2	4.1	2	4.1	2	4.1	2
Years to 6.0 in	3-3+	3	3-3+	3	3-3+	3	3-3+	3	3-3+	3
CPUE of ≥6.0 in fish	49.60	2	20.00	1	97.60	4	79.20	4	29.00	2
CPUE of ≥8.0 in fish	0.00		0.00		0.00		0.00		0.00	0
Instantaneous Mortality (z)		-0.322		-0.793		-0.601		-1.149		-0.662
Annual Mortality (A)		27.60%		54.70%		45.10%		68.30%		48.40%
Total Score		7		6		9		9		7
Assessment Rating		F		P		F		F		F

nedsunlr.d07 through d03; nedaaglr.d03

Table 100. Spring electrofishing CPUE for various length groups of redear sunfish collected at Lake Reba (Madison Co.) in June 2007 compared to past years.

		Length group									
		<3.0 in		3.0-5.9 in		6.0-7.9 in		>8.0 in		Total	
Species	Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
Redear Sunfish	2003	13.60	5.70	119.20	19.80	178.40	68.80	0.00		311.20	82.90
	2004	16.90	4.40	56.90	17.60	64.60	13.20	0.00		138.90	29.20
	2005	16.80	5.90	39.20	5.50	196.00	33.40	0.00		252.00	30.70
	2006	111.20	30.70	121.60	17.20	205.60	44.70	0.80	0.80	439.20	51.50
	2007	0.00		122.00	16.30	33.00	5.90	2.00	1.30	157.00	20.30

nedsunlr.d07 through 03

Table 101. Electrofishing catch rates (f/h) for each age redear sunfish collected at Lake Reba (Madison Co.) from 2003-2007.

	Year				
Age	2003	2004	2005	2006	2007
1	24.00	26.20	40.80	199.20	16.00
2	108.80	47.70	15.20	31.20	106.00
3	156.10	56.20	153.50	111.10	22.25
4	4.20	1.70	14.70	43.50	4.50
5	15.30	5.60	18.00	22.00	3.25
6	2.80	1.20	9.80	29.00	3.00

nedsunlr.d07 through d03; nedaaglr.d03

Table 102. Population assessment values and scores using statewide criteria for redear sunfish collected at Lake Reba (Madison Co.) on 04 June 2007 compared to past years.

	2003		2004		2005		2006		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-3 at capture	6.6	4	6.6	4	6.6	4	6.6	4	6.6	4
Years to 8.0 in	>5+	1	>5+	1	>5+	1	>5+	1	>5+	1
CPUE of ≥8.0 in fish	0.00	0	0.00	0	0.00	0	0.80	1	2.00	1
CPUE of ≥10.0 in fish	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Instantaneous Mortality (z)		-0.422		-0.659		-0.165		-0.335		-1.046
Annual Mortality (A)		34.40%		48.30%		15.20%		28.50%		64.90%
Total Score		5		5		5		6		6
Assessment Rating		P		P		P		P		P

nedsunlr.d07 through d03; nedaaglr.d03

Table 103. Length frequency and CPUE (fish/hour) of largemouth bass collected during 1.5 hour (6-15 min runs) nocturnal electrofishing at Lake Reba (Madison Co.) on 12 September 2007.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	19	Total	CPUE	Std.Error
Largemouth bass	18	40	10	39	131	53	31	41	19	12	2	3	4	3	1	407	271.30	40.94

nedpsdlr.d07

Table 104. Number and mean relative weight (Wr) values for various length groups of largemouth bass collected at Lake Reba (Madison Co.) on 12 September 2007 compared to 2006 vlaues; standard error in parenthesis.

		Length group					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Species	Year	N	W_r	N	W_r	N	W_r
Largemouth bass	2007	142	91 (5.5)	17	83 (1.9)	18	93 (3.3)
	2006	243	91 (0.1)	75	93 (1.1)	8	101 (1.8)

nedwrslr.d07, d06

Table 105. Indices of year class strength at age 0 and age 1, and mean lengths (in) for largemouth bass colleced at Lake Reba (Madison Co.) on 12 September 2007 compared to past years findings.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Area	Mean Length	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
2007	Total	4.30	0.06	44.00	11.20	5.30	2.20		
2006	Total	4.30	0.04	175.30	35.90	30.00	8.70	183.70	22.10
2005	Total	5.20	0.06	225.00	48.60	133.00	30.20	192.00	19.50
2004	Total	4.20	0.08	76.70	9.60	15.30	1.90	61.00	10.40
2003	Total	3.70	0.15	23.30	4.80	0.67	0.67	47.30	14.00

nedwrslr.d07, d06, d05, d04;nedaaglr.d06

Table 106. Length frequency and CPUE (fish/hour) of largemouth bass collected in 0.375 hours of nocturnal electrofishing (3-7.5 minute runs) at Rebel Trace (Meniffee Co.) on 03 May 2007.

	Inch class																			Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	Total	CPUE	error
Largemouth bass	1	2	5	5	2	1	6	8	17	10	6	6	3	1	1	1	1	76	202.67	30.75

nedpsdrt.d07

Table 107. PSD and RSD_{15} values for largemouth bass collected while electrofishing Rebel Trace (Menifee Co.) during May 2007; 95% confidence limits are in parentheses.

Species	No. >8.0 in	PSD (± 95%)	RSD_{15} (± 95%)
Largemouth bass	60	32 (± 12)	7 (±6)

nedpsdrt.d07

Table 108. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Rebel Trace (Menifee Co.) in May. CPUE=fish/hour.

	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std.err	CPUE	Std. err	CPUE	Std. err.	CPUE	Std. err.
2007	42.67	7.06	109.33	32.77	40.00	8.00	10.67	5.33	202.67	30.75
2006	69.30	13.30	88.00	8.00	32.00	9.20			189.30	23.70
2005	61.30	37.60	90.70	25.40	24.00	9.20	2.70	2.70	178.70	62.70
2004	50.70	16.20	50.70	17.50	2.70	2.70	5.30	5.30	109.30	39.30

nedpsdrt.d07, 06, 05, 04

Table 109. Length frequency and CPUE (fish/hour) of sunfish collected in .50 hours of electrofishing (4-7.5min runs) at Rebel Trace (Menifee Co.) on 22 May 2007.

	Inch class									Std.
Species	3	4	5	6	7	8	9	Total	CPUE	error
Bluegill	63	39	72	17	3			194	388.00	101.22
Redear sunfish	36	202	34	29	13		2	316	632.00	99.12
Green sunfish		1						1	2.00	2.00
Warmouth		3	13	9	2	3		30	60.00	26.63

nedsunrt.d07

Table 110. Spring electrofishing CPUE for each length group of sunfish collected at Rebal Trace (Menifee Co.). CPUE=fish/hour.

	Length group									
	<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		Total	
Species/year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
Bluegill										
2007			348.00	89.11	40.00	13.47			388.00	101.22
2006	124.00	27.00	246.00	72.80	50.00	34.60			420.00	87.70
Redear sunfish										
2007			544.00	107.83	84.00	14.05	4.00	2.31	632.00	99.12
2006	172.00	60.30	282.00	53.70	22.00	19.40	18.00	6.80	494.00	47.80

* 2007 did not pick up <3.0 in sunfish

nedsunrt.d07,06

Table 111. PSD and RSD_8 values obtained for bluegill collected at Rebal Trace (Menifee Co.) on 22 May 2007; 95% confidence intervals are in parentheses.

Species	No. ≥3.0 in	PSD (± 95%)	RSD_8 (± 95%)
Bluegill	195	10 (± 4)	

nedsunrt.d07

Table 112. Length frequecy and CPUE (fish/hour) of largemouth bass collected in 1 hour of nocturnal electrofishing (4- 15 min runs) at Smoky Valley lake (Carter Co.) on 08 May 2007.

	Inch class																		
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE	Std.Error
Largemouth bass	1	12	16	7	11	72	63	59	54	53	26	7	4	0	1	1	387	387.00	42.56

nedpsdsv.d07

Table 113. Spring electrofishing CPUE (fish/hour) for various length groups of largemouth bass collected at Smoky Valley Lake (Carter Co.) in May 2007 compared to past years findings.

	Length group									
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2007	119.00	21.75	229.00	32.51	37.00	6.40	2.00	1.15	387.00	42.56
2006	112.00	12.80	256.00	33.80	62.00	8.70	4.00	1.60	434.00	45.70
2005	54.40	10.20	190.40	22.70	63.20	9.10	0.80	0.80	308.80	30.80
2001	117.30	11.60	180.00	14.10	46.70	12.70	2.70	2.70	346.70	11.60
2000	68.00	13.00	218.00	22.10	69.00	13.70	1.00	1.00	356.00	46.80

nedpsdsv.d07, d06, d05, d01, d00

Table 114. PSD and RSD_{15} values for largemouth bass collected while elecctrofishing Smoky Valley Lake (Carter Co.) during May 2007; 95% confidence intervals in parenthesis.

Year	No. ≥8.0 in	PSD (±95%)	RSD_{15} (±95%)
2007	268	15 (± 4)	1 (± 1)
2006	322	21 (± 4)	1 (± 2)
2005	318	25 (± 10)	1 (± 1)

nedpsdsv.d07, d06, d05

Table 115. Mean back-calculated lengths (in) at each annulus for largemouth bass collected from Smoky Valley Lake (Carter Co.) 08 May 2007, including size range at each age and 95% confidence intervals

		Age												
Year	No.	1	2	3	4	5	6	7	8	9	10	11	12	13
2006	7	5.1												
2005	32	4.4	7.4											
2004	12	4.5	8.1	9.6										
2003	14	4.3	7.8	9.9	11.0									
2002	6	4.4	7.9	9.8	10.9	11.6								
2001	4	4.1	7.5	9.1	10.3	11.1	11.8							
1999	7	4.5	7.6	9.5	10.8	11.6	12.3	12.8	13.4					
1998	3	4.7	8.7	10.5	11.4	12.2	12.8	13.3	13.8	14.7				
1997	2	3.6	7.2	9.2	10.5	11.4	12.1	12.7	13.1	13.5	13.9			
1994	2	4.2	7.6	9.2	10.4	11.1	11.6	12.0	12.3	12.6	12.8	13.1	13.3	13.6
Mean		4.5	7.7	9.7	10.9	11.5	12.1	12.8	13.3	13.7	13.3	13.1	13.3	13.6
Number		89	82	50	38	24	18	14	14	7	4	2	2	2
Smallest		3.0	6.1	8.4	9.5	10.5	11.1	11.3	11.6	12.3	12.5	12.8	13.0	13.3
Largest		5.7	9.5	11.5	12.8	13.7	14.8	15.9	16.6	17.4	14.3	13.3	13.6	13.8
Std Error		0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.7	0.4	0.3	0.3	0.3
95% CI (±)		2.9	4.8	5.8	6.45	6.95	7.5	8.1	8.5	9.05	7.35	6.8	6.95	7.05

Otoliths were used for age determination; Intercept = 0
nedaagsv.d07

Table 116. Age frequency and CPUE of largemouth bass captured during one hour of elctrofishing from Smoky Valley Lake (Carter Co.) on 08 May 2007.

Age	Inch class												Total	%	CPUE	Std. Error
	5	6	7	8	9	10	11	12	13	14	16	17				
1	7												7	2	7.00	1.91
2		11	72	57	5								145	41	45.06	16.39
3				6	43	16							65	18	65.41	6.82
4					11	27	24	8					69	19	69.08	7.35
5						11	12	3	1				27	7	26.58	3.35
6							12	5					17	5	16.98	2.72
8							6	8	1	1	1		17	5	17.42	2.22
9								3		1		1	5	1	4.93	1.18
10									1	1			3	1	2.73	0.73
13									3				3	1	2.80	1.37
Total	7	11	72	63	59	54	53	26	7	4	1	1	358	100		
%	2	3	20	18	16	15	15	7	2	1	0	0	100			

nedpsdsv.d07; nedaagsv.d07

Table 117. Population assessment for largemouth bass based on spring sampling at Smoky Valley Lake (Carter Co) May 2007 compared to past years findings.

	2001		2005		2006		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-3 at capture	11.0	3	11.0	3	11.0	3	9.6	1
Spring CPUE of age 1 fish	23.10	2	19.10	2	70.10	3	7.00	1
Spring CPUE of 12.0-14.9 in fish	46.70	3	63.20	4	62.00	4	37.00	3
Spring CPUE of ≥15.0 in fish	2.70	1	0.80	1	4.00	4	2.00	1
Spring CPUE of ≥20.0 in fish	0.00	0	0.00	0	0.00	0	0.00	0
Instantaneous Mortality (z)				0.3533		-0.5785		-0.513
Annual Mortality (A)				29.80%		43.90%		40.10%
Total Score		9		10		14		6
Assessment Rating		F		F		G		P

nedpsdsv.d01, d05, d06, d07

Table 118. Length frequency and CPUE (fish/hour) of sunfish collected during 0.875 hour electrofishing (7-7.5 min runs) at Smoky Valley Lake (Carter Co) on 23 May 2007.

	Inch class								Std.
Species	3	4	5	6	7	8	Total	CPUE	Error
Bluegill	40	26	12	4	5	1	88	100.57	21.16
Green sunfish	11	5	15	3	1		35	40.00	8.90
Longear sunfish	3	1	1				5	5.71	3.36
Hybrid sunfish	2						2	2.29	1.48

nedsunsv.d07

Table 119. Spring electrofishing CPUE (fish/hour) for various length groups of bluegill collected at Smoky Valley Lake (Carter Co.) compared to previous years findings..

		Length group									
		<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		Total	
Species	Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
Bluegill	2007			89.14	17.14	10.29	5.44	1.14	1.14	100.57	21.16
	2006	464.00	116.50	88.00	15.20	16.00	4.30			568.00	114.70
										(281.00 w/o 1.0 in)	
	2005	164.00	41.50	169.00	10.30	38.00	9.20	4.00	3.00	375.00	60.00
										(329.00 w/o 1.0 in)	
	2004	24.80	6.80	139.30	22.00	25.60	4.60	0.90	0.90	190.60	27.30
	2003	200.00	61.10	102.00	30.30	107.00	32.40	4.00	2.10	413.00	99.80
										(213.00 w/o 1.0 in)	

nedsunsv.d07, d06, d05, d04, d03

Table 120. PSD and RSD_8 values obtained from bluegill collected at Smoky Valley Lake (Carter Co.) during May 2007 compared to 2005 and 2006;

Year	No. ≥3.0 in	PSD (±95%)	RSD_8 (±95%)
2007	88	11 (± 7)	1 (± 2)
2006	104	15 (± 7)	
2005	211	20 (± 11)	2 (± 4)

nedpsdsv.d07, d06, d05

Table 121. Population assessment scores and ratings using statewide criteria for bluegill at Smoky Valley Lake (Carter Co.) sampled during the spring of 2007 compared to 2003-2006 findings.

	2003		2004		2005		2006		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-2 at capture	3.2	1	3.2	1	3.2	1	3.2	1	3.2	1
Years to 6.0 in	4-4+	2	4-4+	2	4-4+	2	4-4+	2	4-4+	2
CPUE of ≥6.0 in fish	11.00	4	31.00	2	42.00	2	16.00	1	10.30	1
CPUE of ≥8.0 in fish	4.00	2	1.00	2	4.00	2	0.00	0	1.14	2
Instantaneous Mortality (z)		-0.5227		-0.5477		-0.7164		-1.1741		-0.9553
Annual Mortality (A)		40.70%		42.20%		51.10%		69.10%		61.50%
Total Score		9		7		7		4		6
Assessment Rating		F		F		F		P		P

nedsunSV.d07, d06, d05, d04, d03

Table 122. Lenth frequency and CPUE (fish/hour) for largemouth bass collected for 1 hour (4-15 min runs) on 18 September 2007 at Smoky Valley Lake (Carter Co.).

	Inch class														
Species	2	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std.Error
Largemouth bass	2	12	27	22	10	22	17	37	27	19	8	2	205	205.00	39.50

nedpsdsv.d07

Table 123. Number and mean relative weight (Wr) vlaues for length groups of largemouth bass collected in Smoky Valley Lake (Carter Co.) during September 2007. Standard errors are in parentheses.

Species	Year	Length group					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
		N	W_r	N	W_r	N	W_r
Largemouth Bass	2007	99	85.2 (0.7)	10	86.5 (3.5)		

nedwrssv.d07

Table 124. Length frequency and CPUE (fish/hour) for largemouth bass collected in 1.5 hours of nocturnal electrofishing (6 - 15 minute runs) at Lake Wilgreen (Madison Co.) on 14 May 2007.

Species	Inch class																		Total	CPUE	Std.Error
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Largemouth bass	26	142	132	58	16	63	136	77	98	55	20	11	7	2	2	2	1	3	851	567.33	30.60

nedpsdlw.d07

Table 125. Population assessment using statewide criteria of largemouth bass based on samples collected at Lake Wilgreen in May of 2007.

Parameter	2003		2005		2006		2007	
	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-3 at capture	11.2	3	11.2	3	11.2	3	11.2	3
Spring CPUE of age 1 fish	99.20	4	450.20	4	469.40	4	456.80	4
Spring CPUE of 12.0-14.9 in fish	48.00	3	108.70	4	148.00	4	115.30	4
Spring CPUE of ≥15.0 in fish	12.80	2	6.00	2	22.00	3	18.70	3
Spring CPUE of ≥20.0 in fish	0.40	1	0.00	0	2.70	3	2.70	3
Instantaneous Mortality (z)		-0.3597		-0.1273		-0.0686		
Annual Mortality (A)		30.20%		11.90%		6.60%		
Total Score		13		13		17		17
Assessment Rating		G		G		E		E

nedpsdlw.d07, d06, d05, d03

Table 126: Spring electrofishing CPUE (f/h) for various length groups of largemouth bass collected at Lake Wilgreen (Madison Co.) from 1999-2007.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2007	238.70	25.90	194.70	16.10	115.30	15.00	18.70	2.20	2.70	1.30	567.30	31.00
2006	56.70	9.90	195.30	8.60	148.00	15.80	22.00	5.80	2.70	0.80	422.00	29.10
2005	86.70	17.90	170.00	12.80	108.70	23.00	6.00	2.70	0.00		371.30	45.30
2004						*no data collected*						
2003	89.20	11.10	376.80	41.00	48.00	6.30	12.80	2.50	0.00		526.80	50.20
2002						*no data collected*						
2001						*no data collected*						
2000	361.00	51.00	274.00	10.90	58.00	12.30	6.00	1.20	0.00		699.00	57.00
1999	156.00	8.00	234.00	34.00	54.00	14.00	4.00	0.00	0.00		448.00	40.00

nedpsdlw.d07, d06, d05, d03, d00, d99

Table 127. Largemouth bass PSD and RSD_{15} values from spring electrofishing at Lake Wilgreen; confidence limits are in parentheses.

Year	No. ≥8.0 in	PSD (±95%)	RSD_{15} (±95%)
2007	493	40.8 (± 4.3)	5.7 (± 2.1)
2006	548	46.5 (± 4.2)	6.0 (± 1.9)
2005	427	40.3 (± 4.7)	2.1 (± 1.4)
2003	1,082	13.9 (± 2.1)	2.9 (± 1.0)
2000	338	18.9 (± 4.2)	1.8 (± 0.4)

nedpsdlw.d07, d06, d05, d03, d00

Table 128: Length frequency and CPUE (fish/hour) for sunfish collected in 1.5 hours of diurnal electrofishing (6 - 15 minute runs) at Lake Wilgreen on 24 May 2007.

	Inch class								Std.
Species	3	4	5	6	7	8	Total	CPUE	Error
Bluegill	136	132	86	89	22		465	372.00	39.38
Redear Sunfish		1		9	10	2	22	17.60	4.59

nedsunlw.d07

Table 129: Spring electrofishing CPUE (f/h) for various length groups of sunfish collected at Lake Wilgreen in 2002, 2005, 2006 and 2007.

		Length group											
		<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Species	Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
Bluegill	2002	354.40	91.60	496.80	99.20	177.60	18.60					1028.80	196.20
	2005	211.20	67.00	576.80	73.20	40.80	10.80	0.80	0.80			829.60	122.70
	2006	279.20	51.30	409.60	39.50	64.80	20.40	2.40	1.20			756.00	79.70
	2007			283.20	26.73	88.80	16.67					372.00	39.38
Redear Sunfish	2002			20.80	9.90	44.00	11.00	4.80	2.40			69.60	19.50
	2005			4.00	2.50	7.20	3.70	7.20	3.50			18.40	6.00
	2006			20.00	5.10	4.80	2.10	10.40	8.80	24.00	1.70	35.20	11.00
	2007			0.80	0.80	15.20	4.37	1.60	1.07			17.60	4.59

nedsunlw.d07, d06, d05, d02

Table 130: Bluegill PSD and RSD_8 values from spring electrofishing at Lake Wilgreen; confidence limits are in parentheses.

Year	No. ≥3.0 in	PSD (±95%)	RSD_8 (±95%)
2007	465	23.9 (± 3.9)	5.7 (± 2.1)
2006	596	14.1 (± 1.8)	0.5 (± 0.6)
2005	773	6.7 (± 2.8)	0.1 (± 0.3)

nedsunlw.d07, d06, d05

Table 131: Population assessment using statewide criteria of bluegill based on samples collected at Lake Wilgreen in May of 2007.

	2002		2005		2006		2007	
Parameter	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score	Actual Value	Assessment Score
Mean length age-2 at capture	5.5	4	5.5	4	5.5	4	5.5	4
Years to 6.0 in	3-3+	3	3-3+	3	3-3+	3	3-3+	3
CPUE of ≥6.0 in fish	177.60	4	41.60	2	67.20	3	88.80	4
CPUE of ≥8.0 in fish	0.00	0	0.80	2	2.40	2	0.00	0
Instantaneous Mortality (z)		-0.3597		-0.1273		-0.0686		
Annual Mortality (A)		30.20%		11.90%		6.60%		
Total Score		11		11		12		11
Assessment Rating		G		G		G		G

nedsunlw.d07, d06, d05, d02

Table 132: Length frequency and CPUE (fish/hour) for largemouth bass collected in 1.5 hours of nocturnal electrofishing (6 - 15 minute runs) at Lake Wilgreen on 24 September 2007.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE	Std.Error
Largemouth Bass	31	106	54	21	39	109	50	28	45	33	15	6	1	2	1	541	360.00	41.36

nedpsdlw.d07

Table 133: Number of fish and relative weights (W_r) for each length group of largemouth bass captured at Lake Wilgreen on 24 September 2007. Standard errors are in parentheses.

		Length group					
Species	Year	8.0-11.9 in		12.0-14.9 in		≥15.0 in	
		N	W_r	N	W_r	N	W_r
Largemouth bass	2007	232	83.7 (0.7)	54	86.4 (1.8)	4	72.0 (21.6)
	2006	198	90 (0.6)	86	90 (0.9)	8	96 (3.7)
	2005	306	88 (0.4)	116	88 (1.6)	4	98 (4.3)

nedwrswg.d07, d06, d05

SOUTHEASTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Conditions encountered during sampling at Southeastern district lakes are listed in Table 1.

Lake Cumberland (37,680 acres)

Beginning in January 2007, water levels were reduced to 680 msl to make repairs to Wolf Creek Dam. As a result, many sampling locations that were used prior to 2007 were dry and unable to be sampled. Samples in 2007 were conducted in areas further downstream in the embayments. Therefore, any comparisons of the 2007 data to previous results should be interpreted accordingly.

Black Bass Sampling (Spring)

Nocturnal electrofishing studies were conducted at Wolf Creek dam, and in the Harmon Creek, Fishing Creek, and Lily Creek embayments of Lake Cumberland during May 2007 to assess the black bass populations. The length-frequency and catch-per-unit-effort (CPUE) of the three black bass species collected in each area is shown in Table 2. The catch-per-hour (by area and length group) of the three black bass species are shown in Tables 3-6. Table 7 compares the catch-per-hour by length group of black bass in Lake Cumberland to other SEFD lakes sampled in 2007.

Largemouth bass met or exceeded all four catch rate management objectives (Table 8). The catch rate of age-1 largemouth bass (10.30 f/h) greatly exceeded the management objective of 3.00 f/h. The catch rate of 12.0-14.9 in largemouth bass (20.90 f/h) exceeded the management objective of ≥10.00 f/h. The catch rates of largemouth bass ≥20.0 in (0.52 f/h) and ≥15.0 in (15.30 f/h) met or exceeded the management objectives of ≥0.50 and ≥8.00 f/h, respectively.

The catch rates of spotted bass were greater than the management objectives for all size groups (Table 9). The catch rates of 11.0-13.9 in (13.60 f/h) and ≥14.0 in (7.00 f/h) spotted bass were more than twice the management objectives of ≥5.00 f/h and ≥1.50 f/h, respectively. The CPUE of ≥17.0 in (0.35 f/h) fish also exceeded the management objective of ≥0.10 f/h.

The catch rates of smallmouth bass met two of the three size management objectives (Table 10). The catch rates of 11.0-13.9 in. smallmouth bass (3.80 f/h) and ≥17.0 in. (0.52 f/h) met or exceeded the management objectives of ≥3.00 f/h and ≥0.50 f/h, respectively. The catch rates of smallmouth bass ≥14.0 in. (1.40 f/h) failed to exceed the management objective of ≥2.00 f/h.

Largemouth bass exhibited excellent size structure, with a PSD value of 72 and an RSD_{15} value of 30 (Table 11). Spotted bass and smallmouth bass had a moderate size structure, with a PSD value of 38 and an RSD_{14} value of 13 for spotted bass (Table 11) and a PSD value of 37 and an RSD_{14} value of 10 for smallmouth bass (Table 11). Table 12 compares the size structure values of black bass populations in Lake Cumberland to other SEFD lakes sampled in 2007.

Age-growth for largemouth bass collected during 2007 is shown in Table 13. Nine year-classes were represented in the catch, with ages 2-3 comprising 49% of the catch (Table 14). Mean length of age-3 bass at capture was 13.4 in, which met the management objective of 13.0 in. The largemouth bass population assessment score was 12 (rating=good; Table 15).

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in the Fishing Creek embayment during September to index the largemouth bass year class strength (Tables 16 and 17). CPUE of age-0 largemouth bass in 2007 was the lowest catch rate since 2002. Table 18 compares the CPUE of age 0 largemouth bass in Lake Cumberland to other SEFD lakes sampled in fall 2007. Relative weight (Wr) values for largemouth bass and spotted bass collected during September sampling are shown in Table 19. Table 20 compares Wr values for black bass in Lake Cumberland to other SEFD lakes sampled in fall 2007.

Crappie Sampling

Fall trap netting was conducted in the Fishing Creek and Wolf Creek embayments of Lake Cumberland during October and November 2007 to assess the crappie population. Length frequency and CPUE for black and white crappie from each area are shown in Table 21. The PSD and RSD_{10} values for white and black crappie are shown in Table 22. Age-growth data from white and black crappie collected in 2007 are shown in Tables 23 and 24, respectively. Age-2 white crappie (61%) dominated the white crappie catch (Table 25). Age-1 black crappie comprised 92% of the black crappie catch (Table 26). The crappie population assessments (white, black, and white and black combined) are shown in Table 27. All crappie assessments rated "fair." The management objectives for the CPUE for age 1 and older crappie (7.34 fish/net-night (nn)) and the CPUE for age-1 crappie (6.87 fish/nn) exceeded the management objectives of 5.00 and 3.00 fish/nn, respectively. In addition, age-2+ (2005 year class) crappie were 9.9 in at capture, which was greater than the management objective of 9.6 in. The management objectives for the CPUE of age-0 crappie (0.28 fish/nn) and CPUE of crappie greater than 8.0 in (0.78 fish/nn) did not meet the management objective of 3.00 and 2.00 fish/nn, respectively. Relative weight (Wr) values for black and white crappie are shown in Table 28.

Striped Bass Sampling

Gill nets were used in late November 2007 to evaluate the striped bass population in Lake Cumberland. Thirty net-nights captured 160 striped bass for a catch rate of 5.30 fish/nn. Length-frequency and CPUE of striped bass are shown in Table 29. Striped bass ranged from 9.0 to 37.0 in with the mode being the 17.0 in class (37 fish). The CPUE of age 1+ fish (3.90 f/nn) and the CPUE of age 1+ and older fish (5.30 f/nn) both exceeded the management objectives of 2.00 f/nn and 4.00 f/nn, respectively (Table 30). The catch rate of ≥24.0 in fish was 1.20 f/nn, which exceeded the management objective of 1.00 f/nn. The age-growth of striped bass collected during 2007 is shown in Table 31. Nine year-classes were represented in the catch (Table 32). The 2006 (age 1+) year class was the most abundant (73%) year class collected, which coincided with the increased (pulsed) stocking rate of 10.00 fish/acre in 2006. Mean length of age 2+ fish at capture (2005 year class) was 23.7 in, thereby exceeding the growth objective (21.0 in) for the striped bass fishery (Table 33). The striped bass assessment score was 14 (rating=excellent; Table 33). Relative weight (Wr) values were adequate, but condition values decreased slightly as fish grew larger (Table 34).

Laurel River Lake (5,830 acres)

Black Bass Sampling (Spring)

Nocturnal electrofishing sampling was conducted during May 2007 to assess the black bass population in Laurel River Lake. Electrofishing was conducted in four areas of the lake: 1) dam, 2) Spruce Creek, 3) Laurel River arm, and 4) upper Craigs Creek. Length-frequency and CPUE of the three black bass species collected in each area is shown in Table 35. The catch-per-hour (by area and length group) of the three black bass species is shown in Tables 36-39. Table 7 compares the catch-per-hour by size class of black bass in Laurel River Lake to other SEFD lakes sampled in 2007.

The largemouth bass population met two of the four catch rate objectives (Table 40). The CPUE of ≥15.0 in bass (21.80 f/h) was twice the management objective of 10.00 f/h, and the CPUE of ≥20.0 in bass (0.50 f/h) met the management objective of 0.50 f/h.

The 12.0-14.9 in CPUE of largemouth bass (14.50 f/h) did not meet the objective of 20.00 f/h. CPUE of age 1 fish (2.10 f/h) was well below the management objective of 10.00 f/h. Despite stocking age-0 largemouth in fall 2006, catch rates of age-1 bass in the spring were lower in 2007 than in previous years.

Spotted bass met two of the four management catch rate objectives (Table 41). CPUE of 11.0-13.9 in fish (10.70 f/h), exceeded the management objective of 7.00 f/h, and the CPUE of ≥14.0 in spotted bass (2.00 f/h) was twice the objective value of 1.00 f/h. Age 1 CPUE (0.80 f/h) did not meet the objective of 3.00 f/h. No ≥17.0 in spotted bass were captured; therefore, the objective of 0.10 f/h was not met.

The smallmouth bass population met two of the four management objectives. CPUE of ≥14.0 in fish (1.20 f/h) exceeded the management objective of 1.00 f/h, and the CPUE ≥17.0 in (0.83 f/h) surpassed the objective of 0.50 f/h (Table 42). The two other smallmouth bass catch rate objectives were not met. CPUE of 11.0-13.9 in fish (0.30 f/h) was well below the objective of 1.50 f/h. The CPUE of age-1 smallmouth bass (1.20 f/h) did not meet the management objective of 3.00 f/h.

Largemouth bass exhibited excellent size structure, having a PSD value of 82 and an RSD_{15} value of 49 (Table 43). Smallmouth and spotted bass exhibited good size structure, with smallmouth bass having a having a PSD of 33 and an RSD_{14} of 26 and spotted bass had a PSD value of 40 and an RSD_{14} value of 6 (Table 43).

Age-growth for spotted bass collected during 2007 is shown in Table 44. Mean length of age-3 bass at capture was 10.4 in, which did not meet the management objective of 11.0 in. Eight year-classes were represented in the catch, with age-2 fish (2005 year class) comprising 43% of the catch and age-4 fish (2003 year class) comprising an additional 31% of the catch (Table 45). The spotted bass population assessment score was 13 (rating=good; Table 46).

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in the Laurel River arm during September 2007 to index largemouth bass year class strength (Tables 47 and 48). CPUE of age 0 largemouth bass in 2007 was lower than all previous years of sampling (2002-2006), and no age-0 ≥5.0 in were collected (Table 48). Sampling occurred earlier in 2007 than in previous years and may account for reduced catches of age-0 bass ≥5.0 in. For the third consecutive year, the lake received a supplemental stocking of 56,000 5.0 in fingerlings in September 2007 to bolster the weak 2007 year class. Relative weight (Wr) values for largemouth bass and spotted bass collected during September sampling are shown in Table 49.

Walleye Sampling

Gill nets were used in November 2007 to evaluate the walleye population in Laurel River Lake. A total of 180 walleye were captured in 8 net-nights for a catch rate of 22.50 f/nn. Length frequency and CPUE of walleye is shown in Table 50. Walleye ranged from 9.0-25.0 in with the mode being the 19.0 in class (29 fish). All of the catch rate management objectives for walleye were exceeded (Table 51). The CPUE of age 1+ and older walleye was 21.60 f/nn, more than twice the objective of 10.00 f/nn. The CPUE of ≥20.0 in was 6.50 f/nn, over twice the objective of 2.50 f/nn. The CPUE of age 1+ walleye (8.30 f/nn) was twice the objective of 4.00 f/nn. Age-growth data for male and female walleye are shown in Tables 52 and 53, respectively. The age-growth for both sexes combined is shown in Table 54. Eight year-classes were represented in the catch, with the 2006 year class (age 1; 36%) being most abundant (Table 55). Mean length of age 2+ walleye at capture (19.1 in) surpassed the growth objective of 18.0 in (Table 56). The walleye assessment score was 16 (rating=excellent; Table 56). Relative weight (Wr) values for walleye are shown in Table 57.

Cedar Creek Lake (788 acres; Lincoln Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 3 May 2007 to assess the largemouth bass population in Cedar Creek Lake. The length-frequency and CPUE of largemouth bass is shown in Table 58. Size structure of largemouth bass was good (PSD=40, RSD_{15}=26; Table 59). The catch-per-hour (by area and length group) of largemouth bass for 2003-2007 is shown in Table 60.

Age-growth for largemouth bass collected during 2007 is shown in Table 61. Five year-classes were represented, with age 2 bass (2005 year class) comprising 41% of the catch (Table 62). The largemouth bass population assessment score was 14 (rating=good; Table 63).

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted on 8 September 2007 to index the largemouth bass year-class strength (Tables 64 and 65). CPUE of age 0 largemouth bass in 2007 was slightly lower than the CPUE of age 0 bass in 2006 (Table 65). Relative weight (Wr) values are found in Table 66 for largemouth bass. Condition improved as bass length increased.

Bluegill/Redear Sunfish Sampling

Daytime electrofishing was conducted on 23 May 2007, in conjunction with Black Bass Research (BBR) section, to assess the bluegill and redear sunfish populations in Cedar Creek Lake. Results from the sampling, including length-frequency and PSD values, can be found in the BBR annual performance report.

Laurel Creek Reservoir (43 acres; McCreary Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 24 April 2007 at Laurel Creek Reservoir to assess the black bass population. Length frequency and CPUE for largemouth bass is shown in Table 67. Catch-per-hour (by length group) for black bass is shown in Table 68. The size structure indicates that the bass population may be stunting having a PSD value of 19 (RSD_{15}=1; Table 69). Age-growth for largemouth bass collected during 2007 is shown in Table 70. Nine year-classes were represented , with ages 3-5 comprising 78% of the catch (Table 71). The largemouth bass population assessment score was 9 (rating=fair; Table 72).

Liberty Lake (81 acres; Casey Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 23 April 2007 at Liberty Lake to assess the black bass population. Length frequency and CPUE for largemouth are shown in Table 73. The size structure of largemouth bass is good having a PSD value of 41 (RSD_{15}=4; Table 74). Catch-per-hour (by length group) for largemouth bass is shown in Table 75. Age-growth for largemouth bass collected during 2007 is shown in Table 76. Eight year-classes were represented, with the 2006 year class (age-1) comprising 60% of the catch (Table 77). The largemouth bass population assessment score was 15 (rating=good; Table 78).

Lake Linville (361 acres; Rockcastle Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 30 April 2007 at Lake Linville to assess the black bass population. Length frequency and CPUE for the black bass populations are shown in Tables 79-81. The size structure for the largemouth bass population is fair, with a PSD value of 28 (RSD_{15}=18; Table 82), while the spotted bass population is comprised of smaller individuals (PSD=21, RSD_{14}=2; Table 82). Age-growth for largemouth bass collected during 2007 is shown in Table 83. Twelve year-classes were represented, with ages 1-2 comprising 60% of the catch (Table 84). The largemouth bass population assessment score was 13 (rating=good; Table 85).

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in September 2007 to index the largemouth bass year-class strength (Tables 86 and 87). Table 18 compares the CPUE of age 0 largemouth bass in Lake Linville to other SEFD lakes sampled in 2007. Although CPUE of age-0 largemouth bass in Lake Linville was lower in 2007 than in 2006, catch rates of age-0 bass remain high. Relative weight values for largemouth bass and spotted bass are in Table 88.

Crappie Sampling

Fall trap netting was conducted in Lake Linville during October 2007 to assess the crappie population. The crappie data should be interpreted with caution because of the low sample size and may not be representative of the crappie population. Length frequency and CPUE for black and white crappie from the lake are in Table 89. White crappie comprised 90% of the catch. White crappie exhibited a good size structure as shown by the PSD and RSD_{10} values in Table 90. Age-growth data from white and black crappie collected in 2007 are shown in Tables 91 and 92, respectively. Six year classes were represented, with ages 1-3 accounting for 79% of the white crappie catch (Table 93). Age 1+ black crappie were the only black crappie collected (Table 94). The crappie population assessments (white, black, and white and black crappie combined) all rated poor (Table 95). Relative weight (Wr) values for black and white crappie are shown in Table 96.

Stanford Reservoir (38 acres; Lincoln Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 23 April 2007 at Stanford Reservoir to assess the black bass population. Length frequency and CPUE for largemouth bass is shown in Table 97. The size structure for the largemouth bass population was fair having a PSD value of 37 (RSD_{15}=2; Table 98). Catch-per-hour (by length group) for largemouth bass is shown in Table 99. Age-growth for largemouth bass collected during 2007 is shown in Table 100. Twelve year-classes were represented, with ages 2-4 comprising 79% of the catch (Table 101). The largemouth bass population assessment score was 10 (rating=fair; Table 102).

Wood Creek Lake (625 acres; Laurel Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted in May 2007 in the Dam, Pump Station, and Dock areas of Wood Creek Lake to assess the black bass population. Length frequency and CPUE for black bass are shown in Table 103. The size structure for black bass was fair, with largemouth bass having a PSD value of 32 (RSD_{15}=24) and spotted bass having a PSD value of 23 (RSD_{14}=5; Table 104). Catch-per-hour (by length group) for largemouth and spotted bass are shown in Tables 105 and 106, respectively.

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in September 2007 in the Dam, Pump Station, and Dock areas of Wood Creek Lake to index largemouth bass year class strength (Tables 107 and 108). Walleye were also collected during fall electrofishing (Table 107). Table 18 compares the CPUE of age 0 largemouth bass in Wood Creek Lake to other SEFD lakes sampled in 2007. Relative weight values for largemouth and spotted bass are in Table 109.

Crappie Sampling

Fall trap netting was conducted in Wood Creek Lake during October 2007 to assess the crappie population. Length frequency and CPUE for black and white crappie from the lake are in Table 110. White crappie comprised almost 96% of the catch. The size structure for both white and black crappie indicated that the population was comprised of smaller fish as shown by the PSD and RSD_{10} values in Table 111. Age-growth data from white and black crappie collected in 2007 are shown in Tables 112 and 113, respectively. Eight year classes were represented in the catch, with the age 0 to age 3+ year classes comprising 83% of the white crappie catch (Table 114). Three year classes of black crappie were present in the catch with the age 0 (2007) year class being the dominant year class (Table 115). The crappie population assessments (white, black, and white and black crappie combined) all rated poor (Table 116). The condition of crappie in the lake was poor, as shown by the relative weight (Wr) values in Table 117. With less than 3% of the crappie attaining 9.0 in and growth rates slowing, it was proposed that the 9.0 in minimum size limit be removed.

Walleye Sampling

Gill nets were used in November 2007 to evaluate the walleye population in Wood Creek Lake. A total of 16 walleye were captured in 24 net-nights for a catch rate of 0.67 f/nn. Length frequency and CPUE of walleye are shown in Table 118. Walleye ranged from 11.0-29.0 in. The age-growth for walleye collected in 2007 is shown in Table 119. Four year-classes were represented in the catch, with the 2004 year class (age 3; 44%) being the most abundant year class (Table 120). Due to the low number of walleye collected, a population assessment was not conducted. Relative weight (Wr) values for walleye are shown in Table 121.

2007 Daytime Creel Survey

A roving daytime creel survey was conducted on Wood Creek Lake (625 acres) from 1 April – 31 October 2007. Results of the daytime creel survey are shown in Tables 122-128. Anglers took an estimated 15,769 fishing trips and expended an estimated 66,775 hours (106.8 man hours/acre) during the survey period. Black bass anglers accounted for 37% of all trips taken, followed by panfish anglers (36%) and catfish anglers (15%).

2007 Nighttime Creel Survey

A roving nighttime creel survey was conducted on Wood Creek Lake (625 acres) from 16 May –13 September 2007. Results from the nighttime creel survey are shown in Tables 129-135. Anglers took an estimated 2,294 fishing trips and expended an estimated 11,023 hours (17.6 man hours/acre) during the survey period. Black bass anglers accounted for 46% of all trips taken, followed by catfish anglers (32%) and trout anglers (10%).

Angler Attitude Survey

An angler attitude survey was conducted in conjunction with the creel survey to gather angler opinions about the various fisheries at Wood Creek Lake (Figure 1). A total of 261 anglers were interviewed. Sixty percent of the bass anglers were satisfied with the bass fishery at the lake, with the lack of keeper fish being the number one reason for angler dissatisfaction.

Eighty-three percent of the catfish anglers were satisfied with the catfish fishery at the lake. The most common reason for dissatisfaction with the catfish was lack of fish.

Only 35% of the crappie anglers were satisfied with the crappie fishing at the lake. Sixty-seven percent of the responses listed "fish too small" as the reasons for the dissatisfaction with the crappie fishery. Nearly 60% of the crappie anglers would support a reduction in the current statewide 30 fish daily crappie creel limit, with almost half of the crappie anglers supporting a 20 fish daily creel limit.

Seventy-eight percent of the bluegill anglers were satisfied the bluegill fishing at Wood Creek Lake. Bluegill anglers dissatisfied with the bluegill fishing listed small fish as their main reason for dissatisfaction.

Figure 1. Angler attitude survey results from Wood Creek Lake in 2007.

WOOD CREEK LAKE ANGLER ATTITUDE SURVEY 2007

1. Have you been surveyed this year? Yes - stop survey No – continue

2. Name _____ and Phone number _____ **(Optional)**

3. Which species of fish do you fish for at Wood Creek Lake **(check all that apply)**? (N=261)
   84% Bass 38% Catfish 37% Crappie 16% Trout 11% Walleye 46% Bluegill

4. Which one species do you fish for most at Wood Creek Lake **(check only one)**?

   64% Bass 13% Catfish 7% Crappie 2% Trout 14% Bluegill

-Answer the following questions for each species you fish for – (see question 3)

Bass Anglers

5. What level of satisfaction do you have with bass fishing at Wood Creek Lake? (N=215)

   19% Very satisfied 42% Somewhat satisfied 24% Neutral 12% Somewhat dissatisfied 3% Very dissatisfied 1% No opinion

5a. If you responded with somewhat or very dissatisfied in question (5) – what is the single most important reason for your dissatisfaction? (N=32)

   38% Lack of keeper fish 31% Lack of fish 25% Fish too small 3% Lack of talent 3% Too much pressure

Channel Catfish Anglers

6. What level of satisfaction do you have with the catfish fishing at Wood Creek Lake? (N=100)

   45% Very satisfied 38% Somewhat satisfied 8% Neutral 3% Somewhat dissatisfied 4% Very dissatisfied 2% No opinion

6a. If you responded with somewhat or very dissatisfied in question (6) – what is the single most important reason for your dissatisfaction? (N=6)

   50% Lack of fish 33% Fish too small 17% Anglers taking small fish

Crappie Anglers

7. What level of satisfaction do you have with the crappie fishing at Wood Creek Lake? (N=97)

   8% Very satisfied 27% Somewhat satisfied 9% Neutral 30% Somewhat dissatisfied 24% Very dissatisfied 2% No opinion

7a. If you responded with somewhat or very dissatisfied in question (7) – what is the single most important reason for your dissatisfaction? (N=54)

   67% Fish too small 31% Lack of keeper fish 2% Don't know how to fish for crappie on the lake

8. Would you support or oppose a reduction in the current statewide 30 fish daily crappie creel limit? (N=93)
   59% Support 34% Oppose 6% No opinion

8a. What reduced daily creel limit would you support ? (N=64)
   6% 10 33% 15 47% 20 5% 25

Trout Anglers

9. What level of satisfaction do you have with the trout fishing at Wood Creek Lake? (N=40)

   60% Very satisfied 25% Somewhat satisfied 5% Neutral 0% Somewhat dissatisfied 3% Very dissatisfied 8% No opinion

9a. If you responded with somewhat or very dissatisfied in question (9) – what is the single most important reason for your dissatisfaction? (N=1) 100% Lack of fish

Walleye Anglers

10. What level of satisfaction do you have with the walleye fishing at Wood Creek Lake? (N=28)

4% Very satisfied 7% Somewhat satisfied 25% Neutral 0% Somewhat dissatisfied 21% Very dissatisfied 43% No opinion

10a. If you responded with somewhat or very dissatisfied in question (10) – what is the single most important reason for your dissatisfaction? (N=6)

50% Lack of knowledge 33% Lack of fish 17% Too few fish, too small

Bluegill Anglers

11. What level of satisfaction do you have with the bluegill fishing at Wood Creek Lake? (N=114)

56% Very satisfied 22% Somewhat satisfied 4% Neutral 11% Somewhat dissatisfied 5% Very dissatisfied 3% No opinion

11a. If you responded with somewhat or very dissatisfied in question (11) – what is the single most important reason for your dissatisfaction? (N=18)

28% Fish too small 28% Too many small fish 17% Lack of keeper fish 11% Lack of fish 17% Other

All Anglers

12. Are you **satisfied with the current fishing** regulations at Wood Creek Lake? (N=231) 72% Yes 28% No

If NO:

12a. If you are not satisfied, what size or creel limit would you prefer? (minimum of 10 responses)

Bass Size Limit (n=33)	Bass Creel Limit (n=31)
30% 18 in	32% 6
18% 15 in	26% 5
18% 12 in	16% 4
34% other	16% 2
	10% other

Crappie Size Limit (n=32)	Crappie Creel Limit (n=32)
25% 10 in	34% 20
25% 9 in	31% 15
16% 8 in	28% 30
13% 7 in	6% 10
21% other	

Table 1. Summary of sampling conditions by waterbody, species sampled and date for the Southeastern Fisheries District in 2007.

Water body	Location	Species	Date	Time (24hr)	Gear	Weather	Water temp. F	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Lake Cumberland											all 2007 samples for all species conducted under reduced water levels due to dam repairs, which altered sampling locations
	Dam	Black bass	5/2/2007	2030	shock	cool/rain	62	680	63	fair	heavy rain started at beginning of sixth run so only 5 runs completed
	Harmon Creek	Black bass	5/8/2007	2030	shock	warm/clear	73	680	66	good	good sample
	Lily Creek	Black bass	5/9/2007	2030	shock	sunny/clear	76	680	39	fair	inexperienced volunteer dipper and increased turbidity may have effected catch rates
	Fishing Creek	Black bass	5/14/2007	2030	shock	cloudy	74	680	36	fair	turbid water reduced sampling effeciency
	Fishing Creek	Black bass	9/6/2007	2000	shock	cloudy	83	680	27	fair	fish had sores and were skinny
	Fishing Creek	Crappie	10/30-11/1		trap net	sunny/cool	63	680		good	all new net locations from previous years
	Wolf/Dudley	Crappie	10/30-11/1		trap net	sunny/cool	65	680	30	good	some new locations from previous years
	Beaver	Striper	11/27-11/29		gill net	sunny/cool	56	680	48-96	good	turbid toward head of creek
	Wolf/Lily/Caney	Striper	11/27-11/29		gill net	mostly sunny	56	680	96	good	new location in Lily; did not sample standard location farthest upstream in Lily
Laurel River Lake											
	Spruce Creek	Black bass	5/7/2007	2030	shock	clear	72	1015	36	fair	murky; water green to greenish/brown colored
	Dam	Black bass	5/7/2007	2030	shock	clear	72	1015	66	good	water greenish to clear colored; inexperienced volunteer dipper on outside
	Craig's Creek	Black bass	5/9/2007	2030	shock	mostly clear	74	1015	72	good	nice green color-fairly clear
	312 Bridge	Black bass	5/14/2007	2030	shock	sunny/clear	76	1015	30	fair	murky, but not muddy
	312 Bridge	Black bass	9/5/2007	2030	shock	clear/warm	84	1008	48-60	good	water clear to greenish colored; water levels lower than usual due to drought
	Main lake	Walleye	11/6/2007		gill net	cold/windy	61	1002	84	good	water choppy; clear, especially on lower end
Cedar Creek Lake		LMB	5/3/2007	2030	shock	partly cloudy	73	normal	36		>16" bass look healthy, smaller bass thinner, but not skinny
		LMB	10/8/2007		shock	warm/clear	79	1' low	42		7-10" bass look skinny, larger bass look better
Laurel Creek Reservoir		LMB	4/24/2007	2030	shock	partly cloudy	64	normal	84-96	good	bass were thin; sampled entire shoreline
Liberty Lake		LMB	4/23/2007	2030	shock	mostly sunny	62	normal	84	good	sampled entire shoreline; water clear
Lake Linville		Black Bass	4/30/2007	2030	shock	clear/hot	69	normal	18-24	fair	two crews; murky, greenish brown, more brown than green
		Black Bass	9/24/2007	2000	shock	clear/calm	84	2.5' low	36-48	good	two crews; bass skinny with sores and fungus; scale not working for crew 2; murky
		Crappie	10/16-10/18		trap net	cloudy/rainy	68	4.5' low			poor sample, crappie farther off shore than netting locations-based on angler catch
Stanford Reservoir		LMB	4/23/2007	2030	shock	cloudy/breezy	64	normal	24-36	fair	sampled entire shoreline; water murky
Wood Creek Lake		Black bass	5/1/2007	2030	shock	mostly clear	68	normal	36-48	good	bass look healthy; two crews; inexperienced volunteer dipper on outside
		Black bass	9/18/2007	2000	shock	clear/warm	75	low	96-120	good	two crews; good sample
		Crappie	10/23-10/25		trap net	rainy/cool	65	3' low	36-48	fair	cold front moving through area
		Walleye	11/14-11/16		gill net	cool/p. sunny	58	3' low		fair	weather was variable throughout week

Table 2. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 5.75 hours of 15-minute nocturnal electrofishing runs for black bass in Lake Cumberland during May 2007; standard error is in parentheses.

Area	Species	Inch class																				Total	CPUE
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Dam	Largemouth bass		1			3	2		1			1	1	1	1		3	1				15	12.00 (8.10)
	Spotted bass	5	11	4	7	2	8	5	10	7	9	16	13	13	12	3	2					127	101.60 (43.33)
	Smallmouth bass	3	4		4	10	8	9	7	6	6	6	1	2		1						67	53.60 (8.82)
Harmon	Largemouth bass					1					1			1		2	1	1			1	8	5.33 (1.98)
Creek	Spotted bass	7	60	3	7	5	8	32	21	21	5	11	7	4	1	2						194	129.33 (15.58)
	Smallmouth bass	1	6	1			2	4	5	9	4	2	3		1	1	1			2		42	28.00 (9.52)
Fishing	Largemouth bass				3	12	25	8	4	15	37	37	36	30	23	24	10	2	4	1		271	180.67 (36.37)
Creek	Spotted bass					3	4	12	9	2	1											31	20.67 (7.62)
	Smallmouth bass																					0	0.00 (0.00)
Lily	Largemouth bass						1	3		3	9	2	8	3	1	6	3	1	2	1		43	28.67 (6.57)
Creek	Spotted bass		1	1	1	5	14	12	18	9	6	8	2	1	2							80	53.33 (11.01)
	Smallmouth bass							1														1	0.67 (0.67)
Total	Largemouth bass		1		3	16	28	11	5	18	47	40	45	35	25	32	17	5	6	2	1	337	58.61 (18.06)
	Spotted bass	12	72	8	15	15	34	61	58	39	21	35	22	18	15	5	2					432	75.13 (13.48)
	Smallmouth bass	4	10	1	4	10	10	14	12	15	10	8	4	2	1	2	1			2		110	19.13 (5.43)

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Table 3. Comparison of catch-per-hour of black bass (by area) captured during spring electrofishing on Lake Cumberland during the period of 2003-2007.

Species/Area	Stock					Quality					Preferred				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Largemouth bass															
Dam	1.30	4.70	2.00	1.33	7.20	1.30	3.30	2.00	1.33	6.40	1.30	2.00	2.00	0.66	4.00
Beaver Creek	24.70	23.30	2.00	*	*	11.30	18.70	2.00	*	*	7.30	10.00	2.00	*	*
Harmon Creek	1.00	0.70	1.30	0.00	4.65	1.00	0.70	0.70	0.00	4.00	1.00	0.00	0.70	0.00	3.33
Fishing Creek	48.70	46.00	66.00	76.66	154.00	42.70	30.00	58.70	54.66	111.33	23.30	14.00	13.30	26.66	42.67
Lily Creek	18.70	18.70	13.30	22.66	28.00	11.30	14.70	13.30	20.00	18.00	6.00	6.70	9.30	13.33	9.33
Mean	20.10	18.70	16.90	25.18	48.48	14.40	13.50	15.30	19.00	34.95	8.30	6.50	5.50	10.18	14.80
Spotted bass															
Dam	48.70	36.70	50.00	47.33	78.40	16.70	12.70	25.30	26.66	54.40	3.30	4.00	7.30	9.33	24.00
Beaver Creek	63.30	26.70	21.30	*	*	5.30	6.70	6.00	*	*	0.70	0.00	0.00	*	*
Harmon Creek	45.00	25.30	27.30	33.33	74.67	8.00	4.00	8.00	9.33	20.00	0.00	0.00	0.70	2.00	4.67
Fishing Creek	16.70	18.70	13.30	12.00	18.67	4.00	6.00	5.30	4.00	0.67	0.70	0.00	0.00	0.00	0.00
Lily Creek	88.00	109.30	32.00	80.00	48.00	24.70	32.70	26.70	47.33	12.67	8.70	5.30	7.30	20.66	2.00
Mean	52.90	43.30	28.80	43.18	54.93	12.00	12.40	14.30	21.83	21.93	2.90	1.90	3.10	8.00	7.68
Smallmouth bass															
Dam	22.70	16.70	14.00	4.00	36.80	11.30	3.30	7.30	0.66	12.80	8.00	0.70	3.30	0.66	2.40
Beaver Creek	0.00	0.00	0.00	*	*	0.00	0.00	0.00	*	*	0.00	0.00	0.00	*	*
Harmon Creek	29.00	11.30	18.00	4.00	22.67	16.00	9.30	18.00	2.00	9.33	11.00	6.00	15.30	0.66	3.33
Fishing Creek	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lily Creek	2.70	0.00	0.70	0.66	0.67	1.30	0.00	0.70	0.00	0.00	0.70	0.00	0.70	0.00	0.00
Mean	9.70	5.60	6.50	2.18	15.03	5.00	2.50	5.20	0.68	5.53	3.40	1.30	3.90	0.33	1.43

Largemouth bass - ≥8.0 in = stock, ≥12.0 in = quality, ≥15.0 in = preferred.

Smallmouth bass and spotted bass - ≥7.0 in = stock, ≥11.0 in = quality, ≥14.0 in = preferred.

* Not sampled.

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Table 4. Spring electrofishing catch-per-unit-effort (CPUE; fish/hr) for each length group of largemouth bass collected at Lake Cumberland during May 2007.

	Inch class											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	8.35	3.17	14.09	4.49	20.87	7.13	15.30	4.09	0.52	0.29	58.61	18.06
2006	0.83	0.42	6.17	2.17	8.83	3.06	10.17	2.63	0.50	0.28	26.00	7.61
2005	0.80	0.45	1.60	0.68	9.87	3.60	5.47	1.25	0.00	0.00	17.73	5.21
2004	0.80	0.30	5.20	1.46	6.93	1.38	6.53	1.59	0.00	0.00	19.50	4.00
2003	2.00	0.78	5.71	1.39	6.14	1.86	8.29	1.90	0.14	0.14	22.14	4.31
2002	0.40	0.22	1.87	0.57	7.73	2.52	6.27	0.99	0.13	0.13	16.30	3.30

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Table 5. Spring electrofishing catch-per-unit-effort (CPUE; fish/hr) for each length group of spotted bass collected at at Lake Cumberland during May 2007.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	27.13	6.84	27.48	4.96	13.57	3.56	6.96	2.69	0.35	0.24	75.13	13.48
2006	12.00	2.53	16.50	2.30	13.83	2.97	8.00	2.10	0.17	0.17	50.33	7.09
2005	16.27	3.59	9.47	1.40	11.20	2.02	3.07	1.15	0.00	0.00	40.00	6.29
2004	15.60	2.69	25.47	3.91	10.53	2.08	1.87	0.66	0.00	0.00	53.50	7.80
2003	32.57	5.45	31.60	3.80	9.10	1.50	2.90	0.80	0.00	0.00	76.10	8.60
2002	8.10	1.80	10.30	1.70	5.20	1.10	1.50	0.50	0.00	0.00	25.10	3.70

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Table 6. Spring electrofishing catch-per-unit-effort (CPUE; fish/hr) for each length group of smallmouth bass collected at Lake Cumberland during May 2007.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	6.78	2.64	7.13	2.35	3.83	1.29	1.39	0.60	0.52	0.38	19.13	5.43
2006	2.50	0.86	1.17	0.38	0.33	0.33	0.33	0.23	0.17	0.17	4.33	1.15
2005	2.27	0.87	0.80	0.56	1.33	0.48	3.87	1.50	1.33	0.70	8.27	2.32
2004	2.93	1.83	1.87	0.87	1.20	0.51	1.33	0.65	0.00	0.00	7.33	3.10
2003	2.14	0.95	3.86	1.14	1.57	0.56	3.43	1.12	1.00	0.44	11.00	2.70
2002	2.93	1.10	3.47	1.33	2.40	0.76	0.93	0.46	0.13	0.13	9.70	2.90

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Table 7. Catch-per-hour of black bass captured during spring electrofishing on lakes in the Southeastern Fishery District during 2007.

Species/Lake	Stock*	Quality*	Preferred*
Largemouth bass			
Lake Cumberland	50.26	36.17	15.30
Laurel River Lake	44.17	36.33	21.83
Cedar Creek Lake	133.43	53.71	34.86
Laurel Creek Reservoir	130.00	25.00	1.00
Liberty Lake	126.86	51.43	4.57
Linville Lake	140.40	38.80	25.60
Stanford Reservoir	178.67	66.67	3.56
Wood Creek Lake	74.33	24.00	18.00
Spotted bass			
Lake Cumberland	53.91	20.52	6.96
Laurel River Lake	32.00	12.67	2.00
Linville Lake	81.60	17.20	2.00
Wood Creek Lake	36.33	8.33	1.67
Smallmouth bass			
Lake Cumberland	14.09	5.22	1.39
Laurel River Lake	4.50	1.50	1.17
Linville Lake	1.60	0.00	0.00
Wood Creek Lake	1.67	1.00	1.00

*Largemouth bass - ≥8.0 in = stock, ≥12.0 in = quality, ≥15.0 in = preferred
*Smallmouth and spotted bass - ≥7.0 in = stock, ≥11.0 in = quality, ≥14.0 in = preferred

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Table 8. Population assessment for largemouth bass based on spring electrofishing at Lake Cumberland from 1990-2007.

Year		Mean length age-3 at capture	Spring CPUE Age 1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥15.0 in	Spring CPUE >20.0 in	Total Score	Assessement rating
2007	Value	13.4	10.26	20.87	15.30	0.52		
	Score	4	1	2	3	2	12	G
2006	Value	13.6	1.17	8.83	10.17	0.50		
	Score	4	1	1	2	2	10	F
2005	Value	13.6	1.20	9.90	5.50	0.00		
	Score	4	1	1	2	0	8	F
2004	Value	13.6	1.10	7.00	6.50	1.00		
	Score	4	1	1	2	2	10	F
2003	Value	13.6	3.00	6.10	8.30	0.14		
	Score	4	1	1	2	1	9	F
2002	Value	13.6	0.40	7.60	6.40	0.13		
	Score	4	1	1	2	1	9	F
2001	Value	13.5	2.90	7.70	5.20	0.27		
	Score	4	1	1	2	2	10	F
2000	Value	13.5	2.80	9.50	5.20	0.27		
	Score	4	1	1	2	2	10	F
1999	Value	13.5	9.50	13.30	11.70	0.38		
	Score	4	1	1	2	2	10	F
1997	Value	13.5	2.60	29.50	18.60	0.44		
	Score	4	1	3	3	2	13	G
1996	Value	13.5	1.70	9.60	9.60	0.46		
	Score	4	1	1	2	2	10	F
1995	Value	13.5	1.50	21.70	13.90	0.38		
	Score	4	1	2	3	2	12	G
1993	Value	13.5	1.80	20.50	4.40	0.10		
	Score	4	1	2	2	1	10	F
1992	Value	13.5	3.70	27.10	4.40	0.17		
	Score	4	1	3	2	1	11	F
1991	Value	13.5	5.70	11.80	3.90	0.13		
	Score	4	1	1	1	1	8	F
1990	Value	13.5	19.60	10.10	4.20	0.00		
	Score	4	1	1	2	0	8	F

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Table 9. Population assessment for spotted bass based on spring electrofishing at Lake Cumberland from 1990-2007.

Year		Mean length age-3 at capture	Spring CPUE Age 1	Spring CPUE 11.0-13.9 in	Spring CPUE ≥14.0 in	Spring CPUE ≥17.0 in	Total Score	Assessement rating
2007	Value	11.4	1.30	13.57	6.96	0.35		
	Score	4	2	4	4	3	17	E
2006	Value	11.4	1.83	13.83	8.00	0.17		
	Score	4	2	4	4	2	16	G
2005	Value	11.4	5.10	11.20	3.10	0.00		
	Score	4	2	4	4	0	14	G
2004	Value	11.4	6.00	10.50	1.90	0.00		
	Score	4	2	4	3	0	13	G
2003	Value	11.4	16.70	9.10	2.90	0.00		
	Score	4	3	4	4	0	15	G
2002	Value	11.4	5.10	5.20	1.50	0.00		
	Score	4	2	3	3	0	12	G
2001	Value	11.4	2.10	4.70	1.60	0.00		
	Score	4	2	3	3	0	12	G
2000	Value	11.4	1.90	5.60	1.20	0.00		
	Score	4	2	3	3	0	12	G
1999	Value	11.4	3.00	11.20	3.00	0.13		
	Score	4	2	4	4	2	16	G
1997	Value	11.4	6.00	6.70	1.90	0.00		
	Score	4	2	3	3	0	12	G
1996	Value	11.4	1.00	6.60	1.30	0.00		
	Score	4	2	3	3	0	12	G
1995	Value	11.4	1.30	2.30	0.60	0.00		
	Score	4	2	3	3	0	12	G
1993	Value	11.4	0.70	2.70	0.00	0.00		
	Score	4	1	3	0	0	8	F
1992	Value	11.4	0.70	2.70	0.40	0.00		
	Score	4	1	3	3	0	11	F
1991	Value	11.4	1.30	1.30	0.00	0.00		
	Score	4	2	2	0	0	8	F
1990	Value	11.4	3.50	1.20	0.00	0.00		
	Score	4	2	2	0	0	8	F

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Table 10. Population assessment for smallmouth bass based on spring electrofishing at Lake Cumberland from 1990-2007.

Year		Mean length age-3 at capture	Spring CPUE Age 1	Spring CPUE 11.0-13.9 in	Spring CPUE ≥14.0 in	Spring CPUE ≥17.0 in	Total score	Assessement rating
2007	Value	12.2	2.61	3.83	1.39	0.52		
	Score	4	4	4	4	4	20	E
2006	Value	12.2	0.00	0.33	0.33	0.17		
	Score	4	0	2	2	2	10	F
2005	Value	12.2	0.80	1.30	3.90	1.33		
	Score	4	2	3	4	4	17	E
2004	Value	9.6	1.90	1.20	1.30	0.00		
	Score	2	3	3	4	0	12	G
2003	Value	9.6	1.30	1.60	3.40	1.00		
	Score	2	3	3	4	4	16	G
2002	Value	9.6	1.70	2.40	0.90	0.13		
	Score	2	3	3	3	2	13	G
2001	Value	9.6	0.50	0.40	0.90	0.53		
	Score	2	2	2	3	4	13	G
2000	Value	9.6	0.00	1.40	1.10	0.00		
	Score	2	0	3	4	0	9	F
1999	Value	9.6	0.50	2.60	2.50	0.75		
	Score	2	2	4	4	4	16	G
1997	Value	9.6	6.10	3.80	1.30	0.33		
	Score	2	4	4	4	3	17	E
1996	Value	9.6	0.10	3.20	2.50	0.80		
	Score	2	1	4	4	4	15	G
1995	Value	9.6	6.70	7.40	4.00	1.52		
	Score	2	4	4	4	4	18	E
1993	Value	9.6	0.70	2.20	1.10	0.19		
	Score	2	2	3	4	2	13	G
1992	Value	9.6	0.80	4.70	1.80	0.25		
	Score	2	2	4	4	3	15	G
1991	Value	9.6	3.20	5.50	2.30	0.76		
	Score	2	4	4	4	4	18	E
1990	Value	9.6	5.20	4.00	1.30	0.65		
	Score	2	4	4	4	4	18	E

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Table 11. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Lake Cumberland during May 2007; 95% confidence limits are in parentheses.

Area	Species	No. ≥8.0 in	PSD (+/- 95%)	RSD[a] (+/- 95%)
Dam	Largemouth bass	9	89 (± 22)	56 (± 34)
	Spotted bass	98	69 (± 9)	31 (± 9)
	Smallmouth bass	46	35 (± 14)	7 (± 7)
Harmon Creek	Largemouth bass	7	86 (± 28)	71 (± 36)
	Spotted bass	112	27 (± 8)	6 (± 5)
	Smallmouth bass	34	41 (± 17)	15 (± 12)
Fishing Creek	Largemouth bass	231	72 (± 6)	28 (± 6)
	Spotted bass	28	4 (± 7)	0
	Smallmouth bass	0		
Lily Creek	Largemouth bass	42	64 (± 15)	33 (± 14)
	Spotted bass	72	26 (± 10)	4 (± 5)
	Smallmouth bass	1		
Total	Largemouth bass	289	72 (± 5)	30 (± 5)
	Spotted bass	310	38 (± 5)	13 (± 4)
	Smallmouth bass	81	37 (± 11)	10 (± 7)

[a]Largemouth bass = RSD_{15}, spotted and smallmouth bass = RSD_{14}

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Table 12. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Lake Cumberland, Laurel River Lake, Cedar Creek Lake, Laurel Creek Reservoir, Liberty Lake, Lake Linville, Stanford Reservoir, and Wood Creek Lake during 2007; 95% confidence limits are in parentheses.

	Largemouth bass		Smallmouth bass		Spotted bass	
Lake	PSD	RSD_{15}	PSD	RSD_{14}	PSD	RSD_{14}
Lake Cumberland	72 (±5)	30 (±5)	37 (±11)	10 (±7)	38 (±5)	13 (±4)
Laurel River Lake	82 (±5)	49 (±6)	33 (±18)	26 (±17)	40 (±7)	6 (±3)
Cedar Creek Lake	40 (±4)	26 (±4)				
Laurel Creek Reservoir	19 (±5)	1 (±1)				
Liberty Lake	41 (±6)	4 (±2)				
Lake Linville	28 (±5)	18 (±4)	0 (0)	0 (0)	21 (±6)	2 (±2)
Stanford Reservoir	37 (±7)	2 (±2)				
Wood Creek Lake	32 (±6)	24 (±6)	60 (±48)	60 (±48)	23 (±8)	5 (±4)

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Table 13. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Lake Cumberland during 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age											
Year	No.	1	2	3	4	5	6	7	8	9	10	11	12
2006	30	7.3											
2005	26	6.6	10.9										
2004	22	6.9	11.2	13.4									
2003	6	5.8	10.9	13.5	14.6								
2002	14	7.8	11.9	14.1	15.5	16.2							
2001	6	7.7	12.7	14.7	16.1	16.9	17.5						
2000	1	9.9	12.9	15.4	16.6	17.9	18.5	19.1					
1998	3	8.5	11.5	13.7	14.9	16.0	16.7	17.4	18.1	18.5			
1995	1	7.6	12.7	15.0	15.6	16.5	17.1	17.7	18.2	19.1	19.4	19.7	20.3
Mean		7.1	11.4	13.8	15.4	16.4	17.3	17.8	18.1	18.7	19.4	19.7	20.3
Number		109	79	53	31	25	11	5	4	4	1	1	1
Smallest		3.7	8.6	10.6	13.5	14.3	14.8	16.0	16.8	17.4	19.4	19.7	20.3
Largest		9.9	15.2	17.3	18.3	19.3	19.1	19.1	18.8	19.1	19.4	19.7	20.3
Std error		0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.4	0.4			
95% CI ±		0.2	0.3	0.4	0.5	0.6	0.9	1.0	0.9	0.9			

Otoliths were used for age-growth determinations; Intercept = 0
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Table 14. Age-frequency and CPUE (fish/hr) of largemouth bass collected during 5.75 hours of nocturnal electrofishing at Lake Cumberland in May 2007.

	Inch class																				Std
Age	3	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%	CPUE	error
1	1	3	16	28	10	1												59	17.6	10.26	
2					1	4	16	47	16									84	25.0	14.61	(4.99)
3							2		24	37	18							81	24.1	14.09	(4.78)
4										8	6		11					25	7.4	4.35	(1.29)
5											9	19	21	13		1		63	18.8	10.96	(3.15)
6											3	6			5	1		15	4.5	2.61	(0.75)
7																1		1	0.3	0.17	(0.09)
9														4		2		6	1.8	1.04	(0.32)
12																	2	2	0.6	0.35	(0.24)
	1	3	16	28	11	5	18	47	40	45	36	25	32	17	5	5	2	336	100.0	58.43	
%	0.3	0.9	4.8	8.3	3.3	1.5	5.4	14.0	11.9	13.4	10.7	7.4	9.5	5.1	1.5	1.5	0.6	100.0			

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Table 15. Population assessment for largemouth bass collected from Lake Cumberland in May 2007.

Parameter	Actual value	Assessment score
Mean length age-3 at capture	13.4	4
Spring CPUE Age 1	10.30	1
Spring CPUE 12.0-14.9 in	20.90	2
Spring CPUE ≥15.0 in	15.30	3
Spring CPUE ≥20.0 in	0.52	2
Instantaneous mortality (Z)	0.434	
Annual mortality (A)	35.2	
Total score		12
Assessment rating		G

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Table 16. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 1.5 hours of 15-minute nocturnal electrofishing runs for black bass in Fishing Creek of Lake Cumberland on 6 September 2007; standard error is in parentheses.

	Inch class															
Species	3	4	5	6	7	9	10	11	12	13	14	15	16	17	Total	CPUE
Largemouth bass	1	2	4			1	2	1		6	4	4	2	8	35	23.30 (4.18)
Spotted bass	1		6	5	3	1			3	2	1				22	14.70 (3.96)

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Table 17. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall (September and October) in electrofishing samples at Lake Cumberland.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
	Lake Cumberland								
2007	Fishing Creek	5.0	0.29	4.67	3.17	2.67	1.33		
2006	Fishing Creek	6.3	0.17	22.00	3.06	20.67	2.40	32.00	8.20
2005	Fishing Creek	6.2	0.16	14.00	4.47	13.30	4.09	3.30	
2004	Fishing Creek	6.2	0.14	50.70	8.18	41.30	7.35	4.00	
2003	Fishing Creek	5.8	0.42	6.00	2.68	4.00	2.53	1.30	0.80
2002	Fishing Creek	6.0	0.07	192.70	36.67	160.70	36.32	4.00	1.46

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Table 18. Year class strength at age 0 and mean lengths (in) of largemouth bass collected in September 2007 in electrofishing samples at Lake Cumberland, Laurel River Lake, Wood Creek Lake, Cedar Creek Lake, and Lake Linville.

		Age 0		Age 0		Age 0 ≥5.0 in	
Lake	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error
Lake Cumberland	Fishing Creek	5.0	0.29	4.67	3.17	2.67	1.33
Laurel River Lake	Laurel River Arm	3.5	0.12	5.33	4.58	0.00	-
Wood Creek Lake		4.2	0.13	13.30	7.59	2.67	1.24
Cedar Creek Lake		5.4	0.04	32.90	7.82	28.60	6.60
Lake Linville		4.8	0.05	45.80	14.90	17.45	7.18

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Table 19. Number of fish and mean relative weight (Wr) for each length group of black bass collected in Fishing Creek of Lake Cumberland during 6 September 2007. Standard error is in parentheses.

Species	Length group					
	8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Largemouth bass	No.	Wr	No.	Wr	No.	Wr
	4	84 (3)	10	82 (2)	14	86 (2)
	7.0-10.9 in		11.0-13.9 in		≥14.0 in	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	4	96 (4)	5	93 (1)	1	83 (-)

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Table 20. Number of fish and mean relative weight (Wr) for each length group of black bass collected in Lake Cumberland, Laurel River Lake, Wood Creek Lake, Cedar Creek Lake, and Lake Linville during September 2007. Standard error is in parentheses.

Species	Location	Length group					
		No.	Wr	No.	Wr	No.	Wr
Largemouth bass		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
	Lake Cumberland (Fishing Creek)	4	84 (3)	10	82 (2)	14	86 (2)
	Laurel River Lake (Laurel River Arm)	22	93 (2)	5	103 (3)	2	99 (8)
	Wood Creek Lake	99	84 (1)	8	82 (3)	9	91 (5)
	Cedar Creek Lake	307	85(1)	54	89 (2)	20	105 (3)
	Lake Linville	109	87 (1)	7	88 (4)	1	86 (-)
Spotted bass		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
	Lake Cumberland (Fishing Creek)	4	96 (4)	5	93 (1)	1	83 (-)
	Laurel River Lake (Laurel River Arm)	16	102 (2)	8	105 (3)		
	Wood Creek Lake	64	94 (4)	9	91 (6)	1	92 (-)
	Lake Linville	82	88 (1)	8	86 (3)	1	86 (-)

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Table 21. Length frequency and CPUE (fish/nn) for each species of crappie collected in the Wolf Creek (27 net-nights) and Fishing Creek (27 net-nights) embayments of Lake Cumberland in 54 net days during October and November 2007.

		Inch class															
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE	Std. error
Wolf Creek																	
	White crappie					1				1					2	0.07	0.05
	Black crappie			2	64	80	22	4		1	2	1			176	6.52	1.67
Fishing Creek																	
	White crappie			2				3	6	1	1	1	1	1	16	0.59	0.19
	Black crappie	1	13	27	55	55	48	6	8	5					218	8.07	1.47
Total																	
	White crappie			2		1		3	6	2	1	1	1	1	18	0.33	0.10
	Black crappie	1	13	29	119	135	70	10	8	6	2	1			394	7.30	1.11

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Table 22. PSD and RSD_{10} values calculated for crappie collected in trapnets at Lake Cumberland in October and November 2007; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD_{10}
White crappie			
Fishing Creek	14	100 (± 0)	36 (± 26)
Wolf Creek	2	50 (± 98)	50 (± 98)
Lake Cumberland	16	94 (± 12)	70 (± 17)
Black crappie			
Fishing Creek	177	10 (± 5)	3 (± 2)
Wolf Creek	174	5 (± 3)	2 (± 2)
Lake Cumberland	351	8 (± 3)	3 (± 2)

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Table 23. Mean back calculated lengths (in) at each annulus for white crappie collected from Lake Cumberland during 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age					
Year	No.	1	2	3	4	5	6
2006	10	4.4					
2005	3	5.4	9.0				
2003	1	4.6	9.0	11.2	12.3		
2001	1	4.9	9.7	11.6	12.3	13.2	14.1
Mean		4.6	9.1	11.4	12.3	13.2	14.1
Number		15	5	2	2	1	1
Smallest		4.0	8.4	11.2	12.3	13.2	14.1
Largest		5.8	9.7	11.6	12.3	13.2	14.1
Std error		0.1	0.2	0.2	0.0		
95% CI ±		0.3	0.5	0.3	0.1		

Otoliths were used for age-growth determinations; Intercept = 0
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Table 24. Mean back calculated lengths (in) at each annulus for black crappie collected from Lake Cumberland during 2007, including the 95%confidence interval (CI) for each mean length per age group.

		Age			
Year	No.	1	2	3	4
2006	55	3.8			
2005	8	4.4	7.4		
2004	7	4.0	6.8	8.8	
2003	3	3.9	6.4	8.2	9.2
Mean		3.9	7.0	8.6	9.2
Number		73	18	10	3
Smallest		2.9	5.9	7.7	8.6
Largest		5.3	8.9	11.1	9.7
Std error		0.1	0.2	0.3	0.3
95% CI ±		0.2	0.4	0.7	0.7

Otoliths were used for age-growth determinations; Intercept = 0
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Table 25. Age-frequency and CPUE (fish/nn) of white crappie trap-netted at Lake Cumberland in 54 net-nights in October and November 2007.

	Inch class												Std
Age	4	6	8	9	10	11	12	13	14	Total	%	CPUE	error
0+	2									2	11.1	0.04	0.03
1+		1	3	6	1					11	61.1	0.20	0.08
2+					1	1	1			3	16.7	0.06	0.03
4+								1		1	5.6	0.02	0.02
6+									1	1	5.6	0.02	0.02
Total	2	1	3	6	2	1	1	1	1	18	100.0	0.33	
%	11.1	5.6	16.7	33.3	11.1	5.6	5.6	5.6	5.6				

CPUE of ≥8.0 in (quality size) crappie = 0.28 fish/nn
CPUE of ≥10.0 in (preferred size) crappie = 0.11 fish/nn
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Table 26. Age-frequency and CPUE (fish/nn) of black crappie trap-netted at Lake Cumberland in 54 net-nights in October and November 2007.

	Inch class													Std
Age	3	4	5	6	7	8	9	10	11	12	Total	%	CPUE	error
0+	13										13	3.3	0.24	0.15
1+		29	119	135	70	7					360	91.6	6.67	1.04
2+						3	3	3			9	2.3	0.17	0.04
3+							4	2	1	1	8	2.0	0.15	0.04
4+							1	1	1		3	0.8	0.06	0.02
Total	13	29	119	135	70	10	8	6	2	1	393	100.0	7.28	
%	3.3	7.4	30.3	34.4	17.8	2.5	2.0	1.5	0.5	0.3				

CPUE of ≥8.0 in (quality size) crappie = 0.50 fish/nn
CPUE of ≥10.0 in (preferred size) crappie = 0.17 fish/nn
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Table 27. Population assessment for white, black, and white and black crappie combined from Lake Cumberland trapnet data collected in October and November 2007.

	Species					
	White Crappie		Black crappie		Combined	
Parameter	Assessment value	Assessment score	Assessment value	Assessment score	Assessment value	Assessment score
CPUE of crappie (excluding age 0)	0.30	1	7.04	2	7.34	2
CPUE age 1	0.20	1	6.67	2	6.87	2
CPUE age 0	0.04	1	0.24	1	0.28	1
CPUE $\geq$ 8.0 in	0.28	1	0.50	1	0.78	1
Mean length age-2 at capture	11.2	4	9.4	3	9.9	4
Instantaneous mortality (Z)	0.355		1.062		0.983	
Annual mortality (A)	29.9		65.4		62.6	
Total score:		8		9		10
Assessment rating:		F		F		F

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Table 28. Number of fish and mean relative weight (Wr) for each length group of crappie collected in Lake Cumberland in October and November 2007. Standard error is in parentheses.

		Length group					
		5.0-7.9 in		8.0-9.9 in		≥10.0 in	
Species	Location	No.	Wr	No.	Wr	No.	Wr
White Crappie							
	Fishing Creek			8	90 (2)	5	89 (4)
	Wolf Creek	1	89			1	105
	Lake Cumberland	1	89	8	90 (2)	6	92 (4)
Black crappie							
	Fishing Creek	157	92 (1)	14	87 (1)	5	87 (2)
	Wolf Creek	166	93 (1)	4	99 (4)	4	92 (3)
	Lake Cumberland	323	92 (0)	18	90 (2)	9	89 (2)

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Table 29. Length frequency and CPUE (fish/nn) of striped bass collected at Lake Cumberland in 30 net-nights on 27-29 November 2007.

	Inch class																									
Species	9	11	13	14	15	16	17	18	19	20	22	23	24	25	26	27	28	29	30	31	32	33	35	37	Total	CPUE	Std. error
Striped bass	1	1	11	7	6	12	37	35	8	1	2	2	6	4	5	5	3	3	4	2	2	1	1	1	160	5.30	0.91

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Table 30. Population assessment for striped bass based on fall gill netting at Lake Cumberland from 1994-2007.

Year		CPUE ≥Age 1	Mean length age 2 at capture	CPUE ≥24.0 in	CPUE Age-1	Total Score	Assessement rating
2007	Value	5.27	23.7	1.23	3.87		
	Score	3	4	3	4	14	E
2006	Value	3.90	22.8	1.60	1.30		
	Score	2	4	3	2	11	G
2005	Value	3.40	23.3	1.50	1.20		
	Score	2	4	3	2	11	G
2004	Value	4.40	23.4	2.10	1.80		
	Score	3	4	4	2	13	G
2003	Value	4.10	21.9	1.20	1.70		
	Score	3	3	3	2	11	G
2002	Value	3.50	22.9	1.25	1.80		
	Score	2	4	3	2	11	G
2001	Value	3.10	21.0	0.11	2.70		
	Score	2	3	1	3	9	F
2000	Value	3.40	23.3	0.70	2.50		
	Score	2	4	2	3	11	G
1999	Value	3.40	22.4	0.30	2.70		
	Score	2	4	1	3	10	G
1998	Value	5.30	21.5	0.40	4.80		
	Score	3	3	1	4	11	G
1997	Value	1.90	21.5	1.10	0.40		
	Score	1	3	3	1	8	F
1996	Value	2.70	22.2	0.90	1.00		
	Score	2	4	2	2	10	G
1995	Value	3.50	22.7	1.50	1.50		
	Score	2	4	3	2	11	G
1994	Value	4.30	21.7	0.80	2.70		
	Score	3	3	2	3	11	G

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Table 31. Mean back calculated lengths (in) at each annulus for striped bass collected from Lake Cumberland during 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age							
Year	No.	1	2	3	4	5	6	7	8
2006	56	9.0							
2005	11	12.7	19.9						
2004	14	11.1	19.5	23.5					
2003	7	10.6	19.7	24.2	27.7				
2002	4	12.9	20.2	24.6	27.8	29.3			
2001	1	9.5	18.7	24.3	28.2	32.1	33.8		
2000	2	9.9	18.1	23.5	26.5	28.2	30.3	31.5	
1999	3	10.9	18.8	22.3	26.0	27.9	29.5	31.2	32.1
Mean		10.0	19.6	23.7	27.3	29.0	30.5	31.3	32.1
Number		98	42	31	17	10	6	5	3
Smallest		4.2	16.0	20.3	23.5	24.8	26.6	28.0	28.7
Largest		15.1	22.8	27.4	30.8	32.1	33.8	34.9	36.0
Std error		0.3	0.3	0.2	0.4	0.7	1.1	1.1	2.1
95% CI ±		0.6	0.5	0.5	0.8	1.4	2.2	2.3	4.1

Otoliths were used for age-growth determinations; Intercept = 0
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Table 32. Age-frequency and CPUE (fish/nn) of striped bass gill netted for 30 net-nights at Lake Cumberland on 27-29 November 2007. Standard error is in parentheses.

	Inch class																											
Age	9	11	13	14	15	16	17	18	19	20	22	23	24	25	26	27	28	29	30	31	32	33	35	37	Total	%	CPUE	
0+	1	1																							2	1.3	0.07	(0.05)
1+			11	7	6	12	37	35	8																116	72.5	3.87	(0.89)
2+										1	2	2	4	1	1										11	6.9	0.37	(0.11)
3+													2	3	4	4	1								14	8.8	0.47	(0.13)
4+																1	2	1	2		1				7	4.4	0.23	(0.08)
5+																		1	2	1					4	2.5	0.13	(0.05)
6+																							1		1	0.6	0.03	(0.03)
7+																				1		1			2	1.3	0.07	(0.04)
8+																		1			1			1	3	1.9	0.10	(0.05)
Total	1	1	11	7	6	12	37	35	8	1	2	2	6	4	5	5	3	3	4	2	2	1	1	1	160	100.0	5.33	
%	0.6	0.6	6.9	4.4	3.8	7.5	23.1	21.9	5.0	0.6	1.3	1.3	3.8	2.5	3.1	3.1	1.9	1.9	2.5	1.3	1.3	0.6	0.6	0.6				

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Table 33. Striped bass population assessment for striped bass gill netted at Lake Cumberland in November 2007.

Parameter	Actual value	Assessment score
Population density (CPUE age 1 and older)	5.27	3
Growth rate (Mean length age 2+ at capture)	23.7	4
Size structure (CPUE ≥24.0 in)	1.23	3
Recruitment (CPUE age 1)	3.87	4
Instantaneous mortality (Z)	0.507	
Annual mortality (A)	39.8	
Total score		14
Assessment rating		E

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Table 34. Number of fish and mean relative weight (Wr) for each length group of striped bass collected in Lake Cumberland during November 2007 Standard error is in parentheses.

Length group					
12.0-19.9 in		20.0-29.9 in		≥30.0 in	
No.	Wr	No.	Wr	No.	Wr
102	89 (1)	31	83 (1)	11	82 (1)

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Table 35. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 6.00 hours of 15-minute nocturnal electrofishing runs for black bass in Laurel River Lake during May 2007; standard error is in parentheses.

Area	Species	Inch class																			Total	CPUE
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Dam	Largemouth bass			2			1	4		4	2	7	3	10	21	10	11	5	3	1	84	56.00 (3.86)
	Spotted bass			1	4	2	7	8	4	5	7	10	6	4	3	1					62	41.33 (6.90)
	Smallmouth bass		1	2		1	2	4	1	1								1	1		14	9.33 (3.21)
Spruce	Largemouth bass					1		1	1	2		8	5	7	14	10	5	1	1	1	57	38.00 (4.47)
Creek	Spotted bass					4	4	3	2	2	6	4	2	2							29	19.33 (8.73)
	Smallmouth bass				1	2	3		1	1	2					1	1	1	1		14	9.33 (3.04)
Laurel	Largemouth bass			2	4	1	2	2	8	9	4	9	9	12	12	9	6	3	1		93	62.00 (7.92)
River	Spotted bass		1	1		8	11	14	9	11	6	3	3	1							68	45.33 (7.57)
Arm	Smallmouth bass			1	1																2	1.33 (0.84)
Upper	Largemouth bass				1			1		3	6	1	5	11	8	3	5			1	45	30.00 (8.12)
Craigs	Spotted bass	2	2		2	11	13	13	6	4	8	4	5	1							71	47.33 (4.43)
Creek	Smallmouth bass						3	2							1						6	4.00 (2.07)
Total	Largemouth bass			4	5	2	3	8	9	18	12	25	22	40	55	32	27	9	5	3	279	46.50 (4.03)
	Spotted bass	2	3	2	6	25	35	38	21	22	27	21	16	8	3	1					230	38.33 (4.04)
	Smallmouth bass		1	3	2	3	8	6	2	2	2				1	1	1	2	2		36	6.00 (1.36)

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Table 36. Comparison of catch-per-hour of black bass (by area) captured during spring electrofishing on Laurel River Lake during the period of 2003-2007.

Species/Area	Stock					Quality					Preferred				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Largemouth bass															
Dam	68.00	30.70	49.30	34.00	54.00	48.70	18.70	32.70	22.00	47.33	18.70	12.70	20.70	11.33	34.00
Spruce Creek	58.70	56.00	56.00	45.71	37.33	28.70	48.70	52.00	38.28	34.67	12.00	18.70	31.30	29.14	21.33
Laurel River Arm	151.30	57.30	96.00	95.33	56.00	75.30	43.30	62.00	65.33	40.67	19.30	18.00	28.70	28.66	20.67
Craigs Cr. headwaters	42.70	30.70	22.70	28.00	29.33	20.00	20.00	17.30	20.66	22.67	5.30	7.30	9.30	7.33	11.33
Mean	80.23	43.70	56.00	50.56	44.17	43.20	32.70	41.00	36.64	36.33	13.80	14.20	22.50	19.52	21.83
Spotted bass															
Dam	66.70	48.00	24.70	33.33	36.67	26.70	30.00	17.30	13.33	20.67	2.70	6.00	9.30	4.66	5.33
Spruce Creek	10.00	4.70	6.00	14.85	16.67	2.70	2.70	2.00	5.71	9.33	0.00	0.70	0.00	1.71	1.33
Laurel River Arm	14.00	2.70	8.70	34.00	38.67	5.30	1.30	6.00	9.33	8.67	0.70	0.00	0.70	2.00	0.67
Craigs Cr. headwaters	72.70	50.00	26.00	44.00	36.00	9.30	14.00	20.00	19.33	12.00	0.00	2.00	4.70	2.00	0.67
Mean	40.80	26.30	16.30	30.88	32.00	11.00	12.00	11.30	11.68	12.68	0.80	2.70	3.70	2.56	2.00
Smallmouth bass															
Dam	28.00	6.00	14.00	0.66	6.67	3.30	4.70	10.70	0.66	1.33	2.00	3.30	10.00	0.00	1.33
Spruce Creek	24.00	9.30	15.30	5.14	7.33	12.00	2.70	15.30	3.42	4.00	6.70	1.30	10.70	3.42	2.67
Laurel River Arm	1.30	2.70	2.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	1.30	0.00	0.00
Craigs Cr. headwaters	4.00	0.00	0.00	0.00	4.00	0.70	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.67
Mean	14.30	4.50	7.80	1.60	4.50	4.00	1.80	7.00	1.12	1.50	2.20	1.20	5.50	0.96	1.18

Largemouth bass - ≥8.0 in = stock, ≥12.0 in = quality, ≥15.0 in = preferred.

Smallmouth bass and spotted bass - ≥7.0 in = stock, ≥11.0 in = quality, ≥14.0 in = preferred.

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Table 37. Spring electrofishing catch-per-unit-effort (CPUE; fish/hr) for each length group of largemouth bass collected at Laurel River Lake during May 2007.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	2.33	0.80	7.83	1.93	14.50	1.86	21.83	2.55	0.50	0.28	46.50	4.03
2006	20.80	5.65	13.92	2.72	17.12	2.86	19.52	2.76	0.64	0.30	71.36	11.44
2005	6.17	1.23	15.00	2.85	18.50	2.67	22.50	2.90	0.17	0.17	62.17	7.54
2004	3.80	1.50	11.00	1.40	18.50	3.00	14.20	1.90	0.00	0.00	47.50	4.80
2003	9.80	2.90	37.00	5.80	29.30	4.10	13.80	2.00	0.00	0.00	90.00	12.30
2002	21.70	5.00	24.00	3.80	23.30	3.30	8.30	1.40	0.00	0.00	77.30	9.70

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Table 38. Spring electrofishing catch-per-unit-effort (CPUE; fish/hr) for each length group of spotted bass collected at Laurel River Lake during May 2007.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	12.17	2.32	13.50	2.15	10.67	1.71	2.00	0.64	0.00	0.00	38.33	4.04
2006	15.04	2.39	13.44	1.74	9.12	1.74	2.56	0.73	0.00	0.00	40.16	4.55
2005	4.83	0.83	3.33	0.79	7.67	1.60	3.67	1.13	0.00	0.00	19.50	2.65
2004	3.20	1.00	12.50	2.90	9.80	2.30	2.20	0.70	0.00	0.00	27.70	5.60
2003	23.30	5.30	17.80	3.10	10.20	2.00	0.80	0.50	0.00	0.00	52.20	8.90
2002	13.70	3.20	13.30	1.80	5.50	1.40	0.30	0.20	0.00	0.00	32.80	5.60

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Table 39. Spring electrofishing catch-per-unit-effort (CPUE; fish/hr) for each length group of smallmouth bass collected at Laurel River Lake during May 2007.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		>17.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	2.83	0.78	1.67	0.68	0.33	0.23	1.17	0.45	0.83	0.42	6.00	1.36
2006	0.48	0.27	0.48	0.35	0.16	0.16	0.96	0.58	0.32	0.22	2.08	0.96
2005	0.17	0.17	0.83	0.42	1.50	0.63	5.50	1.46	2.83	1.09	8.00	1.83
2004	2.00	0.60	1.20	0.40	0.70	0.40	1.20	0.50	0.00	0.00	5.00	1.10
2003	8.30	2.20	7.50	1.80	1.80	0.80	2.20	0.80	0.17	0.17	19.80	4.30
2002	8.20	2.50	4.50	1.50	2.20	0.60	0.70	0.30	0.17	0.17	15.50	3.80

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Table 40. Population assessment for largemouth bass based on spring electrofishing at Laurel River Lake from 1990-2007.

Year		Mean length age-3 at capture	Spring CPUE Age 1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥15.0 in	Spring CPUE >20.0 in	Total Score	Assessement rating
2007	Value	13.7	2.08	14.50	21.83	0.50		
	Score	4	1	1	4	2	12	G
2006	Value	13.7	18.40	17.12	19.52	0.64		
	Score	4	1	2	3	2	12	G
2005	Value	13.7	4.61	18.50	22.50	0.17		
	Score	4	1	2	4	1	12	G
2004	Value	13.7	2.61	18.50	14.17	0.00		
	Score	4	1	2	3	0	10	F
2003	Value	13.7	7.80	29.33	13.83	0.00		
	Score	4	1	3	3	0	11	F
2002	Value	13.7	18.19	23.33	8.83	0.00		
	Score	4	1	2	2	0	9	F
2001	Value	13.7	17.82	22.13	2.53	0.27		
	Score	4	1	2	1	2	10	F
2000	Value	13.7	2.30	16.29	2.14	0.14		
	Score	4	1	2	1	1	9	F
1999	Value	13.7	8.24	26.00	6.40	0.53		
	Score	4	1	3	2	2	12	G
1998	Value	13.7	5.96	9.17	7.83	1.50		
	Score	4	1	1	2	2	10	F
1997	Value	13.7	14.51	25.38	6.21	0.69		
	Score	4	1	3	2	2	12	G
1996	Value	13.7	8.71	15.43	6.57	0.86		
	Score	4	1	2	2	2	11	F
1995	Value	13.7	1.21	9.33	6.13	1.07		
	Score	4	1	1	2	2	10	F
1994	Value	13.7	5.70	13.86	7.00	1.29		
	Score	4	1	1	2	2	10	F
1993	Value	13.7	5.98	11.41	6.52	1.33		
	Score	4	1	1	2	2	10	F
1992	Value	13.7	9.10	24.42	8.75	1.31		
	Score	4	1	2	2	2	11	F
1991	Value	13.7	22.10	11.60	4.71	0.00		
	Score	4	2	1	2	0	9	F
1990	Value	13.7	17.52	10.20	4.90	1.10		
	Score	4	1	1	2	2	10	F

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Table 41. Population assessment for spotted bass based on spring electrofishing at Laurel River Lake from 1990-2007.

Year		Mean length age-3 at capture	Spring CPUE Age 1	Spring CPUE 11.0-13.9 in	Spring CPUE ≥14.0 in	Spring CPUE >17.0 in	Total Score	Assessement rating
2007	Value	10.4	0.83	10.67	2.00	0.00		
	Score	4	1	4	4	0	13	G
2006	Value	11.5	4.25	9.12	2.56	0.00		
	Score	4	2	4	4	0	14	G
2005	Value	11.5	1.52	7.67	3.67	0.00		
	Score	4	2	4	4	0	14	G
2004	Value	11.5	0.00	9.83	2.17	0.00		
	Score	4	0	4	4	0	12	G
2003	Value	11.5	2.26	10.17	0.83	0.00		
	Score	4	2	4	3	0	13	G
2002	Value	11.5	2.19	5.50	0.33	0.00		
	Score	4	2	3	3	0	12	G
2001	Value	11.5	5.96	8.27	0.13	0.00		
	Score	4	2	4	2	0	12	G
2000	Value	11.5	2.55	2.29	0.14	0.00		
	Score	4	2	3	2	0	11	F
1999	Value	11.5	1.54	5.60	0.40	0.00		
	Score	4	2	3	3	0	12	G
1998	Value	11.5	6.64	4.83	0.33	0.00		
	Score	4	2	3	3	0	12	G
1997	Value	11.5	1.64	7.45	0.69	0.00		
	Score	4	2	4	3	0	13	G
1996	Value	11.5	0.29	7.86	0.71	0.00		
	Score	4	1	4	3	0	12	G
1995	Value	11.5	1.18	9.87	0.00	0.00		
	Score	4	2	4	0	0	10	F
1994	Value	11.5	4.76	5.43	1.43	0.00		
	Score	4	2	3	3	0	12	G
1993	Value	11.5	1.21	5.33	0.59	0.15		
	Score	4	2	3	3	2	14	G
1992	Value	11.5	3.36	13.22	0.99	0.00		
	Score	4	2	4	3	0	13	G
1991	Value	11.5	3.99	12.68	0.00	0.00		
	Score	4	2	4	0	0	10	F
1990	Value	11.5	6.74	3.23	2.43	0.00		
	Score	4	2	3	4	0	13	G

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Table 42. Population assessment for smallmouth bass based on spring electrofishing at Laurel River Lake from 1990-2007.

Year		Mean length age-3 at capture	Spring CPUE Age 1	Spring CPUE 11.0-13.9 in	Spring CPUE ≥14.0 in	Spring CPUE >17.0 in	Total Score	Assessement rating
2007	Value	13.6	1.20	0.33	1.17	0.83		
	Score	4	3	2	4	4	17	E
2006	Value	13.6	0.38	0.16	0.96	0.32		
	Score	4	2	2	3	3	14	G
2005	Value	13.6	0.06	1.50	5.50	2.83		
	Score	4	1	3	4	4	16	G
2004	Value	13.6	0.40	0.67	1.17	0.00		
	Score	4	2	2	4	0	12	G
2003	Value	13.6	4.00	1.83	2.17	0.17		
	Score	4	4	3	4	2	17	E
2002	Value	13.6	6.04	2.17	0.67	0.17		
	Score	4	4	3	3	2	16	G
2001	Value	13.6	3.40	2.80	1.07	0.00		
	Score	4	4	4	4	0	16	G
2000	Value	13.6	0.88	1.29	0.57	0.14		
	Score	4	2	3	3	2	14	G
1999	Value	13.6	2.12	1.87	0.53	0.13		
	Score	4	3	3	3	2	15	G
1998	Value	13.6	12.67	0.67	0.67	0.50		
	Score	4	4	2	3	4	17	E
1997	Value	13.6	6.67	2.07	1.52	0.14		
	Score	4	4	3	4	2	17	E
1996	Value	13.6	0.14	2.86	0.43	0.00		
	Score	4	1	4	3	0	12	G
1995	Value	13.6	1.20	0.53	1.07	0.27		
	Score	4	3	2	4	3	16	G
1994	Value	13.6	3.36	1.29	0.71	0.29		
	Score	4	4	3	3	3	17	E
1993	Value	13.6	1.57	0.59	0.44	0.30		
	Score	4	3	2	3	3	15	G
1992	Value	13.6	1.89	1.47	0.15	0.00		
	Score	4	3	3	2	0	12	G
1991	Value	13.6	0.36	0.36	0.00	0.00		
	Score	4	2	2	0	0	8	F
1990	Value	13.6	8.63	1.35	1.35	0.54		
	Score	4	4	3	4	4	19	E

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Table 43. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Laurel River Lake during May 2007; 95% confidence limits are in parentheses.

Area	Species	No. >8.0 in	PSD (+/- 95%)	RSD[a] (+/- 95%)
Dam				
	Largemouth bass	81	88 (± 7)	63 (± 11)
	Spotted bass	55	56 (± 13)	15 (± 9)
	Smallmouth bass	10	20 (± 26)	20 (± 26)
Spruce Creek				
	Largemouth bass	56	93 (± 7)	57 (± 13)
	Spotted bass	25	56 (± 20)	8 (± 11)
	Smallmouth bass	11	55 (± 31)	36 (± 30)
Laurel River Arm				
	Largemouth bass	84	73 (± 10)	37 (± 10)
	Spotted bass	58	22 (± 11)	2 (± 3)
	Smallmouth bass	0		
Upper Craigs Creek				
	Largemouth bass	44	77 (± 13)	39 (± 15)
	Spotted bass	54	33 (± 13)	2 (± 4)
	Smallmouth bass	6	17 (± 33)	17 (± 33)
Total				
	Largemouth bass	265	82 (± 5)	49 (± 6)
	Spotted bass	192	40 (± 7)	6 (± 3)
	Smallmouth bass	27	33 (± 18)	26 (± 17)

[a]Largemouth bass = RSD_{15}, spotted and smallmouth bass = RSD_{14}

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Table 44. Mean back calculated lengths (in) at each annulus for spotted bass collected from Laurel River Lake during 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age								
Year	No.	1	2	3	4	5	6	7	8	9
2005	35	3.9	7.2							
2004	15	4.1	7.6	10.4						
2003	38	3.5	6.6	9.8	11.8					
2002	5	5.3	8.7	11.6	13.3	14.0				
2001	2	4.5	8.4	11.7	13.8	14.8	15.5			
2000	2	4.1	7.5	10.7	12.4	14.0	15.0	15.6		
1998	1	5.2	7.5	8.5	10.8	12.1	13.2	13.9	14.4	14.7
Mean		3.8	7.1	10.1	12.1	14.0	14.8	15.0	14.4	14.7
Number		98	98	63	48	10	5	3	1	1
Smallest		2.5	4.3	6.5	9.0	12.1	13.2	13.9	14.4	14.7
Largest		5.7	10.9	13.1	14.6	15.3	15.8	16.2	14.4	14.7
Std error		0.1	0.2	0.2	0.2	0.3	0.5	0.7		
95% CI ±		0.2	0.4	0.5	0.5	0.6	1.0	1.3		

Otoliths were used for age-growth determinations; Intercept = 0
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Table 45. Age-frequency and CPUE (fish/hr) of spotted bass collected during 6.0 hours of nocturnal electrofishing at Laurel River Lake in May 2007.

	Inch class																		Std
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total	%	CPUE	error
1	2	3														5	2.2	0.83	
2			2	6	25	31	25	4	6							99	43.0	16.50	(2.45)
3						4	13	2	6	7	12					44	19.1	7.33	(0.75)
4								15	11	20	9	13	4			72	31.3	12.00	(1.58)
5												3	1	1		5	2.2	0.83	(0.21)
6														2		2	0.9	0.33	(0.24)
7													1		1	2	0.9	0.33	(0.22)
9													1			1	0.4	0.17	(0.08)
Total	2	3	2	6	25	35	38	21	23	27	21	16	7	3	1	230	100.0	38.33	
%	0.9	1.3	0.9	2.6	10.9	15.2	16.5	9.1	10.0	11.7	9.1	7.0	3.0	1.3	0.4	97.8			

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Table 46. Population assessment for spotted bass collected from Laurel River Lake in May 2007.

Parameter	Actual value	Assessment score
Mean length age-3 at capture	10.4	4
Spring CPUE Age 1	0.83	1
Spring CPUE 11.0-13.9 in	10.70	4
Spring CPUE ≥14.0 in	2.00	4
Spring CPUE ≥17.0 in	0.00	0
Instantaneous mortality (Z)	0.446	
Annual mortality (A)	36.0	
Total score		13
Assessment rating		G

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Table 47. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 1.5 hours of 15-minute nocturnal electrofishing runs for black bass in Laurel River Lake on 5 September 2007; standard error is in parentheses.

		Inch class															
Area	Species	2	3	4	5	6	7	8	9	10	11	12	14	15	16	Total	CPUE
Laurel River Arm	Largemouth bass	1	6	2	7	9	16	17	2	2	1	4	1	1	1	70	46.70 (7.40)
	Spotted bass	3	30	7	9	20	5	3	3	5	7	1				93	62.00 (11.4)

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Table 48. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall (September and October) in electrofishing samples at Laurel River Lake.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2007 [a]	Laurel River Arm	3.5	0.12	5.30	4.58	0.00	0.00		
2006 [a]	Laurel River Arm	3.7	0.14	12.70	4.89	0.67	0.67	5.39 [c]	2.12
2005 [a]	Laurel River Arm	4.4	0.16	14.00	3.54	3.30	1.61	58.33 [b]	9.18
2004	Laurel River Arm	4.9	0.15	14.00	5.82	8.00	3.43	8.30	2.35
2003	Laurel River Arm	3.4	0.05	36.70	13.99	0.70	0.67	2.60	1.00
2002	Laurel River Arm	4.5	0.11	30.70	5.81	8.70	3.49	10.30	4.05

[a] Age-0 largemouth bass stocked in the fall

[b] Includes bass stocked in the previous fall; CPUE of fin-clipped bass=36.00 f/h

[c] Includes bass stocked in the previous fall; CPUE of fin-clipped bass=2.00 f/h

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Table 49. Number of fish and mean relative weight (Wr) for each length group of black bass collected at 312 Bridge in Laurel River Lake on 5 September 2007 Standard error is in parentheses.

Species	Length group					
	8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Largemouth bass	No.	Wr	No.	Wr	No.	Wr
	22	93 (2)	5	103 (3)	2	99 (8)
	7.0-10.9 in		11.0-13.9 in		≥14.0 in	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	16	102 (2)	8	105 (3)	0	-

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Table 50. Length frequency and CPUE (fish/nn) of walleye collected from Laurel River Lake in 8 net-nights in November 2007.

Species	Inch class															Total	CPUE	Std. error
	9	10	11	14	15	16	17	18	19	20	21	22	23	24	25			
Walleye	3	5	5	2	9	27	25	23	29	23	15	7	1	3	3	180	22.50	6.53

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Table 51. Population assessment for walleye based on fall gill netting at Laurel River Lake from 1990-2007.

Year		Parameters				Total Score	Assessment Rating
		CPUE >Age 1+	Mean length age 2+ at capture	CPUE ≥20.0 in	CPUE Age 1+		
2007	Value	21.63	19.1	6.50	8.25		
	Score	4	4	4	4	16	E
2005	Value	25.10	19.5	9.30	8.00		
	Score	4	4	4	4	16	E
2002	Value	10.60	18.8	0.60	6.10		
	Score	4	4	2	4	14	E
1993	Value	4.30	18.6	0.50	2.40		
	Score	3	4	1	3	11	G
1991	Value	3.70	18.6	0.80	0.50		
	Score	2	4	2	1	9	F
1990	Value	4.70	18.6	1.50	1.50		
	Score	3	4	3	2	12	G

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Table 52. Mean back calculated lengths (in) at each annulus for male walleye collected from Laurel River Lake during 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2006	32	11.2						
2005	12	11.4	16.2					
2004	17	10.1	16.0	18.2				
2003	10	11.2	16.3	18.2	19.5			
2002	3	11.3	16.0	18.5	19.9	21.0		
2001	2	10.6	14.9	17.5	18.8	19.9	21.0	
2000	1	9.9	14.5	16.0	17.4	19.5	20.6	21.3
Mean		11.0	16.0	18.1	19.3	20.4	20.9	21.3
Number		77	45	33	16	6	3	1
Smallest		6.1	12.7	16.0	17.4	19.5	20.6	21.3
Largest		13.5	17.7	19.9	21.1	22.2	21.3	21.3
Std error		0.2	0.2	0.2	0.2	0.4	0.2	
95% CI ±		0.4	0.4	0.4	0.5	0.8	0.5	

Otoliths were used for age-growth determinations; Intercept = 0
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Table 53. Mean back calculated lengths (in) at each annulus for female walleye collected from Laurel River Lake during 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2005	4	12.9	17.8					
2004	10	12.3	18.3	20.9				
2003	2	11.3	18.3	19.8	20.9			
2002	1	12.0	16.8	20.6	23.0	24.0		
2001	1	10.9	15.8	20.1	21.8	23.2	24.6	
2000	1	11.9	15.6	18.9	20.8	21.5	22.6	23.4
Mean		12.2	17.9	20.5	21.5	22.9	23.6	23.4
Number		19	19	15	5	3	2	1
Smallest		8.3	15.6	18.9	20.5	21.5	22.6	23.4
Largest		15.8	19.9	23.7	23.0	24.0	24.6	23.4
Std error		0.4	0.3	0.4	0.4	0.7	1.0	
95% CI ±		0.7	0.6	0.7	0.9	1.4	2.0	

Otoliths were used for age-growth determinations; Intercept = 0
sedaglrw.d07

Table 54. Mean back calculated lengths (in) at each annulus for walleye (both sexes) collected from Laurel River Lake during 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2006	45	11.1						
2005	18	11.3	16.4					
2004	28	11.0	16.9	19.2				
2003	12	11.2	16.6	18.5	19.7			
2002	4	11.4	16.2	19.1	20.7	21.8		
2001	3	10.7	15.2	18.3	19.8	21.0	22.2	
2000	2	10.9	15.1	17.4	19.1	20.5	21.6	22.3
Mean		11.1	16.5	18.9	19.8	21.2	22.0	22.3
Number		112	67	49	21	9	5	2
Smallest		6.1	12.7	16.0	17.4	19.5	20.6	21.3
Largest		15.8	19.9	23.7	23.0	24.0	24.6	23.4
Std error		0.2	0.2	0.2	0.3	0.5	0.8	1.0
95% CI ±		0.3	0.4	0.5	0.6	1.1	1.5	2.1

Otoliths were used for age-growth determinations; Intercept = 0
sedaglrw.d07

Table 55. Age-frequency and CPUE (fish/nn) of walleye gill netting for 8 net-nights at Laurel River Lake during November 2007. Standard error is in parentheses.

	Inch class																		
Age	9	10	11	14	15	16	17	18	19	20	21	22	23	24	25	Total	%	CPUE	
0	3	4	3													10	5.5	1.25	(0.63)
1		1	2	2	9	27	22	3								66	36.1	8.25	(1.80)
2							2	12	12	5	1					32	17.5	4.00	(1.58)
3							2	6	15	9	8	3		2	1	46	25.1	5.75	(2.22)
4								2	2	9	4	1				18	9.8	2.25	(0.82)
5										2		1	1		1	5	2.7	0.63	(0.20)
6											1	1			1	3	1.6	0.38	(0.19)
7												1		2		3	1.6	0.38	(0.13)
Total	3	5	5	2	9	27	26	23	29	25	14	7	1	4	3	183	100.0	22.88	
%	1.6	2.7	2.7	1.1	4.9	14.8	14.2	12.6	15.8	13.7	7.7	3.8	0.5	2.2	1.6				

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Table 56. Walleye population assessment for walleye gill netted at Laurel River Lake in November 2007.

Parameter	Actual value	Assessment score
Population density (CPUE age 1 and older)	21.63	4
Growth rate (Mean length age 2+ at capture)	19.1	4
Size structure (CPUE ≥20.0 in)	6.50	4
Recruitment (CPUE age 1)	8.25	4
Total score		16
Assessment rating		E
Instantaneous mortality (Z)	0.579	
Annual mortality (A)	43.9	

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Table 57. Number of fish and mean relative weight (Wr) for each length group of walleye collected in Laurel River Lake during November 2007. Standard error is in parentheses.

Length group					
10.0-14.9 in		15.0-19.9 in		≥20.0 in	
No.	Wr	No.	Wr	No.	Wr
12	89 (2)	113	92 (1)	47	92 (1)

sedgnlw.d07

Table 58. Length frequency and CPUE (fish/hr) of largemouth bass collected at Cedar Creek Lake in 3.5 hours (30-min runs) of nocturnal electrofishing on 3 May 2007.

		Inch class																			
Area	Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std. error
Lower	Largemouth bass	8	21	37	14	24	91	58	32	25	16	6	5	8	16	17	17	6	1	402	201.00	38.54
Upper	Largemouth bass		13	11	2	19	29	14	12	14	2	3	3	9	9	19	7	5		171	114.00	21.17
Total	Largemouth bass	8	34	48	16	43	120	72	44	39	18	9	8	17	25	36	24	11	1	573	163.71	28.24

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Table 59. PSD and RSD_{15} values obtained for largemouth bass taken in spring electrofishing samples in each area of Cedar Creek Lake on 3 May 2007; 95% confidence levels are in parentheses.

Area	No. ≥8.0 in	PSD	RSD_{15}
Lower	322	36 (± 5)	22 (± 5)
Upper	145	49 (± 8)	36 (± 8)
Total	467	40 (± 4)	26 (± 4)

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Table 60. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected from each section of Cedar Creek Lake on 3 May 2007. CPUE = fish/hr, number in parentheses are standard errors.

		Length group					
Year	Area	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	≥20.0 in	Total
2007	Lower	40.00	102.50	23.50	35.00	3.50	201.00
		(9.50)	(28.60)	(6.40)	(3.10	(0.50)	(38.50)
	Upper	17.33	49.30	12.67	34.67	3.33	114.00
		(13.50)	(8.70)	(2.70)	(3.30)	(1.30)	(21.20)
	Total	30.29	79.71	18.86	34.86	3.43	163.70
		(8.50)	(19.00)	(4.20)	(2.10)	(0.60)	(28.20)
2006	Lower	33.00	76.00	6.00	37.00		152.00
		(9.90)	(23.40)	(2.50)	(5.90)		(36.30)
	Upper	12.00	30.00	7.33	28.67	0.67	78.00
		(3.10)	(1.20)	(1.80)	(2.70)	(0.70)	(4.20)
	Total	24.00	56.30	6.57	33.43	0.29	120.30
		(6.90)	(15.60)	(1.50)	(3.70)	(0.30)	(24.50)
2005	Lower	122.00	19.00	38.50	56.50		236.00
		(11.40)	(7.00)	(5.70)	(12.30)		(25.00)
	Upper	23.33	4.67	18.67	40.00		86.67
		(9.30)	(1.80)	(0.70)	(7.20)		(12.90)
	Total	79.70	12.86	30.00	49.40		172.00
		(21.10)	(4.80)	(5.10)	(7.90)		(33.40)
2004	Lower	37.80	38.30	68.70	6.50		151.30
		(7.30)	(5.70)	(15.10)	(3.10)		(22.50)
	Upper	11.30	28.00	84.70	6.00		130.00
		(3.50)	(7.20)	(11.70)	(2.00)		(24.10)
	Total	27.90	34.50	74.70	6.30		143.30
		(6.60)	(4.60)	(10.20)	(2.00)		(16.10)
2003	Lower	134.40	8.80	19.60	0.80		163.60
		(8.50)	(2.90)	(3.30)	(0.50)		(11.70)
	Upper	218.00	18.70	13.30			250.00
		(51.30)	(9.80)	(2.40)			(54.00)
	Total	165.80	12.50	17.30	0.50		196.00
		(23.30)	(4.10)	(2.40)	(0.30)		(24.70)

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Table 61. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Cedar Creek Lake during 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age				
Year	No.	1	2	3	4	5
2006	25	6.0				
2005	33	6.2	9.5			
2004	11	5.5	8.9	12.0		
2003	31	5.2	8.6	11.7	13.8	
2002	18	7.1	13.6	16.2	17.5	18.6
Mean		6.0	9.9	13.1	15.2	18.6
Number		118	93	60	49	18
Smallest		3.4	4.8	7.1	8.9	16.5
Largest		9.8	15.0	17.6	19.1	20.5
Std error		0.1	0.2	0.3	0.4	0.3
95% CI ±		0.3	0.5	0.7	0.7	0.5

Otoliths were used for age-growth determinations; Intercept = 0
bbrscccl.d07

Table 62. Age-frequency and CPUE (fish/hr) of largemouth bass collected during 3.5 hours of nocturnal electrofishing at Cedar Creek Lake in May 2007.

	Inch class																					Std
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	error
1	8	34	48	3															93	16.2	26.57	(7.43)
2				13	38	109	58	13	4										235	40.9	67.14	(15.40)
3						11	14	9	16	7									57	9.9	16.29	(3.87)
4					5			22	20	11	9	8	14	4					93	16.2	26.57	(4.52)
5													3	21	36	24	11		95	16.6	27.14	(1.97)
Not aged																		1	1	0.2	0.29	
	8	34	48	16	43	120	72	44	40	18	9	8	17	25	36	24	11	1	574	100.0	164.00	
%	1.4	5.9	8.4	2.8	7.5	20.9	12.5	7.7	7.0	3.1	1.6	1.4	3.0	4.4	6.3	4.2	1.9	0.2	100.0			

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bbrscccl.d07

Table 63. Population assessment for largemouth bass collected from Cedar Creek Lake in May 2007.

Parameter	Actual value	Assessment score
Mean length age-3 at capture	12.0	4
Spring CPUE Age 1	26.57	2
Spring CPUE 12.0-14.9 in	18.90	1
Spring CPUE ≥15.0 in	34.90	4
Spring CPUE ≥20.0 in	3.40	3
Instantaneous mortality (Z)	0.089	
Annual mortality (A)	8.5	
Total score		14
Assessment rating		G

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Table 64. Length-frequency and CPUE (fish/hr) of largemouth bass collected during 3.5 hours of nocturnal electrofishing (2.0 hours in lower end; 1.5 hours upper end) (30 minute runs) at Cedar Creek Lake on 8 September 2007; standard error is in parentheses.

	Inch class																			
Area	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Lower	8	49	28	10	44	70	28	18	19	8	7	3	1	3		4	2	1	303	151.50 (21.25)
Upper	7	43	40	28	26	57	35	29	13	4	3	1	1	1	1	1		1	291	194.00 (26.63)
Total	15	92	68	38	70	127	63	47	32	12	10	4	2	4	1	5	2	2	594	169.71 (17.44)

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Table 65. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall (September and October) in electrofishing samples at Cedar Creek Lake.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2007	5.4	0.04	32.86	7.82	28.57	6.60		
2006	4.7	0.05	43.71	11.31	17.71	5.28	26.57	7.43
2005	4.8	0.06	55.70	9.51	28.00	7.73	23.14	6.69
2004	4.8	0.04	17.40	3.10	12.90		1.70	

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Table 66. Number of fish and mean relative weight (Wr) for each length group of largemouth bass collected in Cedar Creek on 8 September 2007. Standard error is in parentheses.

		Length group					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Species	Area	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Lower	160	84 (1)	34	91 (2)	14	105 (4)
	Upper	147	85 (1)	20	84 (5)	6	106 (4)
	Total	307	85 (1)	54	89 (2)	20	105 (3)

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Table 67. Length frequency and CPUE (fish/hr) of largemouth bass collected at Laurel Creek Reservoir in 2.0 hours (15-min runs) of nocturnal electrofishing on 24 April 2007.

	Inch class												
Species	4	5	6	8	9	10	11	12	13	22	Total	CPUE	Std. error
Largemouth bass	1	3	4	4	24	55	127	44	4	2	268	134.00	11.49

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Table 68. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Laurel Creek Reservoir on 24 April 2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Species	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
Largemouth bass	4.00	1.07	105.00	9.64	24.00	3.21	1.00	1.00	1.00	1.00	134.00	11.49

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Table 69. PSD and RSD_{15} values obtained for largemouth bass taken in spring electrofishing samples in Laurel Creek Reservoir on 24 April 2007; 95% confidence levels are in parentheses.

Year	No. ≥8.0 in	PSD	RSD_{15}
2007	260	19 (± 5)	1 (± 1)

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Table 70. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Laurel Creek Reservoir during 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age												
Year	No.	1	2	3	4	5	6	7	8	9	10	11	12	13
2006	4	6.6												
2005	13	5.4	9.2											
2004	13	6.0	9.3	11.0										
2003	3	5.1	9.1	11.0	11.9									
2002	10	5.6	8.6	10.4	11.3	11.9								
2001	3	4.9	8.4	10.8	11.7	12.4	13.0							
2000	3	5.9	8.7	10.6	11.4	12.0	12.5	13.0						
1999	1	3.8	7.3	9.4	10.4	10.6	10.9	11.6	12.4					
1994	1	7.8	10.7	13.2	14.9	16.1	16.9	17.8	18.6	19.4	20.2	20.6	21.1	21.9
Mean		5.7	9.0	10.8	11.6	12.2	13.0	13.7	15.5	19.4	20.2	20.6	21.1	21.9
Number		51	47	34	21	18	8	5	2	1	1	1	1	1
Smallest		3.8	7.3	8.9	10.0	10.6	10.9	11.6	12.4	19.4	20.2	20.6	21.1	21.9
Largest		7.8	10.7	13.2	14.9	16.1	16.9	17.8	18.6	19.4	20.2	20.6	21.1	21.9
Std error		0.1	0.1	0.1	0.2	0.3	0.6	1.1	3.1					
95% CI ±		0.3	0.2	0.3	0.4	0.6	1.2	2.1	6.1					

Otoliths were used for age-growth determinations; Intercept = 0
sedaglcr.d07

Table 71. Age-frequency and CPUE (fish/hr) of largemouth bass collected during 2.0 hours of nocturnal electrofishing at Laurel Creek Reservoir in McCreary County on the 24 April 2007.

	Inch class													Std
Age	4	5	6	8	9	10	11	12	13	22	Total	%	CPUE	error
1	1	3	4								8	3.0	4.00	(1.10)
2				4	24						28	10.5	14.00	(2.14)
3						47	68				115	43.1	57.50	(5.73)
4							20	4			24	9.0	12.00	(0.91)
5						8	39	22			69	25.8	34.50	(2.71)
6								9	1		10	3.7	5.00	(0.69)
7								4	3		7	2.6	3.50	(0.75)
8								4			4	1.5	2.00	(0.31)
13										2	2	0.7	1.00	(1.00)
	1	3	4	4	24	55	127	43	4	2	267	100.0	133.50	
%	0.4	1.1	1.5	1.5	9.0	20.6	47.6	16.1	1.5	0.7	100.0			

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sedaglcr.d07

Table 72. Population assessment for largemouth bass collected from Laurel Creek Reservoir in April 2007.

Parameter	Actual value	Assessment score
Mean length age-3 at capture	11.0	3
Spring CPUE Age 1	4.00	1
Spring CPUE 12.0-14.9 in	24.00	2
Spring CPUE ≥15.0 in	1.00	1
Spring CPUE ≥20.0 in	1.00	2
Instantaneous mortality (Z)	0.337	
Annual mortality (A)	28.6	
Total score		9
Assessment rating		F

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Table 73. Length frequency and CPUE (fish/hr) of largemouth bass collected at Liberty Lake in 1.75 hours (15-min runs) of nocturnal electrofishing on 23 April 2007.

	Inch class																			
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	20	21	Total	CPUE	Std. error
Largemouth bass	31	113	109	56	10	1	64	57	55	23	4	1	3	1	1	1	1	531	303.43	31.37

sedpsdlb.d07

Table 74. PSD and RSD_{15} values obtained for largemouth bass taken in spring electrofishing samples in Liberty Lake on 23 April 2007; 95% confidence levels are in parentheses.

Year	No. ≥8.0 in	PSD	RSD_{15}
2007	222	41 (± 6)	4 (± 2)

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Table 75. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Liberty Lake on 23 April 2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	176.57	30.10	75.43	11.40	46.86	6.15	4.57	1.36	1.14	0.74	303.43	31.37

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Table 76. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Liberty Lake during spring 2007, including the 95 % confidence interval (CI) for each mean length per age group.

		Age									
Year	No.	1	2	3	4	5	6	7	8	9	10
2006	39	6.7									
2005	18	6.8	10.8								
2004	15	7.1	10.9	12.6							
2003	9	6.1	10.5	12.1	13.3						
2002	7	7.0	10.7	12.7	14.2	15.3					
2000	2	5.8	9.5	12.5	14.6	15.9	17.3	17.8			
1998	1	9.2	12.1	14.5	16.5	17.9	18.9	19.8	20.8	21.3	
1997	1	5.7	10.2	11.7	13.3	15.2	16.7	17.4	18.6	19.3	19.7
Mean		6.7	10.7	12.5	13.9	15.6	17.6	18.2	19.7	20.3	19.7
Number		92	53	35	20	11	4	4	2	2	1
Smallest		4.7	8.9	10.9	11.7	12.6	16.3	16.8	18.6	19.3	19.7
Largest		9.2	12.5	15.1	16.5	17.9	18.9	19.8	20.8	21.3	19.7
Std error		0.1	0.1	0.2	0.3	0.5	0.6	0.7	1.1	1.0	
95% CI ±		0.3	0.2	0.3	0.6	1.0	1.3	1.4	2.2	1.9	

Otoliths were used for age-growth determinations; Intercept = 0
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Table 77. Age-frequency and CPUE (fish/hr) of largemouth bass collected during 1.75 hours of nocturnal electrofishing at Liberty Lake in Casey county on 23 April 2007.

	Inch class																			Std
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	21	Total	%	CPUE	error
1	31	113	109	56	10												319	60.0	182.29	(31.62)
2						1	64	43									108	20.3	61.71	(9.18)
3								10	43	8							61	11.5	34.86	(4.17)
4								5	8	15	1						29	5.5	16.57	(2.57)
5									4		3	1	2	1			11	2.1	6.29	(1.16)
7													2				2	0.4	1.14	(0.40)
9																1	1	0.2	0.57	(0.57)
10															1		1	0.2	0.57	(0.57)
Total	31	113	109	56	10	1	64	58	55	23	4	1	4	1	1	1	532	100.0	304.00	
%	5.8	21.2	20.5	10.5	1.9	0.2	12.0	10.9	10.3	4.3	0.8	0.2	0.8	0.2	0.2	0.2	100.0			

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Table 78. Population assessment for largemouth bass collected from Liberty Lake in April 2007.

Parameter	Actual value	Assessment score
Mean length age-3 at capture	12.6	4
Spring CPUE Age 1	182.29	4
Spring CPUE 12.0-14.9 in	46.86	3
Spring CPUE ≥15.0 in	4.57	2
Spring CPUE ≥20.0 in	1.14	2
Instantaneous mortality (Z)	0.628	
Annual mortality (A)	46.6	
Total score		15
Assessment rating		G

sedpsdlb.d07

Table 79. Length frequency and CPUE (fish/hr) of black bass collected at Lake Linville in 2.5 hours (15-min runs) of nocturnal electrofishing on 30 April 2007.

	Inch class																						
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std. error
Largemouth bass		19	59	20	18	94	97	37	26	11	11	11	9	18	8	9	8	8	3	1	467	186.80	32.01
Spotted bass	5	43	58	35	49	48	37	27	23	8	7	3	1		1						345	138.00	36.50
Smallmouth bass	1	2	1	1	1		1	2													9	3.60	1.73

sedpsdll.d07

Table 80. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Lake Linville on 30 April 2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	46.40	15.68	101.60	19.64	13.20	1.89	25.60	3.59	4.80	2.05	186.80	32.00
2006	10.00	2.50	47.30	12.60	22.00	4.00	10.00	2.30	2.70	1.30	89.30	11.20

sedpsdll.d07

Table 81. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of spotted bass collected at Lake Linville on 30 April 2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	76.00	26.00	44.80	10.40	15.20	4.45	2.00	1.23	0.40	0.40	138.00	36.50
2006	24.00	7.00	35.30	7.10	10.00	2.70	2.00	1.40	0.00	0.00	71.30	14.50

sedpsdll.d07

Table 82. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Lake Linville on 30 April 2007; 95% confidence limits are in parentheses.

Species	No. fish ≥stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Largemouth bass	351	28 (± 5)	18 (± 4)
Spotted bass	204	21 (± 6)	2 (± 2)

[a]Largemouth bass = RSD_{15}, spotted bass = RSD_{14}

sedpsdll.d07

Table 83. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Lake Linville during spring 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age												
Year	No.	1	2	3	4	5	6	7	8	9	10	11	12	13
2006	14	6.1												
2005	26	5.2	8.5											
2004	21	6.0	9.3	11.1										
2003	11	5.8	10.5	12.4	13.7									
2002	32	6.7	9.6	12.0	13.5	14.5								
2001	3	6.4	10.4	12.1	13.7	15.0	15.7							
2000	7	7.6	11.2	14.1	15.5	16.7	17.5	18.2						
1999	4	6.1	10.7	12.7	14.6	15.7	16.9	17.7	18.2					
1998	4	7.1	10.8	13.2	14.8	15.9	16.9	17.7	18.4	18.9				
1997	2	6.4	10.1	12.4	14.2	15.7	17.3	18.3	18.9	19.6	20.2			
1996	1	4.2	10.6	15.2	17.1	18.1	18.7	19.7	20.3	20.6	21.0	21.6		
1994	1	6.5	10.0	13.1	15.6	17.1	18.0	19.0	19.6	20.5	21.2	21.8	22.1	22.4
Mean		6.2	9.6	12.2	14.0	15.2	17.1	18.1	18.7	19.5	20.6	21.7	22.1	22.4
Number		126	112	86	65	54	22	19	12	8	4	2	1	1
Smallest		4.0	7.1	8.9	10.7	11.3	14.4	14.8	15.4	18.6	20.0	21.6	22.1	22.4
Largest		9.0	13.4	15.9	17.1	18.2	18.8	19.7	20.3	20.6	21.2	21.8	22.1	22.4
Std error		0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.1		
95% CI ±		0.2	0.2	0.4	0.4	0.5	0.6	0.6	0.7	0.5	0.5	0.2		

Otoliths were used for age-growth determinations; Intercept = 0
sedagll.d07

Table 84. Age-frequency and CPUE (fish/hr) of largemouth bass collected during 2.5 hours of nocturnal electrofishing at Lake Linville in Rockcastle County on the 30 April 2007.

	Inch class																						Std
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	error
1	19	59	20																	98	21.1	39.20	
2				18	85	73	4													180	38.7	72.00	(17.32)
3					9	24	29	12	6		1									81	17.4	32.40	(4.76)
4							4	5		5	1	1	5							21	4.5	8.40	(0.99)
5								9	5	6	7	5	13	4						49	10.5	19.60	(1.76)
6											1	1		1						3	0.6	1.20	(0.20)
7												1		3	2	3				9	1.9	3.60	(0.93)
8												1			2	2				5	1.1	2.00	(0.45)
9															5	2				7	1.5	2.80	(0.58)
10																	8			8	1.7	3.20	(1.55)
11																		3		3	0.6	1.20	(0.61)
13																			1	1	0.2	0.40	(0.40)
Total	19	59	20	18	94	97	37	26	11	11	10	9	18	8	9	7	8	3	1	465	100.0	186.00	
%	4.1	12.7	4.3	3.9	20.2	20.9	8.0	5.6	2.4	2.4	2.2	1.9	3.9	1.7	1.9	1.5	1.7	0.6	0.2	100.0			

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sedagll.d07

Table 85. Population assessment for largemouth bass collected from Lake Linville in April 2007.

Parameter	Actual value	Assessment score
Mean length age-3 at capture	11.1	3
Spring CPUE Age 1	39.20	2
Spring CPUE 12.0-14.9 in	13.20	1
Spring CPUE ≥15.0 in	25.60	3
Spring CPUE ≥20.0 in	4.80	4
Instantaneous mortality (Z)	0.371	
Annual mortality (A)	31.0	
Total score		13
Assessment rating		G

sedpsdll.d07

Table 86. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 2.75 hours of 15-minute nocturnal electrofishing runs for black bass in Lake Linville on 24 September 2007; standard error is in parentheses.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	21	Total	CPUE
Largemouth bass	12	66	46	14	56	125	68	52	33	13	3	5	2	3	1	1	500	181.80 (36.10)
Spotted bass	36	68	55	92	102	45	42	14	12	4	2	1					473	172.00 (30.60)
Smallmouth bass	2	7	1	11	18	1				1							41	14.90 (4.00)

sedyoyll.d07

Table 87. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall (September) in electrofishing samples at Lake Linville.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2007	4.8	0.05	45.80	14.90	17.45	7.20		
2006	5.1	0.05	84.00	33.50	48.00	19.80	39.20	
2005	4.4	0.16	20.70	9.82	6.00	2.00	6.53	1.42

sedyoyll.d07

Table 88. Number of fish and mean relative weight (Wr) for each length group of black bass collected in Lake Linville on 24 September 2007. Standard error is in parentheses.

Species	Length group					
	8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Largemouth bass	No.	Wr	No.	Wr	No.	Wr
	109	87 (1)	7	88 (4)	1	86 (-)
	7.0-10.9 in		11.0-13.9 in		≥14.0 in	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	82	88 (1)	8	86 (3)	1	86 (-)

sedyoyll.d07

Table 89. Length frequency and CPUE (fish/nn) for each species of crappie collected at Lake Linville in 21 net-nights during October 2007.

Species	Inch class									Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11			
White crappie	1	1			2	2	9	3	1	19	0.90	0.24
Black crappie			1	1						2	0.10	0.07

sedtnll.d07

Table 90. PSD and RSD_{10} values calculated for crappie collected in trapnets at Lake Linville in October 2007; 95% confidence limits are in parentheses.

Species	No. ≥5.0 in	PSD	RSD_{10}
White crappie	17	88 (± 16)	24 (± 21)
Black crappie	2	0	0

sedtnll.d07

Table 91. Mean back calculated lengths (in) at each annulus for white crappie collected from Lake Linville during 2007, including the 95%confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2006	4	3.6						
2005	5	4.8	8.0					
2004	6	4.3	7.5	8.9				
2002	2	4.6	7.5	8.9	9.7	10.4		
2000	1	4.9	7.7	8.8	9.4	10.0	10.3	10.7
Mean		4.4	7.7	8.9	9.6	10.3	10.3	10.7
Number		18	14	9	3	3	1	1
Smallest		2.6	6.5	8.2	9.4	10.0	10.3	10.7
Largest		5.6	8.6	9.8	9.9	10.8	10.3	10.7
Std error		0.2	0.2	0.1	0.1	0.3		
95% CI ±		0.4	0.4	0.3	0.3	0.5		

Otoliths were used for age-growth determinations; Intercept = 0
sedagllc.d07

Table 92. Mean back calculated lengths (in) at each annulus for black crappie collected from Lake Linville during 2007, including the 95%confidence interval (CI) for each mean length per age group.

Year	No.	Age 1
2006	2	3.0
Mean		3.0
Number		2
Smallest		2.8
Largest		3.2
Std error		0.2
95% CI ±		0.4

Otoliths were used for age-growth determinations; Intercept = 0
sedagllc.d07

Table 93. Age-frequency and CPUE (fish/nn) of white crappie trap-netted at Lake Linville in 21 net-nights in October 2007.

	Inch class										Std
Age	3	4	7	8	9	10	11	Total	%	CPUE	error
0	1							1	5.3	0.05	0.05
1+		1	2	1				4	21.1	0.19	0.08
2+				1	4			5	26.3	0.24	0.06
3+					5	1		6	31.6	0.29	0.08
5+						1	1	2	10.5	0.10	0.08
7+						1		1	5.3	0.05	0.03
Total	1	1	2	2	9	3	1	19	100.0	0.90	
%	5.3	5.3	10.5	10.5	47.4	15.8	5.3				

CPUE of >8.0 in (quality size) crappie = 0.71 fish/nn
CPUE of >10.0 in (preferred size) crappie = 0.19 fish/nn
sedtnll.d07
sedagllc.d07

Table 94. Age-frequency and CPUE (fish/nn) of black crappie trap-netted at Lake Linville in 21 net-nights in October 2007.

	Inch class					Std
Age	5	6	Total	%	CPUE	error
1+	1	1	2	100.0	0.10	0.07
Total	1	1	2	100.0	0.10	
%	50.0	50.0				

CPUE of >8.0 in (quality size) crappie = 0.00 fish/nn
CPUE of >10.0 in (preferred size) crappie = 0.00 fish/nn
sedtnll.d07
sedagllc.d07

Table 95. Population assessment for white, black, and white and black crappie combined from Lake Linville trapnet data collected in October 2007.

Parameter	Species					
	White Crappie		Black crappie		Combined	
	Assessment value	Assessment score	Assessment value	Assessment score	Assessment value	Assessment score
CPUE of crappie (excluding age 0)	0.86	1	0.10	1	0.96	1
CPUE age 1	0.19	1	0.10	1	0.29	1
CPUE age 0	0.05	1	0.00	0	0.05	1
CPUE ≥8.0 in	0.71	1	0.00	0	0.71	1
Mean length age-2 at capture	9.38	3	NA	0	9.38	3
Instantaneous mortality (Z)	0.256		NA		0.292	
Annual mortality (A)	22.6		NA		25.4	
Total score:		7		2		7
Assessment rating:		P		P		P

sedtnll.d07
sedagllc.d07

Table 96. Number of fish and mean relative weight (Wr) for each length group of crappie collected in Lake Linville in October 2007. Standard error is in parentheses.

	Length group					
	5.0-7.9 in		8.0-9.9 in		≥10.0 in	
Species	No.	Wr	No.	Wr	No.	Wr
White Crappie	2	81 (1)	11	79 (1)	4	75 (1)
Black Crappie	2	96 (8)	0	-	0	-

sedtnll.d07

Table 97. Length frequency and CPUE (fish/hr) of black bass collected at Stanford Reservoir in 1.125 hours (7.5-min runs) of nocturnal electrofishing on 23 April 2007.

	Inch class																		
Species	3	4	5	6	7	8	9	10	11	12	13	14	18	19	21	22	Total	CPUE	Std. error
Largemouth bass	1	9	2	4	30	47	14	9	56	56	14	1	1	1	1	1	247	219.56	21.59

sedpsdsr.d07

Table 98. PSD and RSD_{15} values obtained for black bass taken in spring electrofishing samples in Stanford Reservoir on 23 April 2007; 95% confidence levels are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	201	37 (± 7)	2 (± 2)

sedpsdsr.d07

Table 99. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of black bass collected at Stanford Reservoir on 23 April 2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9		≥15.0 in		≥20.0 in		Total	
Species	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
Largemouth bass	40.89	7.59	112.00	13.06	63.11	6.86	3.56	1.94	1.78	1.18	219.56	21.59

sedpsdsr.d07

Table 100. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Stanford Reservoir during spring 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age												
Year	No.	1	2	3	4	5	6	7	8	9	10	11	12	13
2005	39	4.9	8.2											
2004	3	4.7	8.8	10.4										
2003	22	4.6	8.7	10.8	11.8									
2002	7	5.2	8.4	11.1	12.0	12.7								
2001	1	4.7	9.0	10.7	12.0	12.7	13.0							
2000	3	4.2	7.3	9.9	11.4	12.2	12.9	13.4						
1999	1	4.3	7.5	9.5	11.1	11.8	12.4	12.8	13.1					
1998	1	6.3	10.7	12.6	14.2	15.8	17.4	18.3	19.0	19.6				
1996	1	4.9	10.3	12.2	13.4	15.2	16.4	17.6	19.5	20.1	20.7	21.3		
1995	1	6.0	8.2	9.3	10.4	12.1	13.7	14.3	15.4	16.5	17.0	17.6	18.1	
1994	1	4.7	8.5	11.5	13.2	14.5	15.8	17.5	19.2	19.6	20.5	21.3	21.8	22.2
Mean		4.8	8.4	10.8	11.9	13.0	14.2	15.1	17.2	18.9	19.4	20.1	19.9	22.2
Number		80	80	41	38	16	9	8	5	4	3	3	2	1
Smallest		3.2	6.0	9.3	10.4	11.4	12.4	12.8	13.1	16.5	17.0	17.6	18.1	22.2
Largest		7.0	10.7	12.6	14.2	15.8	17.4	18.3	19.5	20.1	20.7	21.3	21.8	22.2
Std error		0.1	0.1	0.1	0.1	0.3	0.6	0.8	1.3	0.8	1.2	1.3	1.8	
95% CI ±		0.2	0.3	0.3	0.3	0.6	1.2	1.6	2.5	1.7	2.4	2.5	3.6	

Otoliths were used for age-growth determinations; Intercept = 0
sedagsr.d07

Table 101. Age-frequency and CPUE (fish/hr) of largemouth bass collected during 1.125 hours of nocturnal electrofishing at Stanford Reservoir in Lincoln County on the 23 April 2007.

	Inch class																			Std
Age	3	4	5	6	7	8	9	10	11	12	13	14	18	19	21	22	Total	%	CPUE	error
1	1	9	2														12	4.9	10.67	
2				4	30	47	13	4									98	39.8	87.11	(11.40)
3							1	1	4								6	2.4	5.33	(0.95)
4								4	47	36	2						89	36.2	79.11	(8.65)
5									4	15	4	1					24	9.8	21.33	(2.22)
6											2						2	0.8	1.78	(0.43)
7										5	4						9	3.7	8.00	(0.93)
8											2						2	0.8	1.78	(0.43)
9														1			1	0.4	0.89	(0.89)
11															1		1	0.4	0.89	(0.89)
12													1				1	0.4	0.89	(0.89)
13																1	1	0.4	0.89	(0.89)
Total	1	9	2	4	30	47	14	9	55	56	14	1	1	1	1	1	246	100.0	218.67	
%	0.4	3.7	0.8	1.6	12.2	19.1	5.7	3.7	22.4	22.8	5.7	0.4	0.4	0.4	0.4	0.4	100.0			

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sedagsr.d07

Table 102. Population assessment for largemouth bass collected from Stanford Reservoir in April 2007.

Parameter	Actual value	Assessment score
Mean length age-3 at capture	10.5	2
Spring CPUE Age 1	10.67	1
Spring CPUE 12.0-14.9 in	63.11	4
Spring CPUE ≥15.0 in	3.56	1
Spring CPUE ≥20.0 in	1.78	2
Instantaneous mortality (Z)	0.301	
Annual mortality (A)	26.0	
Total score		10
Assessment rating		F

sedpsdsr.d07

Table 103. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 3.0 hours of 15-minute nocturnal electrofishing runs for black bass in Wood Creek Lake on 1 May 2007; standard error is in parentheses.

		Inch class																					
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	23	Total	CPUE
Dam	Largemouth bass			1			2	1	9	13	8	2	1	2	1	2	5	2		1	1		51	51.00 (9.15)
	Spotted bass	1		1	1	5	6	13	4	4	1	2	3	2	1								44	44.00 (5.16)
	Smallmouth bass		2			1		2							2						1		8	8.00 (3.65)
Pump	Largemouth bass			2	1	3	2	5	19	20	4	2	3		6	3	3	5	5	1			84	84.00 (18.40)
Station	Spotted bass			3		7	13	16	9	4	4	3	2										61	61.00 (18.06)
	Smallmouth bass																						0	0.00 (0.00)
Dock	Largemouth bass			2	6	1		7	30	24	11	4	3	1	3	6	6	2	1			1	108	108.00 (27.47)
	Spotted bass			1	1	2	3	5	4	3	1		4	1	1								26	26.00 (8.08)
	Smallmouth bass																						0	0.00 (0.00)
Total	Largemouth bass			5	7	4	4	13	58	57	23	8	7	3	10	11	14	9	6	2	1	1	243	81.00 (12.52)
	Spotted bass	1		5	2	14	22	34	17	11	6	5	9	3	2								131	43.67 (7.52)
	Smallmouth bass		2			1		2							2						1		8	2.67 (1.58)

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Table 104. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Wood Creek Lake on 1 May 2007; 95% confidence limits are in parentheses.

Area	Species	No. ≥stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Dam				
	Largemouth bass	48	35 (± 14)	25 (± 12)
	Spotted bass	36	25 (± 14)	8 (± 9)
Pump Station				
	Largemouth bass	76	37 (± 11)	30 (± 10)
	Spotted bass	51	18 (± 11)	0
Dock				
	Largemouth bass	99	27 (± 9)	19 (± 8)
	Spotted bass	22	32 (± 20)	9 (± 12)
Total				
	Largemouth bass	223	32 (± 6)	24 (± 6)
	Spotted bass	109	23 (± 8)	5 (± 4)

[a]Largemouth bass = RSD_{15}, spotted bass = RSD_{14}

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Table 105. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Wood Creek Lake during May 2007. CPUE = fish/hr.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	6.67	2.27	50.33	8.49	6.00	1.15	18.00	3.32	1.33	0.57	81.00	12.52
2006	30.30	7.00	24.30	6.20	10.00	2.10	20.70	5.00	2.00	1.00	85.30	17.50
2005	4.00	2.00	14.40	3.60	28.00	4.40	12.80	2.30	0.00	0.00	59.20	9.30

sedpsdwc.d07

Table 106. Spring electrofishing catch-per-unit-effort (CPUE; fish/hr) for each length group of spotted bass collected at Wood Creek Lake during May 2007.

	Length group									
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2007	14.67	3.86	20.67	3.84	6.67	1.58	1.67	1.04	43.67	7.52
2006	13.70	2.70	14.00	2.80	10.30	2.20	3.30	1.00	41.30	6.00
2005	8.80	2.90	13.60	5.50	15.20	2.80	4.40	1.30	42.00	10.20

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Table 107. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 3.0 hours of 15-minute nocturnal electrofishing runs for black bass in Wood Creek Lake on 18 September 2007; standard error is in parentheses.

Area	Species	Inch class																			Total	CPUE
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Dam	Largemouth bass						2	3		5	7	2									19	19.00 (3.00)
	Spotted bass			3		1	1	6	7	4		2									24	24.00 (1.63)
	Smallmouth bass				1	4	3														8	8.00 (5.66)
	Walleye											1	1								2	2.00 (1.15)
Pump station	Largemouth bass		2				8	2	3	9	8	1			1	2		1		1	38	38.00 (2.58)
	Spotted bass	22	7		3	3	3	5	10	3	3	2									61	61.00 (22.77)
	Smallmouth bass						1														1	1.00 (1.00)
	Walleye												3								3	3.00 (1.91)
Dock	Largemouth bass	1	12	17	8	1	6	20	14	13	15	3	2		1		1	1	1		116	116.00 (43.11)
	Spotted bass	6	26	11	4	7	7	4	9	6	2	1		1							84	84.00 (15.58)
	Smallmouth bass																				0	0.00 (-)
	Walleye												2					2			4	4.00 (2.83)
Total	Largemouth bass	1	14	17	8	1	16	25	17	27	30	6	2		2	2	1	2	1	1	173	57.67 (18.18)
	Spotted bass	28	33	14	7	11	11	15	26	13	5	5		1							169	56.33 (11.18)
	Smallmouth bass				1	4	4														9	3.00 (2.04)
	Walleye											1	6					2			9	3.00 (1.11)

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Table 108. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall (September and October) electrofishing samples at Wood Creek Lake.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year Class	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2007	4.2	0.13	13.33	7.59	2.67	1.24		
2006 [a]	4.4	0.27	3.70	1.74	0.70	0.45	5.33[b]	2.38
2005	4.0	0.09	23.70	11.90	3.33	1.38	11.83	4.37
2004	4.2	0.13	17.90	4.78	4.30	1.46	2.40	1.22

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[a] Age-0 largemouth bass stocked in the fall

[b] Includes stocked fish; CPUE stocked fish=0.33 fish/hr

Table 109. Number of fish and mean relative weight (Wr) for each length group of black bass collected at Wood Creek Lake during 18 September 2007. Standard error is in parentheses.

Species	Length group					
	8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Largemouth bass	No.	Wr	No.	Wr	No.	Wr
	99	84 (1)	8	82 (3)	9	91 (5)
	7.0-10.9 in		11.0-13.9 in		≥14.0 in	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	64	94 (4)	9	91 (6)	1	92 (-)

sedyoywc.d07

Table 110. Length frequency and CPUE (fish/nn) for each species of crappie collected at Wood Creek Lake in 24 net-nights during October 2007.

	Inch class												
Species	2	3	4	5	6	7	8	9	10	13	Total	CPUE	Std. error
White crappie	3	74	2	63	38	64	30	4	3	1	282	11.75	2.22
Black crappie	2	5	1	3	1		1				13	0.54	0.16

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Table 111. PSD and RSD_{10} values calculated for crappie collected in trapnets at Wood Creek Lake in October 2007; 95% confidence limits are in parentheses.

Species	No. >5.0 in	PSD	RSD_{10}
White crappie	203	19 (± 5)	2 (± 2)
Black crappie	5	20 (± 39)	0

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Table 112. Mean back calculated lengths (in) at each annulus for white crappie collected from Wood Creek Lake during 2007, including the 95%confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2006	10	4.0						
2005	12	4.1	6.0					
2004	11	4.3	6.1	7.2				
2003	4	3.8	6.0	6.9	7.4			
2002	4	4.2	6.4	7.8	8.7	9.1		
2001	6	3.5	5.3	6.5	7.1	7.4	7.8	
2000	2	3.5	6.1	7.0	7.5	8.0	8.3	8.7
Mean		4.0	6.0	7.1	7.6	8.1	7.9	8.7
Number		49	39	27	16	12	8	2
Smallest		2.7	4.8	5.8	6.3	6.8	7.0	8.0
Largest		5.5	7.8	9.6	10.9	11.6	8.8	9.4
Std error		0.1	0.1	0.2	0.3	0.4	0.2	0.7
95% CI ±		0.2	0.2	0.4	0.6	0.7	0.4	1.4

Otoliths were used for age-growth determinations; Intercept = 0
sedagwcc.d07

Table 113. Mean back calculated lengths (in) at each annulus for black crappie collected from Wood Creek Lake during 2007, including the 95%confidence interval (CI) for each mean length per age group.

		Age			
Year	No.	1	2	3	4
2006	4	4.0			
2003	1	3.3	6.1	7.4	8.1
Mean	5	3.9	6.1	7.4	8.1
Number		5	1	1	1
Smallest		3.3	6.1	7.4	8.1
Largest		4.3	6.1	7.4	8.1
Std error		0.2			
95% CI ±		0.4			

Otoliths were used for age-growth determinations; Intercept = 0
sedagwcc.d07

Table 114. Age-frequency and CPUE (fish/nn) of white crappie trap-netted at Wood Creek Lake in 24 net-nights in October 2007.

	Inch class													Std
Age	2	3	4	5	6	7	8	9	10	13	Total	%	CPUE	error
0	3	74	2								79	28.0	3.29	
1+				63							63	22.3	2.63	0.79
2+					28	26					54	19.1	2.25	0.52
3+					3	19	15	1	1		39	13.8	1.63	0.27
4+					7		3		1		11	3.9	0.46	0.10
5+						6		2		1	9	3.2	0.38	0.08
6+						13	9	1			23	8.2	0.96	0.15
7+							3		1		4	1.4	0.17	0.04
Total	3	74	2	63	38	64	30	4	3	1	282	100.0	11.75	
%	1.1	26.2	0.7	22.3	13.5	22.7	10.6	1.4	1.1	0.4				

CPUE of ≥8.0 in (quality size) crappie = 1.58 fish/nn
CPUE of ≥10.0 in (preferred size) crappie = 0.17 fish/nn
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sedagwcc.d07

Table 115. Age-frequency and CPUE (fish/nn) of black crappie trap-netted at Wood Creek Lake in 24 net-nights in October 2007.

	Inch class									Std
Age	2	3	4	5	6	8	Total	%	CPUE	error
0	2	5	1				8	61.5	0.33	0.13
1+				3	1		4	30.8	0.17	0.08
4+						1	1	7.7	0.04	0.04
Total	2	5	1	3	1	1	13	100.0	0.54	
%	15.4	38.5	7.7	23.1	7.7	7.7				

CPUE of ≥8.0 in (quality size) crappie = 0.04 fish/nn
CPUE of ≥10.0 in (preferred size) crappie = 0.00 fish/nn
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sedagwcc.d07

Table 116. Population assessment for white, black, and white and black crappie combined from Wood Creek Lake trapnet data collected in October 2007.

Parameter	Species					
	White Crappie		Black crappie		Combined	
	Assessment value	Assessment score	Assessment value	Assessment score	Assessment value	Assessment score
CPUE of crappie (excluding age 0)	8.46	2	0.21	1	8.67	2
CPUE age 1	2.63	1	0.17	1	2.80	1
CPUE age 0	3.29	2	0.33	1	3.62	2
CPUE ≥8.0 in	1.58	1	0.04	1	1.62	1
Mean length age-2 at capture	6.8	1	NA	0	6.8	1
Instantaneous mortality (Z)	0.408		0.275		0.415	
Annual mortality (A)	33.5		24.0		34.0	
Total score:		7		4		7
Assessment rating:		P		P		P

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sedagwcc.d07

Table 117. Number of fish and mean relative weight (Wr) for each length group of crappie collected in Wood Creek Lake in October 2007. Standard error is in parentheses.

	Length group					
	5.0-7.9 in		8.0-9.9 in		≥10.0 in	
Species	No.	Wr	No.	Wr	No.	Wr
White Crappie	164	79 (1)	34	74 (1)	4	81 (4)
Black Crappie	4	79 (4)	1	76 (-)	0	-

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Table 118. Length frequency and CPUE (fish/nn) of walleye collected at Wood Creek Lake in 24 net-nights on14-16 November 2007.

	Inch class														
Species	11	12	13	14	15	16	17	18	19	21	23	29	Total	CPUE	Std. error
Walleye	1	1	1	2	2	1	1	1	1	2	2	1	16	0.67	0.17

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Table 119. Mean back calculated lengths (in) at each annulus for walleye (both sexes) collected from Wood Creek Lake during 2007, including the 95% confidence interval (CI) for each mean length per age group.

		Age				
Year	No.	1	2	3	4	5
2006	1	11.0				
2004	7	8.5	11.9	13.9		
2003	3	8.2	12.1	14.2	15.9	
2002	5	10.5	15.4	18.5	20.6	21.9
Mean		9.2	13.1	15.5	18.8	21.9
Number		16	15	15	8	5
Smallest		5.7	8.7	10.2	14.1	17.9
Largest		12.8	17.1	22.3	25.5	27.5
Std error		0.5	0.7	0.9	1.2	1.6
95% CI ±		1.0	1.3	1.8	2.5	3.1

Otoliths were used for age-growth determinations; Intercept = 0
sedagwcw.d07

Table 120. Age-frequency and CPUE (fish/nn) of walleye gill netting for 24 net-nights at Wood Creek Lake during November 2007. Standard error is in parentheses.

	Inch class															
Age	11	12	13	14	15	16	17	18	19	21	23	29	Total	%	CPUE	
1				1									1	6.3	0.04	(0.03)
3	1	1	1		2	1					1		7	43.8	0.29	(0.09)
4				1			1	1					3	18.8	0.13	(0.06)
5									1	2	1	1	5	31.3	0.21	(0.09)
Total	1	1	1	2	2	1	1	1	1	2	2	1	16	100.0	0.67	
%	6.3	6.3	6.3	12.5	12.5	6.3	6.3	6.3	6.3	12.5	12.5	6.3				

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Table 121. Number of fish and mean relative weight (Wr) for each length group of walleye collected in Wood Creek Lake during November 2007. Standard error is in parentheses.

Length group					
10.0-14.9 in		15.0-19.9 in		≥20.0 in	
No.	Wr	No.	Wr	No.	Wr
5	77 (4)	6	83 (2)	5	88 (3)

sedgnwcw.d07

Table 122. Fishery statistics derived from a daytime creel survey on Wood Creek Lake (625 acres) from 1 April - 31 October 2007.

Fishing trips	
Number of fishing trips (per acre)	15,769 (25.23)
Average trip length (hours)	4.23
Fishing pressure	
Total man-hours (S.E.)a	66,775 (1,585)
Man hours/acre	106.84
Catch/harvest	
Number of fish caught (S.E.)	89,613 (9,805)
Number of fish harvested (S.E.)	26,684 (3,873)
Pounds of fish harvested	10,445
Harvest rates	
Fish/hour	0.39
Fish/acre	42.69
Pounds/acre	16.71
Catch rates	
Fish/hour	1.32
Fish/acre	143.38
Miscellaneous characteristics (%)	
Male	80
Female	20
Resident	96
Non-resident	4
Method (%)	
Still fishing	75
Casting	24
Trolling	1
Mode (%)	
Boat	80
Bank	17
Dock	4

aS.E. = standard error

Table 123. Fish harvest statistics derived from a daytime creel survey at Wood Creek Lake (625 acres) from 1 April - 31 October 2007.

	Black bass group	Largemouth bass	Spotted bass	Smallmouth bass	Crappie group	White crappie	Black crappie	Trout group	Rainbow Trout	Walleye	Catfish group	Channel catfish	Flathead catfish	Panfish group	Bluegill	Longear sunfish	Redear sunfish
No. caught	19,344	13,821	5,299	224	12,235	10,597	1,638	536	536	45	6,402	6,314	89	50,264	48,615	703	902
(per acre)	30.95	22.11	8.48	0.36	19.58	16.96	2.62	0.86	0.86	0.07	10.24	10.10	0.14	80.42	77.78	1.12	1.44
No. harvested	1,145	626	519	0	632	594	38	397	397	26	4,604	4,515	89	19,188	17,855	590	742
(per acre)	1.83	1.00	0.83	0.00	1.01	0.95	0.06	0.64	0.64	0.04	7.37	7.22	0.14	30.70	28.57	0.94	1.19
% of total no. harvested	4.3	2.3	2.0	0.0	2.4	2.2	t	1.5	1.5	t	17.3	16.9	t	71.9	66.9	2.2	2.8
Lbs. harvested	1,985	1,608	377	0	274	256	17	269	269	33	5,126	4,838	288	2,484	2,048	23	413
(per acre)	3.18	2.57	0.60	0.00	0.44	0.41	0.03	0.43	0.43	0.05	8.20	7.74	0.46	3.97	3.28	0.04	0.66
% of total lbs harvested	19.0	15.4	3.6	0.0	2.6	2.5	t	2.6	2.6	t	49.1	46.3	2.8	23.8	19.6	t	4.0
Mean length (in)		16.8	12.1	0.0		9.9	9.5		12.8	16.0		14.9	18.7		5.5	3.8	9.4
Mean weight (lb)		2.49	0.77	0.00		0.44	0.45		0.84	1.28		1.07	2.98		0.11	0.04	0.57
Number of fishing trips for that species	5,748				1,808			144			2,310			5,732			
Percent of all trips	36.5				11.5			0.9			14.7			36.4			
Hours fished for that species	24,340				7,657			609			9,780			24,273			
Hours fished for that species (per acre)	38.94				12.25			0.97			15.65			38.84			
Number harvested fishing for that species	936				443			245			4,129			16,995			
Lb harvested fishing for that species	1,729				188			166			4,660			2,210			
No./hr harvested fishing for that species	0.03				0.06			0.38			0.38			0.78			
Percent success fishing for that species	6.6				10.0			33.3			23.9			28.6			

t < 0.005 fish/hr or < 0.5%

Table 123. Continued

	Morone group	White bass	Rock bass	Spoonbill	Yellow perch	Common carp	Illegal bass	Illegal bl. crappie	Illegal wh. Crappie
No. caught	61	61	43	64	17	19	55	11	561
(per acre)	0.10	0.10	0.07	0.10	0.03	0.03	0.09	0.02	0.90
No. harvested	30	30	0	19	17	0	55	11	561
(per acre)	0.05	0.05	0.00	0.03	0.03	0.00	0.09	0.02	0.90
% of total no. harvested	t	t	0.0	t	t	0.0	t	t	2.1
Lbs. harvested	51	51	0	11	10	0	71	2	128
(per acre)	0.08	0.08	0.00	0.02	0.02	0.00	0.11	0.00	0.20
% of total lbs harvested	0.5	0.5	0.0	t	t	0.0	0.7	t	1.2
Mean length (in)		16.0		18.0	11.0		13.5	8.0	7.5
Mean weight (lb)		1.56		0.58	0.59		1.25	0.21	0.21
Number of fishing trips for that species									
Percent of all trips									
Hours fished for that species									
Hours fished for that species (per acre)									
Number harvested fishing for that species									
Lb harvested fishing for that species									
No./hr harvested fishing for that species									
Percent success fishing for that species									

t < 0.005 fish/hr or < 0.5%

Table 124. Length distribution for each species of fish harvested and released during the day at Wood Creek Lake (625 acres) during 1 April - 31 October 2007.

	Inch class																					
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	24	30
Largemouth bass																						
Harvested													162	141	141	81	40			40	21	
Released	20	98		709	98	2284	335	3603	669	3248	787	847	165	103	41	124	41	22				
Spotted bass																						
Harvested						40	40	20	100	160	40	40	60	19								
Released				366	102	2034	305	1037	122	692	41	81										
Smallmouth bass																						
Released		20		20		20	61		20	41	20	22										
Illegal bass																						
Harvested											18	37										
Walleye																						
Harvested														26								
Released									19													
White crappie																						
Harvested							337	119	99	20			19									
Released			701	3484	2242	3083	114	265	57	57												
Black crappie																						
Harvested							19	19														
Released				191	191	1028	172		17													
Illegal white crappie																						
Harvested					133	428																
Illegal black crappie																						
Harvested						11																
Rainbow Trout																						
Harvested									88	220	66		23									
Released								60				60			19							
Channel catfish																						
Harvested						45	45	182	136	454	227	1225	499	522	182	431	182	295	23	23	44	
Released				112		854		382	90	157	45	45	114									
Flathead catfish																						
Harvested													18	18	18		18					17
Bluegill																						
Harvested	180	2161	5223	7178	2521	386	180	26														
Released	4936	17161	6289	1499	750	125																
Longear sunfish																						
Harvested	164	377	49																			
Released		97		16																		
Redear sunfish																						
Harvested					19	111	334	148	111		19											
Released	23			92			45															
White bass																						
Harvested												15				15						
Released												30										
Rock bass																						
Released			21	22																		
Spoonbill																						
Harvested																19						
Released													22							23		
Yellow perch																						
Harvested									17													
Common carp																						
Released			19																			

Table 125. Black bass catch and harvest statistics derived from a daytime creel survey at Wood Creek Lake (625 acres) for each species of black bass caught and released by all anglers from 1 April - 31 October 2007.

	Largemouth bass				Spotted bass				Smallmouth bass			
		C&R				C&R				C&R		
	Harvest	12.0-14.9 in	>15.0 in	Total	Harvest	12.0-14.9 in	>15.0 in	Total	Harvest	12.0-14.9 in	>15.0 in	Total
Total number of bass	626	4,882	496	13,821	519	814	0	5,299	0	83	0	224
% of black bass harvested by number	54.7				45.3				0			
Total weight of fish (lb)	1,608	2,641	1,216	9,692	377	291	0	2,089	0	40	0	104
% of black bass harvested by weight	81.0				19.0				0.0			
Mean length (in)	16.8				12.1				NA			
Mean weight (lb)	2.49				0.77				NA			
Rate (fish/hour)	0.009				0.008				0.000			

Table 126. Monthly black bass angling success at Wood Creek Lake (625 acres) during the 2007 daytime creel survey period; data does not include black bass < 8.0 inches.

Month	Total no. of bass caught	Total no. of bass harvested	Number of bass fishing trips	Hours fished by bass anglers	Bass caught by bass anglers	Bass caught/hour by bass anglers	Bass harvested by bass anglers	Bass harvested/hour by bass anglers
Apr	4,274	719	1,158	4,903	3,770	0.64	603	0.10
May	3,994	132	963	4,079	2,996	0.57	113	0.02
Jun	3,166	104	902	3,821	2,958	0.71	78	0.02
Jul	3,310	89	877	3,716	2,659	0.60	59	0.01
Aug	1,905	51	558	2,363	1,701	0.85	34	0.02
Sep	1,612	51	815	3,451	1,527	0.44	51	0.01
Oct	1,083	0	474	2,006	963	0.45	0	0.00
Total	19,344	1,146	5,747	24,339	16,574		938	
Mean						0.59		0.03

Table 127. Monthly crappie angling success at Wood Creek Lake (625 acres) during the 2007 daytime creel survey period.

Month	Total no. of crappie caught	Total no. of crappie harvested	Number of crappie fishing trips	Hours fished by crappie anglers	Crappie caught by crappie anglers	Crappie caught/hour by crappie anglers	Crappie harvested by crappie anglers	Crappie harvested/hour by crappie anglers
Apr	4,449	194	600	2,540	3,943	1.58	194	0.08
May	2,411	170	457	1,935	2,336	1.19	170	0.09
Jun	1,635	156	280	1,184	1,246	0.96	0	0.00
Jul	1,300	0	188	796	1,300	1.64	0	0.00
Sep	2,121	102	168	713	2,054	3.32	68	0.11
Oct	317	11	116	489	186	0.38	11	0.02
Total	12,233	633	1,809	7,657	11,065		443	
Mean						1.42		0.06

Table 128. Monthly catfish angling success at Wood Creek Lake (625 acres) during the 2007 daytime creel survey period.

Month	Total no. of catfish caught	Total no. of catfish harvested	Number of catfish fishing trips	Hours fished by catfish anglers	Catfish caught by catfish anglers	Catfish caught/hour by catfish anglers	Catfish harvested by catfish anglers	Catfish harvested/hour by catfish anglers
Apr	136	97	223	945	116	0.37	97	0.31
May	339	264	309	1,307	151	0.29	132	0.25
Jun	1,220	986	483	2,045	753	0.29	701	0.27
Jul	2,985	2,128	464	1,964	2,837	1.31	2,098	0.97
Aug	714	289	365	1,545	714	0.40	289	0.16
Sep	713	577	310	1,313	662	0.42	560	0.35
Oct	295	263	156	661	285	0.44	252	0.39
Total	6,402	4,604	2,310	9,780	5,518		4,129	
Mean						0.52		0.38

Table 129. Fishery statistics derived from a nighttime creel survey on Wood Creek Lake (625 acres) from 16 May - 13 September 2007.

Fishing trips	
Number of fishing trips (per acre)	2,294 (3.67)
Average trip length (hours)	4.81
Fishing pressure	
Total man-hours (S.E.)a	11,023 (708)
Man hours/acre	17.64
Catch/harvest	
Number of fish caught (S.E.)	8,253 (1,315)
Number of fish harvested (S.E.)	2,287 (512)
Pounds of fish harvested	2,622
Harvest rates	
Fish/hour	0.20
Fish/acre	3.66
Pounds/acre	4.19
Catch rates	
Fish/hour	0.74
Fish/acre	13.20
Miscellaneous characteristics (%)	
Male	85
Female	15
Resident	98
Non-resident	2
Method (%)	
Still fishing	82
Casting	18
Mode (%)	
Boat	87
Bank	8
Dock	5

aS.E. = standard error

Table 130 Fish harvest statistics derived from a nighttime creel survey at Wood Creek Lake (625 acres) from 16 May - 13 September 2007.

	Black bass group	Largemouth bass	Spotted bass	Smallmouth bass	Crappie group	White crappie	Black crappie	Trout group	Rainbow Trout	Walleye	Catfish group	Channel catfish	Flathead catfish	Panfish group	Bluegill	Longear sunfish	Green sunfish	Morone group	White bass	Northern pike	Spoonbill	Yellow perch	Illegal wh. Crappie
No. caught	3,706	3,086	608	12	479	463	16	766	766	9	1,275	1,254	21	1,857	1,832	20	4	17	17	99	28	9	8
(per acre)	5.93	4.94	0.97	0.02	0.77	0.74	0.03	1.23	1.23	0.01	2.04	2.01	0.03	2.97	2.93	0.03	0.01	0.03	0.03	0.16	0.04	0.01	0.01
No. harvested	413	358	56	0	87	82	4	766	766	0	739	718	21	275	271	0	4	0	0	0	0	0	8
(per acre)	0.66	0.57	0.09	0.00	0.14	0.13	0.01	1.23	1.23	0.00	1.18	1.15	0.03	0.44	0.43	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
% of total no. harvested	18.1	15.6	2.4	0.0	3.8	3.6	t	33.5	33.5	0.0	32.3	31.4	0.9	12.0	11.8	0.0	t	0.0	0.0	0.0	0.0	0.0	t
Lbs. harvested	1,139	1,087	52	0	37	35	2	595	595	0	808	640	169	41	41	0	0	0	0	0	0	0	1
(per acre)	1.82	1.74	0.08	0.00	0.06	0.06	0.00	0.95	0.95	0.00	1.29	1.02	0.27	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% of total lbs harvested	43.4	41.5	2.0	0.0	1.4	1.3	t	22.7	22.7	0.0	30.9	24.4	6.4	1.6	1.6	0.0	t	0.0	0.0	0.0	0.0	0.0	t
Mean length (in)		17.4	12.8	0.0		10.0	9.0		12.8	0.0		14.2	23.8		5.9	0.0	5.0						6.5
Mean weight (lb)		2.79	0.88	0.00		0.46	0.37		0.82	0.00		0.94	7.00		0.13	0.00	0.08						0.13
Number of fishing trips for that species	1,066				70			223		34	736			164									
Percent of all trips	48.5				3.0			9.7		1.5	32.1			7.2									
Hours fished for that species	5,123				336			1,072		165	3,538			789									
Hours fished for that species (per acre)	8.20				0.54			1.72		0.26	5.66			1.26									
Number harvested fishing for that species	401				51			729			721			47									
Lb harvested fishing for that species	1,122				20			576			779			5									
No./hr harvested fishing for that species	0.07				0.13			0.62			0.22			0.10									
Percent success fishing for that species	21.2				21.4			68.0			29.3			8.6									

t < 0.005 fish/hr or < 0.5%

Table 131. Length distribution for each species of fish harvested and released during the night at Wood Creek Lake (625 acres) during 16 May - 13 September 2007.

	Inch class																							
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	39	40
Largemouth bass																								
Harvested													37	62	80	49	37	43	25	18	7			
Released			18	23	88	175	94	983	187	649	181	246	45	28		6	5							
Spotted bass																								
Harvested										19	25	6	6											
Released				18	12	190	6	125	136	53	12													
Smallmouth bass																								
Released										12														
Walleye																								
Released										9														
White crappie																								
Harvested							33	33	16															
Released				287	75		9		5	4														
Black crappie																								
Harvested							4																	
Released					12																			
Illegal white crappie																								
Harvested				4	4																			
Rainbow Trout																								
Harvested								52	46	294	190	144	23	12	5									
Channel catfish																								
Harvested						18	12	95	12	101	53	148	47	101	12	65	30	6	6		6	6		
Released		6			11	243		171		33	11	17	22	11		6						5		
Flathead catfish																								
Harvested														7							7			7
Bluegill																								
Harvested		6	52	127	58	28																		
Released	11	308	935	274	34																			
Longear sunfish																								
Released		20																						
Green sunfish																								
Harvested			4																					
White bass																								
Released										9					8									
Northern pike																								
Released												47		38								10	5	
Spoonbill																								
Released																5		9		14				
Yellow perch																								
Released							9																	

Table 132. Black bass catch and harvest statistics derived from a nighttime creel survey at Wood Creek Lake (625 acres) for each species of black bass caught and released by all anglers from 16 May - 13 September 2007.

	Largemouth bass				Spotted bass				Smallmouth bass			
		C&R				C&R				C&R		
	Harvest	12.0-14.9 in	>15.0 in	Total	Harvest	12.0-14.9 in	>15.0 in	Total	Harvest	12.0-14.9 in	>15.0 in	Total
Total number of bass	358	1,076	84	3,086	56	65	0	608	0	12	0	12
% of black bass harvested by number	86.5				13.5				0.0			
Total weight of fish (lb)	1,087	676	176	2,924	52	26	0	273	0	10	0	10
% of black bass harvested by weight	95.5				4.5				0.0			
Mean length (in)	17.4				12.8				NA			
Mean weight (lb)	2.79				0.88				NA			
Rate (fish/hour)	0.030				0.005				0.000			

Table 133. Monthly black bass angling success at night at Wood Creek Lake (625 acres) during the 2007 creel survey period; data does not include black bass < 8.0 inches.

Month	Total no. of bass caught	Total no. of bass harvested	Number of bass fishing trips	Hours fished by bass anglers	Bass caught by bass anglers	Bass caught/hour by bass anglers	Bass harvested by bass anglers	Bass harvested/hour by bass anglers
May	190	6	50	240	191	0.66	6	0.02
Jun	747	66	213	1,024	727	0.62	66	0.06
Jul	1,043	150	365	1,755	1,036	0.55	150	0.08
Aug	554	45	154	742	517	0.60	41	0.05
Sept	1,172	147	284	1,362	1,146	0.76	138	0.09
Total	3,706	414	1,066	5,123	3,617		401	
Mean						0.62		0.07

Table 134. Monthly trout angling success at night at Wood Creek Lake (625 acres) during the 2007 creel survey period.

Month	Total no. of trout caught	Total no. of trout harvested	Number of trout fishing trips	Hours fished by trout anglers	Trout caught by trout anglers	Trout caught/hour by trout anglers	Trout harvested by trout anglers	Trout harvested/hour by trout anglers
May	452	452	70	337	416	1.42	416	1.42
Jun	99	99	38	182	99	0.60	99	0.60
Jul	12	12	62	299	12	0.03	12	0.03
Aug	81	81	27	128	81	0.43	81	0.43
Sept	121	121	26	127	121	0.90	121	0.90
Total	765	765	223	1,073	729		729	
Mean						0.62		0.62

Table 135. Monthly catfish angling success at Wood Creek Lake (625 acres) during the 2007 nighttime creel survey period.

Month	Total no. of catfish caught	Total no. of catfish harvested	Number of catfish fishing trips	Hours fished by catfish anglers	Catfish caught by catfish anglers	Catfish caught/hour by catfish anglers	Catfish harvested by catfish anglers	Catfish harvested/hour by catfish anglers
May	83	24	20	96	77	0.59	18	0.14
Jun	90	57	137	660	80	0.16	52	0.11
Jul	300	131	166	798	268	0.48	124	0.23
Aug	362	199	202	970	358	0.40	199	0.22
Sep	440	328	211	1,014	440	0.41	328	0.31
Total	1,275	739	736	3,538	1,223		721	
Mean						0.38		0.22

EASTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Buckhorn Lake

During 2007 the muskellunge population was sampled by daytime electrofishing on February 26 and March 2. Total sample time was 2.71 hours and 32 fish were collected. Length frequency, catch-per-unit-effort (CPUE), and population assessment are shown in Tables 1 and 2. During 2003, a 40.0 in length and 1 fish daily creel limit was implemented for muskellunge at Buckhorn Lake (1,230 acres). Since this time the CPUE of fish ≥30.0 in has increased from 2.26 to 5.55 fish/hr. The $\log_{10}$ length-weight equation for muskellunge was $-4.18 + 3.39(\log_{10}$ length). A total of 450 muskellunge (13.0 in) were stocked during September 2007. Muskellunge also provide a significant fishery in the tailwater area of Buckhorn Lake. During 2008 muskellunge will be sampled in the spring and creel survey data collected from anglers on the lake and tailwater. Data will be reviewed for evaluation of the 40.0 in size limit.

The black bass populations were sampled during the spring and fall at Buckhorn Lake (Tables 3-9). Largemouth bass comprise the major black bass species in this lake. Spotted bass are present with greatest numbers in the lower lake. Smallmouth bass do occur in the lake, but are rare in samples. Due to poor recruitment of age-0 to age-1 fish, largemouth bass (4.0 in) were supplementally stocked during October of 2005 and 2006. Fish stocked in 2005 received a right pectoral clip and those stocked in 2006 received a left pectoral clip for future identification. Relative weights and the $\log_{10}$ length-weight equation for largemouth bass are not provided as weights were not taken in the fall. In 2008, black bass will be sampled in the spring and fall via electrofishing and by a random roving creel survey of anglers.

Trap netting was completed for white crappie on 27 and 28 November (Tables 10-14). The majority of fish sampled in 2007 were ages 2 and 3 (Table 13), which correlates with ages 1 and 2 producing the majority of numbers during 2006 sampling.. The $\log_{10}$ length-weight equation for white crappie was $-3.66 + 3.24(\log_{10}$ length). The population assessment score of 10 was lower than the 17 recorded in the previous year (Table 14). At present there appears to be an over abundance of small fish slowing growth. Additionally, beginning 1 March 2007, a 9.0 in size limit was implemented on crappie. This will prevent fishing mortality from further reducing numbers of small fish. Natural mortality or poor recruitment years will have to bring the fishery back to previous, better assessment levels. Fall trap netting and age and growth information will be collected during 2008 as well as a random roving creel survey of anglers.

Carr Creek Lake

The black bass population was sampled at Carr Creek Lake (710 acres) during the spring and fall (Tables 15-21). An assessment score of 9 was the lowest obtained since 2002 (Table 19). During the fall of 2005-2007, largemouth bass (4.0 in) were stocked to supplement low recruitment of age-0 to age-1 fish. Fish stocked in 2005 received a right pectoral clip, fish stocked in 2006 received a left pectoral clip, and fish stocked in 2007 received a left pelvic clip for future identification. Fertilizer is applied at this lake in the spring to assist with growth and recruitment. During 2007 very little fertilizer could be applied due to muddy water conditions. Fall electrofishing was conducted early during high water temperature and very few fish were collected (Table 20). During 2008, fertilizing will continue and black bass will be sampled again in the spring and fall.

Walleye continue to do very well at Carr Creek Lake. Daytime electrofishing was completed once again in March (Tables 22--24). The CPUE of walleye has gradually increased from 2000 and population assessments have been "Good" to "Excellent" with a "Good" rating in 2007 (Tables 22-23). In 2004 there was a fish kill of 100+ large adult walleye at Carr Creek and in 2005 a fish kill of large adult alewife. Neither fish kill seemed to impact CPUE of larger walleye. Mean relative weights are near or exceed 100 for all length groups of walleye examined (Table 24). The $\log_{10}$ length-weight equation for walleye was $-3.33+2.94$ ($\log_{10}$ length). During 2008, walleye will be sampled again in the spring (March).

Black and white crappie were sampled with spring electrofishing (Tables 25-30). Due to very poor fall trap netting catches, spring electrofishing was initiated. This will continue in 2008 and will be used to monitor the population. During 2007, approximately 7,100 black and black nose crappie (3.0 in) were stocked in November. The growth of white and black crappie at this lake is slow (Tables 28-29). The fishery has 9.0 in minimum size limit.

Cranks Creek

Fall electrofishing was conducted for black bass at Cranks Creek Lake (Tables 31-32). Largemouth and spotted bass are the primary black bass species, with smallmouth bass occurring in very low numbers. This lake is very low in fertility and has had periodic problems with low pH. During 2008, a spring and fall sample of black bass will be collected. Age and growth will be acquired from spring caught largemouth bass to provide assessment data. Additional concerns at this lake are possible aquatic vegetation control and random stockings of various sport fish by local residents. Due to the very clear water, various aquatic plants can be very thick and thorough in coverage. Monitoring of the aquatic vegetation will continue. Fisheries and law enforcement staff will continue guidance to public on fish stockings and the possible management implications.

Dewey Lake

Dewey Lake (1,100 acres) was sampled during the spring and fall for black bass (Tables 33–39). CPUE's of all length groups were good during spring of 2007 (Table 34). The spring electrofishing assessment for largemouth bass was "Good" (Table 37). Anglers are having good success and tournament numbers are greatly increasing. This may have an effect on future largemouth bass success as well as the continued zebra mussel infestation at the lake.

Fall electrofishing was tested as a method to sample flathead catfish. Both daytime and nocturnal hours were sampled (Table 40). The observed CPUE's were not much different, but time sampled was low. Good numbers of flathead catfish are seen while sampling bass at night during September. Future sampling of flathead catfish will be conducted nocturnally in September.

White bass were sampled during March by electrofishing and in November by gill netting. This was in coordination with the Lake Fisheries Research (LFR) project. A summary of the data collected can be found in the LFR annual report. The last stocking of white bass (1.5 in) during this study ended in 2007. White bass sampling will continue in 2008.

A daytime creel survey was conducted at Dewey Lake from 2 April-28 October 2007. Each day that was surveyed consisted of 6 hours on the lake. Dates, times (2 periods=morning or afternoon), and order of surveys were randomized. Total angler counts were conducted at the middle of a survey period and the lake was treated as one area. Data obtained is presented in Tables 41–48.

The number of fishing trips and angler hours were approximately half of what was obtained in the last creel survey in 2004. Although, the survey in 2004 (1 March-31 October) included 1 more month of survey time compared to 2007 survey. The total fishing trips and angler hours were 3,827 and 17.907 in 2007 (Table 41) and 7,349 and 33,301 in 2004, respectively. Angler success rates during 2007 were 2.53% for black bass, 37.21% for crappie, 63.64% for panfish, and 26.47% for catfish (Table 42). During the 2004 survey, angler success rates were 5.35% for black bass, 37.39% for crappie, 6.38% for panfish, and 25.55% for catfish. Largemouth bass were the most numerous fish caught during the 2007 survey (Tables 42-43).

An angler attitude survey was conducted at the lake to obtain further information. Anglers were asked to answer a series of questions regarding the fishery at Dewey Lake (Appendix A). Anglers were surveyed throughout the creel during 2007 with anglers only being asked the questions once. A total of 258 surveys were completed during the lake creel. Black bass at 73.26% were the most popular species fished for on the lake followed by crappie (15.05%), catfish (13.95%), bluegill (7.36%), and white bass (0.78%). Level of fishing satisfaction was assessed for several fish groups or species.

Fishing satisfaction ratings of somewhat satisfied to very satisfied were at or above 50.0% for black bass (74.4%), crappie (54.8%), channel catfish (74.3%), and white bass (50.0%). The percentage of somewhat to very satisfied anglers was less (18.18%) for flathead catfish.

Fishpond

Fishpond Lake (32 acres) was sampled on 2 May 2007 for bluegill. Due to the water clarity of this lake, nocturnal electrofishing was utilized. Fish were difficult to obtain and data is presented in Tables 49-54. The last two assessments have rated "Excellent" and "Good" (Table 54). The lake is known for large bluegill and the difficulty to catch them due to the clear water. Of the fish collected, a PSD value of 63 was obtained (Table 52) and is near the recommended range of 20-60 for management of a bluegill/bass fishery. Additional management at Fishpond entails fertilization of the lake during the spring for increasing zooplankton density for young-of-year fishes. A total of 5,000 rainbow trout (8.0 in) are stocked annually during January, April, May, and October. Channel catfish (9.0 in) are stocked every other year. Largemouth bass are scheduled to be sampled in 2008.

Fishtrap Lake

At Fishtrap Lake (1,143 acres), black bass were sampled in the spring and fall (Tables 55-64). Both largemouth and smallmouth bass are doing well and provide quality fish for anglers. However, with the large changes in pool elevation due to its primary purpose of flood control, anglers often have poor success after black bass. The population assessment rating for largemouth bass continues to remain "Good" (Table 61) and improved to "Excellent" for smallmouth bass (Table 62). During 2008, smallmouth bass will be collected for brood fish for the hatchery to produce smallmouth bass for stocking.

Hybrid-striped bass sampling was completed in early December with gill nets (Tables 65-68). Fish were sampled from 7.0-26.0 in (Table 65) and age and growth information was taken (Table 66). The assessment rating continues to be "Excellent" for the fishery (Table 68). A size of 26.0-28.0 in appears to be maximum size attained by hybrid striped bass in the lake as observed by netting data and some die-off each year of 26.0-28.0 in fish in January and February. White bass also contribute somewhat to the numbers of *Morone* sp. in the lake. The $\log_{10}$ length-weight equation for hybrid striped bass was $-3.47 + 3.09(\log_{10}$ length).

Trap netting (20 net-nights) was completed in November for white crappie (Tables 69–73). White crappie provide a popular fishery for anglers at Fishtrap Lake. Due to water levels producing a poor sample of fish, the assessment rating of "Fair" (Table 73) does not represent the current fishery accurately. At present, anglers are catching many fish and of large size up to 15.0-16.0 in. Growth is very good for eastern Kentucky and mean lengths of age 2+ fish at capture is near 9.0 in. The $\log_{10}$ length-weight equation for white crappie was $-3.54 + 3.16$ ($\log_{10}$ length).

A lake management plan has been written for Fishtrap Lake and contains management objectives for largemouth and smallmouth bass, white crappie, and hybrid striped bass. During 2007, largemouth bass met four of the spring electrofishing assessment value objectives (mean length age-3 at capture, spring CPUE 12.0-14.9 in fish, CPUE $\geq$15.0 in fish, CPUE $\geq$20.0 in fish) and failed to meet one objective (CPUE age-1 fish). Smallmouth bass exceeded two of the spring electrofishing assessment value objectives (CPUE $\geq$14.0 in fish, CPUE $\geq$17.0 in fish) and met three objectives (mean length age-3 at capture, CPUE age-1 fish, CPUE 11.0-13.9 in fish). Hybrid striped bass exceeded two of the fall gill netting assessment value objectives (total CPUE and mean length age 2+ at capture) and met two objectives (CPUE $\geq$15.0 in fish and CPUE age 1). White crappie met one of the fall trap netting assessment value objectives (mean length age 2+ at capture) and failed to meet four objectives (total CPUE, CPUE age 1 fish, CPUE age 0 fish, and CPUE $\geq$8.0 in fish).

Martin County Lake

In May, bluegill and redear sunfish were sampled at this 3 acre lake (Tables 74-78). The majority of the sample was compiled of bluegill with just a few redear sunfish collected. During the initial stocking of redear sunfish, too many were harvested prior to their first spawn. As a result, the population has never established. Bluegill were collected from 1.0-8.0 in. Fishing pressure is very high at this lake and efforts are being made to increase bank fishing access. Also, there are no length or creel limits on sunfish. A PSD of 37 (Table 77) was observed and is in the desired range of 20-60 for bluegill where a balanced bluegill/bass fishery is preferred. This lake is fertilized during the spring to assist with the management of the lake. During 2008 largemouth bass will be sampled.

Martin County Reservoir

During the fall of 2000 this 23 acre reservoir was impacted greatly by the Martin County Coal Company slurry spill. The reservoir was forced to be sole source of water supply for Martin County and within 3 weeks was pumped nearly dry. Most all fish were lost and these populations had to re-establish. The lake is now producing some harvestable sizes of bluegill, crappie, largemouth bass, and channel catfish. In 2005, rainbow trout were stocked into the reservoir as a put-take fishery. This management continues with a total of 4,500 rainbow trout stocked annually during April, May, and October. Channel catfish are also stocked on an every other year basis.

Spring daytime electrofishing was conducted at this lake for largemouth bass on 26 April 2007 (Table 79). The length frequency is representative of bass populations in small lakes in the eastern district with the statewide minimum size limit. Distribution and numbers are good up to 12.0 in. Total CPUE during 2007 was higher than recent years (Table 80) and fish up 17.0 in were sampled. A PSD of 28 was observed for largemouth bass (Table 81), which does not coincide with the recommended range of 40-70 for bass in a balanced bass and bluegill fishery. This value should increase as good numbers of small fish recruit to larger sizes. With reestablishment of largemouth bass numbers in the lake, future sampling in 2008 will look at age and growth of bass and bluegill population data will be collected in 2009.

Martins Fork Lake

Martins Fork Lake (330 acres) was sampled for black bass and walleye in the spring and for black bass once again in the fall (Tables 82-88). Walleye numbers continue to decrease with the elimination of their annual stockings from 2005 - 2007. The largemouth bass population remains stable with similar assessment scores in recent years (Table 86). An increase in largemouth bass numbers in the $\geq$15.0 and $\geq$20.0 in length groups has improved the assessment slightly. The smaller coosa bass (redeye bass) continues to maintain a viable population in the lake. However, the black bass fishery is dominated in numbers by largemouth bass and spotted bass. No relative weights are presented for the fall sampling of black bass as weights were not taken.

An additional fishery furnished by Martins Fork Lake that continues to be popular with anglers is the tailwater rainbow trout fishery. Occasionally walleye are also caught in this area. A new lake management plan will be finalized in the future. Objectives from this plan will be referenced with sampling data to see if management goals are being met.

Paintsville Lake

During 2007, black bass were sampled in both the spring and fall (Tables 89–96). The $\log_{10}$ length-weight equation for largemouth bass was –3.40 + 3.01 ($\log_{10}$ length) and for spotted bass was –3.36 + 2.97 ($\log_{10}$ length). In 2002, a 12.0-15.0 in protective slot length limit was implemented on largemouth and smallmouth bass. Anglers do not seem to be making an impact in the numbers of 8.0-12.0 in largemouth bass (Table 90). A good amount of angler dissatisfaction with the regulation has been voiced. Consideration will be given to removal of the protective slot length limit with review of the additional data. During 2006 smallmouth bass were removed from the 12.0-15.0 in protective slot length limit and placed under an 18.0 in minimum length limit.

During 2006, the method of summer-time water discharges was changed to prevent the loss of the cool water habitat preferred by smallmouth bass, trout, and walleye. This sustained the cool water habitat during 2006 and 2007 and is expected to provide similar results in future years. Also, this will aid in regenerating the good trout and walleye fisheries once present from the late 1980's to early 1990's. The lake receives an annual stocking of approximately 18,500 rainbow trout (8.0 in) in January and approximately 30,000 walleye fry (1.5 in) in May. Stocking of smallmouth bass will be initiated in 2008 to supplement low numbers of smallmouth bass in hopes of establishment of a viable smallmouth bass fishery. Additional fisheries provided by the lake are the brown and rainbow trout fisheries found in the tailwater area below the dam.

Black bass, white crappie, and walleye will be sampled via electrofishing during the spring and black bass will be sampled once again in the fall. Age and growth will be taken from walleye in 2008. A revised lake management plan will be written and future data can be compared to the management goals.

Pan Bowl Lake

Largemouth bass were sampled in May for CPUE, length frequency, and age and growth data (Tables 97–102). The CPUE of all length groups was the best recorded in recent years (Table 98). Some angler complaints of very low numbers of 12.0-15.0 in fish have been occurring. Largemouth bass are regulated by the statewide 12.0 in minimum length limit at this lake. Age and growth was taken during 2007 (Table 100) and as expected, growth was slow for age 3+ and older fish. The PSD value of 19 (Table 99) is much lower than the normal range of 50-60 at Pan Bowl Lake. This was influenced by the very high numbers of small fish and their success in recruiting to age 1. The assessment rating for largemouth bass was higher in 2007 than in recent years (Table 102).

Management at this 98 acre lake also includes an every other year stocking of channel catfish (9.0 in) and spring electrofishing for bluegill and redear sunfish. Largemouth bass will be sampled again in spring of 2008 to gain further data on the fishery due to angler concerns.

Pikeville City Lake

Pikeville City Lake (20 acres) has primary fisheries of largemouth bass, bluegill, crappie, carp, and catfish. This lake has high fertility, which is not common in most lakes of the eastern district. During the summer, oxygen is added to the lake by 1 to 4 aerators as needed to prevent fish kills. The largemouth bass fishery has been very good for big fish for many years. On 1 March 2006 a regulation of catch-and-release-only for largemouth bass went into effect on this lake. Spring electrofishing was conducted 3 April 2007 for largemouth bass (Tables 103-105). Total CPUE of largemouth bass has gradually increased since 2004, but various length groups have been cyclic (Table 104). During 2007, the CPUE of fish $\leq$8.0 in was higher than in previous years. This should be good for recruitment, where recruitment of new fish is of concern with a catch-and-release-only regulation. During 2008, sampling will be conducted again in the spring for largemouth bass. Also, during 2008, private consultants will be installing additional aerators and pursuing possible fish stockings with the city.

Yatesville Lake

Black bass (largemouth and spotted bass) were sampled during the spring and fall (Tables 106-112). Smallmouth bass are present in the lake as verified by angler catches during tournaments and by department creel survey data, but none were collected in the spring or fall samples. The largemouth bass population at Yatesville Lake (2,280 acres) receives a great amount of fishing pressure (resident and nonresident) through tournaments on the weekends. However, largemouth bass continue to do very well and sampling data shows no dramatic declines in the CPUE of various length groups (Table 107). Fishing pressure on week days appears to be down in comparison with past years. In the fall of 2006, fingerling largemouth bass were stocked at several locations in Yatesville Lake. This was in response to a small decrease in age-0 numbers (Table 112). The fish stocked in 2006 received a left pectoral fin clip for future identification. The largemouth bass assessment rating for 2007 was "Good" (Table 110).

A daytime creel survey was conducted at Yatesville Lake from 5 April-31 October 2007. Each day that was surveyed consisted of 6 hours on the lake. Dates, times (2 periods=morning or afternoon), and order of surveys were randomized. Total angler counts were conducted at the middle of a survey period and the lake was treated as two areas (Area 1 = dam to Little Blaine Creek, Area 2 = Little Blaine Creek to Rich Creek). Data obtained is presented in Tables 113-119.

The number of fishing trips was close to the number obtained during the last survey in 1999. Although the 2007 survey covered less time (7 months), a total of 14,312 trips (Table 113) were made versus the 16,993 trips made during the 1999 survey (8 months). A greater difference was observed in total angler hours of 46,544 during 2007 (Table 113) and 86,005 during 1999. Angler success rates at Yatesville Lake during 2007 were 0.89% for black bass, 51.52% for white crappie, 41.67% for panfish, and 57.14% for catfish (Table 114). During the 1999 survey, angler success rates were 3.00% for black bass, 32.30% for white crappie, 50.00% for panfish, and 18.80% for catfish. Largemouth bass were the most numerous caught fish during the 2006 survey (Tables 114-115).

An angler attitude survey was conducted at the lake to obtain further information. Anglers were asked to answer a series of questions regarding the fishery at Yatesville Lake (Appendix B). Anglers were surveyed throughout the creel during 2007 with anglers only being asked the questions once. A total of 184 surveys were completed during the lake creel. Black bass at 86.96% (N=160) were the most popular species fished for on the lake followed by white crappie at 15.76% (N=29), channel catfish at 8.15% (N=15), and bluegill at 7.61% (N=14). Level of fishing satisfaction was asked for several fish groups or species. Angler fishing satisfaction of somewhat satisfied to very satisfied was 30.19% for black bass, 41.38% for white crappie, 29.41% for channel catfish, and 46.15% for bluegill.

Table 1. Length frequency and electrofishing CPUE (fish/hr) of muskellunge collected during spring sampling on Buckhorn Lake (1,230 acres) from 1998-2007; numbers in parentheses are standard errors. Results from 2002 are from fall electrofishing.

	Inch class																																										
Year	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	Total	CPUE
1998	1	1	2	7	4	1	1				1	4	3	1	1	1						1		1	1			1	1											33	6.60 (2.90)
1999		1	1	2	3	3	1			1	3	6	6	11	4	4	3				3	2	1		2	1		1											59	10.90 (4.40)
2000		1	3	2	3	1								4				1	2		7	1		1	1			2	1				1						31	8.20 (0.50)
2001					4	1	1				1			1									1		1	1		1									1			13	3.20 (0.70)
2002							1							2	1						3	1		1			2				1								12	6.00 (0.80)
2003	1		5	2	1	1									2	1	1		1	1	2	1	1				1								1				22	7.10 (1.90)
2004			2	9	23	16	2				1		6	7	19	9				3	5	6	6	6	4	5	7	5	8	3	1	1				1			155	16.70 (2.10)
2005					4	5	2					1		2	2							1			1			2	1	1	3		1				1		27	6.30 (1.70)
2006			1	8	10	6								1	2	3						1	1		1	3	2	1	1	1	1	1	1					45	14.20 (2.20)
2007					1	1	2	1					2	3	6	2		1			1		2		1	2		1	2		1	1				1		1	32	13.66 (4.51)

EFDBLMSS.D98-EFDBLMSS.D07

Table 2. Population assessment based on statewide criteria for muskellunge from Buckhorn Lake (1,230 acres) captured during spring electrofishing from 1998-2007. Assessment scores for 2002 were derived from fall electrofishing data. Actual values are in parentheses.

	Assessment Scores									
Parameter	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CPUE age 1 fish	2 (3.50)	2 (2.03)	2 (2.70)	1 (1.50)	1 (0.50)	2 (3.30)	3 (5.90)	2 (2.50)	3 (7.90)	1 (1.71)
CPUE ≥20.0 in fish	2 (3.20)	3 (8.50)	3 (5.40)	1 (1.70)	3 (5.50)	2 (3.90)	4 (11.10)	2 (3.70)	3 (6.30)	4 (11.98)
CPUE ≥30.0 in fish	1 (0.90)	2 (1.80)	3 (3.80)	1 (1.20)	4 (4.00)	3 (2.00)	4 (6.30)	3 (2.60)	4 (4.40)	4 (5.32)
CPUE ≥36.0 in fish	1 (0.30)	1 (0.20)	3 (1.00)	2 (0.50)	4 (1.50)	4 (0.70)	4 (2.80)	4 (2.10)	4 (2.50)	4 (2.45)
CPUE ≥40.0 in fish	0 (0.00)	0 (0.00)	2 (0.20)	3 (0.30)	3 (0.50)	3 (0.30)	3 (0.30)	4 (1.10)	4 (1.00)	4 (1.55)
Total Score	6	8	13	8	15	14	18	15	18	17
Assessment Rating	Poor	Fair	Good	Fair	Good	Good	Excellent	Good	Excellent	Excellent

EFDBLMSS.D98 - EFDBLMSS.D07

Table 3. Length frequency and CPUE (fish/hr) of black bass collected in approximately 2.0 hours of 15-min nocturnal electrofishing runs at Buckhorn Lake (1,230 acres) on 7 May 2007; numbers in parentheses are standard errors.

		Inch class																		
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Upper	Smallmouth bass																			0	0.00
	Largemouth bass		4		2		4	2	4	1	3	1	3	2		1	1	1		29	58.00 (2.00)
	Spotted bass																			0	0.00
Lower	Smallmouth bass																			0	0.00
	Largemouth bass	1	4	7	7	4	5	9	11	16	13	10	11	14	4	1	2	1	1	121	80.67 (6.48)
	Spotted bass																			0	0.00
Total	Smallmouth bass																			0	0.00
	Largemouth bass	1	8	7	9	4	9	11	15	17	16	11	14	16	4	2	3	2	1	150	75.00 (6.04)
	Spotted bass																			0	0.00

EFDBLLSS.D07

Table 4. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Buckhorn Lake (1,230 acres). CPUE=fish/hr, SE=standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	22.67	3.53	18.67	2.33	28.33	3.76	6.33	1.15	0.00		76.00	6.89
2004	38.00	6.20	51.67	6.52	29.33	4.19	4.33	1.51	0.00		123.33	11.55
2005	17.00	3.49	45.00	5.12	38.33	5.49	8.33	1.15	0.33	0.33	108.67	7.86
2006	14.17	2.18	35.24	4.62	40.51	5.06	15.22	3.40	0.33	0.33	105.14	10.97
2007	14.50	4.27	26.00	2.73	20.50	3.33	14.00	2.39	0.50	0.50	75.00	6.04

EFDBLLSS.D03-D07

Table 5. PSD and RSD_{15} values for largemouth bass taken in spring electrofishing samples in each area of Buckhorn Lake (1,230 acres) on 7 May 2007; 95% confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD (+/- 95%)	RSD_{15} (+/- 95%)
Upper	Largemouth bass	23	52 (31-73)	22 (5-39)
Lower	Largemouth bass	98	58 (48-68)	23 (15-32)
Total	Largemouth bass	121	57 (48-66)	23 (16-31)

EFDBLLSS.D07

Table 6. Spring electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Buckhorn Lake (1,230 acres) from 2003-2007.

	Year				
Age	2003	2004	2005	2006	2007
1	19.17	35.50	16.25	11.19	13.00
2	19.92	53.33	42.42	36.41	25.25
3	17.80	17.38	30.13	24.14	13.83
4	9.81	9.75	9.56	14.66	7.87
5	4.93	4.73	5.83	9.41	7.58
6	1.71	1.64	2.15	5.02	3.47
7	1.33	0.67	2.00	3.65	2.50

EFDBLLSS.D03-D07
EFDBLLAS.D04

Table 7. Population assessment using statewide criteria for largemouth bass collected in the spring at Buckhorn Lake (1,230 acres). Actual values are in parentheses.

	Year				
Parameter	2003	2004	2005	2006	2007
Mean length age-3 at capture	4 (12.6)	4 (12.6)	4 (12.6)	4 (12.6)	4 (12.6)
Spring CPUE age 1 fish	1 (19.20)	2 (35.50)	1 (16.30)	1 (11.20)	1 (13.00)
Spring CPUE 12.0-14.9 in fish	3 (28.30)	3 (29.30)	4 (38.30)	4 (40.50)	2 (20.50)
Spring CPUE ≥15.0 in fish	2 (6.30)	2 (4.30)	2 (8.30)	3 (15.20)	3 (14.00)
Spring CPUE ≥20.0 in fish	0 (0.00)	0 (0.00)	2 (0.30)	2 (0.30)	2 (0.50)
Total score	10	11	13	14	12
Assessment rating	Fair	Fair	Good	Good	Good
Instantaneous mortality (z)	0.61	0.85	0.67	0.48	0.45
Annual mortality (A)	45.60	57.20	48.70	38.00	36.40

EFDBLLSS.D03-D07
EFDBLLAS.D04

Table 8. Length frequency and electrofishing CPUE (fish/hr) of black bass collected in approximately 2.52 hours of 15-min nocturnal electrofishing runs at Buckhorn Lake (1,230 acres) on 22 October 2007; numbers in parentheses are standard errors.

		Inch class																		
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Upper	Smallmouth bass						1												1	0.80 (0.80)
	Largemouth bass	8	10	4	15	5	4	13	11	17	10	2	4	5	4	1		2	115	92.00 (13.45)
	Spotted bass					1	1												2	1.60 (0.98)
Lower	Smallmouth bass																			0.00
	Largemouth bass	1			2	2	4	9	19	9	8	7	6	6	1		1	1	76	59.88 (8.72)
	Spotted bass						2	2	1										5	3.93 (2.14)
Total	Smallmouth bass						1												1	0.40 (0.40)
	Largemouth bass	9	10	4	17	7	8	22	30	26	18	9	10	11	5	1			191	75.94 (9.26)
	Spotted bass					1	3	2	1										7	2.77 (1.18)

EFDBLLSF.D07

Table 9. Indices of year class strength at age-0 and age-1 and mean lengths (in) of age-0 largemouth bass at Buckhorn Lake (1,230 acres) from electrofishing. CPUE=fish/hr, SE=standard error.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	4.5	0.10	99.30	7.40	38.70	2.60	19.20	3.30
2003	4.7	0.50	106.00	13.80	39.70	4.60	35.50	5.40
2004	3.6	0.04	176.70	34.00	9.30	4.60	16.25	3.50
2005	4.0	0.20	44.70	6.60	10.00	3.50	11.19	2.10
2006	4.2	0.20	17.60	4.10	5.30	1.90	13.00	3.74
2007	4.5	0.20	18.78	6.43	9.59	3.44		

EFDBLLSF.D02-D07
EFDBLLAS.D04
EFDBLLSS.D03-D07

Table 10. Length frequency and CPUE (fish/net-night) of white crappie collected by trap net at Buckhorn Lake (1,230 acres) in 20 net-nights from 28-29 November 2007. Standard errors are in parentheses.

3	4	5	6	7	8	9	10	11	Total	CPUE
7	15	83	263	183	78	14	14	4	661	33.05 (5.30)

EFDBLCTF.D07

Table 11. PSD and RSD_{10} values calculated for white crappie collected in trap nets at Buckhorn Lake (1,230 acres) during November 2007; 95% confidence intervals are in parentheses.

Species	No. ≥5.0 in	PSD	RSD_{10}
White crappie	639	17 (14- 20)	3 (2-4)

EFDBLCTF.D07

Table 12. Mean back-calculated length (in) at each annulus for white crappie collected from Buckhorn Lake (1,230 acres) in November 2007, including 95% confidence intervals.

Year		Age				
Class	No.	1	2	3	4	5
2007	0					
2006	21	3.8				
2005	15	3.9	5.4			
2004	39	4.0	5.7	6.7		
2003	21	4.3	6.2	7.6	8.7	
2002	10	4.2	6.2	7.5	8.5	9.5
Mean		4.0	5.8	7.1	8.6	9.5
Smallest		2.4	3.7	4.6	6.8	8.5
Largest		6.3	7.2	8.6	9.8	10.5
STD error		0.0	0.1	0.1	0.1	0.2
95% CI LO		4.0	5.7	6.9	8.4	9.1
95% CI HI		4.1	5.9	7.3	8.9	9.9

Intercept = 0
EFDBLCAF.D07

Table 13. Age frequency and CPUE (fish/net-night) of white crappie collected by trap netting for 20 net-nights at Buckhorn Lake (1,230 acres) in November 2007; numbers in parentheses are standard errors.

	Inch class													
Age	2	3	4	5	6	7	8	9	10	11	12	Total	Age %	CPUE
0		7	4									11	2	29.81 (8.45)
1			11	49								60	9	58.59 (13.86)
2				24	132	20						176	27	111.54 (19.01)
3				10	132	153	62	3				360	54	15.13 (1.88)
4						10	16	9	8	2		45	7	4.94 (0.58)
5								3	6	2		11	2	0.98 (0.09)
6												0	0	0.24 (0.05)
Total	0	7	15	83	264	183	78	15	14	4	0	663		
%	0	1	2	13	40	28	12	2	2	1	0			

CPUE of ≥8.0 in (quality size) = 5.50 fish/net-night
CPUE of ≥10.0 in (preferred size) = 0.90 fish/net-night
EFDBLCAF.D07
EFDBLCTF.D07

Table 14. Population assessment scores using statewide criteria for white crappie collected from Buckhorn Lake (1,230 acres). Actual values are in parantheses.

	Year				
Parameter	2003	2004	2005	2006	2007
CPUE of crappie (excluding age 0)	4 (31.40)	2 (5.50)	3 (14.80)	4 (191.42)	4 (32.50)
CPUE age 1 fish	4 (17.40)	1 (0.70)	3 (7.40)	4 (58.60)	1 (2.99)
CPUE age 0 fish	4 (28.20)	1 (0.75)	1 (0.40)	4 (29.80)	1 (0.55)
CPUE ≥8.0 in fish	2 (4.20)	2 (2.20)	2 (4.10)	4 (17.78)	3 (5.50)
Mean length age-2 at capture	1 (8.2)	1 (8.1)	1 (8.3)	1 (7.1)	1 (6.3)
Total score	15	7	10	17	10
Assessment rating	Good	Poor	Fair	Good	Fair
Instantaneous mortality (z)	1.32	1.37	1.30	1.52	1.74
Annual Mortality (A)	73.20	74.70	72.80	78.00	82.50

EFDBLCTF.D03-D07
EFDBLCAF.D03-D07

Table 15. Species composition, relative abundance and CPUE (fish/hr) of black bass collected in approximately 2.04 hours of 15-minute electrofishing samples at Carr Creek Lake (710 acres) on 10 May 2007; numbers in parentheses are standard errors.

Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Lower	Smallmouth bass																			0	0.00
	Spotted bass				2		1	2	2	3			2	1						13	12.20 (7.38)
	Largemouth bass		2	1	1	2	2	3	2	5	11	6	6	4	9	5	3	1	1	64	62.38 (11.02)
Upper	Smallmouth bass																			0	0.00
	Spotted bass	1	1		4	3	1	4	2			1								17	16.90 (5.96)
	Largemouth bass		3	4	2	1	4	6	10	10	5	6	4	4	2	3				64	63.69 (4.33)
Total	Smallmouth bass																			0	0.00
	Spotted bass	1	1		6	3	2	6	4	3		1	2	1						30	14.55 (4.48)
	Largemouth bass		5	5	3	3	6	9	12	15	16	12	10	8	11	8	3	1	1	128	63.03 (5.49)

EFDCLLSS.D07

Table 16. Spring electrofishing CPUE for each length group of largemouth bass collected at Carr Creek Lake (710 acres). CPUE = fish/hr, SE=standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	116.33	14.24	16.89	1.71	12.33	1.57	7.11	1.16	0.00		152.67	13.32
2003	67.56	11.32	15.89	2.18	11.11	1.46	10.67	1.50	0.44	0.26	105.22	14.37
2004	135.00	17.73	24.44	5.31	8.44	1.37	9.00	1.16	0.22	0.15	176.89	18.81
2005	20.00	2.70	19.80	1.60	24.80	2.40	14.00	1.80	0.33	0.30	78.60	4.90
2006	22.26	6.95	30.90	4.80	27.92	3.34	29.90	3.11	0.67	0.45	111.00	10.20
2007	7.95	1.85	20.78	4.65	18.59	3.42	15.72	3.64	0.49	0.49	63.03	5.49

BBRPSCFL.D02-D05
EFDCLLSS.D06-D07

Table 17. PSD and RSD values for each species of black bass in each area of Carr Creek Lake (710 acres) on 10 May 2007. Number of fish (No.) is the number of stock-size or larger fish collected and numbers in parentheses are 95% confidence intervals.

	Largemouth bass			Spotted bass		
Area	No.	PSD	RSD_{15}	No.	PSD	RSD_{14}
Lower	58	79 (69-90)	40 (27-52)	11	55 (24-85)	27 (0-55)
Upper	54	44 (31-58)	17 (7-27)	11	9 (0-27)	0
Total	112	63 (54-72)	29 (20-37)	22	32 (12-52)	14 (0-28)

EFDCLLSS.D07

Table 18. Spring electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Carr Creek Lake (710 acres) from 1999-2007.

	Year								
Age	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	129.60	66.90	160.40	114.40	66.20	133.70	18.84	21.10	7.61
2	31.80	21.20	16.10	17.30	17.10	25.20	20.82	31.70	21.07
3	17.00	17.30	13.40	11.90	6.90	5.40	14.27	14.20	11.97
4	16.10	18.30	20.10	7.20	6.90	5.70	13.24	21.30	9.95
5	12.00	10.60	8.20	1.30	3.20	2.50	4.44	8.90	3.91
6	2.70	4.00	2.70	0.40	0.00	0.00	0.00	0.00	0.00
7	0.60	0.30	0.70		2.10	1.80	2.73	5.30	3.48
8	0.40				2.00	2.00	3.66	6.50	3.95
9	0.30				0.10	0.00	0.00	0.30	0.00
10					0.80	0.60	0.56	0.40	1.07

BBRPSCFL.D99-D05
EFDCLLSS.D06-D07
BBRSCCFL.D03

Table 19. Population assessment using statewide criteria for largemouth bass collected from Carr Creek Lake (710 acres). Actual values are in parentheses.

	Year					
Parameter	2002	2003	2004	2005	2006	2007
Mean length age-3 at capture	4 (13.2)	4 (13.2)	4 (13.2)	4 (13.2)	4 (13.2)	4 (13.2)
Spring CPUE age 1 fish	4 (114.40)	3 (66.20)	4 (133.70)	2 (18.84)	2 (21.10)	1 (7.61)
Spring CPUE 12.0-14.9 in fish	1 (12.33)	1 (11.11)	1 (8.44)	2 (24.80)	2 (27.92)	1 (18.59)
Spring CPUE ≥15.0 in fish	2 (7.11)	2 (10.67)	2 (9.00)	2 (14.00)	3 (29.90)	2 (15.72)
Spring CPUE ≥ 20.0 in fish	0 (0.00)	1 (0.44)	1 (0.22)	1 (0.33)	1 (0.67)	1 (0.49)
Total score	11	11	12	11	12	9
Assessment rating	Fair	Fair	Good	Fair	Good	Fair
Instantaneous mortality (z)		0.52	0.54	0.47	0.43	0.37
Annual mortality (A)		40.30	42.00	37.50	35.10	30.90

BBRPSCFL.D02-D05
BBRSCCFL.D03
EFDCLLSS.D06-D07

Table 20. Length frequency and electrofishing CPUE (no./hour) of black bass collected in approximately 2.02 hours of 15-minute nocturnal electrofishing samples at Carr Creek Lake (710 acres) on 11 September 2007; numbers in parentheses are standard errors.

Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Lower	Smallmouth bass																			0	0.00
	Spotted bass				2		1	2	2	3			2	1						13	12.20 (7.38)
	Largemouth bass		2	1	1	2	2	3	2	5	11	6	6	4	9	5	3	1	1	64	62.38 (11.02)
Upper	Smallmouth bass																			0	0.00
	Spotted bass	1	1		4	3	1	4	2			1								17	16.90 (5.96)
	Largemouth bass		3	4	2	1	4	6	10	10	5	6	4	4	2	3				64	63.69 (4.33)
Total	Smallmouth bass																			0	0.00
	Spotted bass	1	1		6	3	2	6	4	3		1	2	1						30	14.55 (4.48)
	Largemouth bass		5	5	3	3	6	9	12	15	16	12	10	8	11	8	3	1	1	128	63.03 (5.49)

EFDCLLSN.D07

Table 21. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected by electrofishing at Carr Creek Lake (710 acres). CPUE=fish/hr, SE=standard error.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	4.4	0.14	14.00	5.40	5.78	2.30	67.56	11.32
2004	5.2	0.01	132.00	17.30	88.22	12.70	18.84	2.60
2005	4.7	0.10	15.80	6.70	5.60	1.70	21.30	6.70
2006	4.2	0.20	11.00	4.10	3.00	1.00	7.61	2.03
2007	3.7	0.47	4.98	2.24	0.99	0.65		

BBRWRCFL.D03-D05
BBRSCCFL.D03
EFDCLLSN.D06-D07

Table 22. Length frequency and CPUE (fish/hr) of walleye collected at Carr Creek Lake (710 acres) during daytime spring electrofishing; numbers in parentheses are standard errors.

	Inch class																					
Year	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total	CPUE
2000						5	28	10	6	8	2	3	3	1		1	6	4	1		78	20.80 (4.60)
2001						2	4	3	14	8	6	2	2	1				2			44	20.40 (4.70)
2002										no data												
2003	2	1			1	1	2			3	7		4	2		1	1	1	1	1	28	26.70 (8.50)
2004										1	3	13	10	13	13	4	3	1			61	27.10 (7.40)
2005								1	1	2	10	2	10	6	5	4	3	1	1		46	28.17 (5.00)
2006										1	4	6	7	9	9	8	3	4	2	2	55	31.30 (5.40)
2007							1		1	2	4	3	11	15	8	4	4	5	2		60	32.92 (7.36)

EFDCLWSS.D00-D07

Table 23. Spring electrofishing population assessment using statewide criteria for the walleye population at Carr Creek Lake. Actual values are in parentheses.

	Year				
Parameter	2003	2004	2005	2006	2007
Population Density	4	4	4	4	4
(CPUE all fish)	(26.70)	(27.10)	(28.17)	(31.30)	(32.92)
Growth rate	4	4	4	4	4
(mean length age-3 at capture)	(20.6)	(20.6)	(20.6)	(20.6)	(20.6)
Size structure	4	4	4	4	4
(CPUE ≥20.0 in fish)	(10.50)	(19.50)	(18.40)	(24.80)	(20.85)
Recruitment	4	0	0	0	0
(CPUE <13.0 in fish)	(3.80)	(0.00)	(0.00)	(0.00)	(0.00)
Total Score	16	12	12	12	12
Assessment Rating	Excellent	Good	Good	Good	Good
Instantaneous mortality (z)	0.72	1.12	0.26	0.20	0.35
Annual mortality (A)	51.40	67.30	22.50	22.50	41.40

EFDCLWSS.D03-D07
EFDCLWAS.D03

Table 24. Number of fish and relative weight (Wr) for each length group of walleye collected at Carr Creek Lake (710 acres) on 12 March 2007. Numbers in parentheses are standard errors.

Length group					
10.0-14.9 in		15.0-19.9 in		>20.0 in	
No.	Wr	No.	Wr	No.	Wr
1	112	10	104	44	99
			(3)		(1)

EFDCLWSS.D07

Table 25. Length frequency and CPUE (fish/hr) of crappie collected by electrofishing at Carr Creek Lake (710 acres) on 19 March 2007; numbers in parentheses are standard errors.

	Inch class										
Species	5	6	7	8	9	10	11	12	13	Total	CPUE
White crappie	6	12	5	3	2	3	1	2	2	36	27.84 (26.00)
Black Crappie			4	3	1	1				9	6.87 (5.25)

EFDCLCSS.D07

Table 26. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of black (BC) and white (WC) crappie collected at Carr Creek Lake (710 acres). CPUE=fish/hr, SE=standard error.

	Length group															
	≥8.0 in						≥10.0 in						Total			
	WC		BC		all crappie		WC		BC		all crappie		WC		BC	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2007	10.07	9.14	3.82	3.00	13.89	12.06	6.19	5.29	0.72	0.72	6.91	5.12	27.84	26.00	6.87	5.25

EFDCLCSS.D07

Table 27. PSD and RSD_{10} values for black and white crappie taken in spring electrofishing samples at Carr Creek Lake (710 acres) on 19 March 2007; 95% confidence intervals are in parentheses.

Species	No. ≥5.0 in	PSD (+/- 95%)	RSD_{10} (+/- 95%)
White crappie	36	36 (20-52)	22 (9-36)
Black crappie	9	56 (21-90)	11 (0-33)

EFDCLCSS.D07

Table 28. Mean back-calculated length (in) at each annulus for white crappie collected from Carr Creek Lake (710 acres) on 19 March 2007, including 95% confidence intervals.

Year		Age							
Class	No.	1	2	3	4	5	6	7	8
2005	2	4.1	5.6						
2004	6	3.6	5.1	6.2					
2003	5	3.0	4.3	5.4	6.2				
2002	8	4.0	5.5	6.6	7.4	8.3			
2001	9	3.7	5.3	6.6	7.3	8.0	8.9		
2000	2	4.9	6.5	7.6	8.8	10.2	11.7	13.1	
1999	1	3.4	6.0	7.7	8.9	10.2	11.5	12.5	13.4
Mean		3.7	5.3	6.4	7.3	8.5	9.6	12.9	13.4
Smallest		2.2	3.3	4.1	4.9	5.6	6.8	12.5	13.4
Largest		5.5	7.4	9.0	9.7	11.7	12.6	13.7	13.4
STD error		0.1	0.2	0.2	0.3	0.4	0.6	0.4	
95% CI LO		3.5	4.9	6.0	6.7	7.7	8.5	12.1	
95% CI HI		4.0	5.6	6.8	7.8	9.3	10.7	13.7	

Intercept = 0
EFDCLCAS.D07

Table 29. Mean back-calculated length (in) at each annulus for black crappie collected from Carr Creek Lake (710 acres) on 19 March 2007, including 95% confidence intervals.

Year		Age							
Class	No.	1	2	3	4	5	6	7	8
2003	1	3.6	5.4	6.2	6.7				
2002	4	4.5	6.0	6.9	7.6	8.5			
2001	3	3.8	6.0	6.8	7.3	7.9	8.2		
1999	1	3.7	6.4	7.2	8.2	9.3	9.7	10.5	10.9
Mean		4.1	6.0	6.8	7.5	8.3	8.7	10.5	10.9
Smallest		3.1	5.3	6.2	6.7	7.2	7.7	10.5	10.9
Largest		4.7	6.6	7.3	8.3	9.7	9.7	10.5	10.9
STD error		0.2	0.2	0.1	0.2	0.3	0.6		
95% CI LO		3.7	5.7	6.6	7.1	7.7	7.5		
95% CI HI		4.4	6.3	7.1	7.8	9.0	9.8		

Intercept = 0
EFDCLCAS.D07

Table 30. Spring electrofishing catch rate (fish/hr) for each age of white (WC) and black (BC) crappie collected from Carr Creek Lake (710 acres).

	Year	
	2007	
Age	WC	BC
1	0.00	0.00
2	1.55	0.00
3	5.40	0.00
4	4.37	0.76
5	6.69	3.07
6	7.51	2.31
7	1.55	
8	0.78	

EFDCLCSS.D07
EFDCLCAS.D07

Table 31. Length frequency and CPUE (fish/hr) of black bass collected in 1.25 hours of 15-min nocturnal electrofishing runs at Cranks Creek Lake on 11 October 2007; numbers in parentheses are standard errors.

	Inch class																			
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Largemouth bass	1	15	15	7	4	14	11	9	6	7	6	2	1	3		2	1	1	105	84.00 (21.50)
Spotted bass		8	1	1	2		1	2	3	3	3								24	19.20 (7.94)

EFDCCLSF.D07

Table 32. Indices of year class strength at age-0 and age-1 and mean lengths (in) of age-0 largemouth bass at Cranks Creek Lake (219 acres) from electrofishing. CPUE=fish/hr, SE=standard

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2001	5.0	0.11	27.33	5.21	13.33	3.04		
2002	5.1	0.09	34.40	10.63	20.80	7.74		
2007	4.3	0.14	32.00	8.67	7.20	2.94		

EFDCCLSF.D01-D02
EFDCCLSF.D07

Table 33. Species composition, relative abundance and CPUE (fish/hr) of black bass collected in approximately 2.02 hours of 15-minute nocturnal electrofishing samples by area at Dewey Lake (1,100 acres) on 3 May 2007.

		Inch class																			
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Lower	Spotted bass	3	4		2	4	5	8	7	1	1									35	34.33 (6.62)
	Largemouth bass	2	17	22	18	2	16	29	21	17	19	18	10	15	6	9	4	3	3	231	226.82 (22.54)
Upper	Spotted Bass	1	1		1	1	2	2	2	1	1									12	12.00 (12.00)
	Largemouth bass		9	23	12	6	35	27	10	8	8	9	7	3	6	4	3	5		175	175.00 (29.99)
Total	Spotted bass	4	5		3	5	7	10	9	2	2									47	23.16 (7.62)
	Largemouth bass	2	26	45	30	8	51	56	31	25	27	27	17	18	12	13	7	8	3	406	200.91 (19.94)

EFDDLLSS.D07

Table 34. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Dewey Lake (1,100 acres). CPUE=fish/hr, SE=standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
1987	44.60		38.30		12.00		0.60		0.00		95.40	
1988	84.00		40.70		26.70		2.00		0.00		154.70	
1989	75.00		27.50		10.80		7.00		0.00		120.70	
1990	58.80		68.00		32.00		11.40		0.57		171.40	
1991	73.80		50.60		18.40		3.50		0.18		146.40	
1992	57.40		64.10		17.20		7.40		0.22		146.10	
1993	43.70		71.80		15.60		8.80		0.80		140.00	
1994	no data											
1995	46.60		59.60		28.50		3.60		0.00		138.30	16.90
1996	no data											
1997	15.30		53.30		32.30		11.00		1.00		112.00	12.20
1998	20.10		51.40		43.20		7.20		0.60		122.00	8.50
1999	78.90		34.60		39.50		12.80		0.50		165.80	12.70
2000	62.20	4.70	44.00	4.40	23.60	3.50	10.30	1.30	0.10		140.10	9.50
2001	150.10	17.20	57.80	5.70	26.90	2.70	17.80	1.60	0.60		252.60	22.80
2002	no data											
2003	71.11	10.05	55.56	4.40	23.11	1.77	22.00	2.12	0.70		171.80	14.60
2004	96.20	11.90	34.70	3.80	20.00	3.20	17.50	2.60	1.00		168.30	13.90
2005	39.30	5.00	59.20	6.30	31.00	3.20	24.50	1.90	0.30		153.90	12.80
2006	32.30	5.70	66.40	8.60	24.20	3.60	24.90	3.60	0.70		147.80	10.00
2007	54.86	9.63	80.77	9.79	35.09	4.97	30.18	4.07	1.48	0.72	200.91	19.94

EFDDLLSS.D87-D02, BBRPSDEW.D03-D05, EFDDLLSS.D06-D07

Table 35. PSD and RSD values for each species of black bass in each area of Dewey Lake (1,100 acres) during spring 2007. Numbers in parentheses are 95% confidence intervals.

	Largemouth bass			Spotted bass		
Area	No. ≥8.0 in	PSD	RSD_{15}	No. ≥7.0 in	PSD	RSD_{14}
Lower	170	51 (44-59)	24 (17-30)	26	8 (0-18)	0
Upper	125	36 (28-45)	17 (10-23)	9	22 (0-51)	0
Total	295	45 (39-50)	21 (16-25)	35	11 (1-22)	0

EFDDLLSS.D07

Table 36. Spring electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Dewey Lake (1,100 acres) from 2000-2007.

Age	2000	2001	2002[a]	2003	2004	2005	2006	2007
1	55.30	125.70		61.20	79.69	24.76	27.90	48.98
2	35.60	47.10		36.60	30.14	37.57	30.20	41.33
3	11.30	34.90		17.20	12.75	20.87	21.10	27.13
4	18.80	14.30		22.10	17.83	28.16	28.40	37.19
5	9.70	16.70		11.40	9.43	15.48	13.20	14.59
6	3.70	6.50		2.10	1.91	3.10	1.70	3.15
7	3.30	2.30		7.40	5.59	7.61	8.90	9.16
8	0.40	1.80		4.40	3.21	4.76	5.70	5.00
9	1.70	1.80		8.40	6.51	10.73	9.60	12.41
10	0.40	1.00		0.33	1.00	0.39	0.30	1.48
11				0.30				
12				0.30				
13					0.26	0.44	0.40	0.50
14							0.30	

[a]No spring sample
EFDDLLSS.D06-D07
BBRPSDEW.D00-D05
BBRSCDEW.D03

Table 37. Population assessment using statewide criteria for largemouth bass collected from Dewey Lake (1,100 acres). Actual values are in parentheses.

	Year				
Parameter	2003	2004	2005	2006	2007
Mean length age-3 at capture	1 (10.5)	1 (10.5)	1 (10.5)	1 (10.5)	1 (10.5)
Spring CPUE age 1 fish	4 (61.20)	4 (79.70)	2 (24.80)	2 (27.90)	3 (48.98)
Spring CPUE 12.0-14.9 in fish	2 (23.10)	2 (20.00)	3 (31.00)	2 (24.20)	4 (35.09)
Spring CPUE ≥15.0 in fish	4 (22.00)	3 (17.50)	4 (24.50)	4 (24.90)	4 (30.18)
Spring CPUE ≥20.0 in fish	2 (0.70)	2 (1.00)	2 (0.30)	2 (0.70)	2 (1.48)
Total score	13	12	12	11	14
Assessment rating	Good	Good	Good	Fair	Good
Instantaneous mortality (z)	0.41	0.40	0.42	0.41	0.39
Annual mortality (A)	33.60	32.60	34.30	33.50	32.10

BBRPSDEW.D03-D05
EFDDLLSS.D06-D07
BBRSCDEW.D03

Table 38. Length-frequency distribution of each black bass species captured during 2.51 hours of 15-minute nocturnal electrofishing runs at Dewey Lake (1,100 acres) on 10 September 2007. Standard errors are in parentheses.

		Inch class																			
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Lower	Smallmouth bass													1						1	0.80 (0.80)
	Spotted bass			2	6	4	3	5	6	4		2	1							33	26.19 (7.08)
	Largemouth bass	3	8	20	4	15	62	24	21	16	8	8	4	1	1	2	1		1	199	158.01 (19.88)
Upper	Smallmouth bass																			0	0.00
	Spotted Bass				3	1	1	1	2	1	2	1								12	9.60 (4.83)
	Largemouth bass		22	30	24	10	58	55	20	22	11	6	6		2	1				267	213.60 (13.66)
Total	Smallmouth bass													1						1	0.40 (0.40)
	Spotted bass			2	9	5	4	6	8	5	2	3	1							45	17.90 (4.90)
	Largemouth bass	3	30	50	28	25	120	79	41	38	19	14	10	1	3	3	1		1	466	185.81 (14.67)

EFDDLLSF.D07

Table 39. Indices of year class strength at age-0 and age-1 and mean lengths (in) of age-0 largemouth bass at Dewey Lake (1,100 acres) from electrofishing. CPUE=fish/hr, SE=standard

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	5.0	0.04	75.58	14.20	37.56	9.36	61.23	9.44
2003	4.9	0.08	38.89	10.64	15.11	3.79	79.69	10.46
2004	5.2	0.06	45.20	7.11	25.40	4.60	24.76	4.12
2005	4.4	0.06	58.67	16.12	16.89	6.60	27.90	5.49
2006	5.1	0.07	38.97	9.89	21.32	5.82	48.98	9.18
2007	4.8	0.09	54.28	12.82	21.15	4.23		

BBRPSDEW.D03-D05
BBRDLLSF.D02
BBRWRDEW.D03-D04
BBRSCDEW.D03
EFDDLLSF.D05-D07
EFDDLLSS.D06-D07

Table 40. Length frequency and CPUE (fish/hr) of flathead catfish collected at Dewey Lake (1,100 acres) on 23 October 2007 (daytime electrofishing=0.95 hours) and 29 October 2007 (nocturnal electrofishing=1.5 hours). Standard errors are in parentheses.

	Inch class													
Date	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
23-Oct	3		1	1	1			1					7	6.34 (3.48)
29-Oct	1	1	1	2		1	1		2		1	2	12	8.00 (0.00)

EFDDLCSF.D07

Table 41. Fish harvest statistics derived from a daytime creel survey at Dewey Lake (1,100 acres) from 2 April through 28 October 2007. Standard errors are in parentheses.

Fishing trips	
No. of fishing trips	3,827
No. of fishing trips per acre	3.48
Fishing pressure	
Total angler hours	17,907 (473.35)
Man-hours/acre	16.28
Catch/harvest	
No. of fish caught	29,279 (3506.27)
No. of fish harvested	5,246 (782.65)
Lb of fish harvested	2,004
Harvest rates	
Fish/hour	0.29
Fish/acre	4.77
Lb/acre	1.82
Catch rate	
Fish/hour	1.53
Fish/acre	26.62
Miscellaneous characteristics (%)	
Male	90.80
Female	9.20
Resident	99.37
Non-resident	0.63
Method (%)	
Still fishing	45.93
Casting	53.62
Fly fishing	0.45
Mode (%)	
Boat	72.21
Bank	26.90
Dock	0.89

Table 42. Fish harvest statistics derived from a creel survey at Dewey Lake (1,100 acres) from 2 April through 28 October 2007.

	Common carp	Channel catfish	Flathead catfish	Green sunfish	Bluegill	Smallmouth bass	Spotted bass	Largemouth bass	White crappie	Black crappie	Warmouth
No. caught	13	1037	176	408	8,486	7	877	9,244	4,810	1341	1,899
(per acre)	(0.012)	(0.943)	(0.160)	(0.371)	(7.715)	(0.007)	(0.798)	(8.403)	(4.373)	(1.219)	(1.727)
No. harvested		786	144	15	1,311		97	169	1,288	523	658
(per acre)		(0.715)	(0.160)	(0.014)	(1.191)		(0.088)	(0.154)	(1.171)	(0.475)	(0.598)
% of total no. harvested	0.00	14.98	2.75	0.28	24.99	0.00	1.84	3.22	24.56	9.96	12.55
Lb harvested		398.10	285.50	1.30	156.90		63.60	385.90	398.40	144.10	137.60
(per acre)		(0.362)	(0.260)	(0.001)	(0.143)		(0.058)	(0.351)	(0.362)	(0.131)	(0.125)
% of total lb harvested	0.00	19.86	14.24	0.06	7.83	0.00	3.17	19.25	19.88	7.19	6.86
Mean length (in)		11.7	17.9	5.0	5.7		11.6	16.2	8.5	7.9	6.44
Mean weight (lb)		0.54	2.70	0.08	0.13		0.68	2.21	0.27	0.25	0.19

	Catfish group	Panfish group	Black bass group	Crappie group	Anything
No. of fishing trips for that species	356	146	2,028	337	957
% of all trips	9.30	3.81	53.03	8.83	25.04
Hours fished for that species	1,663.30	682.07	9,486.45	1,578.87	4,479.10
(per acre)	(1.51)	(0.62)	(8.62)	(1.44)	(4.07)
No. harvested fishing for that species	715	1270	211	1,476.00	
Lb harvested fishing for that species	560.00	164.30	370.70	416.10	
No./hour harvested fishing for that species	0.358	1.695	0.023	0.796	
% success fishing for that species	26.47	63.64	2.53	37.21	14.88

Table 43. Species composition and length distribution of each species of fish harvested (H) and released (R) from a creel survey on Dewey Lake (1,100 acres) from 2 April to 28 October 2007.

Species		Inch class																				
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Warmouth	H		108	345	86	11	22	54	32														
	R	173	453	227	119	194		65		10													
Channel catfish	H					39		258	13	322	13	64	52	25									
	R			36	24	48	36	48	24	12					11								
Flathead catfish	H									26		26			52		13	13					14
	R									11		11			9								
Bluegill	H	97	643	291	194	49	36																
	R	2943	1,290	1,303	591	27																	
Green sunfish	H		14																				
	R	205	120																				
Spotted bass	H							32		54		10											
	R			34	23	124	11	399		192	23	11	11			12							
Largemouth bass	H												34	56	56	23							
	R			385	257	1108	222	2181	140	1,994	490	1270	373	373	226	34	11	10					
Black crappie	H		14	28	141	184	99	28	28														
	R	104	348	278	52			35															
White crappie	H	25	25	25	198	359	223	273	37	62	37	12	12										
	R	564	1,268	924	548	172	16	16					13										
White bass	H																						
	R		71	47	24	12				11													

Table 44. Monthly catfish (flathead and channel) angling success at Dewey Lake (1,100 acres) during the 2007 creel survey period.

Month	Total no. of catfish caught	Total no. of catfish harvested	No. of catfish fishing trips	Hours fished by catfish anglers	Catfish caught by catfish anglers	Catfish caught/hr by catfish anglers	Catfish harvested by catfish anglers	Catfish harvested/hr by catfish anglers
Apr	211	190	48.64	227.58	211	2.78	190	2.50
May	94	75	51.15	239.29	56	0.30	47	0.25
Jun	161	67	42.84	200.41	121	0.44	40	0.15
Jul	159	146	45.82	214.36	53	0.25	40	0.19
Aug	97	59	34.41	161.00	66	0.53	44	0.35
Sep	182	109	50.71	237.24	133	0.29	97	0.21
Oct	309	284	81.95	383.43	283	0.61	257	0.56
Total	1,213	930	356	1,663.31	923		715	
Mean						0.74		0.60

Table 45. Monthly black & white crappie angling success at Dewey Lake (1,100 acres) during the 2007 creel survey period.

Month	Total no. of crappie caught	Total no. of crappie harvested	No. of crappie fishing trips	Hours fished by crappie anglers	Crappie caught by crappie anglers	Crappie caught/hour by crappie anglers	Crappie harvested by crappie anglers	Crappie harvested/hour by crappie anglers
Apr	3,081	485	111.18	520.18	3,017	0.55	485	3.39
May	679	321	57.97	271.19	274	0.36	76	1.29
Jun	619	215	42.84	200.41	525	0.84	175	2.52
Jul	384	146	33.60	157.20	291	1.07	119	2.62
Aug	171	104	17.21	80.50	140	1.17	81	2.02
Sep	509	218	43.95	205.61	508	0.88	218	2.05
Oct	709	322	30.73	143.79	696	1.56	322	3.38
Total	6,151	1811	337.47	1,578.87	5,451		1476	
Mean						0.92		2.17

Table 46. Monthly black bass angling success at Dewey Lake (1,100 acres) during the 2007 creel survey period.

Month	Total no. of black bass caught	Total no. of black bass harvested	No. of black bass fishing trips	Hours fished by bass anglers	Black bass caught by bass anglers	Black bass caught/ hour by bass anglers	Black bass harvested by bass anglers	Black bass harvested/ hour by bass anglers
Apr	1,245		298.80	1,397.98	1,076	0.98		0.00
May	2,046	28	375.07	1,754.78	1,715	0.91	28	0.01
Jun	1,264	94	260.58	1,219.14	1,008	0.80	53	0.04
Jul	1,576	40	274.90	1,286.15	1,403	0.94	39	0.03
Aug	1,220	52	223.68	1,046.49	1,100	0.80	52	0.04
Sep	1,308		294.11	1,376.00	1,224	0.90		0.00
Oct	1,469	52	300.50	1,405.90	1,418	0.98	39	0.03
Total	10,129	266	2,027.64	9,486.44	8,944		211	
Mean						0.90		0.02

Table 47. Monthly white bass (morone) angling success at Dewey Lake (1,100 acres) during the 2007 creel survey period.

Month	Total no. of morone caught	Total no. of morone harvested	No. of morone fishing trips	Hours fished by morone anglers	Morone caught by morone anglers	Morone caught/hour by morone anglers	Morone harvested by morone anglers	Morone harvested/hour by morone anglers
Apr								
May								
Jun								
Jul								
Aug	15							
Sep	61							
Oct	90							
Total	166							
Mean								

Table 48. Catch and harvest statistics derived from a creel survey at Dewey Lake (1,100 acres) for largemouth and white bass, white and black crappie, and channel and flathead catfish caught and released by all anglers from 2 April to 28 October 2007.

	Largemouth bass				White crappie				Channel Catfish			
		Catch & release				Catch & release				Catch & release		
	Harvest	12-14.9 in	≥15.0 in	Total	Harvest	≤8.9 in	≥9.0 in	Total	Harvest	≤14.9 in	≥15.0 in	Total
Total number	169	3,754	1,028	9,244	1,288	3,476	46	4,810	786	36	11	1037
Total weight (lb)	385.90	2266.30	2185.50	7427.70	398.40	246.00	2.70	647.10	398.10	10.00	4.00	470.10
Mean length (in)	16.2				8.5				11.7			
Mean weight (lb)	2.21				0.27				0.54			
Rate (fish/hr)	0.010				0.069				0.040			

	White bass				Black crappie				Flathead catfish			
		Catch & release				Catch & release				Catch & release		
	Harvest	12-14.9 in	≥15.0 in	Total	Harvest	≤8.9 in	≥9.0 in	Total	Harvest	≤14.9 in	≥15.0 in	Total
Total number		12		166	523	782	36	1,341	144	22	10	176
Total weight (lb)		1.60		23.60	144.10	65.00	2.00	211.10	285.50	24.00	11.40	320.90
Mean length (in)					7.9				17.9			
Mean weight (lb)					0.25				2.70			
Rate (fish/hr)					0.024				0.007			

Table 49. Length-frequency and CPUE (fish/hr) of sunfish collected in 0.82 hours of 7.5 min. nocturnal electrofishing runs at Fishpond Lake 2 May 2007; numbers in parentheses are standard errors.

	Inch class									
Species	2	3	4	5	6	7	8	9	Total	CPUE
Bluegill	1	3	8	4	8	2	13	2	41	48.97 (11.94)
Warmouth			1	7	8	4			20	24.75 (6.73)

EFDFPBSS.D07

Table 50. Length frequency and CPUE (fish/hr) of bluegill collected in spring electrofishing samples at Fishpond Lake; SE = standard error.

	Length group											
	<3.0 in		3.0-5.9 in		6.0-7.9 in		8.0-9.9 in		≥10.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	37.10	1.00	105.60	2.10	11.30	0.60	5.60	0.20			163.50	23.80
2005	56.40	17.70	153.90	43.70	65.40	23.90	10.30	4.70			285.90	70.70
2007	1.24	1.24	17.93	7.56	11.96	4.26	17.84	7.51			48.97	11.94

EFDFPBSS.D02, D05, D07

Table 51. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Fishpond Lake.

	Year		
Age	2002	2005	2007
1	72.90	102.10	
2	74.20	167.70	7.44
3	5.30	12.30	10.82
4			6.57
5			22.89

EFDFPBSS.D02, D05, D07
EFDFPBAS.D02, D07

Table 52. PSD and RSD_8 values obtained for bluegill collected at Fishpond Lake on 2 May 2007; 95% confidence intervals are in parenthesis.

No. ≥3.0 in	PSD	RSD_8
40	63	38
	(47-78)	(22-53)

EFDFPBSS.D07

Table 53. Mean back-calculated length (in) at each annulus for bluegill collected from Fishpond Lake on 2 May 2007, including 95% confidence intervals.

Year Class	No.	Age 1	2	3	4	5
2005	4	2.4	4.1			
2004	6	2.1	3.3	5.1		
2003	4	2.2	3.4	5.9	6.7	
2002	16	2.3	3.6	5.1	7.0	8.1
Mean		2.3	3.6	5.2	6.9	8.1
Smallest		1.6	2.6	4.0	5.3	6.6
Largest		3.5	5.4	7.9	9.0	9.1
STD error		0.1	0.1	0.2	0.2	0.2
95% CI LO		2.1	3.4	4.9	6.5	7.8
95% CI HI		2.4	3.8	5.6	7.3	8.5

Intercept = 0
EFDFPBAS.D07

Table 54. Population assessment using statewide criteria for spring collected bluegill from Fishpond Lake. Actual values are in parentheses.

Parameter value	Year 2002	2005	2007
Mean length age-2+ at capture	3 (4.9)	3 (4.9)	2 (4.2)
Years to 6.0 in	4 (2-2+)	4 (2-2+)	3 (3-3+)
CPUE ≥6.0 in	1 (16.90)	4 (75.70)	2 (29.80)
CPUE ≥8.0 in	2 (5.60)	3 (10.30)	4 (17.84)
Total score	10	14	11
Assessment rating	Fair	Excellent	Good
Instantaneous mortality (Z)	1.30	1.04	N/A
Annual mortality (A)	72.90	64.60	N/A

EFDFPBSS.D02, D05, D07
EFDFPBAS.D02, D07
N/A=no descending catch in numbers with increasing age

Table 55. Length frequency and CPUE (fish/hr) of black bass collected in approximately 2.52 hours of 15-minute nocturnal electrofishing samples on Fishtrap Lake (1,143 acres) 8 May 2007; numbers in parentheses are standard errors.

		Inch class																		
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Upper	Largemouth bass		7	8	15	2	1	21	41	22	15	15	9	2	3	3	1		1	166	131.04 (19.89)
	Smallmouth bass			2		1			2	1	1	3	1	1			1			13	10.29 (4.24)
	Spotted bass		1	3	1	1	4				1									11	8.71 (2.34)
Lower	Largemouth bass	1	7	11	16	5	3	11	17	20	21	14	9	2	4	1	1		2	145	116.00 (19.84)
	Smallmouth bass		3	9	2	4	13	10	4	2	4	3	1			1		1		57	45.60 (12.81)
	Spotted bass		10	21	1	8	6	5	6	1	2									60	48.00 (22.77)
Total	Largemouth bass	1	14	19	31	7	4	32	58	42	36	29	18	4	7	4	2		3	311	123.52 (13.48)
	Smallmouth bass		3	11	2	5	13	10	6	3	5	6	2	1		1	1	1		70	27.95 (8.67)
	Spotted bass		11	24	2	9	10	5	6	1	3									71	28.35 (12.62)

EFDFLLSS.D07

Table 56. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth and smallmouth bass at Fishtrap Lake (1,143 acres). CPUE = fish/hr and SE=standard error.

	Largemouth bass length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2000	28.70	4.20	29.00	2.30	19.00	2.60	23.00	4.30	3.40		99.70	9.90
2001	20.30	3.70	32.70	4.30	17.30	2.50	10.30	2.90	1.30		80.70	7.70
2002						no data						
2003	43.00	4.40	25.00	7.60	16.00	4.90	11.00	3.40	2.00		95.00	4.10
2004	44.70	6.80	45.10	5.80	19.30	2.20	13.10	3.90	1.50		122.20	10.70
2005	61.80	10.20	67.60	10.00	38.90	6.50	14.90	2.00	0.00		183.30	20.80
2006	52.50	8.80	37.60	1.90	33.00	3.40	4.00	0.70	0.00		127.10	11.60
2007	28.69	4.73	53.93	8.34	33.00	3.47	7.91	1.85	1.19	0.85	123.52	13.48

	Smallmouth bass length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		>14.0 in		>17.0 in		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2000	4.70	1.60	3.30	1.80	1.70	0.60	0.00		0.00		9.70	3.30
2001	4.70	2.00	7.70	2.40	4.30	1.40	0.70	0.50	0.00		17.30	4.90
2002						no data						
2003	1.00	1.00	4.00	2.80	2.00	2.00	1.00	1.00	0.33		8.00	4.90
2004	5.10	2.20	9.50	3.00	4.40	1.40	2.90	1.60	0.45		21.80	6.60
2005	4.40	1.70	4.70	2.20	4.40	2.00	1.80	0.80	0.36		15.30	5.30
2006	8.30	4.30	5.00	1.90	3.00	1.10	1.30	0.70	0.66		17.80	6.20
2007	8.39	2.83	11.59	4.71	5.58	1.71	2.38	1.06	1.19	0.61	27.95	8.67

EFDFLLSS.D00-D07

Table 57. PSD and RSD values obtained for black bass collected in spring electrofishing samples in each area of Fishtrap Lake on 4 May 2006; 95% confidence intervals are in parentheses; largemouth bass stock size ≥8.0 in and smallmouth and spotted bass stock size ≥7.0 in.

Area	Species	No. ≥stock size	PSD (+/- 95%)	RSD* (+/- 95%)
Upper	Largemouth bass	134	37	7
			(28-45)	(3-12)
	Smallmouth bass	11	73	27
			(45-100)	(0-55)
	Spotted bass	6	17	
			(0-49)	
Lower	Largemouth bass	105	51	10
			(42-61)	(4-15)
	Smallmouth bass	43	28	7
			(14-42)	(0-15)
	Spotted bass	28	11	
			(0-22)	
Total	Largemouth bass	239	43	8
			(37-49)	(5-12)
	Smallmouth bass	54	37	11
			(24-50)	(3-20)
	Spotted bass	34	12	
			(1-23)	

* Largemouth bass = RSD_{15}; smallmouth and spotted bass = RSD_{14}

EFDFLLSS.D07

Table 58. Spring electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Fishtrap Lake (1,143 acres) from 2003-2007.

	Year				
Age	2003	2004	2005	2006	2007
1	42.00	44.73	61.45	52.49	28.29
2	26.79	46.82	73.41	43.50	57.76
3	9.61	13.30	26.53	22.99	22.68
4	7.20	7.30	9.80	5.21	8.79
5	2.50	2.53	4.93	1.13	2.05
6	0.50	1.45	1.09	0.16	0.39
7	4.40	4.96	5.69	1.60	2.57
8	1.00	1.09			0.60

EFDFLLSS.D03-D07
EFDFLLAS.D04

Table 59. Spring electrofishing catch rate (fish/hr) for each age of smallmouth bass collected from Fishtrap Lake (1,143 acres) from 2006-2007.

	Year	
Age	2006	2007
1	6.97	6.39
2	5.80	13.39
3	2.81	4.98
4	0.33	1.59
5	0.49	1.00
6	0.16	0.20

EFDFLLSS.D06-D07
EFDFLSAS.D07

Table 60. Mean back-calculated length (in) at each annulus for smallmouth bass collected from Fishtrap Lake (1,143 acres)on 8 May 2007, including 95% confidence intervals.

Year		Age					
Class	No.	1	2	3	4	5	6
2006	8	5.5					
2005	10	5.8	9.0				
2004	8	6.2	10.2	12.5			
2003	3	6.7	10.3	12.3	14.0		
2002	3	6.4	10.3	12.9	15.1	17.2	
2001	1	5.2	9.7	12.1	14.3	15.5	17.0
Mean		5.9	9.7	12.5	14.5	16.8	17.0
Smallest		4.4	7.4	10.3	13.5	15.5	17.0
Largest		7.4	11.7	14.4	16.0	18.5	17.0
STD error		0.1	0.2	0.3	0.4	0.7	
95% CI LO		5.7	9.3	12.0	13.8	15.4	
95% CI HI		6.2	10.2	13.0	15.2	18.1	

Intercept = 0
EFDFLSAS.D07

Table 61. Population assessment using statewide criteria for largemouth bass collected from Fishtrap Lake (1,143 acres). Actual values are in parentheses.

	Year				
Parameter	2003	2004	2005	2006	2007
Mean length age-3 at capture	4 (13.6)	4 (13.6)	4 (13.6)	4 (13.6)	4 (13.6)
Spring CPUE age 1 fish	3 (42.00)	2 (35.40)	4 (61.50)	4 (52.50)	2 (28.29)
Spring CPUE 12.0-14.9 in fish	2 (16.00)	2 (19.30)	4 (38.90)	3 (33.00)	3 (33.00)
Spring CPUE ≥15.0 in fish	2 (11.00)	3 (13.10)	3 (14.90)	1 (4.00)	2 (7.91)
Spring CPUE ≥20.0 in fish	3 (2.00)	2 (1.50)	0 (0.00)	0 (0.00)	2 (1.19)
Total score	14	13	15	12	13
Assessment rating	Good	Good	Good	Good	Good
Instantaneous mortality (z)	0.52	0.56	0.65	0.83	0.72
Annual mortality (A)	40.40	42.70	48.00	56.50	51.30

EFDFLLSS.D03-D07
EFDFLLAS.D04

Table 62. Population assessment using statewide criteria for smallmouth bass collected from Fishtrap Lake (1,143 acres). Actual values are in parentheses.

	Year	
Parameter	2006	2007
Mean length age-3 at capture	4 (12.5)	4 (12.5)
Spring CPUE age 1 fish	2 (6.97)	2 (6.39)
Spring CPUE 11.0-13.9 in fish	3 (2.97)	3 (5.58)
Spring CPUE ≥14.0 in fish	3 (1.32)	4 (2.38)
Spring CPUE ≥17.0 in fish	4 (0.66)	4 (1.19)
Total score	16	17
Assessment rating	Good	Excellent
Instantaneous mortality (z)	0.69	0.85
Annual mortality (A)	49.60	57.30

EFDFLLSS.D06-D07
EFDFLSAS.D07

Table 63. Length frequency and CPUE (fish/hr) of black bass collected in approximately 2.50 hours of 15-minute nocturnal electrofishing samples at Fishtrap Lake (1,143 acres) on 16 October 2007; numbers in parentheses are standard errors.

		Inch class																			
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Upper	Smallmouth bass			1		1	2	1	2	2	4	2		1			2	1		19	15.15 (4.06)
	Spotted bass	3	8	8	3		3	1	5			1								32	25.56 (7.12)
	Largemouth bass	12	89	78	34	4	31	69	29	33	23	11	7	3	1		1		1	426	339.90 (49.72)
Lower	Smallmouth bass	2	10	2	1	6	10	9	9	11	5	4		1	1	2	1			74	59.20 (6.50)
	Spotted bass	2	5	10	16	24	15	15	10	1	1									99	79.20 (33.81)
	Largemouth bass	3	23	33	14	4	27	57	26	16	18	9	2	4	1		3			240	192.00 (22.34)
Total	Smallmouth bass	2	10	3	1	7	12	10	11	13	9	6		2	1	2	3	1		93	37.17 (8.18)
	Spotted bass	5	13	18	19	24	18	16	15	1	1	1								131	52.38 (18.58)
	Largemouth bass	15	112	111	48	8	58	126	55	49	41	20	9	7	2		4		1	666	265.95 (35.61)

EFDFLLSF.D07

Table 64. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected at Fishtrap Lake (1,143 acres).

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	5.1	0.04	106.20	32.90	59.60	15.90	35.35	6.00
2004	5.0	0.03	256.00	51.10	122.67	23.90	61.50	10.15
2005	4.5	0.05	108.00	41.30	24.00	11.10	52.49	8.75
2006	5.0	0.05	72.70	14.10	36.50	8.00	28.29	4.49
2007	5.1	0.05	114.20	23.70	63.50	11.03		

EFDFLLSF.D03-D07
EFDFLLSS.D04-D07
EFDFLLAS.04

Table 65. Length frequency and gillnetting CPUE (fish/net-night) of hybrid striped bass collected in 8 net nights at Fishtrap Lake (1,143 acres) on 5-6 December 2007; numbers in parentheses are standard errors.

	Inch class																					
Species	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Total	CPUE
Hybrid striped bass	1				3	14	29	25	7	6	17	24	15	32	28	7	3	1	1	1	214	26.75 (5.06)
White bass								2	3												5	0.63 (0.26)

EFDFLHGF.D07

Table 66. Mean back-calculated length (in) at each annulus for hybrid striped bass collected from Fishtrap Lake (1,143 acres) in 2007, including the length range of bass at each age and the 95% confidence intervals for each age group.

Year		Age									
class	No.	1	2	3	4	5	6	7	8	9	10
2006	50	8.6									
2005	40	9.2	15.2								
2004	30	9.6	15.3	18.5							
2003	18	9.0	15.7	18.9	20.5						
2001	4	11.1	15.7	19.4	21.3	22.2	22.9				
1999	1	8.8	15.8	19.9	22.3	23.2	23.7	24.3	24.9		
1998	1	7.8	14.5	17.9	21.1	23.1	24.0	24.6	25.1	25.7	
1997	1	7.9	15.4	18.7	19.8	21.0	21.9	22.6	23.1	23.6	24.0
Mean		9.1	15.3	18.7	20.7	22.3	23.0	23.8	24.4	24.6	24.0
Smallest		5.6	11.5	13.9	19.0	21.0	21.9	22.6	23.1	23.6	24.0
Largest		12.9	18.0	20.5	22.3	23.2	24.0	24.6	25.1	25.7	24.0
Std error		0.1	0.1	0.1	0.2	0.3	0.3	0.6	0.6	1.1	
95% CI LO		8.9	15.1	18.4	20.4	21.7	22.5	22.6	23.1	22.5	
95% CI HI		9.3	15.6	19.0	21.1	22.9	23.6	25.0	25.7	26.8	

intercept=0
EFDFLHAF.D07

Table 67. Age frequency and CPUE (fish/net-night) of hybrid striped bass collected at Fishtrap Lake (1,143 acres) in December 2007.

	Inch class																					
Age	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Total	Age %	CPUE
0	1																				1	0	0.13 (0.13)
1					3	14	29	23	5												74	35	9.29 (2.29)
2								2	2	6	17	22	3								52	24	6.49 (1.99)
3												2	12	21	13	1					49	23	6.04 (1.10)
4														11	15	5					31	15	3.92 (0.99)
6																1	3				4	2	0.50 (0.27)
8																			1		1	0	0.13 (0.13)
9																				1	1	0	0.13 (0.13)
10																		1			1	0	0.13 (0.13)
Total	1				3	14	29	25	7	6	17	24	15	32	28	7	3	1	1	1	214		
%	0				1	7	14	12	3	3	8	11	7	15	13	3	1	0	0	0			

EFDFLHAF.D07
EFDFLHGF.D07

Table 68. Hybrid striped bass population assessment using statewide criteria for fish gill netted at Fishtrap Lake (1,143 acres) from 1997 - 2007, CPUE = fish/net-night.

	Year						
Parameters	1997	1999	2000	2002	2004	2005	2007
CPUE	1	3	3	4	3	4	4
Actual value	2.56	10.47	31.43	28.80	15.00	29.13	26.75
Mean length age 2+ at capture	1	3	2	3	1	3	3
Actual value	15.5	17.4	16.0	17.3	13.7	17.3	17.6
CPUE ≥15.0 in fish	1	3	3	4	3	4	4
Actual value	0.56	7.94	18.80	16.90	5.00	14.91	17.75
CPUE age-1	1	1	3	4	2	3	3
Actual value	1.33	1.81	7.92	12.60	4.60	9.38	9.29
Total Score	4	10	11	15	9	14	14
Assessment rating	Poor	Good	Good	Excellent	Fair	Excellent	Excellent
Instantaneous mortality	0.56	0.67	0.67	0.87	0.45	0.62	0.44
Annual mortality	42.90	48.90	48.60	58.20	36.00	46.40	35.60

EFDFLHAF.D97-D07
EFDFLHGF.D97-D07

Table 69. Length frequency and CPUE (fish/net-night) for white crappie collected at Fishtrap Lake (1,143 acres) in 20 net-nights from 6-7 November 2007. Standard errors are in parentheses.

Inch class											
3	4	5	6	7	8	9	10	11	12	Total	CPUE
8	46	11	38	28	30	15	7	3	2	188	9.40 (3.22)

EFDFLCTF.D07

Table 70. PSD and RSD_{10} values calculated for crappie collected in trap nets at Fishtrap Lake (1,143 acres) during November 2007; 95% confidence intervals are in parentheses.

No. ≥5.0 in	PSD	RSD_{10}
134	43 (34-51)	9 (4-14)

EFDFLCTF.D07

Table 71. Mean back-calculated length (in) at each annulus for white crappie collected from Fishtrap Lake (1,143 acres) in November 2007, including 95% confidence intervals.

Year		Age				
Class	No.	1	2	3	4	5
2006	34	4.3				
2005	39	5.0	7.3			
2004	6	4.6	6.7	8.0		
2003	2	4.5	6.4	7.5	8.2	
2002	4	4.7	6.6	7.9	8.8	9.9
Mean		4.7	7.1	7.9	8.6	9.9
Smallest		3.3	5.3	6.8	7.9	9.1
Largest		5.9	8.5	9.8	9.6	10.7
STD error		0.1	0.1	0.2	0.3	0.4
95% CI LO		4.5	6.9	7.5	8.1	9.0
95% CI HI		4.8	7.3	8.4	9.1	10.8

Intercept = 0
EFDFLCAF.D07

Table 72. Age frequency and CPUE (fish/net-night) of white crappie collected by trap netting for 20 net-nights at Fishtrap Lake (1,143 acres) in November 2007; numbers in parentheses are standard errors.

	Inch class												
Age	3	4	5	6	7	8	9	10	11	12	Total	Age %	CPUE
0	8	46									54	29	2.70 (1.64)
1			11	36	16	2					65	34	3.21 (1.10)
2				2	11	22	12	6			53	28	2.63 (1.02)
3					2	5	1			2	10	5	0.48 (0.18)
4						2	1				3	1	0.13 (0.05)
5							1	1	3		5	3	0.25 (0.17)
Total	8	46	11	38	29	31	15	7	3	2	190	100	
%	4	24	6	20	15	16	8	4	2	1			

CPUE of ≥8.0 in (quality size) = 2.85 fish/net-night
CPUE of ≥10.0 in (preferred size) = 0.60 fish/net-night
EFDFLCAF.D07
EFDFLCTF.D07

Table 73. Population assessment scores for white crappie collected from Fishtrap Lake (1,143 acres). Actual assessment values are in parentheses.

Parameter	Year 2003	2005	2007
CPUE (excluding age 0)	4 (100.00)	4 (38.90)	2 (6.70)
CPUE age 1 crappie	4 (33.20)	1 (2.10)	2 (3.20)
CPUE age 0 crappie	1 (0.001)	4 (22.50)	1 (2.70)
CPUE ≥8.0 in fish	4 (15.9)	4 (25.90)	2 (2.85)
Mean length age-2 at capture	1 (7.1)	1 (8.2)	2 (8.8)
Total score	14	14	9
Assessment rating	Good	Good	Fair
Instantaneous mortality (z)	1.45	0.56	0.80
Annual Mortality (A)	76.60	43.10	54.90

EFDFLCTF.D03, D05, D07
EFDFLCAF.D03, D05, D07

Table 74. Length frequency and CPUE (fish/hr) of bluegill and redear sunfish collected in 0.375 hours of 7.5 minute daytime electrofishing runs at Martin County Lake (3 acres) on 2 May 2007; numbers in parentheses are standard errors.

Species	Inch class 1	2	3	4	5	6	7	8	9	Total	CPUE
Bluegill	2	24	13	15	8	3	9	9		83	221.33 (61.51)
Redear sunfish							1	1	1	3	8.00 (8.00)

EFDMCBSS.D07

Table 75. Length frequency and CPUE (fish/hr) of bluegill and redear sunfish collected in spring electrofishing samples at Martin County Lake (3 acres). SE = standard error.

	Length group											
	<3.0 in		3.0-5.9 in		6.0-7.9 in		8.0-9.9 in		≥10.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
Bluegill												
2002	215.38	5.51	223.07	2.52	10.25	0.33	7.69	0.00	2.56	0.00	458.97	39.81
2003	90.60	27.40	240.20	72.40	13.30	1.50	1.50	1.50			345.60	99.20
2005	130.77	35.53	171.79	9.25	20.51	6.78	7.69	4.44			330.77	32.03
2007	69.33	26.26	96.00	32.33	32.00	16.65	24.00	4.62			221.33	61.51
Redear sunfish												
2002					12.82	0.33	2.56	0.00	5.12	0.00	20.51	5.13
2003							4.60	3.10			4.60	3.10
2005	7.69	7.69	10.26	2.56	2.56	2.56					20.51	5.13
2007					2.67	2.67	5.33	5.33			8.00	8.00

EFDMCBSS.D02, D03, D05, D07

Table 76. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Martin County Lake (3 acres).

	Year			
Age	2002	2003	2005	2007
1	315.38	177.00	187.69	104.00
2	124.36	146.61	111.03	58.67
3	8.97	17.36	21.79	15.47
4	2.56			8.80
5	5.13			25.60
6				8.80

EFDMCBSS.D02, D03, D05, D07
EFDMCBAS.D02, D07

Table 77. PSD and RSD_8 values obtained for bluegill and redear sunfish collected at Martin County Lake (3 acres) on 2 May 2007; 95% confidence intervals are in parentheses.

Species	No. ≥3.0 in	PSD	RSD_8
Bluegill	57	37 (24-50)	16 (6-25)
Redear sunfish	3	100	33 (0-99)

EFDMCBSS.D07

Table 78. Population assessment using statewide criteria for bluegill collected by spring electrofishing from Martin County Lake (3 acres). Actual values are in parentheses.

	Year			
Parameter	2002	2003	2005	2007
Mean length age-2 at capture	3 (4.5)	3 (4.5)	3 (4.5)	3 (4.9)
Years to 6.0 in	3 (3-3+)	3 (3-3+)	3 (3-3+)	3 (3-3+)
CPUE ≥6.0 in fish	1 (20.60)	1 (14.80)	2 (28.20)	3 (56.00)
CPUE ≥8.0 in fish	3 (10.30)	2 (1.50)	3 (7.70)	4 (24.00)
Total score	10	9	11	13
Assessment rating	Fair	Fair	Good	Good
Instantaneous mortality (Z)	1.69	1.16	1.05	0.45
Annual mortality (A)	81.6	68.8	64.9	36.5

EFDMCBAS.D02, D07
EFDMCBSS.D02, D03, D05, D07

Table 79. Length frequency and electrofishing CPUE (fish/hr) of black bass collected in approximately 0.754 hours of 7.5-min. electrofishing runs in Martin County Reservoir (23 acres) on 26 April 2007; numbers in parentheses are standard errors.

	Inch class																
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE
Largemouth bass	2	4	1	6	27	32	28	33	27	34	5	4	1	2	1	207	274.10 (41.68)

EFDMRLSS.D07

Table 80. Spring electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Martin County Reservoir (23 acres). CPUE=fish/hr, SE = standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE			CPUE	SE
2004	26.37	8.00	128.57	16.70	17.58	4.00					172.50	25.40
2006	85.74	12.95	36.56	6.03	33.32	6.31	1.60	1.60			157.22	14.89
2007	53.00	7.83	158.80	37.37	56.96	5.44	5.33	3.37			274.10	41.68

EFDMRLSS.D04, D06, D07

Table 81. PSD and RSD_{15} values obtained for largemouth bass species taken in spring electrofishing samples in Martin County Reservoir (23 acres) on 26 April 2007; 95% confidence intervals are in parentheses.

No. ≥8.0 in	PSD (+/- 95%)	RSD_{15} (+/- 95%)
167	28 (21-35)	2 (0-5)

EFDMRLSS.D07

Table 82. Length frequency and CPUE (fish/hr) of black bass and walleye collected in 1.286 hours of 15-min nocturnal electrofishing runs in Martins Fork Lake (330 acres) on 7 May 2007; numbers in parentheses are standard errors.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass		4	2	1	3	13	30	12	7	3	5	12	7	8	6	3	1	1	1	119	93.27 (19.34)
Redeye bass	2	2	1	1	2	1	1													10	7.73 (2.06)
Spotted bass		4	2	6	10	13	4	6	3	3	1									52	40.82 (11.42)
Walleye																1				1	0.80 (0.80)

EFDMLLSS.D07

Table 83. Spring nocturnal electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Martins Fork Lake (330 acres). CPUE=fish/hr, S.E. = standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	14.00	3.70	22.00	3.80	3.30	1.20	5.30	2.00			68.00	15.70
2004	2.67	2.70	89.33	19.20	4.00	2.30	5.33	3.50			101.30	26.80
2005	4.80	2.30	23.20	6.00	17.60	4.80	4.80	2.00			50.40	10.80
2006	9.30	1.97	19.89	6.03	13.26	2.99	9.30	2.66	0.70		51.74	10.70
2007	7.86	3.30	48.64	13.30	15.65	2.58	21.13	5.27	1.57	0.96	93.27	19.34

EFDMLLSS.D03-D07

Table 84. PSD and RSD values obtained for each black bass species taken in spring nocturnal electrofishing samples in Martins Fork Lake (330 acres) in May 2007; 95% confidence intervals are in parentheses; largemouth bass stock size ≥8.0 in and spotted bass stock size ≥7.0 in.

Species	No. ≥stock size	PSD (+/- 95%)	RSD* (+/- 95%)
Spotted bass	40	18 (6-29)	
Largemouth bass	109	43 (34-53)	25 (17-33)

* Largemouth bass=RSD_{15}; spotted bass=RSD_{14}

EFDMLLSS.D07

Table 85. Spring electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Martins Fork Lake (330 acres) from

	Year				
Age	2003	2004	2005	2006	2007
1	15.31	10.86	5.37	9.98	10.12
2	19.35	78.25	20.76	17.66	41.28
3	3.33	6.89	15.47	9.49	8.22
4	2.67	1.33	2.40	6.64	15.65
5	0.67			1.33	2.36

EFDMLLSS.D03-D07
EFDMLLAS.D03

Table 86. Spring electrofishing population assessment using statewide criteria for largemouth bass collected from Martins Fork Lake (330 acres). Actual values are in parentheses.

	Year				
Parameter	2003	2004	2005	2006	2007
Mean length age-3 at capture	4 (14.3)	4 (14.3)	4 (14.3)	4 (14.3)	4 (14.3)
Spring CPUE age 1 fish	2 (32.20)	1 (10.90)	1 (5.40)	1 (9.98)	1 (10.12)
Spring CPUE 12.0-14.9 in fish	1 (3.30)	1 (4.00)	1 (17.60)	1 (13.30)	1 (15.65)
Spring CPUE ≥15.0 in fish	2 (5.30)	2 (5.30)	2 (4.80)	2 (9.30)	3 (21.13)
Spring CPUE ≥20.0 in fish	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.70)	2 (1.57)
Total score	9	8	8	9	11
Assessment rating	Fair	Fair	Fair	Fair	Fair
Instantaneous mortality (z)	1.03	2.04	1.08	0.81	0.80
Annual mortality (A)	64.40	87.00	66.00	55.70	55.10

EFDMLLSS.D03-D07
EFDMLLAS.D03

Table 87. Length frequency and CPUE (fish/hr) of black bass collected at Martins Fork Lake (330 acres) during 1.265 hours of 15 minute nocturnal electrofishing samples on 11 October 2007; numbers in parentheses are standard errors.

	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass		9	14	10	3	4	16	9	2	3	3	2	1		1	1	1	1		1	81	64.20 (9.75)
Redeye bass	1	8	4	7	2	1	2														25	19.76 (6.12)
Spotted bass		4	9	6	9	10	12	9	8		2	4	1								74	58.51 (6.32)
Smallmouth bass					1	1	1														3	2.36 (0.96)

EFDMLLSF.D07

Table 88. Electrofishing indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected during 2002 - 2007 at Martins Fork Lake (330 acres); CPUE = fish/hr, SE = standard error.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	5.5	0.12	34.40	8.60	25.60	7.90	15.30	3.60
2003			no fall sample				77.50	18.50
2004			no fall sample				24.60	5.90
2005	4.4	0.17	32.00	4.30	10.00	2.60	9.98	2.30
2006	4.5	0.13	38.40	14.50	11.20	3.20	10.12	3.36
2007	4.6	0.15	28.68	8.65	10.36	2.99		

EFDMLLSF.D02
EFDMLLSF.D05-D07
EFDMLLSS.D03-D07
EFDMLLAS.D03

Table 89. Length frequency and CPUE (fish/hr) of black bass collected in 1.533 hours of 15-minute nocturnal electrofishing samples in Paintsville Lake (1,150 acres) on 25 April 2007; numbers in parentheses are standard errors.

		Inch class																
Area	Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Upper	Largemouth bass	6	11	23	4	4	14	14	7	5	2	1	1	1	1	1	95	124.23 (13.87)
	Smallmouth bass																0	0.00
	Spotted bass	9	2	1	1	1											14	18.34 (10.14)
Lower	Largemouth bass	4	7	5	1	15	30	29	12	5	4		1	2	3		118	153.83 (41.04)
	Smallmouth bass									1							1	1.31 (1.31)
	Spotted bass			1		1											2	2.60 (2.60)
Total	Largemouth bass	10	18	28	5	19	44	43	19	10	6	1	2	3	4	1	213	139.03 (20.47)
	Smallmouth bass									1							1	0.65 (0.65)
	Spotted bass	9	2	2	1	2											16	10.47 (5.86)

EFDPLLSS.D07

Table 90. Spring nocturnal electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Paintsville Lake (1,150 acres). CPUE = fish/hr, SE = standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
1988	6.81		10.55		1.62		0.29		0.00		19.30	
1989	15.43		16.01		3.42		0.85		0.00		36.30	
1990	34.00		31.33		2.67		2.00		0.00		70.00	
1991	26.55		33.09		12.00		0.36		0.40		72.00	
1992	16.43		43.96		21.26		0.72		0.00		82.37	
1993	16.36		26.33		22.50		2.81		0.63		68.00	
1994	34.00		47.40		26.60		3.56		0.27		111.60	15.60
1995					no sample							
1996					no sample							
1997	29.00		40.00		26.33		1.00		0.30		96.33	11.53
1998	25.70		87.69		26.34		0.00		0.00		139.70	17.90
1999	36.33		65.67		36.67		2.33		0.00		141.00	12.07
2000	12.67	4.97	95.00	19.57	27.00	7.83	2.00	0.78	0.00	0.00	136.67	27.97
2001	42.33	5.45	63.00	10.84	46.67	4.81	4.33	0.92	0.67	0.45	156.33	17.52
2002	41.80	1.80	70.50	2.70	36.00	1.40	2.20	0.20	0.00	0.00	150.90	14.20
2003	106.00	21.17	71.00	10.80	19.67	5.65	3.00	1.31	0.31	0.31	199.67	35.19
2004	62.67	10.90	92.00	19.20	17.00	3.40	2.00	0.90	0.00	0.00	173.70	25.40
2005	80.40	31.90	133.30	38.90	35.10	6.00	6.20	1.20	0.44	0.44	255.10	72.70
2006	30.55	4.43	65.11	12.57	13.60	1.92	2.64	1.12	0.00	0.00	111.91	14.27
2007	39.83	9.49	81.55	22.98	11.11	3.11	6.53	0.84	0.00	0.00	139.03	20.47

EFDPLLSS.D88-D07

Table 91. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Paintsville Lake (1,150 acres) on 25 April 2007; 95% confidence intervals are in parentheses; largemouth bass stock size ≥8.0 in and smallmouth and spotted bass stock size ≥7.0 in.

Area	Species	No. ≥stock size	PSD (+/- 95%)	RSD*(+/- 95%)
Upper	Smallmouth bass			
	Spotted bass	2	0	
	Largemouth bass	51	24 (12-35)	8 (0-15)
Lower	Smallmouth bass	1	100	
	Spotted bass	1	0	
	Largemouth bass	101	15 (8-22)	6 (1-11)
Total	Smallmouth bass	1	100	
	Spotted bass	3	0	
	Largemouth bass	152	18 (12-24)	7 (3-11)

* Largemouth bass=RSD_{15}; smallmouth and spotted bass=RSD_{14}

EFDPLLSS.D07

Table 92. Spring nocturnal electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Paintsville Lake (1,150 acres).

	Year							
Age	2000	2001	2002	2003	2004	2005	2006	2007
1	11.80	41.00	41.20	68.30	54.60	75.60	12.28	37.95
2	68.80	29.70	50.30	21.36	81.80	104.10	70.36	47.30
3	42.60	65.70	42.80	11.19	22.40	55.60	18.87	43.41
4	7.10	9.60	8.70	4.46	9.60	8.70	4.46	3.51
5	2.90	3.90	3.90	1.28	2.60	4.10	2.86	1.63
6	1.70	2.80	2.50	0.31	1.10	1.90	2.76	1.95

EFDPLLSS.D00-D07
EFDPLLAS.D03
EFDPLLAS.D06

Table 93. Spring nocturnal electrofishing population assessment using statewide criteria for largemouth bass collected in Paintsville Lake (1,150 acres). Actual values are in parentheses.

Parameter	Year					
	2002	2003	2004	2005	2006	2007
Mean length age-3 at capture	2 (11.4)	2 (11.4)	2 (11.4)	2 (11.4)	3 (11.7)	3 (11.7)
Spring CPUE age 1 fish	3 (41.20)	4 (95.20)	4 (61.44)	4 (75.60)	1 (12.30)	3 (37.95)
Spring CPUE 12.0-14.9 in fish	4 (36.00)	2 (19.67)	2 (17.00)	4 (35.10)	1 (13.60)	1 (11.11)
Spring CPUE ≥15.0 in fish	1 (2.20)	1 (3.00)	1 (2.00)	2 (6.20)	1 (2.64)	2 (6.53)
Spring CPUE ≥20.0 in fish	0 (0.00)	2 (0.31)	0 (0.00)	2 (0.44)	0 (0.00)	0 (0.00)
Total score	10	11	9	14	6	9
Assessment rating	Fair	Fair	Fair	Good	Poor	Fair
Instantaneous mortality (z)	0.83	0.95	1.15	1.10	0.84	0.95
Annual mortality (A)	56.50	61.30	68.20	66.60	56.80	61.20

EFDPLLSS.D02-D07
EFDPLLAS.D03
EFDPLLAS.D06

Table 94. Length frequency and CPUE (fish/hr) of black bass collected in 2.529 hours of 15-minute nocturnal electrofishing samples in Paintsville Lake (1,150 acres) on 16 October 2007; numbers in parentheses are standard errors.

		Inch class																				
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Upper	Largemouth bass	2	14	29	5	20	68	19	3	4		2	1	1	1	1	1			1	172	134.50 (13.81)
	Smallmouth bass																				0	
	Spotted bass	6	11	1	6	8	2	1				1									36	27.73 (12.25)
Lower	Largemouth bass	5	35	36	7	13	44	26	13	8	5	3	1		1			2			199	159.20 (66.77)
	Smallmouth bass																				0	
	Spotted bass		1			4	2							1							8	6.40 (4.12)
Total	Largemouth bass	7	49	65	12	33	112	45	16	12	5	5	2	1	2	1	1	2		1	371	146.85 (32.40)
	Smallmouth bass																				0	
	Spotted bass	6	12	1	6	12	4	1				1		1							44	17.06 (7.05)

EFDPLLSF.D07

Table 95. Number of fish and relative weight (Wr) for each length group of black bass collected at Paintsville Lake (1,150 acres) on 16 October 2007. Standard errors are in parentheses.

		Length group					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Species	Area	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Upper	20	78 (2)	3	82 (4)	5	99 (4)
	Lower	91	79 (1)	9	80 (1)		
	Total	111	79 (1)	12	80 (1)	5	99 (4)
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
Smallmouth bass	Upper						
	Lower						
	Total						
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
Spotted bass	Upper	6	87 (3)	1	101		
	Lower	5	89 (3)				
	Total	11	87 (2)	1	101		

EFDPLLSF.D07

Table 96. Nocturnal electrofishing indices of year class strength at age-0 and age-1 and mean lengths (in) of largemouth bass collected at Paintsville Lake (1,150 acres); CPUE = fish/hr.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	Standard error	CPUE	Standard error	CPUE	Standard error	CPUE	Standard error
2003	4.8	0.08	31.30	6.10	14.00	2.20	61.44	10.70
2004	5.1	0.06	65.67	10.80	37.33	8.60	75.60	29.20
2005	4.5	0.09	46.00	9.60	10.70	2.70	12.30	2.40
2006	4.9	0.06	72.40	12.00	33.60	5.10	37.95	7.95
2007	5.1	0.06	52.35	24.04	30.20	15.57		

EFDPLLSF.D03-D07
EFDPLLSS.D04-D06
EFDPLLAS.D03
EFDPLLAS.D06

Table 97. Length frequency and electrofishing CPUE (fish/hr) of largemouth bass collected at Pan Bowl Lake (98 acres) during 0.875 hours of 7.5 minute daytime runs on 1 May 2007; numbers in parentheses are standard errors.

Inch class																				
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
4	27	27	5	16	51	17	35	28	7	3	1		2	2	4	6	5	1	241	275.43 (39.19)

EFDPBLSS.D07

Table 98. Spring daytime electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Pan Bowl Lake (98 acres). CPUE = fish/hr, SE = standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		>20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	28.80	10.20	47.20	9.60	12.00	1.30	25.60	4.10	3.20		113.60	20.50
2004	no data											
2005	12.80	4.10	65.80	13.30	9.40	3.60	18.00	4.30	1.80		106.00	18.90
2006	no data											
2007	90.29	26.63	149.71	20.19	12.57	3.85	22.86	4.43	6.86	2.72	275.43	39.19

EFDPBLSS.D03-D07

Table 99. PSD and RSD_{15} values for largemouth bass taken in spring electrofishing samples in Pan Bowl Lake (98 acres) on 19 April 2005; 95% confidence intervals are in parentheses.

No. ≥8.0 in	PSD (+/- 95%)	RSD_{15} (+/- 95%)
162	19 (13-25)	12 (7-17)

EFDPBLSS.D07

Table 100. Mean back-calculated length (in) at each annulus for largemouth bass collected from Pan Bowl Lake (98 acres) on 1 May 2007, including 95% confidence intervals.

Year		Age								
class	No.	1	2	3	4	5	6	7	8	9
2006	15	5.0								
2005	14	5.6	8.1							
2004	7	5.3	8.6	10.2						
2003	7	5.2	8.2	9.9	11.2					
2002	7	5.9	8.8	10.8	12.4	13.7				
2001	4	5.1	8.8	11.0	12.8	14.1	15.8			
2000	3	5.2	9.3	11.9	13.9	15.7	17.4	18.7		
1999	2	6.7	9.5	12.1	14.8	16.8	18.3	19.1	19.6	
1998	2	5.8	9.1	12.0	14.2	15.7	17.1	18.0	18.8	19.4
Mean		5.4	8.5	10.8	12.6	14.7	16.9	18.6	19.2	19.4
Smallest		3.9	7.0	8.7	10.4	11.3	14.6	17.2	18.0	18.6
Largest		7.3	10.7	12.7	15.1	17.5	19.0	19.9	20.5	20.2
STD error		0.1	0.1	0.2	0.3	0.5	0.4	0.4	0.5	0.8
95% CI LO		5.2	8.3	10.4	12.0	13.8	16.1	17.9	18.2	17.8
95% CI HI		5.6	8.8	11.1	13.2	15.6	17.7	19.3	20.3	21.0

Intercept = 0
EFDPBLAS.D07

Table 101. Spring electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Pan Bowl Lake (98 acres) from 2003-2007.

	Year		
Age	2003	2005	2007
1	19.20	3.42	72.00
2	32.00	53.68	92.11
3	15.38	14.77	45.03
4	10.05	7.50	30.29
5	10.30	10.09	14.10
6	10.40	6.84	4.57
7	2.53	3.56	4.95
8	5.60	3.42	8.00
9	1.73	2.71	4.38

EFDPBLSS.D03, D05, D07
EFDPBLAS.D07

Table 102. Population assessment using statewide criteria for largemouth bass collected during spring at Pan Bowl Lake (98 acres). Actual values are in parentheses.

	Year		
Parameter	2003	2005	2007
Mean length age-3 at capture	2 (10.5)	2 (10.5)	2 (10.5)
Spring CPUE age 1 fish	2 (19.20)	1 (3.42)	3 (72.00)
Spring CPUE 12.0-14.9 in fish	1 (12.00)	1 (9.40)	1 (12.60)
Spring CPUE ≥15.0 in fish	3 (25.60)	3 (18.00)	3 (22.86)
Spring CPUE ≥20.0 in fish	3 (3.20)	2 (1.80)	4 (6.86)
Total score	11	9	13
Assessment rating	Fair	Fair	Good
Instantaneous mortality (z)	0.36	0.37	0.43
Annual mortality (A)	30.30	31.20	35.20

EFDPBLSS.D03, D05, D07
EFDPBLAS.D07

Table 103. Length frequency and electrofishing CPUE (fish/hr) of black bass collected in approximately 0.625 hours of 7.5-min. electrofishing runs in Pikeville City Lake (20 acres) on 3 April 2007; numbers in parentheses are standard errors.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	3	3	3	5	13			3	4		2	3		4	6	11	4	3	1	68	108.80 (24.34)

EFDHALSS.D07

Table 104. Spring electro fishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Pikeville City Lake (20 acres). CPUE=fish/hr, SE = standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2004	5.13	2.60	12.82	12.80	15.38	7.70	30.77	8.90	2.56		64.10	2.60
2005	12.80	4.30	11.50	3.30	1.30	1.30	51.30	9.50	8.90		76.90	8.10
2006	5.07	2.54	34.81	4.11	3.98	2.73	49.01	6.22	1.30		92.87	9.05
2007	43.20	15.09	11.20	3.20	8.00	4.38	46.40	6.88	6.40	2.99	108.80	24.34

EFDHALSS.D04-D07

Table 105. PSD and RSD_{15} values obtained for largemouth bass species taken in spring electrofishing samples in Pikeville City Lake (20 acres) on 3 April 2007; 95% confidence intervals are in parentheses.

No. ≥8.0 in	PSD (+/- 95%)	RSD_{15} (+/- 95%)
41	83 (71-95)	71 (57-85)

EFDHALSS.D07

Table 106. Length frequency and nocturnal electrofishing CPUE (fish/hr) of black bass collected at Yatesville Lake (2,280 aces) during 2.773 hours of 15 minute samples on 24 April 2007; numbers in parentheses are standard errors.

		Inch class																	
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Upper	Largemouth bass	1	28	38	13	4	24	35	28	12	11	17	14	7	3	3	1	239	159.33 (17.02)
	Spotted bass																	0	0.00
Lower	Largemouth bass		11	14	18	5	8	24	26	15	12	18	15	9	12	6	3	196	154.32 (13.65)
	Spotted bass	6	14	4	2	7	8	7	1	4	5	1	1					60	46.77 (13.27)
Total	Largemouth bass	1	39	52	31	9	32	59	54	27	23	35	29	16	15	9	4	435	157.05 (10.65)
	Spotted bass	6	14	4	2	7	8	7	1	4	5	1	1					60	21.26 (9.29)

EFDYLLSS.D07

Table 107. Spring nocturnal electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass at Yatesville Lake (2,280 acres). CPUE = fish/hr, SE = standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
1993	153.70		82.90		20.10		7.40		0.00		264.00	
1994						no data						
1995						no data						
1996	21.50		65.50		7.80		1.50		0.00		96.30	11.50
1997	50.70		23.70		16.70		2.00		0.00		93.00	10.50
1998	10.70		25.70		16.30		5.70		0.00		58.30	7.20
1999	42.70		29.00		16.30		13.70		0.30		101.70	12.20
2000	63.30	8.00	55.70	7.90	9.30	1.10	7.00	1.60	0.00		135.50	13.70
2001	35.00	7.00	58.30	7.50	19.30	3.20	9.70	2.10	0.30		122.30	7.80
2002	54.30	7.80	50.00	4.40	19.30	2.90	16.70	3.20	0.00		140.30	7.40
2003						no data						
2004	12.67	2.80	40.33	10.50	23.67	5.10	9.00	2.20	0.00		85.67	19.40
2005	43.70	7.80	61.30	6.60	42.00	4.70	21.70	2.10	0.30		168.70	15.40
2006	47.30	7.40	68.00	10.30	20.30	2.20	16.00	4.00	0.70		151.70	17.50
2007	47.70	5.91	62.25	5.71	31.33	4.15	15.78	2.65	0.00		157.05	10.65

EFDYLLSS.D93 - D07

Table 108. PSD and RSD values for largemouth bass taken in spring nocturnal electrofishing samples in each area of Yatesville Lake (2,280 acres) on 24 April 2007; 95% confidence intervals are in parentheses; largemouth bass stock size ≥8.0 in and spotted bass stock size ≥7.0 in .

Area	Species	No. ≥stock size	PSD (+/- 95%)	RSD* (+/- 95%)
Upper	Largemouth bass	155	36 (29-44)	9 (5-14)
	Spotted bass			
Lower	Largemouth bass	148	51 (43-59)	20 (14-27)
	Spotted bass	34	32 (16-48)	3 (0-9)
Total	Largemouth bass	303	43 (38-49)	15 (11-19)
	Spotted bass	34	32 (16-48)	3 (0-9)

* Largemouth bass=RSD_{15}; spotted bass=RSD_{14}

EFDYLLSS.D07

Table 109. Spring electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Yatesville Lake (2,280 acres).

Age	2000	2001	2002	2003	2004	2005	2006	2007
1	59.70	32.20	52.10		13.00	42.30	45.90	46.98
2	56.00	54.90	46.60		35.70	54.90	69.20	63.06
3	11.30	23.40	22.70		23.60	43.00	16.80	23.71
4	5.70	8.50	16.40		11.90	23.20	15.70	18.54
5	1.10	1.20	1.00		0.60	1.90	3.40	4.77
6	1.60	1.80	1.20		0.90	2.80	0.30	
7								
8		0.30						

EFDYLLSS.D00-D02
EFDYLLSS.D04-D07
EFDYLLAS.D05
EFDYLLAS.D06

Table 110. Spring nocturnal electrofishing population assessment using statewide criteria for largemouth bass collected at Yatesville Lake (2,280 acres). Actual values are in parentheses.

	Year				
Parameter	2002	2004	2005	2006	2007
Mean length age-3 at capture	4 (13.2)	4 (13.2)	4 (13.2)	4 (13.5)	4 (13.5)
Spring CPUE age 1 fish	4 (52.10)	1 (13.00)	3 (42.30)	3 (45.90)	3 (46.98)
Spring CPUE 12.0-14.9 in fish	2 (19.30)	2 (23.70)	4 (42.00)	2 (20.30)	3 (31.33)
Spring CPUE ≥15.0 in fish	3 (16.70)	2 (9.00)	4 (21.70)	3 (16.00)	3 (15.78)
Spring CPUE ≥20.0 in fish	0 (0.00)	0 (0.00)	2 (0.30)	2 (0.70)	0 (0.00)
Total score	14	10	17	14	13
Assessment rating	Good	Fair	Excellent	Good	Good
Instantaneous mortality (z)	0.86	1.07	0.91	1.23	0.80
Annual mortality (A)	57.80	65.80	59.80	70.80	55.20

EFDYLLSS.D02-D07
EFDYLLAS.D05
EFDYLLAS.D06

Table 111. Length frequency and CPUE (fish/hr) of black bass collected in approximately 2.776 hours of 15-minute nocturnal electrofishing samples in Yatesville Lake (2,280 acres) on 15 October 2007; numbers in parentheses are standard errors.

		Inch class																	
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Upper	Largemouth bass	1	9	22	29	25	12	14	16	10	10	2	4	2	1	1			158	105.33 (11.33)
	Spotted bass			2			1												3	2.00 (1.37)
Lower	Largemouth bass		3	4	4	6	1	8	9	3	10	8	4					1	61	47.87 (14.26)
	Spotted bass		2	5	6	12	10	10	2	7	1	1	2						58	45.43 (9.79)
Total	Largemouth bass	1	12	26	33	31	13	22	25	13	20	10	8	2	1	1		1	219	79.21 (12.40)
	Spotted bass		2	7	6	12	11	10	2	7	1	1	2						61	21.74 (8.04)

EFDYLLSF.D07

Table 112. Fall electrofishing indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected during 2003 - 2007 at Yatesville Lake (2,280 acres); CPUE = fish/hr, SE = standard error.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	5.3	0.06	46.00	6.30	29.30	4.40	12.70	2.80
2004	4.8	0.08	69.50	13.50	32.50	10.80	42.30	7.10
2005	4.7	0.11	47.00	12.30	20.00	7.10	45.93	7.21
2006	4.9	0.08	29.50	7.80	13.80	3.80	46.98	5.95
2007	5.3	0.10	37.36	10.64	23.22	6.12		

EFDYLLSF.D03-D07
EFDYLLAS.D05
EFDYLLAS.D06

Table 113. Fish harvest statistics derived from a daytime creel survey at Yatesville Lake (2,280 acres) from 5 April through 31 October 2007. Standard errors are in parentheses.

Fishing trips	
No. of fishing trips	14,312
No. of fishing trips per acre	6.28
Fishing pressure	
Total angler hours	46,544 (677.49)
Man-hours/acre	20.41
Catch/harvest	
No. of fish caught	53,260 (3,452.18)
No. of fish harvested	9,511 (1,604.23)
Lb of fish harvested	4,743
Harvest rates	
Fish/hr	0.23
Fish/acre	4.17
Lb/acre	2.08
Catch rate	
Fish/hr	1.18
Fish/acre	23.36
Miscellaneous characteristics (%)	
Male	97.87
Female	2.13
Resident	54.98
Non-resident	45.02
Method (%)	
Still fishing	17.77
Casting	81.75
Spider Rig	0.47
Mode (%)	
Boat	94.31
Bank	5.69

Table 114. Fish harvest statistics derived from a creel survey at Yatesville Lake (2,280 acres) from 5 April through 31 October 2007.

	Common carp	Channel catfish	Flathead catfish	Green sunfish	Bluegill	Smallmouth bass	Spotted bass	Largemouth bass	White crappie	Bullhead Catfish	Warmouth
No. caught	461	2275	371	568	11,068	141	3232	27,551	7,484	50	61
(per acre)	(0.202)	(0.998)	(0.163)	(0.249)	(4.854)	(0.062)	(1.417)	(12.084)	(3.282)	(0.022)	(0.027)
No. harvested	50	1468	98	158	4,191		52	147	3,286		61
(per acre)	(0.022)	(0.644)	(0.043)	(0.069)	(1.838)		(0.023)	(0.064)	(1.441)		(0.027)
% of total no. harvested	0.52	15.43	1.03	1.66	44.06	0.00	0.55	1.56	34.55	0.00	0.64
Lb harvested	215.60	2149.10	189.50	13.40	829.30	0.00	38.80	353.10	944.60	0.00	9.00
(per acre)	(0.095)	(0.943)	(0.083)	(0.006)	(0.364)	(0.00)	(0.017)	(0.155)	(0.414)	0.00	0.004
% of total lb harvested	4.55	45.31	4.00	0.28	17.49	0.00	0.82	7.44	19.92	0.00	0.19
Mean length (in)	21.0	16.1	17.0	5.0	6.8	0.0	12.0	16.7	9.1	0.0	6.0
Mean weight (lb)	4.34	1.38	1.94	0.08	0.20	0.00	0.74	2.41	0.34	0.00	0.15

	Catfish group	Panfish group	Black bass group	Crappie group	Carp	Anything
No. of fishing trips for that species	495	833	11,456	1,241	23	265
% of all trips	3.46	5.82	80.05	8.66	0.16	1.85
Hours fished for that species	1,609.81	2,707.58	37,256.77	4,032.98	74.13	863.14
(per acre)	(0.71)	(1.19)	(16.34)	(1.77)	(0.03)	(0.38)
No. harvested fishing for that species	953	2791	148	2,789		
Lb harvested fishing for that species	1567.1	533.6	355.7	716.9		
No./hour harvested fishing for that species	0.409	1.090	0.005	0.705		
% success fishing for that species	57.14	41.67	0.89	51.52		88.89

Table 115. Species composition and length distribution of each species of fish harvested (H) and released (R) from a creel survey on Yatesville Lake (2,280 acres) from 5 April to 31 October 2007.

Species		Inch class																						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Common carp	H																					49		
	R															82	82		164				83	
Channel catfish	H													54	218	381	218	163	109	109		163		53
	R							58	115	173	115	173			58	114								
Flathead catfish	H																	97						
	R							91		91			91											
Bluegill	H					118	826	2,951	296															
	R	191	382	891	2,038	1,528	1592	127	127															
Green sunfish	H					158																		
	R				341	68																		
Spotted bass	H												52											
	R							62	686	312	623	374	249	374	374		125							
Largemouth bass	H																49	97						
	R						60	726	1814	1572	3,689	4112	3689	2600	3811	1606	2440	706	257	128	193			
Smallmouth bass	H																							
	R									47	93													
White crappie	H						101	809	961	607	506	101	51	101	49									
	R			426	183	487	669	1095	487	487	304	59												
Yellow bullhead	H																							
	R							49																
Warmouth	H																							
	R						60																	

Table 116. Monthly black bass angling success at Yatesville Lake (2,280 acres) during the 2007 creel survey period.

Month	Total no. of bass caught	Total no. of bass harvested	No. of black bass fishing trips	Hours fished by bass anglers	Bass caught by bass anglers	Bass caught/hr by bass anglers	Bass harvested by bass anglers	Bass harvested/hr by bass anglers
Apr	5,430	52	2092.09	6,803.84	5,327	0.88	52	0.01
May	4,884		1968.23	6,401.03	4,885	0.74		
Jun	5,141		2007.27	6,528.00	5,140	0.81		
Jul	3,576	50	1595.51	5,188.86	3,576	0.72	50	0.01
Aug	2,306		1242.25	4040.00	2,305	0.66		
Sep	4,325	46	1280.90	4165.71	4,144	1.18	46	0.01
Oct	5,261	52	1269.71	4129.32	5,052	1.30		
Total	30,924	199	11,455.96	37,256.76	30,429		148	
Mean						0.90		0.00

Table 117. Monthly white crappie angling success at Yatesville Lake (2,280 acres) during the 2007 creel survey period.

Month	Total no. of white crappie caught	Total no. of white crappie harvested	No. of white crappie fishing trips	Hours fished by crappie anglers	White crappie caught by crappie anglers	White crappie caught/hour by crappie anglers	White crappie harvested by crappie anglers	White crappie harvested/hour by crappie anglers
Apr	1,707	362	410.21	1,334.09	1,499	0.78	310	0.16
May	977		151.40	492.39	977	2.00		
Jun	467	187	182.48	593.45	280	0.60		
Jul	298	99	22.79	74.13	149	1.50		
Aug	182	61						
Sep	1,821	1,275	213.48	694.29	1,775	2.36	1,229	1.64
Oct	2,031	1,302	259.71	844.63	1,927	2.27	1,250	1.47
Total	7,484	3,286	1,240.07	4,032.98	6,607		2,789	
Mean						1.36		0.47

Table 118. Monthly catfish angling success at Yatesville Lake (2,280 acres) during the 2007 creel survey period.

Month	Total no. of catfish caught	Total no. of catfish harvested	No. of catfish fishing trips	Hours fished by catfish anglers	Catfish caught by catfish anglers	Catfish caught/hour by catfish anglers	Catfish harvested by catfish anglers	Catfish harvested/hour by catfish anglers
Apr	310	258.57	82.04	266.82	207	0.42	207	0.42
May	122		151.40	492.39	122			0.29
Jun	280	186.94	45.62	148.36	186	0.40	93	0.80
Jul	248	99.34	22.79	74.13				
Aug	485	364.06	74.54	242.40	364	0.73	243	1.09
Sep	1,093	500.84	118.60	385.71	956	0.43	410	1.00
Oct	156	156.26						
Total	2,696	1,566	495.00	1,609.81	1,835		953	
Mean						0.28		0.51

Table 119. Catch and harvest statistics derived from a creel survey at Yatesville Lake (2,280 acres) for largemouth bass, white crappie, and channel and flathead catfish caught and released by all anglers from 5 April to 31 October 2007.

	Largemouth bass				White crappie				Channel catfish			
		Catch & release				Catch & release				Catch & release		
	Harvest	12-14.9 in	≥15.0 in	Total	Harvest	≤8.9 in	≥9.0 in	Total	Harvest	≤14.9 in	≥15.0 in	Total
Total number	147	10,101	5,330	15,578	3,286	3,347	851	7,484	2275	58	115	2448
Total weight (lb)	353.1	7,068.5	11,520.1	18,941.7	944.6	463.0	118.2	1,525.8	2,149.1	27.0	54.5	2,230.6
Mean length (in)	16.7				9.1				16.1			
Mean weight (lb)	2.41				0.34				1.38			
Rate (fish/hour)	0.004				0.087				0.036			

	Flathead catfish			
		Catch & release		
	Harvest	≤14.9 in	≥15.0 in	Total
Total number	370.81	91.19		462
Total weight (lb)	189.5	29.6		219.1
Mean length (in)	17.0			
Mean weight (lb)	1.94			
Rate (fish/hour)	0.003			

Appendix A

3. Which species do you fish for at Dewey Lake? (check all that apply)

	Frequency	Percent
Bass	189	73.26%
Crappie	40	15.50%
Catfish	36	13.95%
White Bass	2	0.78%
anything	1	0.39%
Bluegill	19	7.36%
panfish	1	0.39%

4. Which one species do you fish for most at Dewey Lake? (check only one)

	Frequency	Percent
Bass	177	68.60%
Crappie	24	9.30%
Catfish	30	11.63%
White Bass	1	0.39%
Bluegill	18	6.98%
panfish	1	0.39%
No Answer	7	2.71%

5. What level of satisfaction do you have with bass fishing at Dewey Lake?

	Frequency	Percent	% of Answers
Very Satisfied	34	13.18%	17.44%
Somewhat Satisfied	111	43.02%	56.92%
Neutral	36	13.95%	18.46%
Somewhat Dissatisfied	13	5.04%	6.67%
Very Dissatisfied	0	0.00%	0.00%
No Opinion	1	0.39%	0.51%
Total	195	75.58%	
No Answer	63	24.42%	

5a. If you responded with somewhat or very dissatisfied in question (5) - what is the single most important reason for your dissatisfaction?

	Frequency	Percent	% of Answers
can't catch fish	2	0.78%	14.29%
Fish are too small	4	1.55%	28.57%
need to limit tournament fishing	1	0.39%	7.14%
Need To Stock	2	0.78%	14.29%
Not enough big fish	1	0.39%	7.14%
Not enough fish	3	1.16%	21.43%
Too many weeds	1	0.39%	7.14%
Total	14	5.43%	
No Answer	244	94.57%	

6. What level of satisfaction do you have with crappie fishing at Dewey Lake?

	Frequency	Percent	% of Answers
Very Satisfied	5	1.94%	11.90%
Somewhat Satisfied	18	6.98%	42.86%
Neutral	8	3.10%	19.05%
Somewhat Dissatisfied	8	3.10%	19.05%
Very Dissatisfied	2	0.78%	4.76%
No Opinion	1	0.39%	2.38%
Total	42	16.28%	
No Answer	216	83.72%	

6a. If you responded with somewhat or very dissatisfied in question (6) - what is the single most important reason for your dissatisfaction?

	Frequency	Percent	% of Answers
Fish are too small	6	2.33%	60.00%
Need bigger fish	2	0.78%	20.00%
Not enough fish	1	0.39%	10.00%
too many small fish	1	0.39%	10.00%
Total	10	3.88%	
No Answer	248	96.12%	

7. Would you support or oppose a reduction in the current statewide 30 fish daily crappie creel limit?

	Frequency	Percent	% of Answers
Support	10	3.88%	28.57%
Oppose	6	2.33%	17.14%
No Opinion	19	7.36%	54.29%
Total	35	13.57%	
No Answer	223	86.43%	

7a. What reduced daily creel limit would you support?

	Frequency	Percent	% of Answers
10	1	0.39%	9.09%
15	5	1.94%	45.45%
20	5	1.94%	45.45%
Total	11	4.26%	
No Answer	247	95.74%	

8. What level of satisfaction do you have with channel catfish fishing at Yatesville Lake?

	Frequency	Percent	% of Answers
Very Satisfied	0	0.00%	0.00%
Somewhat Satisfied	5	2.72%	29.41%
Neutral	8	4.35%	47.06%
Somewhat Dissatisfied	3	1.63%	17.65%
Very Dissatisfied	0	0.00%	0.00%
No Opinion	1	0.54%	5.88%
Total	17	9.24%	
No Answer	167	90.76%	

8a. If you responded with somewhat or very dissatisfied in question (8) - what is the single most important reason for your dissatisfaction?

	Frequency	Percent	% of Answers
Can't catch fish	1	0.54%	33.33%
Need more fish	1	0.54%	33.33%
Poor Habitat	1	0.54%	33.33%
Total	3	1.63%	
No Answer	181	98.37%	

9. What level of satisfaction do you have with bluegill fishing at Yatesville Lake?

	Frequency	Percent	% of Answers
Very Satisfied	1	0.54%	7.69%
Somewhat Satisfied	5	2.72%	38.46%
Neutral	5	2.72%	38.46%
Somewhat Dissatisfied	2	1.09%	15.38%
Very Dissatisfied	0	0.00%	0.00%
No Opinion	0	0.00%	0.00%
Total	13	7.07%	
No Answer	171	92.93%	

9a. If you responded with somewhat or very dissatisfied in question (9) - what is the single most important reason for your dissatisfaction?

	Frequency	Percent	% of Answers
License increase for out of state-ridiculous	1	0.54%	50.00%
Water level	1	0.54%	50.00%
Total	2	1.09%	
No Answer	182	98.91%	

10. Are you satisfied with the current fishing regulations at Yatesville Lake?

	Frequency	Percent	% of Answers
Very Satisfied	178	96.74%	97.80%
Somewhat Satisfied	4	2.17%	2.20%
Neutral	0	0.00%	0.00%
Somewhat Dissatisfied	0	0.00%	0.00%
Very Dissatisfied	0	0.00%	0.00%
No Opinion	0	0.00%	0.00%
Total	182	98.91%	
No Answer	2	1.09%	

Q10a. Bass Size Limit

	Frequency	Percent	% of Answers
12"-15"	1	0.54%	33.33%
12"	1	0.54%	33.33%
13"-16"	1	0.54%	33.33%
Total	3	1.63%	
No Answer	181	98.37%	

Q10a. Bass Creel Limit

No Answer

Q10a. Crappie Size Limit

	Frequency	Percent	% of Answers
any	1	0.54%	100.00%
No Answer	183	99.46%	

Q10a. Crappie Creel Limit

	Frequency	Percent	% of Answers
20	1	0.54%	100.00%
No Answer	183	99.46%	

Q10a. Bluegill Size Limit

No Answer

Q10a. Bluegill Creel Limit

No Answer

Q10a. Channel Catfish Size Limit

No Answer

Q10a. Channel Catfish Creel Limit

No Answer

Q10a. Other Regulations

No Answer

Appendix B

3. Which species do you fish for at Yatesville Lake? (check all that apply)

	Frequency	Percent
Bass	160	86.96%
Crappie	29	15.76%
Bluegill	14	7.61%
Channel Catfish	15	8.15%
ANYTHING	1	0.54%

4. Which one species do you fish for most at Yatesville Lake? (check only one)

	Frequency	Percent
Bass	152	82.61%
Crappie	10	5.43%
Channel Catfish	10	5.43%
Bluegill	7	3.80%
ANYTHING	2	1.09%
No Answer	5	2.72%

5. What level of satisfaction do you have with bass fishing at Yatesville Lake?

	Frequency	Percent	% of Answers
Very Satisfied	10	5.43%	6.29%
Somewhat Satisfied	38	20.65%	23.90%
Neutral	76	41.30%	47.80%
Somewhat Dissatisfied	31	16.85%	19.50%
Very Dissatisfied	4	2.17%	2.52%
Total	159	86.41%	
No Answer	25	13.59%	

5a. If you responded with somewhat or very dissatisfied in question (5) - what is the single most important reason for your dissatisfaction?

	Frequency	Percent	% of Answers
Can't catch fish	3	1.63%	8.82%
don't know	2	1.09%	5.88%
Drought	1	0.54%	2.94%
fishing pressure	3	1.63%	8.82%
Need more fish	5	2.72%	14.71%
overharvest	1	0.54%	2.94%
too many small fish	3	1.63%	8.82%
Water level	5	2.72%	14.71%
weather is too hot	11	5.98%	32.35%
Total	34	18.48%	
No Answer	150	81.52%	

6. What level of satisfaction do you have with crappie fishing at Yatesville Lake?

	Frequency	Percent	% of Answers
Very Satisfied	1	0.54%	3.45%
Somewhat Satisfied	11	5.98%	37.93%
Neutral	12	6.52%	41.38%
Somewhat Dissatisfied	4	2.17%	13.79%
Very Dissatisfied	0	0.00%	0.00%
No Opinion	1	0.54%	3.45%
Total	29	15.76%	
No Answer	155	84.24%	

6a. If you responded with somewhat or very dissatisfied in question (6) - what is the single most important reason for your dissatisfaction?

	Frequency	Percent	% of Answers
Need more fish	4	2.17%	100.00%
No Answer	180	97.83%	

7. Would you support or oppose a reduction in the current statewide 30 fish daily crappie creel limit?

	Frequency	Percent	% of Answers
Support	0	0.00%	0.00%
Oppose	7	3.80%	50.00%
No Opinion	7	3.80%	50.00%
Total	14	7.61%	
No Answer	170	92.39%	

7a. What reduced daily creel limit would you support?

No Answer

8. What level of satisfaction do you have with channel catfish fishing at Yatesville Lake?

	Frequency	Percent	% of Answers
Very Satisfied	0	0.00%	0.00%
Somewhat Satisfied	5	2.72%	29.41%
Neutral	8	4.35%	47.06%
Somewhat Dissatisfied	3	1.63%	17.65%
Very Dissatisfied	0	0.00%	0.00%
No Opinion	1	0.54%	5.88%
Total	17	9.24%	
No Answer	167	90.76%	

8a. If you responded with somewhat or very dissatisfied in question (8) - what is the single most important reason for your dissatisfaction?

	Frequency	Percent	% of Answers
Can't catch fish	1	0.54%	33.33%
Need more fish	1	0.54%	33.33%
Poor Habitat	1	0.54%	33.33%
Total	3	1.63%	
No Answer	181	98.37%	

9. What level of satisfaction do you have with bluegill fishing at Yatesville Lake?

	Frequency	Percent	% of Answers
Very Satisfied	1	0.54%	7.69%
Somewhat Satisfied	5	2.72%	38.46%
Neutral	5	2.72%	38.46%
Somewhat Dissatisfied	2	1.09%	15.38%
Very Dissatisfied	0	0.00%	0.00%
No Opinion	0	0.00%	0.00%
Total	13	7.07%	
No Answer	171	92.93%	

9a. If you responded with somewhat or very dissatisfied in question (9) - what is the single most important reason for your dissatisfaction?

	Frequency	Percent	% of Answers
License increase for out of state-ridiculous	1	0.54%	50.00%
Water level	1	0.54%	50.00%
Total	2	1.09%	
No Answer	182	98.91%	

10. Are you satisfied with the current fishing regulations at Yatesville Lake?

	Frequency	Percent	% of Answers
Very Satisfied	178	96.74%	97.80%
Somewhat Satisfied	4	2.17%	2.20%
Neutral	0	0.00%	0.00%
Somewhat Dissatisfied	0	0.00%	0.00%
Very Dissatisfied	0	0.00%	0.00%
No Opinion	0	0.00%	0.00%
Total	182	98.91%	
No Answer	2	1.09%	

Q10a. Bass Size Limit

	Frequency	Percent	% of Answers
12"-15"	1	0.54%	33.33%
12"	1	0.54%	33.33%
13"-16"	1	0.54%	33.33%
Total	3	1.63%	
No Answer	181	98.37%	

Q10a. Bass Creel Limit

No Answer

Q10a. Crappie Size Limit

	Frequency	Percent	% of Answers
any	1	0.54%	100.00%
No Answer	183	99.46%	

Q10a. Crappie Creel Limit

	Frequency	Percent	% of Answers
20	1	0.54%	100.00%
No Answer	183	99.46%	

Q10a. Bluegill Size Limit

No Answer

Q10a. Bluegill Creel Limit

No Answer

Q10a. Channel Catfish Size Limit

No Answer

Q10a. Channel Catfish Creel Limit

No Answer

Q10a. Other Regulations

No Answer