Commonwealth of Kentucky

Sport Fish Restoration Grant F-50, Segment 28

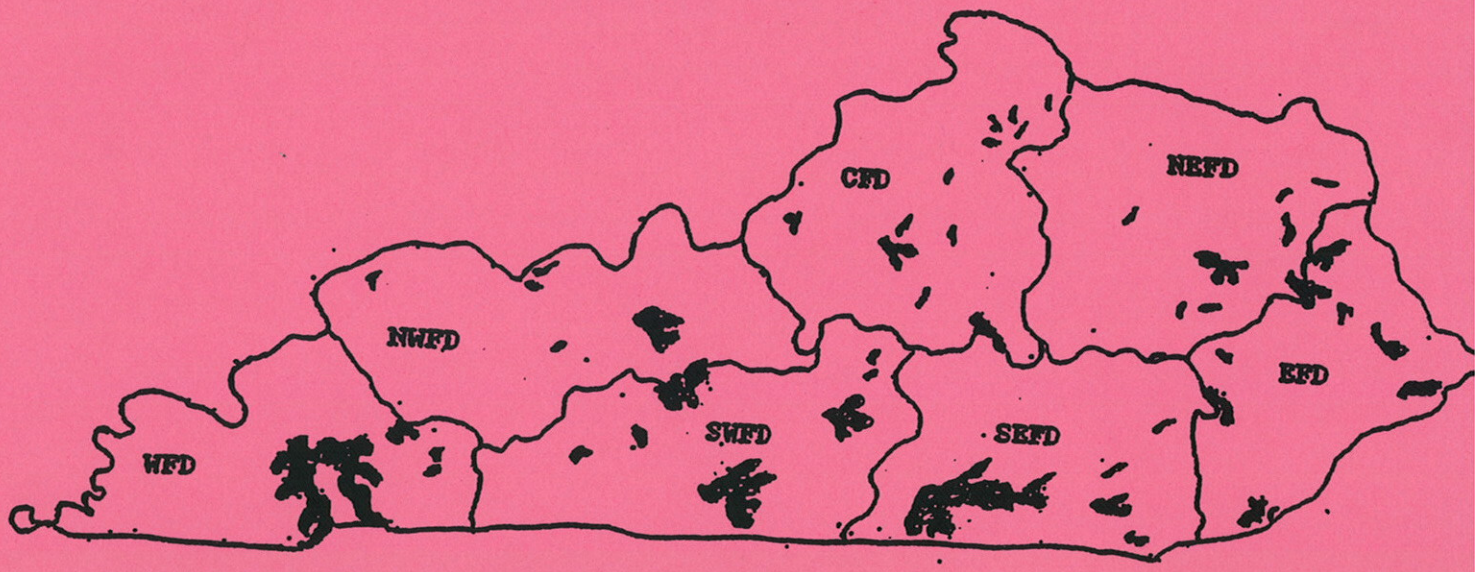
Date: June 30, 2006

Period: 01 April 2005
through
31 March 2006

ANNUAL PERFORMANCE REPORT

District Fisheries Management

Part I
Project 1: Lake and Tailwater Fishery Surveys



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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 2006
Work accomplishment: 31 March 2006

C. SIGNIFICANT DEVIATIONS

None.

D. REMARKS

See accompanying report.

E. COST

$ 1,072,611.00

WESTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Kentucky Lake

During May 2005, 1,157 black bass were collected by diurnal electrofishing from standardized sampling locations on Kentucky Lake. Largemouth bass comprised almost 93% (107.4 f/h) of this catch (Table 1). The catch rate of largemouth bass <8.0 in was 24.5 f/h (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 20.0 f/h that are <8.0 in. The average for the past 23 years is 20.8 f/h. The 2000 year-class, reported in 2001 as a high catch of bass <8.0 in, has now grown into the ≥15 inch group. The catch rate of harvestable-size (≥15.0 in) largemouth bass was 23.6 f/h. The KLFMP objective for largemouth bass ≥15.0 in is to maintain a catch rate of at least 18.0 f/h. Table 3 lists the PSD and RSD values for bass collected during the spring of 2005. The overall calculated PSD value for largemouth bass was 85, which is above the targeted ranges (PSD, 55-75) suggested in the KLFMP. The calculated RSD_{15} was 28, which falls into the range reported in the KLFMP (RSD_{15}, 20-40). The number of largemouth bass 8-12 inches decreased from previous years' data (Table 2). This decrease, along with an increase in the number of bass ≥15 in explains the higher calculated PSD value.

Otoliths were removed from 144 largemouth bass to make age and growth assessments. Back calculated age and growth determinations are found in Table 4. Harvestable-size is typically reached during the fourth growing season. Sub-legal size largemouth bass, those less than age 4, made up about 66% of this year's sample (Table 5).

An assessment for largemouth bass was used to evaluate this population (Table 6). The largemouth bass population has been rated "good" during the past five years. This year's score was higher due to an increased catch of largemouth bass in the 12 to 15 inch group, and the group of bass larger than 15 inches. Annual mortality calculated for largemouth bass was 47.2% using catch curve analysis.

During October 2005, 399 black bass were collected by diurnal electrofishing at two locations that had been previously sampled during the spring. Largemouth bass comprised 77% (61.6 f/h) of this catch (Table 7). Length and weight data were recorded from all bass collected to calculate relative weight values (Table 8). Length-weight equations for black bass species at Kentucky Lake are:

Largemouth bass	Log_{10} (weight) = -3.59018 + 3.25856 x Log_{10} (length)
Smallmouth bass	Log_{10} (weight) = -3.36337 + 3.04218 x Log_{10} (length)
Spotted bass	Log_{10} (weight) = -3.40675 + 3.08011 x Log_{10} (length)

The CPUE of age-0 largemouth bass was approximately 28.8 f/h (Table 9). The CPUE of age-0 largemouth bass ≥5.0 in was 13.2 f/h, and comprised 46% of all age-0 bass collected. Mean length of the age-0 cohort (2005 year-class) largemouth bass was 4.2 in. These bass ranged in length from 3.0 to 6.3 in by October. The average mean length for 12 years of data is 3.8 inches.

Trap nets were fished for crappie in Blood River and Jonathan Creek embayments for a total of 78 net-nights (nn) during October. This sampling effort yielded 2,314 crappie (29.7 f/nn), of which 5.9 f/nn (20%) were white crappie and 23.7 f/nn (80%) were black crappie (Table 10). The number of black crappie has dominated the trap net catch for the past 9 years (Figure 1). The number of crappie ≥ 8.0 in made up 53% (16.2 f/nn) of the sample (Table 11). The number of crappie ≥ 10.0 in made up 15% (4.5 f/nn) of the sample. The KLFMP objective for crappie is to maintain a catch rate of at least 6.5 f/nn for crappie ≥8.0 in and 2.0 f/nn for crappie ≥10 in. Both of these objectives were met. PSD and RSD_{10} values are reported in Table 12. Length-weight equations for white and black crappie are listed below. Weight increased slightly for both species of crappie collected from 2004 to 2005.

White crappie	Log_{10} (weight) = -3.37788 + 3.05194 x Log_{10} (length)
Black crappie	Log_{10} (weight) = -3.46926 + 3.19650 x Log_{10} (length)

Otoliths that were aged from crappie collected in 2004 trap netting sample were extrapolated against this year's length frequency data set to determine age frequency of white and black crappie (Tables 13 and 14, respectively). Age classes 0 and 1 of the white crappie made up 81% of the white crappie collected. Of the black crappie, age classes 1 and 2 made up 84% of the black crappie collected. The assessment of the crappie population is reported in Table 15. Tables 15a and 15b report the assessments for white and black crappie, respectively. Combined, the crappie population at Kentucky Lake rated "good". 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. Annual mortality was calculated to be 54.5% for age 2 and older crappie using catch curve analysis (Z = 0.7880). Annual mortality between 2004 and 2005 for 5 year-classes of crappie are listed in Table 16.

Blue and channel catfish were collected using trotlines (tl) during May 2005. Data collected was used to determine CPUE, length frequency, age and growth, and mortality. A total of 308 catfish were collected at a rate of 15.4 f/tl. CPUE of blue and channel catfish was 13.0 and 2.4 f/tl, respectively (Table 17). No catfish <12 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 health and are listed in Table 18. The length-weight equations for blue and channel catfish are:

Blue catfish	$Log_{10}(weight) = -3.76010 + 3.25009 \times Log_{10}(length)$
Channel catfish	$Log_{10}(weight) = -4.13731 + 3.48673 \times Log_{10}(length)$

Age frequencies for blue and channel catfish caught in 2005 were made using age data collected in 2004. Catch of blue catfish ages 4, 5 and 6 dominated the overall catch, comprising almost 90% of the total catch of blue catfish (Table 19). Catch of channel catfish ages 6, 7 and 8 dominated the overall catch, comprising almost 90% of the total catch of channel catfish (Table 20).

Lake Barkley

Black bass were collected by diurnal electrofishing on 2-6 May 2005 from standardized sampling sites on Lake Barkley. The PSD value for largemouth bass (83) increased compared to the value (57) recorded in 2004 (Table 21). This increase was the result of higher CPUE of quality-size (12.0-14.9 in) largemouth bass (59.4 f/h) in 2005 compared to 2004 (29.3 f/h), as well as lower CPUE of stock size (8-11.9in) largemouth bass (19.3 f/h) in 2005 compared to 2004 (40.9 f/h). This value is well above the 20-year average (59) for Lake Barkley. The RSD_{15} value (32) increased for the third consecutive year and exceeds the 20-year average for the second time since 2000. 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 Lake Barkley Fish Management Plan (LBFMP).

Table 22 summarizes the length frequency and relative abundance of black bass collected during spring electrofishing on Lake Barkley. A total of 1,490 black bass were collected at a rate of 156.8 f/h, compared to 109.2 f/h in 2004. Spotted and smallmouth bass accounted for less than 3% of the total black bass sampled and too few individuals were collected to accurately yield data reflecting their true population abundance. Largemouth bass accounted for 97.4% of the total catch, and had a catch rate of 152.7 f/h. This catch rate lies above the 20-year average catch of largemouth bass (152.0 f/h) at Lake Barkley (Table 23). The CPUE of all size-classes except stock size (8-11.9in) largemouth bass increased in 2005. The catch rate of largemouth bass ≤8.0 was 36.6 f/h, compared to 11.3 f/h recorded in 2004. In 2005, the CPUE of largemouth bass ≤8.0 in was above the 20-year average (31.0 f/h) and the minimum desired catch rate of 30.0 f/h set in the LBFMP. CPUE of largemouth bass 12.0-14.9 in increased from 29.3 f/h in 2004 to 59.4 f/h in 2005. This increase is the continued result of the strong year-class of largemouth bass produced in 2001 (now recruiting to the 12.0-14.9 inch-class). Catch of harvestable-size (≥15.0 in) largemouth bass increased from 24.7 f/h in 2004 to 37.5 f/h in 2005.

The assessment of the largemouth bass fishery at Lake Barkley during 2005 produced an "excellent" rating (Table 24). The higher rating is the result of excellent size structure (CPUE of age-1 bass, CPUE of 12-14.9 in bass and CPUE of ≥15 in bass). The annual mortality of largemouth bass two years and older was 49% in 2005.

Black bass were sampled in late October and early November 2005 to collect length-weight data, relative weight values, and determine the strength of the 2005 year-class. The length-weight equations of each species of black bass at Lake Barkley are:

Largemouth bass	Log_{10} (weight) = -3.58087 + 3.25478 x Log_{10} (length)
Smallmouth bass	Log_{10} (weight) = -3.79688 + 3.48062 x Log_{10} (length)
Spotted bass	Log_{10} (weight) = -3.52523 + 3.18581 x Log_{10} (length)

Similar to previous years, despite high r^2-values for both spotted ($r^2 = 0.99$) and smallmouth ($r^2 = 0.99$) bass, low overall sample sizes of spotted (n = 5) and smallmouth (n = 7) bass were collected during the fall sample and therefore these length-weight equations should be used with caution. Length frequency distributions and CPUE of largemouth, smallmouth, and spotted bass are listed in Table 25. Fall CPUE of largemouth bass was 114.4 f/h. Relative weight values of all size-classes of largemouth bass increased for the third consecutive year, indicating excellent health of the largemouth bass population going into winter (Table 26). Mean length of the age-0 cohort was 5.4 in and ranged in length from 3.4 to 6.3 in by October (Table 27). CPUE of age-0 largemouth bass was approximately 5.4 f/h, the lowest catch rate recorded to date. CPUE of age-0 largemouth bass ≥5.0 in was 4.8 f/h, and comprised 90% of all age-0 bass collected.

Blue and channel catfish were collected using trotlines (tl) from 23-27 May 2005. This was the second year that catfish were sampled to determine CPUE, length frequency, age frequency, and mortality. Catch rates of catfish were similar in 2005 compared to 2004. In 2005 209 catfish were collected at a rate of 11.0 f/tl-night. The CPUE of blue catfish was 7.2 f/tl (Table 28). Approximately 80% of all blue catfish collected were ≥15.0 in, and 46% were ≥20.0 in. No blue catfish were captured ≤8.0in in 2005. The CPUE of channel catfish was 3.8 f/tl. Approximately 96% of all channel catfish collected were ≥12.0 in, and 60% were ≥15.0 in. Like blue catfish, no small channel catfish (≤8.0 in) were captured. Relative weight values of both blue and channel catfish indicate excellent health and are listed in Table 29. The length-weight equations of blue and channel catfish are:

Blue catfish	Log_{10} (weight) = -3.99849 + 3.41840 x Log_{10} (length)
Channel catfish	Log_{10} (weight) = -3.91088 + 3.33741 x Log_{10} (length)

Age frequency determinations were made using 2004 age and growth data and 2005 catch data for blue and channel catfish. The catch of blue catfish ages 5 and 6 dominated the overall catch, comprising 30 and 31% of the total catch, respectively (Table 30). Similar to blue catfish, the catch of channel catfish ages 4 and 5 dominated the overall catch, comprising 19 and 28% of the total catch, respectively (Table 31). The catch of young (ages 1-3) blue and channel catfish was extremely low during 2005 and is most likely the result of gear selectivity towards larger catfish. Alternative sampling schemes will be considered in order 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) during 31October-4 November 2005. A total of 1,196 crappie were collected at a rate of 15.1 f/nn (Table 32). Similar to 2003, white crappie accounted for 77% of the total catch, and collected at a rate of 11.7 f/nn. Black crappie were collected at a rate of 3.4 f/nn. The CPUE of harvestable-size (≥10.0 in) crappie was 3.4 f/nn, compared to 1.8 f/nn recorded in 2004 (Table 33). This value is almost twice that of the 20-year average of 1.8 f/nn but failed to meet the management objective (2.0 f/nn) set in the LBFMP. Since 2000, black crappie have averaged approximately 40% of the harvestable-size crappie collected from trap nets (Figure 2). CPUE of quality-size (≥8.0 in) crappie was 5.2 f/nn, which exceeds the 20-year average (4.1 f/nn) of Lake Barkley. This is the second consecutive year since 1998 that this value has exceeded the management objective (5.0 f/nn) set in the LBFMP. The CPUE of quality-size white crappie remained at a high rate of 5.5 f/nn, the same as in 2004. The CPUE of quality-size black crappie (1.4 f/nn) is slightly lower than that recorded in 2004 (1.8 f/nn). Table 34 lists PSD and RSD_{10} values calculated for both white and black crappie. In 2005, the PSD of white crappie (75.4) decreased from 2004 (79), while the RSD_{10} value (54.4) increased dramatically. This increase can be attributed to an increase in CPUE of harvestable-size white crappie, while the CPUE of quality-size white crappie decreased. The 20-year average PSD and RSD_{10} values of white crappie are 57 and 25, respectively. The PSD and RSD_{10} values of black crappie decreased slightly from 2004, with both values being above the 20-year average of 53 and 19, respectively. The RSD_{10} value of black crappie has increased each year since 2002. The relative weight values of white and black crappie are listed in Table 35. The length-weight equations of white and black crappie from Lake Barkley are:

White crappie	Log_{10} (weight) = -3.64390 + 3.35589 x Log_{10} (length)
Black crappie	Log_{10} (weight) = -3.58067 + 3.35662 x Log_{10} (length)

Otoliths were collected from 88 black crappie and 105 white crappie for age and growth analysis in 2005 (Tables 36 and 37). Back-calculated length at age data for 2005 indicated that white crappie were longer than black crappie at each age-class. The catch of black crappie was dominated by age-1 fish (Table 38) while age-0 black crappie were underrepresented in our catch (1.2 f/nn). Age-0 fish, comprising 63% of the total catch, dominated the catch of white crappie (Table 39). The catch of age-1 white crappie (1.7 f/nn comprised 21% of the total catch. The total CPUE of age-1 crappie was 3.1 f/nn, which failed to meet the management objective (5.0 f/nn) established in the LBFMP. The annual CPUE by age-class of black and white crappie can be found in Tables 40 and 41, respectively. The annual mortality of crappie in Lake Barkley during 2005, calculated using catch curve analysis, was 65.5% (compared to 57.6% in 2004). The annual mortality between 2004 and 2005 of each age-class (1-6) of crappie is listed in Table 42.

Assessment of the white and black crappie populations each yielded a rating of "fair" at Lake Barkley in 2005 (Table 43). The lowest assessment value for white crappie was the recruitment parameter (CPUE of age-0 white crappie). The highest assessment value continues to be the growth parameter (mean length at capture of age-2 white crappie). The black crappie population received poor assessment values for all parameters except growth. When both species were combined, the total crappie population received an assessment rating of "good". Tables 44, 45, and 46 list the population assessment scores of white crappie, black crappie, and both white and black crappie populations combined from 1988-2005.

Lake Barkley Creel Survey

A non-uniform probability roving creel survey, utilizing a creel clerk was conducted at Lake Barkley. Lake Barkley was surveyed 5 days per week from 1 March 2005 to 31 October 2005 (creel survey period). The creel clerk was on the water for six hours each workday. Of these six hours, approximately one hour was randomly picked to do an angler count. The remaining five hours were for conducting angler interviews. Lake Barkley was divided into 8 work areas (Appendix A). The assigned work area was chosen randomly. The acreage used for this survey was 45,600.

During the creel survey period it was estimated that 192,799 fishing trips were taken to Lake Barkley (4.2 trips / acre) (Table 47). This number was up, in comparison to the last time a creel survey was conducted on Lake Barkley in 1999 (2.6 trips / acre). The fishing pressure exerted from these fishing trips in 2005 was estimated at 16.8 angler-hours per acre (h/a). This measure of fishing pressure was also up from the 12.8 h/a of effort determined during the 1999 survey. Although the number of trips and effort increased, the average trip length decreased from 5.0 hours in 1999 to 4.0 hours in 2005. The number of fish caught during the 2005 survey was 1,197,613, compared to 505,213 caught during the 1999 survey. The numbers of fish harvested were 426,356 and 239,427 during the 2005 and 1999 creel surveys, respectively. In 1999 the harvest rate was 0.4 fish per hour (f/h), compared to the 2005 value of 0.6 f/h.

Table 48 lists the creel data by individual species and groups of species. During the creel survey period black bass were the most sought after species of fish at Lake Barkley. Forty-three percent of the anglers creeled were fishing for black bass. Largemouth bass accounted for 95% of all black bass caught, and 94% of those harvested. The percentage of largemouth bass making up the total black bass caught was down slightly, though the difference was a 2% increase in the number of spotted bass caught. The number of largemouth bass caught per acre was estimated at 3.0 in 1999, though increased to 8.1 in 2005. The catch rate for largemouth bass for these two years was 0.52 f/h and 1.1 f/h, respectively. Table 49 lists the length distribution of black bass harvested and released, as well as all other species caught during the creel survey. It is estimated that 63% of the harvestable size bass caught by bass anglers were released (Table 50). One of the BLFMP objectives is derived from creel survey data. This objective is to maintain an annual catch of $\geq$45,000 largemouth bass $\geq$15 inches. This value from the 2005 creel survey was 69,822. This can be explained by electrofishing data presented earlier, indicating above average spawns and survival of the young during the past 5 years. Table 51 lists the numbers of bass caught and harvested by month, and by bass anglers versus all anglers. The highest catch rate, almost 1 bass per hour of effort, was recorded in June.

Crappie was the second most sought after species in Lake Barkley during 2005. It was estimated that 249,686 crappie or 5.5 fish per acre (f/a) were caught, of which 85% were white crappie (Table 48). In comparison, the 1999 creel survey estimated a crappie catch to be 3.6 f/a. In 1999, white crappie made up 96% of the crappie catch. The effort exerted by crappie anglers was down slightly from 4.0 h/a in 1999 to 3.6 h/a reported in 2005. Table 49 lists the length distribution of crappie harvested and released. Table 52 lists the catch and harvest statistics for crappie. It is estimated that crappie anglers were releasing about 3% of the harvestable size crappie. Table 53 lists the crappie caught and harvested by month, and by all anglers versus crappie anglers. The highest harvest rate was recorded in March at almost 1 fish per hour, compared to 0.5 f/h reported in March of the 1999 creel survey. One of the management objectives in the BLFMP is to maintain a crappie harvest of ≥4.0 lb/a. This value recorded from the 2005 creel survey was 1.5 lb/a, up from 1.3 lb/a reported in 1999. Likewise, trap-netting data presented earlier suggested an increase in the number of harvestable size crappie in the population.

Catfish were the third most sought after species during the 2005 creel survey. By weight, catfish comprised almost 35% of the total pounds of all fish harvested. It was estimated that 95,998 catfish were caught, in comparison with 37,207 during the 1999 creel survey period. Channel catfish comprised almost 62% of the catfish catch, and 61% of the harvested catfish during the 2005 creel survey (Table 54). During the 1999 survey, channel catfish comprised 85% of the catfish catch. The average length of channel catfish harvested during 2005 increased from 13.6 in reported in 1999 to 15.7 in. Likewise, the average weight of channel catfish harvested increased from 0.8 to 1.2 pounds. Catfish anglers had the best success in July and October (Table 55).

Panfish were the fourth most sought after species during the 2005 creel survey. Table 56 lists the species that are included in the panfish group. Bluegill comprised 88% of the panfish catch, and 89% of the harvest. In 1999, 2.8 bluegill were caught per acre, compared to 5.6 in 2005. However, their catch rate decreased from 3.2 f/h to 2.9 f/h respectively between these two survey periods. Redear sunfish comprised 7.2% of the panfish harvest in 2005, compared to 0.6% in 1999. The average size redear harvested in 1999 was 9.0 inches. In 2005, that value was 9.6 inches. Anglers fishing for panfish harvested 84% of their catch. Their best success was reported in March, May and October, where their harvest was over 2 fish per hour (Table 57).

The number of anglers fishing for white bass or all *Morone* species, increased in 2005. It was estimated that these anglers accounted for 4.6% of all fishing trips to Lake Barkley during the creel survey. In 1999, these anglers accounted for only 1.9% of all fishing trips. White bass comprised 52% and yellow bass 45% of the total catch of *Morone* species. Striped bass and hybrid striped bass accounted for 3% and less than 1%, respectively of the catch of all *Morone* species (Table 58). White bass made up 78% of all *Morone* species harvested, and yellow bass another 22%. Striped bass made up less than one percent of the harvested *Morone* species. Anglers fishing for *Morone* species had their greatest fishing success in June and July, when they harvested more than 2 fish per hour (Table 59).

The number of sauger caught was up from previous creel survey years. In 1999 the creel survey indicated 613 sauger were caught. During this most recent survey 42% of the 1,920 sauger caught were harvested (Table 48).

Lake Beshear

Largemouth bass were collected by diurnal electrofishing during May 2005. A total of 237 largemouth bass were collected at a rate of 94.8 f/h (Table 60). CPUE of harvestable-size (≥12.0 in) and ≥15.0 in largemouth bass were 51.6 and 44.4 f/h, respectively (Table 61). One objective in the Lake Beshear Fish Management Plan (LBFMP) is to maintain a catch rate of 40.0 f/h for harvestable-size largemouth bass. A second objective is to maintain a catch rate for bass <8 in of 12 f/h. This year was the first time this objective was met in the past decade. The catch rate for these smaller bass was 30.8 f/h, which is a record number for Lake Beshear. The number of 8-12 inch largemouth bass was still low, which allowed for high PSD and RSD_{15} values, 81 and 69 respectively.

Age and growth determinations were made using this year's spring sampling data, and age data collected in 2003. Largemouth bass reach 12.0 in (harvestable-size) as early as age 2, but more commonly by age 3 (Table 62). The largemouth bass population has rated "good" the past four years (Table 63). This rating has been achieved by good growth of bass and a high density of ≥15.0 in bass in the population. The catch rate of age-1 largemouth bass, although high this year, did little to change the overall rating.

During October, largemouth bass were collected by diurnal electrofishing. The catch rate (81.5 f/h) was below that of the spring sample (Table 60). However, the number of bass of <8.0 in was much higher when compared to the spring data, suggesting, possibly a good spawn had occurred. Relative weight data suggests that the larger bass (≥15 in) are very healthy with regard to their length-weight ratio. Relative weight values were above 98. The relative weight value was 89 for the bass 8-12 in, and 87 for the bass smaller than 8 in. The length-weight equation for largemouth bass at Lake Beshear is:

$$Log_{10}\,(weight) = -3.51802 + 3.17351 \times Log_{10}\,(length)$$

Otoliths were removed from largemouth bass ≤ 8.0 in to determine the mean fall length of the age-0 cohort. The catch rate for this year class was 44.0 f/h (Table 64). The average length of the age-0 bass was 4.5 in.

The channel catfish population was sampled at Lake Beshear using 10 100-hook cheese-baited trotlines (tl) for 3 nights during September 2005. One line was hung the last night; therefore the total sample effort was 29 trotline nights. The length frequency of channel catfish collected is found in Figure 3. Their catch rate was 11.0 f/tl. The catch rate was down from 13.6 f/tl reported in 2004. The majority (7.9 f/tl) of channel catfish collected were from 11-14 in, about 72% of the sample. In 2004, a 12-inch minimum length limit was imposed for channel catfish. During 2005 sampling, 74% of the catch (8.2 f/tl) were ≥12 in, 9.2 f/tl in 2004. Two weeks prior to the 2005 sampling, 2,000 blue catfish, ranging in length from 8-12 inches, were stocked in Lake Beshear. Only 4 blue catfish were caught during this sampling. Relative weights ranged from 84 for channel catfish 11-16 in, to 91 for larger channel catfish. The length-weight equation for channel catfish at Lake Beshear is:

$$Log_{10}\,(weight) = -3.92159 + 3.31630 \times Log_{10}\,(length)$$

Age and growth determinations were made using otoliths collected from 31 channel catfish. Harvestable-size (≥12.0 in) is reached as early as age 3, but more commonly by age 4 (Table 65). The channel catfish population in this lake is still impaired by slow growth. It is better than in previous years when higher stocking rates (25 channel catfish per acre) were used. The current stocking rate is 10 per acre, which was implemented in 2001. Table 66 lists the age frequencies for all channel catfish collected based on the portion that was aged. Approximately 80% of the channel catfish collected were between 1 and 4 years old. As part of the LBFMP, the following parameters of the catfish population were assessed by sampling with trotlines: catch of catfish <8.0 in, ≥12.0 in, and ≥15.0 in (Table 67). Several years of data have been collected, although sampling methods have changed, while trying to determine the best method. In the past five years the population has rated "good", while prior to this it rated "fair" and "poor". These ratings were affected by the catch of the sample method used each year, so some bias has occurred in catch rate from year to year.

Lake Pennyrile

Lake Pennyrile was sampled by diurnal electrofishing on 20 April 2005. Largemouth bass were collected at a rate of 260.4 f/h (Table 68). This catch rate was much higher than that recorded in 2004 (119.8 f/h), but similar to the catch rates in previous years (Table 69). The CPUE of largemouth bass ≤8.0 in was 101.5 f/h, compared to 27.5 f/h recorded in 2004. Similarly, CPUE of largemouth bass 8.0-11.9 in was 127.5 f/h, compared to 63.7 f/h recorded in 2004. CPUE of largemouth bass 12.0-14.9 in was 25.3 f/h, which exceeded the management objective (25.0 f/h) established in the Lake Pennyrile Fish Management Plan (LPFMP). Catch rates of largemouth bass ≥15.0 in improved from 2.2 f/h in 2004 to 6.6 f/h in 2005, which exceeds the management objective of 5.0 f/h in the LBFMP. This is the third year that a 12.0-15.0in protective slot limit has been in place on Lake Pennyrile. Continued catch rates of smaller largemouth bass suggest the slot limit has not been effective. PSD and RSD_{15} values are listed in Table 70, showing a decrease in PSD and a slight improvement in RSD_{15} from 2004. Both values still lie well below the management objectives set in the LPFMP for PSD (40-50) and RSD_{15} (10).

The largemouth bass population was rated as "good" during 2005 (Table 71). The lowest ratings were assigned for poor growth (mean length at capture of age-3 bass), which is expected in a stunted population. However, improvements were seen in the CPUE of bass ≥15.0 in and ≥20.0 in, and were responsible for the improved rating. Table 72 lists CPUE values of each age-class of largemouth bass collected at Lake Pennyrile from 1998-2005.

The catch rate of bluegill was 360.4 f/h (Table 73), which increased drastically after declining in consecutive years. Small fish dominated the catch: almost 80% of the catch was bluegill less than 4 in. The CPUE value of bluegill ≥8.0 in declined to 1.1 f/h, compared to 6.2 f/h recorded in 2004, and failed to meet the objective goal (8.0 f/h) in the LPFMP. Table 74 lists the CPUE of each age-class of bluegill collected from Lake Pennyrile from 2000-2005. PSD and RSD_8 values of bluegill were 15 and 0, respectively (Table 70). PSD values decreased after increasing in consecutive years and are below the values (20-40) strived for in the LPFMP. The RSD_8 value failed to meet the objective (10) set in the LPFMP, as a result of the significant decline in CPUE of bluegill ≥8.0 in.

Overall, the bluegill population was rated as "fair" and has shown no signs of improvement since 2000 (Table 75). The lowest ratings are the result of extremely slow growth, most likely due to an over-abundance of smaller individuals. A high density of aquatic vegetation in Lake Pennyrile has likely lead to the over abundance of small sunfish by allowing protection from predation.

The catch rate of redear sunfish was 89.0 f/h in 2005. This catch rate is up from the previous years sample, although down from early years samples by more than half (Table 73. The increase in CPUE was evident in the 3.0-5.9in and ≥8in size-classes. CPUE of redear sunfish 3.0-5.9in increased from 20.0 f/h in 2004 to 37.4 f/h in 2005 while the CPUE of redear sunfish ≥8.0in improved from 9.2 in 2004 to 23.1 in 2005. The CPUE of redear sunfish ≥6.0 in has exceeded the management objective (40.0 f/h) established in the LPFMP since 2002. CPUE of redear sunfish ≥8.0 in failed to meet the management objective (25.0 f/h) for the second consecutive year. PSD and RSD_9 values were 55 and 3, respectively, showing a slight increase from 2004 (Table 70). PSD values for redear sunfish met their management objective (40) while the RSD_9 value failed to meet the management objective (10) for the second consecutive year. The redear sunfish population was rated as "fair" (Table 76). However, the assessment rating showed it's first sign of improvement since 2000 with an increased CPUE of fish ≥8.0in.

Hematite Lake

Hematite Lake is a 90-acre sub-impoundment of Lake Barkley located within the Land Between the Lakes. This lake was drained in the mid 1990's due to a breach in the levee. In the late 1990's the levee was repaired and the lake was allowed to fill. Since that time the lake has been stocked with largemouth bass, redear sunfish and bluegill collected from Lake Barkley. Hematite Lake was once known for its outstanding redear fishery. The management objective for this lake is to reestablish the redear fishery. In spring 2002, the lake was sampled by electrofishing. During that study redear sunfish were collected at a catch rate of 159.0 f/h. In 2004, the redear sunfish population was again sampled resulting in a catch rate of 253.9 f/h, and in 2005 187.6 (Table 77). Fish between 3-6 in dominate the size structure of this population (Table 78). The harvest of redear sunfish is regulated by a creel limit of 10 fish ≥10.0 in. Harvest for redear sunfish <10.0 inches is 20 in aggregate with the larger redear, which is the statewide limit.

Appendix A. Lake Barkley creel survey areas, 2005.

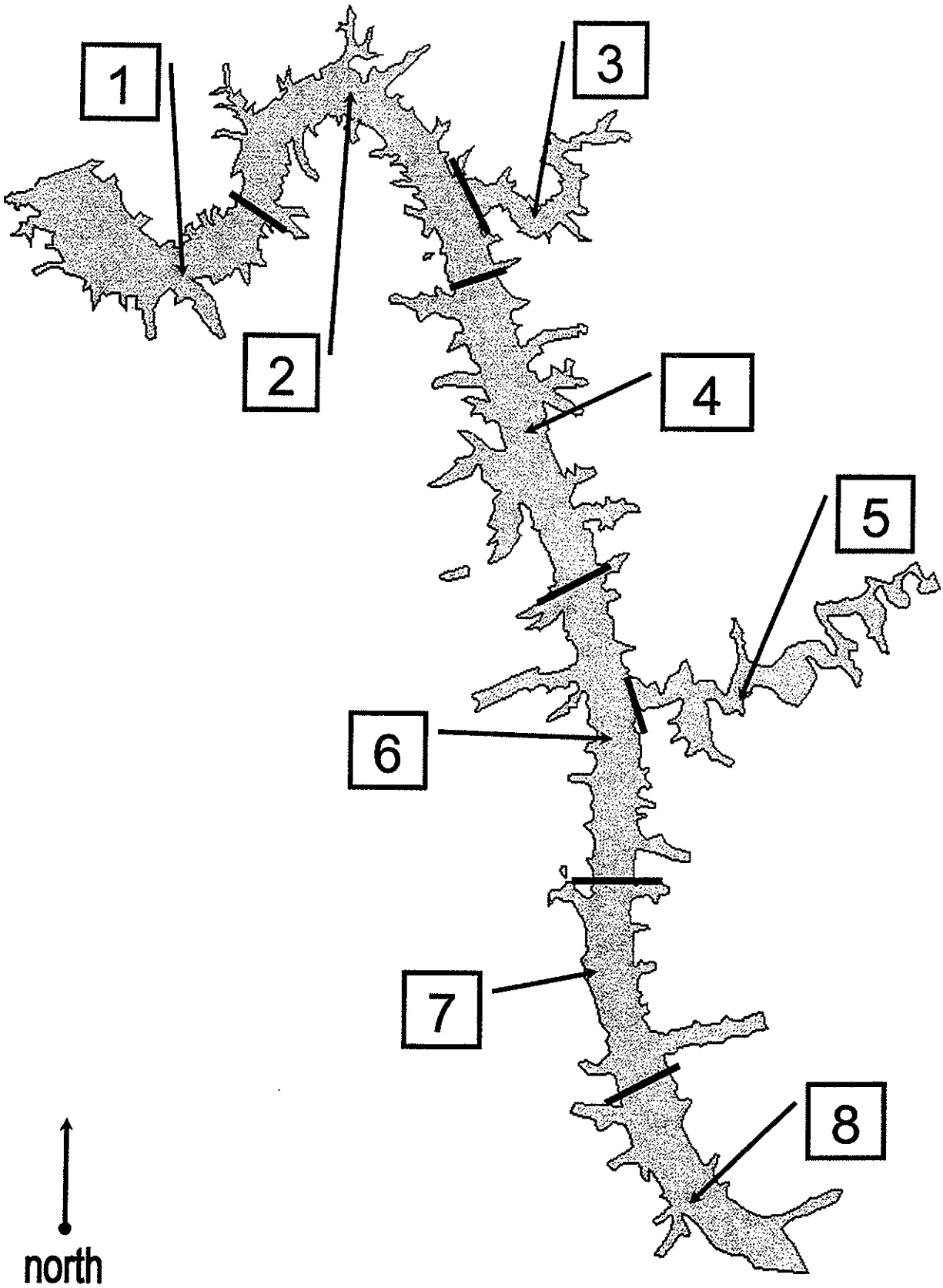

Table 1. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected during 10.0 hours (20 x 30-minute) of diurnal electrofishing at Kentucky Lake during May 2005.

		Inch Class																						
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	StdErr
Blood River	Smallmouth bass	1		9							1			1								12	1.2	4.8
	Spotted bass		3	3				1	2	4	10	12	3									38	3.8	13.3
	Largemouth bass		2	7	21	16	7	4	6	7	15	21	30	17	12	4	1	2	3			175	17.5	8.9
Big Bear	Smallmouth bass			1																		1	0.1	0.5
	Largemouth bass	1		9	27	19	11	4	8	22	27	48	31	21	16	6	8	3	1			262	26.2	21.5
Jonathan	Spotted bass		2																			2	0.2	0.8
	Largemouth bass	5	9	23	26	12	4	3	3	6	29	53	45	26	21	12	5	1	2	1	1	287	28.7	7.0
Sugar Bay	Smallmouth bass		3	4	4	1		1		1	1											15	1.5	1.5
	Spotted bass	2	2	1			1	1	3	1	2	1			1							15	1.5	1.4
	Largemouth bass	1	4	21	26	16	14	5	11	13	41	54	71	35	20	9	7	2				350	35.0	11.2
TOTAL	Smallmouth bass	1	3	14	4	1	1	1	2	1												28	2.8	1.3
	Spotted bass	2	7	4			1	2	5	5	12	13	3		1							55	5.5	3.4
	Largemouth bass	7	15	60	100	63	36	16	28	48	112	176	177	99	69	31	21	8	6	1	1	1,074	107.4	7.6

Table 2. Spring diurnal electrofishing CPUE of each size-class of largemouth bass collected at Kentucky Lake during May from 1985 - 2005.

	Size-class									
	< 8.0 inch		8.0 - 11.9 inch		12.0 - 14.9 inch		≥ 15.0 inch		Total	
Year	CPUE	± 95% CI	CPUE	± 95% CI	CPUE	± 95% CI	CPUE	± 95% CI	CPUE	± 95% CI
1983	3.0	0.0	5.1	0.0	1.3		4.2		16.0	0.0
1984	3.3	2.2	9.2	0.0	6.3	1.4	5.8	1.6	24.6	0.0
1985	6.3	0.0	2.9	0.0	2.0		3.6		15.9	0.0
1986	12.6	3.1	12.1	4.3	10.3	3.9	10.1	2.9	45.1	10.4
1987	36.9	11.4	18.5	5.3	10.1	2.6	11.9	3.5	77.3	17.1
1988	28.9	14.5	38.6	18.6	24.2	8.6	14.3	7.5	106.1	47.4
1989	29.2	12.4	30.0	17.6	23.7	7.6	9.8	3.7	92.8	28.8
1990	6.2	3.1	27.4	6.5	12.5	3.5	14.3	3.5	60.4	11.6
1991	38.5	13.9	14.8	3.3	27.0	4.9	19.4	4.9	99.6	20.2
1992	23.4	9.0	32.4	7.6	17.7	2.7	21.9	3.7	95.4	14.7
1993	33.2	10.6	15.8	3.1	26.9	6.3	31.4	6.3	107.2	18.2
1994	21.0	5.9	25.0	6.3	19.6	3.3	18.4	3.9	84.0	11.2
1995	5.9	2.4	15.3	3.3	19.6	4.9	24.6	4.1	65.4	9.8
1996	11.9	5.1	6.9	1.8	15.6	3.5	27.0	5.1	61.2	9.0
1997	6.7	2.6	7.6	2.2	10.8	3.5	21.4	4.7	46.6	9.2
1998	17.3	3.9	8.2	2.4	9.6	3.3	10.0	3.3	44.8	7.6
1999	18.7	6.5	10.0	3.1	11.4	2.9	11.9	3.3	52.0	9.6
2000	19.4	7.5	13.4	1.8	19.0	3.5	22.5	6.9	74.4	12.2
2001	60.6	14.3	26.3	5.7	12.2	3.1	12.0	2.9	111.0	21.0
2002	32.4	10.6	26.7	4.9	21.8	4.5	12.9	2.2	93.8	11.6
2003	21.8	7.4	24.4	6.5	43.6	10.2	15.6	3.8	105.4	22.3
2004	17.7	5.1	25.1	4.5	22.7	4.2	18.1	3.6	83.6	11.3
2005	24.5	4.9	12.8	3.4	46.5	8.6	23.6	4.3	107.4	14.9
Average	20.8		17.8		18.0		15.9		72.6	

(Kentucky/Bass/Database.xls)

Table 3. PSD and RSD values calculated for black bass species collected during diurnal electrofishing at Kentucky Lake during May 2005; 95% confidence limits are in parentheses.

Area	Species	No. Fish ≥ 8 in	PSD	(+/- 95%)	RSD[a]	(+/- 95%)
Big Bear Creek	Largemouth bass	206	78	(+/- 6)	27	(+/- 6)
Jonathan Creek	Largemouth bass	212	92	(+/- 4)	33	(+/- 6)
Blood River	Spotted bass	32	90	(+/- 10)	9	(+/- 10)
	Largemouth bass	129	81	(+/- 7)	30	(+/- 8)
Sugar Bay	Spotted bass	10	50	(+/- 33)		
	Largemouth bass	282	85	(+/- 4)	26	(+/- 5)
TOTAL	Smallmouth bass	5	67	(+/- 41)		
	Spotted bass	42	81	(+/- 12)	10	(+/- 9)
	Largemouth bass	829	85	(+/- 2)	28	(+/- 3)

[a]Largemouth bass = RSD_{15}, Spotted and Smallmouth bass = RSD_{14}

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Table 4. Mean back-calculated length (in) at each annulus of largemouth bass collected during diurnal electrofishing at Kentucky Lake during May 2005.

		Age								
Year-Class	N	1	2	3	4	5	6	7	8	9
2004	57	6.6								
2003	27	6	10.9							
2002	22	8.2	11.1	13.3						
2001	7	7.1	11.3	13.4	14.9					
2000	20	7.8	11.7	13.9	15.5	16.5				
1999	3	6.8	11.3	13.9	15.4	16.4	17.0			
1998	5	7.5	12.7	14.9	15.8	17.6	18.5	19.2		
1997	2	7.7	12.5	15.3	17.6	19.0	19.6	20.4	21.2	
1996	1	7.2	14.7	15.6	16.8	17.6	18.5	19.4	20.2	20.8
Mean		7.0	11.4	13.8	15.6	16.9	18.3	19.5	20.9	20.8
Number		144	87	60	37	31	11	8	3	1
Smallest		3.4	8.2	11.4	12.8	14.1	14.9	18.6	20.2	
Largest		12.5	15.1	16.4	18.4	19.5	20.3	21.0	21.7	
Std. Error		0.0	0.1	0.2	0.2	0.3	0.4	0.3	0.4	
Low 95% CI		6.7	11.1	13.5	15.1	16.3	17.5	19.0	20.0	
High 95% CI		7.2	11.6	14.1	16.0	17.4	19.1	20.1	21.7	

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

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Table 5. Age frequencies and CPUE of largemouth bass collected during diurnal electrofishing for 10 hours (20 x 30-minute runs) at Kentucky Lake during May 2005.

	Inch-Class																						
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	StdErr
1	7	15	60	100	63	36	6													287	26.7	28.70	2.86
2							10	28	39	45										122	11.4	12.21	1.25
3									9	67	160	53	12							301	28.0	30.14	3.05
4											16	53	25	12						106	9.9	10.54	0.95
5												53	62	46	31	13	2			207	19.3	20.66	1.74
6												18		12			2			32	3.0	3.12	0.32
7																8	4	2		14	1.3	1.44	0.28
8																		2	1	3	0.3	0.30	0.15
9																		2		2	0.2	0.20	0.09
Total	7	15	60	100	63	36	16	28	48	112	176	177	99	70	31	21	8	6	1	1,074			
%	1	1	6	9	6	3	1	3	4	10	16	16	9	7	3	2	1	1	0		0		

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Table 6. Population assessment of largemouth bass based on spring sampling at Kentucky Lake from 2001-2005.

	2005		2004		2003		2002		2001	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at Age-3	13.3	4	13.7	4	13.7	4	13.7	4	14.4	4
Spring CPUE of Age-1 Fish	28.7	2	12.0	1	30.9	2	35.5	2	73.9	4
Spring CPUE 12-14.9-in Fish	46.5	4	22.7	2	43.6	4	21.8	2	12.2	1
Spring CPUE ≥ 15.0-in Fish	23.6	4	18.1	3	15.6	3	12.9	3	12.0	2
Spring CPUE ≥ 20-in Fish	0.8	2	1.3	2	1.0	2	0.9	2	0.4	2
Instantaneous Mortality (z)	0.639		0.697		0.728		0.873		0.633	
Annual Mortality (A)%	47.2		50.2		51.7		58.2		46.9	
Total Score	16		12		15		13		13	
Assessment Rating	G		G		G		G		G	

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

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Table 7. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected during 5.0 hours (10 x 30-minute) diurnal electrofishing runs for black bass at Kentucky Lake during October 2005.

Area	Species	Inch Class																			Total	CPUE	StdErr
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Blood River	Smallmouth bass			12	1			1	2		1	1	3	2						1		24	9.6	3.76
	Spotted bass		6	4	1	1	1	5	1	3	2	5	1									30	12.0	2.68
	Largemouth bass		6		11	5	2	6	4	8	4	12	18	18	11	6	2	2		2	1	118	47.2	7.50
Jonathan	Smallmouth bass				1			1		1			1	1	1							6	2.4	1.60
	Spotted bass			1			8	6	4	1	3	5	2	1								31	12.4	4.75
	Largemouth bass		23	10	13	13	6	12		10	6	15	17	20	11	8	4	8	4	1		181	76.0	8.92
TOTAL	Smallmouth bass			12	2			2	2	1	1	1	4	3	1						1	30	6.0	2.27
	Spotted bass		6	5	1	1	9	11	5	4	5	10	3	1								61	12.2	2.57
	Largemouth bass		29	10	24	18	8	18	13	18	10	27	35	38	22	14	6	10	4	3	1	308	61.6	7.30

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Table 8. Number of fish and relative weight (Wr) for each length group of black bass collected at Kentucky Lake during October 2005. Standard errors are in parentheses.

Species	Area	Size Range: 8.0-11.9 in			12.0-14.9 in			≥ 15.0 in		
		No.	Wr		No.	Wr		No.	Wr	
Largemouth bass	Blood River	22	95	(1.33)	48	94	(1.70)	24	93	(1.87)
	Jonathan Creek	37	95	(1.68)	52	93	(1.13)	36	98	(1.58)
	Total	59	95	(1.16)	100	93	(1.00)	60	96	(1.24)

Species	Area	Size Range: 7.0-10.9 in			11.0-13.9 in			≥ 14.0 in		
		No.	Wr		No.	Wr		No.	Wr	
Spotted bass	Blood River	10	101	(3.60)	8	98	(3.26)			
	Jonathan Creek	19	102	(2.83)	10	95	(1.72)	1	99	
	Total	28	102	(2.27)	18	96	(1.73)	1	99	
Smallmouth bass	Blood River	3	87	(3.77)	5	92	(2.69)	3	87	(0.99)
	Jonathan Creek	2	96	(4.13)	1	85		2	89	(0.58)
	Total	5	91	(3.27)	6	91	(2.48)	5	88	(0.66)

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Table 9. Indices of year-class strength at age-0 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.

Year Class	Age 0[A] Mean Length	Age 0[A] CPUE	Std. Error	Age 0 ≥ 5.0 in[A] CPUE	Age 1[B] CPUE	Std. Error
1990	4.1	9.5	3.02	4.2	41.4	7.23
1991					31.5	4.94
1992	3.8	30.6	8.70	5.3	33.1	5.43
1993	3.3	33.3	9.45	2.4	25.4	3.28
1994	3.4	13.1	4.46	1.5	9.2	1.58
1995	3.8	33.0	9.18	6.1	14.3	2.70
1996	3.4	38.5	8.01	2.5	7.3	1.28
1997					52.0	6.74
1998	4.5	9.0	1.86	3.2	41.9	6.40
1999	3.5	36.4	10.68	2.4	21.8	4.04
2000	4.2	14.5	2.82	4.8	73.9	7.96
2001	4.9	18.4	3.83	15.1	35.5	5.26
2002	3.4	12.8	6.52	0.0	30.9	0.00
2003	3.6	15.7	5.36	0.7	12.0	0.00
2004	3.7	18.5	5.56	2.3	28.7	5.60
2005	4.2	28.8	3.53	13.2		

[A] Data collected by fall (October) diurnal electrofishing. Mean lengths were determined by analysis of scales, removed from a subsample of LMB < 8.0 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 10. Species composition, relative abundance, and CPUE (fish/net night) of crappie collected by trap nets fished during 78 net-nights in two embayments of Kentucky Lake during October 2005.

Area	Species	Inch Class															Total	CPUE	StdErr
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
Blood River	White Crappie		46	38	4	6	42	22	11	38	15	3	4	1	2		232	6.0	1.11
	Black Crappie		44	19	5	64	87	285	205	83	68	27	17	4			908	23.3	2.33
Jonathan Cr.	White Crappie	1	53	36			20	13	9	42	38	18	2			1	232	6.0	1.18
	Black Crappie		39	38	4	35	71	125	345	144	109	23	8	1			942	24.2	4.87
TOTAL	White Crappie	1	99	74	4	6	62	35	20	80	53	21	6	1	2	1	464	6.0	0.81
	Black Crappie		83	57	9	99	158	410	550	227	177	50	25	5			1,850	23.7	1.83

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Table 11. CPUE for size groups of crappie collected from multiple years of trap netting on Kentucky 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).

	CPUE ≥ 8.0 in			CPUE ≥ 10.0 in			Mean Length @ age 2			% Age 4 and Older		
Year	WC	BC	WC&BC	WC	BC	WC&BC	WC	BC	WC&BC	WC	BC	WC&BC
1985	1.7	0.8	2.5	0.5	0.4	0.9	9.0	8.4	8.4	1.2	5.4	1.6
1986	3.6	2.4	6.1	1.9	1.3	3.2	10.3	10.5	10.6	1.6	0.9	1.3
1987	8.7	1.6	10.4	4.2	0.4	4.6	10.5	9.9	10.5	1.4	1.2	1.4
1988	4.2	0.6	4.9	0.9	0.3	1.3	11.0	10.6	10.5	2.0	0.0	1.7
1989	1.8	0.2	2.0	0.9	0.0	1.0	9.3	9.4	9.9	1.2	0.0	0.9
1990	2.6	0.8	3.4	0.7	0.5	1.2	9.7	10.3	10.6	0.4	0.7	0.4
1991	5.6	0.5	6.1	1.1	0.1	1.2	9.7	8.6	9.4	0.5	0.0	0.4
1992	5.5	1.9	7.4	1.7	0.4	2.1	9.5	8.6	9.3	0.5	0.4	0.5
1993	4.7	1.8	6.5	2.7	0.8	3.5	9.0	8.6	9.7	4.7	8.7	5.6
1994	5.5	0.8	6.3	2.3	0.3	2.6	9.6	8.7	9.4	6.7	13.1	7.9
1995	3.3	1.6	4.9	1.7	0.9	2.6	10.4	9.4	9.9	2.5	2.8	2.7
1996	4.2	3.2	7.4	1.7	0.5	2.2	10.0	9.3	9.7	2.2	1.0	1.6
1997	3.3	5.5	8.8	1.6	0.7	2.3	9.6	8.5	9.0	6.5	4.5	5.2
1998	5.8	11.3	17.1	1.7	1.3	3.0	9.3	9.3	9.3	11.6	7.6	8.6
1999	2.3	12.7	15.0	1.3	1.8	3.1	9.5	8.9	9.1	11.3	8.8	9.2
2000	2.4	10.6	13.0	0.8	2.2	2.9	10.0	8.9	9.4	18.8	6.0	7.6
2001	2.2	12.6	14.8	1.3	3.2	4.5	10.8	9.3	9.8	8.7	8.3	8.3
2002	2.7	8.6	11.3	0.7	4.2	4.9	10.8	9.9	10.4	4.2	9.4	8.3
2003	2.6	6.2	8.8	1.4	1.8	3.1	10.8	9.9	10.4	5.8	4.0	4.2
2004	2.7	11.7	14.4	1.1	3.0	4.1	10.8	9.2	9.7	0.8	0.8	0.8
2005	2.4	13.8	16.2	1.1	3.4	4.5	10.8	9.2	9.7	2.1	1.1	1.3
Average	3.7	5.2	8.9	1.5	1.3	2.8	10.0	9.3	9.7	4.5	4.0	3.8

(Kentucky_Crappie_Database.xls)

Table 12. Proportional stock density (PSD) and relative stock density (RSD10) of white and black crappie collected by trap-nets (78 net-nights) at Kentucky Lake during October 2005.

Location	Species	N	PSD	RSD10
Blood River				
	White Crappie	232	51 (± 8)	17 (± 6)
	Black Crappie	908	48 (± 3)	13 (± 2)
Jonathan Creek				
	White Crappie	233	76 (± 7)	41 (± 8)
	Black Crappie	942	73 (± 3)	16 (± 2)
Total				
	White Crappie	465	64 (± 6)	29 (± 5)
	Black Crappie	1,850	61 (± 2)	15 (± 2)

wfdtpntk.d05

Table 13. Age frequencies and CPUE of white crappie collected in trap nets fished for 78 net nights in Kentucky Lake during October 2005. Age data was obtained using otoliths collected in 2004.

	Inch Class																	
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	%	CPUE	StdErr
0	99	74	4	2											179	38.5	2.29	0.64
1				4	62	35	18	56	22	1					198	42.6	2.55	0.36
2							2	24	11	10	3				50	10.8	0.64	0.10
3									17	10	3	1			31	6.7	0.39	0.09
6									3			1			4	0.9	0.04	0.01
8													2	1	3	0.6	0.04	0.02
Total	99	74	4	6	62	35	20	80	53	21	6	2	2	1	465			
%	21	16	1	1	13	8	4	17	11	5	1	0	0	0		100		

wfdtpntk.d05, wfdtnagk.d04

Table 14. Age frequencies and CPUE of black crappie collected in trap nets fished for 78 net-nights in Kentucky Lake during October 2005. Age data was obtained using otoliths collected in 2004.

	Inch Class															
Age	2	3	4	5	6	7	8	9	10	11	12	13	Total	%	CPUE	StdErr
0	83	57	3	7									150	8.1	1.92	0.59
1			6	92	149	242	254	45	14	2			804	43.5	10.31	0.81
2					9	168	296	163	95	20	4		755	40.8	9.68	0.93
3								19	68	20	14		121	6.5	1.55	0.23
4										2			2	0.1	0.02	0.00
5											7	3	10	0.5	0.13	0.04
6										4		2	6	0.3	0.07	0.01
10										2			2	0.1	0.02	0.00
Total	83	57	9	99	158	410	550	227	177	50	25	5	1,850			
%	4	3	0	5	9	22	30	12	10	3	1	0		100		

wfdtpntk.d05, wfdtnagk.d04

Table 15. Population assessment determined from white and black crappie based on fall trap netting at Kentucky Lake from 2001-2005, table 15a - white crappie and table 15b - black crappie.

	2005		2004		2003		2002		2001	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE of crappie (excluding age 0)	26.66	4	39.43	4	24.08	4	18.98	3	26.50	4
CPUE of age 1 crappie	12.86	3	24.80	4	17.86	4	13.10	4	12.01	4
CPUE of age 0 crappie	4.21	1	1.63	1	15.86	4	3.77	2	51.28	4
CPUE of crappie ≥ 8 inches	16.24	4	14.38	4	8.75	3	11.34	4	14.76	4
Mean age-2 length at capture	9.7	4	9.7	4	10.4	4	10.4	4	9.8	4
Instantaneous Mortality (Z)	0.788		0.649		0.709		0.673		0.836	
Annual Mortality (A)%	54.5		47.7		50.8		49.0		56.7	
Total Score	16		17		19		17		20	
Assessment Rating	G		G		E		G		E	

Table 15a. White Crappie

	2005		2004		2003		2002		2001	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE of crappie (excluding age 0)	3.91	1	7.38	2	3.75	1	3.85	1	3.91	1
CPUE of age 1 crappie	2.55	1	6.20	2	2.34	1	3.30	2	2.34	1
CPUE of age 0 crappie	2.29	1	0.65	1	10.46	4	0.71	1	26.76	4
CPUE of crappie ≥ 8 inches	2.45	2	2.71	2	2.55	2	2.74	2	2.21	2
Mean age-2 length at capture	10.8	4	10.8	4	10.8	4	10.8	4	10.8	4
Instantaneous Mortality (Z)	0.469		0.517		0.255		0.360		0.226	
Annual Mortality (A)%	37.4		40.4		22.5		43.3		20.3	
Total Score	9		11		12		10		12	
Assessment Rating	F		F		F		F		F	

Table 15b. Black Crappie

	2005		2004		2003		2002		2001	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE of crappie (excluding age 0)	22.75	4	32.05	4	20.33	3	15.14	3	22.59	4
CPUE of age 1 crappie	10.31	3	18.60	4	15.53	4	9.80	3	9.67	3
CPUE of age 0 crappie	1.92	1	0.98	1	5.40	2	3.06	2	24.52	4
CPUE of crappie ≥ 8 inches	13.78	4	11.67	4	6.20	3	8.60	3	12.55	4
Mean age-2 length at capture	9.2	3	9.2	3	9.9	4	9.9	4	9.3	3
Instantaneous Mortality (Z)	1.208		0.685		0.748		0.716		0.915	
Annual Mortality (A)%	70.1		49.6		52.7		51.1		60.0	
Total Score	15		16		16		15		18	
Assessment Rating	G		G		G		G		E	

Rating

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

WFDTPNTK.D05, WFDTPNTK.D04, WFDTPNTK.D03, WFDTPNTK.D02, WFDTPNTK.D01

Table 16. Annual mortality (A) and CPUE of five year classes estimated from crappie captured in trap nets at Kentucky Lake during October 2004 and 2005.

Year Class	Age Intervals	CPUE (2004)	CPUE (2005)	Mortality of Cohort (%)
2003	1+ - 2+	10.35	2.34	58
2002	2+ - 3+	11.98	1.96	84
2001	3+ - 4+	2.34	0.05	98
2000	4+ - 5+	0.08	0.15	-105
1999	5+ - 6+	0.10	0.13	-28

WFDTPNTK.D04, WFDTNAGK.D04, WFDTPNTK.D05, WFDTNAGC.D05

Table 17. Length frequency and CPUE (fish/trotline) of blue and channel catfish collected from Kentucky Lake in May 2005 using 5 100-hook trotlines baited with chicken hearts for 4 line nights.

	Inch Class																						
Species	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	CPUE	Std. Error
Blue catfish	1		1	3	8	9	14	16	11	28	26	42	36	33	14	10	4	1	2	1	260	13.0	1.3
Channel catfish							3	1	1	6	3	6	11	8	5	3	1				48	2.4	0.4

(wfdcftl.d05)

Table 18. Relative weight (Wr) of each length-group of blue and channel catfish collected at Kentucky Lake during May 2005. Fish were collected using trotlines (20 trotline-nights).

	12.0 - 19.9 in.			20.0 - 29.9 in.			≥ 30.0 in.			Total		
Species	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error
Blue Catfish	51	107.0	2.47	205	102.0	0.8	3	112.0	12.16	259	103.0	0.81

	16.0 -23.9 in.			≥ 24.0 in.			Total		
	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error
Channel Catfish	20	91.0	2.76	28	92.0	2.36	48	91.0	1.78

wfdcftlk.d05

Table 19. Age frequencies and CPUE of blue catfish collected from Kentucky Lake in May 2005 using 5 100-hook trotlines baited with green sunfish for 4 nights. Age data was obtained using otoliths collected during the 2004 study.

	Inch Class																		
Age	15	16	17	18	19	20	21	22	23	24	25	26	27	28	30	Total	%	CPUE	StdErr
3	2	8														10	3.9	0.5	0.1
4			9	14	16	3	11		8							61	23.8	3.1	0.5
5	1					8	11	26	8	6	5					65	25.4	3.3	0.4
6							6		25	24	24	14	4			97	37.9	4.9	0.6
7										6	5		5	3		19	7.4	1.0	0.1
8													1	1	2	4	1.6	0.2	0.1
Total	3	8	9	14	16	11	28	26	41	36	34	14	10	4	2	256			
%	1	3	4	5	6	4	11	10	16	14	13	5	4	2	1		100		

wfdcftlk.d05, wfdcfagk.d04

Table 20. Age frequencies and CPUE of channel catfish collected from Kentucky Lake in May 2005 using 5 100-hook trotlines baited with green sunfish for 4 nights. Age data was obtained using otoliths collected during the 2004 study.

	Inch Class														
Age	18	19	20	21	22	23	24	25	26	27	28	Total	%	CPUE	StdErr
4	2	1										3	5.9	0.2	0.0
5					1	2						3	5.9	0.2	0.1
6			1	3	2	4	8	4	1	2		25	49.0	1.3	0.2
7	2			2				2	3		1	10	19.6	0.5	0.1
8			1	2			3	2		1		9	17.6	0.5	0.1
9									1			1	2.0	0.2	0.0
Total	4	1	2	7	3	6	11	8	5	3	1	51			
%	8	2	4	14	6	12	22	16	10	6	2		100		

wfdcftlk.d05, wfdcfagk.d04

Table 21. PSD and RSD values obtained for each black bass species collected during 9.5 hours (19 runs; each 0.50 hours) of spring diurnal electrofishing at each area of Lake Barkley from 2-6 May 2005. 95% confidence intervals are in parentheses. (wfdpsdb.d05)

Area	Species	No. fish ≥ 8.0 inch	PSD (± 95% CI)	RSD[A] (± 95% CI)
Upper[1]	Largemouth bass	300	88 (4)	36 (5)
	Spotted bass	18	94 (11)	*
	Smallmouth bass	3	100 (100)	*
Middle[2]	Largemouth bass	506	82 (3)	30 (4)
	Spotted bass	5	80 (39)	*
	Smallmouth bass	1	*	*
Lower[3]	Largemouth bass	297	80 (5)	32 (5)
	Spotted bass	3	67 (65)	*
	Smallmouth bass	0		
Total	Largemouth bass	1103	83 (2)	32 (3)
	Spotted bass	26	88 (13)	*
	Smallmouth bass	4	75 (49)	*

[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.

Table 22. Species composition, relative abundance, and CPUE of black bass collected during 9.5 hours (19 runs; each 0.50 hours) of diurnal electrofishing at Lake Barkley on 2-6 May 2005. (wfdpsdb.d05)

Area	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	21	22			
Lower																								
Donaldson Cr.	Smallmouth bass																					0	0.0	0.0
	Spotted bass			1				1		2												4	4.0	4.0
	Largemouth bass		3	14	13	12	3	8	8	7	18	16	10	6	6	4	5	2	3		1	139	139.0	37.0
Ford's Bay	Smallmouth bass																					0	0.0	0.0
	Spotted bass																					0	0.0	0.0
	Largemouth bass			6	11	12	6	1	3	12	30	25	14	13	13	7	6	5	2	2	1	169	169.0	23.0
Parsons Bay	Smallmouth bass																					0	0.0	0.0
	Spotted bass																					0	0.0	0.0
	Largemouth bass			2	5	5	3		2	6	16	8	7	5		5	4	1		2	1	72	144.0	0.0
Middle																								
Little River	Smallmouth bass								1													1	0.5	0.5
	Spotted bass																					0	0.0	0.0
	Largemouth bass		3	17	51	24	10	1	14	28	66	50	25	26	20	19	10	8	1			373	186.5	16.7
Eddy Cr.	Smallmouth bass																					0	0.0	0.0
	Spotted bass								1	1	2	1										5	2.0	2.0
	Largemouth bass			13	18	11	5		8	23	43	46	34	27	17	12	10		3			270	108.0	15.5
Upper																								
Nickel Br.	Smallmouth bass			1																		1	2.0	0.0
	Spotted bass																					0	0.0	0.0
	Largemouth bass			5	10	7	4	1		3	9	18	13	16	2	7	3	2		1		101	202.0	0.0
Willow Cr.	Smallmouth bass				1					2												3	6.0	0.0
	Spotted bass			1																		1	2.0	0.0
	Largemouth bass		1	7	4	6	2		1		5	10	5	13	3	3	1	2				63	126.0	0.0
Demumbers Bay	Smallmouth bass			3								1										4	2.7	0.7
	Spotted bass		2						1	5	11	1										20	13.3	13.3
	Largemouth bass		4	27	29	28	18	2	2	2	25	46	25	25	13	10	4	2	1	1		264	176.0	24.7
Total	Smallmouth bass			4	1				1	2		1										9	1.0	0.4
	Spotted bass		2	2				1	2	8	13	2										30	3.2	2.2
	Largemouth bass		11	91	141	105	51	13	38	81	212	219	133	131	74	67	43	22	10	6	3	1451	152.7	10.3

Table 23. Spring diurnal electrofishing CPUE of each size-class of largemouth bass collected at Lake Barkley during late April/early May.

	Inch-class									
	< 8.0 inch		8.0 - 11.9 inch		12.0 - 14.9 inch		≥ 15.0 inch		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
2005	36.6	4.9	19.3	1.9	59.4	4.8	37.5	3.3	152.7	10.3
2004	11.3	1.3	40.9	2.9	29.3	1.6	24.7	2.2	106.2	5.1
2003	41.1	5.2	38.5	3.9	75.3	5.3	26.9	2.3	181.8	10.4
2002	26.4	3.6	49.7	5.9	40.6	4.1	16.3	1.8	133.0	8.5
2001	70.4	8.3	61.2	5.1	31.1	2.5	19.0	1.5	181.7	10.8
2000	32.8	4.2	28.6	2.3	24.7	2.3	27.9	2.4	114.1	6.0
1999	16.3	1.9	21.0	2.2	22.7	2.5	34.0	2.6	93.9	6.0
1998	22.2	4.7	26.2	4.2	28.6	3.0	29.8	3.5	106.8	5.9
1997	7.2	1.0	23.0	2.9	22.4	2.1	35.8	3.3	88.4	5.7
1996	14.4	5.9	36.0	4.0	45.6	7.8	43.2	6.4	139.2	16.6
1995	12.2	2.8	55.6	6.4	42.2	4.3	56.0	5.9	166.0	12.3
1994	49.2	8.4	51.0	6.3	72.8	6.2	36.0	5.3	209.0	19.8
1993	40.2	12.1	65.0	6.0	69.2	6.1	32.2	4.5	206.6	15.2
1992	30.7	4.8	79.0	7.6	20.5	1.7	29.5	2.3	159.7	9.0
1991	57.8	7.6	72.9	7.5	59.4	6.1	34.0	3.9	224.1	16.4
1990	10.4	2.5	47.2	6.9	33.8	5.3	26.6	3.5	118.0	12.9
1989	28.7	8.7	74.6	7.4	34.8	4.2	25.0	4.5	163.2	15.5
1988	39.5	6.6	98.2	12.6	76.9	21.8	29.0	9.5	243.6	45.5
1987	64.9	12.4	84.1	11.2	14.5	3.0	25.9	6.1	189.4	27.7
1986	6.1		7.3		39.0		12.2		64.6	
1985	3.0	1.0	11.6	1.7	4.7	1.0	3.6	1.0	22.9	2.6
Average	29.6		47.2		40.4		28.8		145.9	

(Barkley_LMB_Database.xls)

Table 24. Population assessment of the largemouth bass fishery at Lake Barkley from 1985-2005.

Year	Age-3 Length at Capture	CPUE of Age-1	CPUE of 12.0-14.9 in	CPUE of ≥15.0 in	CPUE of ≥20.0 in	Score	Assessment Rating
1985	10.6	*	4.7	3.6	0.2		
1986	10.8	*	39.0	12.2	1.2		
1987	11.1	*	14.5	25.9	2.2		
1988	11.2	*	76.9	29.0	2.9		
1989	*	*	34.8	25.0	0.9		
1990	11.7	*	33.8	26.6	3.4		
1991	11.4	*	59.4	34.0	1.9		
1992	11.0	*	20.5	29.5	2.7		
1993	11.3	*	69.2	32.2	3.4		
1994	11.1	*	72.8	36.0	4.2		
1995	11.0	*	42.2	56.0	7.6		
1996	10.9	*	45.6	43.2	7.6		
1997	10.9	3.0	22.4	35.8	6.2	12	Good
1998	12.0	23.0	28.6	29.8	7.0	16	Good
1999	12.6	17.3	22.7	34.0	4.7	15	Good
2000	12.6[A]	37.3	24.7	27.9	2.7	15	Good
2001	14.7	81.0	31.1	19.0	1.6	17	Excellent
2002	14.7[A]	28.9	40.6	16.3	1.3	15	Good
2003	12.9	59.2	75.3	26.9	1.7	19	Excellent
2004	12.9[A]	29.2	29.3	24.7	1.8	16	Good
2005	12.9[A]	42.5	59.4	37.5	2.0	18	Excellent

[A] Age and growth data was not collected. Data from the previous year was substituted.

* Data not available.

Table 25. 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 from 10-11 October 2005. (wfdwrb.d05)

Area	Species	Inch-class																		Total	CPUE	Std. Error
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21			
Middle																						
Eddy Creek	Largemouth bass	2		6	6	10	13	43	43	27	30	36	43	21	12	11	10	2	1	316	126.40	13.85
	Spotted bass										1	1	1							3	1.20	0.80
	Smallmouth bass			3				1	2		1									7	2.80	1.50
Little River	Largemouth bass		1	10	10	5	11	37	28	18	39	35	23	15	11	4	7	2	1	256	102.40	8.57
	Spotted bass					2														2	0.80	0.49
	Smallmouth bass																			0	0	0.0
Total	Largemouth bass	2	1	16	16	15	24	80	71	45	69	71	66	36	23	15	17	4	1	572	114.40	8.66
	Spotted bass					2					1	1	1							5	1.00	0.45
	Smallmouth bass			3				1	2		1									7	1.40	0.85

Table 26. Number of fish and the relative weight (Wr) values of 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 10-11 October 2005. (wfdwrb.d05)

		Inch-class											
		8.0 - 11.9 inch			12.0 -14.9 inch			≥15.0 inch			Total		
Species	Area	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error
Largemouth bass	Middle												
	Eddy Creek	126	93.1	0.9	109	95.2	1	57	101.8	1.6	292	95.6	0.7
	Little River	94	91.3	0.8	97	102.7	9	39	100.9	1.7	230	97.7	3.8
	Total	220	92.4	0.6	206	98.7	4.3	96	101.4	1.2	522	96.5	1.7
		7.0 - 10.9 inch			11.0 - 13.9 inch			≥14.0 inch			Total		
		N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error
Spotted bass	Middle												
	Eddy Creek				2	104.2	0.3	1	117.7		3	108.7	4.5
	Little River	2	94.8	6.9							2	94.8	6.9
	Total	2	94.80	6.9	2	104.2	0.3	1	117.7		5	103.1	4.7
Smallmouth bass	Middle												
	Eddy Creek	3	91.2	6.1	1	84.9					4	89.6	4.6
	Little River												
	Total	3	91.2	6.1	1	84.9					4	89.6	4.60

Table 27. Indices of year-class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall during electrofishing sampling at Lake Barkley.

	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
2001	5.4		21.2	4.0	16.0		32.6[C]	3.4
2002	5.3		26.7	2.4	10.1		59.0	6.4
2003	5.1		35.2	4.4	20.9		29.2[D]	2.4
2004	5.4	0.8	39.8	5.8	30.4	4.3	42.5[D]	5.4
2005	5.4	0.14	5.4	1.2	4.8	1.2	*	

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

[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 2006.

Table 28. Length frequency and CPUE (fish/trotline) of blue, channel, and flathead catfish collected by trotline at Lake Barkley from 23-27 May 2005. A total of 19 trotline nights were conducted. (wfdcatb.d05)

Species	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	32	33	Total	CPUE	Std. Error
Blue catfish		1	3		6	9	6	2	7	2	10	21	7	9	13	9	12	1	8	5	3	1	1	1	137	7.2	0.7
Channel catfish				1	2	4	10	12	7	6	7	6	3	4	4	2	1		1		1	1			72	3.8	0.8

Table 29. Relative weight (Wr) of each length-class of blue and channel catfish collected at Lake Barkley from 23-27 May 2005. Fish were collected using trotlines (19 trotline-nights). (wfdcatb.d05)

	12.0 - 19.9 in.			20.0 - 29.9 in.			≥ 30.0 in.			Total		
Species	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error
Blue Catfish	64	97.4	2.3	60	100.1	1.7	2	118.3	0.3	126	99	1.4
	11.0 - 15.9 in.			16.0 -23.9 in.			≥ 24.0 in.			Total		
	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error
Channel Catfish	35	100.4	4.1	33	90.6	2.5	3	102.6	8.6	71	96	2.4

Table 30. Age frequencies and CPUE of blue catfish collected during 19 trotline-nights at Lake Barkley during 23-27 May 2005.

	Inch-Class																												Cum.	
Age	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	Total	Percent	Percent	CPUE
2	1																										1	0.7	0.8	0.1
3				6	9																						15	11.2	12.0	0.8
4						6	2	4		2																	14	10.4	22.4	0.7
5								4	2	5	16			2	5	6											40	29.9	52.3	2.1
6										3	5	7	7	4	3	6		4	3								42	31.3	83.6	2.3
7													2	4	2		1		2	1	1						13	9.7	93.3	0.6
8														2						2							4	3.0	96.3	0.2
9																		4								1	5	3.7	100.1	0.3
Total	1			6	9	6	2	8	2	10	21	7	9	12	10	12	1	8	5	3	1					1	134	100.0		
%	1			5	7	5	2	5	2	8	16	5	7	10	7	9	1	6	4	2	1					1	100			

(wfdcatb.d05) (wfdbcagb.d04)

Table 31. Age frequencies and CPUE of channel catfish collected during 19 trotline-nights at Lake Barkley during 23-27 May 2005.

Age	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	Percent	Cum. Percent	CPUE	Std. Error
3	1			2											3	4.4	2.8	0.2	0.1
4		2	3	4	4										13	19.1	21.9	0.7	0.2
5			1	4	6	3	2	1	1		1				19	27.9	49.9	1.1	0.2
6					2	3	2			2	1				10	14.7	64.6	0.5	0.1
7						1	1	1				1			4	5.9	70.4	0.2	0.1
8								1	2				2		5	7.4	77.8	0.3	0.1
9									2	2	1	2			7	10.3	88.1	0.4	0.1
10								4				2		1	7	10.3	100.0	0.3	0.1
Total	3	6	14	22	19	12	12	12	9	7	8	7	3	1	68				
%	1	3	6	14	17	10	9	10	9	4	6	6	3	1	100				

(wfdcatb.d05) (wfdccagb.d04)

Table 32. Length frequency and CPUE (#/net-night) of each inch-class of white and black crappie collected by trap-net (79 net-nights) at Lake Barkley from 31 October-4 November 2005. (wfdtpntb.d05)

Location	Species	Inch-Class 1	2	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std. Error
Little River																	
	White Crappie	1	38	103	138	80	9		7	46	62	65	12	2	563	14.1	1.4
	Black Crappie		16	38	10		3	6	14	17	8	3	1	1	117	2.9	0.4
Donaldson Creek																	
	White Crappie		49	130	67	4	3	2	13	18	31	35	10		362	9.3	1.7
	Black Crappie		7	17	7	15	29	14	20	9	15	16	4	1	154	4.0	0.6
Total																	
	White Crappie	1	87	233	205	84	12	2	20	64	93	100	22	2	925	11.7	1.1
	Black Crappie		23	55	17	15	32	20	34	26	23	19	5	2	271	3.4	0.4

Table 33. CPUE for size groups of crappie collected from multiple years of trap netting on Lake Barkley. 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).

	CPUE ≥ 8.0 in			CPUE ≥ 10.0 in			Mean Length @ age 2			% Age 4 and Older		
Year	WC	BC	WC&BC	WC	BC	WC&BC	WC	BC	WC&BC	WC	BC	WC&BC
1985	3.4	0.1	3.5	1.2	0.1	1.3	9.5	8.4	9.4	0.1	0.0	0.2
1986	5.9	0.2	6.0	2.3	0.0	2.3	10.9	9.9	10.8	1.1	0.0	1.0
1987	2.0	0.4	2.4	1.5	0.1	1.6	11.4	10.8	11.3	0.8	0.0	0.7
1988	3.5	0.2	3.6	1.5	0.1	1.6	10.1	10.0	10.1	3.0	8.3	3.2
1989	1.3	0.1	1.4	0.5	0.1	0.6	8.8	9.1	8.9	10.7	0.0	10.0
1990	4.6	0.2	4.7	2.0	0.0	2.0	11.0	10.9	11.0	0.0	0.0	0.0
1991	3.2	0.2	3.4	1.1	0.1	1.1	10.5	10.4	10.5	1.0	0.0	0.7
1992	2.1	2.0	4.1	0.9	0.4	1.3	10.2	9.4	9.8	0.0	0.0	0.0
1993	1.4	0.5	1.9	0.5	0.3	0.8	9.8	9.4	9.7	0.6	13.7	3.6
1994	3.4	0.8	4.2	1.1	0.7	1.8	10.5	10.4	10.4	1.1	10.9	3.5
1995	4.4	0.7	5.2	1.0	0.2	1.2	11.0	9.2	10.1	0.2	2.1	0.5
1996	5.6	0.7	6.3	2.9	0.2	3.1	10.4	9.1	10.0	0.7	0.0	0.5
1997	2.5	0.6	3.1	1.1	0.1	1.2	10.5	8.8	9.2	0.3	1.5	0.4
1998	4.5	1.5	6.0	1.3	0.2	1.5	9.5	8.2	9.3	5.1	0.6	3.0
1999	1.9	1.0	2.9	1.4	0.1	1.4	10.3	9.2	9.8	1.0	1.7	1.3
2000	2.0	1.9	3.9	0.8	0.6	1.4	11.4	10.5	10.9	9.2	1.0	4.0
2001	1.1	1.6	2.6	0.9	1.0	2.0	11.3	10.2	10.4	2.2	7.8	5.8
2002	2.6	2.7	5.3	1.1	0.6	1.7	10.4	10.0	10.2	2.7	6.8	4.9
2003	2.3	1.6	3.9	1.1	1.1	2.2	11.1	10.3	10.7	4.2	4.3	4.2
2004	5.5	1.8	7.3	1.0	0.7	1.8	11.1	10.3	10.7	1.8	3.4	2.3
2005	3.8	1.4	5.2	2.8	0.6	3.4	11.3	10.3	10.8	0.0	0.0	0.0
Average	3.2	1.0	4.1	1.3	0.3	1.7	10.5	9.7	10.2	2.2	3.0	2.4

(Barkley_Crappie_Database.xls)

Table 34. 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 31 October-4 November 2005. Numbers in parentheses represent 95% confidence intervals. (wfdtpntb.05)

Location	Species	N	PSD	RSD_{10}
Little River				
	White Crappie	283	68.5 (±5.4)	49.8 (±5.8)
	Black Crappie	53	83.0 (±10.2)	24.5 (±11.7)
Donaldson Creek				
	White Crappie	116	92.2 (±4.9)	65.5 (±8.7)
	Black Crappie	123	52.8 (±8.9)	29.3 (±8.1)
Total				
	White Crappie	399	75.4 (±4.2)	54.4 (±5.0)
	Black Crappie	176	61.9 (±7.2)	27.8 (±6.6)

Table 35. Relative weight values of each size-class of white and black crappie collected by trap-net (79 net-nights) at Lake Barkley from 31 October-4 November 2005. (wfdtpntb.d05)

	5.0 - 7.9 inch			8.0 - 9.9 inch			≥ 10.0 inch			Total		
Location	N	Wr	St. Error	N	Wr	St. Error	N	Wr	St. Error	N	Wr	St. Error
Little River												
White Crappie	89	85.2	1.3	53	102.8	1.4	141	106.0	0.7	283	98.8	0.8
Black Crappie	9	94.8	1.4	31	104.4	2.0	13	105.4	1.7	53	103.0	1.4
Donaldson Creek												
White Crappie	9	102.0	7.5	31	113.9	2.2	76	113.0	1.0	116	112.4	1.1
Black Crappie	58	100.2	2.4	29	105.3	2.4	36	106.1	1.0	123	103.1	1.3
Total												
White Crappie	98	86.7	1.4	84	106.9	1.4	217	108.5	0.6	399	102.8	0.7
Black Crappie	67	99.5	2.1	60	104.9	1.5	49	105.9	0.9	176	103.1	1.0

Table 36. Mean back-calculated length (in.) at each annulus of black crappie collected by trap-netting (79 net-nights) at Lake Barkley from 31 October-4 November 2005, including the range in length of black crappie at each age and the 95% confidence interval of each age group[A].

		Age					
Year-Class	N	1	2	3	4	5	6
2004	43	4.0					
2003	27	4.5	8.2				
2002	14	4.2	7.3	9.8			
2001	2	4.6	6.8	8.4	10.5		
1999	2	3.5	5.6	7.7	8.8	9.9	12.1
Mean	88	4.2	7.7	9.4	9.7	9.9	12.1
Smallest		2.4	4.1	5.1	6.1	7.5	11.4
Largest		6.5	9.9	11.6	11.5	12.2	12.8
Std. Error		0.1	0.2	0.4	1.2	2.4	0.7
Low 95% CI		4.1	7.4	8.7	7.3	5.3	10.7
High 95% CI		4.4	8.1	10.1	12.0	14.5	13.5

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

(wfdtpntb.d05) (wfdtnagb.d05)

Table 37. Mean back-calculated length (in.) at each annulus of white crappie collected by trap-netting (79 net-nights) at Lake Barkley from 31 October- 4 November 2004, including the range in length of white crappie at each age and the 95% confidence interval of each.

		Age			
Year-Class	N	1	2	3	4
2004	41	4.3			
2003	59	4.6	8.9		
2002	4	5.2	8.7	11.5	
2001	1	5.2	9.8	11.3	12.0
Mean	105	4.5	8.9	11.5	12.0
Smallest		2.5	4.5	10.6	12.0
Largest		7.0	11.2	12.0	12.0
Std. Error		0.1	0.2	0.3	
Low 95% CI		4.4	8.6	11.0	
High 95% CI		4.7	9.3	12.0	

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

(wfdtpntb.d05) (wfdtnagb.d05)

Table 38. Age frequencies and CPUE of black crappie collected during 79 net-nights at Lake Barkley during 30 October-4 November 2005.

Age	2	3	4	5	6	7	8	9	10	11	12	Total	Percent	Cum. Percent	CPUE	Std. Error
0	23	55	14									92	34.1	34.1	1.2	0.2
1			3	15	32	20	25	16	1			112	41.5	75.6	1.4	0.2
2							6	10	18	10		44	16.3	91.9	0.6	0.1
3							3		4	10	3	20	7.4	99.3	0.3	0.1
4											2	2	0.7	100.0	0.0	0.0
Total	23	55	17	15	32	20	34	26	23	20	5	270				
%	9	20	6	6	12	7	13	10	9	7	2	100				

(wfdtpntb.d05)
(wfdtnagb.d05)

Table 39. Age frequencies and CPUE of white crappie collected during 79 net-nights at Lake Barkley during 31 October-4 November 2005.

	Inch-Class															Cum.		
Age	1	2	3	4	5	6	7	8	9	10	11	12	13	Total	Percent	Percent	CPUE	Std. Error
0	1	87	233	185	75	2								583	63.0	63.0	7.4	1.0
1				21	9	10	2	18	52	22				134	14.5	77.5	1.7	0.2
2								2	12	71	100	18		203	21.9	99.4	2.6	0.3
3												3	2	5	0.5	99.9	0.1	0.0
4												1		1	0.1	100.0	0.0	0.0
Total	1	87	0	206	0	12	2	20	64	93	100	22	2	926				
%	0	9	25	22	9	1	0	2	7	10	11	2	0	100				

(wfdtpntb.d05) (wfdtnagb.d05)

Table 40. Annual fall trap netting CPUE (fish/net night) of each age-class of white crappie collected from Lake Barkley from 1985-2005.

	Age-Class						
Year	0	1	2	3	4	5	6
1985	8.10	11.62	4.89	0.44	0.02	0.00	0.00
1986	1.22	5.17	1.80	0.07	0.01	0.04	0.03
1987	1.62	3.95	0.62	0.22	0.00	0.03	0.00
1988	0.24	1.35	2.08	0.19	0.11	0.00	0.00
1989	3.70	1.32	0.56	0.20	0.20	0.05	0.00
1990	4.58	6.36	0.34	0.01	0.00	0.00	0.00
1991	1.18	3.62	1.28	0.17	0.04	0.00	0.00
1992	0.95	1.34	1.16	0.10	0.00	0.00	0.00
1993	3.65	0.83	1.13	0.16	0.01	0.00	0.00
1994	6.63	7.09	1.10	0.16	0.06	0.02	0.00
1995	1.75	9.50	0.86	0.04	0.00	0.02	0.00
1996	5.96	2.21	4.90	0.32	0.03	0.00	0.00
1997	2.44	7.61	0.53	1.01	0.01	0.00	0.00
1998	1.09	5.52	4.77	0.15	0.52	0.04	0.00
1999	2.19	0.81	0.84	0.78	0.00	0.03	0.00
2000	0.80	1.91	0.11	0.09	0.18	0.01	0.01
2001	28.43	0.69	0.17	0.24	0.02	0.00	0.00
2002	0.91	1.49	1.06	0.12	0.02	0.00	0.04
2003	9.89	1.84	0.87	0.12	0.07	0.01	0.01
2004[A]	1.73	5.15	1.14	0.08	0.07	0.01	0.01
2005	7.37	1.70	2.56	0.06	0.01	0.00	0.00
Average	4.50	3.86	1.56	0.23	0.07	0.01	0.00

(Barkley_Crappie_Database.xls)

[A] - Age and growth data not collected, data from previous year was used to determine CPUE of each age-class.

Table 41. Annual fall trap netting CPUE (fish/net night) of each age-class of black crappie collected from Lake Barkley from 1985-2005.

	Age-Class						
Year	0	1	2	3	4	5	6
1985	0.10	0.27	0.03	0.07	0.02	0.00	0.00
1986	0.03	0.36	0.05	0.00	0.00	0.00	0.00
1987	0.14	0.24	0.07	0.04	0.00	0.00	0.00
1988	0.05	0.00	0.12	0.03	0.02	0.00	0.00
1989	0.03	0.08	0.05	0.05	0.00	0.00	0.00
1990	2.67	0.18	0.01	0.00	0.00	0.00	0.00
1991	0.19	2.05	0.08	0.01	0.00	0.00	0.00
1992	0.53	0.21	2.01	0.04	0.00	0.00	0.00
1993	1.33	0.23	0.19	0.14	0.09	0.00	0.00
1994	0.34	2.06	0.32	0.13	0.28	0.05	0.00
1995	0.67	0.79	0.79	0.05	0.01	0.02	0.00
1996	0.79	2.52	0.70	0.11	0.00	0.00	0.00
1997	0.86	0.72	0.86	0.02	0.01	0.00	0.00
1998	0.96	8.17	0.88	0.83	0.06	0.00	0.00
1999	1.41	0.90	0.56	0.05	0.03	0.00	0.00
2000	0.54	3.37	0.16	0.38	0.02	0.01	0.00
2001	8.23	0.88	1.00	0.05	0.14	0.03	0.00
2002	0.99	2.13	0.46	0.32	0.13	0.08	0.00
2003	2.14	2.96	1.10	0.14	0.15	0.01	0.03
2004[A]	1.50	1.17	1.33	0.10	0.06	0.01	0.01
2005	1.16	1.42	0.55	0.25	0.02	0.00	0.00
Average	1.18	1.46	0.54	0.13	0.05	0.01	0.00

(Barkley_Crappie_Database.xls)

[A] - Age and growth data not collected, data from previous year was used to determine CPUE of each age-class.

Table 42. Annual mortality (A) between 2004 and 2005, and CPUE (fish/net-night) of the last five year-classes of white and black crappie (combined), estimated from trap-net data collected at Lake Barkley during October/November 2004 and 2005. (wfdtpntb.d05) (wfdtnagb.d05) (wfdtpntb.d04) (wfdtnagb.d03)

Year-Class	Age Intervals	CPUE (2004)	CPUE (2005)	Mortality of Cohort (%)
2003	1+ - 2+	6.32	3.11	50.8
2002	2+ - 3+	2.47	0.31	87.4
2001	3+ - 4+	0.18	0.03	83.3
2000	4+ - 5+	0.13	0.03	76.9
1999	5+ - 6+	0.02	0.01	50.0

Table 43. Population assessment for white, black, and white and black crappie combined from Lake Barkley trap-net data collected in November 2005.

	White Crappie		Black Crappie		Combined	
Parameter	Actual Value	Score	Actual Value	Score	Actual Value	Score
Population Density (CPUE of age-1 and older crappie)	4.3	1	2.2	1	6.5	2
Recruitment (CPUE of age-1 crappie)	1.7	1	1.4	1	3.1	2
Recruitment (CPUE of age-0 crappie)	7.4	3	1.2	1	8.6	3
Size Structure (CPUE of > 8.0 inches)	3.8	2	1.4	1	5.2	3
Growth (Mean age-2 length at capture)	10.6	4	9.7	4	10.7	4
Instantaneous Mortality (Z)	1.400		0.865		1.065	
Annual Mortality (A)%	75.4		57.9		65.5	
Total Score:		11		8		14
Assessment Rating:		F		F		G

(wfdtpntb.d05) (wfdtnagb.d05)

Table 44. Population assessment of the white crappie population at Lake Barkley from 1985-2005.

	Population Density	Recruitment		Size Structure	Growth		
Year	CPUE of age-1 and older	CPUE of Age-1	CPUE of Age-0	CPUE of ≥ 8.0 in	Length of Age-2 at Capture	Score	Rating
1985	3	3	3	2	3	14	G
1986	2	2	1	3	4	12	F
1987	1	2	1	2	4	10	F
1988	1	1	1	2	4	9	F
1989	1	1	2	1	2	7	P
1990	2	2	2	2	4	12	F
1991[A]	2	2	1	2	4	11	F
1992[B]	1	1	1	2	4	9	F
1993[A]	1	1	2	1	4	9	F
1994[A]	2	3	3	2	4	14	G
1995	2	3	1	2	4	12	F
1996[A]	2	1	2	3	4	12	F
1997[A]	2	3	1	2	4	12	F
1998[B]	2	2	1	2	3	10	F
1999[B]	1	1	1	1	4	8	F
2000[C]	1	1	1	2	4	9	F
2001[C]	1	1	4	1	4	11	F
2002[C]	1	1	1	2	4	9	F
2003[C]	1	1	3	2	4	11	F
2004[A]	2	2	1	3	4	12	F
2005[A]	1	1	3	2	4	11	F

[A] Indicate years where the black crappie population comprised 15.0-34.9% of the age-1 and older crappie.

[B] Indicate years where the black crappie population comprised 35.0-49.9% of the age-1 and older crappie.

[C] Indicate years where the black crappie population comprised ≥ 50.0% of the age-1 and older crappie.

Table 45. Population assessment of the black crappie population at Lake Barkley from 1985-2005.

	Population Density	Recruitment		Size Structure	Growth		
Year	CPUE of age-1 and older	CPUE of Age-1	CPUE of Age-0	CPUE of ≥ 8.0 in	Length of Age-2 at Capture	Score	Rating
1985	1	1	1	1	1	5	P
1986	1	1	1	1	4	8	F
1987	1	1	1	1	4	8	F
1988	1	1	1	1	4	8	F
1989	1	1	1	1	2	6	P
1990	1	1	1	1	4	8	F
1991[A]	1	1	1	1	4	8	F
1992[B]	1	1	1	1	3	7	P
1993[A]	1	1	1	1	3	7	P
1994[A]	1	1	1	1	4	8	F
1995	1	1	1	1	3	7	P
1996[A]	1	1	1	1	2	6	P
1997[A]	1	1	1	1	2	6	P
1998[B]	2	3	1	1	1	8	F
1999[B]	1	1	1	1	3	7	P
2000[C]	1	2	1	1	4	9	F
2001[C]	1	1	3	1	4	10	F
2002[C]	1	1	1	2	4	9	F
2003[C]	1	1	1	1	4	8	F
2004[A]	1	1	1	1	4	8	F
2005[A]	1	1	1	1	4	8	F

[A] Indicate years where the black crappie population comprised 15.0-34.9% of the age-1 and older crappie.

[B] Indicate years where the black crappie population comprised 35.0-49.9% of the age-1 and older crappie.

[C] Indicate years where the black crappie population comprised ≥ 50.0% of the age-1 and older crappie.

Table 46. Population assessment of the white and black crappie population (combined) at Lake Barkley from 1985-2005.

	Population Density	Recruitment		Size Structure	Growth		
Year	CPUE of age-1 and older	CPUE of Age-1	CPUE of Age-0	CPUE of ≥ 8.0 in	Length of Age-2 at Capture	Score	Rating
1985	3	3	3	2	3	14	G
1986	2	2	1	3	4	12	F
1987	2	2	1	2	4	11	F
1988	1	1	1	2	4	9	F
1989	1	1	2	1	2	7	P
1990	2	2	3	2	4	13	G
1991[A]	2	2	1	2	4	11	F
1992[B]	1	1	1	2	4	9	F
1993[A]	1	1	2	1	4	9	F
1994[A]	2	3	3	2	4	14	G
1995	2	3	1	3	4	13	G
1996[A]	2	2	3	3	4	14	G
1997[A]	2	3	2	2	3	12	F
1998[B]	3	3	1	3	3	13	G
1999[B]	1	1	2	2	4	10	F
2000[C]	2	2	1	2	4	11	F
2001[C]	1	1	4	2	4	12	F
2002[C]	2	2	1	3	4	12	F
2003[C]	2	2	4	2	4	14	G
2004[A]	2	2	2	3	4	13	G
2005[A]	2	2	3	3	4	14	G

[A] Indicate years where the black crappie population comprised 15.0-34.9% of the age-1 and older crappie.

[B] Indicate years where the black crappie population comprised 35.0-49.9% of the age-1 and older crappie.

[C] Indicate years where the black crappie population comprised ≥ 50.0% of the age-1 and older crappie.

Table 47. Fishery statistics derived from a creel survey at Lake Barkley (45,600 a) from 1 March through 31 October 2005.

Fishing Trips			
	No. of fishing trips (per acre)	192,799	(4.23)
Fishing Pressure			
	Total angler-hours (S.E.)	765,331	(21,270)
	Angler-hours/acre	16.78	
Catch / Harvest			
	No. of fish caught (S.E.)	1,197,613	(99,591)
	No. of fish harvested (S.E.)	426,356	(42,938)
	Lb of fish harvested	310,667	
Harvest Rates			
	Fish/hour	0.55	
	Fish/acre	9.35	
	Pounds/acre	6.81	
Catch Rates			
	Fish/hour	1.56	
	Fish/acre	26.26	
Miscellaneous Characteristics (%)			
	Male	85.52	
	Female	14.48	
	Resident	71.36	
	Non-resident	28.64	
Method (%)			
	Still fishing	29.83	
	Casting	48.68	
	Trolling	1.47	
	Fly Rod	0.04	
	Spider Rig (> 3 poles/angler)	1.19	
	Crappie Casting	8.25	
	Crappie Still fishing (< 3 poles/angler)	10.54	
Mode (%)			
	Boat	86.19	
	Bank	9.95	
	Dock	3.86	

Table 48. Fish harvest derived from a creel survey at Lake Barkley (45,600 a) from 1 March-31 October 2005.

	Black bass group	Largemouth bass	Smallmouth bass	Spotted bass	**Crappie group**	White crappie	Black crappie	**Catfish group**	Channel catfish	Flathead catfish	Blue catfish	Bullhead	**Panfish group**	Bluegill	Redear sunfish	Longear sunfish	Warmouth	Green sunfish	**Sauger**	Yellow perch
No. caught	**387,219**	367,866	11,493	7,860	**249,686**	213,226	36,460	**95,998**	59,248	1,247	35,312	191	**289,307**	255,492	11,823	17,104	3,507	1,380	**1,920**	167.8
(per acre)	**(8.49)**	(8.07)	(0.25)	(0.17)	**(5.48)**	(4.68)	(0.80)	**(2.11)**	(1.30)	(0.03)	(0.77)	(0.00)	**(6.34)**	(5.60)	(0.26)	(0.38)	(0.08)	(0.03)	**(0.04)**	(0.00)
No. harvested	**27,341**	25,593	696	1,052	**112,450**	97,112	15,338	**77,594**	47,644	692	29,141	118	**138,443**	123,207	9,988	4,700	388	160	**807**	
(per acre)	**(0.60)**	(0.56)	(0.02)	(0.02)	**(2.47)**	(2.13)	(0.34)	**(1.70)**	(1.04)	(0.02)	(0.64)	(0.00)	**(3.04)**	(2.70)	(0.22)	(0.10)	(0.01)	(0.00)	**(0.02)**	
% of total no. harvested	**6.41**	6.00	0.16	0.25	**26.37**	22.76	3.60	**18.20**	11.17	0.16	6.83	0.03	**32.47**	28.90	2.34	1.10	0.09	0.04	**0.19**	
Lb. harvested	**62,516**	59,895	1,578	1,043	**67,829**	56,625	11,204	**108,325**	63,218	1,041	44,007	60	**33,227**	26,520	5,929	643	105	30	**1,043**	
(per acre)	**(1.37)**	(1.31)	(0.03)	(0.02)	**(1.49)**	(1.24)	(0.25)	**(2.38)**	(1.39)	(0.02)	(0.97)	(0.00)	**(0.73)**	(0.58)	(0.13)	(0.01)	(0.00)	(0.00)	**(0.02)**	
% of total lb. harvested	**20.12**	19.28	0.51	0.34	**21.83**	18.23	3.61	**34.87**	20.35	0.34	14.17	0.02	**10.70**	8.54	1.91	0.21	0.03	0.01	**0.34**	
Mean length (in)		16.5	17.0	13.4		11.3	10.9		15.7	15.7	16.6	10.5		6.9	9.6	8.2	7.3	6.7	**16.5**	
Mean weight (lb)		2.34	2.33	1.02		0.70	0.71		1.24	1.57	1.62	0.51		0.21	0.60	0.14	0.27	0.19	**1.41**	
No. of fishing trips for that species	**83,242**				**41,404**			**30,632**					**22,179**							
% of all trips	**43.2**				**21.5**			**15.9**					**11.5**							
Hours fished for that species	**330,434**				**164,358**			**121,597**					**88,039**							
(per acre)	**(7.25)**				**(3.60)**			**(2.67)**					**(1.93)**							
No. harvested fishing for that species	**26,029**				**109,751**			**70,777**					**115,676**							
Lb. harvested fishing for that species	**59,504**				**66,029**			**99,795**					**27,639**							
No. / hr harvested fishing for that species	**0.07**				**0.68**			**0.58**					**1.62**							
% success fishing for that species	**14.2**				**53.9**			**47.4**					**45.5**							

t = < 0.005

Table 48 (continued). Fish harvest derived from a creel survey at Lake Barkley (45,600 a) from 1 March-31 October 2005.

	Morone Group	White bass	Striped bass	Yellow bass	Hybrid Striped bass	Drum	Skipjack herring	Mooneye	Shad	Gar	Golden shiner	Carp	Paddlefish	Illegal bass	Illegal Black Crappie	Illegal White Crappie	Other species	Anything
No. caught	**141,730**	73,765	3,841	63,916	208	15,750	12,401	62	43	63	62	62	63	476	520	2,022	60	
(per acre)	**(3.11)**	(1.62)	(0.08)	(1.40)	(0.00)	(0.35)	(0.27)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.04)	(0.00)	
No. harvested	**62,799**	48,874	395	13,531		560	3,222	62						476	520	2,022	60	
(per acre)	**(1.38)**	(1.07)	(0.01)	(0.30)		(0.01)	(0.07)	(0.00)						(0.01)	(0.01)	(0.04)	(0.00)	
% of total no. harvested	**14.73**	11.46	0.09	3.17		0.13	0.76	0.01						0.11	0.12	0.47	0.01	
Lb. harvested	**35,435**	30,264	1,675	3,496		550	365	19						474	153	732		
(per acre)	**(0.78)**	(0.66)	(0.04)	(0.08)		(0.01)	(0.01)	(0.00)						(0.01)	(0.00)	(0.02)		
% of total lb. harvested	**11.41**	9.74	0.54	1.13		0.18	0.12	0.01						0.15	0.05	0.24	0.00	
Mean length (in)		11.5	21.6	8.6		12.1	9.4	10.0						12.9	8.8	8.9	7.0	
Mean weight (lb)		0.65	4.06	0.25		0.93	0.27	0.30						1.10	0.30	0.37		
No. of fishing trips for that species	**8,898**						369											**6,075**
% of all trips	**4.6**						0.2											**3.2**
Hours fished for that species	**35,321**						1,465											**24,116**
(per acre)	**(0.77)**						(0.03)											**(0.53)**
No. harvested fishing for that species	**54,803**						3,166											
Lb. harvested fishing for that species	**31,649**						341											
No. / hr harvested fishing for that species	**1.78**						8.79											
% success fishing for that species	**56.80**						50.00											**11.31**

t = < 0.005

Table 49. Length distribution for each species of fish harvested or released (lengths of released fish are estimated) at Lake Barkley (45,600 a) from the 1 March to 31 October 2005 creel survey.

Species		Inch Class																					
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
White crappie	H									52,141	29,617	8,171	3,613	2,779	556	334							
	R		56	444	167	3,720	2,665	18,376	88,772	1,258	273	164		219									
Black crappie	H									5,531	5,759	2,851	855	171	114		56						
	R			174	58	1,217	174	2,550	16,821	508	169	169	56	169	56								
Largemouth bass	H														7,084	7,484	5,713	2,971	1,428	514	57	229	57
	R							14,220	2,179	33,084	8,085	76,088	52,407	111,980	16,772	12,952	6,208	3,939	1,433	1,492	716	478	238
Smallmouth bass	H														58	174	290	173					
	R							1,663	333	2,051	887	2,494	776	1,441	185	274	274	329		55	55		
Spotted bass	H									55		277	388	111	111	55	55						
	R							229	57	858	288	2,661	1,430	1,030	56								
Bluegill	H		172	401	2,291	24,630	63,523	31,962	172		56												
	R	176	1,580	11,355	41,149	50,338	21,423	6,205		58													
Redear sunfish	H						677	1,241	2,934	2,539	1,806	676											
	R			61	245	612	245	245	61	122	183		60										
Longear sunfish	H				411	3,701	411		176														
	R		356	831	6,944	4,273																	
Warmouth	H						277	110															
	R		520	116	835	635	751	347		58		57											
Green sunfish	H					53	107																
	R			174	523	523																	
Channel catfish	H							62	62	681	248	5,012	4,148	7,239	6,373	6,683	2,908	4,208	2,228	3,403	1,423	1,052	619
	R					725		1,753	483	2,659	60	1,934	544	1,088	604	423	181	423	60	302		242	60
Blue catfish	H								115	749	884	4,031	2,131	4,435	2,534	2,534	1,728	2,880	691	1,901	691	864	749
	R			235	784	588		1,648	646	1,117	118	529		176	59		59			59			
Flathead catfish	H												58	173	231		58	115	56				
	R									185		62		123		62				62			61
Bullhead	H								59			58											
	R							73															
White bass	H							1,784	2,103	13,700	11,087	12,553	2,358	3,186	1,529	446	127						
	R		879	1,991	351	4,393	2,284	5,798	1,874	3,983	644	1,757	234	410	176	59	57						
Striped bass	H															49				49	49	49	148
	R					232	638	580	290	1,161	58	116		174			49	98					
Hybrid striped bass	R						52				158												
Yellow bass	H						633	5,527	5,009	2,015	346												
	R			901	957	9,176	10,922	18,240	6,756	3,096	225	112											
Sauger	H													134	289	202	87		67		67		
	R							66		465	66	199	200	58		58							
Yellow perch	R					56		111															
Drum	H									311	62			62		62				62			
	R			108	108	1,189	270	1,730	378	1,838	162	2,757	541	1,027	811	649	595	649	162	1,027	162	378	
Skipjack herring	H					1,301	1,239	620				61											
	R			292		58	175	2,105	351	877	117	4,443	58	175	409	58	61						
Gar	R																						
Shad	R							43															
Golden shiner	H							62															
Carp	R																			62			
Mooneye	H									62													
Paddlefish	R																						
Other species	H						60																
Illegal Black bass	H										204		68	203									
Illegal B.Crappie	H							116	404														
Illegal W.Crappie	H							188	1,833														

Table 49 (cont'd). Length distribution for each species of fish harvested or released (lengths of released fish are estimated) at Lake Barkley (45,600 a) from the 1 March to 31 October 2005 creel survey.

Species		Inch Class																				Total
		24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	44	
White crappie	H																					97,111
	R																					116,114
Black crappie	H																					15,337
	R		56																			21,121
Largemouth bass	H																					25,593
	R																					342,271
Smallmouth bass	H																					695
	R																					10,797
Spotted bass	H																					1,052
	R																					6,807
Bluegill	H																					123,207
	R																					132,284
Redear sunfish	H																					9,875
	R																					1,834
Longear sunfish	H																					4,699
	R																					12,404
Warmouth	H																					387
	R																					3,119
Green sunfish	H																					160
	R																					1,220
Channel catfish	H	495	371	62	309	59																47,643
	R	62																				11,603
Blue catfish	H	606	288	288	115	288	115	173			58			58						55		29,141
	R	118						57														6,171
Flathead catfish	H																					691
	R																					555
Bullhead	H																					117
	R																					73
White bass	H																					48,673
	R																					24,890
Striped bass	H						50															394
	R				49																	3,445
Hybrid striped bass	R																					208
Yellow bass	H																					13,530
	R																					50,385
Sauger	H																					806
	R																					1,112
Yellow perch	R																					167
Drum	H																					559
	R	378	54	54	163																	15,190
Skipjack herring	H																					3,221
	R																					9,179
Gar	R		62																			62
Shad	R																					43
Golden shiner	H																					62
Carp	R																					62
Mooneye	H																					62
Paddlefish	R							62														62
Other species	H																					60
Illegal Black bass	H																					476
Illegal B.Crappie	H																					520
IllegalW.Crappie	H																					2,021

Table 50. Black bass catch and harvest statistics derived from the 1 March to 31 October 2005 creel survey at Lake Barkley (45,600 a).

	Largemouth bass				Smallmouth bass				Spotted bass			
	Harvest	Catch & release		Total	Harvest	Catch & release		Total	Harvest	Catch & release		Total
		12 - 14.9 inches	≥ 15 inches			12 - 14.9 inches	≥ 15 inches			12 - 14.9 inches	≥ 15 inches	
Total no. of bass	25,593	240,476	44,229	367,866	696	4,711	1,152	11,493	1,052	5,321	57	7,860
% of bass harvested by no.	93.6				2.5				3.8			
Total weight of bass (lb)	59,895	234,274	100,259	450,510	1,578	3,045	2,698	10,510	1,043	4,040	43	6,212
% of bass harvested by weight	95.8				2.5				1.7			
Mean length (in)	16.5				17.0				13.4			
Mean weight (lb)	2.34				2.33				1.02			
Rate (f/hr)	0.0337				0.0009				0.0014			

Table 51. Monthly black bass angling success at Lake Barkley during the 2005 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	13,180	718	4,789	19,012	11,236	0.56	591	0.03
Apr	47,194	3,012	12,729	50,530	41,107	0.77	2,824	0.05
May	73,877	7,041	15,472	61,419	70,246	1.04	6,821	0.10
Jun	75,343	3,661	13,746	54,565	74,171	1.18	3,221	0.05
Jul	29,517	1,754	8,524	33,836	27,943	0.75	1,572	0.04
Aug	37,249	3,787	7,364	29,232	34,579	1.14	3,787	0.12
Sept	43,302	2,734	8,276	32,853	42,218	1.13	2,691	0.07
Oct	67,557	4,634	12,341	48,988	64,877	1.11	4,522	0.08
Total	387,219	27,341	83,242	330,434	366,377		26,029	
Mean						0.99		0.07

Table 52. Crappie catch and harvest statistics derived from the 1 March to 31 October 2005 creel survey at Lake Barkley (45,600 a).

	White Crappie				Black Crappie			
	Harvested	Caught & released		Total	Harvested	Caught & released		Total
		8 - 9.9 inches	≥ 10 inches			8 - 9.9 inches	≥ 10 inches	
Total no. of Crappie	97,112	107,148	1,914	213,226	15,338	18,371	1,128	36,460
% of Crappie harvested by no.	86.4				13.6			
Total weight of Crappie (lb)	56,625	29,951	1,263	89,811	11,204	5,990	961	18,685
% of Crappie harvested by weight	83.5				16.5			
Mean length (in)	11.3				10.9			
Mean weight (lb)	0.70				0.71			
Rate (f/hr)	0.1315				0.0202			

Table 53. Monthly crappie angling success at Lake Barkley during the 2005 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	48,665	21,418	5,709	22,664	48,243	2.07	21,164	0.91
Apr	146,727	63,511	21,941	87,095	145,284	1.63	63,322	0.71
May	32,675	13,422	5,993	23,791	26,239	1.12	11,222	0.48
Jun	1,538	805	524	2,080	1,098	0.54	805	0.40
Jul	665	484	163	646	483	0.89	483	0.89
Aug	186	186	102	404	186	0.16	186	0.16
Sept	1,866	955	517	2,053	1,823	0.98	955	0.51
Oct	17,364	11,669	6,455	25,624	17,198	0.82	11,614	0.56
Total	249,686	112,450	41,404	164,358	240,554		109,751	
Mean						1.50		0.68

Table 54. Catfish catch and harvest statistics derived from the 1March to 31October 2005 creel survey at Lake Barkley (45,600 a).

	Channel catfish				Blue catfish				Flathead catfish			
	Harvest	Catch & release		Total	Harvest	Catch & release		Total	Harvest	Catch & release		Total
		8 - 11.9 inches	≥ 12 inches			8 - 11.9 inches	≥ 12 inches			8 - 11.9 inches	≥ 12 inches	
Total no. of Catfish	47,644	4,955	5,924	59,248	29,141	3,527	1,057	35,312	692	185	370	1,247
% of Catfish harvested by no.	61.4				37.6				0.9			
Total weight of Catfish (lb)	63,218	2,718	3,249	69,582	44,007	799	240	45,406	1,041	243	487	1,771
% of Catfish harvested by weight	58.4				40.6				1.0			
Mean length (in)	15.7				16.6				15.7			
Mean weight (lb)	1.24				1.62				1.57			
Rate (f/hr)	0.0579				0.0381				0.0009			

Table 55. Monthly catfish angling success at Lake Barkley during the 2005 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	718	718	352	1,396	718	0.55	718	0.55
Apr	2,950	2,008	1,435	5,696	1,004	0.34	1,004	0.34
May	13,147	11,112	5,823	23,116	10,506	0.44	9,186	0.39
Jun	24,895	20,209	7,861	31,203	22,405	0.71	18,671	0.60
Jul	19,779	16,210	5,108	20,276	18,630	0.87	15,424	0.72
Aug	15,210	11,857	3,495	13,875	13,782	0.86	11,174	0.69
Sept	7,072	5,207	2,799	11,112	6,032	0.60	4,773	0.48
Oct	12,227	10,273	3,759	14,922	11,167	0.87	9,827	0.76
Total	95,998	77,594	30,632	121,597	84,244		70,777	
Mean						0.69		0.58

Table 56. Panfish catch and harvest statistics derived from the 1March to 31October 2005 creel survey at Lake Barkley (45,600 a).

	Warmouth				Green Sunfish				Bluegill			
	Harvest	Catch & release		Total	Harvest	Catch & release		Total	Harvest	Catch & release		Total
		8 - 9.9 inches	≥ 10 inches			8 - 9.9 inches	≥ 10 inches			8 - 9.9 inches	≥ 10 inches	
Total no. of Panfish	388	1,733	116	3,507	160	523	-	1,380	123,207	77,966	59	255,492
% of Panfish harvested by no.	0.3				0.1				89.0			
Total weight of Panfish (lb)	105	251	17	558	30	52	-	153	26,520	9,392	8	42,455
% of Panfish harvested by weight	0.3				0.1				79.8			
Mean length (in)	7.3				6.7				6.9			
Mean weight (lb)	0.27				0.19				0.21			
Rate (f/hr)	0.0005				0.0002				0.1619			

	Longear Sunfish				Redear Sunfish			
	Harvest	Catch & release		Total	Harvest	Catch & release		Total
		8 - 9.9 inches	≥ 10 inches			8 - 9.9 inches	≥ 10 inches	
Total no. of Panfish	4,700	4,273	-	17,104	9,988	1,163	366	11,823
% of Panfish harvested by no.	3.4				7.2			
	643	381	-	1,749	5,929	333	105	6,455
% of Panfish harvested by weight	1.9				17.8			
Mean length (in)	6.2				9.6			
Mean weight (lb)	0.14				0.60			
Rate (f/hr)	0.0060				0.0133			

Table 57. Monthly panfish angling success at Lake Barkley during the 2005 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	7,519	3,760	325	1,289	4,096	2.96	2,998	2.16
Apr	34,015	11,171	1,713	6,799	16,256	2.56	6,653	1.05
May	100,006	52,314	6,971	27,672	85,484	3.71	48,023	2.09
Jun	44,664	18,012	4,233	16,802	29,873	2.37	14,571	1.16
Jul	36,050	13,428	3,318	13,173	29,819	2.84	11,915	1.13
Aug	13,844	7,760	2,002	7,948	7,884	1.29	5,339	0.87
Sept	14,015	6,595	1,187	4,711	10,067	2.68	4,513	1.20
Oct	39,194	25,404	2,430	9,647	27,806	3.05	21,664	2.37
Total	289,307	138,443	22,179	88,039	211,285		115,676	
Mean						2.94		1.62

Table 58. *Morone* catch and harvest statistics derived from the 1 March to 31 October 2005 creel survey at Lake Barkley (45,600 a).

	White bass				Yellow bass				Striped bass			
	Harvest	Catch & release		Total	Harvest	Catch & release		Total	Harvest	Catch & release		Total
		8 - 14.9 inches	≥ 15 inches			8 - 14.9 inches	≥ 15 inches			8 - 14.9 inches	≥ 15 inches	
Total no. of *Morones*	48,874	14,700	293	73,765	13,531	28,429	-	63,916	395	2,379	196	3,841
% of *Morones* harvested by no.	77.8				21.5				0.6			
Total weight of *Morones* (lb)	30,264	4,016	78	37,062	3,496	4,840	-	12,072	1,675	747	623	3,319
% of *Morones* harvested by weight	85.4				9.9				4.7			
Mean length (in)	11.5				8.6				21.6			
Mean weight (lb)	0.65				0.25				4.06			
Rate (f/hr)	0.0577				0.0177				0.0006			

Table 59. Monthly *Morones* angling success at Lake Barkley during the 2005 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	7,731	1,394	81	322	253	1.50	211	1.25
Apr	20,082	2,385	93	367	-	-	-	-
May	9,847	3,246	893	3,543	4,180	1.35	2,090	0.68
Jun	26,579	19,330	2,136	8,481	24,014	3.66	18,378	2.80
Jul	31,150	22,501	2,635	10,461	29,094	3.11	22,078	2.36
Aug	15,706	8,753	1,357	5,388	14,775	2.85	8,629	1.67
Sept	6,291	1,953	791	3,140	2,690	1.45	1,128	0.61
Oct	24,343	3,238	911	3,618	8,988	3.15	2,289	0.80
Total	141,730	62,799	8,898	35,321	83,994		54,803	
Mean						2.79		1.78

Table 60. Relative abundance and CPUE (fish/hour) of largemouth bass collected during 30-minute diurnal electrofishing runs at Lake Beshear for 2.5 hours during May, and 2.0 hours during October, 2005.

Season	Species	Inch Class																				Total	CPUE	StdErr
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			
Spring	Largemouth bass	18	16	6	11	26	19	4	4	4	1	8	9	21	18	23	23	17	8		1	237	94.8	8.5
Fall	Largemouth bass	5	39	38	11	14	11	5	11	6	2	1	3	2	6	6	1	1	1			163	81.5	15.9

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wfdwrlb.d05

Table 61. Spring diurnal electrofishing CPUE for each size class of largemouth bass collected at Lake Beshear. Nocturnal sampling was conducted from 1995 to 2002. CPUE = fish/hour/run

	Inch Group											
	≤8.0		8.0-11.9		≥12.0		≥15.0		≥18.0		Total	
Year	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr
1986	4.8		11.3		18.5		14.5		4.8		34.7	
1987	4.0		22.6		9.7		5.7		1.6		56.7	
1988	1.8		16.5		38.4		30.5		15.2		22.6	
1989	9.8		15.7		54.9		26.5		6.9		80.4	
1990	4.7	1.8	7.3	2.7	38.7	3.3	29.3	4.8	13.3	1.3	50.7	2.9
1991	15.0	2.4	16.0	3.4	34.0	5.7	23.5	4.0	10.5	3.9	65.0	6.0
1992	2.7	0.7	24.0	6.4	65.3	0.7	45.3	1.8	18.0	1.2	92.0	5.3
1993	6.5	1.7	4.0	1.8	37.5	13.7	31.5	10.8	17.0	5.6	48.0	15.4
1994	11.2	2.9	8.0	1.4	48.8	10.8	34.0	9.5	14.8	5.0	68.0	10.1
1995	13.5	3.7	22.5	7.4	51.0	16.5	35.5	12.6	16.5	5.9	87.0	21.6
1996	5.5	2.2	12.5	1.7	55.5	5.1	39.0	4.2	19.5	4.6	73.5	6.2
1997	4.5	2.5	10.0	2.0	39.0	7.0	28.5	4.8	14.0	2.6	53.5	8.3
1998	5.0	1.3	13.0	3.1	70.0	8.7	53.0	5.3	22.0	2.2	88.0	8.3
1999	4.0	1.8	11.5	3.0	39.5	6.7	25.5	4.9	8.0	2.7	55.0	8.8
2000	11.2	3.7	18.0	4.9	36.0	8.7	32.0	7.6	16.4	3.1	65.2	10.9
2001	5.0	2.4	42.0	8.1	26.0	6.1	15.5	3.8	5.5	1.3	73.0	6.7
2002	11.5	1.7	24.0	7.2	64.5	10.7	36.5	8.6	11.5	2.9	100.0	16.4
2003	5.2	2.9	6.4	2.0	33.6	7.8	25.6	7.2	3.6	0.7	45.2	9.5
2004	4.4	1.6	12.0	2.8	52.0	9.3	42.4	8.5	16.0	3.7	68.4	11.7
2005	30.8	4.9	12.4	2.8	51.6	6.2	44.4	5.9	19.6	2.4	94.8	8.5
Average	8.1		15.5		43.2		30.9		12.7		66.1	

wfdpsdlb.dxx

Table 62. Age frequencies and CPUE of largemouth bass collected from Lake Beshear in May 2005 during 2.5 hours of diurnal sampling. Age data from 2003 were combined to make estimations.

	Inch Class																					
Age	3	4	5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	StdErr
1	18	16	6	11	26	17	3													97	40.9	6.4	1.9
2						2	1	3	2											8	3.4	14.8	2.0
3								1	1	1	7	3	3							16	6.8	4.0	0.8
4									1		1	6	16	12	18					54	22.8	20.8	4.7
5													2	6	5	9	6			28	11.8	1.6	0.5
7																4	6	8		18	7.6	10.8	2.1
9																5	5			10	4.2	4.1	0.9
10																			1	1	0.4	1.2	0.3
11																5				5	2.1	1.2	0.3
Total	18	16	6	11	26	19	4	4	4	1	8	9	21	18	23	23	17	8	1	237			
%	8	7	3	5	11	8	2	2	2	0	3	4	9	8	10	10	7	3	0		100		

wfdpsdlb.D05, wfdlbbag.D03

Table 63. Population assessment determined from largemouth bass based on spring sampling at Lake Beshear from 2001-2005.

	2005		2004		2003		2002		2001	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at Age 3	14.0	4	14.0	4	14.0	4	14.0	4	14.1	4
Spring CPUE of Age 1 fish	38.8	2	6.4	1	0.8	1	3.5	1	1.0	1
Spring CPUE 12-14.9-in fish	7.2	1	9.6	1	8.0	1	28.0	2	10.5	1
Spring CPUE ≥ 15.0-in fish	44.4	4	42.4	4	25.6	3	36.5	4	15.5	2
Spring CPUE ≥ 20-in fish	3.6	3	2.8	3	2.0	3	3.5	3	1.5	2
Instantaneous Mortality (z)	0.270		0.262		0.430		0.547		0.803	
Annual Mortality (A)%	23.7		23.0		34.9		54.7		55.2	
Total Score	14		13		12		14		10	
Assessment Rating	G		G		G		G		F	

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

WFDPSDLB.Dxx

Table 64. Indices of year-class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall diurnal electrofishing sampling at Lake Beshear.

	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
2001	4.1		4.8	1.58	1.2		15.0	2.94
2002	4.1		6.9	1.34	2.0		13.5	1.33
2003	2.7		19.0	4.14	0.0		4.3	1.94
2004	3.8		17.6	4.12	0.0		38.8	1.8
2005	4.5		44.0	15.02	22.0			

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

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

WFDWRLB.Dxx, WFDWRAGB.Dxx, WFDPSDLB.Dxx

Table 65. Mean back-calculated length (in) at each annulus of channel catfish collected by trotline for 29 line-nights at Lake Beshear during September 2005, including the range in length of channel catfish at each age and the 95% confidence interval of each age group. (wfdcagbe.d05)

		Age													
Year-Class	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2004	3	6.8													
2003	7	6.7	9.2												
2002	3	7.5	9.7	12.3											
2001	6	6.2	8.9	10.7	12.2										
2000	1	7.2	10.3	18.1	14.5	16.0									
1998	2	7.0	9.1	10.7	12.2	13.7	15.0	16.1							
1996	1	6.4	7.8	9.2	10.1	11.4	12.4	13.7	15.6	16.9					
1995	3	6.0	8.0	9.1	10.6	11.7	13.0	14.1	15.0	16.0	16.8				
1994	2	6.4	7.5	9.3	10.4	11.3	12.4	13.5	14.6	15.4	16.5	17.2			
1993	2	6.3	7.3	8.1	9.0	9.6	10.5	11.4	12.1	13.2	14.1	15.0	15.9		
1991	1	6.2	7.7	8.9	10.0	11.2	12.0	13.5	14.7	15.8	17.0	18.2	19.3	20.1	21.3
Mean		6.6	8.7	10.5	11.3	11.9	12.7	13.8	14.3	15.3	16.1	16.5	17.0	20.1	21.2
Number		31	28	21	18	12	11	11	9	9	8	5	3	1	1
Smallest		4.9	6.2	7.1	8.1	8.7	9.6	10.5	11.2	12.1	13.0	14.0	14.9		
Largest		8.8	11.5	18.1	15.2	17.1	18.9	19.8	17.5	18.1	19.2	19.2	19.3		
Std. Error		0.2	0.2	0.5	0.5	0.7	0.8	0.8	0.6	0.6	0.7	1.0	1.3		
Low 95% CI		6.2	8.3	9.5	10.4	10.5	11.2	12.3	13.1	14.1	14.7	14.6	14.5		
High 95% CI		6.9	9.2	11.6	12.2	13.3	14.1	15.2	15.5	16.6	17.5	18.4	19.5		

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

Table 66. Age frequencies and CPUE of channel catfish collected from Lake Beshear in September 2005. Age was determined by using sectioned otoliths collected in 2005.

	Inch Class																			
Age	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	%	CPUE	StdErr
1	3	4	5														12	3.9	0.41	0.15
2			14	55	39												108	34.7	3.72	0.60
3						15	26										41	13.2	1.41	0.18
4					20	32	27	5									84	27.0	2.90	0.34
5											4						4	1.3	0.14	0.06
6																				
7						16								3			19	6.1	0.66	0.11
8																				
9											4						4	1.3	0.14	0.06
10									15				2				17	5.5	0.59	0.14
11								6					3				9	2.9	0.31	0.09
12								6		4							10	3.2	0.34	0.05
13																				
14															3		3	1.0	0.10	0.07
Total	3	4	19	55	59	63	53	17	15	4	8	0	5	3	3	0	311			
%	1	1	6	18	19	20	17	5	5	1	3	0	2	1	1	0		100		

wfdcclb.d04, wfdcagbe.d03

Table 67. Population assessment by year for channel catfish at Lake Beshear.

Year	Parameters										Total Score	Assessment Rating
	CPUE < 8 in	score	Total CPUE	score	CPUE ≥ 12 in	score	CPUE ≥ 15 in	score	CPUE ≥ 20 in	score		
1998	0.00	0	12.8	4	6.0	4	0.8	2	0.0	1	11	F
1999	0.00	0	3.9	3	3.0	4	0.8	2	0.0	0	9	F
2000	0.00	0	0.9	1	0.9	2	0.6	2	0.1	1	6	P
2001	0.00	0	4.4	3	3.6	4	2.0	4	0.6	3	14	G
2002	0.03	1	4.9	4	3.2	4	1.7	4	0.5	3	16	G
2003	0.00	0	8.9	4	6.1	4	2.6	4	0.4	2	14	G
2004	0.04	1	13.6	4	9.2	4	12.9	4	0.6	3	16	G
2005	0.00	0	11.0	4	8.2	4	2.1	4	0.4	2	14	G

Sampling method

1998 -1999 : slat traps and hoop nets
2000 : slat traps
2001 - 2002 : gill nets
2003 : gill nets and trotlines
2004-2005 : trotlines

Table 68. Species composition, relative abundance, and CPUE (#/hour) of largemouth bass, bluegill, redear sunfish, white crappie, and channel catfish collected during 0.875 hours (7 runs; each 450s) of diurnal electrofishing at Lake Pennyrile on 20 April 2005. (wfdpsdp.d05)

Species	Inch-Class																					Total	CPUE	Std. Error
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			
Largemouth bass			4	36	41	7	4	23	32	32	29	14	5	4	3					1		2	237	260.4	22.9
Bluegill	13	34	93	117	29	18	23	1															328	360.4	72.3
Redear Sunfish		1		18	16	2	23	19	2														81	89.0	28.7
Longear Sunfish	3	24	56	38	11	6	2																140	153.9	18.8
Warmouth		2	1	3	8	26	6																46	50.6	10.7
Green Sunfish							1																1	1.1	1.1
Channel Catfish														1			1	4	1		1		8	8.8	5.2
White Crappie					2	1		1	2	1	1	5											13	14.3	4.9
Yellow Bullhead								5	3														8	8.8	3.9

Table 69. Spring, diurnal electrofishing CPUE of each size-class of largemouth bass collected at Lake Pennyrile from 1990-2005.

	Inch-class									
	< 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	101.1	11.6	127.5	21.0	25.3	5.8	6.6	2.6	260.4	22.9
2004	27.5	7.1	63.7	10.7	26.4	4.7	2.2	1.4	119.8	14.4
2003	96.6	17.6	118.8	9.4	24.8	4.8	0.9	0.9	241.0	27.3
2002	132.3	24.2	116.2	14.7	30.8	5.4	5.4	3.3	284.0	36.9
2001[A]	54.0	0.0	138.0	10.0	12.0	4.0	5.0	1.0	209.0	15.0
2000[A]	46.0	4.0	87.0	5.0	11.0	7.0	3.0	3.0	147.0	1.0
1999[A]	26.0	8.0	102.0	8.0	3.0	1.0	2.0	2.0	133.0	1.0
1998	12.0	8.0	70.0	1.0	7.0	1.0	2.0	2.0	91.0	21.0
1994	47.0	9.0	52.0	6.0	2.0	2.0	1.0	1.0	102.0	12.0
1990	28.0	2.0	87.0	1.0	3.0	1.0	0.0	0.0	118.0	0.0
Mean	57.1		96.2		14.5		2.8		170.5	

[A] Data collected by spring, nocturnal electrofishing.

Table 70. PSD and RSD values obtained for largemouth bass, bluegill, redear sunfish, and white crappie collected during 0.875 hours of diurnal electrofishing (7 runs; each 450s) at Lake Pennyrile on 20 April 2005. (wfdpsdp.d05)

Species	N	PSD (+ 95% CI)	RSD (+ 95% CI)
Largemouth bass	145	20 (7)	4 (3)
Bluegill[A]		15 (4)	0 (1)
Redear sunfish[B]		55 (11)	3 (3)
White crappie		77 (24)	54 (28)

[A] Bluegill = RSD_8.

[B] Redear sunfish = RSD_9.

Table 71. Population assessment of the largemouth bass population based on spring diurnal electrofishing at Lake Pennyrile from 2000-2005.

	Year											
	2000[BC]		2001[B]		2002[D]		2003		2004[E]		2005[E]	
Parameter[A]	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Growth (Mean length at capture of age-3 LMB)	10.4	2	10.4	2	9.7	1	9.7	1	9.7	1	9.7	1
Recruitment (Spring CPUE of age-1)	41.1	2	26.0	2	111.5	4	59.4	3	13.1	1	85.7	4
Size Structure (Spring CPUE of LMB 12.0-14.9 in.)	11.0	1	12.0	1	30.8	2	24.8	2	26.4	2	25.3	2
Size Structure (Spring CPUE of LMB ≥ 15.0 in.)	3.0	1	5.0	2	5.4	2	0.9	1	2.2	1	6.6	2
Size Structure (Spring CPUE of LMB ≥ 20.0 in.)	3.0	3	2.0	3	0.8	1	0.0	1	0.0	1	3.3	3
Instantaneous Mortality (Z)			0.473				0.457					
Annual Mortality (A)%			37.7				36.7					
Total Score		9		10		10		8		6		12
Assessment Rating		Fair		Fair		Fair		Fair		Poor		Good

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

[B] Spring electrofishing samples were collected nocturnally.

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

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

Table 72. Spring, diurnal electrofishing CPUE (f/h) of each age-class of largemouth bass collected from Lake Pennyrile from 1998-2005.

	Age-Class									
Year	1	2	3	4	5	6	7	8	9	10
2005[D]	85.65	55.89	28.37	35.1	29.18	7.82	3.54	3.91	0.00	0.00
2004[D]	13.05	38.09	12.83	26.06	17.50	5.39	1.95	2.70	0.00	2.21
2003	59.39	83.41	23.39	33.92	25.75	7.26	3.42	3.63	0.00	0.00
2002[C]	111.51	49.89	34.77	28.38	31.52	9.99	8.02	2.54	0.00	1.10
2001[A]	26.00	103.76	39.13	6.25	21.57	4.14	3.00	0.00	0.00	1.14
2000[AB]	41.06	37.53	25.23	14.88	15.11	3.76	2.31	1.63	0.00	0.50
1999[AB]	22.69	22.34	40.07	20.26	15.18	6.21	2.62	2.58	0.00	0.06
1998	5.00	9.30	28.30	26.60	7.70	3.00	5.00	4.00	0.00	0.00
Mean	45.54	50.03	29.01	23.93	20.44	5.95	3.73	2.62	0.00	0.63

[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.

Table 73. Spring electrofishing CPUE for each size-class of bluegill and redear sunfish collected at Lake Pennyrile during May from 1990-2005.

		Inch-Class											
		< 3.0 in		3.0 - 5.9 in		6.0 - 7.9 in		≥ 8.0 in		≥ 10.0 in		Total	
Species	Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
Bluegill													
	2005	51.7	20.0	262.6	64.0	45.1	13.4	1.1	1.1	0.0	0.0	360.4	72.3
	2004	3.1	3.1	38.5	10.6	23.1	11.9	6.2	4.5	0.0	0.0	70.8	21.7
	2003	27.7	5.2	80.0	14.5	18.5	5.2	12.3	5.2	0.0	0.0	138.5	8.8
	2002	77.6	22.9	98.4	32.0	29.6	7.3	1.6	1.1	0.0	0.0	207.2	52.1
	2001	0.0	0.0	21.0	3.0	65.9	53.9	3.0	3.0	0.0	0.0	89.8	53.9
	2000	80.8	9.0	95.8	18.0	65.9	12.0	9.0	3.0	0.0	0.0	251.5	35.9
	1999	6.0	0.0	61.0	15.0	72.0	2.0	4.0	0.0	0.0	0.0	143.0	17.0
	1998	16.0	4.0	40.0	2.0	16.0	6.0	1.0	1.0	0.0	0.0	73.0	11.0
	1994	5.0	5.0	27.0	5.0	8.0	4.0	0.0	0.0	0.0	0.0	40.0	6.0
	1990	2.0	2.0	48.0	4.0	6.0	0.0	12.0	2.0	0.0	0.0	68.0	4.0
	Mean	27.0		77.2		35.0		5.0		0.0		144.2	
Redear sunfish													
	2005	1.1	1.1	37.4	12.8	27.5	10.7	23.1	5.3	0.0	0.0	89.0	28.7
	2004	0.0	0.0	20.0	12.8	40.0	17.1	9.2	2.9	0.0	0.0	69.2	31.1
	2003	0.0	0.0	55.4	12.7	26.2	3.1	21.5	2.9	0.0	0.0	103.1	13.0
	2002	0.0	0.0	59.2	11.4	49.2	9.9	53.8	20.9	0.0	0.0	162.3	27.3
	2001	0.0	0.0	21.0	15.0	12.0	6.0	9.0	3.0	3.0	3.0	44.9	21.0
	2000	3.0	3.0	41.9	18.0	24.0	0.0	134.7	68.9	3.0	3.0	206.6	50.9
	1999	0.0	0.0	11.0	3.0	40.0	4.0	65.0	11.0	3.0	1.0	119.0	11.0
	1998	0.0	0.0	6.0	2.0	16.0	8.0	9.0	1.0	1.0	1.0	32.0	12.0
	1994	0.0	0.0	8.0	8.0	5.0	5.0	7.0	3.0	1.0	1.0	21.0	7.0
	Mean	0.4		26.0		24.0		33.2		1.1		84.7	

Table 74. Spring, diurnal electrofishing CPUE for each age-class of bluegill collected from Lake Pennyrile during May from 2000-2005.

Year	Age-Class					
	1	2	3	4	5	6
2005[A]	21.76	98.02	186.15	39.12	5.05	10.33
2004[A]	0.62	12.72	28.27	15.74	4.00	9.42
2003[A]	15.38	41.03	47.93	19.33	3.38	11.40
2002	55.23	51.18	61.08	19.69	3.38	7.13
2001[AB]	0.00	3.92	19.67	42.25	7.06	15.33
2000[AB]	27.65	94.90	50.07	42.25	10.59	21.60

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

[B] Samples were collected by nocturnal electrofishing.

Table 75. Population assessment of the bluegill sunfish population at Lake Pennyrile from 2000-2005.

Parameter	2000[A]		2001[A]		2002		2003[A]		2004[A]		2005[A]	
	Actual Value	Score	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)	2.9	(1)
Growth (Years to reach 6.0 in)	4	(2)	4	(2)	4	(2)	4	(2)	4	(2)	4	(2)
Size Structure (CPUE ≥ 6.0 in)	74.9	(3)	67.6	(3)	30.0	(2)	30.8	(2)	29.2	(2)	46.2	(2)
Size Structure (CPUE ≥ 8.0 in)	9.0	(3)	2.9	(2)	1.5	(2)	12.3	(3)	6.2	(2)	1.1	(2)
Total Score:		(9)		(8)		(7)		(8)		(7)		(7)
Assessment Rating:		Fair		Fair		Fair		Fair		Fair		Fair

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

(Pennyrile_BLG_Database)

Table 76. Population assessment of the redear sunfish population at Lake Pennyrile from 2000-2005.

Parameter	2000[A] Actual Value	2000[A] Score	2001[A] Actual Value	2001[A] Score	2002 Actual Value	2002 Score	2003 Actual Value	2003 Score	2004 Actual Value	2004 Score	2005 Actual Value	2005 Score
Growth (Mean length at capture of age-3)	5.4[B]	(2)	5.4[B]	(2)	5.4	(2)	5.4[B]	(2)	5.4[B]	(2)	5.4[B]	(2)
Growth (Years to reach 8.0 in)	5[B]	(2)	5[B]	(2)	5	(2)	5[B]	(2)	5[B]	(2)	5[B]	(2)
Size Structure (CPUE ≥ 8.0 in)	134.7	(4)	9.0	(2)	53.8	(4)	21.5	(4)	9.2	(2)	23.1	(4)
Size Structure (CPUE ≥ 10.0 in)	3.0	(3)	3.0	(3)	0.0	(1)	0.0	(1)	0.0	(1)	0.0	(1)
Total Score:		(11)		(9)		(8)		(9)		(7)		(9)
Assessment Rating:		Good		Fair		Fair		Fair		Fair		Fair

[A] Population assessments were based upon nocturnal electrofishing samples.

[B] Age and growth data was not collected. Age and growth data collected during 2002 was used as surrogate data.
(Pennyrile_RDR_Database)

Table 77. Relative species abundance, size distribution, and CPUE of fish collected during diurnal electrofishing (3 runs; total 0.50 hours) at Hematite Lake on 09 May 2005.

Species	Inch-Class 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	20	21	22	23	Total	CPUE	Std. Error
Largemouth bass			1	1		1				1	1	3	1	1	2	1	1					14	27.5	10.92
Redear sunfish		2	13	38	23	12	6															94	184.3	48.07
Bluegill	13	23	39	84	20	10	1															190	372.6	156.72
Warmouth sunfish			1	1		3	1															6	11.8	8.99
Yellow Bullhead								1		1	1											3	5.9	0.00
Spotted Gar																		1	1	2	1	5	9.8	5.19
Golden Shiner					1																	1	2.0	1.96
Gizzard Shad	numerous, larger size not collected																					0		
Total																						313	613.7	

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Table 78. Spring electrofishing CPUE for each inch group of redear sunfish collected at Hematite Lake. Standard error in parentheses.

	Inch Group					
Year	< 3.0	3.0 - 5.9	6.0 - 7.9	> 8.0	> 10.0	Total
2002	1.0	73.0	69.0	16.0	0.0	159.0
	(1.0)	(17.5)	(10.0)	(4.0)	(0.0)	(22.9)
2004	8.4	216.0	27.5	1.2	0.0	253.9
	(3.6)	(26.1)	(3.6)	(1.2)	(0.0)	(25.8)
2005	4.0	147.7	35.9	0.0	0.0	187.6
	(4.0)	(34.8)	(19.2)	(0.0)	(0.0)	(49.2)

wfdpsdhl.dxx

Figure 1. Relative species composition of white and black crappie collected during annual fall trap-netting from 1985-2005 at Kentucky Lake. (Kentucky_Crappie_Database.xls)

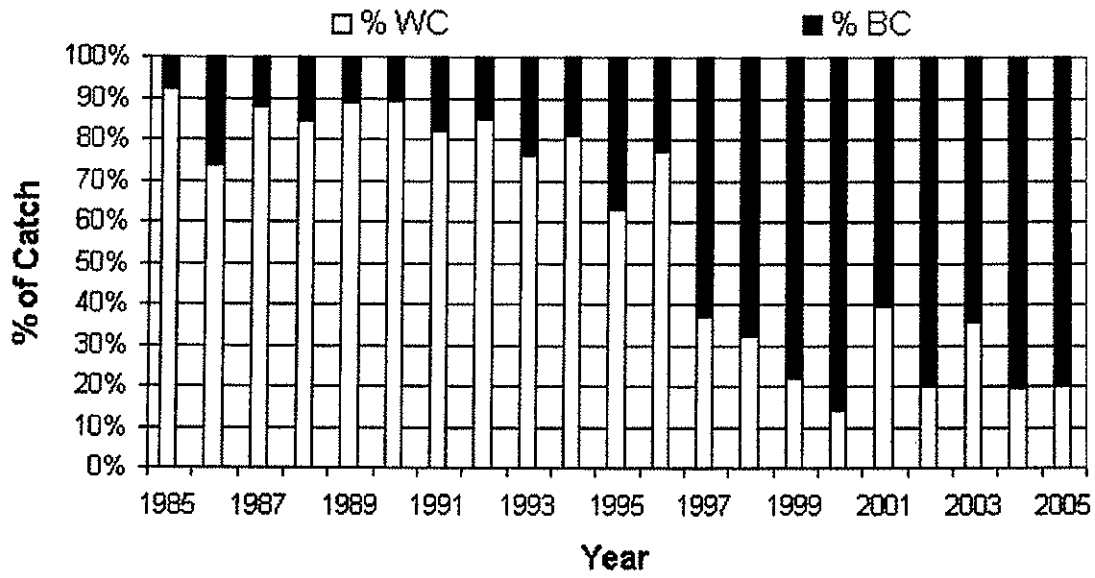
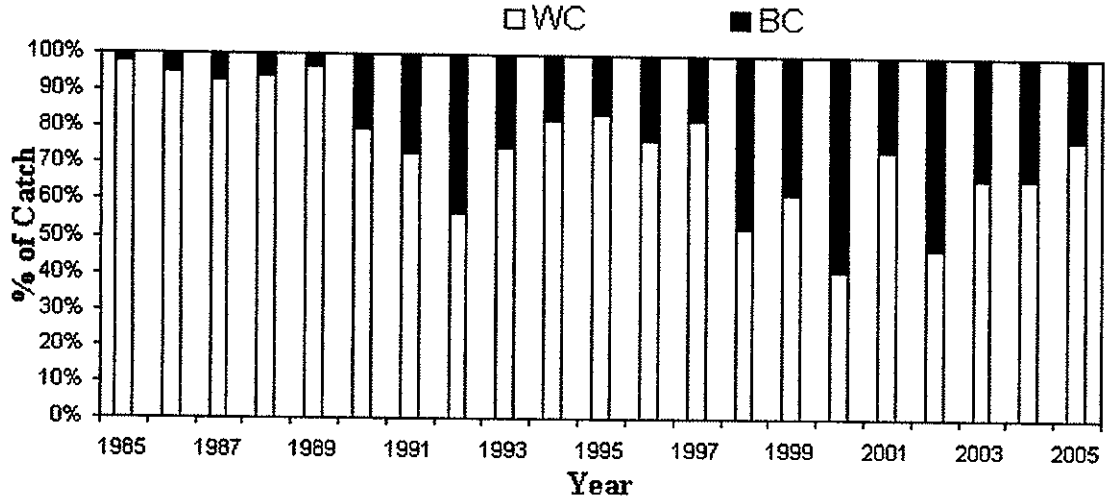


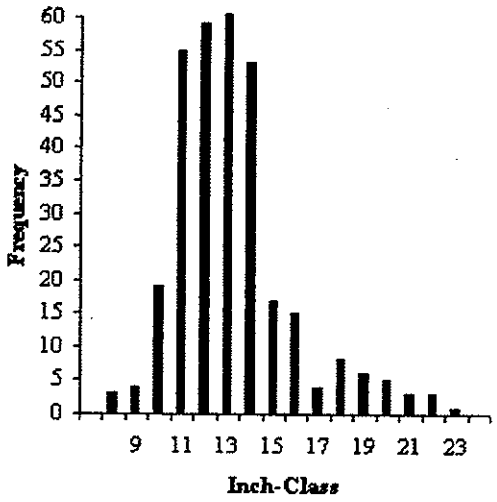
Figure 2. Relative species composition of all sizes of white and black crappie collected during fall trap-netting from 1985-2005 at Lake Barkley.



(Barkley_Crappie_Database.xls)

Figure 3. Length frequency distribution and CPUE for channel catfish collected by fishing 10 100-hook trotlines with cheese bait at Lake Beshear for three nights during September 2005 (total effort was 29 line nights due to one line being hungup.

Inch Class	Freq.	Cum. Freq.	%	Cum. %	CPUE	Std Error
8	3	3	0.9	0.9	0.10	0.09
9	4	7	1.3	2.2	0.14	0.08
10	19	26	6.0	8.2	0.66	0.17
11	55	81	17.3	25.5	1.90	0.40
12	59	140	18.6	44.0	2.03	0.35
13	63	203	19.8	63.8	2.17	0.31
14	53	256	16.7	80.5	1.83	0.28
15	17	273	5.3	85.8	0.59	0.15
16	15	288	4.7	90.6	0.52	0.12
17	4	292	1.3	91.8	0.14	0.06
18	8	300	2.5	94.3	0.28	0.12
19	6	306	1.9	96.2	0.21	0.09
20	5	311	1.6	97.8	0.17	0.07
21	3	314	0.9	98.7	0.10	0.07
22	3	317	0.9	99.7	0.10	0.07
23	1	318	0.3	100.0	0.03	0.03
					10.97	



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NORTHWESTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Nolin River Lake

Black Bass Sampling

Spring electrofishing for black bass population indices was conducted during April 2005 (Tables 1 and 2). Results indicate that Nolin's largemouth bass population continues to show improvement (Tables 3 and 4). Increases are noted in the CPUE of all size ranges and age classes of largemouth bass from lows observed during 2001-2005. Data used in age calculations were collected in 2002. CPUE by age class is presented in Table 5 and cohort mortality in Table 6. Instantaneous mortality was estimated to be 0.617 and annual mortality to be 46.0%. The log 10 length weight equation is log W = -3.34 + 3.03 (Log L). Fall electrofishing was conducted during September (Table 7) to determine relative weight values (Table 8) and CPUE and mean length of age 0 fish (Table 9). Wr values for all size groups were at acceptable levels. Age 0 fish results indicate that mean length and CPUE of age 0 fish have also improved over those data collected the last few years. Nolin River Lake Strategic Management Plan (SMP) objectives for largemouth bass state that electrofishing catch rates be at least 40 fish/hr for 8.0-11.9 inch fish, 30 fish/hr for 12.0-14.9 inch fish, and 7 fish/hour for fish 15.0 inches and above. The first two objectives were not met with a CPUE of 27.1 fish/hr for 8-11.9 inch fish and 25.3 for 12-14 .9 inch fish. The objective for 15 inch and above fish was met with 14.2 fish/hr being captured.

Crappie Sampling

Fall trap netting was conducted during October to assess various parameters of Nolin Lake's crappie population. Data resulting from that effort are presented in Tables 10-15. Of the 898 crappie collected during 80 net-nights of effort (11.22 crappie/net night) 815 were white crappie (91%) and 83 black crappie (9%). Most population parameters were similar to those collected during 2004 with the exception of a significant decline in the CPUE of age 0 fish (age 0 CPUE of 5.1 f/h in 2004 was highest in last several years) and a slight reduction in the CPUE of age 1 fish (Table 15). Age frequencies, growth rates and CPUE of 8 inch and larger fish have remained fairly consistent for several years. The CPUE of fish greater than 10 inches increased from 2.0 f/h in 2004 to 2.7 f/h in 2005. Age data used to calculate age-frequencies and cohort mortalities was collected in 2004. Annual mortality was estimated to be 52.7% and instantaneous mortality 0.749. The log 10 length-weight equation is log W= -3.70 + 3.36 (log L). The Nolin Lake SMP management objectives for white crappie state that at least 6 fish/hr 8.0 inches and above be captured per net night during fall trap netting and that crappie reach at least 9.5 inches at capture at end of third growing season (age 2+). Both of these objectives were met with 7.4 crappie over 8.0 inches caught per net night and fish averaging 9.7 at end of third growing season (2004 data).

Rough River Lake

Creel Survey

A random, stratified, roving creel survey was conducted at Rough River Lake from April 02 – October 30 2005 to determine angler pressure and catch/harvest statistics (Tables 16-21). The lake was divided into 2 areas (North Fork and South Fork) each with equal pressure probabilities. Days were divided into 2 time periods (morning and afternoon) six hours in length each with equal probabilities. Weekend day probabilities were 2.5x those of weekdays. Each area (North Fork/South Fork) was divided into 4 "sub-areas" of approximately equal size in which the clerk would spend 1.5 hours of the six hour time period (counting and interviewing) before moving to the next sub-area.

General pressure, catch, and harvest statistics (Table 16) are very similar to results obtained during 1999 when Rough River Lake was last surveyed. Important to creel comparisons (especially crappie statistics) is the late start date for the 2005 creel (April 02 in 2005 vs. March 01 in 1999). An estimated 35,293 fishing trips (6.92 trips/a) and 147,472 man-hours (28.92 man-hours/a) were expended at Rough River Lake during the 2005 creel survey period. These values are slightly higher than the 1999 estimates of 33,087 fishing trips and 137,922 total man-hours. The number of fish estimated caught in 2005 (220,423) is slightly higher than the 195,493 estimated caught in 1999. The estimated total number of harvested fish (59,590) in 2005 is slightly lower than the 1999 estimated harvest (61,129). The rates at which fish were caught (1.47 fish/h) and harvested (0.41 fish/h) are nearly identical to 1999 values. The total pounds of fish harvested in 2005 (41,903 lbs.) was a 24% increase from the 31,959 pounds estimated harvested in 1999. Black bass was the most sought after species group with 51,008 man-hours of pressure followed by the crappie group at 28,916 man-hours and the "anything" group at 27,448 man-hours. In 1999 the crappie group and black bass group were nearly equal with crappie receiving 41,186 man-hours and black bass 37,774 man-hours. Man-hours spent in pursuit of panfish, catfish and anything groups were similar for both surveys. Man-hours directed toward hybrid striped bass increased from 6,822 in 1999 to 19,643 during 2005.

Black bass pressure and catch/harvest estimates obtained in 2005 increased over those seen in 1999. Man-hours of black bass angling increased from 37,774 man-hours in 1999 to 51,008 man-hours in 2005. The black bass catch rate increased from 0.66 fish/hr in 1999 to 0.76 fish/hr in 2005. The black bass harvest rate increased slightly from 0.07 fish/hr in 1999 to 0.10 fish/hr in 2005. An estimated 52,762 black bass were caught of which 49,336 (93%) were largemouth bass. Of the 49,336 largemouth caught, 5,909 largemouth bass weighing 10,821 pounds were harvested. The 1999 survey estimated 39,182 largemouth were caught and 4,305 largemouth weighing 6,088 pounds were harvested. Slight increases in both the mean length (14.9" in 2005 vs. 14.1" in 1999) and mean weight (1.73 lbs. in 2005 vs. 1.42 lbs. in 1999) of harvested largemouth bass were observed in 2005. Of the 49,336 largemouth bass caught in 2005, 33,206 (67.3%) were $\geq$ 12.0 inches and 6,730 (13.6%) were $\geq$ 15 inches. Of the total 1999 catch of 39,182 largemouth bass 24,724 (63.1%) were $\geq$ 12.0 inches and 3,787 (9.7%) were $\geq$ 15.0 inches. Results of the 2005 survey estimated that 1,736 (29.4%) of the largemouth bass harvested were < 15.0 inches (15-1 creel limit) while in 1999 that estimate was 2,744 (63.7%). The Rough River Lake SMP objectives for largemouth bass states that at least 20,000 largemouth bass $\geq$ 12.0 inches be caught annually and at the rate of .20 fish/hour by bass anglers and that at least 1,500 largemouth bass $\geq$ 15.0 inches be caught. All of these objectives were exceeded with 27,561 largemouth bass $\geq$ 12.0 inches being caught at the rate of .54 fish/hour by bass anglers and a total of 6,730 bass over 15.0 inches being caught.

As opposed to black bass, most crappie pressure and catch/harvest statistics decreased in 2005, due in part to the late start date of the survey. There was a 12,200 man-hour decrease in crappie pressure (41,186 man-hours in 1999 vs. 28,915 man-hours in 2005) and a 21,400 fish decrease in the number of crappie caught (80,656 in 1999 vs. 59,590 in 2005). During March 1999 angler pressure was 6,800 man-hours and 12,000 crappie were caught. The number of white crappie harvested in 2005 (19,841) also decreased from 1999 (28,755 crappie harvested). The rate at which crappie were harvested (0.77 fish/hr) was identical for both 1999 and 2005. The 11,032 pounds of white crappie harvested in 2005 was a decrease from the 12,628 pounds harvested in 1999. The mean length of crappie harvested increased (10.4 inches in 2005 vs. 9.8 inches in 1999) as did the mean weight of harvested crappie (0.53 lbs. in 2005 vs. 0.42 lbs. in 1999). In 2005, 15,430 (78%) of the harvested white crappie were > 10.0 while in 1999, 20,171 (70%) of the white crappie harvested were > 10.0 inches. Rough River Lake SMP objectives for crappie management state that at least 4.5 lbs./acre be harvested annually at the harvest rate of at least 1 fish/hour by crappie anglers. Neither of these objectives were met with 2.87 lbs. of crappie harvested per acre at the harvest rate of 0.77 fish/hour.

With the exception of the total number caught, which was 9,062 in 1999 and 6,048 in 2005, the creel statistics for hybrid striped bass improved. These increases are expected since Rough River Lake was initially stocked with hybrids in 1995 and only 2-year classes of fish would have been available for harvest in 1999. Angling pressure increased from 6,823 man-hours in 1999 to 19,643 man-hours in 2005. The dramatic increase in pressure and decrease in total catch led to a decrease in the catch rate from 1.33 fish/hr in 1999 to 0.31 fish/hr in 2005. Although the catch rate decreased the harvest rate increased from 0.07 fish/hr in 1999 to 0.15 fish/hr in 2005 more than likely due to the larger number of legal fish in the population. The number of hybrid striped bass harvested increased from 1,073 in 1999 to 3,086 in 2005.

Mean length of harvested hybrid striped bass also increased (16.3 inches in 1999 vs. 18.1 inches in 2005) as did mean weight of harvested hybrids (2.19 lbs. in 1999 vs. 3.08 lbs. in 2005). The Rough River Lake SMP objectives for the management of hybrid striped bass state that at least 2.0 lbs./acre be harvested at the rate of 0.25 fish/hr by intent. The first objective was nearly met with 1.94 lbs./acre harvested, but they were harvested at a rate of 0.15 fish/hr so the second objective was not met.

An angler attitude survey was conducted in conjunction with the creel survey. The survey questionnaire and responses are as follows:

ROUGH RIVER LAKE ANGLER ATTITUDE SURVEY 2005 (52 Respondents)

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 Rough River Lake? **(check all that apply)**
Bass **65%** Crappie **77%** Channel Catfish **21%** Flathead Catfish **6%** Other: Hybrid Striped Bass **19%** Bluegill **15%**

4. Which one species do you fish for most at Rough River Lake? **(check only one)**
Bass **44%** Crappie **44%** Channel Catfish **4%** Flathead Catfish **0%** Hybrid Striped Bass **6%** Panfish **2%**

-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 Rough River Lake?
Very satisfied **20%** Somewhat satisfied **45%** Neutral **25%** Somewhat dissatisfied **10%** Very dissatisfied **0%**

6. Do you support or oppose the 15 inch 1 fish under limit on largemouth bass at the lake? Support **81%** Oppose **19%** No opinion **0%**

6a. What size limit would you prefer on largemouth bass at the lake? Current (15" 1 fish under) **63%** Straight 15" **17%** 18" **15%** Other **5%**

6b. If it is determined that too many small bass are being harvested with the 15-1 size limit, would you support a straight 15" size limit? Support **71%** Oppose **26%** No opinion **3%**

Crappie Anglers

7. What level of satisfaction do you have with crappie fishing at Rough River Lake?
Very satisfied **27%** Somewhat satisfied **38%** Neutral **22%** Somewhat dissatisfied **8%** Very dissatisfied **5%**

8. Do you support or oppose the 9-inch size limit on crappie at the lake? Support **92%** Oppose **8%** No opinion **0%**

8a. What size limit would you prefer? No size limit **3%** 8" **3%** Current (9") **77%** 10" **19%** Other **0%**

9. Do you support or oppose the 30 fish creel limit on crappie at the lake? Support **92%** Oppose **8%** No opinion **0%**

9a. What creel limit would you prefer? Current (30) **76%** 20 **21%** 15 **3%** 10 **0%** Other **0%**

Catfish Anglers

10. What level of satisfaction do you have with the channel catfish fishing at Rough River Lake?
Very satisfied **23%** Somewhat satisfied **59%** Neutral **12%** Somewhat dissatisfied **6%** Very dissatisfied **0%**

11. Do you support or oppose the no size limit regulation on channel catfish at the lake? Support **88%** Oppose **6%** No Opinion **6%**

11a. What size limit would you prefer on channel catfish at the lake? Current (none) **76%** 12" **18%** 14" **6%** Other **0%**

12. Do you support or oppose the no creel limit regulation on channel catfish at the lake? Support **75%** Oppose **6%** No opinion **19%**

12a. What creel limit would you prefer on channel catfish at the lake? Current (none) **80%** 5 **0%** 15 **13%** 30 **7%** Other **7%**

13. What level of satisfaction do you have with the flathead catfish fishing at Rough River Lake?
Very satisfied **14%** Somewhat satisfied **36%** Neutral **43%** Somewhat dissatisfied **7%** Very dissatisfied **0%**

14. Do you support or oppose the no size limit regulation on flathead catfish at the lake? Support **80%** Oppose **7%** No Opinion **13%**

14a. What size limit would you prefer on flathead catfish at the lake? Current (none) **92%** 20" **0%** Other **15" 8%**

15. Do you support or oppose the no creel limit regulation on flathead catfish at the lake? Support **67%** Oppose **7%** No Opinion **27%**

15a. What creel limit would you prefer on flathead catfish at the lake? Current (none) **92%** 5 **8%** 15 **8%** 30 **0%** Other **0%**

16. How many times per year do you fish for catfish at Rough River Lake?
1-5 times per year **44%** More than 5 times per year **50%** Other (list) **6%**

17. Which catfish species do you prefer to fish for at Rough River Lake?
Channel catfish **88%** Flathead catfish **12%**

18. Check **all** methods that you use to catch catfish at Rough River Lake
Rod and reel **78%** Trotlines **0%** Limblines **0%** Jugfishing **19%** Tickling and Noodling (hand grabbing) **0%**

ROUGH RIVER LAKE ANGLER ATTITUDE SURVEY 2005 (52 Respondents) cont.

19. Which method do you **most often use** to catch catfish at Rough River Lake?
Rod and reel **81%** Trotlines **0%** Limblines **0%** Jugfishing **19%** Tickling and Noodling (hand grabbing) **0%**

20. Tickling and Noodling is a method of harvesting catfish by handgrabbing or hooking catfish from underwater spawning cavities. Are you in favor of this method of harvesting catfish?
yes **(go to question 21)** **18%** no **(go to questions 20a and 20b)** **47%** No opinion **(go to question 20a and 20b)** **35%**

20a. Why are you not in favor of tickling and noodling as a method of harvesting catfish?
to many catfish harvested **10%** it targets fish that are spawning **30%** catfish may be injured and escape to die later **30%**
just do not like it **10%** Other (please list) **20%**

20b. If hooks and gaffs were made illegal and only hand grabbing or roping were legal for tickling and noodling, would you be in favor of this method? Yes **31%** No **69%**

21. Commercial fisherman can legally harvest rough fish, including catfish from Rough River Lake. Do you support or oppose commercial fishing at Rough River Lake.
Strongly support **0%** Support **8%** Neutral **8%** Oppose **33%** Strongly oppose **50%**

Black Bass Sampling

Spring electrofishing for black bass population indices was conducted during April 2005 (Tables 22-27). A total of 578 black bass were collected during 4.5 hours of electrofishing of which 513 (89%) were largemouth bass. The CPUE of largemouth bass under 12.0 inches is similar to that collected for the last several years. The catch rate for fish over 12.0 inches increased in 2005 to values higher than have been obtained the last several years resulting in a total largemouth bass CPUE higher than has been seen since at least 1999. The increased catch rate of larger fish increased the overall largemouth bass population assessment score from 12 in 1999 to 15 in 2005, both of which result in a "good" rating. Age data for analysis was collected in 2004. Fall electrofishing for Wr's and for mean length and CPUE of age 0 fish was conducted in September. Condition factors for all size ranges of largemouth bass are at acceptable levels (Table 8). The length-weight equation for Rough River Lake largemouth bass equals Log W= -3.52 + 3.15(LogL). Annual mortality was estimated at 53.19% and instantaneous mortality at 0.759. Table 28 lists results for each inch class collected during fall sampling. Table 29 gives indices of year class strength for age 0 and age 1 largemouth bass at Rough River Lake. Largemouth bass SMP management objectives are population densities of $\geq$ 50 bass/hour for 8.0-11.9 inch fish, $\geq$ 25 bass/hour for 12.0-14.9 inch fish, and $\geq$ 10 bass/hour for $\geq$ 15 inch bass collected during spring electrofishing. The objective for 8-11.9 inch fish was not met and should be adjusted lower to better "fit" Rough River Lake. Both of the last two objectives were exceeded with 38.89 fish/hour for 12-14.9 inch bass and 14.22 fish/hour for largemouth over 15 inches.

Crappie Sampling

Fall trap netting to assess Rough River Lake's crappie population was conducted during October 2005. A total of 744 white crappie (75%) and 243 black crappie (25%) were collected during 80 net days of netting (Table 30). With the exception of age 0 fish, catch rates for all size groups of crappie decreased from 2004 values, but are in line with data collected over the last several years (Table 31). Catch rates collected in 2004 were also a decrease from 2003, however 2003 was an exceptional year with catch rates (especially of larger fish) much higher than any collected since at least 1998. Table 32 gives PSD and RSD values for white and black crappie. Age data used in calculations was collected in 2004. The length weight equation for white crappie is LogW=-3.70 + 3.36 (Log L). Annual mortality was determined to be 58% and instantaneous mortality to be 0.869. Age frequencies (Table 33) indicate a dominant age 0 population. Annual mortality of yearly cohorts is provided in Table 34. Population assessment values and scores for 2005 are presented in Table 35. White crappie management objective 3 states that the white crappie population density should be at least 9 fish > 8.0 in/net night, objective 4 states that at least 40% of the population be age 2 or older, and objective 5 requires a growth rate of at least 9.0 inches of age 2+ fish at capture. Objectives 3 and 4 were not met with only 3.25 crappie 8.0 inches or greater captured per net night and only 12.6% of the population age 2 or older. These values should improve over the next couple of years as the abundant age 0 and age 1year classes increase in age and length. Objective 5 was met as age 2+ fish at capture averaged 10.4 inches in length (2004 data).

Lake Malone

Largemouth Bass Sampling

Lake Malone was electrofished for largemouth bass population composition in April 2005 (Table 36). Slight increases in CPUE were noted for all size groups when compared with 2004 data, but otherwise the data is very similar (Tables 37 and 38). The largemouth bass at Lake Malone continue to exhibit excellent population characteristics as it has since 2002. CPUE of 15 inch and larger and 20 inch and larger fish increased from the 1990's until 2002 and 2003, presumably due to the 12"-15" protective slot limit initiated in 1996, but now seem to have stabilized. PSD values and RSD15 values remain at high levels (Table 39). Tables 40 and 41 examine CPUE by age group and mortality by age group of largemouth bass at Lake Malone. Largemouth bass instantaneous mortality was 0.387 and annual mortality was 32%.

Fall electrofishing was conducted during October to determine length frequency and CPUE of age 0 largemouth bass. Due to equipment problems and time constraints, only two of the normal five 30-minute runs were able to be completed.

Table 42 provides length frequency data and Table 43 provides CPUE and mean length of age 0 fish at capture. This data will be used to track year class strength and growth through time. Management objectives for largemouth bass at Lake Malone are a population density of 50 bass/hour for 8.0-11.9 inch bass, 60 bass/hour for 12.0-14.9 inch bass, and 15 bass/hour for bass greater than 15 inches. Objectives for the intermediate bass were not met and may need to be adjusted to better fit Lake Malone's population dynamics. The other objectives were exceeded.

Bluegill/Redear Sunfish Sampling

Bluegill and redear sunfish were sampled by electrofishing in June 2005 (Table 44). Catch rates for bluegill under 6 inches increased while catch rates for bluegill over 6 inches decreased from 2004 observations (Table 45). Catch rates for the smaller fish are slightly higher than those observed since 1999. The increased catch rate for bluegill 6-8 inches in 2004 was encouraging; however it decreased again in 2005 and is similar to data collected since 1999. Length-frequency data as well as PSD and RSD values (Table 46) reflect a population dominated by smaller bluegill. CPUE by age group is presented in Table 47. The overall population assessment for bluegill is fair, similar to assessments for previous years (Table 48). Bluegill management objectives at Lake Malone call for electrofishing CPUE to be $\geq$ 72 fish 3.0-5.9 inches, $\geq$ 48 for bluegill greater than 6.0 inches and at least 5 fish/hour for 8.0 inch and larger bluegill. The first objective was easily met, the second objective was nearly met, but the objective for large bluegill has not been met for several years. Redear sunfish were not assessed due to the small number sampled.

Mauzy Lake

A 50 ft. x 50 ft. "T" shaped floating fishing pier was installed in Mauzy during May. During June, 15 "sea urchin" PVC fish attractors were placed around the pier. Gravel spawning beds were placed around the pier prior to the lake filling following a 2003 drawdown for renovation. Cedar tree brush attractors will also be placed around the pier in the spring of 2006.

Largemouth Bass Sampling

Largemouth bass were electrofished for population analysis during April 2005. This is the first sample conducted with the lake at pool since 2002. The 2003 sample was conducted as the lake was being drawn down for renovations and the 2004 sample prior to the lake refilling completely.

Table 49 contains length frequency and CPUE data and shows a fairly balanced population. During the 1990's the bass population was characterized as slow growing with an abundance of 8-11 inch fish. The lower number of 8-11 inch fish collected (possibly due to predation and competition from crowding during the drawdown) and higher number of 12-15 inch fish collected during 2005 offer some encouragement this trend may be reversing. A couple more years of collections at stable water levels will be needed to fully assess improvements. Table 50 provides CPUE data for size groups and Table 51 for age groups over the past several years. PSD and RSD values are presented in Table 39 and age-frequency data in Table 52. Age and growth data for calculations was collected in 2004. Population assessment values for largemouth bass are shown in Table 53 and further indicate population improvements.

Bluegill/redear sunfish sampling

Mauzy Lake was sampled for bluegill in May 2005 (Table 54). A dramatic increase in the number of bluegill under 6 inches and decease in the number of bluegill over 6 inches was observed in 2005 (Table 55). This could be due in part to poor spawning success and/or increased harvest efficiency during the drawdown. Further sampling will also be necessary to fully assess bluegill population trends. PSD and RSD values are contained in Table 56 and age-growth information in Table 57. Bluegill population assessments for the last several years (Table 58) also reflect the decrease in larger size fish and lead to a "fair" population rating in 2005. Redear sunfish have been stocked in Mauzy the last two years, but have not been collected during electrofishing surveys.

Carpenter Lake

Largemouth Bass

Carpenter Lake was electrofished for largemouth bass population composition in April 2005. Length-frequency and CPUE data are presented in Table 59 and CPUE by size group for the last several years in Table 60. The catch rate for bass 12 inches and under has increased steadily over the last 4-5 years. The catch rate for bass 13 inches and over has decreased slightly the last couple of years and dropped dramatically in 2005. This trend will be closely monitored over the next couple of years to determine if the population is moving toward an over abundance of sublegal fish or if the decrease in the number of larger fish is due to sampling variability or harvest. Electrofishing CPUE per age class is presented in Table 61 and a comparison of population assessments for the last 7 years in Table 62, both of which reflect the decrease in older and larger fish. Mortality among age classes is contained in Table 63 and PSD and RSD values in Table 39. Largemouth bass management objectives at Carpenter Lake state that at least 60 bass from 8.0-11.9 inches, 30 bass from 12.0-14.9 inches and 8 bass 15 inches or larger be collected per hour of electrofishing. Objectives 1 and 2 were met while objective 3 was not (Table 60).

Bluegill and redear sunfish sampling

Electrofishing for bluegill and redear sunfish parameters was conducted in May 2005 at Carpenter Lake (Table 64). Although a substantial increase in catch rate was observed in most size classes of bluegill in 2005, sampling results over the last several years have been highly variable (Table 65) with no clear trends evident. This is probably due as much to sampling inefficiencies as it is to any actual population fluctuations. The PSD and RSD8 values for bluegill were 38 and 6, respectively (Table 66). Table 67 compares electrofishing catch rates for each age class of bluegill. The overall population assessment for bluegill was excellent (Table 68). Bluegill management objectives at Carpenter Lake require 200 fish/hour for 3-5.9 inch fish, 120 fish/hour for 6-7.9 inch fish and 20 fish/hour for fish $\geq$ 8.0 inches. Although none of these objectives were met, all were fairly close. Redear sunfish were not collected in sufficient numbers for assessment.

Kingfisher Lake

Largemouth Bass

Electrofishing for largemouth bass population assessment was conducted at Kingfisher Lake during April 2005. For approximately the last 10 years Kingfisher Lake's bass population has been dominated by slow growing sublegal fish. Age and growth determinations in 2003 revealed age 5 bass were less than 12.0 inches. Annual removal and relocation of 250-500 sublegal bass has taken place for several years in an effort to reduce competition and increase growth. Although there was an increase in the CPUE for all size ranges of largemouth bass in 2005, a moderate increase in the catch rate of 12 inch and larger bass was finally observed. Additional removal of sublegal bass and population monitoring should encourage this trend to continue. Length frequency and CPUE data are given in Table 69 and PSD and RSD15 are given in Table 39. CPUE trends over the past several years for selected size ranges are given in Table 70. Table 71 gives CPUE for each age class over the past four years. Annual mortality of cohort is listed in Table 72. Table 73 tracks population assessments over the past several years. The shortage of larger sized fish in Kingfisher is the primary causative agent in low assessment scores.

Bluegill sampling

Bluegill were sampled at Kingfisher Lake in May 2005. Length frequency and CPUE are listed in Table 74 and CPUE by inch groups are compared in Table 75 for the last several years. The catch rate of bluegill under 6 inches has been erratic. Catch rates of bluegill between 6 and 8 inches have declined since 2003, while the catch rate of 8 inch fish and larger have remained fairly steady, but with a slight increase in 2005. The PSD and RSD value are contained in Table 76. CPUE for each age class of bluegill collected over the past four years is listed in Table 77. Table 78 tracks population assessments over the past several years.

Kingfisher Lakes have good growth rates but are low in overall population numbers, especially the larger sized fish. This is a heavily fished small lake near a metropolitan center (Owensboro), which partially explains this situation.

Washburn Lake

Washburn Lake was renovated and restocked with largemouth bass, bluegill, redear sunfish, and channel catfish in 2000. Population assessments are limited due to the age of fishes present. Age and growth data collected in 2004 revealed a slow growing bass population and a fertilizer program was initiated in 2004 to help correct this.

Largemouth bass sampling

Largemouth bass were sampled in April 2005. Table 79 gives length frequency and CPUE for collected fish and the 2005 sample is the first one where any bass over 12 inches have been collected since restocking in 2000. Table 80 provides CPUE for selected size groups of largemouth bass but is limited by the age of bass available in the lake. The collection of 12 inch and larger bass in 2005 (primarily the collection of one 21 inch bass) pushed the population assessment into the good category (Table 81).

Bluegill and redear sunfish sampling

Bluegill were collected during electrofishing in May (Table 82). PSD and RSD information is contained in Table 83. CPUE by inch class is compared for the previous five years in Table 84. The catch rate of bluegill over 6 inches decreased from 2004, especially those greater than 8 inches, and reduced the population assessment to the poor category (Table 85). This decline could be due in part to sampling variability, but the lake also received substantial bluegill angling pressure. Additional monitoring will be necessary to detect population trends. No redear sunfish were observed.

Peabody WMA

Clear water and high conductivity make electrofishing ineffective at most Peabody WMA lakes. In an effort to assess the fish population of these lakes SCUBA transect surveys were initiated in 2005. A SCUBA diver swam for 30 minutes parallel to the shoreline at the 10-ft depth contour and recorded the species, number, and size group of each fish observed. Data for Goose Lake and Island Lake are presented in Tables 86 and 87 respectively.

Table 1. Species composition, relative abundance, and CPUE (no./hour) of black bass collected during 4.5 hours of 30-minute diurnal electrofishing runs at Nolin River Lake in April 2005.

		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		2	6	6	25	45	11	12	26	29	37	20	16	9	10	6	3	8		272	108.80	11.00
	Spotted bass			1		1	3	4	3	7	5	1									25	10.00	3.16
Lower	Largemouth bass		2	8	5	13	10	9	10	13	12	16	17	8	6	8	8	1	3	1	150	75.00	14.01
	Spotted bass																				41	20.50	5.97
Total	Largemouth bass		4	14	11	38	55	20	22	39	41	53	37	24	15	18	14	4	11	1	422	93.78	10.08
	Spotted bass			1		7	9	8	11	16	8	5		1							66	14.67	3.48

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Table 2. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Nolin River Lake during April 2005; 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8.0"	PSD (+/- 95%)	RSD[a] (+/- 95%)
Upper	Largemouth bass	188	58 (+/- 7)	20 (+/- 6)
	Spotted bass	23	26 (+/- 18)	0
Lower	Largemouth bass	112	61 (+/- 9)	24 (+/- 8)
	Spotted bass	35	23 (+/- 13)	3 (+/- 5)
Total	Largemouth bass	300	59 (+/- 4)	21 (+/- 5)
	Spotted bass	58	24 (+/- 11)	2 (+/- 3)

[a] Largemouth bass = RSD-15, spotted bass = RSD-14.

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Table 3. Spring electrofishing CPUE for each size class of largemouth bass collected at Nolin River Lake during spring electrofishing 1999-2005. CPUE = fish/hour.

	Inch Class											
	<8.0		8.0-11.9		12.0-14.9		≥15.0		≥20.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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	0.5	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 4. Population assessment for largemouth bass based on spring electrofishing at Nolin River Lake from 1999-2005.

	Year													
	1999		2000		2001		2002		2003		2004		2005	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at age 3	13.09	4	13.09	4.00	13.09	4	13.09	4	13.09	4	13.09	4	13.09	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
Spring CPUE 12-14.9 in fish	56.89	4	41.50	4	18.00	2	8.00	1	8.89	1	16.22	2	25.33	3
Spring CPUE ≥ 15.0 inch fish	8.00	2	14.00	3	9.00	2	8.00	2	7.56	2	8.89	2	14.22	3
Spring CPUE ≥ 20.0 inch fish	0.44	2	0.50	2	0.00	0	0.00	0	0.00	0	0.22	2	0.44	2
Total score				14		9		8		8		12		14
Assessment rating				G		F		F		F		G		G

Table 5. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Nolin River Lake during April 2005.

	Year			
Age	2002	2003	2004	2005
1	3.78	11.33	22.89	26.22
2	8.33	9.64	14.82	23.38
3	8.90	9.08	16.35	27.24
4	1.59	1.57	1.86	3.57
5	0.73	0.82	0.97	1.60
6	1.78	2.44	2.44	3.11
7				
8				
9				
10				

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Table 6. Annual mortality (A) between 2004-2005, and CPUE (fish/hr) of the last five year classes estimated from largemouth bass captured in spring electrofishing samples at Nolin River Lake.

Year Class	Age Intervals	CPUE (2004)	CPUE (2005)	Mortality of Cohort (%)
2003	1+ - 2+	22.89	23.38	
2002	2+ - 3+	14.82	27.24	
2001	3+ - 4+	16.35	3.57	78
2000	4+ - 5+	1.86	1.60	14
1999	5+ - 6+	0.97	3.11	
1998	6+ - 7+	2.44	0.00	100

Table 7. Species composition, relative abundance, and CPUE (no./hour) of black bass collected during 4.5 hours of 30-minute diurnal electrofishing runs at Nolin River Lake in September 2005.

		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	29	138	29	20	56	63	21	20	44	37	31	21	13	7	5		1	1	1	537	214.80	72.68
	Spotted bass	3	34	8		8	2	2	4	12	12	3	1								89	35.60	9.00
Lower	Largemouth bass	10	10	10	16	11	7	12	7	5	11	4	8	5	2	1	2	1			122	61.00	8.89
	Spotted bass	6	26	2	10	15	16	5	6	5	7	3	3								105	52.50	2.63
Total	Largemouth bass	39	148	39	36	67	70	33	27	49	48	35	29	18	9	6	2	2	1	1	659	146.44	47.02
	Spotted bass	9	60	10	10	23	18	7	10	17	19	6	4								194	43.11	5.70

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Table 8. Number of fish and relative weight (Wr) for length groups of black bass collected in NWFD lakes during October 2005.

Species	Location	Siz Range 8.0-11.9 in No.	Wr	12.0-14.9 in No.	Wr	≥ 15.0 in No.	Wr
Largemouth Bass	Nolin River Lake						
	Upper	37	83.2 (0.8)	27	86.0 (1.1)	6	88.5 (2.5)
	Lower	35	85.0 (1.3)	17	83.0 (1.9)	6	88.9 (3.1)
	Total	72	84.1 (0.7)	44	84.9 (1.0)	12	88.7 (1.9)
	Rough River Lake						
	Upper	38	88.2 (1.3)	34	86.6 (1.6)	13	84.9 (6.5)
	Lower	31	86.4 (1.6)	12	89.8 (2.1)	18	91.6 (3.0)
	Total	69	87.4 (1.0)	46	87.4 (1.3)	31	88.8 (3.2)
	Lake Malone*						
	*Not sampled 05						
Spotted Bass		7-10.9 in		10.0-13.9 in		≥ 14.0	
	Nolin Lake						
	Upper	10	86.7 (2.6)	6	91.0 (1.9)	0	
	Lower	0		0		0	
	Total	10	86.7 (2.6)	6	91.0 (1.9)	0	
	Rough River Lake						
	Upper	1	93.2	1	88.4	2	81.6 (2.0)
	Lower	0		0		0	
	Total	1	93.2	1	88.4	2	81.6 (2.0)

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 RiverLake.

Year Class	Area	Age 0 Mean length	Std. error	Age 0 CPUE	Std. error	Age 0 > 5.0 CPUE	Std. Error	Age 1 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		

Table 10. Length frequency and CPUE for each specie of crappie collected in 80 net-nights of sampling at Nolin River Lake during October 2005.

	Inch class													
Species	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std. Error
White crappie	26	88	22	30	56	188	189	152	52	9	3	815	10.19	0.99
Black crappie	22	8	3	4	13	16	5	11	1			83	1.04	0.16

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Table 11. PSD and RSD values calculated for crappie collected in trap nets from Nolin River Lake during October 2005; 95% confidence limits are in parentheses.

Lake/Species	No.	PSD	RSD-10
Nolin River Lake			
White Crappie	701	85 (+/- 2)	31 (+/- 4)
Black Crappie	53	62 (+/-12)	23 (+/- 11)

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Table 12. Age-frequency and CPUE (no./net day) per inch class of white crappie trap netted for 80 net days at Nolin River Lake in October 2005. Numbers in parentheses are standard errors.

	Inch class													
Age	2	3	4	5	6	7	8	9	10	11	12	No.	CPUE (Std. Error)	Age (%)
0		26	88									114	1.42	14
1				22	26	44	148	52				291	3.64 0.41	36
2					4	12	27	103	106	22		275	3.44 0.41	34
3							13	34	30	30		108	1.35 0.17	13
4									15		5	20	0.25 0.04	2
7											4	5	0.06 0.02	1
Total		26	88	22	30	56	188	189	151	52	9	813		100
(%)		3	11	3	4	7	23	23	19	6	1			

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nwdnlcag.d04

Table 13. Annual mortality (A) estimates between 2004-2005, and CPUE (fish/hr) of the last five year classes of white crappie trap netted during October 2005 at Nolin River Lake.

Year Class	Age Intervals	CPUE (2004)	CPUE (2005)	Mortality of Cohort (%)
2003	1+ - 2+	4.15	3.44	17%
2002	2+ - 3+	3.07	1.35	56%
2001	3+ - 4+	1.16	0.25	79%
2000	4+ - 5+	0.16	0.06	63%
1999	5+ - 6+	0.02	0.00	100%

Table 14. Population assessment for white crappie trap netted at Nolin River Lake during October 2005.

Parameter	Actual Value	Assessment Score
Population density (CPUE age 1 fish and older)	8.76	2
Growth rate (Mean length of age 2+ fish at capture)	9.72	4
Size Structure (CPUE fish ≥ 8.0 in.)	7.41	3
Recruitment (CPUE of age 1 fish)	3.64	2
Recruitment (CPUE of age 0 fish)	1.42	1
Total Score		12
Assessment rating		F
Instantaneous mortality (Z)	0.749	
Annual mortality (A)	52.71%	

Table 15. Population assessment for white crappie based on fall trapnetting at Nolin River Lake from 1999-2005.

Parameter	Year											
	1999		2001		2002		2003		2004		2005	
	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
CPUE of age 1	4.85	2	4.82	2	10.02	3	8.00	3	4.15	2	3.64	2
CPUE of age 0	0.18	1	2.62	1	4.26	2	2.04	1	5.09	2	1.42	1
CPUE of crappie ≥ 8.0 in.	5.55	3	3.87	2	8.78	3	8.65	3	6.93	3	7.41	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
Total score		12		10		13		14		13		12
Assessment rating		F		F		G		G		G		F

Table 16. Fishery statistics derived from a creel survey at Rough River Lake (5,100 acres) from April 2 through October 30 2005.

Fishing trips		
No. of fishing trips (per acre)	35,293	(6.92)
Fishing pressure		
Total man-hours (S.E.)[a]	147,472	(3,996.55)
Man-hours/acre	28.92	
Catch/harvest		
No. of fish caught (S.E.)	220,423	(19,062.71)
No. of fish harvested (S.E.)	59,590	(6,328.44)
Lb of fish harvested	41,903	
Harvest rates		
Fish/hour	0.41	
Fish/acre	11.68	
Lb/acre	8.22	
Catch rates		
Fish/hour	1.47	
Fish/acre	43.22	
Miscellaneous characteristics (%)		
Male	82.45	
Female	17.55	
Resident	91.52	
Non-resident	8.48	
Method (%)		
Still fishing	7.86	
Casting	86.87	
Fly fishing		
Trolling	5.23	
Mode (%)		
Boat	83.33	
Bank	8.68	
Dock	7.99	

t < 0.5%

[a]S.E. = standard error

Table 17. Fish harvest statistics derived from a creel survey at Rough River Lake (5,100 acres) during 2 April through 30 October 2005.

	Carp	Flathead catfish	Channel catfish	Green Sunfish	Drum	Warmouth	Bluegill	Longear sunfish	Spotted Bass	Largemouth bass	White crappie	Black crappie	Hybrid Rockfish	Gar	Black bass group	Catfish group	Panfish group	Anything group
No. caught	312.10	237.34	1637.96	9943.27	457.72	399.58	91216.93	50.74	3426.25	49335.60	49000.73	7604.84	6048.09	55.63	52,761.85	1,875.31	102,059.82	
(per acre)	0.06	0.05	0.32	1.95	0.09	0.08	17.89	0.01	0.67	9.67	9.61	1.49	1.19	0.01	10.35	0.37	20.01	
No. harvested	39.16	216.37	1131.20	1509.81	75.69	39.16	21098.15	16.91	897.78	5908.70	19841.06	5483.18	3086.04		6,806.48	1,347.57	22,664.04	
(per acre)	0.01	0.04	0.22	0.30	0.01	0.01	4.14	t	0.18	1.16	3.89	1.08	0.61		1.33	0.26	4.44	
% of total no. harvested	0.07	0.36	1.90	2.53	0.13	0.07	35.41	0.03	1.51	9.92	33.30	9.20	5.18		11.42	2.26	38.03	
Lb harvested	62.70	790.70	1945.20	44.10	143.50	2.90	2368.70	1.30	1085.20	10821.20	11032.30	3809.10	9894.30		11,906.40	2,735.90	2,417.00	
(per acre)	0.01	0.16	0.38	0.01	0.03	t	0.46	t	0.21	2.12	2.16	0.71	1.94		2.33	0.54	0.47	
% of total lb harvested	0.15	1.89	4.64	0.11	0.34	0.01	5.65	t	2.59	25.82	26.33	8.61	23.61		28.41	6.53	5.77	
Mean length (in)	15.00	18.90	17.55	3.53	17.50	4.50	5.64	5.00	12.98	14.95	10.41	10.52	18.15					
Mean weight (lb)	1.69	3.38	1.78	0.03	2.27	0.08	0.12	0.08	0.97	1.73	0.53	0.64	3.08					
No. of fishing trips for that species													4701.21		12,207.57	851.85	4,017.24	6,569.08
% of all trips													13.33		34.61	2.42	11.39	18.63
Hours fished for that species													19643.61		51,008.86	3,559.44	16,785.86	27,448.66
(per acre)													3.85		10.00	0.70	3.30	5.38
No. harvested fishing for that species													2579.00		5,748.00	679.00	14,392.00	
Lb harvested fishing for that species													8544.30		10,484.90	1,475.60	1,575.10	
No./hour harvested fishing for that species													0.15		0.10	0.14	1.02	
% success fishing for that species													17.69		18.14	25.00	30.16	14.42

Table 17 Continued.

	Crappie group	Illegal black crappie	illegal white crappie	illegal hybrid rockfish	illegal bass
No. caught (per acre)	56,605.57 11.10	33.83 0.01	164.47 0.03	13.68 t	34.65 0.01
No. harvested (per acre)	25,324.24 4.97	33.83 0.01	164.47 0.03	13.68 t	34.65 0.01
% of total no. harvested	42.50	0.06	0.28	0.02	0.06
Lb harvested (per acre)	14,641.40 2.87	7.20 t	41.70 0.01	11.80 t	41.10 0.01
% of total lb harvested	34.94	0.02	0.10	0.03	0.10
Mean length (in)		8.00	8.00	12.00	13.00
Mean weight (lb)		0.21	0.25	0.86	1.13
No. of fishing trips for that species	6,920.47				
% of all trips	19.62				
Hours fished for that species (per acre)	28,916.90 5.67				
No. harvested fishing for that species	24,006.00				
Lb harvested fishing for that species	13,847.80				
No./hour harvested fishing for that species	0.77				
% success fishing for that species	52.11				

Table 18. Length distribution for each species of fish harvested or released at Rough River Lake (5,100 a) during 2 April - 30 October 2005.

Species	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	30
Carp																											
Harvested												20				19											
Sublegal													19		19		39	19	19		39	39	19		61		
Drum																											
Harvested												15	15	15			15		16								
Sublegal							19	19	57	19		19		38	38	76	57		19		21						
Gar																											
Harvested																											
Sublegal																								19	19	18	
Green sunfish																											
Harvested		887	623																								
Sublegal	573	5273	2074	474	39																						
Channel catfish																											
Harvested						21		21		63	105	42	147	42	84	63	63	84	84	84	105	63	42	18			
Sublegal					18	36	36	54	54	18	36	18	54	18	36	36	36		18		18				21		
Flathead Catfish																											
Harvested								22						22		22		22		22		43	22	22			19
Sublegal														21													
White crappie																											
Released								1,239	221	85	17		68														
Harvested								4,411	8,860	2,364	2,457	1247	391	111													
Sublegal		20	514	338	2,176	2,532	21,952																				
Black Crappie																											
Released								31																			
Harvested								1,324	1,809	1,287	578	298	149	38													
Sublegal				19	285	513	1,274																				
Warmouth																											
Harvested		20			19																						
Sublegal		212	190	191	169	20																					
Bluegill																											
Harvested		202	1,377	7,330	9,982	2,106	101																				
Sublegal	145	3853	22,392	37,970	5,096	601	62																				
Longear sunfish																											
Harvested				17																							
Sublegal					34																						

Table 18 continued.

Species	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	30
Largemouth bass																											
Harvested										117	468	527	624	1794	995	936	234	137	77								
Released												36	54	1,044	756	414	252	54	37								
Sublegal							2,883	1,216	7,983	3,923	17,222	3,825	3,728														
Spotted Bass																											
Harvested								21			42	125	313	251	104	42											
Sublegal							459	381	477	257	459	257	202	18		19											
Hybrid Striped Bass																											
Harvested														373	354	649	432	413	256	236	216	118	39				
Released														311	233	194	155	97	117	39	58	20					
Sublegal		36	18		107	107	179	72	215	125	269	233	377														
Redear																											
Harvested																											
Sublegal			27																								
Illegal Blk Crappie																											
Harvested							34																				
Illegal Wh Crappie																											
Harvested							164																				
Illegal Hyb Striped Bass																											
Harvested											14																
Illegal Bass																											
Harvested											17		18														

Table 19. Monthly black bass angling success at Rough River Lake (5,100 a) from 2 April - 30 Oct. 2005 creel survey period; data does not include bass <8.0 inches that were caught and released.

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
Apr	3,315.10	575.07	1,250.07	5,223.35	2,386	0.52	440	0.10
May	9,793.15	875.36	2,148.47	8,977.30	8,549	0.77	766	0.07
Jun	5,034.35	398.55	1,131.00	4,725.85	2,475	0.50	231	0.05
Jul	6,007.46	1,134.74	1,622.06	6,777.71	4,360	0.45	1,068	0.11
Aug	5,154.97	156.21	1,118.54	4,673.76	3,347	0.56	45	0.01
Sep	8,868.83	1,026.62	2,789.94	11,657.64	8,754	0.74	969	0.08
Oct	14,587.99	2,639.92	2,147.50	8,973.25	13,747	1.39	2,229	0.23
Total	52,761.85	6,806.48	12,207.57	51,008.86	43,618		5,748	
Mean						0.76		0.10

Table 20. Black bass catch and harvest statistics derived from a creel survey at Rough River Lake (5,100 a) from 2 Apri - 30 October 2005 for each species of black bass.

	Largemouth bass						Spotted bass			
	Harvest			Catch and release				Catch and release		
	<15.0	≥15.0	Total	8.0-14.9	≥15.0	Total	Harvest	8.0-14.9	>15.0	Total
Total no. of bass	1,736	4,173	5,909	24,865	2,557	27,422	898	918	37	955
% of black bass harvested by no.			86.81							13.19
Total weight of fish (lb)			10,821.20							2,472.80
% of bass harvested by weight			90.89							9.11
Mean length			14.95							12.98
Mean weight			1.73							0.97
Rate (f/hr)			0.12							0.02

Table 21. Monthly hybrid striped bass angling success at Rough River Lake (5,100 a) from 2 April - 30 Oct.2005.

Month	Total number of hybrid striped bass caught	Total no. of hybrid striped bass harvested	No. of hybrid striped bass fishing trips	Hours fished by hybrid striped bass anglers	Hybrid striped bass caught by hybrid striped bass anglers	Hybrid striped bass caught/hour by hybrid striped bass anglers	Hybrid striped bass harvested by hybrid striped bass anglers	Hybrid striped bass harvested/hour by hybrid striped bass anglers
Apr	422.84	169.14	40.99	171.26	203.00	1.33	135.00	0.89
May	1,217.30	492.39	424.50	1,773.74	575.00	0.31	301.00	0.16
Jun	1,866.91	797.11	1,587.55	6,633.53	1,427.00	0.26	671.00	0.12
Jul	1,001.24	556.25	1,219.34	5,094.97	779.00	0.19	445.00	0.11
Aug	1,539.80	1,071.16	1,353.43	5,655.24	1,384.00	0.26	1,027.00	0.20
Sep	0.00							
Oct	0.00							
Total	6,048.09	3,086.04	4,701.21	19,643.81	4,368.00		2,579.00	
Mean						0.26		0.15

Table 22. Species composition, relative abundance, and CPUE (no./hour) of black bass collected during 4.5 hours of 30-minute diurnal electrofishing runs at Rough River Lake in April 2005.

		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		3	2	13	33	32	14	9	16	26	27	42	24	7	6	6		5	2	267	106.80	14.60
	Spotted bass			2		1		1	1	2	2		1	2							12	4.80	2.06
Lower	Largemouth bass		1	13	4	10	10	13	21	25	29	24	29	29	15	13	6	2	1	1	246	123.00	27.05
	Spotted bass		1	1	1	1	9	16	5	4	7	7		1							53	26.50	4.50
Total	Largemouth bass		4	15	17	43	42	27	30	41	55	51	71	53	22	19	12	2	6	3	513	114.00	13.76
	Spotted bass		1	3	1	2	9	17	6	6	9	7	1	3							65	14.44	4.37

nwdrrpsd.d05

Table 23. Spring electrofishing CPUE for each size class of largemouth bass collected at River River Lake during April 2005. CPUE = fish/hour.

	Inch Class											
	<8.0		8.0-11.9		12.0-14.9		≥15.0		≥ 20.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2005	26.89	6.15	34.00	7.60	38.89	5.15	14.22	2.48	0.67	0.33	229.80	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

Table 24. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Rough River Lake during April 2005; 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8.0"	PSD (+/- 95%)	RSD[a] (+/- 95%)
Upper	Largemouth bass	184	65 (+/- 7)	14 (+/- 5)
	Spotted bass	9	55 (+/- 34)	22 (+/- 29)
Lower	Largemouth bass	208	58 (+/- 7)	18 (+/- 5)
	Spotted bass	49	31 (+/-12)	2 (+/- 4)
Total	Largemouth bass	392	61 (+/- 5)	16 (+/- 3)
	Spotted bass	58	34 (+/- 12)	5 (+/- 6)

[a] Largemouth bass = RSD-15, spotted bass = RSD-14.
nwrrlpsd.d05

Table 25. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Rough River Lake during spring samples 2002- 2005.

	Year			
Age	2002	2003	2004	2005
1	7.93	44.30	32.82	28.04
2	6.19	25.63	34.10	34.65
3	2.33	11.40	12.00	32.94
4	0.22	8.00	5.75	12.33
5	0.00	0.00	1.01	1.14
6	0.00	0.00	2.31	2.44
7	0.00	0.00	0.89	0.44

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

Table 26. Annual mortality (A) between 2004-2005, and CPUE (fish/hr) of the last five year classes estimated from largemouth bass captured in spring electrofishing samples at Rough River Lake.

Year Class	Age Intervals	CPUE (2004)	CPUE (2005)	Mortality of Cohort (%)
2003	1+ - 2+	32.82	34.65	
2002	2+ - 3+	34.10	32.94	4%
2001	3+ - 4+	12.00	12.33	
2000	4+ - 5+	5.75	1.14	80%
1999	5+ - 6+	1.01	2.44	
1998	6+ - 7+	2.31	0.44	81%
1997	7+ - 8+	0.89	0.00	100%

Table 27. Population assessment for largemouth bass based on spring electrofishing at Rough River Lake from 1999-2005.

Parameter	Year													
	1999		2000		2001		2002		2003		2004		2005	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at 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
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
Spring CPUE 12-14.9 in fish	21.33	2	21.78	2	16.44	2	2.00	1	20.00	2	12.89	1	38.89	4
Spring CPUE ≥ 15.0 inch fish	8.89	2	5.33	2	3.11	1	1.56	1	18.4	3	9.78	2	14.22	3
Spring CPUE ≥ 20.0 inch fish	0.44	2	1.78	2	0.00	1	0.00	1	0.67	2	0.22	2	0.67	2
Total score		11		12		10		8		14		12		15
Assessment rating		F		G		F		F		G		G		G

Table 28. Species composition, relative abundance, and CPUE (no./hour) of black bass collected during 4.5 hours of 30-minute diurnal electrofishing runs at Rough River Lake in September 2005.

Area	Species	Inch class																			Total	CPUE	Std. Error
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Upper	Largemouth bass	52	102	15	17	24	36	16	13	21	27	20	22	9	7	3	4	1	3		392	156.80	9.60
	Spotted bass	3	28	1		1	1		2	1	1	3	1	1	1						44	17.60	8.38
Lower	Largemouth bass	8	29	19	10	11	10	9	8	9	5	7	3	3	4	6	5	2	1		149	74.50	6.50
	Spotted bass	8	47	9	1		2	2		2	2		1								74	37.00	8.19
Total	Largemouth bass	60	131	34	27	35	46	25	21	30	32	27	25	12	11	9	9	3	4		541	120.22	15.55
	Spotted bass	11	75	10	1	1	3	2	2	3	3	3	2	1	1						118	26.22	6.50

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Table 29. 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.

Year Class	Area	Age 0 Mean length	Age 0 Std. error	Age 0 CPUE	Age 0 Std. error	Age 0 ≥ 5.0 CPUE	Age 0 ≥ 5.0 Std. Error	Age 1 CPUE	Age 1 Std. Error
2001	Total	4.0		38.6	3.9	29.3	0.9	7.93	1.70
2002	Total	5.0		60.5	18.3	34.3	2.6	44.30	5.61
2003	Total	4.8		34.9	3.2	20.0	2.9	32.82	3.85
2004	Total	4.0	0.06	100.4	18.6	24.2	5.9	28.04	5.91
2005	Total	4.3	0.08	72.4	10.4	22.4	4.4		

Table 30. Length frequency and CPUE for each specie of crappie collected in 80 net-nights of sampling at Rough River Lake during October 2005.

Species	Inch class 3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std. Error
White crappie	27	183	163	27	84	99	108	32	16	3	2	744	9.30	0.93
Black crappie	72	58	38	61	8	2	2	2				243	3.04	0.49

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Table 31. Population assessment for white crappie based on fall trapnetting at Rough River Lake from 1999-2005.

	Year											
	1998		2000		2002		2003		2004		2005	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE (excluding age 0)	12.11	2	4.03	1	11.99	2	13.10	3	8.22	2	4.64	2
CPUE of age 1	7.50	3	1.36	1	10.02	3	10.8	3	5.5	2	3.5	2
CPUE of age 0	1.87	1	2.12	1	4.26	2	18.85	4	1.8	1	4.61	2
CPUE of crappie ≥ 8.0 in.	5.46	3	3.07	2	8.78	3	9.92	3	7.1	3	3.25	2
Mean length age 2 at capture	9.5	3	9.2	3	9.5	3	10.6	4	10.4	4	10.4	4
Total score		12		8		13		17		12		12
Assessment rating		F		F		G		G		F		F

Table 32. PSD and RSD values calculated for crappie collected in trap nets from Rough River Lake during October 2005; 95% confidence limits are in parentheses.

Lake/Species	No.	PSD	RSD-10
Rough River Lake			
White Crappie	534	49 (+/- 4)	10 (+/- 2)
Black Crappie	113	5 (+/- 4)	2 (+/- 2)

nwdrrtn.d05

Table 33. Age-frequency and CPUE (no./net night) per inch class of white crappie trap netted for 80 net nights at Rough River Lake in October 2005. Numbers in parentheses are standard errors.

Age	3	4	5	6	7	8	9	10	11	12	13	No.	CPUE	Std. Error	Age (%)
0	27	183	163									373	4.66		50
1				27	84	81	76	6	3			277	3.46	0.47	37
2						18	32	23	11	1		85	1.07	0.16	11
3								3	2			5	0.06	0.01	1
4										1	2	3	0.04	0.02	< 1
7										1		1	0.01	0.01	<1
Total	27	183	163	27	84	99	108	32	16	3	2	744			
(%)	4	25	22	4	11	13	14	4	2	< 1	< 1				

nwdrrtn.d05,
nwdrrcag.d04

Table 34. Annual mortality (A) estimates between 2004-2005, and CPUE (fish/hr) of the last five year classes of white crappie trap netted during October 2005 at Rough River Lake.

Year Class	Age Intervals	CPUE (2004)	CPUE (2005)	Mortality of Cohort (%)
2003	1+ - 2+	4.15	1.07	74%
2002	2+ - 3+	2.52	0.06	98%
2001	3+ - 4+	0.15	0.04	74%
2000	4+ - 5+	0.03	0.01	67%
1999	5+ - 6+	0.02	0.00	100%

Table 35. Population assessment for white crappie trap netted at Rough River Lake during October 2005.

Parameter	Actual Value	Assessment Score
Population density (CPUE age 1 fish and older)	4.64	2
Growth rate (Mean length of age 2+ fish at capture)	10.4	4
Size Structure (CPUE fish ≥ 8.0 in.)	3.25	2
Recruitment (CPUE of age 1 fish)	3.46	2
Recruitment (CPUE of age 0 fish)	4.61	2
Total Score		12
Assessment rating		F
Instantaneous mortality (Z)	0.8694	
Annual mortality (A)	58.08%	

Table 36. Relative abundance, and CPUE (no./hour) of largemouth bass collected during 2.5 hours of 30-minute diurnal electrofishing runs at Lake Malone in April 2005.

	Inch Class																						
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	CPUE	Std. Error
Largemouth bass	3	22	18	9	29	48	36	55	34	30	18	32	23	24	20	27	19	12	8	1		187.20	30.12

nwdlmpsd.d05

Table 37. Spring electrofishing CPUE for each size class of largemouth bass collected at Lake Malone 1999-2005. CPUE = fish/hour.

	Inch Class											
	<8.0		8.0-11.9		12.0-14.9		≥15.0		≥ 20.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err	CPUE	Std. err.
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 38. Population assessment for largemouth bass based on spring electrofishing at Lake Malone from 1999-2005.

Parameter	Year													
	1999		2000		2001		2002		2003		2004		2005	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at 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
Spring CPUE age 1 fish	n/d		2.44	1	14.00	1	6.00	1	35.00	2	19.00	1	19.00	1
Spring CPUE 12-14.9 in fish	61.33	4	51.33	4	50.00	4	43.43	4	35.00	3	26.40	3	32.00	3
Spring CPUE ≥ 15.0 inch fish	23.33	3	24.00	3	31.33	4	41.71	4	48	4	53.20	4	53.60	4
Spring CPUE ≥ 20.0 inch fish	2.67	3	2.00	3	0.67	1	8.00	4	8.50	4	6.00	4	8.40	4
Total score		14+		15		14		17		17		16		16
Assessment rating				G		G		E		E		G		G

Z= 0.3867 A= 32.07%

Table 39. PSD and RSD values obtained for largemouth bass taken in spring electrofishing samples at Lake Malone, Carpenter Lake, Kingfisher, Mauzy Lake, and Washburn Lake during April 2005; 95% confidence intervals are in parentheses.

Lake	Species	No. fish ≥ 8.0"	PSD (+/- 95%)	RSD[a] (+/- 95%)
Malone	Largemouth	387	55 (+/- 5)	35 (+/- 4)
Carpenter	Largemouth	149	17 (+/-6)	1 (+/-2)
Kingfisher	Largemouth	188	11 (+/- 4)	2 (+/- 2)
Mauzy	Largemouth	193	87 (+/- 5)	11 (+/- 4)
Washburn	Largemouth	69	17 (+/- 9)	1 (+/- 2)

[a] Largemouth bass = RSD-15

Table 40. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Lake Malone during spring samples 2002- 2005.

	Year			
Age	2002*	2003	2004	2005
1	6.00	35.00	19.00	19.00
2	28.3	69.16	37.54	49.74
3	28.85	34.51	29.81	37.52
4	31.09	30.13	23.43	27.49
5	15.78	16.03	13.93	13.87
6	6.84	9.31	8.74	8.34
7	7.37	12.39	12.24	11.85
8	2.86	7.03	6.77	7.89
9	5.71	9.53	7.57	9.49
10	1.49	1.90	1.36	1.60

*nocturnal sample

Table 41. Annual mortality between 2002-2005 and CPUE (fish/hr) of the last 10 year classes estimated from largemouth bass captured in spring electrofishing samples at Lake Malone.

Year Class	Age Intervals	CPUE (2004)	CPUE (2005)	Mortality of Cohort (%)
2003	1+ - 2+	19.00	49.74	
2002	2+ - 3+	37.54	37.52	0%
2001	3+ - 4+	29.81	27.49	8%
2000	4+ - 5+	23.43	13.87	41%
1999	5+ - 6+	13.93	8.34	40%
1998	6+ - 7+	8.74	11.85	
1997	7+ - 8+	12.24	7.89	36%
1996	8+ - 9+	6.77	9.49	
1995	9+ - 10+	7.57	1.60	79%
1994	10+ - 11+	1.36	0.00	100%

Table 42. Relative abundance, and CPUE (no./hour) of largemouth bass collected during 1.0 hour of 30-minute diurnal electrofishing runs at Lake Malone in October 2005.

		Inch class																						
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	23	Total	CPUE	Std. Error
Total	Largemouth bass	1	24	21	4	12	43	38	26	19	14	8	7	1	3	4	1	2				228	228.00	6.00

nwdlmlmb.d05

Table 43. 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.

Year Class	Area	Age 0 Mean length	Age 0 Std. error	Age 0 CPUE	Age 0 Std. error	Age 0 ≥ 5.0 CPUE	Age 0 ≥ 5.0 Std. Error	Age 1 CPUE	Age 1 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		

nwdlmlmb.d05

Table 44. Length frequency and CPUE for bluegill and redear sunfish collected in 1.25 hours of electrofishing at Lake Malone in June 2005.

Species	Inch class 1	2	3	4	5	6	7	8	9	10	11	Total	CPUE	Std. Error
Bluegill	2	34	195	203	92	46	14					586	450.77	54.06
Redear sunfish					1	2	2	3	3	3	3	17	13.08	3.98

nwdlmbg.d05

Table 45. Spring electrofishing CPUE for each size class of bluegill collected at Lake Malone during spring 1999-2005. CPUE = fish/hour.

	Inch Class											
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0		≥10.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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

Table 46. PSD and RSD values calculated for bluegill and redear sunfish collected by electrofishing from Lake Malone during June 2005; 95% confidence limits are in parentheses.

Lake/Species	No.	PSD	RSD-8
Lake Malone			
Bluegill	550	11 (+/- 3)	0
Redear sunfish	17	82 (+/- 19)	53 (+/- 24)

nwdlmbg.d05

Table 47. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Lake Malone during spring samples 2002- 2005.

	Year			
Age	2002	2003	2004	2005
1	16.67	23.85	15.38	26.15
2	167.38	106.59	120.33	216.92
3	169.72	69.19	189.63	165.27
4	53.73	19.60	63.88	40.88

nwdlmbg.d05

Table 48. Population assessment for bluegill based on spring electrofishing at Lake Malone from 1999-2005.

	Year													
	1999		2000		2001		2002		2003		2004		2005	
Parameter	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
Years to 6 inches	3-3+	3	3-3+	3	3-3+	3	3-3+	3	3-3+	3	3-3+	3	3-3+	3
CPUE of > 6.0 inch fish	21.33	1	52.67	3	47.33	2	56.80	3	7.75	1	73.08	3	48.00	2
CPUE of > 8.0 inch fish	0.67	2	2.00	2	0.67	2	0.00	0	0.00	0	0.00	0	0.00	0
Total score		8		10		9		8		6		8		7
Assessment rating		F		F		F		F		P		F		F

Table 49. Length-frequency and CPUE (no./hour) of largemouth bass collected during 1.00 hours of diurnal electrofishing runs at Mauzy Lake in April 2005.

Species	Inch class																		Total	CPUE	Std. Error
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	23			
Largemouth bass	9	25	18	14	6		5	14	87	46	13		4			2	1	1	245	245.00	22.29

nwdmzpsd.d05

Table 50. Spring electrofishing CPUE for each size class of largemouth bass collected at Mauzy Lake during spring 1999-2005. CPUE = fish/hour.

	Inch Class											
	<8.0		8.0-11.9		12.0-14.9		≥15.0		≥ 20.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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 51. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Mauzy Lake during spring samples 2004 - 2005.

	Year	
Age	2004	2005
1	2.67	34.00
2	80.80	34.40
3	52.27	5.60
4	8.13	6.17
5	9.87	10.33
6	2.27	0.50

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nwdmzpsd.d05

Table 52. Age-frequency and CPUE per inch class of largemouth bass electrofished at Mauzy Lake in April 2005. Numbers in parentheses are standard errors.

	Inch Class											
Age	5	6	7	8	9	10	11	12	13	No.	CPUE	Std. Error	Age (%)
1	9	25								34	34.00	9.02	37
2			18	14	2					35	34.40	6.51	38
3					4		2			6	5.60	2.47	6
4							2	5		7	6.17	2.10	7
5							1	9		11	10.33	3.37	11
6							1			1	0.50	0.50	1
Total	9	25	18	14	6		5	14		91			
(%)	10	27	20	15	7		5	15		100			

Table 53. Population assessment for largemouth bass based on spring electrofishing at Mauzy Lake from 2000-2005.

	Year											
	2000		2001		2002		2003*		2004		2005	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at age 3 at capture	10.3	2	10.3	2	10.3	2	10.3	2	10.3	2	10.3	2
Spring CPUE age 1 fish	25.33	2	5.33	1	25.33	2	86.81	4	2.67	1	34.00	2
Spring CPUE 12-14.9 in fish	2.67	1	26.67	2	9.33	1	73.61	4	5.33	1	147.00	4
Spring CPUE ≥ 15.0 inch fish	5.33	2	4.00	2	6.67	2	20.83	3	6.67	2	21.00	3
Spring CPUE ≥ 20.0 inch fish	0.00	0	0.00	0	1.33	2	2.78	3	0.00	0	4.00	4
Total score		7		7		9		16		6		15
Assessment rating		P		P		F		G		P		G

*Mauzy renovated summer2003

Table 54. Length frequency and CPUE for bluegill collected during 0.75 hours of electrofishing at Mauzy Lake in May 2005.

	Inch class										
Species	1	2	3	4	5	6	7	8	Total	CPUE	Std. Error
Bluegill	2	224	404	48	13	4	7		702	900.00	86.60

nwdmzbg.d05

Table 55. Spring electrofishing CPUE for each size class of bluegill collected at Mauzy Lake during spring 1999-2005. CPUE = fish/hour.

	Inch Class											
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0		≥10.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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 56. PSD and RSD values calculated for bluegill collected by electrofishing from Mauzy Lake during May 2005; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD-8
Bluegill	476	2 (+/- 1)	0

nwdmzbg.d05

Table 57. Mean back calculated lengths (in) at each annulus for bluegill collected at Mauzy Lake in May 2005.

Year class	No.	Age 1	2	3	4	5	6
2003	34	2.7	4.3				
2002	1	3.5	5.3	6.4			
2001	4	3.5	5.8	6.7	7.3		
2000	4	2.3	4.2	5.8	6.5	7.0	
1999	1	2.5	4.4	5.8	6.5	6.8	7.0
Mean		2.7	4.5	6.2	6.9	7.0	7.0
No.	44	34	34	10	9	5	1
Smallest		1.3	3.0	5.6	6.1	6.4	7.0
Largest		4.4	6.4	7.2	7.7	7.8	7.0
Std error		0.1	0.1	0.2	0.2	0.2	
95% CI (±)		0.2	0.2	0.3	0.3	0.4	

Table 58. Population assessment for bluegill based on spring electrofishing at Mauzy Lake from 2001-2005.

Parameter	Year 2001 Value	2001 Score	2002 Value	2002 Score	2003* Value	2003* Score	2004 Value	2004 Score	2005 Value	2005 Score
Mean length age 2 at capture	4.3	2	4.3	2			4.3	2	4.3	2
Years to 6 inches	2-2+	4	2-2+	4			2-2+	4	2-2+	4
CPUE of > 6.0 inch fish	138.66	4	126.66	4			65.94	3	14.10	1
CPUE of > 8.0 inch fish	1.33	2	1.33	2			1.10	2	0.00	0
Total score		12		12				11		7
Assessment rating		G		G				G		F

*Could not sample due to renovation drawdown

Table 59. Length frequency and CPUE (no./hour) of largemouth bass collected during 0.75 hours of 15-minute diurnal electrofishing runs at Carpenter Lake in April 2005.

	Inch Class															
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	CPUE	Std. Error
Largemouth bass		19	54	33	12	20	20	35	49	18	3		2	267	356.00	54.60

nwdclpsd.d05

Table 60. Spring electrofishing CPUE for each size class of largemouth bass collected at Carpenter Lake during April 2005. CPUE = fish/hour.

	Inch Class									
	<8.0		8.0-11.9		12.0-14.9		≥15.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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 61. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Carpenter Lake during spring samples 2002- 2005.

	Year			
Age	2002	2003	2004	2005
1	12.00	162.67	56.00	132.00
2	36.93	57.60	90.13	88.93
3	25.73	55.73	56.53	107.07
4	1.33	2.67	4.00	0.00
5	0.00	0.00	0.00	0.00
6	10.67	14.67	8.00	0.00

nwdcllag.d04, nwdclpsd.d05

Table 62. Population assessment for largemouth bass based on spring electrofishing at Carpenter Lake from 1999-2005.

	Year													
	1999		2000		2001		2002		2003		2004		2005	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at 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
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
Spring CPUE 12-14.9 in fish	29.33	2	48.00	3	90.67	4	12.00	1	54.67	4	22.67	2	30.67	2
Spring CPUE ≥ 15.0 inch fish	1.33	1	0.00	1	66.67	4	21.33	4	36.00	4	21.33	3	2.67	1
Spring CPUE ≥ 20.0 inch fish	0.00	1	0.00	1	1.33	2	0.00	1	1.33	2	2.67	3	0.00	0
Total score		8+		10		15		10		18		16		11
Assessment rating		F		F		G		F		E		G		F

Table 63. Annual mortality (A) between 2004-2005, and CPUE (fish/hr) of the last 6 year classes estimated from largemouth bass captured in spring electrofishing samples at Carpenter Lake.

Year Class	Age Intervals	CPUE (2004)	CPUE (2005)	Mortality of Cohort (%)
2003	1+ - 2+	56.00	88.93	
2002	2+ - 3+	90.13	107.07	
2001	3+ - 4+	56.53	0.00	100%
2000	4+ - 5+	4.00	0.00	100%
1999	5+ - 6+	0.00	0.00	100%
1998	6+ - 7+	8.00	0.00	100%

Table 64. Length frequency and CPUE for bluegill and redear sunfish collected during 0.91 hours of electrofishing at Carpenter Lake in May 2005.

	Inch class											
Species	1	2	3	4	5	6	7	8	9	Total	CPUE	Std. Error
Bluegill	1	10	30	101	42	16	74	16	1	291	319.78	23.07
Redear sunfish				2			1		6	9	9.89	4.66

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Table 65. Spring electrofishing CPUE for each size class of bluegill collected at Carpenter Lake during spring 1999-2005. CPUE = fish/hour.

	Inch Class											
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0		≥10.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2005	12.09	9.77	190.11	17.09	98.900	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 66. PSD and RSD values calculated for bluegill and redear sunfish collected by electrofishing from Carpenter Lake during May 2005; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD-8
Bluegill	280	38 (+/- 6)	6 (+/- 3)
Redear sunfish	9	78 (+/- 31)	67 (+/- 33)

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Table 67. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Carpenter Lake during spring samples 2002- 2005.

	Year			
Age	2002	2003	2004	2005
1	2.30	7.69	12.31	10.99
2	14.71	98.80	25.23	180.24
3	9.43	27.26	33.23	66.76
4	2.30	7.26	6.15	26.62

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Table 68. Population assessment for bluegill based on spring electrofishing at Carpenter Lake from 1999-2005.

	Year													
	1999		2000		2001		2002		2003		2004		2005	
Parameter	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
Years to 6 inches	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4
CPUE of > 6.0 inch fish	94.67	4	22.67	1	145.67	4	18.39	1	53.33	3	47.69	2	117.58	4
CPUE of > 8.0 inch fish	12.00	3	12.00	3	41.33	4	1.15	1	4.00	2	1.54	2	18.68	4
Total score		15		12		16		10		13		12		16
Assessment rating		E		G		E		F		G		G		E

Table 69. Length frequency, and CPUE (no./hour) of largemouth bass collected during 0.39 hours of 7.5-minute diurnal electrofishing runs at Kingfisher Lake in April 2005.

Species	Inch class																Total	CPUE	Std. Error
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
Largemouth bass	15	32	51	14	9	46	64	48	14	2		2	1		1	1	300	769.23	141.21

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Table 70. Spring electrofishing CPUE for each size class of largemouth bass collected at Kingfisher Lake during April 1999-2005. CPUE = fish/hour.

	Inch Class									
	<8.0		8.0-11.9		12.0-14.9		≥15.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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 71. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Kingfisher Lake during April 2005.

	Year			
Age	2002	2003	2004	2005
1	116.28	57.69	94.87	248.72
2	193.45	16.67	169.00	215.62
3	60.51	3.42	66.90	175.66
4	5.74	6.84	16.24	65.98
5	0.00	5.13	1.71	11.97

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Table 72. Annual mortality (A) between 2004-2005, and CPUE (fish/hr) of the last 5 year classes estimated from largemouth bass captured in spring electrofishing samples at Kingfisher Lake.

Year Class	Age Intervals	CPUE (2004)	CPUE (2005)	Mortality of Cohort (%)
2003	1+ - 2+	94.87	215.62	
2002	2+ - 3+	169.00	175.66	
2001	3+ - 4+	66.90	65.98	1%
2000	4+ - 5+	16.24	11.97	26%
1999	5+ - 6+	1.71	0.00	100%

Table 73. Population assessment for largemouth bass based on spring electrofishing at Kingfisher Lake from 1999-2005.

Parameter	Year													
	1999		2000		2001		2002		2003		2004		2005	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at 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
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
Spring CPUE 12-14.9 in fish	17.78	1	24.44	2	20.51	2	4.65	1	8.33	1	12.82	1	41.03	3
Spring CPUE ≥ 15.0 inch fish	2.22	1	6.67	2	2.56	1	0.00	1	0.00	1	2.56	1	12.82	2
Spring CPUE ≥ 20.0 inch fish	0.00	1	4.44	4	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Total score		6+		15		10		9		9		9		12
Assessment rating				G		F		F		F		F		G

Table 74. Length frequency and CPUE for bluegill collected in 0.375 hours of electrofishing at Kingfisher Lake in May 2005.

Species	Inch class						Total	CPUE	Std. Error
	3	4	5	6	7	8			
Bluegill	2	8	11		5	4	30	76.92	8.88

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Table 75. Spring electrofishing CPUE for each size class of bluegill collected at Kingfisher Lake during spring 1999 - 2005. CPUE = fish/hour.

	Inch Class											
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0		≥10.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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 76. PSD and RSD values calculated for bluegill and redear sunfish collected by electrofishing from Kingfisher Lake during May 2005; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD-8
Bluegill	30	30 (+/- 16)	13 (+/- 13)

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Table 77. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Kingfisher Lake during spring samples 2002- 2005.

	Year			
Age	2002	2003	2004	2005
1	7.56	57.69	13.46	32.69
2	22.67	16.67	4.49	21.15
3	13.95	3.42	6.84	4.27
4	27.91	6.84	13.68	8.55
5	6.98	5.13	0.00	10.26

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Table 78. Population assessment for bluegill based on spring electrofishing at Kingfisher Lake from 1999-2005.

	Year													
	1999		2000		2001		2002		2003		2004		2005	
Parameter	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
Years to 6 inches	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4	2-2+	4
CPUE of > 6.0 inch fish	24.44	1	77.78	4	64.44	3	69.77	3	21.62	1	23.08	1	23.08	1
CPUE of > 8.0 inch fish	4.44	2	11.11	3	6.67	2	6.98	2	5.40	2	0.00	0	10.26	3
Total score		11		15		13		13		11		9		12
Assessment rating		G		E		G		G		G		F		G

Table 79. Relative abundance, and CPUE (no./hour) of largemouth bass collected during 0.37 hours of 7.5-minute diurnal electrofishing runs at Washburn Lake in April 2005.

	Inch Class														
Species	3	4	5	6	7	8	9	10	11	12	13	21	Total	CPUE	Std. Error
Largemouth bass	1		7	4	5		9	26	22	10	1	1	86	220.51	25.25

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Table 80. Spring electrofishing CPUE for each size class of largemouth bass collected at Washburn Lake* during April 2001-2005. CPUE = fish/hour.

	Inch Class											
	<8.0		8.0-11.9		12.0-14.9		≥15.0		≥20.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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 81. Population assessment for largemouth bass based on spring electrofishing at Washburn Lake from 2003-2005*.

	Year					
	2003		2004		2005	
Parameter	Value	Score	Value	Score	Value	Score
Length at age 3 at capture	11.2	3	11.2	3	11.2	3
Spring CPUE age 1 fish	131.62	4	48.29	3	41.03	3
Spring CPUE 12-14.9 in fish	0.00	0	0.00	0	28.21	2
Spring CPUE ≥ 15.0 inch fish	0.00	0	0.00	0	2.56	1
Spring CPUE ≥ 20.0 inch fish	0.00	0	0.00	0	2.56	3
Total score		7		6		12
Assessment rating		P		P		G

*Washburn Lake renovated and restocked spring 2000

Table 82. Length frequency and CPUE for bluegill collected in 0.50 hours of electrofishing at Washburn Lake in May 2005.

	Inch class										
Species	1	2	3	4	5	6	7	8	Total	CPUE	Std. Error
Bluegill	6	78	46	34	1	3	2		170	326.92	39.29

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Table 83. PSD and RSD values calculated for bluegill and redear sunfish collected by electrofishing from Washburn Lake during May 2005; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD-8
Bluegill	86	6 (+/- 5)	0

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Table 84. Spring electrofishing CPUE for each size class of bluegill collected at Washburn Lake during May 2005. CPUE = fish/hour.

	Inch Class											
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0		≥10.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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 85. Population assessment for bluegill based on spring electrofishing at Washburn Lake 2003-2005.

	Year					
	2003		2004		2005	
Parameter	Value	Score	Value	Score	Value	Score
Mean length age 2+ at capture	5.4	4	5.4	4	5.4	4
Years to 6 inches	2-2+	4	2-2+	4	2-2+	4
CPUE of > 6.0 inch fish	118.00	4	32.69	2	9.62	1
CPUE of > 8.0 inch fish	0.00	0	22.00	4	0.00	0
Total score		12		14		5
Assessment rating		G		E		P

Table 86. 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 July 2005.

	Inch groups						
Species	5-8 in.	8-12 in.	12-15 in.	>15 in.	Total	No./hr	Std. Error
Largemouth bass	14	29	15	9	67	44.67	8.17

	Inch groups					
	3-5 in.	5-8 in.	> 8 in.	Total	No./hr	Std Error
Bluegill	141	62	12	215	143.33	42.10
Redear sunfish	0	0	8	8	5.33	2.67

Table 87. Length frequency, composition, and number per hour of fish observed during 1.00 hours of 30-minute scuba transects swam at Musky Lake (Peabody WMA) in August 2005.

	Inch groups						
Species	5-8 in.	8-12 in.	12-15 in.	>15 in.	Total	No./hr	Std. Error
Largemouth bass	9	26	18	7	60	60	

	Inch groups					
	3-5 in.	5-8 in.	> 8 in.	Total	No./hr	Std Error
Bluegill	91	55	13	159	159	
Redear sunfish	33	38	15	86	86	

SOUTHWESTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Barren River Lake

Black bass sampling results are presented in Tables 1-6. Largemouth bass size structure remains diverse (PSD = 50.9, RSD = 27.4) with the strong 2003 year class bolstering a CPUE of 152 fish/hr. Spotted bass population continues to be low density (CPUE = 13.7fish /hour), but with good size structure (PSD=69 RSD=40). Smallmouth bass population characteristics are sketchy due to small sample size. The largemouth bass assessment was rated "Good", similar to previous years.

Fall electrofishing targeting YOY black bass yielded results similar to moderate recruitment years. Age-0 largemouth bass had an overall CPUE of 161 fish/hr and 23.2 fish/hr $\geq$ 5 inches.

Crappie sampling with trap nets is presented in Tables 7-11. The 2003 year class of black crappie continues to carry the population. White crappie numbers continue to be low with the last good year class seen in 1998. Crappie assessment values were "Fair" across the board for black and white crappie and the combined population.

Fall experimental gill netting sampling for 8 net nights for white bass and hybrid striped bass was met with very poor results. Extremely low sample sizes for both species did not permit "reasonable" comparisons to previous years.

Briggs Lake

Bass sampling results are presented in Tables 12-15. Largemouth bass remained somewhat stockpiled below 12 inches similar to previous years (PSD = 22). Fall electrofishing of YOY bass (106/hr) was similar to previous years with moderate recruitment.

Sunfish population (bluegill, redear and warmouth) continues to be low density, but with good size structure. CPUE of bluegill $\geq$ 6 inches was 102 fish/hr (likely the 2003 & 2001 year classes) and provided the bulk of the panfish fishery. The bluegill fishery in Briggs Lake was assessed as "excellent" while the redear population assessed as "fair". Results are presented in Tables 16-20.

Marion County Lake

Bass sampling results are presented in Tables 21-24. Size structure (PSD = 54) continues to improve compared to previous years (2004 PSD = 26, 2003 PSD = 18). Removal of smaller bass and liming of the lake helped to improve the stunted largemouth bass population created by overstocking following lake renovation in 1995. A CPUE of 368 fish/hour was similar to previous years.

A bluegill CPUE ($\geq$ 6 inches) of 66 fish/hr and (378/hr) upgraded the bluegill population assessment to "good"; while the redear assessment upgraded to "excellent". Results are presented in Tables 25-29.

Shanty Hollow Lake

Bass sampling results are presented in Tables 30-33. Overall CPUE of largemouth (311 fish) was inflated by the strong 2004 year class. Fall electrofishing results suggest a moderate level of recruitment for the 2005 year class.

The bluegill population assessment remains "good" while the redear population assessment was "fair". The lake was drawn down during summer of 1997 to repair a noted leak. Even so, the lake still experiences notable water level fluctuations due to leak; ranging from 2-8 feet lower than normal pool within a year depending on rainfall. Sunfish sampling results are presented in Tables 34-38.

Spurlington Lake

The largemouth bass size structure was diverse (PSD = 56) and CPUE (338 fish/hr) was similar to previous years (Tables 39-42). Fall sampling of largemouth bass suggests another moderate 2005 year class.

The bluegill population assessment remained "Good" with a CPUE similar to previous years (Tables 43-45).

Metcalfe County Lake

Results of the sunfish sampling are presented in tables 46-47. Spurlington Lake is highly productive and supports a substantial population with surprisingly good size structure (PSD=32); despite presence of gizzard shad.

Fagan Branch Lake

Bluegill and redear sampling results are presented in tables 48-49. Despite the lake's low productivity and its obligation to remain so (back up water supply lake for city of Lebanon), the lake supports a decent bluegill and excellent redear fishery.

Green River Lake

Muskellunge sampling results are presented in Tables 50-51. Size structure was similar to previous years; however, CPUE was slightly lower than previous years due to reduced sampling effort resulting from the lack of suitable sampling conditions (water clarity too high). The muskellunge assessment, however, still rated "excellent", as in previous years.

Bass sampling results are presented in Tables 52-57. The largemouth bass size structure remains diverse (PSD = 48; RSD = 29) and a total CPUE of 127 fish/hr is driven by the strong year class of 2004. The population assessment for largemouth bass was "Good". Fall YOY sampling suggests a moderate to good 2005 year class.

Results from the fall trap net sampling for white crappie are presented in Tables 58-60. The strong 2001 year class continues to carry the fishery. The crappie population assessment for Green River Lake was "Fair".

Results of the experimental gill net sampling for white bass and walleye are presented in Tables 61-63. The 2003 year class of white bass continues to carry the fishery. White bass assessment was "Good" due to recruitment of the 2003 year class to larger sizes (12-inch +). Walleye CPUE continues to slide as the strong 2000 year class drops out of the fishery.

Green River Lake Tailwater Creel

Results of a daytime creel survey conducted on 0.5 miles of tailwater directly below Green River Lake dam are presented in Tables 64-71. Results of angler attitude survey are presented in Appendix A. Anglers made an estimated 5,137 trips and fished for 9,484 hours with the average trip approximating 1.85 hours. "Anything" anglers accounted for 55 % of effort followed by catfish (15 %), walleye (10%) and crappie (7%) anglers. Anglers identified channel catfish (40%), walleye (24%) and crappie (14 %) as species they fished for the most. Angler satisfaction with most fisheries was overwhelmingly good with 70 – 90% of responses falling in the "very satisfied to somewhat satisfied" categories. Walleye fishermen were the outliers, with 55% satisfied, but 35% being dissatisfied.

Table 1. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected in 6 hours of 30-minute electrofishing runs at Barren River Lake during mid-April; 1.5 hours effort for each area.

Area	Species	Inch class																				Total	CPUE	Std. Error
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Beaver Creek	Largemouth bass					5	4	5	11	20	34	17	15	24	20	16	12	7	2	1	1	194	129	2.67
	Spotted bass																					0	0	
	Smallmouth bass																					0	0	
Peter Creek	Largemouth bass		11	9	6	8	4	12	29	26	20	12	13	12	8	12	14	9	4	4		213	158	20.23
	Spotted bass		5	2		1	2	6	2	1		6	1	4	5	7	1					43	29	9.02
	Smallmouth bass		1																			1	1	0.67
Dam	Largemouth bass		2		5	9	4	12	24	29	28	20	31	13	18	8	10	6	3	1	1	224	149	24.67
	Spotted bass				1	1	3	1	3	2	3	3	6	3	5	2	1					34	23	7.51
	Smallmouth bass		1			1	2					1			1	2			2			11	7.33	4.37
Walnut Creek	Largemouth bass		3	5	7	13	7	12	34	50	45	12	8	11	7	10	9	15	6	1	1	256	171	11.68
	Spotted bass		1		1		1			1	1			1								6	4	2.00
	Smallmouth bass																					0	0	
Total	Largemouth bass	1	17	14	20	35	19	39	103	127	127	61	68	60	53	50	46	43	17	9	3	912	152	8.60
	Spotted bass		5	2	2	2	6	7	5	4	4	9	7	8	10	9	2					82	14	4.40
	Smallmouth bass		2			1	2					1			1	2			2			12	2	1.33

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Table 2. PSD and RSD values by area for black bass collected from diurnal spring electrofishing samples at Barren River Lake in 2005; 95% confidence intervals are in parentheses. Smallmouth bass and spotted bass omitted where sample sizes too small.

Area	Species	Fish ≥ 8 inches	PSD	RSD*
Beaver Creek	Largemouth bass	183	62.5 (+/- 7.0)	32.1 (+/- 6.8)
Dam	Largemouth	214	55.0 (+\- 6.9)	23.3 (+/- 5.9)
	Spotted bass	32	71.9 (+\- 15.9)	34.4 (+\- 16.7)
Peter Creek	Largemouth bass	175	52.5 (+\- 6.9)	33.3 (+\- 6.5)
	Spotted bass	35	76.4 (+\- 7.8)	48.6 (+\- 16.8)
Walnut Creek	Largemouth bass	221	36.0 (+\- 6.3)	22.1 (+\- 5.5)
Total	Largemouth bass	806	50.9 (+\- 3.5)	27.4 (+\- 3.1)
	Spotted bass	71	69.0 (+\- 10.8)	40.8 (+\- 11.5)

* Largemouth bass RSD = 15; Spotted bass RSD = 14

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Table 3. Spring diurnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Barren River Lake from 1997 - 2005.

Year	Inch class									
	<8.0		8.0-11.9		12.0-14.9		≥ 15.0		Total	
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	15.7	2.9	60.2	7.7	28.9	4.7	31.7	3.4	152	8.6
2004	47.6	14.0	37.6	6.2	16.7	4.0	18.4	3.2	120.2	22.2
2003	22.2	3.4	22.5	3.5	20.5	2.9	39.5	4.7	104.2	10.6
2002	12.5	2.2	22.4	2.9	30.4	4.0	37.6	4.2	102.9	9.5
2001	11.8	1.6	42.3	4.0	49.3	6.3	61.9	4.1	165.3	9.6
2000	8.3	1.7	24.1	3.4	33.0	3.2	27.3	2.4	92.7	7.3
1999	10.7	2.4	31.7	5.7	42.2	7.3	36.3	4.7	120.8	11.2
1998	17.0	4.1	11.4	2.7	23.2	3.1	32.2	2.7	83.8	8.3
1997	6.7	1.4	31.1	5.2	48.4	6.4	19.3	6.5	135.6	11.6

SWDBRLBB.D97 - .D05

Table 4. Largemouth bass assessment from spring electrofishing at Barren River Lake 1997 - 2005.

Year	Mean age-3 length at capture		Spring CPUE age 1		Spring CPUE 12 - 14.9 inch		Spring CPUE ≥ 15 inch		Spring CPUE ≥ 20 inch		Total	
	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1997	14.10	4	19.35	1	48.44	4	52.67	4	3.33	4	17	E
1998	14.10	4	8.26	1	23.20	2	33.40	4	1.20	2	13	G
1999	14.10	4	24.62	2	42.17	4	38.67	4	2.33	3	17	E
2000	14.10	4	15.59	1	33.00	3	28.71	4	1.43	2	14	G
2001	14.10	4	27.83	2	49.33	4	63.05	4	1.14	2	16	G
2002	14.10	4	14.95	1	30.36	3	38.91	4	1.27	2	14	G
2003	14.10	4	19.60	1	20.46	2	39.85	4	0.31	2	13	G
2004	14.10	4	26.00	2	16.67	2	19.11	3	0.67	2	13	G
2005	14.10	4	13.50	1	31.50	3	36.80	4	2.0	2	16	G

SWDBRLBB.D97 - .D05

Table 5. Length frequency and CPUE of largemouth bass collected during fall electrofishing from Barren River Lake 2005.

Age	Inch class																	Total	Percent	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
YOY	190	553	82	63	56	20												964	78.06	160.67
≥ Age-1					8	16	39	50	46	29	40	13	14	9	3	2	2	247	21.94	41.17
Total	190	553	82	63	64	36	39	50	46	29	40	13	14	9	3	2	2	1235	100.00	205.83

SWDBRLYY.D05
SWDBRLAG.D05

Table 6. Indices of year class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall and following spring electrofishing samples at Barren River Lake since 2002.

Year class	Area	Age 0 Mean length	Age 0 Std error	Age 0 CPUE	Age 0 Std Error	Age 0 ≥ 5.0 inch CPUE	Age 0 ≥ 5.0 inch Std Error	Age 1 CPUE	Age 1 Std Error
2005	Total	3.72	0.04	160.67	25.63	25.33	4.20		
2004	Total	3.72	0.04	108.44	22.20	20.78	3.85	11.24	2.51
2003	Total	4.40	0.04	198.00	30.81	84.00	18.74	44.93	13.25
2002	Total	3.96	0.05	171.67	25.76	34.17	4.06	26.92	3.71

SWDBRLWR.D02 – D05
SWDBRLAG.D02 – D05
SWDBRLBB.D03 – D05

Table 7. Length frequency and CPUE of crappie collected in 98 net nights with trap nets at Barren River Lake, 2004. Standard error is in parentheses.

Species	Inch class 2	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE
White crappie		5	3				8	36	18	1		2	1	74	0.75 (0.15)
Black crappie	9	180	6	24	79	100	184	176	56	8	3			825	8.4 (1.29)

SWDBRLTN.D05

Table 8. PSD and RSD_{10} values calculated for crappie collected in trap nets at Barren River Lake during October and November 2005. 95% confidence limits are in parentheses.

Species	Fish ≥ 5 inches	PSD	RSD_{10}
White crappie	66	100 (0)	33.3 (11.4)
Black crappie	632	67.9 (3.7)	10.8 (2.5)

SWDBRLTR.D05

Table 9. Black crappie assessment from trap netting at Barren River Lake from 1985 - 2005.

Year	CPUE excluding age 0		CPUE age 1		CPUE age 0		CPUE ≥ 8 inches		Mean age-2 length at capture		Total	
	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1985	3.53	1	0.72	1	0.33	1	0.78	1	7.44	1	5	P
1986	10.72	2	6.94	3	3.83	2	2.80	1	8.69	2	10	F
1987	3.27	1	1.90	1	2.82	1	1.34	1	9.57	4	8	F
1988	6.18	2	5.68	2	0.10	1	0.44	1	9.30	3	9	F
1989	9.19	2	1.48	1	7.51	3	5.90	2	8.19	1	9	F
1990	29.12	4	26.11	4	0.10	1	1.92	1	8.80	2	12	F
1991	3.53	1	0.95	1	0.86	1	3.55	1	7.63	1	5	F
1992	9.20	2	3.49	2	0.07	1	4.24	2	7.66	1	8	F
1993	12.61	2	1.06	1	0.29	1	9.13	2	8.05	1	7	P
1994	0.74	1	0.10	1	0.82	1	0.70	1	8.80	2	6	P
1995	7.39	2	6.54	2	1.29	1	0.53	1	8.94	2	8	F
1996	9.03	2	0.79	1	0.48	1	4.16	2	7.84	1	7	P
1997	9.12	2	1.45	1	0.87	1	5.98	2	7.60	1	7	P
1998	1.71	1	0.12	1	1.79	1	1.56	1	8.19	1	5	P
1999	4.66	1	3.82	2	0.26	1	0.85	1	8.61	2	7	P
2000	1.81	1	0.18	1	0.22	1	0.65	1	7.79	1	5	P
2001	5.72	2	0.33	1	0.41	1	4.47	2	7.60	1	7	P
2002	4.58	1	1.02	1	3.09	2	3.34	1	8.72	2	7	P
2003	2.37	1	1.19	1	5.35	2	0.89	1	9.68	4	9	F
2004	6.90	2	4.36	2	0.65	1	2.20	1	9.22	3	9	F
2005*	6.42	2	2.32	1	1.99	1	4.36	2	9.13	3	9	F

* Age assessment data for 2005 were extrapolated from previous age data on black crappie

SWDBRLTR.D85 – D05

Table 10. White crappie assessment from trap netting at Barren River Lake from 1985 - 2005.

	CPUE excluding age 0		CPUE age 1		CPUE age 0		CPUE ≥ 8 inches		Mean age-2 length at capture		Total	
Year	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1985	30.98	4	24.40	4	0.42	1	2.20	1	9.41	3	13	G
1986	13.56	3	3.61	2	1.91	1	8.87	2	8.97	2	10	F
1987	3.99	1	1.26	1	0.41	1	2.48	1	10.79	4	8	F
1988	3.07	1	2.49	1	0.24	1	2.48	1	11.07	4	8	F
1989	4.15	1	1.69	1	3.25	2	2.56	1	11.03	4	9	F
1990	22.83	4	20.80	4	0.50	1	13.38	2	10.79	4	15	G
1991	30.98	4	0.52	1	0.98	1	8.86	2	9.83	4	12	F
1992	6.82	2	5.09	2	0.07	1	4.04	2	11.50	4	11	F
1993	5.77	2	0.59	1	0.04	1	5.22	2	10.00	4	10	F
1994	0.66	1	0.11	1	0.65	1	0.44	1	10.60	4	8	F
1995	7.95	2	7.69	3	0.64	1	5.47	2	11.50	4	12	F
1996	6.34	2	0.80	1	1.40	1	5.59	2	9.70	4	10	F
1997	6.71	2	5.12	2	1.04	1	5.16	2	10.23	4	11	F
1998	1.22	1	0.68	1	6.72	3	0.93	1	10.91	4	8	F
1999	6.48	2	5.91	2	0.54	1	2.93	1	10.85	4	10	F
2000	2.50	1	0.32	1	0.03	1	2.38	1	9.30	3	7	P
2001	1.58	1	0.51	1	0.21	1	1.34	1	10.45	4	8	F
2002	1.41	1	0.29	1	1.16	1	0.80	1	10.67	4	8	F
2003	1.37	1	1.02	1	0.43	1	1.05	1	11.45	4	8	F
2004	1.55	1	0.88	1	0.16	1	1.29	1	11.08	4	8	F
2005*	0.67	1	0.63	1	0.01	1	0.67	1	11.01	4	8	F

* Age assessment data for 2005 were extrapolated from previous data on white crappie
SWDBRLTR.D85 – D05

Table 11. Crappie population assessment for Barren River Lake trap netting data collected in October and November 2005.

	White crappie		Black crappie		Combined	
Parameter	Actual value	Assessment	Actual value	Assessment	Actual value	Assessment
Total CPUE (excluding age-0 fish)	0.67	1	6.42	2	7.10	2
CPUE of age 1 crappie	0.63	1	2.32	1	2.96	2
CPUE of age 0 crappie	0.01	1	1.99	1	2.07	1
CPUE of crappie ≥ 8 inches	0.67	1	4.36	2	3.49	2
Mean ag-2 length at capture	11.01	4	9.13	3	10.15	4
Total score		8		9		11
Assessment rating		Fair		Fair		Fair

SWDBRLTN.D05

Table 12. Nocturnal bass electrofishing relative abundance and CPUE (0.50 hours) at Briggs Lake on April 21, 2005

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	2	7	3		11	37	19	25	16	6	7	1	3	2	2	2	1	2	1	147	294	27.4

SWDBRGBB.D05

Table 13. PSD and RSD_{15} values for largemouth bass from spring electrofishing samples at Briggs Lake 2005. 95% confidence intervals are in parentheses.

No. ≥ 8 inches	PSD	RSD_{15}
124	21.8 (7.3)	10.5 (5.4)

SWDBRGBB.D05

Table 14. Spring nocturnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Briggs Lake from 2000 - 2005.

Year	Inch class								Total	
	<8.0		8.0-11.9		12.0-14.9		≥ 15.0			
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	46	6.83	194	21.26	28	5.16	26	5.03	294	27.4
2004	11.54	4.97	117.31	3.68	51.92	10.59	7.69	3.14	196	20.26
2003	28.85	13.82	175	39.02	19.23	4.97	26.92	4.97	260	51.07
2002	27.45	10.38	109.8	8.55	39.22	7.07	21.57	5.19	202	17.48
2001	120.59	21.55	73.53	10.87	41.18	9.30	5.88	4.16	241	24.96
2000	27.94	8.10	92.63	19.12	64.71	12.01	10.29	2.82	195.6	35.97

SWDBRGBB.D00 - .D05

Table 15. Age-frequency for largemouth bass collected during fall electrofishing at Briggs Lake during 2004.

Age	Inch class																Total	Percent	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18	20			
0	20	20	9	4													53	29.55	106.0
Unknown					1	13	4	14	5	5	2	1					45	70.45	90.0
Total	20	20	9	4	1	13	4	14	5	5	2	1					98	100.00	196.0

SWDBRGYY.D05
SWDBRGAG.D05

Table 16. Diurnal sunfish sampling at Briggs Lake on May 12, 2005 for 0.50 hours.

Species	Inch class										Total	CPUE	Std. error
	1	2	3	4	5	6	7	8	9	10			
Warmouth		2	4	2	4	18	12	3			44	88	26.53
Bluegill	2	5	6	14	20	21	21	9			98	196	12.44
Redear sunfish			1	5	1		1	1	1		10	20	6.93

SWDBRGSF.D05

Table 17. Bluegill population assessment for Briggs Lake during 2005.

	Parameter	Value	Assessment score
Growth	Mean length age - 2 at capture	5.24	4
Growth	Years to 6.0 inches	2.3	4
Size Structure	CPUE ≥ 6.0 inches	102	4
Size Structure	CPUE ≥ 8.0 inches	18	4
Total score			15
Assessment rating			Excellent

SWDBRGSF.D05
SWDBRGAG.D02

Table 18. Spring diurnal electrofishing CPUE (fish/hour) for each size class of bluegill collected at Briggs Lake in 2005.

Year	Inch class								Total	
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0			
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	14	14	80	16.33	84	14.79	18	8.25	196	12.44

SWDBRLSF..D05

Table 19. Redear population assessment for Briggs Lake during 2005.

	Parameter	Value	Assessment score
Growth	Mean length age – 2 at capture	6.8	4
Growth	Years to 8.0 inches	3	4
Size Structure	CPUE ≥ 8.0 inches	4	1
Size Structure	CPUE ≥ 10.0 inches	0	1
Total score			10
Assessment rating			Fair

SWDBRGSF.D05
SWDBRGAG.D02

Table 20. Spring diurnal electrofishing CPUE (fish/hour) for each size class of redear collected at Briggs Lake in 2005.

Year	Inch class									
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0		Total	
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	0		14	8.87	2	2	4	4	20	6.93

SWDBRLSF..D05

Table 21. Nocturnal bass electrofishing relative abundance and CPUE (0.875 hours) at Marion County Lake on April 25, 2005

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	22			
Largemouth bass	18	8	11	19	33	31	12	7	58	59	35	23	2	1		1	3		1	322	368	44.75

SWDMCLBB.D05

Table 22. PSD and RSD values for largemouth bass from spring electrofishing samples at Marion County Lake 2005. 95% confidence intervals are in parentheses.

No. ≥ 8 inches	PSD	RSD_{15}
233	53.7 (6.5)	3.4 (2.3)

SWDBRGBB.D05

Table 23. Spring nocturnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Marion County Lake from 1997 - 2005.

Year	Inch class									
	<8.0		8.0-11.9		12.0-14.9		≥ 15.0		Total	
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	101.7	17.7	123.4	13.4	133.7	20.2	9.1	2.7	368	44.8
2004	110.3	16.9	197.4	25.8	62.8	9.8	7.7	3.4	378.2	36.6
2003	42.9	10.6	226.4	18.1	40.7	7.3	7..7	3.4	317.6	13.3
2002	104.9	23.9	152.9	13.2	15.7	3.6	3.9	1.2	277..5	39.4
2001	170.6	17.6	173.5	15.9	1	1	2.9	2	384	31.3
2000	88.2	14.9	177.5	22.4	6.9	3.2	9.8	2	282.4	25.4
1999	106.7	29.3	46.2	15	39.5	10.6	1.7	1.1	194.1	42.0

SWDMCLBB.D99 - .D05

Table 24. Age-frequency for largemouth bass collected during fall electrofishing at Marion County Lake during 2005.

Age	Inch groups														Total	Percent	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
0	24	64	35	3											126	53.16	144.0
Unknown					18	31	21	12	8	7	3	7	3	1	111	46.84	126.9
Total	24	64	35	3	18	31	21	12	8	7	3	7	3	1	237	100.00	270.9

SWDMCLYY.D05
SWDMCLAG.D05

Table 25. Diurnal sunfish sampling at Marion County Lake on May 11, 2005.

Species	Inch class										Total	CPUE	Std. err.
	1	2	3	4	5	6	7	8	9	10			
Bluegill	5	97	115	54	41	38	25	3			394	394	70.1
White crappie			3	29	23	2		1	3	1	67	67	21.3
Redear sunfish			2	15	17	21	9	12	10	3	89	89	19.0

SWDMCLSF.D05

Table 26. Bluegill population assessment for Marion County Lake during 2005.

	Parameter	Value	Assessment score
Growth	Mean length age - 2 at capture	4.68	3
Growth	Years to 6.0 inches	3.5	3
Size Structure	CPUE ≥ 6.0 inches	66	3
Size Structure	CPUE ≥ 8.0 inches	3	2
Total score			11
Assessment rating			Good

SWDMCLSF.D05
SWDMCLAG.D02

Table 27. Spring diurnal electrofishing CPUE (fish/hour) for each size class of bluegill collected at Marion County Lake in 2005.

Year	Inch class									
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0		Total	
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	94.3	22.1	182.2	40.23	61.1	17.5	3	2.1	394	70.1

SWDMCLSF..D05

Table 28. Redear population assessment for Marion County Lake during 2005.

Parameter		Value	Assessment score
Growth	Mean length age - 3 at capture	7.0	4
Growth	Years to 8.0 inches	4	3
Size Structure	CPUE ≥ 8.0 inches	25	4
Size Structure	CPUE ≥ 10.0 inches	3	3
Total score			14
Assessment rating			Excellent

SWDMCLSF.D05
SWDMCLAG.D02

Table 29. Length frequency of redear sunfish by size group collected in spring electrofishing sampling at Marion County Lake 2005.

	Inch Class											
	< 3.0		3.0 – 5.9		6.0 – 7.9		> 8.0		> 10.0		Total	
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std. err.	CPUE	Std.err.
2005			28.5	6.6	25.2	10.2	22.1	7.9	3	1.5	89	19.0

SWDMCLSF.D05

Table 30. Nocturnal bass electrofishing relative abundance and CPUE (1.5 hours) at Shanty Hollow Lake on May 5, 2005

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	22			
Largemouth bass	1	18	39	38	19	20	91	71	79	46	14	7	3	7	4	5	3	1	1	467	311.3	45.4

SWDSHLBB.D05

Table 31. PSD and RSD values for largemouth bass from spring electrofishing samples at Shanty Hollow Lake 2005. 95% confidence intervals are in parentheses.

No. ≥ 8 inches	PSD	RSD_{15}
352	25.9 (4.6)	6.8 (2.6)

SWDSHLBB.D05

Table 32. Spring nocturnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Shanty Hollow Lake from 1999 - 2005.

Year	Inch class								Total	
	<8.0		8.0-11.9		12.0-14.9		≥ 15.0			
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	76.7	10.8	174	18.2	44.7	3.8	16	3.6	311.3	28
2004	19.4	3.6	133.7	9.7	36.6	5	24	2.8	213.8	17
2003	17.7	4	125.1	12.5	76.6	6.7	32	5	251.4	18
2002	20	4.1	52	8	69.7	6.2	16	2.6	157.7	11.1
2001	17.1	3.4	49.1	7.3	45.1	8.6	21.7	3.6	133.1	6.5
2000	23.4	3.8	44.6	8.3	46.9	3.2	48	3.6	162.3	7.0
1999	8.6	2.5	75.4	11.1	90.3	6.5	28	6	202.3	16.7

SWDSHLBB.D99 - .D05

Table 33. Age-frequency for largemouth bass collected during fall electrofishing at Shanty Hollow Lake during 2005.

Age	Inch groups														Total	Percent	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
0	2	111	106	44	6										269	73.9	179.3
Unknown					2	20	28	5	13	12	9	1	2	3	95	26.1	63.3
Total	2	111	106	44	8	20	28	5	13	12	9	1	2	3	364	100.0	242.7

SWDSHLYY.D05
SWDSHLAG.D05

Table 34. Diurnal sunfish sampling at Shanty Hollow Lake on May 16, 2005.

Species	Inch class										Total	CPUE	Std. err.
	1	2	3	4	5	6	7	8	9	10			
Bluegill	17	107	96	121	99	118	84	2			644	396	34.5
Redear sunfish		2	3	1	2	11	4	5	1		29	17.8	3.3

SWDSHLSF.D05

Table 35. Bluegill population assessment for Shanty Hollow Lake during 2005.

	Parameter	Value	Assessment score
Growth	Mean length age - 2 at capture	4.81	3
Growth	Years to 6.0 inches	2.7	4
Size Structure	CPUE ≥ 6.0 inches	126	4
Size Structure	CPUE ≥ 8.0 inches	1.2	1
Total score			12
Assessment rating			Good

SWDSHLSF.D05
SWDSHLAG.D02

Table 36. Spring diurnal electrofishing CPUE (fish/hour) for each size class of bluegill collected at Shanty Hollow Lake in 2005.

Year	Inch class									
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0		Total	
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	70.9	13.1	180.6	21.8	115.4	12	1.1	0.8	396	3.3

SWDSHLSF..D05

Table 37. Redear population assessment for Shanty Hollow Lake during 2005.

	Parameter	Value	Assessment score
Growth	Mean length age - 3 at capture	7.2	4
Growth	Years to 8.0 inches	4	3
Size Structure	CPUE ≥ 8.0 inches	3.7	1
Size Structure	CPUE ≥ 10.0 inches	0	1
Total score			9
Assessment rating			Fair

SWDSHLSF.D05
SWDSHLAG.D02

Table 38. Length frequency of redear sunfish by size group collected in spring electrofishing sampling at Shanty Hollow Lake 2005.

Year	Inch Class											
	< 3.0		3.0 – 5.9		6.0 – 7.9		> 8.0		> 10.0		Total	
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std. err.	CPUE	Std.err.
2005	1.1	1.1	3.4	1.4	8.6	2.0	3.4	1.4	0		17.8	19.0

SWDSHLSF.D05

Table 39. Nocturnal bass electrofishing relative abundance and CPUE (1.5 hours) at Spurlington Lake on May 25, 2005

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	22			
Largemouth bass	2	2	6	7	4	12	15	15	23	42	25	6	3	2	2	2		1		169	338	23.2

SWDSPLBB.D05

Table 40. PSD and RSD values for largemouth bass from spring electrofishing samples at Spurlington Lake 2005. 95% confidence intervals are in parentheses.

No. ≥ 8 inches	PSD	RSD_{15}
148	56.1 (8.0)	6.8 (4.1)

SWDSPLBB.D05

Table 41. Spring nocturnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Spurlington Lake from 2002 - 2005.

Year	Inch class								Total	
	<8.0		8.0-11.9		12.0-14.9		≥ 15.0			
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	42	13.2	130	26.2	146	12.4	20	2.3	338	23.2
2004	28.9	6.6	200	40.6	109.6	10.6	19.2	5	372	39.8
2003	61.5	14.4	233.9	29.2	123.1	11.4	12.3	3.1	448	47.2
2002	21.6	3.9	145.1	14.1	174.5	22.1	35.3	3.4	384	32.8

SWDSPLBB.D02 - .D05

Table 42. Age-frequency for largemouth bass collected during fall electrofishing at Spurlington Lake during 2005.

	Inch Class																			
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	Total	Percent	CPUE
0	8	13	2															23	31.5	46.0
Unknown			3	4	6	6	1	5	4	6	3	2	4	3	1	1	1	50	68.5	100.0
Total	8	13	5	4	6	6	1	5	4	6	3	2	4	3	1	1	1	73	100.0	146.0

SWDSPLYY.D05
SWDSPLAG.D05

Table 43. Length frequency and CPUE of sunfish collected by diurnal electrofishing at Spurlington Lake on May 11, 2005.

	Inch class												
Species	1	2	3	4	5	6	7	8	9	10	Total	CPUE	Std. error
Bluegill	6	27	42	40	26	14	11	7	1		74	348	68.9
Warmouth				1	1	9	3	2			16	32	6.5
White crappie			1		11	7	1	2	2	5	29	48	34.5

SWDSPLSF.D05

Table 44. Bluegill population assessment for Spurlington Lake during 2005.

	Parameter	Value	Assessment score
Growth	Mean length age - 2 at capture	4.11	2
Growth	Years to 6.0 inches	2.8	4
Size Structure	CPUE ≥ 6.0 inches	66	3
Size Structure	CPUE ≥ 8.0 inches	16	4
Total score			13
Assessment rating			Good

SWDSPLSF.D05
SWDSPLAG.D03

Table 45. Spring diurnal electrofishing CPUE (fish/hour) for each size class of bluegill collected at Spurlington Lake in 2005.

Year	Inch class								Total	
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0			
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	66	14.4	216	45.7	50	15.8	16	8.6	348	68.9
SWDSHLSF..D05										

Table 46. Length frequency and CPUE of sunfish collected by diurnal electrofishing at Metcalfe County Lake on April 25, 2005.

Species	Inch class										Total	CPUE	Std. error
	1	2	3	4	5	6	7	8	9	10			
Bluegill	1	38	66	149	274	201	26				755	1294.3	165.1
White crappie						1	16	5			22	38	28.7
SWDMETSF.D05													

Table 47. Spring diurnal electrofishing CPUE (fish/hour) for each size class of bluegill collected at Metcalfe County Hollow Lake in 2005.

Year	Inch class								Total	
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0			
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
2005	66.8	9.4	807.7	113.5	366.2	61.8	0		1294.3	165.1
SWDMETSF..D05										

Table 48. Length frequency and CPUE of sunfish collected by diurnal electrofishing at Fagan Branch Lake on May 3, 2005.

Species	Inch class										Total	CPUE	Std. error
	2	3	4	5	6	7	8	9	10	11			
Bluegill	33	43	22	23	14	5	2				142	319.5	37.6
Redear		2	8	1	7	19	7	6		1	51	114.5	22.2
SWDLCLSF.D05													

Table 49. Spring diurnal electrofishing CPUE (fish/hour) for each size class of bluegill and redear collected at Fagan Branch Lake in 2005.

Species	Inch class								Total	
	<3.0		3.0-5.9		6.0-7.9		≥ 8.0			
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
Bluegill	74.3	18.9	198.2	30.6	42.8	11.9	4.5	2.6	319.5	37.6
Redear	0		24.8	10	58.6	16.7	31.5	9.4	114.5	22.2
SWDLCLSF..D05										

Table 50. Length frequency and diurnal electrofishing CPUE (fish/hour) of muskellunge collected during late-winter/early spring on Green River Lake in 2005 for 6.25 hours.

	Inch class																													
	13	14	15	16	17	18	19	20	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	Total	CPUE	Std Err.
Muskellunge		1	5	4	2	3			2	3	1	5	1	2	1	1	1	4		2	6	4	2	1	3	2	2	2	60	9.60	1.35

swdgrlmy.d04

Table 51. Muskellunge assessment for Green River Lake spring electrofishing from 1990 to 2005.

	CPUE age 1 fish		CPUE ≥ 20.0 inches		CPUE ≥ 30.0 inches		CPUE ≥ 36.0 inches		CPUE ≥ 40.0 inches		Total	
Year	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	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	2	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	3	17	E
1994	4.11	3	8.94	3	3.90	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	E
1996	5.16	3	16.01	4	3.54	3	0.84	2	0.24	2	14	E
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	E
2000	2.57	2	7.64	3	4.18	4	2.03	4	0.78	4	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	4	18	E
2005	2.40	2	7.20	3	4.80	4	1.92	4	0.96	4	17	E

SWDGRLMY.D90 – D05

Table 52. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected in 6 hours of 30-minute electrofishing runs at Green River Lake during early May; 1.5 hours effort for each area.

Area	Species	Inch class																						
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std. Error
Holmes Bend (upper GR arm)	Largemouth bass	5	6	22	47	50	11	15	22	6	6		5	5	6	1	5	1	2	2		217	144.7	25.83
	Spotted bass		1	3	8	13	8	2	1	1	2		2									41	27.3	1.76
	Smallmouth bass												1	1			1					3	2	1.15
Ramp 1 (lower GR arm)	Largemouth bass	4	9	33	44	39	13	21	9	12	5	14	8	12	3	3	10	3	3	1	1	247	164.7	19.64
	Spotted bass	4	4	6	23	29	15	3	2	7												93	62	24.11
	Smallmouth bass	1	1		1	1	1	1		2	1	1	1									11	7.33	1.76
Lone Valley (lower RC arm)	Largemouth bass	2	6	14	30	26	12	17	8	12	4	10	8	12	6	5	2	3				177	118	15.53
	Spotted bass	11	5	11	29	35	18	6	13	8	2	2										140	93.3	6.96
	Smallmouth bass	2	1			2		3	1	1			1	1								12	8	2.00
Smith Ridge (upper RC arm)	Largemouth bass	1	9	15	28	17	4	11	9	2	3	3	4	5	5	2	1	2				121	80.7	13.38
	Spotted bass		1		4	23	8	4	1			1										42	28	9.87
	Smallmouth bass																					0	0	
Total	Largemouth bass	12	30	84	149	132	40	64	48	32	18	27	25	34	20	11	18	9	5	3	1	762	127	12.53
	Spotted bass	15	11	20	64	100	49	15	17	16	4	3	2									316	52.7	10.06
	Smallmouth bass	3	2		1	3	1	4	1	3	1	1	3	2			1					26	4.3	1.20

SWDGRLBB.D05

Table 53. PSD and RSD values by area for black bass collected from nocturnal spring electrofishing samples at Green River Lake in 2005; 95% confidence intervals are in parentheses. Smallmouth bass and spotted bass omitted where sample sizes too small.

Area	Species	Fish ≥ 8 inches	PSD	RSD*
Holmes Bend	Largemouth bass	87	37.9 (+\- 10.2)	25.3 (+\- 9.2)
	Spotted bass	29	17.2 (+\- 14)	6.9 (+\- 9.3)
Ramp 1	Largemouth	118	53.4 (+\- 11)	30.5 (+/- 8.3)
	Spotted bass	56	12.5 (+\- 9.7)	
Lone Valley	Largemouth bass	99	50.5 (+\- 10.1)	28.3 (+\- 8.9)
	Spotted bass	84	14.3 (+\- 7.5)	
Smith Ridge	Largemouth bass	51	49.0 (+\- 14.1)	29.4 (+\- 12.6)
	Spotted Bass	37	2.7 (+\- 5.3)	
Total	Largemouth bass	355	48.2 (+/- 6.2)	28.5 (+/- 5.3)
	Spotted bass	252	12.1 ((+\- 4.4)	1 (+\- 1.3)
	Smallmouth bass	20	55 (+\- 22.4)	30 (+\- 20.6)

* Largemouth bass RSD = 15; Smallmouth and Spotted bass RSD = 14

SWDBRLBB.D05

Table 54. Largemouth bass assessment for Green River Lake spring electrofishing from 1991 to 2005.

Year	Mean age-3 length at capture		Spring CPUE age 1		Spring CPUE 12 - 14.9 inch		Spring CPUE ≥ 15 inch		Spring CPUE ≥ 20 inch		Total	
	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1991	12.50	4	22.52	2	12.78	1	2.79	1	0.29	2	10	F
1992	12.50	4	2.71	1	21.73	2	14.63	3	2.44	3	13	G
1993	12.50	4	4.73	1	21.60	2	11.45	2	1.08	2	11	F
1994	12.50	4	9.08	1	22.74	2	19.21	3	2.43	3	13	G
1995	12.50	4	2.03	1	9.45	1	6.77	2	1.78	3	11	F
1996	12.50	4	6.74	1	14.50	1	9.33	2	0.50	2	10	F
1997	12.65	4	2.80	1	23.33	2	24.33	4	1.17	2	13	G
1998	12.65	4	33.5	2	8.83	1	19.50	3	2.00	3	13	G
1999	12.65	4	19.34	1	21.00	2	18.50	3	3.00	4	14	G
2000	12.65	4	1.60	1	24.17	2	17.83	3	3.17	4	14	G
2001	12.65	4	10.73	1	32.17	3	12.5	3	1.67	3	14	G
2002	12.65	4	5.00	1	20.5	2	13.0	3	1.17	2	12	G
2003	14.35	4	7.33	1	5.83	1	20.00	4	1.83	3	13	G
2004	13.20	4	13.83	1	11.60	1	16.53	3	0.93	2	11	F
2005	13.20	4	65.33	4	11.77	1	16.83	2	1.5	2	13	G

SWDGRLAG.D91,98,03; SWDGRLBB.D91-05

Table 55. Spring nocturnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Green River Lake from 1997 - 2005.

Year	Inch class									
	<8.0		8.0-11.9		12.0-14.9		≥ 15.0		Total	
	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.	CPUE	Std.err.
1991	40.08	8.86	36.05	6.65	13.27	1.49	2.52	0.80	91.93	14.82
1992	3.74	1.26	35.72	3.59	24.03	3.94	11.75	2.05	75.24	6.21
1993	19.33	3.78	15.37	2.32	21.65	2.17	10.64	1.12	67.0	6.71
1994	24.07	6.83	86.1	9.33	22.38	2.81	16.57	2.11	149.2	13.95
1995	NA		NA	NA	NA		NA		NA	
1996	NA		NA	NA	NA		NA		NA	
1997	3.67	1.04	22.33	2.46	23.33	2.83	23.17	2.10	72.5	5.18
1998	33.5	7.66	9.0	1.82	8.83	2.04	17.5	1.84	68.83	8.61
1999	21.38	3.76	53.54	7.18	19.38	4.0	14.31	1.66	117.5	12.51
2000	2.5	0.89	41.0	4.37	24.17	3.41	14.67	3.37	82.33	8.59
2001	10.17	2.50	26.67	2.99	32.17	6.45	12.5	1.5	81.5	7.77
2002	5.0	1.14	9.5	1.46	20.5	2.49	13.0	2.46	48.0	4.24
2003	5.83	1.38	12.33	2.07	5.83	1.78	18.17	2.96	42.17	4.12
2004	17.33	2.74	22.8	2.10	11.6	1.81	15.6	2.55	67.33	6.41
2005	67.83	7.98	30.67	2.78	11.67	1.86	16.83	2.52	127	12.53

SWDGRLBB.D91 - .D05

Table 56. Fall diurnal electrofishing length frequency and CPUE (fish/hour) for YOY largemouth bass collected from Green River Lake 2005.

Age	Inch group																	Total	Percent	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
YOY	9	27	48	46	40	14	1											186	63.7	30.83
≥ Age-1						8	9	17	33	15	10	7	2		3		3	106	36.3	17.67
Total	9	27	48	46	40	22	10	17	33	15	10	7	2		3		3	292	100.0	48.66

Swdgrlyy.d05
Swdgrlag.d05

Table 57. Indices of year class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall and following spring electrofishing samples at Green River Lake since 2002.

Year class	Age 0		Age 0		Age 0 ≥ 5.0 inch		Age 1	
	Mean length	Std error	CPUE	Std Error	CPUE	Std Error	CPUE	Std Error
2005	5.17	0.09	31.67	7.44	16.83	4.33		
2004	4.96	0.07	60.83	8.97	28.0	3.62	65.33	7.66
2003	3.88	0.08	32.83	9.69	5.5	1.23	11.87	2.09
2002	3.87	0.07	32.67	9.70	5.33	1.16	7.25	1.58

SWDGRLWR.D02 – D04, SWDGRLYY.D05
SWDGRLAG.D03 - D05
SWDGRLBB.D03 – D05

Table 58. Length frequency and CPUE of white crappie collected in 58 net nights with trap nets during October and November at Green River Lake, 2005. Standard error is in parentheses.

Inch class												Total	CPUE
3	4	5	6	7	8	9	10	11	12	13			
41	59	11	78	220	198	170	80	14	1	1		873	15.86 (2.81)

SWDBRLTN.D05

Table 59. PSD and RSD10 values calculated for crappie collected in trap nets at Green River Lake during October and November 2005. 95% confidence limits are in parentheses.

Species	Fish >	PSD	RSD_{10}
White crappie	66	60.0 (3.4)	12.4 (11.4)

SWDGRLTN.D05

Table 60. White crappie assessment for Green River Lake from 1985 to 2005.

Year	CPUE excluding age 0		CPUE age 1		CPUE age 0		CPUE ≥ 8 inches		Mean age-2 length at capture		Total	
	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1986	16.87	3	3.23	2	1.23	1	3.99	1	7.92	1	8	F
1987	15.43	3	4.06	2	19.16	4	5.16	3	8.05	1	13	G
1988	15.87	3	8.87	3	18.62	4	4.52	2	8.00	1	13	G
1989	26.30	4	20.24	4	1.29	1	6.38	3	9.59	4	16	G
1990	12.61	2	5.87	2	0.42	1	7.57	3	9.17	3	11	F
1991	8.68	2	2.93	2	6.88	3	6.15	3	9.25	3	13	G
1992	28.34	4	24.48	4	1.84	1	8.54	3	9.96	4	16	G
1993	24.81	4	6.99	3	1.22	1	15.53	4	9.00	2	14	G
1994	8.65	2	2.47	1	11.78	4	6.08	3	9.30	3	13	G
1995	16.18	3	11.12	3	13.22	4	10.74	3	9.96	4	17	E
1996	13.36	3	6.51	2	3.17	2	5.96	2	9.24	3	12	F
1997	14.08	3	3.94	2	1.89	1	8.11	3	8.65	2	11	F
1998	9.21	2	2.48	1	3.78	2	8.01	3	9.29	3	11	F
1999	7.38	2	5.21	2	0.99	1	2.86	1	9.94	4	10	F
2000	6.29	2	1.45	1	0.01	1	5.17	2	9.66	4	10	F
2001	4.27	1	0.15	1	10.78	4	4.17	2	9.45	3	11	F
2002	10.87	2	9.69	3	0.53	1	4.11	2	9.80	4	12	F
2003	12.95	2	5.08	2	3.30	2	6.80	3	9.12	3	12	F
2004	17.67	3	9.60	3	3.84	2	7.93	3	8.37	1	12	F
2005	13..82	3	3.0	2	1.7	1	8.0	3	8.4	1	10	F

SWDGRLTN.D86 - 05

Table 61. Length frequency and CPE for white bass and walleye collected by experimental gillnets (16 net nights) during late-October at Green River Lake, KY 2005. Standard error in parentheses.

Species	Inch Class														CPUE
	5	6	7	8	9	10	11	12	13	14	15	16	22	24	
White bass	4	4	10	10	1	20	40	24	18	11	2	1			9.67 (2.13)
Walleye				2	2	5	2	2	1	2		1	1	1	1.27 (0.43)

SWDGRLGN.D05

Table 62. Walleye assessment from gill netting from Green River Lake 1996-2005.

Year	CPUE age 1 fish and older		Mean length of age 2+ fish at capture		CPUE ≥ 20.0 inches		CPUE of age 1 fish		Total	
	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1996	1.81	1	18.61	4	0.12	1	1.44	2	8	F
1997	0.75	1	17.3	3	0.19	1	0.44	1	6	F
1998	0.5	1	17.64	3	0.06	1	0.29	1	6	F
1999	3.2	2	17.31	3	0.13	1	1.67	2	8	F
2000	5.04	3	18.11	4	0.17	1	4.07	4	12	G
2001	5.75	3	17.79	3	0.00	1	5.03	4	11	G
2002	2.57	2	17.82	3	0.39	1	0.74	1	7	F
2003	2.12	2	18.27	4	0.50	2	1.62	2	10	G
2004	1.13	1	16.43	2	0.00	1	0.75	1	5	P
2005*	0.63	1	17.75	3	0.13	1	0..50	1	6	F

* Used mean values from previous years for age data
SWDGRLGL.D96 – D05

Table 63. White bass assessment from fall gill netting at Green River Lake 1991-2005.

Year	CPUE age 1 fish and older		Mean length of age 2+ fish at capture		CPUE ≥ 12.0 inches		CPUE of age 1 fish		Total	
	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1991	22.19	4	13.95	4	10.69	4	14.56	4	16	E
1992	33.75	4	13.37	4	16.75	4	10.14	4	16	E
1993	32.31	4	13.65	4	16.31	4	14.95	4	16	E
1994	22.56	4	13.43	4	15.62	4	4.49	2	14	E
1995	17.56	3	13.51	4	11.94	4	9.13	3	14	E
1996	33.06	4	13.64	4	18.88	4	18.38	4	16	E
1997	17.12	3	12.94	3	10.88	4	3.81	2	12	G
1998	19.06	3	12.86	3	6.31	3	6.43	3	12	G
1999	26.60	4	13.26	4	13.40	4	16.22	4	16	E
2000	11.54	3	13.58	4	9.42	3	2.77	2	12	G
2001	8.00	2	14.00	4	4.88	2	0.07	1	9	F
2002	10.17	3	13.80	4	4.43	2	5.41	3	12	G
2003	18.88	3	12.52	3	1.31	1	2.29	1	8	F
2004	5.75	2	12.78	3	0.50	1	3.50	2	8	F
2005*	7.38	2	12.41	3	3.50	2	5.75	3	10	G

* Used mean values from previous years for age data
SWDGRLGL.D91 – D05

Table 64. Fish harvest statistics derived from a creel survey at Green River Lake Tailwater from 1 April through 31 October 2005.

		Number	Std. error
Fishing trips			
	Number of fishing trips	5,137	
	Average trip length (hours)	1.85	
Fishing pressure			
	Total man-hours	9,484	207
Catch/harvest			
	Number of fish caught	10,449	869
	Number of fish harvested	4,747	566
	Pounds of fish harvested	3,479	
Harvest rates			
	Fish/hour	0.50	
Catch rates			
	Fish/hour	1.09	
Miscellaneous characteristics (%)			
	Male	78.2	
	Female	21.8	
	Resident	98.3	
	Non-resident	1.7	
Method (%)			
	Still fishing	84.9	
	Casting	15.1	
Mode (%)			
	Boat	1.1	
	Bank	98.9	

Table 65. Length distribution and species composition (released fish lengths were estimates) for each species of fish harvested at Green River Lake Tailwater from 1 April to 31 October 2005.

Species	Status	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	29	32	35	39	44
Muskellunge	Harvest																											3	3	7	3
Channel catfish	Harvest							3	3	3	53	40	99	69	53	40	30	36	16	10	10	13	10	3		3					
	Released				3			20	33	3	69	13	30	23	7		7	7				2									
Flathead catfish	Harvest															3				3											
White bass	Harvest				7	10	43	144	213	105	52		7	2																	
	Released				10	113	319	169	83	20	47	3																			
Rock bass	Harvest		3	6	22	63	44																								
	Released			65	100	86	54																								
Bluegill	Harvest		7	33	648	527	22																								
	Released	14	78	507	416	72																									
Smallmouth bass	Harvest										6	3			3																
	Released				10	14	54	17	75	10	3																				
Spotted bass	Harvest										4		3																		
	Released						3	3	4																						
Largemouth bass	Harvest										3	9	6	9		4															
	Released				10	10	24	28	41	17	7		2																		
White crappie	Harvest					43	409	583	288	29	9																				
	Released				56	95	75	33	13	3																					
Walleye	Harvest													28	28	16	19		3	3	3	3	3	3	3						
	Released				3	54	111	521	518	67	403	187	206	6																	
Drum	Harvest							6	29	10	61	32	35	19	48	48	29	35	29	3	6	10		3	3		6				
	Released																														

Table 66. Fish harvest statistics derived from a creel survey on Green River Lake tailwater from 1 April through 31 October 2005.

	Muskellunge	Channel catfish	Flathead catfish	White bass	Rock bass	Bluegill	Smallmouth bass	Spotted bass	Largemouth bass	White crappie	Walleye	Drum
No. caught	16.6	712.7	6.8	1347.3	444.8	2325.2	196.5	17.4	172.3	1637	2192.3	575.7
No. Harvested	16.6	494.7	6.8	583.2	138.9	1237.2	12.5	7.1	31.5	1361.5	115.6	412
% total harvest	0.4	10.42	0.1	12.3	2.9	26.1	0.3	0.2	0.7	28.7	2.4	8.7
Lb harvested	232.8	643.3	19	266.2	33.3	206.6	14.7	6.6	46.6	418.9	212.6	671.4
% of total lb harvested	6.7	18.5	0.5	7.7	1	5.9	0.4	0.2	1.3	12	6.1	19.3
Mean length (in)	35.6	16.1	19	9.5	6.9	6.3	13.3	13	14.6	9.1	18.6	15.6
Mean weight (lb)	11.7	1.4	2.8	0.4	0.2	0.2	1.1	0.9	1.7	0.3	2.4	1.6

	Muskellunge	Catfish group	W. bass	Panfish group	Black bass group	Crappie group	Walleye	Drum	Anything
No. of fishing trips for that species	31	776	99	97	165	375	531	112	2838
% of all trips	0.6	14.9	1.9	1.9	3.2	7.3	10.3	2.2	55.2
Hours fishing for that species	56.4	1414.4	183.4	179.3	305.3	692.7	980.1	206	5239.2
No. harvested fishing for that species	0	183	211	188	9	984	48	136	
Lb harvested fishing for that species	0	266.4	94.6	32.8	10.7	298.9	93.3	296.1	
No./hour harvested for that species	0	0.1	1	0.9	0.05	1.5	0.05	0.6	
% success fishing for that species	0	13.5	21.1	37.1	4.8	48.8	7.1	53.5	

Table 67. Monthly black bass angling success at Green River Lake tailwater during the 2005 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	19	11						
May	73	17	18	32.2	21	0.65		
June	40	10	29	53.1	13	0.25	3	0.06
July	48	7	26	47.7	27	0.57	3	0.06
August	79	3	32	58.4	66	1.13	3	0.05
September	122	4	38	70.7	53	0.75		
October	6							
Total	386	51	165	305.3	180	0.59	9	0.03

Table 68. Monthly crappie angling success at Green River Lake tailwater during the 2005 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	118	91	68	125.8	113	0.9	86	0.7
May	1100	981	221	408.3	812	2	749	1.8
June	301	271	49	90.3	134	1.5	124	1.4
July	113	45	24	43.4	45	1	21	0.5
August	10							
September	19	4	11	20.2	4	0.2	4	0.2
October	9	3	3	4.6				
Total	1670	1394	375	692.7	1108	1.6	984	1.4

Table 69. Monthly catfish angling success at Green River Lake tailwater during the 2005 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	21	16	79	145.2	14	0.1	11	0.08
May	229	182	227	419	90	0.21	70	0.17
June	110	94	150	276.3	30	0.11	27	0.1
July	130	75	110	204	27	0.13	10	0.05
August	79	47	66	121.3	22	0.18	16	0.13
September	57	34	52	95.9	15	0.16	15	0.16
October	93	53	83	152.8	68	0.45	34	0.22
Total	720	502	766	1414.4	266	0.19	183	0.13

Table 70. Monthly walleye angling success at Green River Lake tailwater during the 2005 creel survey period.

Month	Total number of walleye caught	Total number of walleye harvested	Number of walleye fishing trips	Hours fished by walleye anglers	Number caught by walleye anglers	Number caught/hour by walleye anglers	Number harvested by walleye anglers	Number harvested/hour by walleye anglers
April	438	29	249	459.8	278	0.6	21	0.05
May	570	63	166	306.2	239	0.78	27	0.09
June	698	17	49	90.3	97	1.1		
July	315	3	49	91.1	55	0.6		
August	101		10	18				
September	8							
October	62	3						
Total	2,192	116	531	980.1	669	0.68	48	0.05

Table 71. Monthly white bass angling success at Green River Lake tailwater during the 2005 creel survey period.

Month	Total number of white bass caught	Total number of white bass harvested	Number of white bass fishing trips	Hours fished by white bass anglers	Number caught by white bass anglers	Number caught/hour by white bass anglers	Number harvested by white bass anglers	Number harvested/hour by white bass anglers
April	88	37	47	87.1	24	0.28	21	0.24
May	375	288	17	32.2	73	2.3	73	2.3
June	351	180	6	10.6	103	9.7	100	9.41
July	428	58	16	30.4	205	6.7	17	0.56
August	60	13	10	18	16	0.9		
September	30							
October	16	6						
Total	2,192	116	99	183.4	421	2.3	211	1.15

Appendix A.

GREEN RIVER LAKE TAILWATER ANGLER ATTITUDE SURVEY 2005

1. Have you been surveyed this year? Yes - stop survey No – continue

2. Which species of fish do you fish for at Green River Lake Tailwater? (Circle all that apply) **(n = 399)**

Bass (25.6%) Crappie (38.1%) White Bass (17.3%) Bluegill (25.6%) Channel Catfish (64.9%)

Muskie (11.8%) Walleye (48.9%) Other (14.6%) – drum, rock bass, carp, suckers, & flatheads

3. Which one species do you fish for most at Green River Lake Tailwater? (Circle only one)

Bass (8.6%) Crappie (13.9%) White Bass (2.6%) Bluegill (5.2%) Channel Catfish (39.8%)

Muskie (2.1%) Walleye (24.1%) Other (3.8%) – drum, rock bass, carp, & flatheads

-Ask following questions relevant to each species fished for- (see question 3)

Walleye Anglers (n = 197)

4. What level of satisfaction do you have with walleye fishing at Green River Lake Tailwater?

Very satisfied (8.6%) Somewhat satisfied (46.2%)Neutral (10.2%) Somewhat dissatisfied (33.5%) Very dissatisfied (1.5%)

Bass Anglers (n = 108)

5. What level of satisfaction do you have with bass fishing at Green River Lake Tailwater?

Very satisfied (8.3%) Somewhat satisfied (62 %) Neutral (8.3%) Somewhat dissatisfied (19.4%) Very dissatisfied (1.9%)

Crappie Anglers (n = 156)

6. What level of satisfaction do you have with crappie fishing at Green River Lake Tailwater?

Very satisfied (17.3%) Somewhat satisfied (53.2%) Neutral (7.1%) Somewhat dissatisfied (19.9%) Very dissatisfied (2.6%)

White Bass Anglers (n = 67)

7. What level of satisfaction do you have with white bass fishing at Green River Lake Tailwater?

Very satisfied (6%) Somewhat satisfied (61.2%)Neutral (16.4%) Somewhat dissatisfied (16.4%) Very dissatisfied (0%)

Catfish Anglers (n = 251)

8. What level of satisfaction do you have with the channel catfish fishing at Green River Lake Tailwater?

Very satisfied (18.3%) Somewhat satisfied (56.6%) Neutral (6.8%) Somewhat dissatisfied (17.1%) Very dissatisfied (1.2%)

9. What level of satisfaction do you have with the flathead catfish fishing at Green River Lake Tailwater?
- too few anglers to quantify

Muskie Anglers (n = 45)

10. What level of satisfaction do you have with the muskie fishing at Green River Lake Tailwater?

Very satisfied (22.2%) Somewhat satisfied (57.8%) Neutral (8.9%) Somewhat dissatisfied (11.1%) Very dissatisfied (0%)

Bluegill Anglers

10. What level of satisfaction do you have with the muskie fishing at Green River Lake Tailwater?

Very satisfied (22.5%) Somewhat satisfied (59.8%) Neutral (5.9%) Somewhat dissatisfied (11.8%) Very dissatisfied (0%)

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. 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 1 and 2. Catch rates for bass ≥ 12 inches were 74.6 f/h in 2005 compared to 56.1 f/h in 2004. Catch rates for bass ≥ 15 inches were 34.3 f/h compared to 13.2 f/h in 2004. Catch rates for all sizes of bass increased from last year. The middle section (Ashes Creek area) continued to have the highest catch rate for largemouth bass. The PSD for largemouth bass was again 68, as in 2004 (41 in 2003). The RSD_{15} value was 31 compared to 16 in 2004 (Table 3). Largemouth bass age and growth rates are based on otolith samples taken in 2002 (Tables 4 and 5). Growth rates indicated most bass are reaching harvestable size (15 in) between age 4 and 5 in 2002. There continues to be a significant decline of age 5 and older bass (bass at the 15 in size limit and larger). The largemouth bass population assessment score (based on spring electrofishing data) was 17 ("Excellent") compared to 14 ("Good") in 2004 (Table 6). Length frequencies of largemouth bass collected during September electrofishing are presented in Table 7. Relative weight data collected in September are presented in Table 8 and indicate good body condition for all size categories (100 optimal). The index of largemouth bass year class strength from data collected in September is presented in Table 9. Mean length of age 0 largemouth bass captured increased from 4.4 in in 2004 to 4.9 in 2005. CPUE of Age 0 largemouth bass decreased from 50.0 f/h in 2004 to 31.8 f/h in 2005. Two weeks after the September sampling, approximately 15,000 largemouth bass fingerlings (4.9 in) were stocked. Largemouth bass fingerlings have been stocked annually since 2000 at rates ranging from 5 f/a to 10 f/a. The need for stocking and the numbers stocked in reservoirs are now based (since 2004) on results of the September year class strength electrofishing.

Trap netting efforts during October 2005 captured 153 white crappie compared to 146 white crappie in 2004. Tables 10 – 16 show crappie data collected in 2005. There were 280 black crappie captured compared to 634 black crappie captured in 2004. Crappie were sampled during 48 net-nights. Age and growth determinations were completed using otoliths removed from 79 white crappie and 76 black crappie. Age frequency and CPUE of white crappie and black crappie indicated the black crappie were reaching 9 inches (legal size) between age 2 and 3 (Table 14). White crappie reached 9 inches between age 2 and age 3, one year quicker than estimated last year (Table 12). The crappie population assessment score (Table 16) based on Colvin and Vasey assessment method was 11 ("Fair") compared to 13 ("Good") in 2004, and 9 in 2003 ("Fair"). The cause for the increasing catch rate of black crappie compared to white crappie is not entirely known.

Fall gill netting for hybrid striped bass was conducted during October 2005 (Tables 17 – 21). A total of 69 hybrid striped bass were collected compared to 38 in 2004. Hybrid striped bass were captured in 8 net nights for a CPUE of 4.31 (± 1.76) fish/net night. The hybrid striped bass population has exhibited notable fluctuations since 1990. The density of hybrid striped bass in Taylorsville Lake appears to be proportional to the amount of increased 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. Catch rate for age 1 and older hybrid striped bass was 1.06 (± 0.30) fish/net-night, well below the set objective of 60 fish/net-night (Table 21). Overall, annual stocking rates for hybrid striped bass have been about 20 fish/acre since the initial stocking in 1989. Age and growth studies were completed for both hybrid striped bass and white bass using otoliths. These studies indicate hybrid striped bass reach harvestable size (15 inches) between age 2 and 3. Seventy-five percent of the hybrid striped bass caught were Age 0+, with only 11% being Age 2+ or older (Table 19). The population assessment for hybrid striped bass was rated at "Poor" (Table 21). A total of 62,109 (20/acre) hybrid striped bass (2.0 in.) were stocked in Taylorsville Lake in 2005.

Data for white bass collected during these gillnetting studies are presented in Tables 17, 22 - 25. White bass collected during the study comprised 58% of the *Morones*, compared to 70% in 2004, and 55% in 2003. Of white bass collected, 93% were Age 2 or less (Table 22) with most measuring 11- or 12 inches (Table 23) and being under-average in weight (Table 24). The white bass population assessment gave a rating of "Fair" (Table 25).

Channel catfish population data was collected while fall gill netting at Taylorsville Lake. Channel catfish and blue catfish were sampled using gill nets for 16 net-nights. Data from these studies are presented in Tables 26 – 33. A total of 200 channel catfish (71%) and 82 blue catfish (29%) were captured. In 2004, a total of 47 (33%) channel catfish and 94 (67%) blue catfish were collected. Age and growth studies (otoliths) indicated channel catfish reaching 12 inches between age 3 and 4, and 15 inches between age 5 and 6 (Table 27). Of the channel catfish collected, 67% were age 1+ (Table 28). The population assessment for channel catfish indicated a "Good" fishery (Table 32).

Blue catfish were stocked in Taylorsville Lake for the first time in 2002. In 2005, blue catfish captured ranged from 8 in to 22 in. A total of 22,568 (7.4 f/a) were stocked in 2005. All four years of stocked fish were represented (total of 82 fish) in 2005 sampling. Mean lengths of these four year classes were 6.3 in, 10.8 in, 13.8 in, and 17.8 in (Table 29). The population assessment for blue catfish indicated a "Good" population present (Table 33).

Herrington Lake

Diurnal electrofishing studies were completed in May 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 34. Catch rate for all sizes exceeded previous recorded levels (Table 35). While the numbers of smaller bass < 8 in increased, all other groups decreased in numbers. The mid-lake area had a higher catch rate than the upper and lower sections. The PSD for largemouth bass was 43, compared to 51 in 2004 and 67 in 2003 indicating a decline of larger fish. The RSD_{15} was 21, compared to 22 in 2004 and 25 in 2003 (Table 36). Age frequency for largemouth bass is presented in Table 37. A total of 89% of the largemouth bass collected were age 3 or younger. The population assessment based on spring electrofishing data indicated a "Good" population (Table 39). Fall electrofishing was done to evaluate largemouth bass relative weight index (Table 40 and 41) with bass in the upper end of the lake measuring greater than 15 in having the best body weight. Year class strength at age 0 and age 1 are shown in Table 42. Kentucky Utilities made a concerted effort to keep the lake level stable during the bass spawn, even during periods of heavy rainfall.

Diurnal electrofishing studies were completed in March to monitor the crappie population. Upper, middle, and lower lake sections were sampled for a total of 4.5 hours (six 15-min runs per section). A total of 367 crappie were collected compared to 178 crappie in 2004 and 79 in 2003. Catch in the lower and middle sections of the lake was dominated by white crappie, while black crappie numbers were highest in the upper section (Table 43). PSD values are shown in Table 44. Age and growth studies of white and black crappie indicated white crappie reach 9 inches between age 2 and 3, and black crappie reach 9 in by Age 2 (Tables 45 – 48). Age 2 black and white crappie dominated the crappie samples. 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 2005. During the 12 net night sampling period 15 hybrid striped bass and 36 white bass were collected (Table 49). Otoliths were taken from hybrid striped bass and white bass for age and growth determinations. Results of these studies indicate excellent growth rates. Hybrid striped bass reach 15 inches between age 1 and 2, as they have historically. White bass reach 15 inches between age 3 and age 4, also as in past years. The population assessment for hybrid striped bass indicates a "Fair" population (same in 2004 and 2003). White bass were assessed to be "Fair", compared to "Good" and "Fair" in 2004 and 2003 respectively. An excellent year class of white bass from 2003 continued to be evident, possibly due to above-average rainfall during the spawning period that year. Sampling gear (2 nets) was stolen during these studies, reducing sampling effort and catch. Data from these samples are presented in Tables 49 – 55. Herrington Lake was stocked with 50,088 (20 fish/acre, 1.5 in.) hybrid striped bass in June 2005. Stockings are usually done at two or more access sites in the mid-lake area.

Guist Creek Lake

Spring electrofishing studies were completed for length frequency, CPUE, age frequency and population assessment for largemouth bass in April 2005 (Tables 56 – 62). Size of largemouth bass was well distributed, with over 25% of the fish sampled being ≥ 15 inches. Largemouth bass catch rate for all sizes exceeded those from past years (Table 57), with bass ≥ 15 in at their highest level since 1998. The PSD for largemouth bass was 67 compared to 64 in 2004 and 45 in 2003. The RSD_{15} was 35 compared to 31 in 2004 and 28 in 2003 (Table 58). Age and

growth studies using otoliths indicated largemouth bass continued to reach 12 in (size limit) by Age 3, and 15 in between Age 4 and Age 5 (Table 59). The majority (96%) of bass collected were Ages 2 to 4 (Table 60). The population assessment gave a rating of "Excellent" compared to "Good" in 2004. Fall sampling for relative weight data (Wr) was done, as was the index for year class strength at age 0 and age 1 (Tables 63 – 65). Weight indices indicate good body condition for bass, particularly larger fish (Table 64). Mean length of Age 0 fish increased by 0.5 in from last year while their catch rate declined (Table 65).

Gill netting was completed in October for hybrid striped bass (Tables 66 – 70). Four nets were fished for two nights (8 net-nights) in similar sites as in past years. A total of 27 hybrid striped bass were captured compared to 37 in 2004 and 29 in 2003. Age and growth studies were completed for hybrid striped bass using otoliths. These studies indicate they reach 15 inches (on average) between Age 2 and 3, and 25 in between Age 6 and 7. The population assessment indicated a rating of "Poor" while in 2004 it was "Fair". Length frequency and CPUE of yellow bass captured while netting for hybrid striped bass are also shown. This was the second year for stocking large fingerling hybrid striped bass at a rate of 15 f/a. In September 2005, one month prior to this netting, 5,050 were stocked (5.0 – 8.5 in); in June 2004, 5,044 (7.1 in) hybrid striped bass were stocked in Guist Creek Lake. The size of stocked fish was increased in an effort to improve survival. Netting catch rate of Age 1+ fish (stocked in 2004) remained low. Best catch rates were for fish between 20- and 25 in (Age 3 and 4), 1.6- to 2 in hybrids that had been stocked at about 60 f/a.

Channel catfish were collected from gill nets while sampling for hybrid striped bass (8 net-nights). Baited tandem hoop nets were also fished experimentally for 72 hours to sample channel catfish. Results indicate overwhelming success with the hoop nets (Table 71). Channel catfish captured ranged from 7 in to 26 in. Of channel catfish captured, 73 % were 8 in through 11 in. This was the second year for the 12-in size limit regulation at Guist Creek Lake. A total of 17.5 % were 12 in through 13 in. Age and growth studies (Tables 72 and 73) were done using otoliths from 71 channel catfish. These studies show that channel catfish reach (on average) 12 in between Age 2 and Age 3, 15 in between Age 4 and 5, and (estimated) 20 in between Age 7and 8. The population assessment gave a rating of "Fair" (Table 74).

A roving daytime creel survey was conducted at Guist Creek Lake April through October 2005 (Tables 75 – 85). The last creel survey was done in 1997. For comparison, values from the 1997 survey will be in parenthesis after the 2005 values. During the creel survey period, 3,965 trips (7,655) were estimated for a total of 21,550 man-hours (39,422). Fishing pressure decreased while catch and harvest increased. Major rate changes: No. of fish harvested/hr in 2005 was 0.21 (0.04), lbs/hr harvested was 0.30 (0.07), fish/acre harvested was 14.44 (4.28), fish/hr caught was 1.33 (0.45), and fish/a caught was 90.86 (53.4). The species most often caught in 2005 (and 1997) was bluegill at 15,588 fish (9,029). Second were largemouth bass where catch increased from 3,046 fish in 1997 to 5,039 in 2005. Pounds of bass harvested per acre decreased by almost half from 1997 (6.71 lb/a) to 2005 (3.06 lb/a) indicating a higher rate of catch and release. Bass fishermen were the dominant anglers in 2005 and 1997 spending 9,665 hrs (18,194) fishing for bass. Mean length of bass caught was 14.9 in (15.4 in). Of largemouth bass harvested, 53 % (35%) were between 12- and 14.9-in. Of released bass, 69% (66%) were under 12 in, 21% (20%) were 12- to 14.9 in, and 10% (14%) were 15- to 24-in. Channel catfish were the third most-caught fish at 1,867 fish (2,187). Mean length was 13.7 in (14.6). Catfish catch and harvest statistics are shown in Tables 84 and 85. Hybrid striped bass were fourth at 1,128 fish caught (1,113). Mean length of hybrids caught was 20.3 in (14.0). Hybrid striped bass harvest increased from 0.36 lb/a in 1997 to 1.36 lb/a in 2005. Of hybrid striped bass harvested, 43% were between 15- and 17-in. Of the 1,027 hybrid striped bass caught and released, 89.5% (97.6%) were less than 15 in., with released hybrids ranging from 3- to 27 in. A total of 1,327 (12) yellow bass were caught and released with none harvested. Crappie catch and harvest statistics are shown in Tables 80 and 81. The number of casual fishermen fishing for "anything" decreased by half from 2,030 trips in 1997 to 1,071 trips in 2005. Anglers were surveyed (N = 359) for their opinions of sportfish fisheries and regulation satisfaction. Largemouth bass were the most popular species (72%), followed by bluegill (20%), crappie (11%), then hybrid striped bass and catfish at 10% each. The majority of anglers exhibited some form of positive satisfaction ("very" and "somewhat" satisfied) on the fishing for their species of interest. Most satisfied were bluegill anglers at 82.1%, hybrid striped bass anglers – 78.2%, bass anglers – 76.1%, then crappie anglers – 42.6%. A total of 57% of bass anglers supported the current 12-in size limit while 39% opposed it.

Beaver Lake

The sport fish population continues to improve following gizzard shad removal in 1998. Beaver Lake was sampled for largemouth bass in April 2005 (Tables 86 – 91). The CPUE for all sizes was 423.5 f/hr compared to 417.5 f/hr in 2004 and 312 f/hr in 2003 (Table 86). Catch rates for bass 12.0 in and larger remained the same over the last two years, while numbers of bass between 8.0 and 11.9 in increased greatly (Table 87). Ninety percent of the bass collected were Age 4 or less (Table 89). The population assessment score indicated a "Good" bass population (Table 91). Fall electrofishing results for Relative Weight Index and the index of largemouth bass year class strength are presented in Tables 92 - 94. The Wr index reflected below-average weights for all three size groups (crowding and dense aquatic vegetation). Mean length of Age 0 bass increased as did their catch rates (Table 94).

Bluegill and redear sunfish were sampled in May 2005 for CPUE, age frequency, and age and growth (Tables 95 – 107). Length frequency results showed many bluegill in the 7 in range, with most redear sunfish between 6- and 8 in (Table 95). The PSD for bluegill was 48 compared to 55 in 2004. The RSD was 2 compared to 0 in 2004. Redear sunfish PSD and RSD respectively were 54 and 4 (Table 96). CPUE for bluegill ≥ 8 in was the highest since 2000 (Table 97). Age and growth studies indicated bluegill reached 6 inches between ages 3 and 4, and 8 in between Age 6 and 7 (Table 98). The population assessment for bluegill indicated a "Good" population compared to "Fair" in 2004 (Table 101). Redear sunfish sampling indicated continual improvement in numbers and quality. Catch rate of fish ≥ 8 inches was 62.4 f/hr compared to 26.4 f/hr in 2004. Age and growth studies show redear sunfish reaching 6 in between Age 2 and 3, and 8 in between Age 4 and 5 (Table 103). The population assessment indicated a "Good" redear sunfish fishery (Table 106). Relative Weight Index data for bluegill and redear sunfish are shown in Table 107, with both showing below average weights for all size groups.

Aquatic vegetation was prevalent in shallow areas of the lake during spring and summer. An aquatic herbicide (diquat dibromide) was applied to submerged aquatic vascular plants (multiple applications) around the fishing pier and selected embayments (14 surface acres) to maintain fishing and boating access. No liquid fertilizer applications have been made since 2001.

Boltz Lake

Spring electrofishing for largemouth bass length frequency, CPUE, age frequency and population assessment was done in April 2005 (Tables 108 – 112). Results indicate a below-average size bass population (all sizes). Most bass (81%) were age 4 or younger (≤ 15 in, Table 110). Due to the decline, largemouth bass were stocked in 2004 and 2005 (first time since 1966). Stocking may have been reflected in the higher catch rate of bass < 8 inches. The population assessment indicated a "Fair" bass population compared to "Good" in 2004 (Table 112). Boltz Lake has been a blue catfish study lake (Black Bass Research Project) since 1998. Stocking of blue catfish ended in 2004. Bluegill studies were conducted by the BBR Project and are presented in their Annual Performance Report (F-40).

Bullock Pen Lake

Bullock Pen Lake was electrofished in April 2005 for largemouth bass length frequency, CPUE, age frequency and population assessment (Tables 113 – 117). Catch rates for sizes ≤ 15 in decreased from 2004 rates, with catch rates of bass ≥ 15 inches slightly increasing (Table 114). Numbers and year class strength are widely distributed and numerous through Age 7 (Table 115). The population assessment for largemouth bass indicated a "Good" fishery present (Table 117). 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.

Corinth Lake

Corinth Lake was electrofished in April 2005 to collect largemouth bass length frequency, CPUE, PSD, age frequency and population assessment (Tables 118 – 123). Catch rate for largemouth bass has increased from 2004 (Table 119). Largemouth bass ≥ 15 in exhibited their highest increase in more than 10 years. Bass stocking done in 2004 was reflected in the < 8 in fish. The PSD for largemouth bass was 45 compared to 37 in 2004 (17 in 2003). The RSD_{15} was 10 compared to 4 in 2004 (3 in 2003). The population assessment for largemouth bass was rated "Good" compared to "Fair" in 2004 (Table 123). Fall electrofishing for largemouth bass was done to determine year class strength and the Wr (Tables 124 – 126). Weights of largemouth bass are still below average. Largemouth bass mean length at Age 0 increased by 0.4 in, with catch rates of Age 0 ≥ 5 in almost doubling from last year (Table 126).

Electrofishing for bluegill and redear sunfish was done in May 2005 to obtain length frequency, CPUE, age and growth, age frequency and population assessment data (Tables 128 – 138). The bluegill PSD was 24, compared to 26 in 2004 and 36 in 2003, indicating a decline in the quality of the bluegill fishery (Table 128). The number of smaller (3.0 – 5.9 in) bluegill increased (Table 129). Age and growth studies showed that bluegill reach 6 inches between age 3 and 4, an increase of time needed from last year (Table 130). No bluegills over Age 5 were collected. Population assessment of the bluegill reflected a "Fair" population (Table 133). Catch rate for redear sunfish ≥ 8 inches was 31.2 f/h compared to 19.2 f/h in 2004 and 28.4 f/h in 2003. Catch rates for redear sunfish ≥ 10 inches declined from 24.9 f/hr in 2003, 14.4 f/hr in 2004, and 3.2 f/h in 2005 (Table 134). Age and growth studies show redear sunfish reaching 6 in between Age 2 and 3, 9 in between Age 3 and 4, and 12 in between Age 6 and 7 (Table 135). The population assessment for redear sunfish continued to be "Excellent" (Table 137). Relative weight index for bluegill and redear sunfish was done in the fall (Table 138). The Index indicated poor body condition for all bluegill and redear sunfish sizes, and particularly for bluegill in the 6- to 7-inch range.

A gizzard shad removal was conducted on January 10, 2006 at Corinth Lake. A concentration of 0.175 ppm of 5% emulsified liquid rotenone was used. The lake was not drawn down. 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. Success of these efforts will be determined at a later date.

Elmer Davis Lake

Elmer Davis Lake was sampled for largemouth bass in April 2005. Length frequency, CPUE, PSD, age and growth, age frequency and population assessment data were collected (Tables 139 – 144). Catch rates of largemouth bass increased, with the highest catch rate for all sizes since 2001 (Table 140). There was a significant increase in numbers of bass in the protected slot (12- to 15-inches). The catch rate of bass ≥ 15 inches remained unchanged (15 f/hr) for the third year in a row. The PSD increased to 28, compared to 23 in 2004 and 13 in 2003 (Table 141). The RSD_{15} was 6 compared to 9 in 2004 and 7 in 2003. Population assessment data indicated a "Good" bass population, the same as last year (Table 144). Fall electrofishing for the Wr index and year class strength for largemouth bass was done in September 2005 (Tables 145 – 147). Weights indicate low averages (Table 146). Studies indicate good numbers of Age 0 bass, with increasing numbers of Age 0 bass ≥ 5.0 in (Table 147).

Electrofishing for length frequency, CPUE, age and growth, age frequency and population assessment was done for bluegill and redear sunfish in May 2005 (Tables 148 – 159). Bluegill catch rates were lower than those from 2004 (Table 150). Catch rates of bluegill ≥ 8 inches were the same as 2004. The PSD value for bluegill was 42 compared to 56 in 2004, and 63 in 2003 (Table 149). The RSD increased from 1 in 2003, to 4 in 2004, and 5 in 2005. Age and growth studies on bluegill showed that they reach 6 in between Age 2 and 3, and 8 in by Age 6 (Table 151). The population assessment for bluegill was "Good", as it was in 2004 (Table 154). CPUE for all redear sunfish size groups increased from 2004 (Table 155). There was a significant increase in numbers of redear sunfish greater than ≥ 8 in, and an increase of redear sunfish ≥ 10 in. The PSD for redear sunfish was 66 compared to 61 last year and 63 in 2003. The RSD was 19 compared to 10 last year and 30 in 2003 (Table 149). Age and growth studies indicated good growth rates with redear sunfish reaching 6 in by Age 2, 8 in by Age 3, and 10 in by Age 5 (Table 156). Relative weight index results for bluegill indicated they exhibited good body condition, while the index for redear sunfish indicated excellent body condition (Table 160). The redear sunfish population assessment indicated an "Excellent" population present in 2005 (Table 159). Elmer Davis Lake continued to be shad-free in 2005 since the last gizzard shad removal efforts in 1997.The probable source for the previous shad invasions has been attributed to the city of Owenton's water supply reservoir, Lower Thomas Lake, located in the drainage of Elmer Davis Lake.

Kincaid Lake

Spring electrofishing studies were conducted in April 2005 for PSD, length frequency, age and growth, age frequency and CPUE for largemouth bass (Tables 161 – 167). Total catch rate increased from 192.5 f/hr in 2004 to 260.5 f/hr in 2005 (Table 162). A major increase in bass ≥ 15.0 in was seen. The largemouth bass PSD and RSD_{15} increased to 77 and 47 compared to 59 and 38 in 2004 (Table 163). Age and growth studies were done this year utilizing otoloiths. Studies indicate these largemouth bass reach 12 inches (size limit) between Age 3 and Age 4 – the state average (Table 164). Fifteen inches is reached by Age 5, on average, and 20 inches is achieved by Age 9. Only four bass Age 10 and older were aged, but their growth rates indicate very slow growth after Age 10, with one fish reaching just over 21 inches after 17 years. One fish reached 21 inches at Age 12 and another reached 22.4 inches at Age 10. Age 4 bass represented the most numerous year class and ranged from 9 in to 16 in (Table 165). No Age 1 bass were collected.

The population assessment indicated a "Good" bass population, the same as in 2004 and 2003 (Table 167). Fall electrofishing for Wr and index of year class strength at age 0 was done in September (Tables 168 – 170). Catch rate of age 0 largemouth bass was considerably higher than last year (Table 170). Mean length at Age 0 decreased and no Age 0 bass ≥ 5 in were collected. Cycling of largemouth bass reproduction appears to be normal at Kincaid Lake. Relative weights of largemouth bass size groups were somewhat below average (Table 169).

Electrofishing for bluegill and redear sunfish was done in May 2005 to collect length frequency, CPUE, age and growth (bluegill), age frequency, PSD and population assessment data (Tables 171 – 177). Bluegill numbers are fairly stable and redear sunfish are few in number and small in size (Table 171). The bluegill are numerous and small in size with a PSD of 5 and RSD is 0 (Table 172). Growth rate of bluegill is slow with few fish reaching 6 inches (Table 174). The population assessment for bluegill indicated a "Poor" population, as in 2003 (Table 177).

McNeely Lake

McNeely Lake was electrofished for largemouth bass population analysis in April 2005. Data for length frequency, CPUE, age frequency and population assessment were collected (Tables 178 – 183). Overall catch rates for largemouth bass increased and catch rate for fish ≥ 15 remained high from last year (Table 179). The PSD was 50 compared to 47 in 2004 and 46 in 2003 (Table 180). The RSD_{15} was 20 compared to 26 in 2004 and 15 in 2003. Age frequency studies indicated good numbers of Age 3 and 4 bass ranging from 9 in to 14 in (Table 181). The population assessment continued to be "Good" in 2005 (Table 183). Electrofishing for largemouth bass in September 2005 was done to collect Wr and the index of year class strength at Age 0 (Table 184 – 186). All values increased: Age 0 mean length and their catch rate, and catch rate of Age 0 that were 5 in or larger. Catch rate of Age 1 decreased. The Wr index seen indicated below-average body condition for largemouth bass, probably a reflection of dense aquatic vegetation growth in spring and summer (Table 185).

Bluegill and redear sunfish were sampled in May 2005 for length frequency, CPUE, age and growth, age frequency and population assessment (Tables 187 – 198). Catch rate for all sizes of bluegill increased from 2004 (Table 189). The bluegill PSD was 52 compared to 29 in 2004 and 19 in 2003 (Table 188). The RSD remains 0 for both years. Age and growth data for bluegill indicate they continue to reach 6 inches between age 3 and age 4 (Table 190). No 8-inch bluegill were collected. The population assessment for bluegill continued to indicate a "Fair" population present, as was seen the last two years (Table 193). Catch rates for redear sunfish continued to increase from 2004 and 2003 (Table 194). An increase was seen in redear sunfish numbers ≥ 8 inches. Age and growth studies showed redear reaching 8 in between Age 3 and 4 (Table 195). The redear sunfish fishery was rated "Good", same as in 2004 (Table 198). Relative weight data for bluegill and redear sunfish were collected in the fall (Table 199). Redear sunfish exhibited the better body condition of the two species.

Lincoln Homestead Lake

Lincoln Homestead Lake was sampled for largemouth bass in April 2005. Data for length frequency, CPUE, PSD, age frequency and population assessment were collected (Tables 200 – 204). Catch rates for all size groups of bass ≥ 8 inches decreased from 2004, though numbers from 12.0 to 14.9 inches slightly increased (Table 201). The largemouth bass PSD was 64, compared to 44 last year and 40 in 2003. The RSD_{15} was 8, as it was last year (Table 202). Of bass captured, 77% were ages 2 through 4 (Table 203). The population assessment indicated a "Fair" fishery (Table204).

Electrofishing for bluegill and redear sunfish data was done in May 2005 (Tables 205 – 216). Data for length frequency, CPUE, age and growth, age frequency, PSD and population assessment were collected. All size categories of bluegill declined since 2003 (Table 207). No bluegill ≥ 8 inches were collected. The PSD for bluegill was 14 compared to 11 in 2004. The PSD for redear sunfish was 9 compared to 19 in 2004 and 28 in 2003 (Table 206). Age and growth determinations indicated bluegill reached 6 inches between their second and third year (Table 2008). The bluegill population assessment was determined to be "Fair" (Table 211). Total numbers of redear sunfish declined from last year (Table 212), though redear sunfish ≥ 8.0 inches increased slightly. No 10 inch redear sunfish were collected. Age and growth studies indicated redear sunfish reach 6 inches between Age 2 and 3 (Table 213). No redear older than Age 3 were collected. The population assessment for redear sunfish indicated a "Good" population (Table 216).

Lower Game Farm Lake

Species composition, relative abundance, and CPUE of the fish sampled in the Lower Game Farm Lake are presented in Table 217. Rainbow trout were seen but not collected. The most numerous species in the lake were largemouth bass, bluegill and longear sunfish. 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.

General Butler State Park Lake

Length frequency, relative abundance and CPUE of largemouth bass was collected in April 2005 at General Butler State Park Lake are shown in Table 218. Largemouth bass fingerlings have been stocked annually since 1999. A gizzard shad removal effort was made on December 5, 2005 using liquid 5% rotenone at 0.15 ppm.

Jacobson Park Lake

Length frequency and CPUE of largemouth bass collected in May 2005 at Jacobson Park Lake are presented in Table 219. Advanced fingerling largemouth bass have been stocked annually (20 f/a to 30 f/a) between 1995 and 2004.

Sympson Lake

Length frequency, relative abundance, and CPUE for largemouth bass collected in April, 2005 at Sympson Lake in Nelson County are presented in Table 220. An excellent largemouth bass population was seen. This lake has a 15-inch size limit on bass.

Table 1. Length distribution and CPUE (no./hour) of largemouth bass collected in 7.5 hours of 30-minute electrofishing runs for black bass in Taylorsville Lake in May 2005: 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		
Van Buren																				
Largemouth bass	2	9	32	13	2	6	11	19	11	22	27	42	28	20	7	4			255	102.0(9.0)
Ashes Creek																				
Largemouth bass	28	39	36	17	12	25	49	34	16	22	58	65	55	22	9	6	1	3	497	198.8 (18.3)
Big Beech Creek																				
Largemouth bass	1	14	29	26	6	20	19	32	26	10	21	35	56	25	9	9	2	1	341	136.4 (8.3)
Total																				
Largemouth bass	31	62	97	56	20	51	79	85	53	54	106	142	139	67	25	19	3	4	1093	145.7 (12.7)

Dataset = cfdpstvl.d05

Table 2. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Taylorsville Lake from 1984-2005 numbers in parentheses are standard errors.

	Inch Class									
Year	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1984	50.4	(1.8)	88.0	(6.0)	6.0	(2.2)	0.0	(0.0)	144.4	(5.6)
1985	0.8	(0.6)	43.8	(5.4)	74.8	(9.2)	3.4	(1.0)	122.2	(14.4)
1986	1.8	(0.2)	11.2	(1.4)	21.0	(1.8)	24.4	(3.0)	59.0	(5.4)
1987	3.6	(0.6)	5.4	(0.6)	9.2	(1.0)	29.2	(2.6)	48.0	(3.8)
1988	3.2	(0.8)	8.4	(1.2)	6.0	(1.0)	19.6	(3.0)	37.2	(4.8)
1989	58.6	(15.6)	33.4	(5.8)	22.2	(3.4)	13.8	(3.0)	128.2	(24.0)
1990	57.0	(8.4)	54.2	(6.8)	22.8	(2.6)	21.8	(3.4)	154.4	(15.0)
1991	26.0	(2.8)	37.2	(2.8)	22.8	(2.1)	11.8	(1.4)	98.6	(5.2)
1992	58.5	(5.5)	42.6	(2.5)	36.9	(2.9)	17.6	(1.6)	155.6	(7.3)
1993	21.0	(3.6)	53.2	(4.8)	36.4	(13.8)	14.8	(1.9)	128.3	(8.6)
1994	25.1	(3.0)	39.9	(3.6)	40.7	(5.1)	15.0	(1.5)	122.3	(9.8)
1995	28.2	(3.5)	69.6	(3.9)	20.3	(1.3)	11.6	(1.4)	129.6	(6.8)
1996	16.2	(2.4)	41.0	(3.9)	49.8	(3.2)	16.0	(3.2)	122.6	(9.8)
1997	33.2	(6.3)	43.4	(4.0)	46.4	(1.8)	15.2	(1.8)	138.3	(7.7)
1998	20.0	(3.0)	26.4	(2.7)	30.5	(2.6)	21.7	(2.6)	98.7	(7.2)
1999	19.1	(2.8)	38.7	(3.2)	20.9	(3.0)	22.7	(2.6)	101.3	(7.1)
2000	17.7	(3.3)	33.1	(3.9)	16.1	(2.6)	10.5	(1.5)	77.5	(6.1)
2001	32.4	(4.1)	44.1	(3.7)	27.6	(3.6)	15.5	(2.7)	119.6	(8.3)
2002	33.7	(4.4)	22.3	(2.2)	12.8	(2.2)	9.6	(1.8)	78.4	(7.0)
2003	19.5	(2.9)	58.5	(4.8)	24.9	(2.2)	15.2	(2.1)	118.1	(9.2)
2004	14.1	(2.5)	26.7	(2.7)	42.9	(3.4)	13.2	(1.6)	96.9	(5.2)
2005	35.5	(5.9)	35.7	(4.9)	40.3	(4.3)	34.3	(3.4)	145.7	(12.7)

Dataset = cfdpstvl.d05

Table 3. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in each area of Taylorsville Lake in 2005 confidence intervals are in parentheses.

Area	Species	No. fish > stock size	PSD	RSD_{15}
Big Beech	Largemouth bass	265	63 (± 6)	38 (± 6)
Ashes Creek	Largemouth bass	365	66 (± 6)	26 (± 5)
Van Buren	Largemouth bass	197	70 (± 6)	30 (± 6)
Total	Largemouth bass	827	68 (± 3)	31 (± 3)

Dataset = cfdpstvl.d05

Table 4. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 7.5 hours of electrofishing at Taylorsville Lake during May 2005. 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	20	Total	%	CPUE	ERR
1	31	62	97	56	18	23													287	26	38.25	6.18
2					2	28	70	77	27	5									209	19	27.84	3.86
3							9	9	27	43	53	47	17						205	19	27.29	2.42
4											42	79	70	27					218	20	29.01	2.36
5											11		52	13	15	6			97	9	12.99	1.18
6										5		16			5	6			33	3	4.33	0.40
7														13			1		14	1	1.92	0.32
8																6	1		7	1	0.98	0.25
9														13	5		1	4	23	2	3.12	0.55
Total	31	62	97	56	20	51	79	85	53	54	106	142	139	67	25	19	3	4	1093	100	145.73	12.69
%	3	6	9	5	2	5	7	8	5	5	10	13	13	6	2	2	0	0	100			

Dataset = cfdagtvl.d02 and cfdpstvl.d05

Table 5. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Taylorsville Lake from 1996-2005.

	Year									
Age	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	11.6	20.4	12.0	17.8	14.1	20.5	34.8	21.2	14.9	38.3
2	22.1	22.3	18.8	27.4	12.4	26.7	16.7	46.1	19.8	27.8
3	39.0	54.9	28.5	14.3	17.7	24.8	13.1	26.3	33.4	27.3
4	28.2	18.2	10.8	17.8	10.8	12.5	6.2	12.6	16.6	29.0
5	8.8	8.4	9.1	6.7	7.7	16.6	3.6	5.9	6.1	13.0
6	5.8	9.0	11.9	6.5	6.9	9.7	1.4	2.9	3.5	4.3
7	4.8	3.4	5.2	6.8	4.5	4.8	0.7	0.7	0.8	1.9
8	1.1	0.8	1.2	1.0	1.5	1.7	0.4	0.5	0.6	1.0
9	1.0	0.3	0.4	2.3	0.9	1.5	1.6	1.3	1.3	3.1
10		0.6	0.5	0.6	0.2	0.3				
11	0.3				0.5	0.2				
12					0.3	0.3				

Table 6. Population assessment from largemouth bass collected from Taylorsville Lake during April-May 2005.

Parameter	Value	Assessment Score
Length at age 3*	12.6 ± 0.3	4
Spring CPUE of Age 1	38.25 ± 6.18	3
Spring CPUE 12-14.9 in fish	40.27 ± 4.32	4
Spring CPUE ≥ 15.0-in fish	34.27 ± 3.35	4
Spring CPUE ≥ 20.0-in fish	0.53 ± 0.41	2
Instantaneous mortality (z)	0.459	
Annual mortality (A)	36.8	
Total Score		17
Assessment Rating		Excellent

* 2002 age and growth data used

Table 7. Length distribution and CPUE (no./hour) of largemouth bass collected in 4.5 hours of 15-minute electrofishing runs for black bass in Taylorsville Lake in September 2005: numbers in parentheses are standard errors.

Species	Inch Class																			Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Van Buren																					
Largemouth bass		2	16	24	12	12	42	17	6	2	6	11	9	8	6	1				174	116.0 (6.5)
Ashes Creek																					
Largemouth bass		8	27	15	13	45	19	6	7	7	4	4	3	5	2	1				166	110.7 (15.7)
Big Beech Creek																					
Largemouth bass	1	6	14	13	2	19	19	2	3	4	3	5	7	8	8	3	3	1	1	122	81.1 (8.1)
Total																					
Largemouth bass	1	16	57	52	27	76	80	25	16	13	13	20	19	21	16	5	3	1	1	462	102.7 (7.0)

Dataset = cfdwrtvl.d05

Table 8. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Taylorsville Lake on 13-14 September 2005. Standard errors are in parentheses.

Species	Area	Size Range							
		8.0 – 11.9 in		12.0 – 14.9 in		≥ 15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Van Buren	50	94.24 (1.2)	26	100.6 (1.7)	15	98.8 (2.8)	91	96.8 (1.0)
	Ashes	39	87.8 (1.6)	11	100.8 (2.4)	8	103.7 (2.6)	58	92.5 (1.5)
	Big Beech	28	89.4 (1.6)	15	102.6 (2.5)	24	98.6 (2.0)	67	95.6 (1.3)
	Total	117	90.9 (0.9)	52	101.2 (1.2)	47	99.5 (1.4)	216	95.3 (0.7)

Dataset = cfdwrtvl.d05

Table 9. 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		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2001	Total	4.6	1.3	63.6	11.7	13.3	1.0	34.8	4.3
2002	Total	5.3	0.1	29.1	4.8	18.7	3.5	21.2	2.8
2003	Total	5.4	0.1	32.2	5.4	19.1	3.4	14.9	2.5
2004	Total	4.4	0.1	50.0	6.2	15.1	3.6	38.3	6.2
2005	Total	4.9	0.1	31.8	4.2	15.3	2.5		

Table 10. Length distribution and CPUE (no./hour) of each species of crappie collected at Taylorsville Lake in 48 net-nights during October 2005.

Species	Inch Class												Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14			
White crappie				14	65	46	17	7	3			1	153	3.19	0.70
Black crappie	1	1		4	59	151	55	4	1	3	1		280	5.83	1.11

Dataset = cfdtntvl.d05

Table 11. PSD and RSD_{10} values calculated for crappie collected at Taylorsville Lake in 48 net-nights during October 2005.

Species	No. fish > stock size	PSD	RSD_{10}
White crappie	153	48 (± 8)	7 (± 4)
Black crappie	278	77 (± 5)	3 (± 2)

Dataset = cfdtntvl.d05

Table 12. Mean back calculated lengths (in.) at each annulus for otoliths from white crappie trap netted at Taylorsville Lake in 2005.

		Age								
Year Class	No.	1	2	3	4	5	6	7	8	9
2004	60	4.8								
2003	15	4.9	8.4							
2002	3	5.0	8.3	10.1						
1996	1	4.4	7.6	9.2	10.4	11.3	12.0	12.8	13.2	13.7
Mean	79	4.8	8.3	9.9	10.4	11.3	12.0	12.8	13.2	13.7
Smallest		3.3	6.9	9.2	10.4	11.3	12.0	12.8	13.2	13.7
Largest		6.2	9.6	10.6	10.4	11.3	12.0	12.8	13.2	13.7
Std Error		0.1	0.2	0.3						
95% ConLo		4.7	8.0	9.3						
95% ConHi		5.0	8.7	10.5						

Intercept value = 0.00
Dataset = cfdagtvl.d05

Table 13. Age frequency and CPUE (no./net night) per inch class of white crappie trap netted for 48 net nights at Taylorsville Lake in 2005.

	Inch Class												STD
Age	6	7	8	9	10	11	12	13	14	Total	%	CPUE	ERR
1+	14	65	36	11	1					127	83	2.65	0.61
2+			10	6	5	1				22	14	0.45	0.10
3+					1	2				3	2	0.06	0.02
9+									1	1	1	0.02	0.02
Total	14	65	46	17	7	3			1	153	100	3.19	0.70
(%)	9	42	30	11	5	2			1	100			

Dataset = cfdtntvl.d05 and cfdagtvl.d05
CPUE of ≥ 8 in. white crappie = 1.54 ± 0.29; ≥ 10 in. = 0.23 ± 0.07

Table 14. Mean back calculated lengths (in.) at each annulus for otoliths from black crappie trap netted at Taylorsville Lake in 2005.

Year Class	No.	Age 1	2	3	4	5
2004	24	4.7				
2003	49	4.5	7.9			
2002	2	4.2	8.8	10.6		
2000	1	5.2	8.9	10.5	11.5	12.2
Mean	76	4.6	7.9	10.6	11.5	12.2
Smallest		2.9	6.8	10.0	11.5	12.2
Largest		6.6	11.2	11.2	11.5	12.2
Std Error		0.1	0.1	0.3		
95% ConLo		4.5	7.7	9.9		
95% ConHi		4.7	8.1	11.2		

Intercept value = 0.00
Dataset = cfdagtvl.d05

Table 15. Age frequency and CPUE (no./net day) per inch class of black crappie trap netted for 48 net nights at Taylorsville Lake in 2005.

Age	Inch Class 3	4	5	6	7	8	9	10	11	12	13	Total	%	CPUE	STD ERR
0+	1	1										2	1	0.04	0.03
1+				4	53		5	1				64	23	1.33	0.25
2+					6	151	50	1	1	1	1	211	75	4.40	0.89
3+								1		1		2	1	0.05	0.02
5+										1		1	0	0.02	0.01
Total	1	1	0	4	59	151	55	4	1	3	1	280	100	5.83	1.11
%	0	0	0	1	21	54	20	1	0	1	0	100			

Dataset = cfdtntvl.d05 and cfdagtvl.d05
CPUE of ≥ 8 in. black crappie = 4.48 ± 0.90; ≥ 10 in. = 0.19 ± 0.07

Table 16. Population assessment for crappie trap netted at Taylorsville Lake in October 2005.

Parameter	White Crappie Only		Black Crappie Only		White and Black Crappie Combined	
	Actual Value	Assessment Value	Actual Value	Assessment Value	Actual Value	Assessment Value
CPUE of crappie (excluding age 0)	3.2 ± 0.7	1	5.8 ± 1.1	2	9.0 ± 1.7	2
CPUE of age 1 crappie	2.7 ± 0.6	1	1.3 ± 0.3	1	4.0	2
CPUE of age 0 crappie	0.0	1	0.4 ± 0.3	1	0.4 ± 0.3	1
CPUE of crappie ≥ 8.0 Inches	1.5 ± 0.3	1	4.5 ± 0.9	2	6.0 ± 1.1	3
Mean age-2 length at Capture	9.6 ± 0.3	4	9.0 ± 0.2	2	9.1 ± 0.1	3
Instantaneous mortality (z)						
Annual mortality (A)						
Assessment Total		8		8		11
Assessment Rating		Fair		Fair		Fair

Table 17. Length distribution and CPUE (no./hour) of white bass and hybrid striped bass collected during 16 net-nights of gill netting in Taylorsville Lake in October 2005: numbers in parentheses are standard errors.

Species	Inch Class													Total	CPUE
	5	6	7	8	9	10	11	12	13	14	15	16	27		
White bass	4	2	9	5	3	14	38	16	2	1				94	5.88 (1.63)
Hybrid striped bass	11	3	8	26	4			7	2	1	5	1	1	69	4.31 (1.76)

Dataset = cfdgntvl.d05

Table 18. Mean back calculated lengths (in.) at each annulus for otoliths from hybrid striped bass gill netted at Taylorsville Lake in 2005.

Year Class	No.	Age 1	2	3	4	5	6	7
2004	7	7.5						
2003	7	6.1	12.6					
1998	1	9.2	16.4	20.2	23.3	24.3	25.4	26.9
Mean	15	6.9	13.1	20.2	23.3	24.3	25.4	26.9
Smallest		3.9	11.8	20.2	23.3	24.3	25.4	26.9
Largest		9.2	16.4	20.2	23.3	24.3	25.4	26.9
Std Error		0.3	0.5					
95% ConLo		6.3	12.1					
95% ConHi		7.6	14.1					

Intercept Value = 0.00
Dataset = cfdagtvl.d05

Table 19. Age frequency and CPUE (no./net night) per inch class of hybrid striped bass gill netted for 16 net nights at Taylorsville Lake in 2005.

Age	Inch Class 5	6	7	8	9	12	13	14	15	16	27	Total	%	CPUE	STD ERR
0+	11	3	8	26	4							52	75	3.25	1.74
1+						7	2					9	13	0.56	0.22
2+								1	5	1		7	10	0.44	0.18
7+											1	1	1	0.06	0.06
Total	11	3	8	26	4	7	2	1	5	1	1	69	100	4.31	1.76
%	16	4	12	38	6	10	3	1	7	1	1	100			

Dataset = cfdagtvl.d05 and cfdgntvl.d05

Table 20. Number of fish and the relative weight (Wr) for each length category of hybrid striped bass collected at Taylorsville Lake in October 2005.

Size range 8.0 – 11.9 inch		12.0 – 14.9 inch		≥ 15.0 inch	
No.	Wr	No.	Wr	No.	Wr
30	93.55 (1.12)	10	85.36 (1.45)	7	79.55 (1.95)

Dataset = cfdgntvl.d05

Table 21. Population assessment for hybrid striped bass gill netted at Taylorsville Lake in October 2005.

Parameter	Actual Value	Assessment Value
CPUE of hybrid striped bass (excluding age 0)	1.06 ± 0.30	1
Mean age-2+ length at capture	15.2 ± 0.2	1
CPUE of fish ≥ 15.0 in	0.44 ± 0.18	1
CPUE of age 1+ hybrid striped bass	0.56 ± 0.22	1
Assessment Total		4
Assessment Rating		Poor

Table 22. Mean back calculated lengths (in.) at each annulus for otoliths from white bass gill netted at Taylorsville Lake in 2005.

		Age Class				
Year Class	No.	1	2	3	4	5
2004	29	7.5				
2003	45	6.4	9.9			
2002	4	6.7	10.4	11.6		
2001	1	7.2	9.7	10.5	11.3	
2000	1	6.7	9.9	11.0	11.9	12.5
Mean	80	6.8	9.9	11.3	11.6	12.1
Smallest		4.5	8.5	10.5	11.3	12.1
Largest		9.8	11.4	12.6	11.9	12.1
Std Error		0.1	0.1	0.3	0.3	
95% ConLo		6.5	9.8	10.8	11.1	
95% ConHi		7.1	10.1	11.9	12.1	

Intercept Value = 0.00
Dataset = cfdagtvl.d05

Table 23. Age frequency and CPUE (no./net night) per inch class of white bass gill netted for 16 net nights at Taylorsville Lake in 2005

	Inch Class													STD
Age	5	6	7	8	9	10	11	12	13	14	Total	%	CPUE	ERR
0+	4	2	8								14	15	0.88	0.32
1+			1	5	3	7	13				29	31	1.81	0.53
2+						7	24	13	1		45	48	2.81	0.85
3+							1	2		1	4	4	0.25	0.09
4+								1			1	1	0.06	0.03
5+									1		1	1	0.06	0.04
Total	4	2	9	5	3	14	38	16	2	1	90	100	5.88	1.63
%	4	2	10	5	3	15	40	17	2	1	100			

Dataset = cfdagtvl.d05 and cfdgntvl.d05

Table 24. Number of fish and the relative weight (Wr) for each length category of white bass collected at Taylorsville Lake in October 2005.

Size range					
6.0 – 8.9 inch		9.0 – 11.9 inch		≥ 12.0 inch	
No.	Wr	No.	Wr	No.	Wr
		55	90.30 (0.87)	12	90.64 (1.20)

Dataset = cfdgntvl.d05

Table 25. Population assessment for white bass gill netted at Taylorsville Lake in October 2005.

Parameter	Actual Value	Assessment Value
CPUE of white bass (excluding age 0)	5.00 ± 1.46	2
Mean age-2+ length at capture	11.57 ± 0.11	2
CPUE of fish ≥ 12.0 in	1.19 ± 0.48	1
CPUE of age 1 white bass	1.81 ± 0.53	1
Assessment Total		6
Assessment Rating		Fair

Table 26. Length distribution and CPUE (no./hour) of blue and channel catfish collected during 16 net-nights of gill netting in Taylorsville Lake in October 2005: numbers in parentheses are standard errors.

Species	Inch Class																			Total	CPUE
	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Blue catfish			4	4	2	9	4	5	11	3	11	10	8	4	2	4	1			82	5.13 (1.12)
Channel catfish	9	38	38	44	16	13	5	5	2	3	9	10	4	1	1			1	1	200	12.50 (3.86)

Dataset = cfdgntvl.d05

Table 27. Mean back calculated lengths (in.) at each annulus for otoliths of channel catfish gill netted at Taylorsville Lake in 2005.

Year	No.	Age 1	2	3	4	5	6	7	8
2004	43	5.6							
2003	13	5.8	8.8						
2002	12	6.6	9.7	12.3					
2001	9	5.8	8.9	11.3	14.0				
2000	7	5.6	8.6	10.8	12.7	14.8			
1999	5	5.8	8.4	10.4	12.1	14.1	15.9		
1998	1	5.4	7.5	9.6	11.8	13.9	16.1	18.2	
1997	1	6.1	9.2	11.2	13.3	14.9	16.3	18.2	19.6
Mean	91	5.8	8.9	11.4	13.1	14.5	16.0	18.2	19.6
Smallest		3.3	6.8	8.1	9.8	11.2	12.3	18.2	19.6
Largest		8.8	11.6	15.6	16.4	19.1	21.8	18.2	19.6
Std Error		0.1	0.2	0.3	0.4	0.5	1.1	0.0	
95% ConLo		5.5	8.6	10.8	12.3	13.5	13.9	18.1	
95% ConHi		6.1	9.3	11.9	13.8	15.6	18.1	18.2	

Intercept value = 0.00
Dataset = cfdagtvl.d05

Table 28. Age frequency and CPUE (no./net night) per inch class of channel catfish gill netted for 16 net nights at Taylorsville Lake in 2005.

Age	Inch Class 6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	24	Total	%	CPUE	STD ERR
1+	9	38	38	35	10	4											134	67	8.37	2.79
2+				9	6	6	3										24	12	1.51	0.52
3+						3	1	3		3	2		2				14	7	0.90	0.26
4+								1	2		2	6					11	5	0.68	0.24
5+							1				2	3	2				8	4	0.52	0.17
6+								1			2	1				1	5	3	0.34	0.10
7+														1			1	1	0.06	0.06
8+															1		1	1	0.06	0.06
Total	9	38	38	44	16	13	5	5	2	3	9	10	4	1	1	1	199	100	12.50	3.86
%	5	19	19	22	8	7	3	3	1	2	5	5	2	1	1	1	100			

Dataset = cfdagtvl.d05 and cfdgntvl.d05

Table 29. Age frequency and CPUE (no./net day) per inch class of blue catfish gill netted from 16 net-nights at Taylorsville Lake in 2005.

Year Class	No.	Age 1	2	3	4
2004	15	6.3			
2003	16	6.4	11.4		
2002	40	6.2	10.4	13.7	
2001	6	6.6	11.2	14.6	17.8
Mean	77	6.3	10.8	13.8	17.8
Smallest		3.7	7.1	9.4	16.1
Largest		10.0	15.0	20.0	18.9
Std Error		0.2	0.3	0.4	0.5
95% ConLo		5.9	10.2	13.1	16.7
95% ConHi		6.6	11.3	14.5	18.8

Intercept Value = 0.00
Dataset = cfdagtvl.d05

Table 30. Age frequency and CPUE (no./net night) per inch class of blue catfish gill netted for 16 net nights at Taylorsville Lake in 2005.

	Inch Class																		STD
Age	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	ERR
1+	4	4	2			2	1	1	1							15	19	0.97	0.33
2+				7	1		2		4	3	1					18	22	1.13	0.32
3+				2	3	3	8	2	6	6	7	3	1	1	1	42	52	2.65	0.67
4+										1		1	1	3		6	7	0.37	0.20
Total	4	4	2	9	4	5	11	3	11	10	8	4	2	4	1	82	100	5.13	1.12
%	5	5	2	11	5	6	13	4	13	12	10	5	2	5	1	100			

Dataset = cfdagtvl.d05 and cfdgntvl.d05

Table 31. Number of fish and the relative weight (Wr) for each length category of catfish collected at Taylorsville Lake during October 2005.

Species	Size range 11.0 – 15.9 in. No.	Wr	16.0 – 23.9 in No.	Wr	≥ 24.0 in No.	Wr
Channel catfish	28	88.17 (1.53)	26	96.56 (2.05)	1	94.69
	12..0 – 19.9 in. No.	Wr	20.0 – 29.9 in No.	Wr	≥ 30.0 in No.	Wr
Blue catfish	56	87.66 (1.18)	7	99.50 (1.98)		

Dataset = cfdgntvl.d05

Table 32. Population assessment for channel catfish gill netted at Taylorsville Lake in October 2005.

Parameter	Actual Value	Assessment Value
CPUE < 8.0 inches	2.94 ± 1.04	4
Total CPUE	12.50 ± 3.86	4
CPUE of fish ≥ 12.0 in	2.63 ± 0.76	4
CPUE of fish ≥ 15.0 in	1.88 ± 0.55	4
CPUE of fish ≥ 20.0 in	0.19 ± 0.10	1
Instantaneous mortality (z)	0.6415	
Annual mortality (A)	47.3%	
Assessment Total		17
Assessment Rating		Good

Table 33. Population assessment for blue catfish gill netted at Taylorsville Lake in October 2005.

Parameter	Actual Value	Assessment Value
Total CPUE	5.13 ± 1.12	3
CPUE of fish ≥ 12.0 in	3.94 ± 0.98	4
CPUE of fish ≥ 15.0 in	2.69 ± 0.85	4
CPUE of fish ≥ 20.0 in	0.44 ± 0.26	2
Instantaneous mortality (z)		
Annual mortality (A)		
Assessment Total		13
Assessment Rating		Good

Table 34. Species composition, relative abundance, and CPUE of black bass collected in 7.5 hours of 15-minute electrofishing runs in Herrington Lake, May 2005; numbers in parenthesis are standard errors.

Location/Species	Inch Class																			Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Upper																					
Largemouth bass	6	15	11	51	37	45	44	56	24	18	20	13	18	13	7	3	2	1	2	386	154.40 (21.34)
Spotted bass				1	1	7		2		1										12	0.80 (0.53)
Smallmouth bass			1																	1	0.40 (0.40)
Middle																					
Largemouth bass		3	15	59	53	50	28	28	34	59	40	23	13	29	27	17	8	7	4	497	198.80 (22.56)
Spotted bass			1	4	7	7	3	1	3	8	16	9	1							60	24.00 (6.31)
Smallmouth bass			1																	1	0.40 (0.40)
Lower																					
Largemouth bass		1	19	51	86	30	37	61	36	22	21	18	10	21	9	11	5	1		439	175.60 (34.86)
Spotted bass		4	10	37	26	8	8	2	1	6	8	4	1							115	46.00 (7.14)
Total																					
Largemouth bass	6	19	45	161	176	125	109	145	94	99	81	54	41	63	43	31	15	9	6	1322	176.27 (15.39)
Spotted bass		4	11	42	34	22	11	5	4	15	24	13	2							187	24.93 (4.43)
Smallmouth bass			2																	2	0.27 (0.19)

dataset = cfdpsher.d05

Table 35. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Herrington Lake from 1994-2005; numbers in parentheses are standard errors.

	Inch Class									
Year	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1994	4.9	(0.9)	30.1	(4.4)	21.5	(2.6)	17.9	(1.8)	74.4	(5.4)
1995	8.8	(2.3)	20.0	(4.4)	25.6	(4.0)	20.4	(1.4)	74.8	(9.6)
1996	9.5	(2.4)	24.4	(3.9)	20.3	(2.8)	26.5	(2.6)	80.9	(6.7)
1997	15.6	(2.3)	19.9	(3.4)	27.3	(2.6)	22.0	(1.7)	84.8	(6.1)
1998	37.2	(3.8)	45.3	(4.1)	30.9	(2.5)	21.3	(2.2)	134.8	(7.2)
1999	43.2	(5.2)	69.1	(6.7)	40.4	(3.9)	21.6	(2.4)	174.3	(14.2)
2000	15.6	(3.9)	53.5	(6.6)	26.9	(2.2)	12.2	(1.4)	108.3	(10.8)
2001	37.1	(6.7)	40.1	(6.3)	34.1	(4.5)	12.5	(1.5)	123.9	(15.3)
2002	19.5	(2.6)	32.1	(4.7)	25.5	(3.5)	24.0	(2.2)	101.1	(9.7)
2003	20.8	(4.4)	23.9	(2.4)	30.1	(2.8)	17.9	(1.7)	92.7	(4.2)
2004	29.6	(5.5)	64.8	(12.2)	38.7	(5.7)	29.7	(3.4)	162.8	(23.9)
2005	70.9	(9.7)	59.6	(7.1)	23.5	(3.0)	22.3	(3.4)	176.3	(15.4)

Dataset = cfdpsher.d05

Table 36. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in each area of Herrington Lake in 2005; confidence intervals are in parentheses.

Area	Species	No. fish > stock size	PSD	RSD_{15}
Lower	Largemouth bass	252	38 (± 6)	19 (± 5)
Middle	Largemouth bass	317	53 (± 6)	29 (± 5)
Upper	Largemouth bass	221	36 (± 6)	13 (± 4)
Total	Largemouth bass	790	43 (± 3)	21 (± 3)

Dataset = cfdpsher.d05

Table 37. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 7.5 hours of electrofishing at Herrington Lake during April 2005. 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	Total	%	CPUE	ERR
1	6	19	45	161	176	109	24													541	41	72.08	9.53
2						16	85	145	94	63	45	8								455	34	60.68	6.88
3										36	36	46	32	29						179	14	23.84	2.89
4													9	11	22	6				48	4	6.44	0.97
5														11		19	11	2		43	3	5.75	0.93
6														11	11			4		26	2	3.44	0.55
7																	4			15	1	1.93	0.38
8																		2		2	0	0.24	0.08
9																6				6	0	0.83	0.16
10																		2		2	0	0.24	0.08
11																			6	6	0	0.80	0.35
Total	6	19	45	161	176	125	109	145	94	99	81	54	41	63	43	31	15	9	6	1322	100	176.27	15.39
%	0	1	3	12	13	9	8	11	7	7	6	4	3	5	3	2	1	1	0	100			

Dataset = cfdagher.d03 and cfdpsher.d05

Table 38. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Herrington Lake from 1996-2005.

	Year									
Age	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	12.7	17.2	38.5	17.8	13.1	28.2	16.7	20.9	33.5	72.1
2	16.4	15.0	33.4	27.4	24.9	41.4	27.9	28.0	65.2	60.7
3	13.3	16.0	26.3	14.3	24.2	15.1	11.9	26.9	37.0	23.8
4	8.7	10.8	11.6	17.8	28.4	17.4	13.3	6.0	10.0	6.4
5	9.9	9.2	9.3	6.7	9.1	9.8	12.5	4.1	7.1	5.8
6	6.7	5.6	6.3	6.5	4.3	4.4	6.2	2.9	4.7	3.4
7	3.2	2.7	2.9	6.8	1.2	2.6	5.4	1.6	2.4	1.9
8	4.2	3.0	2.9	1.0	1.7	2.3	3.2	0.5	0.4	0.2
9	2.9	2.7	2.0	2.3	1.3	1.6	1.8	0.5	0.8	0.8
10	1.9	1.9	1.2	0.6	0.1	1.0	2.2	0.3	0.3	0.2
11	1.0	0.9	0.5					0.9	1.33	0.8

Table 39. Population assessment from largemouth bass collected from Herrington Lake during May 2005.

Parameter	Value	Assessment Score
Length at age 3	13.7 ± 0.2	4
Spring CPUE of Age 1	72.08 ± 9.53	4
Spring CPUE 12-14.9 in fish	23.47 ± 2.98	2
Spring CPUE ≥ 15.0-in fish	22.27 ± 3.41	4
Spring CPUE ≥ 20.0-in fish	0.80 ± 0.35	2
Instantaneous mortality (z)	0.567	
Annual mortality (A)	43.3%	
Total Score		16
Assessment Rating		Good

Table 40. Length distribution and CPUE (no./hour) of largemouth bass collected in 4.5 hours of 15-minute electrofishing runs for black bass in Herrington Lake in September 2005: numbers in parentheses are standard errors.

Species	Inch Class																			Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21		
Lower Largemouth bass	1	3	3	6	11	2		4	6		3	1	2		1	2				45	30.0 (18.2)
Middle Largemouth bass	5	1	4	17	8	3	6	10	12	9	7	4	2	1	2	3	3	1	1	99	66.0 (16.2)
Upper Largemouth bass	1	4	11	16	17		6	21	14	13	12	2	4	3	3	1	2	2		132	88.0 (12.3)
Total Largemouth bass	7	8	18	39	36	5	12	35	32	22	22	7	8	4	6	6	5	3	1	276	61.3 (10.3)

Dataset = cfdwrher.d05

Table 41. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Herrington Lake on 15-16 September 2005. Standard errors are in parentheses.

Species	Area	Size Range							
		8.0 – 11.9 in		12.0 – 14.9 in		≥ 15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Lower	10	88.4 (1.6)	6	93.0 (1.6)	3	94.8 (2.4)	19	90.8 (1.2)
	Middle	37	92.0 (1.7)	13	88.8 (2.4)	11	81.0 (2.5)	61	89.4 (1.3)
	Upper	54	92.2 (1.1)	18	93.8 (2.0)	11	95.8 (2.2)	83	93.0 (0.9)
	Total	101	91.8 (0.9)	37	91.9 (1.3)	25	89.2 (2.1)	163	91.4 (0.7)

Dataset = cfdwrher.d05

Table 42. 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		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2001	Total	4.5	0.1	18.3	2.9	5.9	0.9	16.7	2.2
2002	Total	4.6	0.2	9.8	2.0	4.9	1.2	20.9	4.3
2003	Total	4.6	0.1	51.1	6.0	27.3	5.3	33.5	6.0
2004	Total	4.9	0.1	15.6	3.0	9.0	2.1	72.1	9.5
2005	Total	5.3	0.1	24.2	5.1	16.9	4.5		

Table 43. Species composition, relative abundance, and CPUE of crappie collected in 4.5 hours of 15-minute electrofishing runs in Herrington Lake, March 2005; numbers in parenthesis are standard errors.

Location/Species	Inch Class									Total	CPUE
	6	7	8	9	10	11	12	13	14		
Upper											
White crappie		14	19	6	8	5	1	1		54	36.00 (10.17)
Black crappie	6	13	20	24	13		2	1		79	52.67 (17.84)
Middle											
White crappie		5	37	24	9	3				78	52.00 (25.45)
Black crappie	1	14	13	16	9	1				54	36.00 (7.08)
Lower											
White crappie		2	5	7	7		1			121	79.20 (23.95)
Black crappie		2	8	34	29	3	3		1	10	6.40 (2.99)
Total											
White crappie		21	61	37	24	8	2	1		154	34.22 (9.57)
Black crappie	7	29	41	74	51	4	5	1	1	213	47.33 (7.15)

Dataset = cfdpsher.d05

Table 44. PSD and RSD_{10} values calculated for crappie collected at Herrington Lake in electrofished during March 2005.

Species	No. fish > stock size	PSD	RSD_{10}
White crappie	154	86 (± 5)	23 (± 7)
Black crappie	213	83 (± 5)	29 (± 6)

Dataset = cfdpsher.d05

Table 45. Mean back calculated lengths (in.) at each annulus for otoliths from white crappie electrofished at Herrington Lake in 2005.

Year Class	No.	Age								
		1	2	3	4	5	6	7	8	9
2003	77	4.7	8.9							
2002	18	4.2	8.7	10.7						
2001	2	3.6	7.9	10.4	11.5					
1996	1	4.2	7.8	10.0	10.9	11.6	12.2	12.8	13.3	13.6
Mean	144	4.6	8.8	10.7	11.3	11.6	12.2	12.8	13.3	13.6
Smallest		3.0	5.5	7.9	10.9	11.6	12.2	12.8	13.3	13.6
Largest		6.1	10.9	12.6	11.7	11.6	12.2	12.8	13.3	13.6
Std Error		0.1	0.1	0.2	0.2					
95% ConLo		4.4	8.6	10.2	10.8					
95% ConHi		4.7	9.0	11.1	11.8					

Intercept value = 0.00
Dataset = cfdagher.d05

Table 46. Age frequency and CPUE (no./hour) per inch class of white crappie electrofished at Herrington Lake in 2005.

Age	Inch Class							Total	%	CPUE	STD ERR
	7	8	9	10	11	12	13				
2	20	61	34	13				128	83	28.37	8.61
3	1		3	11	6	2		23	15	5.12	1.20
4					2			2	1	0.51	0.21
9							1	1	1	0.22	0.22
Total	21	61	37	24	8	2	1	154	100	34.22	9.57
(%)	14	40	24	16	5	1	1	100			

Dataset = cfdpsher.d05 and cfdagher.d05
CPUE of ≥ 8 in. crappie = 29.56 ± 8.61; ≥ 10 in. = 7.78 ± 1.95

Table 47. Mean back calculated lengths (in.) at each annulus for otoliths from black crappie electrofished at Herrington Lake in 2005.

Year Class	No.	Age						
		1	2	3	4	5	6	7
2003	130	4.3	8.9					
2002	6	5.2	10.4	11.8				
2001	2	3.5	7.7	10.9	12.1			
2000	2	4.9	9.7	12.1	13.4	14.2		
1998	1	3.8	7.0	9.2	10.8	11.6	12.3	12.6
Mean	141	4.4	9.0	11.4	12.3	13.3	12.3	12.6
Smallest		3.0	6.0	9.2	10.8	11.6	12.3	12.6
Largest		6.9	11.4	12.7	13.7	14.5	12.3	12.6
Std Error		0.1	0.1	0.3	0.5	0.9		
95% ConLo		4.2	8.8	10.8	11.4	11.6		
95% ConHi		4.5	9.2	12.0	13.3	15.0		

Intercept value = 0.00
Dataset = cfdagher.d05

Table 48. Age frequency and CPUE (no./hour) per inch class of black crappie collected during 4.5 hours of electrofishing at Herrington Lake in 2005.

Age	Inch Class													
	3	6	7	8	9	10	11	12	13	14	Total	%	CPUE	STD ERR
2		7	29	41	74	49	2				202	95	44.96	7.03
3						2	2	2			6	3	1.27	0.41
4								2			2	1	0.44	0.22
5									1	1	2	1	0.44	0.30
7								1			1	0	0.22	0.11
Total		7	29	41	74	51	4	5	1	1	32	100	47.33	7.15
%		3	14	19	35	24	2	2	0	0	100			

Dataset = cfdtnher.d05 and cfdagher.d05
CPUE of ≥ 8 in. crappie = 39.33 ± 5.36; ≥ 10 in. = 13.78 ± 2.49

Table 49. Length distribution and CPUE (no./hour) of white bass and hybrid striped bass collected during 12 net-nights of gill netting in Herrington Lake in October 2005: numbers in parentheses are standard errors.

Species	Inch Class														Total	CPUE
	6	7	8	9	10	11	12	13	14	15	16	17	22	26		
White bass	1	3	3	3	2		4	13	6			1			36	3.00 (0.76)
Hybrid striped bass				1	4	5				1	1	1	1	1	15	1.25 (0.39)

Dataset = cfdgnher.d05

Table 50. Mean back calculated lengths (in.) at each annulus for otoliths from hybrid striped bass gill netted at Herrington Lake in 2005.

Year Class	No.	Age				
		1	2	3	4	5
2004	3	11.9				
2001	1	11.8	18.0	20.8	22.2	
2000	1	14.7	20.9	24.0	25.0	26.1
Mean	5	12.5	19.5	22.4	23.6	26.1
Smallest		11.3	18.0	20.8	22.2	26.1
Largest		14.7	20.9	24.0	25.0	26.1
Std Error		0.6	1.4	1.6	1.4	
95% ConLo		11.2	16.7	19.3	20.9	
95% ConHi		13.7	22.3	25.5	26.4	

Intercept Value = 0.00
Dataset = cfdagher.d05

Table 51. Age frequency and CPUE (no./net night) per inch class of hybrid striped bass gill netted for 12 net nights at Herrington Lake in 2005.

Age	Inch Class								Total	%	CPUE	STD ERR
	9	10	11	15	16	17	22	26				
0+	1	4	5						10	67	0.83	0.34
1+				1	1	1			3	20	0.25	0.13
4+							1		1	7	0.08	0.08
5+								1	1	7	0.08	0.08
Total	1	4	5	1	1	1	1	1	15	100	1.25	0.39
%	7	27	33	7	7	7	7	7	100			

Dataset = cfdagher.d05 and cfdgnher.d05

Table 52. Population assessment for hybrid striped bass gill netted at Herrington Lake in October 2005.

Parameter	Actual Value	Assessment Value
CPUE of hybrid striped bass (excluding age 0)	0.42 ± 0.22	1
Mean age-2+ length at capture**	19.5 ± 1.4	4
CPUE of fish ≥ 15.0 in	0.42 ± 0.23	1
PUE of age 1 hybrid striped bass	0.25 ± 0.13	1
stantaneous mortality (z)		
nual mortality (A)		
ssessment Total		7
sessment Rating		Fair

Used back-alculated values (no age-2+ fish sampled)

Table 53. Mean back calculated lengths (in.) at each annulus for otoliths from white bass gill netted at Herrington Lake in 2005.

Year Class	No.	Age Class					
		1	2	3	4	5	6
2004	2	9.7					
2003	22	9.4	12.4				
1999	1	9.8	13.2	14.7	15.8	16.6	17.2
Mean	25	9.4	12.4	14.7	15.8	16.6	17.2
Smallest		4.9	9.9	14.7	15.8	16.6	17.2
Largest		11.1	14.1	14.7	15.8	16.6	17.2
Std Error		0.3	0.2				
95% ConLo		8.9	12.0				
95% ConHi		9.9	12.8				

Intercept Value = 0.00
Dataset = cfdagher.d05

Table 54. Age frequency and CPUE (no./net day) per inch class of white bass gill netted for 12 net nights at Herrington Lake in 2005.

Age	Inch Class									Total	%	CPUE	STD ERR
	6	7	8	9	10	12	13	14	17				
0+	1	3	3	3	1					11	1	0.92	0.31
1+						2				2	91	0.17	0.09
2+					1	2	13	6		22	3	1.83	0.50
6+									1	1	1	0.08	0.08
Total	1	3	3	3	2	4	13	6	1	36	100	3.00	0.39
%	3	8	8	8	6	11	36	17	3	100			

Dataset = cfdagher.d05 and cfdgnher.d05

Table 55. Population assessment for white bass gill netted at Herrington Lake in October 2005.

Parameter	Actual Value	Assessment Value
CPUE of white bass (excluding age 0)	2.08 ± 0.57	1
Mean age-2+ length at capture	13.5 ± 0.2	4
CPUE of fish ≥ 12.0 in	2.00 ± 0.58	1
CPUE of age 1 white bass	0.17 ± 0.09	1
Assessment Total		7
Assessment Rating		Fair

Table 56. Species composition, relative abundance, and CPUE of black bass collected in 3.0 hours of 15-minute electrofishing runs in Guist Creek Lake, April 2005; numbers in parentheses are standard errors.

Location/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	23		
Largemouth bass	12	35	19	30	157	93	35	28	45	68	44	77	73	50	32	28	14	8	5	1		854	284.7 (25.6)

Dataset = cfdpsgcl.d05

Table 57. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Guist Creek Lake from 1992-2005; numbers in parentheses are standard errors.

Year	Inch Class									
	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1992	12.0	(2.1)	16.8	(2.7)	38.4	(5.2)	41.2	4.7	108.4	(7.2)
1993	22.7	(2.6)	25.5	(2.7)	23.8	(2.7)	51.6	(5.0)	123.6	(9.1)
1994	19.2	(2.7)	29.8	(3.7)	19.6	(2.6)	40.2	(3.9)	108.8	(8.6)
1995	18.2	(3.0)	40.6	(3.8)	23.2	(2.4)	47.2	(5.5)	129.2	(9.2)
1996	32.6	(5.5)	28.8	(3.6)	44.8	(2.8)	58.2	(5.2)	164.4	(10.6)
1997	NS									
1998	20.3	(3.1)	45.3	(4.9)	18.7	(3.5)	72.7	(12.3)	157.0	(14.5)
1999	53.5	(6.9)	56.8	(10.2)	41.7	(6.3)	51.3	(3.4)	203.3	(19.4)
2000	26.7	(6.1)	19.3	(2.4)	23.0	(2.9)	41.3	(5.4)	110.3	(7.6)
2001	39.0	(5.3)	42.0	(3.6)	17.3	(2.7)	46.3	(5.2)	144.7	(10.1)
2002	43.3	(9.9)	32.3	(7.7)	23.3	(3.1)	41.3	(7.8)	134.3	(18.6)
2003	27.7	(6.7)	96.7	(9.9)	31.0	(4.6)	49.7	(4.0)	205.0	(19.7)
2004	30.7	(6.0)	62.7	(6.5)	58.0	(7.0)	54.3	(5.9)	205.7	(17.0)
2005	84.3	(12.2)	67.0	(6.3)	63.0	(5.6)	70.3	(7.5)	284.7	(25.6)

Dataset = cfdpsgcl.d05

Table 58. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Guist Creek Lake in 2005; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	601	67 (± 4)	35 (± 4)

Dataset = cfdpsgcl.d05

Table 59. Mean back calculated lengths (in.) at each annulus for otoliths from largemouth bass collected at Guist Creek Lake in 2005.

Year Class	No.	Age											
		1	2	3	4	5	6	7	8	9	10	11	12
2004	29	4.5											
2003	41	4.8	8.0										
2002	21	5.9	8.9	11.5									
2001	18	5.4	9.9	12.2	14.0								
2000	11	5.4	8.6	11.8	13.4	14.4							
1999	4	5.8	10.2	13.3	15.4	16.4	17.0						
1998	2	5.8	9.7	13.2	15.2	16.6	17.5	17.9					
1996	4	5.3	9.9	13.0	15.1	16.5	17.3	18.0	18.7	19.1			
1995	1	5.0	9.0	12.4	15.2	17.1	18.0	19.0	19.5	20.4	20.6		
1993	1	6.5	11.1	13.9	16.5	17.7	18.4	19.1	19.8	20.4	20.8	21.1	21.4
Mean	132	5.1	8.8	12.1	14.2	15.6	17.4	18.2	19.0	19.5	20.7	21.1	21.4
Smallest		3.5	5.9	9.4	11.3	12.1	16.1	17.2	17.9	18.4	20.6	21.1	21.4
Largest		8.7	11.6	14.8	16.8	17.7	18.4	19.1	19.8	20.4	20.8	21.1	21.4
Std Error		0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.1		
95% ConLo		5.0	8.6	11.8	13.8	14.9	17.0	17.7	18.5	18.9	20.5		
95% ConHi		5.3	9.1	12.4	14.6	16.2	17.8	18.7	19.6	20.1	20.9		

Intercept Value = 0.00
Dataset = cfdaggcl.d05

Table 60. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 7.5 hours of electrofishing at Guist Creek Lake during April 2005. Fish were collected in 15-minute runs.

Age	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	23				
1	12	35	17																		64	8	21.37	4.17
2			2	30	157	93	32	6													320	37	106.54	13.0
3							4	22	30	49	6										110	13	36.74	4.16
4									15	6	22	62	49	10							163	19	54.48	3.40
5										12	17	15	24	30							99	12	32.87	2.74
6														10	24						34	4	11.33	1.05
7															8	14					22	3	7.33	1.26
8																					0	0	0.00	0.00
9																14	14				28	3	9.33	2.02
10																		8			8	1	2.67	0.75
11																					0	0	0.00	0.00
12																			5	1	6	1	2.00	1.35
Total	12	35	19	30	157	93	35	28	45	68	44	77	73	50	32	28	14	8	5	1	617	100	284.7	25.6
%	1	4	2	4	18	11	4	3	5	8	5	9	9	6	4	3	2	1	1	0	100			

Dataset = cfdaggcl.d05 and cfdpsgcl.d05

Table 61. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Guist Creek Lake from 1999-2005.

Age	Year						
	1999	2000	2001	2002	2003	2004	2005
1	50.8	16.8	25.7	23.8	16.3	22.1	21.4
2	31.3	19.8	32.9	30.1	58.3	33.8	106.5
3	12.9	4.5	7.5	6.3	18.3	9.9	36.7
4	32.9	11.4	11.2	12.0	29.9	32.1	54.5
5	17.1	17.1	20.3	19.7	33.7	47.3	32.9
6	11.0	13.8	15.4	11.6	16.9	21.6	11.3
7	14.6	6.1	10.3	8.9	10.6	10.8	7.3
8	8.8	10.0	8.3	8.6	8.8	10.6	0.0
9	9.4	4.7	6.4	7.3	6.9	9.1	9.3
10	9.8	2.2	3.7	3.4	4.6	4.1	2.7
11	1.9	3.9	1.8	1.6	2.0	2.7	0.0
12	1.3		0.6	1.1	1.6	1.7	2.0

Table 62. Population assessment from largemouth bass collected from Guist Creek Lake during April 2005.

Parameter	Value	Assessment Score
Length at age 3	11.5 ± 0.2	4
Spring CPUE of Age 1	21.37 ± 4.17	2
Spring CPUE 12-14.9 in fish	67.00 ± 6.27	4
Spring CPUE ≥ 15.0-in fish	63.00 ± 5.57	4
Spring CPUE ≥ 20.0-in fish	4.67 ± 1.38	4
Instantaneous mortality (z)	0.349	
Annual mortality (A)	29.5%	
Total Score		18
Assessment Rating		Excellent

Table 63. Length distribution and CPUE (no./hour) of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs for black bass in Guist Creek Lake in September 2005: 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	21		
Largemouth bass	13	26	9	15	35	26	35	24	22	10	10	8	14	13	14	3	4	1	1	283	141.5 (12.4)

Dataset = cfdwrgcl.d05

Table 64. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Guist Creek Lake on 12 September 2005. Standard errors are in parentheses.

Species	Area	Size Range							
		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	97	88.9 (0.6)	28	95.3 (1.9)	50	100.4 (0.9)	175	93.2 (0.7)

Dataset = cfdwrgcl.d05

Table 65. 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		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2000	Total	3.6	0.1	19.5	4.0	0.0		25.7	5.3
2001	Total	3.9	0.1	65.3	14.0	1.0	0.5	23.8	6.7
2002	Total	4.7	0.1	47.3	7.6	19.3	2.8	16.3	3.3
2003	Total	4.0	0.1	30.7	8.2	6.0	2.0	22.1	4.8
2004	Total	4.0	0.1	40.7	6.0	0.7	0.7	21.4	4.2
2005	Total	4.5	0.1	24.5	4.4	5.0	2.0		

Table 66. Length distribution and CPUE (no./hour) of hybrid striped bass and yellow bass collected during 8 net-nights of gill netting in Guist Creek Lake in October 2005: numbers in parentheses are standard errors.

Species	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	29	Total	CPUE
Hybrid striped bass	1					2			1	2	1				1	1	3	7	4	3		1	27	3.38 (0.60)
Yellow bass	15	68	3																				86	10.75 (2.81)

Dataset = cfdgngcl.d05

Table 67. Mean back calculated lengths (in.) at each annulus for otoliths from hybrid striped bass gill netted at Guist Creek Lake in 2005.

		Age										
Year Class	No.	1	2	3	4	5	6	7	8	9	10	11
2004	2	9.1										
2003	4	6.9	12.4									
2002	6	9.0	15.1	19.6								
2001	7	9.4	15.7	19.6	22.2							
2000	2	8.0	13.0	17.0	20.8	23.0						
1999	3	9.6	14.5	19.5	22.0	23.1	24.1					
1998	1	8.0	14.5	19.7	22.4	23.9	24.6	25.3				
1991	1	8.1	17.6	22.4	24.5	25.5	26.4	27.1	27.6	28.0	28.3	28.7
Mean	26	8.7	14.7	19.5	22.1	23.5	24.6	26.2	27.6	28.0	28.3	28.7
Smallest		6.3	10.6	15.9	19.5	22.5	23.5	25.3	27.6	28.0	28.3	28.7
Largest		11.3	17.7	22.4	24.5	25.5	26.4	27.1	27.6	28.0	28.3	28.7
Std Error		0.3	0.4	0.3	0.4	0.4	0.5	0.9				
95% ConLo		8.2	14.0	18.8	21.4	22.7	23.7	24.5				
95% ConHi		9.2	15.4	20.1	22.8	24.3	25.6	28.0				

Intercept Value = 0.00
Dataset = cfdaggcl.d05

Table 68. Age frequency and CPUE (no./net night) per inch class of hybrid striped bass gill netted for 8 net nights at Guist Creek Lake in 2005.

	Inch Class															STD
Age	6	11	14	15	16	20	21	22	23	24	25	29	Total	%	CPUE	ERR
0+	1												1	4	0.13	0.13
1+		1	1										2	7	0.25	0.19
2+		1		2	1								4	15	0.50	0.25
3+						1	1	2	2				6	20	0.69	0.25
4+							1	1	3	1	2		7	26	0.88	0.21
5+									1	1			2	7	0.25	0.07
6+									1	2			3	11	0.38	0.11
7+											2		2	6	0.19	0.09
11+												1	1	4	0.13	0.13
Total	1	2	1	2	1	1	1	3	7	4	3	1	27	100	3.38	0.60
%	4	7	4	7	4	4	4	11	26	15	11	4	100			

Dataset = cfdaggcl.d05 and cfdgngcl.d05

Table 69. Number of fish and the relative weight (Wr) for each length category of hybrid striped bass collected at Guist Creek Lake in October 2005.

Size range					
8.0 – 11.9 inch		12.0 – 14.9 inch		≥ 15.0 inch	
No.	Wr	No.	Wr	No.	Wr
2	77.39 (2.27)	1	69.03	23	82.00 (1.33)

Dataset = cfdgngcl.d05

Table 70. Population assessment for hybrid striped bass gill netted at Guist Creek Lake in October 2005.

Parameter	Actual Value	Assessment Value
CPUE of hybrid striped bass (excluding age 0)	3.25 ± 0.62	1
Mean age-2+ length at capture	14.9 ± 1.1	1
CPUE of fish ≥ 15.0 in	2.88 ± 0.61	2
CPUE of age 1+ hybrid striped bass	0.25 ± 0.19	1
Assessment Total		5
Assessment Rating		Poor

Table 71. Length distribution and CPUE (no./hour) of channel catfish collected during 8 net-nights of gill netting and 72 hours of baited tandem hoop nets in Guist Creek Lake in October 2005: numbers in parentheses are standard errors.

Species	Inch Class																	Total	CPUE
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	26		
Hoop nets	7	58	96	106	93	55	29	10	4	3	3	3	3			1		471	235.5 (234.5)
Gill nets			1	1		1				1	1			5	2		1	13	1.63 (0.56)

Dataset = cfdgngcl.d05 and cfdhngcl.d05

Table 72. Mean back calculated lengths (in.) at each annulus for otoliths from channel catfish collected with a gill net or hoop net at Guist Creek Lake in 2005.

		Age						
Year	No.	1	2	3	4	5	6	7
2004	35	5.9						
2003	8	7.9	11.4					
2002	9	6.5	10.0	12.8				
2001	3	6.4	9.8	12.3	14.3			
2000	7	6.2	9.5	12.3	14.9	17.3		
1999	8	6.3	9.5	11.9	14.4	17.0	19.1	
1998	1	5.7	9.1	11.4	13.2	15.5	17.6	19.8
Mean	71	6.3	10.1	12.3	14.5	17.1	19.0	19.8
Smallest		3.6	6.5	9.1	11.7	14.4	15.7	19.8
Largest		8.7	12.4	15.7	18.4	21.0	23.8	19.8
Std Error		0.1	0.2	0.3	0.3	0.4	0.8	
95% ConLo		6.1	9.6	11.7	13.9	16.3	17.5	
95% ConHi		6.6	10.5	13.0	15.2	17.8	20.4	

Intercept value = 0.00
Dataset = cfdagtvl.d05

Table 73. Age frequency and CPUE (no./net night) per inch class of channel catfish hoop netted for 2 nets for 72 hours at Guist Creek Lake in 2005.

	Inch Class																	STD
Age	7	8	9	10	11	12	13	14	15	16	17	18	19	22	Total	%	CPUE	ERR
1+	7	58	96	106	93	37	6								402	85	201.23	200.57
2+						9	6	8	3						25	5	12.73	12.57
3+						9	17	3	1	1		1	1		33	7	16.28	16.12
4+										2					2	0	1.13	1.13
5+											2	1	2		5	1	2.25	2.25
6+											1	1	1	1	4	1	1.88	1.18
Total	7	58	96	106	93	55	29	10	4	3	3	3	3	1	471	100	235.50	234.50
%	1	12	20	23	20	12	6	2	1	1	1	1	1	0	100			

Dataset = cfdaggcl.d05 and cfdgngcl.d05

Table 74. Population assessment for channel catfish gill netted at Guist Creek Lake in October 2005.

Parameter	Actual Value	Assessment Value
CPUE < 8.0 inches	0.00 ± 0.00	0
Total CPUE	1.63 ± 0.56	2
CPUE of fish ≥ 12.0 in	1.38 ± 0.46	3
CPUE of fish ≥ 15.0 in	1.25 ± 0.41	3
CPUE of fish ≥ 20.0 in	1.00 ± 0.42	4
Assessment Total		12
Assessment Rating		Fair

Table 75. Fishery statistics derived from a daytime creel survey at Guist Creek (317 acres) during 7 April through 30 October 2005.

Fishing Trips		
No. of fishing trips (per acre)	3,965	(12.51)
Fishing Pressure		
Total man-hours (S.E.)[a]	21,550	(691)
Man-hours/acre	67.98	
Catch / Harvest		
No. of fish caught (S.E.)	28,802	(2,794)
No. of fish harvested (S.E.)	4,577	(705)
Lb of fish harvested	2,521	
Harvest Rates		
Fish/hour	0.21	
Lb/hour	0.30	
Fish/acre	14.44	
Lb/acre	7.95	
Catch Rates		
Fish/hour	1.33	
Fish/acre	90.86	
Miscellaneous Characteristics		
Male	89.82	
Female	10.18	
Resident	97.92	
Non-resident	2.08	
Method (%)		
Still fishing	44.94	
Casting	48.25	
Fly	0.58	
Trolling	6.23	
Mode (%)		
Boat	79.96	
Bank	19.00	
Dock	1.04	

[a] S.E. = Standard Error

Table 76. Fish harvest derived from a creel survey on Guist Creek Lake (317 acres) from 7 April to 30 October 2005.

	Black bass group	Largemouth bass	Crappie group	White crappie	Black crappie	Catfish group	Channel catfish	Flathead catfish	Blue catfish	White cafish	Bullhead
No. caught	5,038.72	5,038.72	643.07	272.17	370.91	2,452.73	1,866.83	21.99	16.76	25.02	522.12
(per acre)	(15.90)	(15.90)	(2.03)	(0.86)	(1.17)	(7.73)	(5.89)	(0.07)	(0.05)	(0.08)	(1.65)
No. harvested	591.11	591.11	280.29	78.46	201.84	488.95	398.12		16.76	14.66	59.40
(per acre)	(1.86)	(1.86	(0.88)	(0.25)	(0.64)	(1.54)	(1.26)		(0.05)	(0.05)	(0.19)
% of total no. harvested	12.92	12.92	6.12	1.71	4.41	10.68	8.70		0.37	0.32	1.30
Lb harvested	969.6	969.6	62.2	13.1	49.1	400.9	347.4		22.6		30.9
(per acre)	(3.06)	(3.06)	(0.20)	(0.04)	(0.15)	(1.26)	(1.10)		(0.07)		(0.10)
% of total lb harvested	38.46	38.46	2.47	0.52	1.95	15.90	13.78		0.90		1.23
Mean length (in)		14.9		7.7	8.3		13.7		13.8	10.8	10.7
Mean weight (lb)		1.71		0.22	0.29		0.83		1.27		0.53
No. of fishing trips for that species	1,778.47		130.19			314.54					
% of all trips	44.85		3.28			7.93					
Hours fished for that species	9,665.16		707.52			1,709.36					
(per acre)	(30.49)		(2.23)			(5.39)					
No. harvested fishing for that species	558		240			313					
Lb harvested fishing for that species	907.9		49.8			265.8					
No./hour harvested fishing for that species	0.046		0.300			0.191					
% success fishing for that species	11.67		25.49			24.81					

Table 76 (cont). Fish harvest derived from a creel survey on Guist Creek Lake (317 acres) from 7 April to 30 October 2005.

	Panfish group	Bluegill	Rock bass	Warmouth	Green sunfish	Longear sunfish	Morone group	Hybrid striped bass	White bass	Yellow bass	Illegal hybrid
No. caught	18,074.88	15,588.39	120.74	829.93	1,476.35	59.47		1,128.16	5.74	1,326.64	4.17
(per acre)	(57.02)	(49.17)	(0.38)	(2.61)	(4.66)	(0.19)		(3.56)	(0.02)	(4.19)	(0.01)
No. harvested	2,993.46	2,445.49	34.44	101.64	411.89			101.70			4.17
(per acre)	(9.44)	(7.71)	(0.11)	(0.32)	(1.30)			(0.32)			(0.01)
% of total no. harvested	65.40	53.43	0.75	2.22	9.00			2.22			0.09
Lb harvested	422.5	336.4	3.9	14.9	67.3			432.4			2.8
(per acre)	(1.33)	(1.06)	(0.01)	(0.05)	(0.21)			(1.36)			(0.01)
% of total lb harvested	16.76	13.34	0.15	0.59	2.67			17.15			
Mean length (in)		6.0	5.3	6.0	6.2			20.3			11.0
Mean weight (lb)		0.14	0.11	0.15	0.15			4.44			0.66
No. of fishing trips for that species	315.74						290.76				
% of all trips	7.96						7.33				
Hours fished for that species (per acre)	1,715.87 (5.41)						1,580.13 (4.98)				
No. harvested fishing for that species	1,950						81				
Lb harvested fishing for that species	275.2						334.5				
No./hour harvested fishing for that species	1.162						0.061				
% success fishing for that species	46.40						11.50				

Table 76 (cont). Fish harvest derived from a creel survey on Guist Creek Lake (317 acres) from 7 April to 30 October 2005.

	Sucker	Carp	Buffalo	Drum	Illegal other	Anything
No. caught (per acre)	4.17 (0.01)	48.17 (0.15)	5.74 (0.01)	3.03 (0.01)	66.94 (0.21)	
No. harvested (per acre)		44.51 (0.14)	5.74 (0.02)		66.94 (0.21)	
% of total no. harvested		0.97	0.13		1.46	
Lb harvested (per acre)		212.2 (0.67)	18.5 (0.06)			
% of total lb harvested		8.42	0.73			
Mean length (in)		21.3	18.0		9.2	
Mean weight (lb)		4.79	3.23			
No. of fishing trips for that species		64.83				1,070.92
% of all trips		1.63			0.00	27.00
Hours fished for that species (per acre)		352.33 (1.11)				5,819.94 (18.36)
No. harvested fishing for that species		33				
Lb harvested fishing for that species		186.7				
No./hour harvested fishing for that species		0.128				
% success fishing for that species		31.82				14.90

Table 77. Length distribution (Length of released fish are estimated) for each species of fish harvested at Guist Creek Lake from 7 April – 30 October 2005.

	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	34
Largemouth bass																													
Harvested										112	98	102	88	74	37	37	23	5	15										
Released						1175	29	1610	255	560	204	174	140	85	55	93	42	17		4		4							
White crappie																													
Harvested	4				51	12	8	3																					
Released				94	53	33	7	3	4																				
Black crappie																													
Harvested				12	81	52	40	12	5																				
Released				154		8		7																					
Bluegill																													
Harvested		24	589	1171	653	8																							
Released	50	5393	5662	1766	272																								
Rock bass																													
Harvested			23	11																									
Released			28	31	24	3																							
Warmouth																													
Harvested			17	72	13																								
Released		223	214	132	155	4																							
Green sunfish																													
Harvested			38	192	166	16																							
Released		240	747	73	4																								
Longear sunfish																													
Released		5		54																									
Hybrid striped bass																													
Harvested													16		28	8	4	8		8		12	4	4	4	6			
Released	8	16	49	146	77	269	114	114	16	69	8	34	19	11	11	8	4	19	4	8		8		8	7				
White bass																													
Released						6																							
Yellow bass																													
Released			12	1056	202	57																							
Channel catfish																													
Harvested									4	117	117	55	35	20	16	23			4				7						
Released				51	8	367	74	515	90	228	24	44	20	12	8	12		8	4	4									
Flathead catfish																													
Harvested																													
Released						11							11																

Table 77 (cont). Length distribution (Length of released fish are estimated) for each species of fish harvested at Guist Creek Lake from 7 April – 30 October 2005.

	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	36
Blue catfish																													
Harvested								4	4					4									5						
Released																													
Bullhead catfish																													
Harvested							8	30	8	8			5																
Released					15	186	46	156	11	46	3																		
White catfish																													
Harvested								4	11																				
Released								7								3													
Suckers																													
Released																4													
Buffalo																													
Harvested																6													
Drum																													
Released								3																					
Carp																													
Harvested													4	4		4		8		8		12		5					
Released												4																	
Illegal hybrid																													
Harvested									4																				
Illegal other																													
Harvested				45				18	4																				

Table 78. Black bass catch and harvest statistics derived from a creel survey at Guist Creek Lake (317 acres) for black bass caught and released by all anglers from 7 April to 30 October 2005.

		Largemouth bass Catch and Release		
	Harvest	12.0 – 14.9 in.	≥ 15.0 in.	Total
Total no of bass	591.1	938.0	440.2	5,038.7
% of black bass harvested by no.	100.0			
Total weight of fish (lbs)	969.6	1281.0	603.2	4,068.4
% of black bass harvest by weight	80.9			
Mean length	14.9			
Mean weight	1.71			
Rate (fish/h)	0.024			

Table 79. Monthly black bass angling success at Guist Creek Lake during the 2005 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	581.6	47.39	256.41	1,393.49	548	0.32	43	0.03
May	515.7	15.17	258.13	1,402.84	440	0.29	12	0.01
June	1,477.3	146.06	339.01	1,842.35	1,319	0.72	134	0.07
July	832.6	123.90	263.09	1,429.77	763	0.53	114	0.08
August	304.3	22.00	96.66	525.28	253	0.41	22	0.04
September	1,027.3	212.37	417.42	2,268.49	993	0.36	212	0.08
October	300.0	24.24	147.75	802.95	282	0.32	21	0.02
Total	5,038.7	591.11	1,778.47	9,665.16	4,598		558	0.05
Mean						0.42		

t = < 0.01

Table 80. Crappie catch and harvest statistics derived from a creel survey at Guist Creek Lake (317 acres) for crappie caught and released by all anglers from 7 April to 30 October 2005.

	White crappie				Black crappie			
		Catch and Release				Catch and Release		
	Harvest	6.0-8.9 in.	≥ 9.0 in.	Total	Harvest	6.0-8.9 in.	≥ 9.0 in.	Total
Total no of crappie	78.46	180.0	13.7	272.2	201.84	162.0	19.0	370.9
% of crappie harvested by no.	28.0				72.0			
Total weight of fish (lbs)	13.1	25.0	1.3	39.4	49.1	19.0	0.3	68.4
% of crappie harvest by weight	21.1				78.9			
Mean length	7.7				8.3			
Mean weight	0.22				0.29			
Rate (fish/h)	0.004				0.010			

Table 81. Monthly crappie angling success at Guist Creek Lake during the 2005 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	124.94	30.16	61.99	336.89	69	0.25	13	0.05
May	145.60	36.40	33.85	183.98	109	0.56	33	0.17
June	237.87	171.10	10.05	54.59	197	1.62	163	1.34
July	34.69	24.78	14.95	81.24	25	0.22	25	0.22
August	3.67							
September	11.48	5.74						
October	84.84	12.12	7.30	39.65	57	0.98	6	0.10
Total	643.08	280.29	130.19	707.52	457		240	
Mean						0.61		0.30

Table 82. Catch and harvest statistics derived from a creel survey at Guist Creek Lake (317 acres) for Morones caught and released by all anglers from 7 April to 30 October 2005.

	Hybrid striped bass			
		Catch and Release		
	Harvest	12.0 – 14.9 in.	≥ 15.0 in.	Total
Total no of morones	101.7	110.6	106.9	1,128.2
% of Morones harvested by no.	100.0%			
Total weight of fish (lbs)	432.4.3	29.4	414.7	1,109.5
% of Morones harvest by weight	100.0%			
Mean length	20.3			
Mean weight	4.44			
Rate (fish/h)	0.005			

Table 83. Monthly morone angling success at Guist Creek Lake during the 2005 creel survey.

Month	Total no. of Morones caught by all anglers	Total no. of Morones harvested by all anglers	No. of fishing trips for Morones	Hours fished by Morone anglers	Morones caught by Morone anglers	Morone caught/hr by Morone anglers	Morone harvested by Morone anglers	Morone harvested/hr by Morone anglers
April	150.79	4.31						
May	87.96	3.03						
June	179.44	12.52						
July	307.28	24.78						
August	212.62	51.32						
September	68.87	5.74						
October	121.20							
Total	1,128.16	101.70						
Mean								

Table 84. Catch and harvest statistics derived from a creel survey at Guist Creek Lake (317 acres) for catfish caught and released by all anglers from 7 April to 30 October 2005.

	Channel catfish				Blue catfish				Flathead catfish				Bullhead catfish			
		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	398.1	296.0	67.8	1,866.8	16.8			16.8			11.0	22.0	59.4	48.7	26.3	522.1
% of catfish harvested by no.	81.4%				3.4%								12.1%			
Total weight of fish (lbs)	347.4	234.0	54.0	922.1	22.6			22.6			6.2	13.2	30.9	20.0	39.2	212.9
% of catfish harvest by weight	86.7%				5.6%								7.7%			
Mean length	13.7				13.8								10.7			
Mean weight	0.83				1.27								0.53			
Rate (fish/h)	0.019				0.001								0.003			

Table 85. Monthly catfish angling success at Guist Creek Lake during the 2005 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	43.08	4.31	16.91	91.88	26	0.29	0	
May	412.52	91.0	67.71	367.96	285	0.69	79	0.19
June	408.96	79.29	42.69	232.00	129	0.57	25	0.11
July	332.06	54.52	23.92	129.98	94	0.67	15	0.11
August	421.57	131.97	59.64	324.11	243	0.94	107	0.41
September	464.89	97.57	58.08	315.62	263	1.06	69	0.28
October	369.65	30.30	45.60	247.82	254	1.13	18	0.08
Total	2,452.73	488.95	314.54	1,709.36	1,294		313	
Mean						0.81		0.19

GUIST CREEK LAKE ANGLER ATTITUDE SURVEY 2005

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 Guist Creek Lake? (check all that apply)
Bass **72%** Crappie **11%** Hybrid Striped Bass **10%** Bluegill **20%** Channel Catfish **10%** Other **1%**

4. Which one species do you fish for most at Guist Creek Lake? (Check only one)
Bass **67.1%** Crappie **5.4%** Hybrid Striped Bass **6.0%** Bluegill **15.8%** Channel Catfish **5.4%** Other **0.3%**

-Ask following questions relevant to each species fished for- (see question 3)

Bass Anglers

5. What level of satisfaction do you have with bass fishing at Guist Creek Lake?
Very satisfied **30.6%** Somewhat satisfied **45.5%** Neutral **14.5%** Somewhat dissatisfied **7.1%**
Very dissatisfied **2.4%**

6. Do you support or oppose the current 12-inch size limit on largemouth bass at the lake? Support **57.0 %**
Oppose **38.6%** No opinion **4.4%**

6a. What size limit would you prefer on largemouth bass at the lake? current (12") **56.9%** 15" **38.1%** Other **5.0%**

Crappie Anglers

7. What level of satisfaction do you have with crappie fishing at Guist Creek Lake?
Very satisfied **21.3%** Somewhat satisfied **21.3%** Neutral **29.8%** Somewhat dissatisfied **17.0%**
Very dissatisfied **10.6%**

8. Do you support or oppose the current "No Size Limit" on crappie at the lake? Support **61.1%** Oppose **27.8%**
No opinion **11.1%**

8a. What size limit would you prefer? Current (none) **65.6%** 9" **15.6%** 10" **18.8%**

9. Do you support or oppose the 30 fish daily creel limit on crappie at the lake? Support **85.7%** Oppose **8.6%**
No opinion **5.7%**

9a. What daily creel limit would you prefer? Current (30) **90.9%** 15 **9.1%**

Hybrid Striped Bass Anglers

10. What level of satisfaction do you have with hybrid striped bass fishing at Guist Creek Lake?
Very satisfied **31.3%** Somewhat satisfied **46.9%** Neutral **15.6%** Somewhat dissatisfied **6.3%**
Very dissatisfied **0.0%**

Bluegill Anglers

11. What level of satisfaction do you have with the bluegill fishing at Guist Creek Lake?
Very satisfied **47.9%** Somewhat satisfied **34.2%** Neutral **13.7%** Somewhat dissatisfied **2.7%**
Very dissatisfied **1.4%**

12. Do you support or oppose the no creel limit regulation at the lake? Support **94.4%** Oppose **2.8%**
No opinion **2.8%**

12a. What creel limit would you prefer on bluegill at the lake? Current **97.1%** 15 **2.8%** 30 **2.8%**

Catfish Anglers

13. What level of satisfaction do you have with the channel catfish fishing at Guist Creek Lake?
Very satisfied **41.9%** Somewhat satisfied **44.2%** Neutral **9.3%** Somewhat dissatisfied **4.7%**
Very dissatisfied **0.0%**

14. Do you support or oppose the current 12-inch size limit on channel catfish at the lake? Support **95.2%**
Oppose **2.4%** No Opinion **2.4%**

14a. What size limit would you prefer on channel catfish at the lake? Current (12") **97.6%** Other **2.4 %**

15. Do you support or oppose the "no creel limit" regulation on channel catfish at the lake? Support **90.0%**
Oppose **7.5%** No opinion **2.5%**

15a. What creel limit would you prefer on channel catfish at the lake? Current (none) **92.1%** 15 **5.3%**
Other **2.6%**

Based on 359 returned surveys out of 392 survey (91.6% return rate)

Note many were completed on the lake.

Table 86. Length frequency, relative abundance, and CPUE of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Beaver Lake, April 2005; numbers in parenthesis are standard errors.

Location/Species	Inch Class																				Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
Largemouth bass	6	41	15	8	67	166	165	168	97	60	12	12	5	2	4	5	5	5	2	2	847	423.5 (21.6)

Dataset = cfdpsbvr.d05

Table 87. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Beaver Lake from 1992-2005; numbers in parentheses are standard errors.

Year	Inch Class									
	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1992	7.1	(2.1)	105.3	(8.6)	4.9	(1.1)	19.1	4.8	136.4	(5.6)
1993	22.5	(3.9)	59.5	(5.3)	76.0	(7.9)	13.0	(4.3)	171.0	(12.2)
1994	22.5	(2.8)	5.5	(2.5)	41.5	(3.3)	28.5	(4.5)	96.5	(6.9)
1995	73.0	(8.4)	37.5	(5.9)	10.0	(3.8)	34.0	(7.0)	154.5	(9.9)
1996	81.0	(11.6)	47.0	(6.3)	8.0	(2.0)	37.5	(2.9)	173.5	(17.8)
1997	84.5	(12.2)	99.5	(16.7)	8.5	(2.1)	42.5	(9.6)	235.0	(34.1)
1998	36.0	(4.2)	206.5	(17.6)	14.5	(4.8)	30.5	(6.6)	287.5	(22.8)
1999	42.0	(11.0)	71.5	(7.3)	17.0	(2.6)	22.0	(3.5)	152.5	(18.1)
2000	56.0	(7.7)	26.5	(5.6)	28.5	(2.2)	24.5	(2.9)	137.0	(9.8)
2001	142.5	(8.6)	66.5	(8.6)	25.5	(1.5)	39.0	(6.1)	273.5	(17.1)
2002	55.5	(10.8)	97.0	(13.6)	16.0	(2.1)	32.0	(4.9)	200.5	(26.8)
2003	142.5	(9.1)	131.5	(12.9)	20.0	(3.0)	18.0	(2.4)	312.0	(20.4)
2004	154.5	(5.5)	198.0	(15.1)	48.0	(7.5)	17.0	(3.7)	417.5	(20.3)
2005	68.5	(11.4)	298.0	(22.7)	42.0	(7.7)	15.0	(3.5)	423.5	(21.6)

Dataset = cfdpsbvr.d05

Table 88. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Beaver Lake in 2005; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	710	16 (± 3)	4 (± 1)

Dataset = cfdpsbvr.d05

Table 89. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Beaver Lake during April 2005. Fish were collected in 15-minute runs.

Age	Inch Class																						STD
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	ERR
1	6	41	15	8	7																77	9	38.7	10.7
2					60	148	99	15													321	38	160.7	16.9
3						18	33	46	35		4										137	16	68.3	4.8
4							33	107	62	60	8	8	5								282	33	141.2	12.8
5												5		1	2	1					8	1	4.1	1.2
7														1		2	3				6	1	3.0	0.8
8															2	2	2				6	1	3.0	0.7
11																		5	2	2	9	1	4.5	1.4
Total	6	41	15	8	67	166	165	168	97	60	12	12	5	2	4	5	5	5	2	2	847	100	423.5	21.6
%	1	5	2	1	8	20	19	20	11	7	1	1	1	0	0	1	1	1	0	0	100			

Dataset = cfdagbvr.d03 and cfdpsbvr.d05

Table 90. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Beaver Lake from 1999-2005.

Age	Year						
	1999	2000	2001	2002	2003	2004	2005
1	25.5	33.1	47.8	35.4	133.2	97.6	38.7
2	25.4	36.8	149.0	96.8	68.8	160.9	160.7
3	27.7	7.5	14.4	19.9	29.8	44.8	68.3
4	50.4	29.4	14.3	11.5	64.4	97.0	141.2
5	3.4	13.3	15.3	9.5	5.6	5.6	4.1
6	0.4	6.2	15.6	9.4	0.0	0.0	3.0
7	5.3	1.9	4.8	4.6	3.5	4.6	3.0
8	3.5	1.3	2.6	2.5	5.3	5.0	3.0
9	2.6	1.2	5.7	7.1	0.5	0.0	4.5
10	0.7	0.3	1.4	1.9	0.0	0.0	0.0
11	5.8	1.4	0.5	0.8	0.5	2.0	4.5
12	1.8	0.7	2.2	1.2	0.5	0.0	0.0

Table 91. Population assessment from largemouth bass collected from Beaver Lake during April 2005.

Parameter	Value	Assessment Score
Length at age 3*	10.7 ± 0.43	2
Spring CPUE of Age 1	38.72 ± 10.72	2
Spring CPUE 12-14.9 in fish	42.00 ± 7.67	3
Spring CPUE ≥ 15.0-in fish	15.00 ± 3.53	2
Spring CPUE ≥ 20.0-in fish	4.50 ± 1.40	4
Instantaneous mortality (z)	0.507	
Annual Mortality (A)	39.8%	
Total Score		13
Assessment Rating		Good

* 2003 Age and growth dataset was used

Table 92. Length distribution and CPUE (no./hour) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Beaver Lake in September 2005: 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		
Largemouth bass	84	187	28	7	53	57	66	103	80	34	7	4	1		1	1	713	475.3 (26.5)

Dataset = cfdwrbvr.d05

Table 93. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Beaver Lake on 19 September 2005. Standard errors are in parentheses.

Species	Area	Size Range							
		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	100	84.2 (0.7)	35	82.4 (1.4)	3	96.9 (9.3)	138	84.0 (0.7)

Dataset = cfdwrbvr.d05

Table 94. 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		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2000	Total	3.7	0.1	127.3	32.9	6.7	2.2	47.8	5.7
2001	Total	4.6	0.1	139.3	28.1	40.7	13.9	35.4	8.9
2002	Total	4.4	0.1	104.0	7.5	19.3	4.6	133.2	9.3
2003	Total	3.7	0.1	117.3	22.0	0.0		97.6	5.0
2004	Total	3.7	0.1	86.7	17.1	3.3	1.6	38.7	10.7
2005	Total	4.03	0.03	199.3	26.3	18.7	4.1		

Table 95. Species composition, relative abundance, and CPUE of bluegill and redear sunfish collected in 1.25 hours of 7.5-minute electrofishing runs in Beaver Lake, May 2005; numbers in parenthesis are standard errors.

Species	Length Class									Total	CPUE
	1	2	3	4	5	6	7	8	9		
Bluegill	10	17	53	43	41	43	79	5		291	232.8 (19.7)
Redear sunfish		2	7	22	29	54	47	68	10	239	191.2 (22.6)

Dataset = cfdpsbvr.d05

Table 96. PSD and RSD values calculated for sunfish collected during 1.25 hours of electrofishing at Beaver Lake during May 2005. Fish were collected in 7.5-minute runs.

Species	No. fish > stock size	PSD	RSD
Bluegill	264	48 (± 6)	2 (± 2)
Redear sunfish	230	54 (± 6)	4 (± 3)

Bluegill = RSD-8; Redear = RSD-9
Dataset = cfdntvl.d05

Table 97. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from Beaver Lake from 1992-2005; numbers in parentheses are standard errors.

Year	Inch Class										All Sizes	
	< 3.0		3.0 – 5.9		6.0 - 7.9		≥ 8.0		≥ 10.0			
1992	1.3	(0.9)	54.2	(10.2)	80.9	(15.1)	0.0		0.0		136.4	(24.0)
1993	2.5	(1.1)	47.0	(6.2)	79.5	(10.0)	0.0		0.0		129.0	(12.6)
1994	2.5	(1.1)	130.0	(21.0)	20.0	(4.0)	0.0		0.0		152.5	(24.2)
1995	2.0	(1.1)	174.0	(18.4)	16.5	(4.7)	0.0		0.0		192.5	(17.3)
1996	0.5	(0.5)	184.5	(27.3)	65.5	(11.5)	0.0		0.0		250.5	(34.5)
1997	2.5	(1.1)	58.0	(12.6)	86.5	(14.4)	0.5	(0.5)	0.0		147.5	(27.4)
1998	0.5	(0.5)	28.0	(4.3)	88.0	(15.0)	0.5	(0.5)	0.0		117.0	(19.0)
1999	14.0	(4.5)	13.0	(5.5)	10.5	(3.0)	0.0		0.0		37.5	(8.3)
2000	50.0	(12.7)	322.0	(23.1)	32.0	(13.6)	7.5	(3.8)	0.0		411.5	(41.2)
2001	19.0	(5.1)	211.5	(16.0)	122.0	(15.2)	0.0		0.0		352.5	(20.2)
2002	5.6	(1.7)	175.2	(22.9)	152.8	(27.7)	0.0		0.0		333.6	(44.7)
2003	33.6	(6.4)	141.6	(17.5)	128.8	(21.9)	0.0		0.0		304.0	(30.1)
2004	36.0	(16.0)	118.4	(32.4)	143.2	(29.3)	0.0		0.0		297.6	(56.4)
2005	21.6	(4.5)	109.6	(14.6)	97.6	(19.3)	4.0	(2.2)	0.0		232.8	(19.7)

Dataset = cfdpvr.d05

Table 98. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Beaver Lake in 2005.

Year	No.	Age 1	2	3	4	5	6
2004	6	2.7					
2003	18	2.0	4.0				
2002	17	1.7	3.4	5.4			
2001	8	2.1	4.2	5.8	7.1		
2000	7	2.4	4.3	5.6	6.4	7.2	
1999	6	2.3	4.2	5.8	6.7	7.3	7.9
Mean	62	2.1	3.9	5.6	6.7	7.3	7.9
Smallest		1.2	2.5	4.3	5.6	6.2	7.3
Largest		3.0	5.1	6.5	7.8	8.0	8.2
Std Error		0.1	0.1	0.1	0.1	0.1	0.1
95% ConLo		1.9	3.7	5.4	6.5	7.0	7.7
95% ConHi		2.2	4.1	5.8	7.0	7.5	8.2

Intercept value = 0.00
Dataset = cfdagbvr.d05

Table 99. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 1.25 hours of electrofishing at Beaver Lake during May 2005. Fish were collected in 7.5-minute runs.

	Inch Class										STD
Age	2	3	4	5	6	7	8	Total	%	CPUE	ERR
1	17							17	6	13.60	4.47
2		53	22	5				79	28	63.24	11.78
3			22	36	20			77	28	61.99	5.49
4					16	32		47	17	37.79	7.56
5					8	32	1	40	14	32.33	7.04
6						16	4	20	7	15.84	4.01
Total	17	53	43	41	43	79	5	281	100	232.80	19.68
%	6	19	15	15	15	28	2	100			

Dataset = cfdagbvr.d05 and cfdpsbvr.d05

Table 100. Electrofishing catch rate (fish/hour) of each age of bluegill collected from Beaver Lake from 1994-2005.

	Year						
Age	1999	2000	2001	2002	2003	2004	2005
1	12.7	62.0	44.8	10.2	31.1	31.7	13.6
2	11.9	243.2	167.7	70.4	100.1	102.2	63.2
3	3.9	52.1	140.0	201.7	26.4	17.9	62.0
4	6.3	43.5		49.5	119.6	50.6	37.8
5	0.7	3.2		1.8	26.8	79.9	32.3
6						15.3	15.8

Table 101. Population assessment for spring-collected bluegill collected from Beaver Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.0 ± 0.1	2
Years to 6 inches	3 - 3+	3
CPUE of fish ≥ 6.0 in	101.60 ± 20.17	4
CPUE of fish ≥ 8.0 in	4.00 ± 2.15	2
Instantaneous mortality (z)	0.340	
Annual Mortality (A)	28.8%	
Assessment Total		11
Assessment Rating		Good

Table 102. Electrofishing CPUE data (no./hour) for each size group of redear sunfish collected from Beaver Lake from 1992-2005; numbers in parentheses are standard errors.

Year	Inch Class										All Sizes	
	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		≥ 10.0			
1992	0.4	(0.4)	10.2	(2.8)	90.2	(12.9)	1.8	(1.0)	0.4	(0.4)	102.7	(13.2)
1993	0.0		2.0	(1.5)	57.0	(10.7)	5.0	(2.0)	0.0		64.0	(12.2)
1994	0.0		6.5	(1.8)	8.0	(2.6)	2.5	(1.3)	0.0		17.0	(4.1)
1995	0.0		2.0	(1.1)	12.5	(3.6)	7.0	(2.7)	0.0		21.5	(5.2)
1996	0.0		6.0	(2.0)	5.5	(2.5)	8.0	(2.6)	0.0		19.5	(5.1)
1997	0.0		13.0	(1.8)	9.0	(2.1)	8.0	(1.7)	0.0		30.0	(1.5)
1998	0.0		3.5	(1.2)	9.0	(2.0)	9.5	(4.6)	0.0		22.0	(5.7)
1999	0.0		0.0		0.5	(0.5)	7.5	(1.8)	2.0	(1.1)	8.0	(2.0)
2000	1.0	(0.7)	5.5	(2.0)	3.5	(1.8)	6.0	(2.0)	1.5	(1.1)	16.0	(3.7)
2001	0.5	(0.5)	34.5	(6.9)	30.0	(6.8)	8.5	(2.9)	0.5	(0.5)	73.5	(10.5)
2002	0.0		49.6	(11.1)	77.6	(18.1)	7.2	(3.9)	0.8	(0.8)	134.4	(27.8)
2003	0.8	(0.8)	21.6	(6.1)	87.2	(15.0)	7.2	(3.3)	0.0		116.8	(20.0)
2004	0.0		38.4	(9.0)	44.0	(8.7)	26.4	(7.4)	0.0		108.8	(17.1)
2005	1.6	(1.1)	46.4	(7.0)	80.8	(12.4)	62.4	(10.8)	0.0		191.2	(22.6)

Dataset = cfdpsbvr.d05

Table 103. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from Beaver Lake in 2005.

Year	No.	Age 1	2	3	4	5	6
2003	13	2.1	4.5				
2002	28	2.4	4.5	6.4			
2001	2	2.7	5.5	7.2	8.4		
2000	16	3.2	5.5	6.9	7.7	8.5	
1999	1	2.3	4.6	6.3	7.0	7.6	8.4
Mean	60	2.5	4.8	6.6	7.8	8.4	8.4
Smallest		1.4	2.7	4.8	6.1	6.9	8.4
Largest		4.8	6.8	8.2	8.7	9.4	8.4
Std Error		0.1	0.1	0.1	0.2	0.2	
95% ConLo		2.4	4.6	6.3	7.4	8.1	
95% ConHi		2.7	5.0	6.9	8.2	8.8	

Intercept value = 0.00
Dataset = cfdagbvr.d05

Table 104. Age frequency and CPUE (no./hour) per inch class of redear sunfish collected during 1.25 hours of electrofishing at Beaver Lake during May 2005. Fish were collected in 7.5-minute runs.

	Inch Class										STD
Age	3	4	5	6	7	8	9	Total	%	CPUE	ERR
2	7	16	6					29	12	23.56	4.55
3		6	23	49	31	12		121	51	97.07	11.45
4						12		12	5	9.89	1.75
5				5	16	37	10	68	29	54.13	8.07
6						6		6	3	4.95	0.87
Total	7	22	29	54	47	68	10	237	100	191.20	22.61
%	3	9	12	23	20	29	4	100			

Dataset = cfdagbvr.d05 and cfdpsbvr.d05

Table 105. Electrofishing catch rate (fish/hour) of each age of redear sunfish collected from Beaver Lake from 1999-2005.

	Year						
Age	1999	2000	2001	2002	2003	2004	2005
1	0.0	2.0	11.4	0.3	2.4	8.8	
2	0.0	3.7	48.6	37.9	18.3	28.5	23.6
3	1.0	2.8	4.5	61.7	37.8	14.0	97.1
4	1.2	5.2	4.5	30.8	58.3	57.5	9.9
5	1.4	0.7	4.0	2.9			54.1
6	4.5	1.8		0.8			5.0

Table 106. Population assessment for spring collected redear sunfish collected from Beaver Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	6.4 ± 0.2	3
Years to 8 inches*	4 - 4+	3
CPUE of fish ≥ 8.0 in	62.40 ± 10.79	4
CPUE of fish ≥ 10.0 in	0.00	1
Assessment Total		11
Assessment Rating		Good

Table 107. Number of fish and the relative weight (Wr) for each length category of largemouth bass, bluegill and redear sunfish collected at Beaver Lake on 19 September 2005. Standard errors are in parentheses.

Species	Size Range								Total	
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0 – 5.9 in		6.0 – 7.9 in							
Bluegill	75	87.3 (1.6)	50	78.6 (1.1)					125	83.8 (1.1)
	1.0 – 3.9 in		4.0 – 6.9 in		7.0 – 9.0 in		≥9.0 in			
Redear sunfish	12	90.9 (4.9)	75	87.6 (1.0)	35	91.8 (1.0)	1	92.2	123	89.2 (0.8)

Dataset = cfdwrbvr.d05

Table 108. Length frequency, relative abundance, and CPUE of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Boltz Lake, April 2005; numbers in parenthesis are standard errors.

Location/Species	Inch Class																			Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Largemouth bass		12	19	24	83	34	18	15	12	16	13	13	11	10	8	8	3			299	149.5 (8.4)

Dataset = cfdpsbol.d05

Table 109. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Boltz Lake from 1991-2005; numbers in parentheses are standard errors.

Year	Inch Class									
	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1991	25.2	(6.4)	43.6	(4.9)	10.8	(2.0)	6.5	(1.2)	60.8	(6.6)
1993	48.4	(9.5)	70.0	(4.8)	12.0	(2.3)	7.3	(2.2)	114.8	(8.9)
1994	155.2	(10.8)	45.0	(5.7)	32.4	(6.5)	3.6	(1.4)	129.6	(9.6)
1995	34.8	(8.6)	50.0	(3.3)	31.5	(3.9)	6.0	(1.7)	242.4	(10.4)
1997	43.2	(6.0)	183.6	(29.4)	36.8	(4.6)	14.4	(2.2)	268.8	(38.6)
1998	87.2	(16.6)	172.0	(18.8)	22.4	(3.3)	9.6	(2.2)	247.2	(24.8)
1999	92.0	(30.4)	184.8	(42.4)	90.4	(16.0)	13.8	(6.8)	560.0	(31.2)
2000	24.0	(5.2)	148.0	(7.7)	226.4	(18.4)	8.8	(2.9)	475.2	(16.8)
2001	5.6	(2.7)	212.8	(15.8)	133.6	(13.0)	9.6	(3.5)	380.0	(26.3)
2002	10.7	(2.9)	101.6	(20.1)	67.2	(11.4)	45.6	(9.2)	220.0	(27.3)
2003	64.0	(12.9)	39.3	(10.4)	61.3	(12.9)	40.0	(5.0)	151.3	(25.1)
2004	69.0	(10.1)	38.5	(4.9)	19.5	(4.4)	25.5	(5.9)	147.5	(22.9)
2005			39.5	(4.0)	21.0	(2.4)	20.0	(6.2)	149.5	(8.4)

Dataset = cfdpsbol.d05

Table 110. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Boltz Lake during April 2005. Fish were collected in 15-minute runs.

Age	Inch Class																		STD
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	%	CPUE	ERR
1	12	19															31	10	15.5	3.2
2			24	83	31												138	46	68.8	10.0
3					3	14	8	4	6								35	12	17.4	2.2
4						4	8	7	9	5	7	1					39	13	19.5	1.9
5								1	1	4	3	1			2		12	4	6.1	0.8
6											2	5	3	2		2	13	4	6.3	2.1
7										2	2	5	3	5	2		18	6	9.2	2.4
8										1			3	2	3		9	3	4.7	1.3
9										1						2	3	1	1.3	0.6
10																	2	1	0.8	0.2
Total	12	19	24	83	34	18	15	12	16	13	13	11	10	8	8	3	299	100	149.5	8.4
%	4	6	8	28	11	6	5	4	5	4	4	4	3	3	3	1	100			

Dataset = bbrscbol.d03 and cfdpsbol.d05

Table 111. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Boltz Lake from 1997-2005.

	Year								
Age	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	0.4	25.9	77.7	55.0	0.8	0.8	0.0	51.0	15.5
2	71.4	45.8	86.1	52.6	29.6	11.2	16.1	27.4	68.8
3	72.8	71.4	212.2	50.8	115.3	101.8	23.8	16.3	17.4
4	61.5	70.5	92.2	115.0	81.6	27.2	47.0	21.1	19.5
5	33.0	11.8	47.8	132.0	42.3	18.8	16.5	5.6	6.1
6	14.2	7.9	30.2	62.2	55.3	18.1	15.4	7.8	6.3
7	9.8	6.1	3.5	5.2	41.9	23.0	20.9	10.2	9.2
8	1.8	2.2	3.4	1.6	10.1	12.0	8.2	4.3	4.7
9	2.2	3.2	3.5	0.8	3.2	7.0	2.6	2.8	1.3
10	1.3	1.0	2.7				0.8	1.0	0.8
11	0.4	1.0	1.1						

Table 112. Population assessment from largemouth bass collected from Boltz Lake during April 2005.

Parameter	Value	Assessment Score
Length at age 3*	10.6 ± 0.3	2
Spring CPUE of Age 1	15.50 ± 3.16	1
Spring CPUE 12-14.9 in fish	21.00 ± 2.36	2
Spring CPUE ≥ 15.0-in fish	20.00 ± 6.23	3
Spring CPUE ≥ 20.0-in fish	0.00	1
Instantaneous mortality (z)	0.447	
Annual Mortality (A)	36.1%	
Total Score		9
Assessment Rating		Fair

* 2003 Age and growth dataset was used

Table 113. Length frequency, relative abundance, and CPUE of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Bullock Pen Lake, April 2005; numbers in parenthesis are standard errors.

Location/Species	Inch Class																		Total	CPUE
	2	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Largemouth bass	1	3	6	9	1	3	9	21	26	22	28	22	27	28	27	15	6	1	255	127.5 (15.5)

Dataset = cfdpsbpl.d05

Table 114. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Bullock Pen Lake from 1991-2005; numbers in parentheses are standard errors.

Year	Inch Class									
	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1991			36.6		22.8		16.4		75.2	
1994	10.0	(2.3)	17.5	(2.8)	37.6	(3.6)	40.0	(9.9)	104.0	(12.4)
1995	7.0	(1.6)	36.4	(4.7)	33.2	(4.4)	40.8	(5.6)	117.6	(9.9)
1996	10.5	(2.5)	26.5	(4.6)	26.0	(6.0)	30.5	(6.1)	93.6	(11.6)
1997	18.0	(3.5)	71.6	(8.7)	34.4	(3.3)	34.4	(6.1)	158.4	(17.3)
1998	18.0	(4.4)	43.6	(4.8)	39.6	(9.2)	33.2	(7.2)	139.2	(19.2)
1999	14.0	(3.6)	40.4	(4.0)	35.2	(4.0)	38.4	(12.0)	128.0	(14.0)
2000	15.1	(4.8)	35.5	(5.0)	21.0	(3.1)	42.4	(9.8)	113.5	(6.5)
2001	9.0	(3.2)	33.5	(4.3)	38.5	(7.2)	66.0	(15.2)	147.2	(16.4)
2002	6.5	(1.7)	29.5	(3.0)	41.5	(7.2)	54.5	(10.4)	132.0	(16.5)
2003	9.0	(2.5)	19.5	(2.3)	32.5	(4.1)	56.5	(8.8)	117.5	(9.8)
2004	6.5	(1.3)	31.5	(3.7)	45.0	(8.5)	57.5	(11.4)	140.5	(13.4)
2005	9.5	(1.3)	17.0	(2.6)	38.0	(5.8)	63.0	(13.7)	127.5	(15.5)

Dataset = cfdpsbpl.d05

Table 115. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Bullock Pen Lake during April 2005. Fish were collected in 15-minute runs.

Age	Inch Class																				STD
	2	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1	1	2																	3	1	1.3	0.8
2		2	6	8	1	1	1												18	7	9.0	0.9
3				1		2	7	14	13	2									39	15	19.7	2.4
4						1		5	10	9	3	2	11						41	16	20.3	2.6
5							1	2	3	7	19	7		5					42	17	21.1	3.1
6										2	6	7	5	5	7				32	12	15.9	2.7
7												4	11	9	7				31	12	15.6	3.4
8										2		2			7	3			14	6	7.1	1.5
9														5	7	3			14	6	7.2	1.8
10																6			6	2	3.0	1.0
11														5			3	1	9	3	4.3	1.2
12																3	3		6	2	3.0	1.0
Total	1	3	6	9	1	3	9	21	26	22	28	22	27	28	27	15	6	1	255	100	127.5	15.5
%	0	1	2	4	0	1	4	8	10	9	11	9	11	11	11	6	2	0	100			

Dataset = bbrscbpl.d03 and cfdpsbpl.d05

Table 116. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Bullock Pen Lake from 1997-2004.

Age	Year								
	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	1.2	3.0	4.0	6.8	0.0	0.5	1.8	0.0	1.3
2	26.7	21.4	18.6	13.0	17.7	11.4	14.6	17.1	9.0
3	40.8	25.7	26.8	15.4	19.6	32.9	13.8	24.8	19.7
4	29.8	30.5	29.6	12.5	19.3	14.3	18.4	23.8	20.3
5	20.6	16.7	22.7	13.7	20.5	35.5	21.1	23.5	21.1
6	10.5	10.9	5.4	11.1	18.9	13.6	16.4	16.2	15.9
7	11.9	7.2	6.2	9.9	25.8	11.3	15.9	15.3	15.6
8	7.9	9.5	11.3	14.5	12.3	6.6	5.8	6.2	7.1
9	4.4	2.6	2.4	9.0	10.2	2.7	5.2	6.0	7.2
10	1.4	2.8	0.6	6.5	2.6	1.4	1.2	2.0	3.0
11	1.0	2.7		0.8			2.8	3.8	4.3
12	2.2	0.6				0.7	0.6	2.0	3.0

Table 117. Population assessment from largemouth bass collected from Bullock Pen Lake during April 2005.

Parameter	Value	Assessment Score
Length at age 3*	10.7 ± 0.3	2
Spring CPUE of Age 1	1.25 ± 0.75	1
Spring CPUE 12-14.9 in fish	38.00 ± 5.81	3
Spring CPUE ≥ 15.0-in fish	63.00 ± 13.66	4
Spring CPUE ≥ 20.0-in fish	3.50 ± 1.40	3
Instantaneous mortality (z)	0.245	
Annual Mortality (A)	21.7%	
Total Score		13
Assessment Rating		Good

* 2003 Age and growth dataset was used

Table 118. Length frequency, relative abundance, and CPUE of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Corinth Lake, April 2005; numbers in parenthesis are standard errors.

Location/Species	Inch Class																				Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Largemouth bass	4	19	14	7	47	117	30	28	55	82	46	16	14	10	4	3	5	4	1		506	253.00 (16.03)

Dataset = cfdpscor.d05

Table 119. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Corinth Lake from 1992-2005; numbers in parentheses are standard errors.

Year	Inch Class									
	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1992	31.0	(9.3)	22.5	(5.3)	5.0	(2.6)	0		58.5	(9.8)
1993	34.0	(8.2)	111.3	(11.5)	7.3	(2.4)	2.0	(1.4)	154.7	(13.5)
1996	53.5	(10.1)	174.5	(16.7)	14.5	(2.0)	4.5	(1.6)	247.0	(18.1)
1998	15.5	(3.2)	111.5	(9.8)	19.0	(3.0)	4.0	(1.7)	150.0	(14.4)
1999	137.0	(14.2)	56.5	(5.2)	24.5	(4.3)	3.5	(1.2)	221.5	(16.4)
2000	312.8	(47.0)	136.0	(18.2)	22.4	(6.5)	4.8	(2.3)	476.0	(63.7)
2001	127.2	(16.6)	231.2	(8.0)	20.8	(5.1)	9.6	(3.2)	388.8	(13.5)
2002	40.7	(8.1)	153.3	(21.7)	13.3	(2.9)	16.7	(2.8)	224.0	(28.7)
2003	58.0	(13.6)	146.0	(16.4)	23.3	(3.8)	6.0	(2.0)	233.3	(28.2)
2004	23.0	(4.8)	77.5	(5.0)	40.0	(4.3)	5.0	(1.5)	145.5	(8.0)
2005	45.5	(3.9)	115.0	(9.3)	72.0	(10.0)	20.5	(3.0)	253.0	(16.0)

Dataset = cfdpscor.d05

Table 120. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Corinth Lake in 2005; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	415	45 (± 5)	10 (± 3)

Dataset = cfdpscor.d05

Table 121. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Corinth Lake during April 2005. Fish were collected in 15-minute runs.

Age	Inch Class																					STD
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1		4	19	14	7	21														65	13	32.44	4.22
2					21	94	22	6												143	28	71.26	5.56
3					5	23	8	19	14											69	14	34.61	3.11
4								3	41	82	35	6	10							177	35	88.63	9.33
5											12	10	2	6						29	6	14.55	2.40
6														4	2	1	5			12	2	6.10	1.42
7															2	1				3	1	1.30	0.46
8													2			1				3	1	1.30	0.41
9																1		4	1	6	1	2.80	1.23
Total	4	19	14	7	47	117	30	28	55	82	46	16	14	10	4	3	5	4	1	506	100	253.00	16.03
%	1	4	3	1	9	23	6	6	11	16	9	3	3	2	1	1	1	1	0	100			

Dataset = bbrsccor.d03 and cfdpscor.d05

Table 122. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Corinth Lake from 1999-2005.

Age	Year						
	1999	2000	2001	2002	2003	2004	2005
1	120.4	293.2	63.4	35.3	54.3	21.1	32.4
2	36.6	57.0	134.2	26.3	68.0	37.1	71.3
3	34.5	62.5	119.1	114.1	53.8	25.3	34.6
4	9.8	34.0	34.0	24.3	49.3	54.8	88.6
5	15.7	19.0	25.5	2.4	3.3	4.3	14.6
6	1.0	3.9	8.2	6.4	1.9	1.5	6.1
7	2.0	2.4	2.7	2.2	0.7	0.3	1.3
8	5	0.8	1.6	2.9	0.8	0.3	1.3
9	2.6	3.2			1.3	1.0	2.8
10	0.7						
11	5.8						
12	1.8						

Table 123. Population assessment from largemouth bass collected from Corinth Lake during April 2005.

Parameter	Value	Assessment Score
Length at age 3*	10.1 ± 0.3	2
Spring CPUE of Age 1	32.44 ± 4.22	2
Spring CPUE 12-14.9 in fish	72.00 ± 10.00	4
Spring CPUE ≥ 15.0-in fish	20.50 ± 2.97	3
Spring CPUE ≥ 20.0-in fish	2.50 ± 1.30	3
Instantaneous mortality (z)	0.501	
Annual mortality (A)	39.4%	
Total Score		14
Assessment Rating		Good

* 2003 Age and growth dataset was used

Table 124. Length distribution and CPUE (no./hour) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Corinth Lake on 8 September 2005: 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		
Largemouth bass	11	44	7	4	18	14	25	7	6	6	6	2	4	1	1	1	1	158	105.3 (7.4)

Dataset = cfdwrcor.d05

Table 125. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Corinth Lake on 8 September 2005. Standard errors are in parentheses.

Species	Area	Size Range							
		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	52	83.5 (0.8)	14	92.3 (2.4)	8	99.2 (4.3)	74	86.9 (1.0)

Dataset = cfdwrcor.d05

Table 126. 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		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
1999	Total	4.3	0.1	74.0	12.3	8.0	2.9	293.2	46.0
2000	Total	4.3	0.1	35.3	7.4	3.3	1.9	63.4	10.9
2001	Total	4.6	0.1	112.7	15.6	32.0	6.8	35.3	7.4
2002	Total	4.6	0.1	163.3	13.7	42.0	4.5	54.3	13.4
2003	Total	4.1	0.1	73.7	9.2	4.6	1.8	21.1	5.1
2004	Total	4.0	0.1	74.0	6.2	2.7	1.3	32.4	4.2
2005	Total	4.4	0.1	41.3	2.7	4.7	1.2		

Table 127. Species composition, relative abundance, and CPUE of bluegill and redear sunfish collected in 1.25 hours of 7.5-minute electrofishing runs in Corinth Lake, May 2005; numbers in parenthesis are standard errors.

Species	Length Class											Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12		
Bluegill	15	126	125	77	88	15						446	356.8 (47.8)
Redear sunfish		12	8	28	17	19	29	6		3	1	123	98.4 (17.3)

Dataset = cfdpscor.d05

Table 128. PSD and RSD values calculated for sunfish collected during 1.25 hours of electrofishing at Corinth Lake during May 2005. Fish were collected in 7.5-minute runs.

Species	No. fish > stock size	PSD	RSD*
Bluegill	431	24 (± 4)	0
Redear sunfish	56	52 (± 9)	9 (± 5)

* Bluegill = RSD-8; Redear = RSD-9
Dataset = cfdpscor.d05

Table 129. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from Corinth Lake from 1992-2005; numbers in parentheses are standard errors.

Year	Inch Class											
	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		≥ 10.0	All Sizes	
1992	3.0	(1.7)	36.0	(24.9)	49.0	(8.5)	10.0	(5.5)	0.0	98.0	(30.4)
1993	2.7	(1.3)	42.0	(13.1)	54.0	(10.9)	20.7	(5.2)	0.0	119.3	(26.2)
1996	6.0	(3.9)	75.0	(12.0)	54.5	(14.5)	1.5	(0.7)	0.0	137.0	(25.9)
1998	2.0	(1.1)	80.0	(19.4)	50.5	(10.3)	3.0	(1.0)	0.0	135.5	(23.7)
1999	42.0	(17.1)	113.0	(16.5)	32.5	(7.2)	17.0	(5.8)	0.0	204.5	(26.6)
2000	8.8	(2.5)	270.4	(20.1)	100.8	(12.0)	20.8	(3.6)	0.0	400.8	(25.9)
2001	7.2	(4.0)	185.6	(18.0)	140.0	(14.8)	5.6	(2.1)	0.0	338.4	(23.5)
2002	2.4	(1.2)	140.0	(16.7)	56.8	(12.1)	0.0		0.0	199.2	(26.6)
2003	14.2	(6.2)	164.4	(14.1)	91.6	(10.7)	0.9	(0.9)	0.0	271.1	(23.3)
2004	17.6	(4.9)	174.4	(15.9)	61.6	(10.9)	0.0		0.0	253.6	(22.7)
2005	12.0	(4.2)	262.4	(32.7)	82.4	(22.2)	0.0		0.0	356.8	(47.8)

Dataset = cfdpscor.d05

Table 130. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Corinth Lake in 2005.

Year	No.	Age				
		1	2	3	4	5
2004	2	2.4				
2003	22	2.0	4.0			
2002	18	2.2	4.3	5.8		
2001	8	2.2	4.7	6.1	7.0	
2000	4	2.5	5.0	6.0	6.6	7.1
Mean	65	2.2	4.3	5.9	6.8	7.1
Smallest		1.3	3.1	5.0	6.3	6.9
Largest		3.7	5.8	7.0	7.3	7.2
Std Error		0.1	0.1	0.1	0.1	0.1
95% ConLo		2.0	4.1	5.7	6.7	7.0
95% ConHi		2.3	4.5	6.1	7.0	7.2

Intercept value = 0.00
Dataset = cfdagcor.d05

Table 131. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 1.25 hours of electrofishing at Corinth Lake during May 2005. Fish were collected in 7.5-minute runs.

	Inch Class									
Age	2	3	4	5	6	7	Total	%	CPUE	STD ERR
1	15						15	3	12.00	4.17
2		126	125				251	56	200.80	27.60
3				77	44	2	123	28	98.30	16.92
4					35	8	43	10	34.16	9.15
5					9	6	14	3	11.54	3.07
Total	15	126	125	77	88	15	446	100	356.80	47.82
%	3	28	28	17	20	3	100			

Dataset = cfdagcor.d05 and cfdpscor.d05

Table 132. Electrofishing catch rate (fish/hour) of each age of bluegill collected from Corinth Lake from 1999-2005.

	Year						
Age	1999	2000	2001	2002	2003	2004	2005
1	37.7	32.0	11.5	2.4	14.2	23.3	12.0
2	81.2	295.5	167.5	108.4	153.8	142.0	200.8
3	8.9	37.9	140.9	71.8	47.8	33.6	98.3
4	26.1	2.2	1.5	16.6	22.1	20.6	34.2
5	6.4	13.3	3.9		33.2	34.2	11.5
6	2.3	2.2					
7	2.1	2.2					

Table 133. Population assessment for spring-collected bluegill collected from Corinth Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.0 ± 0.1	2
Years to 6 inches	3 - 3+	3
CPUE of fish ≥ 6.0 in	82.40 ± 22.15	4
CPUE of fish ≥ 8.0 in	0.0	1
Instantaneous mortality (z)	0.9710	
Annual mortality (A)	62.1%	
Assessment Total		10
Assessment Rating		Fair

Table 134. Electrofishing CPUE data (no./hour) for each size group of redear sunfish collected from Corinth Lake from 1992-2005; numbers in parentheses are standard errors.

Year	Inch Class											
	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		≥ 10.0		All Sizes	
1992	0.0		0.0		0.0		0.0		0.0		0.0	
1993	0.0		0.0		0.0		2.0	(2.0)	1.3	(1.3)	2.0	(2.0)
1996	0.5	(0.5)	7.0	(2.8)	5.5	(2.7)	10.5	(3.5)	4.0	(1.7)	23.5	(3.9)
1998	0.0		4.0	(0.8)	0.5	(0.5)	19.0	(4.3)	15.5	(3.3)	23.5	(4.0
1999	0.0		3.7	(1.6)	2.7	(1.1)	5.3	(1.5)	3.2	(1.1)	21.5	(3.5)
2000	0.0		14.4	(4.1)	33.6	(15.8)	52.8	(6.6)	16.8	(4.2)	100.8	(21.9)
2001	1.6	(1.1)	20.8	(5.0)	54.4	(9.2)	72.8	(10.0)	44.0	8.7)	149.6	(15.6)
2002	0.0		4.0	(1.8)	6.4	(2.0)	82.4	(15.4)	52.0	(8.7)	92.8	(15.9)
2003	0.9	(0.9)	11.6	(3.6)	11.6	(2.4)	28.4	(5.2)	24.9	(5.6)	52.4	(6.1)
2004	0.8	(0.8)	13.6	(1.7)	17.6	(5.2)	19.2	(5.2)	14.4	(3.3)	51.2	(6.8)
2005	0.0		38.4	(4.4)	28.8	(6.4)	31.2	(11.1)	3.2	(1.8)	98.4	(17.3)

Dataset = cfdpscor.d05

Table 135. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from Corinth Lake in 2005.

Year	No.	Age					
		1	2	3	4	5	6
2004	7	3.3					
2003	29	2.5	5.2				
2002	21	3.1	6.1	7.6			
2001	5	3.0	6.6	8.1	9.1		
1999	3	2.3	6.6	9.2	10.2	11.1	11.9
Mean	65	2.8	5.7	7.9	9.5	11.1	11.9
Smallest		1.6	3.5	6.3	7.6	11.0	11.9
Largest		4.1	7.5	9.5	10.4	11.3	12.0
Std Error		0.1	0.1	0.2	0.3	0.1	0.0
95% ConLo		2.7	5.5	7.5	8.9	11.0	11.9
95% ConHi		3.0	6.0	8.2	10.1	11.3	12.0

Intercept value = 0.00
Dataset = cfdagcor.d05

Table 136. Age frequency and CPUE (no./hour) per inch class of redear sunfish collected during 1.25 hours of electrofishing at Corinth Lake during May 2005. Fish were collected in 7.5-minute runs.

Age	Inch Class									Total	%	CPUE	STD ERR
	3	4	5	6	7	8	9	11	12				
1	7									7	5	5.24	1.57
2	5	8	28	8	3					52	43	41.88	4.24
3				9	13	29				51	41	40.75	12.12
4					3		6			9	7	7.33	2.84
6								3	1	4	3	3.20	1.77
Total	12	8	28	17	19	29	6	3	1	123	100	98.40	17.33
%	10	7	23	14	15	24	5	2	1	100			

Dataset = cfdagcor.d05 and cfdpscor.d05

Table 137. Population assessment for spring collected redear sunfish collected from Corinth Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	7.6 ± 0.2	4
Years to 8 inches	3 - 3+	4
CPUE of fish ≥ 8.0 in	31.20 ± 11.09	4
CPUE of fish ≥ 10.0 in	3.20 ± 1.77	3
Assessment Total		15
Assessment Rating		Excellent

Table 138. Number of fish and the relative weight (Wr) for each length category of bluegill and redear sunfish collected at Corinth Lake on 8 September 2005. Standard errors are in parentheses.

Species	Size Range							
	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0 – 5.9 in		6.0 – 7.9 in		≥ 8.0 in		Total	
Bluegill	75	86.2 (1.4)	19	68.7 (2.3)			94	82.6 (1.4)
	4.0 – 6.9 in		7.0 – 8.9 in		≥ 9.0 in		Total	
Redear sunfish	39	90.8 (1.2)	22	88.5 (1.6)	3	86.2 (3.2)	66	89.1 (1.0)

Dataset = cfdwrcor.d05

Table 139. Species composition, relative abundance, and CPUE of black bass collected in 2.0 hours of 15-minute electrofishing runs in Elmer Davis Lake, April 2005; numbers in parenthesis are standard errors.

Location/Species	Inch Class																			Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Largemouth bass	4	73	68	15	26	119	75	84	116	72	29	19	12	6	2	2	1	5	2	730	365.0 (27.2)

Dataset = cfdpselm.d05

Table 140. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Elmer Davis Lake from 1996-2005; numbers in parentheses are standard errors.

Year	Inch Class									
	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1996	102.0	(15.3)	163.5	(19.5)	37.0	(6.2)	9.0	(3.4)	312.0	(32.7)
1997	113.5	(20.1)	252.0	(27.2)	39.0	(5.6)	19.0	(3.7)	423.5	(43.9)
1998	52.5	(9.5)	93.3	(6.8)	16.8	(2.3)	7.5	(1.7)	170.1	(15.1)
1999	247.1	(29.7)	50.2	(8.0)	34.2	(6.4)	16.4	(4.9)	348.0	(40.5)
2000	134.5	(14.7)	136.5	(11.0)	31.5	(6.0)	29.0	(4.4)	331.5	(21.3)
2001	121.0	(17.0)	220.0	(21.2)	18.5	(2.4)	21.0	(4.1)	380.5	(24.9)
2002	99.0	(16.3)	124.0	(12.3)	4.0	(1.3)	10.0	(2.7)	237.0	(26.2)
2003	96.0	(10.2)	189.5	(16.5)	14.5	(3.9)	15.0	(2.7)	315.0	(25.1)
2004	107.5	(10.0)	123.5	(10.0)	22.0	(3.5)	15.0	(1.7)	268.0	(17.4)
2005	93.0	(10.6)	197.0	(11.2)	60.0	(10.4)	15.0	(2.4)	365.0	(27.2)

Dataset = cfdpselm.d05
Shad eradication in fall of 1997

Table 141. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Elmer Davis Lake in 2005; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	544	28 (± 4)	6 (± 2)

Dataset = cfdpselm.d05

Table 142. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Elmer Davis Lake during April 2005. Fish were collected in 15-minute runs.

Age	Inch Class																					
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	STD ERR
1	4	73	68	11																156	21	78.13	9.86
2				4	26	119	38													186	26	93.13	10.30
3							30	58	52	6										146	20	72.85	3.51
4							8	6		18										32	4	15.98	1.86
5								19	26	36	10	10								100	14	50.16	5.04
6									39	12	19	10	3	5						87	12	43.50	5.82
7													6	2	2	1	1			11	1	5.33	1.19
8													3			1	1			4	1	2.08	0.47
9																			2	2	0	1.00	0.65
10																1				1	0	0.33	0.22
11																		5		5	1	2.50	0.73
Total	4	73	68	15	26	119	75	84	116	72	29	19	12	6	2	2	1	5	2	730	100	365.00	27.16
%	1	10	9	2	4	16	10	12	16	10	4	3	2	1	0	0	0	1	0	100			

Dataset = cfdagelm.d04 and cfdpscor.d05

Table 143. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Elmer Davis Lake from 2000-2005.

Age	Year					
	2000	2001	2002	2003	2004	2005
1	73.8	52.8	80.6	57.5	94.4	78.1
2	123.7	151.2	45.0	96.1	66.1	93.1
3	80.3	103.3	67.7	85.4	47.9	72.9
4	12.4	42.5	30.9	52.4	10.3	16.0
5	14.5	10.7	3.8	8.6	22.6	50.2
6	17.6	4.2	1.5	1.4	14.4	43.5
7	4.3	4.3	1.4	1.3	5.3	5.3
8	2.0	5.1	2.2	1.8	2.4	2.1
9	0.5	2.5	1.4	1.8	1.0	1.0
10	1.5	3.0	1.9	4.8	1.2	0.3
11	1.0	0.5	0.9	0.6	2.5	2.5
12				3.0		
13				0.5		
14		0.5				

Table 144. Population assessment from largemouth bass collected from Elmer Davis Lake during April 2005.

Parameter	Value	Assessment Score
Length at age 3*	10.5 (0.2)	2
Spring CPUE of Age 1	78.13 (9.86)	4
Spring CPUE 12-14.9 in fish	60.00 (10.42)	4
Spring CPUE ≥ 15.0-in fish	15.00 (2.36)	2
Spring CPUE ≥ 20.0-in fish	3.50 (1.18)	3
Instantaneous mortality (z)	0.536	
Annual mortality (A)	41.5%	
Total Score		15
Assessment Rating		Good

* 2004 age and growth dataset was used.

Table 145. Length distribution and CPUE (no./hour) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Elmer Davis Lake in September 2005: 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	21		
Largemouth bass	75	160	49	5	21	65	44	57	35	18	8	7	3	2	2		1	1		553	368.7 (40.7)

Dataset = cfdwrelm.d05

Table 146. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Elmer Davis Lake on 21 September 2005. Standard errors are in parentheses.

Species	Area	Size Range							
		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	101	85.5 (0.6)	33	78.6 (2.6)	9	90.2 (3.8)	143	84.2 (0.8)

Dataset = cfdwrelm.d05

Table 147. 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		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2000	Total	3.8	(0.1)	269.6	(33.2)	14.4	(2.0)	52.8	(9.7)
2001	Total	4.5	(0.1)	210.7	(25.0)	47.3	(3.0)	80.6	(13.3)
2002	Total	4.3	(0.1)	67.3	(10.0)	13.3	(3.2)	57.5	(7.9)
2003	Total	4.2	(0.1)	179.0	(32.0)	27.0	(10.0)	94.4	(9.9)
2004	Total	4.3	(0.03)	180.0	(38.5)	24.7	(4.3)	78.1	(9.9)
2005	Total	4.4	(0.04)	190.0	(29.6)	33.3	(5.3)		

Table 148. Species composition, relative abundance, and CPUE of bluegill and redear sunfish collected in 1.25 hours of 7.5-minute electrofishing runs in Elmer Davis Lake, May 2005; numbers in parenthesis are standard errors.

Species	Length Class											Total	CPUE
	1	2	3	4	5	6	7	8	9	10	11		
Bluegill	8	40	59	41	16	36	38	11				249	199.2 (23.9)
Redear sunfish					14	41	27	48	25	5	1	161	128.8 (26.9)

Dataset = cfdpselm.d05

Table 149. PSD and RSD values calculated for sunfish collected during 1.25 hours of electrofishing at Elmer Davis Lake during May 2005. Fish were collected in 7.5-minute runs.

Species	No. fish > stock size	PSD	RSD*
Bluegill	201	42 (± 7)	5 (± 3)
Redear sunfish	161	66 (± 7)	19 (± 6)

* Bluegill = RSD-8; Redear-9
Dataset = cfdpselm.d05

Table 150. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from Elmer Davis Lake from 1994-2005; numbers in parentheses are standard errors.

	Inch Class									
Year	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		All Sizes	
1994	1.0	(0.7)	12.0	(3.0)	29.0	(5.7)	1.5	(1.1)	43.5	(6.0)
1995	NS									
1996	42.0	(7.9)	75.0	(9.7)	55.0	(11.2)	20.0	(5.4)	192.0	(22.5)
1997	0.5	(0.5)	79.5	(12.5)	59.0	(16.3)	5.5	(2.1)	144.5	(28.6)
1998	2.7	(1.1)	17.1	(4.5)	7.7	(1.6)	2.9	(1.1)	30.4	(5.8)
1999	579.5	(74.5)	502.0	(65.4)	23.0	(7.6)	5.0	(3.4)	1,109.5	(130.9)
2000	NS									
2001	1.5	(0.8)	109.5	(28.0)	157.0	(23.5)	0.5	(0.5)	268.5	(49.6)
2002	33.6	(11.8)	78.4	(19.3)	272.8	(55.3)	0.8	(0.8)	385.6	(78.2)
2003	17.6	(4.7)	89.6	(12.9)	151.2	(30.1)	2.4	(1.7)	260.8	(37.1)
2004	40.0	(8.7)	100.8	(13.7)	119.2	(29.8)	8.8	(3.9)	268.8	(44.7)
2005	38.4	(11.4)	92.8	(16.1)	59.2	(9.8)	8.8	(3.0)	199.2	(23.9)

Dataset = cfdpselm.d05

Table 151. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Elmer Davis Lake in 2005.

		Age						
Year	No.	1	2	3	4	5	6	7
2004	2	3.0						
2003	22	2.0	4.2					
2002	19	2.3	4.6	6.4				
2001	4	2.4	4.9	6.6	7.7			
2000	4	3.0	5.1	6.5	7.4	8.2		
1999	3	3.2	5.4	6.6	7.1	7.7	8.2	
1998	4	2.5	4.5	6.0	6.9	7.4	7.8	8.3
Mean	58	2.3	4.5	6.4	7.3	7.8	8.0	8.3
Smallest		1.2	2.6	5.0	6.7	7.2	7.7	8.1
Largest		4.0	6.0	7.7	7.9	8.4	8.5	8.5
Std Error		0.1	0.1	0.1	0.1	0.1	0.1	0.1
95% ConLo		2.2	4.3	6.2	7.1	7.5	7.8	8.1
95% ConHi		2.5	4.7	6.7	7.5	8.0	8.2	8.4

Intercept value = 0.00
Dataset = cfdagelm.d05

Table 152. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 1.25 hours of electrofishing at Elmer Davis Lake during May 2005. Fish were collected in 7.5-minute runs.

	Inch Class											STD
Age	1	2	3	4	5	6	7	8	Total	%	CPUE	ERR
1		20	7						27	11	21.24	5.72
2		20	52	41	8				121	50	97.16	18.13
3					8	36	15		59	25	47.36	7.22
4							15		15	6	12.16	2.47
5							4	4	7	3	5.97	1.36
6							4	2	6	3	5.00	1.06
7								5	5	2	3.91	1.35
Total		40	59	41	16	36	38	11	336	100	199.20	23.92
%		17	24	17	7	15	16	5	100			

Dataset = cfdagcor.d05 and cfdpscor.d05

Table 153. Electrofishing catch rate (fish/hour) of each age of bluegill collected from Elmer Davis Lake from 2001-2005.

	Year				
Age	2001	2002	2003	2004	2005
1	2.6	35.8	21.2	43.1	21.2
2	45.4	69.4	75.9	95.0	97.2
3	212.9	20.0	34.6	45.4	47.4
4	7.6	246.3	21.3	29.6	12.2
5		14.2	107.8	7.8	6.0
6				46.8	5.0
7				1.1	3.9

Table 154. Population assessment for spring-collected bluegill collected from Elmer Davis Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.2 ± 0.2	2
Years to 6 inches	2 – 2+	4
CPUE of fish ≥ 6.0 in	68.00 ± 11.20	3
CPUE of fish ≥ 8.0 in	8.80 ± 3.03	3
Instantaneous mortality (z)	0.673	
Annual mortality (A)	49.0%	
Assessment Total		12
Assessment Rating		Good

Table 155. Electrofishing CPUE data (no./hour) for each size group of redear sunfish collected from Elmer Davis Lake from 1994-2005; numbers in parentheses are standard errors.

	Inch Class											
Year	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		≥ 10.0		All Sizes	
1994	0.0		0.5	(0.5)	0.5	(0.5)	2.5	(2.0)	1.5	(1.5)	3.5	(1.9)
1995	NS											
1996			7.5	(1.6)	23.5	(3.3)	4.0	(1.1)	1.0	(0.7)	35.0	(4.6)
1997	0.0		1.0	(1.0)	0.5	(0.5)	13.0	(3.8)	0.5	(0.5)	14.5	(4.6)
1998	0.0		0.3	(0.3)	0.0		0.0		0.0		0.3	(0.3)
1999	0.0		19.0	(4.4)	13.0	(2.2)	20.5	(5.3)	0.0		52.5	(7.5)
2000	NS											
2001	0.0		3.5	(2.1)	21.0	(5.1)	3.5	(1.6)	1.0	(0.7)	28.0	(4.8)
2002	0.8	(0.8)	4.0	(1.8)	8.8	(4.7)	15.2	(4.2)	0.8	(0.8)	28.8	(6.1)
2003	1.6	(1.1)	7.2	(5.5)	31.2	(7.4)	19.2	(6.2)	0.8	(0.8)	59.2	(13.5)
2004	4.0	(2.7)	8.0	(3.4)	66.4	(18.4)	24.8	(9.7)	3.2	(2.4)	103.2	(29.1)
2005	0.0		11.2	(2.4)	54.4	(16.7)	63.2	(18.6)	4.8	(1.8)	128.8	(26.9)

Dataset = cfdpselm.d05

Table 156. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from Elmer Davis Lake in 2005.

		Age					
Year	No.	1	2	3	4	5	6
2003	31	3.0	6.4				
2002	18	3.3	6.5	8.7			
2001	6	3.3	7.1	8.8	9.7		
2000	1	3.7	6.7	8.9	10.0	10.7	
1999	3	2.8	6.8	8.8	9.6	10.2	10.7
Mean	59	3.1	6.5	8.7	9.7	10.3	10.7
Smallest		1.8	4.3	7.0	9.2	9.9	10.4
Largest		4.2	8.3	10.0	10.2	10.7	11.1
Std Error		0.1	0.1	0.1	0.1	0.2	0.2
95% ConLo		3.0	6.3	8.5	9.4	9.9	10.3
95% ConHi		3.3	6.7	9.0	9.9	10.7	11.1

Intercept value = 0.00
Dataset = cfdagelm.d05

Table 157. Age frequency and CPUE (no./hour) per inch class of redear sunfish collected during 1.25 hours of electrofishing at Elmer Davis Lake during May 2005. Fish were collected in 7.5-minute runs.

	Inch Class										STD
Age	5	6	7	8	9	10	11	Total	%	CPUE	ERR
2	14	41	22					77	48	61.28	16.00
3			5	48	14			67	42	53.63	15.85
4					11	1		13	8	10.09	2.30
5						1		1	1	1.00	0.33
6						3	1	4	2	2.80	1.20
Total	14	41	27	48	25	5	1	161	100	128.80	26.86
%	9	25	17	30	16	3	1	100			

Dataset = cfdagelm.d05 and cfdpselm.d05

Table 158. Electrofishing catch rate (fish/hour) of each age of redear sunfish collected from Elmer Davis Lake from 2001-2005.

	Year				
Age	2001	2002	2003	2004	2005
1	0.0	35.8	7.2	7.2	61.3
2	0.5	69.4	34.4	78.8	53.6
3	13.5	20.0	4.1	8.7	10.1
4	7.9	246.3	13.5	8.5	1.0
5	5.6	14.2			2.8
6	0.5				

Table 159. Population assessment for spring collected redear sunfish collected from Elmer Davis Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	8.7 ± 0.2	4
Years to 8 inches	2 – 2+	4
CPUE of fish ≥ 8.0 in	63.20 ± 18.57	4
CPUE of fish ≥ 10.0 in	4.80 ± 1.77	3
Instantaneous mortality (z)	1.015	
Annual mortality (A)	63.8%	
Assessment Total		15
Assessment Rating		Excellent

Table 160. Number of fish and the relative weight (Wr) for each length category of bluegill and redear sunfish collected at Elmer Davis Lake on 21 September 2005. Standard errors are in parentheses.

Species	Size Range							
	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0 – 5.9 in		6.0 – 7.9 in		≥ 8.0 in		Total	
Bluegill	77	93.7 (3.0)	50	90.3 (0.8)	8	84.0 (3.0)	135	91.9 (1.8)
	4.0 – 6.9 in		7.0 – 8.9 in		≥ 9.0 in		Total	
Redear sunfish	12	100.3 (2.1)	16	102.7 (1.5)	3	102.0 (0.7)	31	101.7 (1.1)

Dataset = cfdwrelm.d05

Table 161. Species composition, relative abundance, and CPUE of black bass collected in 2.0 hours of 15-minute electrofishing runs in Kincaid Lake, April 2005; numbers in parenthesis are standard errors.

Location/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	22	23	
Spotted bass									2	10	3	2		2									19	9.5 (2.0)
Largemouth bass				1	12	31	19	23	36	34	48	44	47	42	41	44	32	37	22	7	1		521	260.5 (30.7)

Dataset = cfdpskin.d05

Table 162. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Kincaid Lake from 1992-2005; numbers in parentheses are standard errors.

Year	Inch Class									
	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1992	4.0	(0)	34.0	(3.1)	13.3	(1.8)	53.3	(4.1)	104.7	(3.5)
1995	27.5	(3.4)	38.5	(4.5)	17.5	(2.9)	65.0	(6.5)	148.5	(11.9)
1997	13.5	(2.9)	59.0	(6.2)	53.0	(4.2)	92.0	(14.3)	217.5	(18.0)
1999	15.0	(4.3)	60.0	(8.6)	55.0	(3.7)	94.0	(6.8)	224.0	(8.6)
2000	15.3	(5.7)	64.5	(7.0)	36.5	(5.5)	70.0	(7.8)	186.0	(16.3)
2001	16.0	(2.9)	99.3	(13.7)	35.3	(5.8)	102.7	(10.6)	253.3	(23.5)
2002	10.0	(4.5)	35.3	(9.4)	36.7	(8.4)	110.0	(14.8)	192.0	(29.2)
2003	23.4	(5.8)	70.3	(12.1)	32.6	(4.0)	94.9	(15.8)	221.1	(22.8)
2004	7.0	(2.9)	76.0	(12.5)	38.5	(5.0)	71.0	(10.0)	192.5	(16.5)
2005	22.0	(3.7)	56.0	(8.2)	69.5	(9.3)	113.0	(18.5)	260.5	(30.7)

Dataset = cfdpskin.d05

Table 163. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Kincaid Lake in 2005; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	477	77 (± 4)	47 (± 4)

Dataset = cfdpskin.d05

Table 164. Mean back calculated lengths (in.) at each annulus for otoliths from largemouth bass collected at Kincaid Lake in 2005.

Year Class	No.	Age																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2003	34	4.1	7.7															
2002	15	4.5	7.7	10.5														
2001	35	4.5	8.5	10.9	12.9													
2000	10	4.9	8.0	11.5	13.2	14.6												
1999	10	5.1	9.0	11.4	13.5	15.3	16.5											
1998	4	5.1	10.3	13.0	15.1	16.3	17.2	17.4										
1997	4	5.6	10.1	13.4	15.8	17.0	17.9	18.5	18.7									
1996	2	5.8	9.6	13.2	15.6	17.3	18.0	18.5	19.2	19.7								
1995	1	4.4	10.9	15.1	17.6	19.4	20.5	21.0	21.6	22.1	22.4							
1994	1	4.5	7.4	10.5	12.7	14.7	16.5	17.4	18.1	18.9	19.6	20.1						
1993	1	5.0	7.4	10.8	12.9	15.0	17.1	18.4	19.3	20.1	20.6	20.9	21.0					
1988	1	4.5	10.5	12.9	15.8	17.5	18.4	18.7	19.1	19.4	19.6	19.9	20.2	20.4	20.7	20.9	21.1	21.2
Mean	118	4.6	8.3	11.3	13.5	15.7	17.3	18.4	19.2	20.0	20.6	20.3	20.6	20.4	20.7	20.9	21.1	21.2
Smallest		3.1	5.6	8.5	9.7	11.6	14.6	16.1	18.1	18.9	19.6	19.9	20.2	20.4	20.7	20.9	21.1	21.2
Largest		7.0	11.4	15.1	17.6	19.4	20.5	21.0	21.6	22.1	22.4	20.9	21.0	20.4	20.7	20.9	21.1	21.2
Std Error		0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.7	0.3	0.4					
95% ConLo		4.4	8.1	11.0	13.1	15.1	16.7	17.8	18.5	19.1	19.3	19.7	19.8					
95% ConHi		4.7	8.5	11.6	13.9	16.2	17.8	19.0	19.9	20.9	21.8	20.9	21.4					

Intercept Value = 0.00
Dataset = cfdagkin.d05

Table 165. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Kincaid Lake during April 2005. 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
2	1	12	31	19	9														72	14	36.10	5.36
3					12	26	14												51	10	25.69	4.09
4					2	10	17	43	39	26	17	8							163	31	81.27	8.47
5							3	5	5	17	8		13						51	10	25.29	3.08
6										4	17	25	25						71	14	35.41	6.01
7												8	6	11	9				34	7	17.20	3.21
8														21	19				40	8	19.92	4.27
9															9	11			20	4	10.13	2.36
10																		1	1	0	0.50	0.50
11																11			11	2	5.50	1.24
12																	4		4	1	1.75	0.96
17																	4		4	1	1.75	0.96
Total	1	12	31	19	23	36	34	48	44	47	42	41	44	32	37	22	7	1	521	100	260.50	30.66
%	0	2	6	4	4	7	7	9	8	9	8	8	8	6	7	4	1	0	100			

Dataset = cfdagkin.d05 and cfdpskin.d05

Table 166. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Kincaid Lake from 1999-2005.

	Year						
Age	1999	2000	2001	2002	2003	2004	2005
1	3.5	1.5	0.0	0.0	0.0	1.0	0.0
2	26.0	26.8	17.4	15.5	39.9	12.5	36.1
3	32.5	28.1	26.9	24.8	48.1	61.0	25.7
4	28.6	27.6	45.6	43.6	31.2	35.7	81.3
5	31.3	23.2	29.8	22.3	26.7	23.9	25.3
6	10.2	15.4	28.6	35.0	30.0	20.9	35.4
7	28.3	11.0	20.9	4.5	6.5	5.1	17.2
8	11.1	17.3	13.4	5.3	28.4	22.8	19.9
9	16.0	15.2	9.3	1.3	6.5	5.1	10.1
10	7.3	5.8	9.2		0.6	1.0	0.5
11		9.5	9.2		3.1	3.6	5.5
12	13.3	3.3	2.3				1.8
13	3.5	0.5	0.6				
14		1.0					
15				5.3			
16				1.3			
17							1.8

Table 167. Population assessment from largemouth bass collected from Kincaid Lake during April 2005.

Parameter	Value	Assessment Score
Length at age 3	10.5 ± 0.2	2
Spring CPUE of Age 1	0.00 ± 0.00	1
Spring CPUE 12-14.9 in fish	69.50 ± 9.26	4
Spring CPUE ≥ 15.0-in fish	113.00 ± 18.50	4
Spring CPUE ≥ 20.0-in fish	15.00 ± 2.80	4
Instantaneous mortality (z)	0.2934	
Annual mortality (A)	25.4%	
Total Score		15
Assessment Rating		Good

Table 168. Length distribution and CPUE (no./hour) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Kincaid Lake in September 2005: numbers in parentheses are standard errors.

Species	Inch Class																				Total	CPUE
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21		
Spotted bass											2	3	2								7	2.80 (1.34)
Largemouth bass	4	234	13	8	5	22	29	10	21	26	7	17	11	14	10	9	2	1	4	1	448	179.20 (33.48)

Dataset = cfdwrkin.d05

Table 169. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Kincaid Lake on 13 September 2005. Standard errors are in parentheses.

Species	Area	Size Range							
		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	64	91.4 (1.2)	40	97.0 (1.5)	27	95.0 (1.5)	131	93.8 (0.8)

Dataset = cfdwrkin.d05

Table 170. 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		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
1999	25	3.1	(0.2)	16.7	(5.7)	0.0		1.5	(1.1)
2000	11	3.1	(0.2)	4.7	(1.6)	0.0		0.0	
2001	36	2.9	(0.1)	20.6	(6.7)	0.0		0.0	
2002	76	2.6	(0.1)	43.4	(10.6)	0.0		0.0	
2003	33	2.8	(0.1)	22.0	(4.7)	0.0		1.0	(0.7)
2004	19	3.0	(0.1)	12.7	(4.3)	0.0		0.0	
2005	259	2.5	(0.03)	129.5	(19.3)	0.0			

Dataset = cfdwrkin.d05

Table 171. Species composition, relative abundance, and CPUE of bluegill and redear sunfish collected in 1.00 hours of 7.5-minute electrofishing runs in Kincaid Lake, May 2005; numbers in parenthesis are standard errors.

Species	Length Class								Total	CPUE
	1	2	3	4	5	6	7	8		
Bluegill	9	51	169	200	105	23			557	445.6(34.9)
Redear sunfish			2	1	6	4	8	2	23	18.4 (3.4)

Dataset = cfdpskin.d05

Table 172. PSD and RSD values calculated for sunfish collected during 1.25 hours of electrofishing at Kincaid Lake during May 2005. Fish were collected in 7.5-minute runs.

Species	No. fish > stock size	PSD	RSD*
Bluegill	497	5 (± 2)	0
Redear sunfish	21	48 (± 22)	0

* Bluegill = RSD-8; Redear-9
Dataset = cfdpskin.d04

Table 173. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from Kincaid Lake from 1999-2005; numbers in parentheses are standard errors.

Year	Inch Class								
	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0	All Sizes	
1999	64.0	(10.9)	659.2	(46.0)	23.2	(5.1)	0	756.0	(53.7)
2000	40.8	(5.8)	628.8	(67.8	24.8	(6.7)	0	692.8	(72.1)
2001	14.4	(3.9)	430.4	(26.7)	38.4	(8.7)	0	469.6	(29.3)
2002	74.4	(16.7)	564.8	(47.6)	26.7	(2.3)	0	677.6	(56.9)
2003	386.0	(35.8)	747.0	(62.9)	30.0	(7.7)	0	1,163.0	(67.5)
2004	116.0	(22.8)	719.0	(64.5)	42.0	(14.8)	0	877.0	(95.0)
2005	48.0	(8.5)	379.2	(30.7)	18.4	(4.8)	0	445.6	(34.9)

Dataset = cfdpskin.d05

Table 174. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Kincaid Lake in 2005.

Year	No.	Age					
		1	2	3	4	5	6
2004	1	2.9					
2003	11	1.8	3.1				
2002	13	2.2	3.4	4.3			
2001	11	2.2	4.0	4.9	5.7		
2000	6	2.2	3.8	4.7	5.3	5.9	
1999	1	1.9	3.8	4.4	5.0	5.7	6.2
Mean	62	2.1	3.6	4.6	5.5	5.8	6.2
Smallest		1.1	2.0	3.8	4.7	5.0	6.2
Largest		2.9	4.9	6.0	6.5	6.5	6.2
Std Error		0.1	0.1	0.1	0.1	0.2	
95% ConLo		2.0	3.4	4.4	5.3	5.5	
95% ConHi		2.2	3.7	4.8	5.8	6.2	

Intercept value = 0.00
Dataset = cfdagkin.d05

Table 175. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 1.25 hours of electrofishing at Kincaid Lake during May 2005. Fish were collected in 7.5-minute runs.

Age	Inch Class						Total	%	CPUE	STD ERR
	1	2	3	4	5	6				
1	9	17					26	5	20.80	3.95
2		34	127				161	29	128.60	13.07
3			42	180	9		231	41	184.80	20.53
4				20	70	8	98	18	78.13	7.27
5					26	12	38	7	30.20	3.99
6						4	4	1	3.07	0.80
Total	9	51	169	200	105	23	548	100	445.60	34.91
%	2	9	30	36	19	4	100			

Dataset = cfdagkin.d05 and bbrpskin.d05

Table 176. Electrofishing catch rate (fish/hour) of each age of bluegill collected from Kincaid Lake from 1999-2005.

Age	Year						
	1999	2000	2001	2002	2003	2004	2005
1	61.5	78.4	13.9	106.1	412.1	116.0	13.6
2	455.5	150.4	115.4	266.3	287.3	367.8	128.6
3	108.2	343.9	168.0	167.2	243.8	210.2	184.8
4	59.3	102.1	136.2	106.1	172.9	126.7	78.1
5	38.9	4.6	15.5	28.1	39.3	21.1	30.2
6	3.5	2.3	2.7	3.8	7.5	35.3	3.1
7		11.0					

Table 177. Population assessment for bluegill collected from Kincaid Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	3.1 ± 0.1	1
Years to 6 inches	> 4+	1
CPUE of fish ≥ 6.0 in	18.40 ± 4.78	1
CPUE of fish ≥ 8.0 in	0.0	1
Instantaneous mortality (z)	0.9262	
Annual mortality (A)	60.4%	
Assessment Total		4
Assessment Rating		Poor

Table 178. Species composition, relative abundance, and CPUE of black bass collected in 1.5 hours of 15-minute electrofishing runs in McNeely Lake, April 2005; numbers in parenthesis are standard errors.

Location/Species	Inch Class																			Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Largemouth bass	4	7	2	6	16	21	13	35	46	36	21	12	13	6	13	6	5	1	1	264	176.0 (8.6)

Dataset = cfdpsmcl.d05

Table 179. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from McNeely Lake from 1996-2005; numbers in parentheses are standard errors.

Year	Inch Class									
	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
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)

Dataset = cfdpsmcl.d05

Table 180. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in McNeely Lake in 2005; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	229	50 (± 6)	20 (± 5)

Dataset = cfdpsmcl.d05

Table 181. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 1.50 hours of electrofishing at McNeely Lake during April 2005. Fish were collected in 15-minute runs.

Age	Inch Class																							
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	STD ERR
1	4	7	2	6																19	7	12.67	2.40
2					16	21	4					2								41	16	27.56	5.91
3							9	29	37			4								77	29	51.09	5.12
4								6	9	36	11	4	4	5						66	25	43.69	4.29
5											5		4	2	3					18	7	12.06	3.35
6											5		4		7					14	5	9.56	1.73
7												2	4			6		1	1	13	5	8.56	1.55
8																				8	3	5.33	2.86
9																				0	0	0.00	0.00
10															3		5			8	3	5.50	1.69
Total	4	7	2	6	16	21	13	35	46	36	21	12	13	6	13	6	5	1	1	264	100	176.00	8.58
%	2	3	1	2	6	8	5	13	17	14	8	5	5	2	5	2	2	0	0	100			

Dataset = cfdagmcl.d04 and cfdpsmcl.d05

Table 182. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from McNeely Lake from 2001-2004.

Age	Year				
	2001	2002	2003	2004	2005
1	70.0	23.3	20.0	24.7	12.7
2	53.1	22.6	72.9	13.8	27.6
3	35.6	10.6	22.8	41.4	51.1
4	62.1	22.1	26.9	21.4	43.7
5	47.5	17.9	22.5	11.6	12.1
6	31.4	14.4	20.6	6.3	9.6
7	23.0	13.2	20.0	5.9	8.6
8	7.8	3.6	9.2	7.3	5.3
9	5.1	1.0	3.9	0.0	0.0
10	5.1		1.7	4.2	5.5
11	4.5	0.7	3.1		
12	0.8		0.4		

Table 183. Population assessment from largemouth bass collected from McNeely Lake during April 2005.

Parameter	Value	Assessment Score
Length at age 3*	11.0 ± 0.4	3
Spring CPUE of Age 1	12.67 ± 2.40	1
Spring CPUE 12-14.9 in fish	46.00 ± 4.93	3
Spring CPUE ≥ 15.0-in fish	30.00 ± 6.18	4
Spring CPUE ≥ 20.0-in fish	1.33 ± 0.84	2
Instantaneous mortality (z)	0.3669	
Anural mortality (A)	30.7%	
Total Score		13
Assessment Rating		Good

*2004 age and growth dataset was used.

Table 184. Length distribution and CPUE (no./hour) of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs for black bass in McNeely Lake in September 2005: numbers in parentheses are standard errors.

Species	Inch Class																		Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20		
Largemouth bass	13	49	96	113	19	9	33	21	15	18	12	25	8	8	6	5	4	1	455	303.3 (17.5)

Dataset = cfdwrmcl.d05

Table 185. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at McNeely Lake on 7 September 2005. Standard errors are in parentheses.

Species	Area	Size Range							
		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	80	95.7 (7.6)	45	90.9 (1.5)	24	94.5 (1.7)	149	94.1 (4.1)
Dataset = cfdwrmcl.d05									

Table 186. 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		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2000	Total	3.8	(0.1)	87.3	(16.1)	10.0	(2.3)	70.0	(9.4)
2001	Total	4.1	(0.9)	20.7	(1.6)	2.0	(1.4)	23.3	(2.4)
2002	Total	4.7	(0.1)	24.0	(5.8)	10.7	(3.8)	20.0	(2.5)
2003	Total	4.1	(0.1)	56.0	(14.0)	7.0	(1.9)	24.7	(3.5)
2004	Total	4.0	(0.1)	49.0	(2.4)	3.5	(0.9)	12.7	(2.4)
2005	Total	4.7	(0.1)	193.3	(17.2)	88.0	(12.1)		

Table 187. Species composition, relative abundance, and CPUE of bluegill and redear sunfish collected in 1.00 hours of 7.5-minute electrofishing runs in McNeely Lake, May 2005; numbers in parenthesis are standard errors.

Species	Length Class									Total	CPUE
	1	2	3	4	5	6	7	8	9		
Bluegill	3	19	46	69	44	89	85	27	6	355	355.0 (33.5)
Redear sunfish		1		9	16	11	5			75	75.0 (17.0)
Dataset = cfdpsmcl.d05											

Table 188. PSD and RSD values calculated for sunfish collected during 1.00 hours of electrofishing at McNeely Lake during May 2005. Fish were collected in 7.5-minute runs.

Species	No. fish > stock size	PSD	RSD*
Bluegill	333	52 (± 5)	0
Redear sunfish	74	51 (± 11)	8 (± 6)

* Bluegill = RSD-8; Redear-9
Dataset = cfdpsmcl.d05

Table 189. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from McNeely Lake from 1994-2005; numbers in parentheses are standard errors.

	Inch Class									
Year	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		All Sizes	
1994	17.6	(3.7)	303.2	(59.6)	13.6	(2.4)	0.0		334.4	(59.1)
1996	2.7	(1.3)	187.3	(52.6)	95.3	(20.5)	0.0		285.3	(68.3)
1998	0		72.0	(31.8)	68.7	(15.4)	0.0		140.7	(44.8)
1999	8.0	(4.3)	108.0	(20.6)	108.0	(27.7)	0.0		224.0	(44.8)
2000	2.0	(0.9)	204.7	(36.6	110.0	(23.3)	0.0		316.7	(46.3)
2001	73.6	(23.8)	152.0	(17.0)	200.8	(29.1)	1.6	(1.1)	428.0	(35.2)
2002	53.6	(11.7)	270.4	(33.2)	335.2	(33.8)	0.8	(0.8)	660.0	(41.9)
2003	12.0	(2.2)	132.0	(31.9)	30.4	(10.6)	0.0		174.4	(40.9)
2004	4.0	(1.8)	181.6	(25.2)	74.4	(8.6)	0.0		260.0	(27.3)
2005	22.0	(3.3)	159.0	(16.7)	174.0	(27.6)	0.0		355.0	(33.5)

Dataset = cfdpsmcl.d05

Table 190. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from McNeely Lake in 2005.

		Age				
Year	No.	1	2	3	4	5
2004	5	2.8				
2003	25	2.0	4.0			
2002	13	2.1	4.0	5.7		
2001	14	2.3	4.1	5.4	6.8	
2000	4	2.1	4.0	5.3	6.1	6.9
Mean	61	2.2	4.0	5.5	6.6	6.9
Smallest		1.3	3.0	4.7	5.8	6.6
Largest		3.3	5.4	7.4	7.7	7.1
Std Error		0.1	0.1	0.1	0.1	0.1
95% ConLo		2.0	3.9	5.3	6.3	6.7
95% ConHi		2.3	4.2	5.7	6.9	7.1

Intercept value = 0.00
Dataset = cfdagmcl.d05

Table 191. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 1.00 hours of electrofishing at McNeely Lake during May 2005. Fish were collected in 7.5-minute runs.

Age	Inch Class							Total	%	CPUE	STD ERR
	1	2	3	4	5	6	7				
1	3	19	7					29	8	29.08	4.31
2			39	64				103	29	103.32	15.97
3				5	44	22	9	79	22	79.35	10.18
4						52	60	111	31	111.42	18.65
5						15	17	32	9	31.83	5.33
Total	3	19	46	69	44	89	85	325	100	355.00	33.53
%	1	5	13	19	12	25	24	100			

Dataset = cfdagmcl.d05 and cfdpsmcl.d05

Table 192. Electrofishing catch rate (fish/hour) of each age of bluegill collected from McNeely Lake from 2001-2005

Age	Year				
	2001	2002	2003	2004	2005
1	131.7	53.6	27.4	5.5	29.1
2	76.0	244.7	39.2	79.3	103.3
3	142.1	128.0	96.6	108.3	79.4
4	40.2	186.1	9.5	64.9	111.4
5	37.2	14.9	0.5		31.8
6		32.6	0.5		
7			0.9	2.0	
8	0.8				

Table 193. Population assessment for spring-collected bluegill collected from McNeely Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.0 ± 0.1	2
Years to 6 inches	3 – 3+	3
CPUE of fish ≥ 6.0 in	174.00 ± 27.62	4
CPUE of fish ≥ 8.0 in	0.00	1
Assessment Total		10
Assessment Rating		Fair

Table 194. Electrofishing CPUE data (no./hour) for each size group of redear sunfish collected from McNeely Lake from 1998-2005; numbers in parentheses are standard errors.

Year	Inch Class												All Sizes	
	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		≥ 10.0					
1998	0.0		0.7	(0.7)	5.3	(2.2)	1.3	(1.3)	0.0				7.8	(3.4)
1999	0.0		10.0	(3.8)	3.0	(1.9)	1.0	(1.0)	0.0				14.0	(3.5)
2000	0.0		3.3	(2.6)	14.7	(2.5)	0.7	(0.7)	0.0				18.7	(3.4)
2001	2.4	(1.7)	8.8	(3.0)	15.2	(4.8)	8.0	(4.8)	0.0				34.4	(7.8)
2002	1.6	(1.1)	49.6	(10.6)	22.4	(5.8)	6.4	(2.0)	0.0				80.0	(13.4)
2003	0.8	(0.5)	5.2	(1.2)	20.4	(3.8)	2.4	(1.2)	0.0				28.8	(5.4)
2004	0.0		4.8	(1.8)	24.8	(6.5)	25.6	(7.0)	0.0				55.2	(9.9)
2005	1.0	(1.0)	25.0	(5.9)	16.0	(6.6)	33.0	(11.8)	0.0				75.0	(17.0)

Dataset = cfdpsmcl.d05

Table 195. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from McNeely Lake in 2005.

Year	No.	Age					
		1	2	3	4	5	6
2004	1	2.5					
2003	27	2.9	5.8				
2002	8	3.7	6.5	8.3			
2001	4	3.6	6.4	7.8	8.9		
2000	4	3.2	6.0	7.6	8.3	9.1	
1999	1	3.2	6.2	7.1	7.8	8.2	8.6
Mean	45	3.1	6.0	7.9	8.5	8.9	8.6
Smallest		2.2	4.7	7.1	7.8	8.2	8.6
Largest		4.3	7.3	8.8	9.2	9.2	8.6
Std Error		0.1	0.1	0.1	0.2	0.2	
95% ConLo		3.0	5.8	7.7	8.2	8.6	
95% ConHi		3.3	6.2	8.2	8.8	9.2	

Intercept value = 0.00
Dataset = cfdagmcl.d05

Table 196. Age frequency and CPUE (no./hour) per inch class of redear sunfish collected during 1.00 hours of electrofishing at McNeely Lake during May 2005. Fish were collected in 7.5-minute runs.

Age	Inch Class							Total	%	CPUE	STD ERR
	2	4	5	6	7	8	9				
1	1							1	1	1.00	1.00
2		9	16	11	3			39	52	39.33	10.31
3					2	19		21	27	20.57	6.06
4						5	2	7	10	7.40	2.84
5							4	4	5	4.00	2.62
6						3		3	4	2.70	0.83
Total	1	9	16	11	5	27	6	75	100	75.00	16.97
%	1	12	21	15	7	36	8	100			

Dataset = cfdagmcl.d05 and cfdpsmcl.d05

Table 197. Electrofishing catch rate (fish/hour) of each age of redear sunfish collected from McNeely Lake from 2001-2005.

Age	Year			
	2001	2003	2004	2005
1	0.0	3.6	0.8	1.0
2	8.8	8.8	15.2	39.3
3	7.4	16.4	39.2	20.6
4	8.6			7.4
5	5.6			4.0
6				2.7
7				
8	1.6			

Table 198. Population assessment for spring collected redear sunfish collected from McNeely Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	8.3 ± 0.1	4
Years to 8 inches	3 - 3+	4
CPUE of fish ≥ 8.0 in	33.00 ± 11.75	4
CPUE of fish ≥ 10.0 in	0.00	1
Assessment Total		13
Assessment Rating		Good

Table 199. Number of fish and the relative weight (Wr) for each length category of bluegill and redear sunfish collected at McNeely Lake on 7 September 2005. Standard errors are in parentheses.

Species	Size Range							
	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0 – 5.9 in		6.0 – 7.9 in		≥ 8.0 in		Total	
Bluegill	72	92.6 (1.8)	40	82.3 (1.7)	0		112	88.9 (1.4)
	4.0 – 6.9 in		7.0 – 8.9 in		≥ 9.0 in		Total	
Redear sunfish	17	118.9 (23.0)	29	93.7 (1.2)	5	93.8 (1.1)	531	101.9 (7.4)

Dataset = cfdwrmcl.d05

Table 200. Length frequency, relative abundance, and CPUE of largemouth bass collected in 1.00 hours of 15-minute electrofishing runs in Lincoln Homestead Lake, April 2005; numbers in parenthesis are standard errors.

Location/Species	Inch Class																			Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	
Largemouth bass	1	7	2	2	2	2	1	8	12	26	42	24	8	3	2	1	1	2	1	1	148	148.0 (19.9)

Dataset = cfdpslhl.d05

Table 201. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Lincoln Homestead Lake from 1999-2004; numbers in parentheses are standard errors.

Year	Inch Class									
	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1999	164.0	(8.0)	10.0	(6.0)	68.0	(4.0)	16.0	(4.0)	258.0	(6.0)
2000	14.4	(2.0)	33.6	(5.2)	2.4	(1.0)	12.0	(2.5)	62.4	(5.6)
2001	64.0	(13.8)	26.0	(9.6)	17.0	(5.5)	14.0	(3.5)	121.0	(13.7)
2002	24.0	(6.9)	22.7	(5.8)	5.3	(2.7)	2.7	(1.3)	54.7	(5.3)
2003	188.0	(62.9)	65.3	(3.5)	40.0	(9.2)	4.0	(2.3)	297.3	(68.7)
2004	45.3	(13.9)	109.3	(25.4)	69.3	(17.9)	16.0	(8.3)	240.0	(54.3)
2005	16.0	(3.3)	47.0	(5.7)	74.0	(12.4)	11.0	(3.0)	148.0	(19.9)

Dataset = cfdpslhl.d05

Table 202. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Lincoln Homestead Lake in 2005; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	132	64 (± 8)	8 (± 5)

Dataset = cfdpslhl.d05

Table 203. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 0.75 hours of electrofishing at Lincoln Homestead Lake during April 2005. Fish were collected in 15-minute runs.

Age	Inch Class																								
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	Total	%	CPUE	STD ERR
1	1	7	2	2	1																13	9	13.00	2.08
2					1	1	1	8													11	8	11.32	2.81
3						1			12		42										55	37	54.68	4.91
4										26		24									50	34	50.00	8.87
5													4								4	3	4.00	1.15
6													4	1	1						6	4	5.70	1.64
7														1	1	1					3	2	3.20	1.73
8														1	1		1	2	1		5	3	5.10	1.53
9																				1	1	1	1.00	1.00
Total	1	7	2	2	2	2	1	8	12	26	42	24	8	3	2	1	1	2	1	1	148	100	148.00	19.90
%	1	5	1	1	1	1	1	5	8	18	28	16	5	2	1	1	1	1	1	1	100			

Dataset = cfdaglhl.d00 and cfdpslhl.d05

Table 204. Population assessment from largemouth bass collected from Lincoln Homestead Lake during April 2005.

Parameter	Value	Assessment Score
Length at age 3*	9.5 ± 0.7	1
Spring CPUE of Age 1	13.00 ± 2.08	1
Spring CPUE 12-14.9 in fish	74.00 ± 12.38	4
Spring CPUE ≥ 15.0-in fish	11.00 ± 3.00	2
Spring CPUE ≥ 20.0-in fish	2.00 ± 1.15	3
Total Score		11
Assessment Rating		Fair

* 2000 age and growth dataset was used.

Table 205. Species composition, relative abundance, and CPUE of bluegill and redear sunfish collected in 0.375 hours of 15.0-minute electrofishing runs in Lincoln Homestead Lake, May 2005; numbers in parenthesis are standard errors.

	Length Class									
Species	1	2	3	4	5	6	7	8	Total	CPUE
Bluegill	2	15	15	37	2	6	3		80	213.3 (67.0)
Redear sunfish		1	1	5	8	7		2	24	64.0 (40.0)

Dataset = cfdpslhl.d05

Table 206. PSD and RSD values calculated for sunfish collected during 0.375 hours of electrofishing at Lincoln Homestead Lake during May 2005. Fish were collected in 7.5 minute runs.

Species	No. fish > stock size	PSD	RSD*
Bluegill	63	14 (± 9)	0 (± 0)
Redear sunfish	22	9 (± 9)	0 (± 0)

* Bluegill = RSD-8; Redear-9
Dataset = cfdpslhl.d05

Table 207. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from Lincoln Homestead Lake from 1999-2005; numbers in parentheses are standard errors.

Year	Inch Class								All Sizes	
	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0			
2000	1.3	(1.3)	732.0	(69.3)	134.7	(31.0)	6.7	(3.2)	874.7	(91.5)
2001	0.0		50.0	(13.4)	60.0	(15.3)	2.7	(1.1)	112.7	(27.2)
2002	5.3	(2.3)	105.8	(12.8)	84.4	(12.2)	0.9	(0.9)	196.4	(19.1)
2003	70.9	(33.7)	234.3	(94.1)	109.7	(23.1)	8.0	(1.7)	422.9	(136.9)
2004	34.7	(22.8)	208.0	(70.2)	25.3	(5.8)	0.0		268.0	(92.0)
2005	45.3	(20.8)	144.0	(60.6)	24.0	(9.2)	0.0		213.3	(67.0)

Dataset = cfdpslhl.d05

Table 208. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Lincoln Homestead Lake in 2005.

Year	No.	Age		
		1	2	3
2004	11	2.8		
2003	16	1.7	4.3	
2002	8	2.6	4.8	6.6
Mean	35	2.2	4.5	6.6
Smallest		1.2	3.5	6.1
Largest		3.3	5.6	7.4
Std Error		0.1	0.1	0.1
95% ConLo		2.1	4.3	6.3
95% ConHi		2.4	4.7	6.9

Intercept value = 0.00
Dataset = cfdaglhl.d05

Table 209. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 0.375 hours of electrofishing at Lincoln Homestead Lake during May 2005. Fish were collected in 7.5-minute runs.

Age	Inch Class							Total	%	CPUE	STD ERR
	1	2	3	4	5	6	7				
1	2	15	9					26	33	70.33	28.88
2			6	37	2			45	56	119.00	49.15
3						6	3	9	11	24.00	9.24
Total	2	15	15	37	2	6	3	80	100	213.33	66.99
%	3	19	19	46	3	8	4	100			

Dataset = cfdaglhl.d05 and cfdpslhl.d05

Table 210. Electrofishing catch rate (fish/hour) of each age of bluegill collected from Lincoln Homestead Lake from 2001-2005.

Age	Year				
	2001	2002	2003	2004	2005
1	18.8	14.4	208.5	116.2	70.3
2	29.0	119.3	129.4	142.5	119.0
3	61.1	20.4	78.0	9.3	24.0
4	2.5	42.4	1.0		
5			6.0		
7					
8					
9	1.3				

Table 211. Population assessment for spring-collected bluegill collected from Lincoln Homestead Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.3 ± 0.1	2
Years to 6 inches	2 – 2+	4
CPUE of fish ≥ 6.0 in	24.00 ± 9.24	1
CPUE of fish ≥ 8.0 in	0.00 ± 0.00	1
Assessment Total		8
Assessment Rating		Fair

Table 212. Electrofishing CPUE data (no./hour) for each size group of redear sunfish collected from Lincoln Homestead Lake from 2000-2005; numbers in parentheses are standard errors.

Year	Inch Class													
	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		≥ 10.0		All Sizes	
2000	0.0		16.0	(2.9)	105.3	(34.7)	5.3	(2.7)	0.0		126.7	(37.0)
2001	0.0		32.0	(10.1)	6.0	(4.1)	18.0	(7.7)	0.0		56.0	(16.9)
2002	0.0		29.3	(5.3)	76.4	(6.0)	15.1	(5.7)	2.7	(1.9)	120.9	(11.2)
2003	0.0		145.1	(32.8)	29.7	(11.9)	18.3	(7.4)	0.0		193.1	(36.8)
2004	5.3	(3.5)	34.7	(16.7)	41.3	(2.7)	2.7	(2.7)	0.0		84.0	(20.0)
2005	2.7	(2.7)	37.3	(29.3)	18.7	(7.1)	5.3	(2.7)	0.0		64.0	(40.0)

Dataset = cfdpslhl.d05

Table 213. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from Lincoln Homestead Lake in 2005.

		Age		
Year	No.	1	2	3
2004	6	3.8		
2003	15	2.5	5.7	
2002	3	3.0	5.9	7.7
Mean	24	2.9	5.7	7.7
Smallest		2.1	4.6	6.8
Largest		4.7	6.5	8.3
Std Error		0.1	0.1	0.5
95% ConLo		2.6	5.5	6.8
95% ConHi		3.1	6.0	8.6

Intercept value = 0.00
Dataset = cfdaglhl.d05

Table 214. Age frequency and CPUE (no./hour) per inch class of redear sunfish collected during 0.375 hours of electrofishing at Lincoln Homestead Lake during May 2005. Fish were collected in 7.5-minute runs.

	Inch Class											STD
Age	2	3	4	5	6	7	8	9	Total	%	CPUE	ERR
1	1	1	4						6	24	15.33	12.45
2			1	8	6				15	63	40.22	25.22
3					1		2		3	13	8.44	3.11
Total	1	1	5	8	7		2		24	100	64.00	40.00
%	4	4	21	33	29		8		100			

Dataset = cfdaglhl.d05 and cfdpslhl.d05

Table 215. Electrofishing catch rate (fish/hour) of each age of redear sunfish collected from Lincoln Homestead Lake from 2001-2005.

	Year				
Age	2001	2002	2003	2004	2005
1	0.0		137.9	31.5	15.3
2	18.8		40.9	50.2	40.2
3	12.5		13.2	2.3	8.4
4	6.1		1.1		
5	16.7				
6	2.0				

Table 216. Population assessment for spring collected redear sunfish collected from Lincoln Homestead Lake in May 2005.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture*	7.7 ± 0.5	4
Years to 8 inches*	3 - 3+	4
CPUE of fish ≥ 8.0 in	5.33 ± 2.67	2
CPUE of fish ≥ 10.0 in	0.00	1
Assessment Total		11
Assessment Rating		Good

Table 217. Species composition, relative abundance, and CPUE of fish collected in 0.25 hours of in the Lower Game Farm Lake, March 2005.

Species	Inch Class																		Total	CPUE (fish/hr)
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Largemouth bass		1	2		1	2	2	1	1	5	1				2			1	19	76.0
Bluegill	2	10	38	15	6	3													74	296.0
Redear sunfish			1		1	1													3	12.0
Warmouth perch		1		1															2	8.0
Longear sunfish		2	15	10	2														29	116.0
Green sunfish			2																2	8.0
Hybrid sunfish				2															2	8.0
Black crappie						1	3	6											10	40.0
Channel catfish														1					1	4.0
Yellow bass							9	4											13	52.0

Dataset = cfdpsgfl.d05

Table 218. Length frequency, relative abundance, and CPUE of largemouth bass collected in 1.25 hours of 15-minute electrofishing runs in General Butler State Park Lake, April 2005; numbers in parenthesis are standard errors.

Species	Inch Class																	Total	CPUE (fish/hr)
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Largemouth bass	1	3	2	4	3	2	2		2	3	3	4	9	7	19	13	4	81	64.80 (10.84)

Dataset = cfdpsgbs.d05

Table 219. Length frequency, relative abundance, and CPUE of largemouth bass collected in 1.00 hours of 15-minute electrofishing runs in Jacobson Park Lake, May 2005; numbers in parenthesis are standard errors.

Species	Inch Class																	Total	CPUE (fish/hr)
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Largemouth bass	1	4	4		1	6	7	9	11	11	6	6	11	8		1	1	87	87.00 (5.26)

Dataset = cfdpsjac.d05

Table 220. Length frequency, relative abundance, and CPUE of largemouth bass collected in 2.00 hours of 15-minute electrofishing runs in the Sympson Lake, April 2005.

Species	Inch Class																				Total	CPUE (fish/hr)
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Largemouth bass	2	2	5	2	9	16	8	16	30	33	23	15	19	16	29	30	21	14	7	2	299	149.50 (18.31)

Dataset = cfdpssym.d05

FINDINGS

Cave Run Lake (8,270a)

Muskellunge Sampling

Portions of five days (04, 06, 08, and 13 April) were spent electrofishing a total of 15 hours (30-min runs) for muskellunge. During this period 126 muskellunge were sampled with a catch rate (CPUE) of 8.4 f/h (Table 1), nearly twice that found during 2004 efforts. Of these, 34.1% were 12-13.9 in, 18.2% were 20.0-29.9 in, 38.1% were 30-39.9 in, 9.5% were 40-49.9 in and none were collected exceeding 50 in long. However, two 49 in muskie were collected. Population assessment values were in the excellent category as compared to good in recent years (Table 2).

Black Bass Sampling (Spring)

Sampling for the Black Bass Research evaluation of the 13-16 in slot limit was completed in 2004. Therefore total hours sampled for black bass was reduced by 50% in 2005 (from 12 total h to 6, evenly spread within upper, middle and lower portions of the lake). The reduced effort is particularly evident when comparing past and present smallmouth bass catch rates. One possible reason could be that the routine lower lake sample "starting" sites in 2005 never reached areas where these fish were captured in greatest abundance in past years. Of the three black bass species sampled (Table 3), 75.3% were largemouth bass (138.5 f/h), 23.6% spotted bass (43.2 f/h), and 0.6% smallmouth bass (1.2 f/h). Largemouth bass within the 6 and 7 in classes made up 45.4% of the total largemouth bass captured. Largemouth management objectives were met only for the ≥ 15 in class as seen below and this data is compared to the past several years in Table 4.

Inch Class	8-11.9	12-14.9	≥ 15.0
2005 CPUE	41.7	14.7	7.2
CPUE objective	70.0*	≥30.0	≥6.0

(*BBR objectives were ≥35.0 for 8-11.9 in largemouth bass, ≥30 for 12-14.9 in and ≥5.8 for ≥15.0 in)

For the past several years the CPUE of largemouth bass within the 13-16 in (size limit slot) and 8-11.9 in class has been declining and it may soon be necessary to once again implement a 15-in minimum size limit. Following are the catch rates of largemouth bass within the slot compared to recent years; again, some of the differences could be a reflection of the reduced sampling effort in 2005.

	Inch Class					
	8-12.9		13-15.9		≥ 16.0	
Year	CPUE	%	CPUE	%	CPUE	%
2005	49.2	35.5	10.5	7.6	3.8	2.8
2004	75.3	58.1	16.5	12.7	8.9	6.9
2003	72.8	48.4	22.8	15.2	13.9	9.2
2001	64.2	54.5	24.0	20.4	6.7	5.7

Lake sections in Table 5 compare proportional and relative stock density values for the three black bass species collected. The 2005 population assessment (Table 6) for largemouth bass rated the population as good. The rating has been good since 2003. Table 7 shows electrofishing catch rates for each age-class of largemouth bass with age 1 comprising nearly 46% of the total catch. Again, last years CPUE values are difficult to compare to past years as the effort was half that as carried out in recent years.

Black Bass Sampling (Fall)

A total of four hours were spent sampling for black bass in both the upper (2h) and lower (2h) sections of the lake in the fall. Sampling was carried out several weeks earlier in 2005 than 2004 and water temperature was in the 80° F range and drought conditions prevailed. Whether these conditions had any influence on 2005 CPUE values is not known, however, in general they were much lower than that found in 2004 (Table 8). Relative weight values for fall captured largemouth bass were less than 90 for each length grouip (Table 9). Based on the largemouth bass stocking initiative, the low CPUE values for age 0 bass in the fall (Table 10) resulted in the lake being stocked with 41,350 largemouth bass (4.7-5.3 in long) in early October 2005.

Crappie Trap Netting

During October (24-28) trap nets were set for crappie within the lake. This year a total of 15 nets were set exclusively in the upper reaches of the lake for a total of 60 net-nights (set on Monday, checked daily, pulled on Friday). Previously, 20 nets were set allowing 10 nets in both the upper and lower sections of the lake. However, due to limited manpower and efficiency the concept of 15 nets set in only the upper section was put into place in 2004. With enormous catches in 2004, we felt that the emphasis on only the upper section would help obtain a better indication on the overall status of the population. Length frequencies of the crappie captured are shown in Table 11. A total of 248 (1,021 in 2004) crappie were netted. White crappie made up the majority of the catch (95%) with young of the year and age 1 comprising 61%. Stock density values (Table 12) were within the desired PSD and RSD ranges. One of the fish management goals for white crappie is for a CPUE of ≥ 0.75 white crappie $\geq$ 8 inches long per trap net night. This management objective was well met this year (CPUE of 0.92/trap net night), but significantly less than 2004 CPUE values (2.97/trap net night). Most white crappie collected were young-of-year (44%) ranging from 3-4 inches long. Age one (17%) and age two (18%) ranged from 4-6 inches and 6-9 inches respectively (Table 13). The white crappie assessment values were poor and are shown in Table 14. A total of 13 black crappie were collected, and with such a small representation no statistics were processed.

White Bass Gill Netting

During November (7-9) a total of 4 experimental gill nets, 2 in both the upper and middle sections of the lake were set for a total of 12 net-nights to sample white bass. White bass captured ranged from 10-16 inches long, with 36% of those captured within the 11-inch class (Table 15). White bass reached an average size of 11 inches long by age 2 and averaged 13-inches long at age 3 (Tables 16 and 17). Relative weight values are shown in Table 18, and the assessment rating remains good (Table 19). White bass represented year classes from 2001 through 2005 in this year's sample.

Miscellaneous

During the year over 200 x-mas trees were placed into the lake in three locations to serve as fish attractors. Also during the year, 2,800 muskellunge averaging 13.3 inches long were stocked into the lake in October and November.

Grayson Lake (1,512a)

Black bass sampling (Spring)

The upper, middle and lower shoreline sections of Grayson Lake were sampled (boat electrofishing) for black bass on the nights of 25-27 April. A total of 9.0 hours (3.0 hours in each the upper, middle and lower sections), in 0.5-hour samples were executed. Table 20 shows the black bass composition and length frequencies from each section and total lake sample. Largemouth bass comprised 80% of the black bass sampled, followed by spotted bass (19.9%) and smallmouth bass (0.1%). Of the 1,335 largemouth bass captured only 210 (15.7%) were stocked fish. No smallmouth bass were collected in the upper section. The strategic management plan catch rate (CPUE-f/h) goals for largemouth bass 8-11.9-inches long are 60 f/h, 20 f/h for bass 12-14.9-inches long and 6 f/h for those 15-inches long or longer. The goals for 8-11.9-inch long bass and 12-14.9-inch long bass were met this year. The goal for bass 15-inches long or longer has not been achieved since 2000. Table 21 shows catch rates for the various size classes of largemouth bass captured from 1999-2005. Table 22 compares catch rates (f/h) for various ages (1-13), based on previously known ages, for largemouth bass from 1999-2005. Stock density values (PSD and RSD) for the black bass species by lake section are shown in Table 23 and compared with other district lakes in Table 5. The 2005 population assessment (Table 24) rated the largemouth bass population as fair.

Black Bass Sampling (Fall)

In September (26 and 27) Grayson Lake was once again sampled for black bass. Findings from this sampling comparing the upper and lower portions of the lake are shown in Table 25. Indices of year class strength at 0 and age 1 for largemouth bass as compared to past years, are found in Table 26, and based on these findings; supplemental stocking of young-of-year bass was not necessary. Of the total largemouth bass 8-inches long or longer sampled in both areas (50.8 f/h), 23.3% were 12-inches long or longer and 3.3% were 15-inches long or longer. The middle section of the lake, where the majority of smallmouth bass have been sampled, was not sampled this year, therefore no comparisons are possible. Relative weight values (Wr) for black bass as compared to other district lakes are shown in Table 9.

Crappie Electrofishing (Fall)

On 28 October, the upper section of Grayson Lake was electrofished for three hours (6-30 minute runs) during daylight hours for crappie. A total of 131 (43.7 f/h) white crappie were sampled, ranging in length from 3-10-inches long, and one black crappie in the 9-inch class (Table 27). During 2004 there were 475 (158.3 f/h) white crappie and 8 (2.7 f/h) black crappie sampled from the same location. Table 28 shows age and growth data obtained from white crappie otoliths, in which the crappie represented year classes 1997 and 2000-2005. Crappie within the 7-8-inch class range represented 75% of the catch (Table 29). Table 30 provides PSD and RSD values for the crappie.

Lake Carnico (114a)

On May 04 the shoreline of Lake Carnico (Nicholas County) was nocturnally electrofished for black bass. During six 15-minute runs 191 largemouth bass were captured. Length frequency for largemouth bass captured is shown in Table 31. The population assessment (Table 32) rates Lake Carnico as a "Fair" bass fishery as compared to a "Good" rating in 2004. Tables 33 and 34 show largemouth bass catch rates by age and size structure. PSD values for largemouth are shown in Table 5. The PSD value for largemouth bass was 37 (31 in 2004) and the RSD_{15} was 14 (11 in 2004). Fall (06 Oct.) electrofishing yielded relative weight values of 83 for bass 8-11.9-inches long, 87 for 12-14.9-inch long fish and 85 for those bass 15-inches long or longer. Table 35 shows length frequency and CPUE for fall sampling.

Clear Creek Lake (40a)

Spring nocturnal electrofishing along the shoreline of Clear Creek Lake (Bath County) for largemouth bass was accomplished on 05 May 2005 (Table 36). The CPUE remained the same as it was in 2003 (most recent sampling date). The PSD values (Table 5) remain below the desired level. The lake was again sampled in the fall (22 Sept) for largemouth bass and those findings can be found in Table 37. Relative weight values were 86 for bass 8.0-11.9-inches long and 83 for bass 12.0-15.0-inches long (Table 9). One thousand channel catfish were stocked in 2005.

Greenbo Lake (181a)

Black bass electrofishing (Spring)

The shoreline of Greenbo Lake (Greenup County) was nocturnally electrofished on April 28. Six 15-minute runs produced 213 largemouth bass. Table 38 shows length frequencies and CPUE of all fish sampled during that time. Catch rates for largemouth bass were generally below the designated levels as specified in the lake management plan (≥ 8 inches long – desired = 100 f/h, actual = 100 f/h; ≥ 12 inches long –desired = 50 f/h, actual = 41 f/h; ≥ 15 inches long – desired = 15 f/h, actual = 13 f/h). Table 5 shows PSD values (2004=39, 2005=41) for Greenbo Lake, as compared to other lakes in the district. The largemouth bass PSD was within the desired range. The age frequency of all captured largemouth bass is shown in Table 39. The CPUE by size class (and year) is shown in Table 40. The population assessment rated Greenbo Lake as a "fair" bass fishery (Table 41). Electrofishing catch rates for each age of largemouth bass from 1999 through 2005 are shown in Table 42. During spring sampling, many channel catfish were observed.

Bluegill/redear sunfish electrofishing (Spring)

On 23 May 2005 Greenbo Lake was electrofished during the daytime (10-7.5 minute runs) for bluegill and redear sunfish. A total of 725 bluegill and 14 redear sunfish were captured. Table 43 shows length frequencies and CPUE of fish sampled on this date. A CPUE of 580 for bluegill was the highest since 1985 but only 5 fish per hour more than 2003. With no sampling data from last year, no real comparisons can be ascertained. Inch class groupings and CPUE for 2005 and 2003 are found in Table 44. The PSD value of 11 (Table 45) remains the same as in 2003. Age frequencies are found in Table 46. The population assessment for bluegill (Table 47) was "Good" and should continue to improve with the 15-inch daily creel limit on sunfish, which went into effect in 2005.

Black bass electrofishing (Fall)

Nocturnal electrofishing for relative weights and length frequencies for largemouth bass was accomplished on 05 October. A total of 161 largemouth bass were collected during 1.5 hours of sampling (six 900 second runs). Table 48 shows relative abundance and CPUE of fall sampling. Largemouth bass Wr values (Table 9) were slightly below desirable values, but typical for fish in this area. Largemouth bass indices of year class strength at age 0 and age 1 are found in Table 49. The year class strength was sufficient enough not to warrant supplemental stocking of young-of-year bass in 2005.

Miscellaneous

As of 01 March 2005 a 15 fish creel limit for bluegill went into effect. Efforts continued in establishing aquatic vegetation with the transplantation of *Potamogetons*, *Elodea, Najas* and *Sagittaria* from Smoky Valley Lake (Carter Caves State Park). Results are basically the same as they have been in the past with the exception of some minute sprigs found outside of the enclosures of which were not purposefully transplanted. Intentional efforts were made in transplanting aquatic vegetation outside of the enclosures along the littoral zone. All vegetation transplanted in this area was eliminated within 40 days, most probably due to muskrats, waterfowl and beavers. *Nelumbo lutea* observed in 2004 was non-existent in 2005. Grass carp continue to be observed. During the year, 90,500 redear sunfish (1.5 inches long), 4,254 channel catfish and 15,000 rainbow trout were stocked.

Mill Creek Lake (41a)

On 25 May, Mill Creek Lake was sampled for 0.88 hours (7-7.5 minute runs) during daylight hours for bluegill. A total of 211 (241.1 f/h) bluegill were sampled ranging from 1-8 inches long (Table 50). Table 51 suggests that most bluegill sampled were age 2 and primarily ranged from 3-6 inches long. The lake was also sampled nocturnally for largemouth bass (Table 52) on 07 October. Relative weight values (Table 9) were best for bass ≥ 15 inches long. Management objectives for largemouth bass do not pertain to fall sampling, although in regards to the 2003 15-inch minimum size limit (3 fish creel) there were only 3 fish sampled over 15 inches long.

Lake Reba (76a)

This lake was sampled for largemouth bass on the night of 03 May for a total of 1.5-h (Table 53). Although total catch rates were lower than that found the past several years (Table 54), catch rates for largemouth bass ≥ 15 in were higher than the mean determined from the last seven years and was the highest since 1999. Compared to 2004, catch rates in 2005 increased for bass < 8.0 in, more than double for 8-11.9 in and were somewhat similar for 12-14.9 in long bass. Table 5 shows PSD (51) and RSD (12) values for 2005 compared to other lakes. These values have fluctuated from year-to-year with no definitive answers. Based on age frequency, age 1 largemouth bass dominated followed by age 5 and age 3 fish (Table 55). Catch rates by age can be compared to other years in Table 56. Population assessment values for 2000-2005 show 2003 as the only year where assessment values were rated good (Table 57). All other years, including 2005, the rating was fair.

Electrofishing (1.25 h) during the day of 24 May was carried out to gather data on the bluegill and redear population within the lake (Table 58). Catch rates for each bluegill size group was greater than that when compared to the last three years except for the 3-5.9 in class, which was greater in 2003 (Table 59). The number of redear sunfish 6-7.9 in long increased over that found in 2003 and 2004, however the number of 3-5.9 in long redear sunfish has declined since 2003 (Table 59). If this trend continues future supplemental stocking of this species may be necessary. Age class 2 followed by age 1 bluegill were predominant (Table 60) while age 3 redear sunfish was more abundant than age 1 and 2 of that species (Table 61). Madison County, thus Lake Reba, experienced drought conditions in 2005. The lake elevation dropped nearly four feet by late fall.

Nocturnal electrofishing for largemouth bass (10 Oct.) showed four and five inch bass to be the most abundant inch class followed by 9-inch class bass (Table 62). Relative weight values were at least 90 for the three different size classes depicted in Table 9.

Creel Survey

During 2005, the first ever creel survey was carried out at Lake Reba. The shoreline, complete trip if possible, and completed boat fishing trip (there is only one boat ramp at the lake) creel survey was run from April 20 (hiring difficulties prevented the preferred March 01 starting date) through October 30. Along with the creel, an angler attitude survey was carried out (Figure 1). Anglers were asked what species they fished for in the lake and just over 77% of the anglers reported bluegill (plus 32.3% for redear sunfish) followed by largemouth bass 59.4% and channel catfish 44.9%. Narrowing the preference to one species, 47.3% fished for bluegill, 32.1% for largemouth bass, 17.5% for channel catfish, 2.2% for crappie (which KDFWR did not stock into the lake), followed by redear sunfish 0.9%. Nearly 64% percent of the bass anglers were neutral or somewhat satisfied with the bass fishery at the lake, 14.5% were very satisfied and 16.4% somewhat dissatisfied or very dissatisfied 5.5%. Nearly 78% of the bluegill anglers were very satisfied (41.4%) or somewhat satisfied (36.3%) with that fishery. Sixty-nine percent of the redear sunfish anglers were somewhat (35.6%) or neutral (33.6%) regarding their satisfaction fishing for that species (20.5% very satisfied). Channel catfish anglers reported similar satisfaction levels as shown for redear sunfish.

A total of 7,772 anglers fished 19,302 hours from mid April through October (Table 63). These anglers caught 36,240 fish and harvested 9,249 of these fish, which represented about 25% of the catch. Catch rate per hour fished was 1.8 fish or 465 fish per acre, while the harvest rate was 0.4 fish per hour fished. The majority of anglers were male (76.5%) still fishing (77.0%) from the bank (85.1%). According to the creel (for comparison, in italics, are results from Figure 1, question 4 [What species do you fish for most?]) 26.1% of the anglers fished for bass (*32.1%*), 36.7% for panfish, mostly bluegill (bluegill *47.3%* and redear *0.9%*), 11.1% for catfish (*17.5%*), 0.7% for crappie (*2.2%*), and 25.4% for anything (Table 64).
"Anything" was not included in question 4 of the angler survey but was in question 3 (0.2%). Panfish, primarily bluegill (72.7%), made up nearly 91% of the fish harvested from the lake. According to the creel clerk most of the small bluegill (3 and 4 in) harvested were taken and used as bait for fishing at the lake or taken to be used as bait elsewhere. The creel clerk said this practice was common. These fish should probably be handled differently in the final creel statistics, as they may not reflect true values (numbers) that fit our interpretation of "harvesting" (although they were harvested).

Only 60 Largemouth bass (the only black bass species in the lake) were documented as being harvested from the lake during the survey period yet 26% of all fishing trips to the lake were for bass. Most of the bass fishing at the lake is from a boat at night (personal observation by NEFD and WBO staff) and many bass are caught, released, and/or harvested at this time and may account for the low numbers documented during the creel survey. Electrofishing results also show the larger bass in areas only accessible by boat. There is a 15 in minimum size limit for black bass at Lake Reba; the mean length harvested was 16.6 in (Tables 65 and 66). Table 67 shows April (did not start creel until 20th) through October black bass angling results by month. Most largemouth bass were caught in May while most fishing trips and hours fished by bass anglers was in June.

Rebel Trace Lake (19a)

Rebel Trace Lake (Menifee County) was nocturnally electrofished in the spring on 05 May. Table 68 gives length frequency and CPUE for largemouth bass collected. On 22 September largemouth bass were once again sampled for relative weight values (Table 9), length frequency and CPUE (Table 69). Relative weight values were 83 for 8-11.9-inch bass, 82 for 12-14.9-inch bass and 86 for 15-inch or longer bass. Approximately 33% of the shoreline around this 19-acre lake can no longer be sampled due to increased sediment loading. Four hundred seventy five channel catfish were stocked in 2005.

Smoky Valley Lake (36a)

The largemouth bass population in the lake was sampled for 1.25-h on the night of 12 May (Table 70). Catch rates for bass sampled in 2005 were higher than those found when the lake was last sampled (2001) at this time of year. This small lake (36a) has a 15-in minimum size limit (3 fish creel) for black bass. Only one (0.8 f/h) bass $\geq$ 15 in was sampled in 2005. Proportional (25) and relative (1) stock density values are shown along with other District lakes in Table 5. Total catch-per-unit-effort has declined since 2000 (Table 71). Numbers of bass collected within the 8-11.9 and 12-14.9 in size class was higher in 2005 than 2001. The decline in bass $\geq$ 15 in may be attributed to the increase in daily creel, which went from 1 to 3 in 2003. Fishing at the lake is only allowed during daylight hours. The exception is that anglers wishing to fish for catfish are allowed to set out jugs at sunset and check them the next day. Judging from the number of jugs observed at times it is believed that this method of fishing may be impacting the largemouth bass fishery and beginning in 2006 this method of fishing will not be allowed on the lake. More consistent spring sampling for largemouth bass should be carried out. Age frequency comparisons (Table 72) show age 3 (53%) bass to be the most abundant age group (Table 73). Population assessment findings rated the bass population as fair in both 2001 and 2005 (Table 74).

This lake was again sampled in June to gather data from the bluegill population (Table 75) with inch class comparisons shown in Table 76. Overall numbers and size groupings were better in 2003 than the past two years, but findings in 2005 were better than that found in 2004. Age frequencies and CPUE values for bluegill can be seen in Table 77 which shows their numbers declining drastically after age 3. Overall, numbers were better represented in 2003 than that found in 2004 or 2005 (Table 78).

Lake Wilgreen (169a)

On 02 May, Lake Wilgreen was sampled for 1.5 hours (6-15 minute runs) nocturnally for largemouth bass. A total of 557 (371.3 f/h) largemouth bass were sampled (Table 79), and if compared to the 1,317 (526.6 f/h) largemouth sampled in 2003 it should be noted that ten 15-minute sample periods were ran. CPUE was highest for fish ranging from 8.0-11.9 inches (Table 80). Age-1 and 4 were the most abundant age groups sampled (Table 81). Age-4 fish represented most 12-inch bass, and age-6 fish appeared to contribute to fish breaking the 15-inch mark (Table 81). The sample well exceeded the first objective of the lake's management plan, which was to maintain a CPUE of 50 f/h from 12.0-14.9 inch long largemouth bass (Table 80). On 26 May, Lake Wilgreen was sampled for 1.25 hours (10-7.5 min runs) during daylight hours for bluegill and redear sunfish. A total of 1,037 (829.6 f/h) bluegill, ranging from 1-9 inches, and 23 (18.4 f/h) redear sunfish, ranging from 3-9 inches, were collected (Table 82). Table 83 shows 80% of the bluegill sampled to be age 1 and range from 2-4 inches.

Table 1. Relative abundance and CPUE (fish/hour) of muskellunge collected during 15 hours of electrofishing at Cave Run Lake on 04, 05, 06, 08 and 13 April 2005.

	Inch class																																							
Species	12	13	14	15	16	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	49	Total	CPUE	SE
Muskellunge	1	4	12	18	8	1	2	5	1	4	1	3	1	5	3	7	5	3	4	8	4	4	4	6	1	2	1	1	3	2	2	126	8.40	1.15

nedmuscr.d05

Table 2. Population assessments for muskellenge from Cave Run Lake captured during spring electrofishing from 2000-2005.

Parameter	2000		2001		2003		2004		2005	
	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
CPUE Age 1 muskellunge	1.68	1	2.31	2	2.00	2	1.28	1	2.86	2
CPUE ≥ 20.0 inch muskellunge	2.65	1	4.40	2	3.22	2	3.20	2	5.53	3
CPUE ≥ 30.0 inch muskellunge	1.73	2	3.07	3	2.33	2	2.61	3	4.40	4
CPUE ≥ 36.0 inch muskellunge	0.99	3	1.51	4	1.00	3	1.28	3	2.00	4
CPUE ≥ 40.0 inch muskellunge	0.27	3	0.64	4	0.33	3	0.44	3	0.80	4
Total score		10		15		12		12		17
Assessment rating		F		G		G		G		E

nedmuscr.d00,01,03,04,05
Did not sample in 2002

Table 3. Length frequency and CPUE (fish/hour) of black bass collected in 2.0 hours of 30-minute nocturnal electrofishing runs for black bass in each area of Cave Run Lake from 9-11 May 2005.*

Area	Species	Inch class																					Total	CPUE	Std. error
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			
Lower	Smallmouth bass			1				1		1		1	1			1		1					7	3.50	2.06
	Spotted bass	4	5	9	8	26	41	29	30	16	5		2	1									176	88.00	14.49
	Largemouth bass			3	11	107	138	33	25	40	36	26	15	5	8	2	4	4	3	1		1	462	231.00	15.46
Middle	Spotted bass		3	13	10	5	17	17	4	3	2			1									75	37.50	8.77
	Largemouth bass		2	7	18	48	43	8	17	36	16	16	10	10	10	3			1	1	1		247	123.50	12.50
Upper	Spotted bass		2	1		2			2		1												8	4.00	1.41
	Largemouth bass		1	9	22	30	11	3	9	14	13	3	2	1	2	1	1						122	61.00	9.33
Total	Smallmouth bass			1				1		1		1	1			1		1					7	1.17	0.80
	Spotted bass	4	10	23	18	33	58	46	36	19	8		2	2									259	43.17	11.60
	Largemouth bass		3	19	51	185	192	44	51	90	65	45	27	16	20	6	5	4	4	2	1	1	831	138.50	22.18

nedpsdcr.d05

*** Note:** For a number of years previous to this, each section was sampled for 4 hours.

Table 4. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Cave Run Lake in May. CPUE = fish/hour.

	Inch class											
	<8.0		8.0-11.9		12.0-14.9		>15.0		Total		Sections	TTL
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	Sampled*	hours
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

nedpsdcr.d05,04,03,02,01,00,99,98.

* L - lower, M - middle, U - upper

Table 5. Proportional and relative stock density values (PSD, RSD) for black bass and bluegill sampled during 2005 spring electrofishing at NEFD lakes; 95% confidence interval in parentheses.

Lake	Largemouth bass		Smallmouth bass		Spotted bass		Bluegill	
	PSD	RSD*	PSD	RSD*	PSD	RSD*	PSD	RSD*
Carnico	37 (±16)	14 (±11)						
Cave Run								
Lower	34 (±13)	11 (±9)	67 (±83)	33 (±87)	7 (±9)	1 (±3)		
Middle	40 (±17)	12 (±11)			7 (±14)	2 (±9)		
Upper	20 (±23)	8 (±16)			33 (±129)			
Entire	34 (±10)	11 (±7)	67 (±83)	33 (±87)	7 (±8)	1 (±4)		
Clear Creek	19 (±26)	5 (±15)						
Greenbo	41 (±16)	13 (±12)						
Grayson								
Lower	38 (±11)	3 (±4)			16 (±13)	1 (±2)		
Middle	26 (±9)	2 (±3)	50	50	2 (±7)			
Upper	20 (±11)	5 (±6)						
Entire	29 (±6)	3 (±3)	50	50	10 (±8)	1 (±2)		
Reba	51 (±15)	12 (±10)					24 (±7)	
Rebel Trace	23 (±25)	2 (±8)						
Smoky Valley	25 (±10)	1 (±1)					20 (±11)	2 (±4)

* LMB = RSD_{15}, SMB and SPB = RSD_{14}, BG = RSD_8

nedpsdlc.d05,nedpsdcc.d05,nedpsdcr.d05,nedpsdgb.d05,nedpsdgl.05,nedpsdlr.d05,nedsunlr.d05,nedpsdrt.d05,nedpsdlc.d05,nedsunsv.d05.

Table 6. Population assessment for largemouth bass based on spring sampling from 2003 through 2005 at Cave Run Lake (actual values in parenthesis).

Parameter	2003		2004		2005	
	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Length at age 3*	12.4	3	12.4	3	12.4	3
Spring CPUE of Age 1 Fish	39.76	3	28.09	2	63.36	4
Spring CUPE 12-14.9-in. fish	24.75	2	26	3	14.67	1
Spring CPUE > 15.0-in. fish	20.25	4	14.08	3	7.17	2
Spring CPUE > 20-in fish	0.75	2	0.33	2	0.67	2
Instantaneous mortality (z)		0.724159		0.846131		0.897132
Annual mortality (A)		52		57		59
Total score		14		13		12
Assessment rating		Good		Good		Good

nedpsdcr.d03,04,05; nedaagcr.d03

* **Note:** Age and growth data based on 2003 findings.

Table 7. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Cave Run Lake from 1999 - 2005.

	Year					
Age	1999	2000	2001	2003	2004	2005
1	61.6	42.4	20.7	39.8	28.1	63.4
2	43.5	61.4	47.1	55.8	46.6	42.8
3	27.1	34.7	26.5	24.2	32.0	20.0
4	11.2	14.5	15.4	17.3	14.2	7.6
5	3.7	3.8	5.0	7.2	5.3	2.4
6	1.2	1.1	1.6	3.3	2.1	0.9
7	0.1	0.2	0.2	0.5	0.3	0.1
8	0.5	0.5	0.7	1.5	0.9	0.5
10	0.1	0.1	0.3	0.3	0.1	0.2
13		0.3	0.2	0.8	0.1	0.3

nedpsdcr.d99,00,01,03,04,05.
nedagbcr.d03.
Note: Did not sample in 2002 due to high water.

Table 8. Length frequency and CPUE (fish/hour) of black bass collected in 4.0 hours (2 hours in each area) of nocturnal electrofishing (8-30 min runs) for black bass in Cave Run Lake on September 18-19 2005.

	Inch class																			Std
Species/area	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	error
Lower																				
Smallmouth bass			2		1													3	1.50	0.96
Spotted bass	5	11	7	23	13	17	19	3	7	1	1							107	53.50	18.30
Largemouth bass	2	9	10	1	2	6	24	20	4	4	2	5	8		2	1	1	101	50.50	5.56
Upper																				
Spotted bass						2		1	1									4	2.00	1.15
Largemouth bass	15	81	46	29	10	6	7	36	26	15	7	1	3	2		1	1	286	143.00	25.72
Entire																				
Smallmouth bass			2		1													3	0.75	0.53
Spotted bass	5	11	7	23	13	19	19	4	8	1	1							111	27.75	12.91
Largemouth bass	17	90	56	30	12	21	31	56	30	19	9	6	11	2	1	2	2	387	96.75	21.31

nedwrscr.d05

Table 9. Number of fish and mean relative weight (Wr) values for length groups of black bass collected in NEFD lakes sampled by nocturnal electrofishing during September and October 2005 (Standard error in parentheses).

Species	Location	No.	Wr	No.	Wr	No.	Wr
		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15 in	
Largemouth bass	Cave Run Lake						
	Lower	52	81 (1.1)	15	79 (2.3)	4	86 (1.6)
	Upper	84	88 (0.8)	11	83 (2.4)	4	85 (5.6)
	Entire	136	85 (0.7)	26	81 (1.7)	8	85 (2.7)
	Grayson Lake						
	Lower	84	79 (0.9)	41	79 (1.3)	3	88 (5.7)
	Upper	150	82 (0.5)	20	86 (2.0)	7	90 (5.6)
	Entire	234	81 (0.5)	61	81 (1.2)	10	90 (4.1)
	Greenbo	42	83 (1.2)	33	86 (1.2)	7	84 (4.0)
	Reba	134	90 (0.7)	27	90 (2.7)	9	92 (2.9)
	Mill Creek	58	87 (0.8)	12	85 (1.8)	3	90 (1.2)
		7.0 - 10.9 in		11.0 - 13.9 in		≥ 14 in	
Spotted bass	Cave Run Lake						
	Lower	46	90 (1.3)	2	86 (2.3)		
	Upper	4	88 (7.1)				
	Entire	50	90 (1.3)	2	86 (2.3)		
	Grayson Lake						
	Lower	79	89 (3.7)	13	80 (2.4)		
	Upper	1	79	1	92		
	Entire	80	89 (3.7)	14	81 (2.4)		
Smallmouth bass	Grayson Lake						
	Lower	1	68	1	85		
	Entire	1	68	1	85		

nedwrscr.d05, nedwrsgl.d05, nedwrsgb.d05, nedwrslr.d05, nedwrsmc.d05.

Table 10. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall while noctural electrofishing at Cave Run Lake.

		Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2005	Total	4.1	0.07	51.5	19.4	10.8	3.5		
2004	Total	5.3	0.06	86.0	26.3	53.5	14.0	63.4	9.9
2003	Total	4.7	0.04	70.7	19.0	23.5	6.4	28.1	3.0

nedwrscr.d05,04,03; nedpsdcr.d05,04; nedaagcr.d03

Table 11. Length frequency and CPUE for each species of crappie collected at Cave Run Lake (upper section only) in 60 net-nights during October 24-28 2005.

	Inch class												
Species	3	4	5	6	7	8	9	10	11	12	Total	CPUE	Std error
White crappie	91	14	14	31	30	27	11	12	4	1	235	3.9	0.58
Black crappie	3		1	6	2		1				13	0.2	0.08

nedctncr.d05

Table 12. PSD and RSD values for crappie collected in trap nets on Cave Run Lake during October 2005; 95% confidence limits are in parentheses.

	No.	PSD	RSD
White crappie	235	42 (±17)	13 (±12)
Black crappie	13	10 (±39)	

nedctncr.d05

Table 13. Age frequencies and CPUE of white crappie collected from trap nets fished in Cave Run Lake for 60 net nights during October 2005.

	Inch Class												Std
Age	3	4	5	6	7	8	9	10	11	12	Total	%	CPUE	error
0+	91	13									104	44	1.73	0.38
1+		1	14	25							40	17	0.67	0.15
2+				3	27	11	2				43	18	0.72	0.14
3+						11	7	1	1		20	8	0.33	0.06
4+				3	3	5	1	10	3	1	25	11	0.42	0.07
5+							1	1	1		3	1	0.05	0.01
6+										1	1	0	0.01	0.01
Total	91	14	14	31	30	27	11	12	4	1	235	100		
%	39	6	6	13	13	11	5	5	2	0	100			

CPUE of ≥ 8 in (quality size) crappie = 0.92
CPUE of ≥ 10 in (preferred size) crappie = 0.28
nedaagcr.d04, nedctncr.d05.

Table 14. Population assessment for white crappie from Cave Run Lake in October 2005 compared to previous years.

	2001		2002		2003		2004		2005	
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)	1.70	1	4.39	1	1.60	1	0.48	1	2.2	1
CPUE of age 1 crappie	0.60	1	1.09	1	0.21	1	0.08	1	0.7	1
CPUE of age 0 crappie	0.08	1	0.56	1	0.11	1	0.80	1	1.7	1
CPUE of crappie ≥ 8 inches	0.35	1	0.79	1	0.70	1	0.22	1	0.9	1
Mean age 2 length at capture	6.9	1	7.3	1	7.8	1	7.5	1	7.3	1
Instantaneous mortality (Z)									-0.271	
Annual mortality (A)									0.2	
Total score:		5		5		5		5		5
Assessment rating:		P		P		P		P		P

Table 15. Length frequency and CPUE for white bass collected in 12 net-nights of sampling at Cave Run Lake from 7-9 November 2005.

	Inch class									
Species	10	11	12	13	14	15	16	Total	CPUE	Std. Error
White bass	5	53	30	33	19	6	2	148	12.33	3.81

nedwtbcr.d05

Table 16. Mean back calculated lengths (in) at each annulus for white bass collected from Cave Run Lake in November 2005, including 95% confidence interval (CI) for mean length per age class.

		Age			
Year	No.	1	2	3	4
2005	2				
2004	16	7.5			
2003	18	7.0	11.0		
2002	15	7.6	11.1	13.0	
2001	4	7.4	10.7	12.9	14.4
Mean		7.3	11.0	13.0	14.4
Number	55	53	37	19	4
Smallest		5.7	7.9	11.2	13.1
Largest		9.1	12.9	14.4	15.2
Std err		0.1	0.2	0.2	0.5
95% CI (±)		0.3	0.3	0.4	0.9

Otoliths were used for age-growth determinations; Intercept = 0
nedaagcr.d05

Table 17. Age frequency and CPUE of white bass gill netted for 12 net-nights at Cave Run Lake from 7-9 November 2005.

	Inch class										Std
Age	10	11	12	13	14	15	16	Total	%	CPUE	error
1+	5	53	3					61	41	5.08	1.13
2+			27	23	4			54	36	4.49	1.61
3+				10	13	5		28	19	2.35	1.02
4+					2	1	2	5	3	0.41	0.19
Total	5	53	30	33	19	6	2	148	100		
%	3	36	20	22	13	4	1	100			

nedaagcr.d05

Table 18. Number of fish and relative weight (Wr) for each length category of white bass collected at Cave Run Lake from 7-9 November 2005.

	Size range					
	6.0-8.9 in		9.0-11.9 in		≥12.0 in	
	No.	WR	No.	W_r	No.	W_r
	None sampled		58	89	90	92

nedwtbcr.d05

Table 19. Population assessment for white bass gill netted at Cave Run Lake in November 2005 compared to previous years.

Parameter	1993		1998		2003		2005	
	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Population density (CPUE age 1 fish and older)	10.0	3	13.6	3	17.9	3	12.3	3
Growth rate (mean length of age 2+ fish at capture)	13.0	4	13.4	4	13.6	4	12.9	3
Size structure (CPUE fish ≥ 12 in.)	6.8	3	9.3	3	4.9	2	7.5	3
Recruitment (CPUE of age 1 fish)	3.1	2	4.4	2	15.1	4	5.1	3
Total score		12		12		13		12
Assessment rating		G		G		G		G
Instantaneous mortality (Z)							0.816	
Annual mortality (A)							55.8	

nedaagcr.d05, nedwtbcr.d05

Table 20. Length frequency and CPUE (fish/hour) of black bass collected in 9.0 hours of nocturnal electrofishing (18-30 minute runs) for black bass at Grayson Lake on 25-27 April 2005.

Area	Species	Inch class																					Std.
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	error
Lower	Spotted bass		1	11	19	13	15	18	37	34	13	5		1								167	55.67	11.81
	Largemouth bass	4	30	40	54	28	18	23	51	49	72	74	26	8	4	3	1	1		1		487	162.33	22.86
Middle	Smallmouth bass									1					1							2	0.57	0.57
	Spotted bass	1	8	18	16	20	14	21	26	23	2											149	42.57	10.59
	Largemouth bass		8	60	108	17	16	74	60	55	89	56	25	7	1	2	2	1			1	582	166.29	35.71
Upper	Spotted bass		1	3			1	2	5	1												13	4.33	1.41
	Largemouth bass		2	31	21	5	9	59	26	40	34	23	5	2	2		4	2	1			266	88.67	12.91
Total	Smallmouth bass									1					1							2	0.21	0.21
	Spotted bass	1	10	32	35	33	30	41	68	58	15	5		1								329	34.63	7.17
	Largemouth bass	4	40	131	183	50	43	156	137	144	195	153	56	17	7	5	7	4	1	1	1	1335	140.53	16.92

nedpsdgl.d05

Table 21. Spring electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Grayson Lake from 1999-2005.

	Inch class									
	<8.0		8.0-11.9		12.0-14.9		≥15.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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.d05,04,03,02,01,00,99.

Table 22. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Grayson Lake during spring sampling from 1999 - 2005.

	Year						
Age	1999	2000	2001	2002	2003	2004	2005
1	167.02	130.80	218.11	127.20	125.23	158.93	44.34
2	68.45	63.35	36.37	40.52	57.68	50.79	35.12
3	21.00	9.04	11.76	10.94	14.31	16.01	18.01
4	16.49	7.52	4.97	4.08	5.41	9.84	15.54
5	18.48	8.30	7.37	6.48	8.55	12.22	17.37
6	9.69	6.12	3.58	3.44	3.57	5.68	7.90
7	0.39	0.81	0.24	0.43	0.35	0.25	0.31
8	1.19	1.21	0.61	0.33	0.25	0.62	0.62
9	0.22	0.11	0.11	0.67		0.22	0.11
10	0.17	0.55	0.13	0.35	0.26	0.18	0.22
11		0.11	0.11	0.17	0.50	0.11	0.11
13		0.30	0.07	0.22	0.06	0.15	0.04

nedpsdgl.d99,00,01,02,03,04,05.
nedagbgl.d03.

Table 23. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Grayson lake from 25-27 April 2005; 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8"	PSD (+/- 95%)		RSD[a] (+/- 95%)	
Lower	Spotted bass	108	16	(+/- 13)	1	(+/- 3)
	Largemouth bass	293	38	(+/- 12)	3	(+/- 4)
Middle	Spotted bass	72	2	(+/- 6)		
	Largemouth bass	373	26	(+/- 9)	2	(+/- 3)
Upper	Largemouth bass	198	20	(+/- 11)	5	(+/- 7)
Total	Spotted bass	188	10	(+/- 9)	1	(+/- 2)
	Largemouth bass	884	29	(+/- 7)	3	(+/- 3)

[a] Largemouth bass = RSD-15, spotted = RSD-14.
nedpsdgl.d05

Table 24. Population assessment for largemouth bass collected from Grayson Lake on 25-27 May 2005.

Parameter	Actual value	Assessment score
Length at age 3	10.7	1
Spring CPUE of Age 1 fish	46.80	3
Spring CPUE 12-14.9-in fish	25.11	3
Spring CPUE ≥ 15.0-in fish	2.89	1
Spring CPUE ≥ 20-in fish	0.22	2
Instantaneous mortality (z)	0.3110	
Annual mortality (A)	26.7%	
Total score		10
Assessment rating		Fair

nedpsdgl.d05, nedagbgl.d03

Table 25. Length frequency and CPUE (fish/hour) of black bass collected in 6.0 hours of nocturnal electrofishing (12-30 minute runs) for black bass at Grayson Lake on 26-27 September 2005.

Area	Species	Inch class																		Total	CPUE	Std. error
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19				
Lower	Smallmouth bass									1			1							2	0.67	0.42
	Spotted bass	18	64	38	44	16	17	20	22	20	10	2	1							272	90.67	17.85
	Largemouth bass	35	122	43	12	3	14	19	17	22	26	25	10	6	1		1	1		357	119.00	32.63
Upper	Spotted bass		4	2	1	6				1	1									15	5.00	1.13
	Largemouth bass	8	65	91	47	5	10	43	38	41	28	16	3	1	4	1	1	1		403	134.33	16.66
Total	Smallmouth bass									1			1							2	0.33	0.22
	Spotted bass	18	68	40	45	22	17	20	22	21	11	2	1							287	47.83	15.48
	Largemouth bass	43	187	134	59	8	24	62	55	63	54	41	13	7	5	1	2	2		760	126.67	17.62

nedwrsgl.d05

Table 26. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall while noctural electrofishing at Grayson Lake.

		Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2005	Total	4.0	0.04	72.3	17.01	11.7	2.23		
2004	Total	4.3	0.08	40.4	5.74	11.3	2.08	44.3	7.89
2003	Total	4.3	0.03	59.1	6.82	10.4	1.72	158.9	21.73

nedwrsgl.d05,04,03; nedpsdgl.d05,04; nedagbgl.d03

Table 27. Length frequency and CPUE for each species of crappie collected at Grayson Lake while electrofishing (6-30 minute runs) in October 2005.

	Inch class										
Species	3	5	6	7	8	9	10	11	Total	CPUE	Std. Error
White crappie	4	21	11	45	30	12	5	3	131	43.7	10.20
Black crappie						1			1	0.3	0.33

nedcwrgl.d05

Table 28. Mean back calculated lengths (in) at each annulus for white crappie collected from Grayson Lake in October 2005, including 95% confidence intervals for each mean length per age class. Average length for age 0 is at capture.

Year			Age							
class	No.	0+	1	2	3	4	5	6	7	8
2005	4									
2004	18		2.9							
2003	8		2.6	5.1						
2002	7		3.0	5.2	6.6					
2001	14		3.0	5.0	6.3	7.5				
2000	9		3.1	5.0	6.3	7.3	8.2			
1997	1		3.0	5.2	6.8	7.7	8.4	10.2	10.7	11.8
Mean		2.7	2.9	5.1	6.4	7.4	8.2	10.2	10.7	11.8
Number	61	4	57	39	31	24	10	1	1	1
Smallest		3.2	2.2	3.9	5.1	6.1	6.9	10.2	10.7	11.8
Largest		3.7	4.0	7.4	10.3	9.3	10.4	10.2	10.7	11.8
Std err		0.2	0.0	0.1	0.2	0.2	0.4			
95% CI (±)			0.1	0.3	0.4	0.4	0.7			

Otoliths were used for age-growth determinations; Intercept = 0

nedaaggl.d05

Table 29. Age frequencies and CPUE of white crappie collected while electrofishing (6-30 min runs) at Grayson Lake during October 2005.

	Inch class										Std
Age	3	5	6	7	8	9	10	Total	%	CPUE	error
0	4							4	3	1.33	0.67
1		21	9					30	23	9.93	3.80
2			2	23	3			28	22	9.23	1.88
3				14	9			23	18	7.50	1.42
4				9	15	7	2	33	26	10.89	2.55
5					3	5	3	11	9	3.78	1.39
Total	4	21	11	45	30	12	5	128	100		
%	3	16	9	35	23	9	4	100			

CPUE of ≥ 8 in (quality size) crappie = 15.7
CPUE of ≥ 10 in (preferred size) crappie = 1.7
nedaaggl.d05, nedcwrgl.d05

Table 30. PSD and RSD values for crappie collected while electrofishing Grayson Lake during October 2005; 95% confidence limits are in parentheses.

Lake / Species	No.	PSD	RSD
Grayson Lake			
White crappie	127	39 (±17)	2 (±8)
Black crappie	1	100	

nedcwrgl.d05

Table 31. Length frequency and CPUE (fish/hour) of black bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) for black bass at Lake Carnico (Nicholas Co.) on 05 May 2005.

	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	3	3	6	6	17	26	22	26	23	14	16	7	4	4	5	6	1	1	191	127.33	12.62

nedpsdlc.d05

Table 32. Population assessment for largemouth bass based on spring sampling at Lake Carnico (Nicholas Co.) from 2003 through 2005.

Parameter	2003 Actual value	2003 Assessment score	2004 Actual value	2004 Assessment score	2005 Actual value	2005 Assessment score
Length at age 3	12.2	4	12.2	4	12.2	4
Spring CPUE of age 1 fish	39.3	2	54.1	3	23.2	2
Spring CPUE of 12-14.9-in fish	34.0	2	36.0	3	24.7	2
Spring CPUE of ≥ 15.0-in fish	13.3	2	19.3	3	14.0	2
Spring CPUE of ≥ 20.0-in fish	1.3	2	0.7	1	0.7	1
Total score:		12		14		11
Assessment rating:		Good		Good		Fair

nedaaglc.d03, nedpsdlc.d03,04 and 05

Table 33. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected in the spring from Lake Carnico from 1999 - 2005.

Age	Year 1999	2000	2001	2002	2003	2004	2005
1	18.80	27.00	34.20	45.80	39.33	54.13	23.20
2	62.45	34.50	47.30	41.45	66.00	98.37	53.97
3	14.25	9.50	11.50	16.25	19.33	24.50	13.17
4	19.17	12.33	18.67	22.83	25.33	34.33	21.44
5	3.00	7.00	3.00	4.00	5.33	10.67	5.33
7	4.33	2.67	5.33	6.67	5.33	7.33	5.56
8	4.00			2.00	2.67	3.33	4.00

nedpsdlc.d99,00,01,02,03,04,05.
nedaaglc.d03.

Table 34. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Lake Carnico (Nicholas Co.) in May. CPUE = fish/hour.

	Inch class									
	<8.0		8.0-11.9		12.0-14.9		≥15.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2005	24.00	5.56	64.67	8.48	24.67	3.33	14.00	1.71	127.33	12.62
2004	56.67	13.36	121.33	15.62	36.00	5.16	19.33	3.00	233.33	34.71
2003	42.67	9.50	74.67	6.25	34.00	4.70	13.33	4.09	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	120.00	11.31
2000	28.00	6.32	41.00	3.00	16.00	5.66	9.00	3.00	94.00	15.87
1999	21.00	1.00	70.00	8.08	26.00	5.03	10.00	1.15	127.00	13.00

nedpsdlc.d05,04,03,02,01,00,99.

Table 35. Length frequency and CPUE (fish/hour) of largemouth bass collected in 1.0 hour of nocturnal electrofishing (4-15 minute runs) for largemouth bass at Lake Carnico (Nicholas Co.) on 06 October 2005.

	Inch class																		
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	Total	CPUE	Std. error
Largemouth bass	5	15	17	7	22	12	11	12	12	10	10	7	7	1	1	1	150	150.00	9.45

nedwrslc.d05

Table 36. Length frequency and CPUE (fish/hour) of black bass collected in 0.37 hours of nocturnal electrofishing (3-7.5 minute runs) for black bass at Clear Creek Lake (Bath Co.) on 05 May 2005.

	Inch class															Std.
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	CPUE	error
Largemouth bass	3	12	4	32	12	7	10	9	4	2	2	1	2	100	266.67	65.7

nedpsdcc.d05

Table 37. Length frequency and CPUE (no./hour) of fish collected in 22.5 minutes (3-7.5 minute runs) of nocturnal electrofishing at Clear Creek Lake (Bath Co.) on 22 September 2005.

	Inch class													
Species	2	3	4	6	7	8	9	10	11	12	13	Total	CPUE	Std. Error
Largemouth bass	2	24	17	6	19	6	8	6	6	4	2	100	266.67	39.82

nedwrscc.d05

Table 38. Length frequency and CPUE (fish/hour) of black bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) for black bass at Greenbo Lake (Greenup Co.) on 28 April 2005.

	Inch class																					Std.
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	23	Total	CPUE	error
Largemouth bass	21	15	7	7	13	11	5	21	51	26	13	3	5	5	1	3	1	1	3	1	213	142.00	22.46
Smallmouth bass	1	1																			2	1.33	1.33

nedpsdgb.d05

Table 39. Age frequency and CPUE (no./hour) of largemouth bass collected in 1.5 hours of nocturnal electrofishing at Greenbo Lake in April 2005.

	Inch class																				Std
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	%	CPUE	error
1	21	15	7	7	9	4		7										70	34	46.71	21.20
2					4	7	5	14										30	14	19.96	3.65
3									51	26								77	37	51.33	8.79
4											9	2						11	5	7.11	1.49
5											4	1	5					10	5	6.89	1.39
6															1	3		4	2	2.67	1.69
7														5			1	6	3	4.00	1.46
Total	21	15	7	7	13	11	5	21	51	26	13	3	5	5	1	3	1	208	100		
%	10	7	3	3	6	5	2	10	25	13	6	1	2	2	0	1	0	100			

nedaaggb.d03, nedpsdgb.d05

Table 40. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Greenbo Lake in April. CPUE = fish/hour.

	Inch class									
	<8.0		8.0-11.9		12.0-14.9		>15.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
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.d05,04,03,02,01,00,99,98.

Table 41. Population assessment for largemouth bass based on spring sampling at Greenbo Lake from 2003 through 2005.

Parameter	2003		2004		2005	
	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Length at age 3	11.7	4	11.7	4	11.7	4
Spring CPUE Age 1 fish	105.3	4	33.6	2	46.7	3
Spring CPUE 12-14.9-in. fish	45.3	3	58.8	4	28.0	2
Spring CPUE ≥ 15-in. fish	10.7	2	16.8	2	13.3	2
Spring CPUE ≥ 20-in. fish	2.0	3	4.0	4	3.3	3
Total score:		16		16		14
Assessment rating:		Good		Good		Good

nedaaggb.d03,nedpsdgb.d03,04 and 05

Table 42. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Greenbo Lake from 1999 - 2005.

Age	Year					
	1999	2000	2001	2003	2004	2005
1	103.13	52.87	83.87	105.33	33.63	46.71
2	61.87	66.13	34.13	31.33	87.17	19.96
3	16.00	29.00	56.00	71.33	28.80	51.33
4	11.33	6.00	6.67	9.78	26.67	7.11
5	6.67	4.00	5.33	7.56	17.73	6.89
6	1.00	2.00	1.00	3.33	3.20	2.67
7	1.00	1.00	1.00	2.67	5.20	4.00

nedpsdgb.d99,00,01,03,04,05.
nedaaggb.d03.
Note: Did not sample in 2002 due to lake draw down.

Table 43. Length frequency and CPUE (fish/hour) of bluegill and redear sunfish collected in 1.25 hours of electrofishing (10-7.5 minute runs) in Greenbo Lake (Greenup Co.) on 23 May 2005.

	Inch class											Std.
Species	1	2	3	4	5	6	7	8	9	Total	CPUE	error
Bluegill	11	134	206	219	93	40	18	3	1	725	580.00	89.83
Redear sunfish		3	3				2	5	1	14	11.20	3.99

nedsungb.d05

Table 44. Length frequency and CPUE of bluegill and redear sunfish collected in spring electrofishing samples from Greenbo Lake from 2003 and 2005. CPUE = fish/hour.

	Inch class											
	<3.0		3.0-5.9		6.0-7.9		>8.0		>10.0		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	414.40	59.22	46.40	8.83	3.20	1.77			580.00	89.83
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

nedsungb.d03,05

Table 45. PSD and RSD values obtained for bluegill collected at Greenbo Lake on 23 May 2005; 95% confidence intervals are in parenthesis.

Species	No. fish ≥ stock size	PSD	RSD
Bluegill	580	10.7 (± 5.0)	0.7 (± 1.4)

nedsungb.d05

Table 46. Age frequencies and CPUE of bluegill collected during spring electrofishing in Greenbo Lake on 05 May 2005.

	Inch class												Std
Age	1	2	3	4	5	6	7	8	9	Total	%	CPUE	error
1	11	134	165	146						456	63	364.64	62.2
2			41	73	93	24				231	32	184.96	24.8
3						16	18	2		36	5	28.40	6.4
4								1		1	0	1.12	0.6
6								1		1	0	0.72	0.5
Total	11	134	206	219	93	40	18	3	1	725	100		
%	2	18	28	30	13	6	2	0	0				

nedaaggb.d03, nedsungb.d05

Table 47. Population assessment for spring collected bluegill collected from Greenbo Lake on 05 May 2005.

	2003		2005	
Parameter	Actual value	Assessment score	Actual value	Assessment score
Mean length age-2 at capture	5.2	4	5.2	4
Years to 6 inches	3	3	3	3
CPUE ≥ 6.0 inches	22.0	1	49.6	2
CPUE ≥ 8.0 inches	11.0	3	3.2	2
Instantaneous mortality				1.27
Annual mortality				71.9
Total score:		11		11
Assessment rating:		Good		Good

nedaaggb.d03, nedsungb.d05 and d03

Table 48. Length frequency and CPUE (fish/hour) of largemouth bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) at Greenbo Lake (Greenup Co.) on 05 October 2005.

	Inch class																	
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	Total	CPUE	Std. error
Largemouth bass	8	19	15	6	7	24	13	8	13	8	17	10	5	2	5	161	107.33	11.47

nedwrsgb.d05

Table 49. 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.

		Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2005	Total	3.8	0.12	32.0	7.00	4.0	1.03		
2004	Total	3.6	0.17	20.0	6.02	2.67	1.33	46.7	21.20
2003	Total	4.4	0.12	45.0	7.72	14.0	3.46	33.6	2.11

nedwrsgb.d03,04,05; nedpsdgb.d05,04; and nedaaggb.d03

Table 50. Length frequency and CPUE (fish/hour) of bluegill collected in 0.88 hours of electrofishing (7-7.5 min runs) for bluegill at Mill Creek Lake (Powell / Wolfe Co.) on 25 May 2005.

	Inch class										
Species	1	2	3	4	5	6	7	8	Total	CPUE	Std. error
Bluegill	8	29	29	28	29	25	43	20	211	241.14	17.58

nedsunmc.d05

Table 51. Age frequency and CPUE (No./hour) of bluegill collected in 0.88 hours of diurnal electrofishing at Mill Creek Lake in May 2005.

	Inch class									Std
Age	3	4	5	6	7	8	Total	%	CPUE	error
1	3						3	2	3.31	0.88
2	26	25	25	8		10	95	55	108.58	11.72
3		3	4	17	9		32	18	36.22	6.96
4					30	10	40	23	45.83	6.59
5					4		4	2	4.91	0.48
Total	29	28	29	25	43	20	174	100		
%	17	16	17	14	25	11	100			

nedsunmc.d05,nedaagmc.d01

Table 52. Length frequency and CPUE (fish/hour) of largemouth bass collected in 1.25 hours of nocturnal electrofishing (15 minute runs) for largemouth bass at Mill Creek Lake (Powell / Wolfe Co.) on 07 October 2005.

	Inch class																	Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	19	Total	CPUE	error
Largemouth bass	6	6	5	1	1	10	7	17	18	16	10	1	1	2	1	102	81.60	15.47

nedwrsmc.d05

Table 53. Length frequency and CPUE (fish/hour) of black bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) for black bass at Lake Reba (Madison Co.) on 03 May 2005.

	Inch class																			Std.
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	Total	CPUE	error
Largemouth bass	17	22	20	14	7	23	17	13	33	30	24	14	8	7	3	1	1	254	169.3	16.4

nedpsdlr.d05

Table 54. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Lake Reba in May. CPUE = fish/hour.

	Inch class											
	<8.0		8.0-11.9		12.0-14.9		>15.0		≥ 20.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2005	53.33	9.33	57.33	8.11	45.33	4.34	13.33	2.23	0.67	0.67	169.33	16.35
2004	30.00	8.93	125.33	21.46	51.33	9.20	6.67	2.23	0.00	0.00	213.33	26.02
2003	110.00	17.85	126.00	10.92	52.00	6.11	8.00	2.53	0.67	0.67	296.00	27.34
2002	138.00	33.57	140.00	31.28	31.00	6.61	5.00	1.00	0.00	0.00	314.00	66.98
2001	196.00	24.98	30.67	15.38	9.33	5.33	4.00	2.31	0.00	0.00	240.00	33.55
2000	103.69	17.19	34.94	6.58	4.56	0.56	8.00	3.27	0.00	0.00	151.19	10.98
1999	115.20	34.86	11.20	4.08	8.80	2.33	20.00	5.22	0.00	0.00	155.20	33.12

nedpsdlr.d05,04,03,02,01,00,99.

Table 55. Age frequency and CPUE (no./hour) of largemouth bass collected in 1.5 hours of nocturnal electrofishing at Lake Reba in May 2005.

	Inch class																				Std
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	Total	%	CPUE	error
1	17	22	20	3														62	24	41.20	9.91
2				11	5	15	8											40	16	26.34	2.53
3					2	8	9	8	17		2							45	18	30.26	3.89
4								5	13	10	2							31	12	20.53	3.27
5									3	15	19	10						48	19	31.67	3.28
6										5		4	2	4				14	6	9.40	1.88
7													6	4	1			11	4	7.40	1.69
8															2	1		3	1	1.87	0.89
10																	1	1	0	0.67	0.67
Total	17	22	20	14	7	23	17	13	33	30	24	14	8	7	3	1	1	254	100		
%	7	9	8	6	3	9	7	5	13	12	9	6	3	3	1	0	0	100			

BBRSCREB.D01
nedpsdlr.d05

Table 56. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Lake Reba from 2000 through 2005.

	Year					
Age	2000	2001	2002	2003	2004	2005
1	98.47	186.93	105.80	52.13	23.20	41.20
2	11.31	15.92	86.68	88.24	42.77	26.34
3	16.48	17.28	74.62	71.36	63.63	30.26
4	10.80	7.11	16.53	34.20	34.73	20.53
5	4.72	7.01	22.27	35.30	35.10	31.67
6	2.28	2.68	3.10	8.10	8.04	9.40
7	1.55	1.73	1.60	3.60	4.13	7.40
8	2.90	0.33	3.40	1.40	0.57	1.87
9	2.70	0.33		0.33	0.17	
10	0.50					0.67
11		0.67		0.67	0.33	

nedpsdlr.d00,01,02,03,04,05.
BBRSCREB.d00,01.

Table 57. Population assessment for largemouth bass based on spring sampling at Lake Reba from 2000 through 2005 (actual values in parenthesis).

Parameter	Year					
	2000	2001	2002	2003	2004	2005
Length at age 3	1 (8.8)	2 (10.1)	2 (10.1)	2 (10.1)	2 (10.1)	2 (10.1)
Spring CPUE of age 1 fish	4 (98.47)	4 (186.93)	4 (105.80)	3 (52.13)	2 (23.20)	2 (41.20)
Spring CPUE of 12-14.9-in fish	1 (4.58)	1 (9.33)	2 (31.00)	4 (52.00)	4 (51.33)	3 (45.33)
Spring CPUE of ≥ 15.0-in fish	2 (8.00)	2 (4.00)	2 (5.00)	2 (8.00)	2 (6.67)	3 (13.33)
Spring CPUE of ≥ 20.0-in fish	0	0	0	1 (0.67)	0	1 (0.67)
Total score:	8	9	10	12	10	11
Assessment rating:	F	F	F	G	F	F

BBRSCREB.D00,01, nedpsdlr.d00,01,05

Table 58. Length frequency and CPUE (fish/hour) of bluegill and redear sunfish collected in 1.25 hours of electrofishing (10-7.5 minute runs) in Lake Reba (Madison Co.) on 24 May 2005.

Species	Inch class							Total	CPUE	Std. error
	1	2	3	4	5	6	7			
Bluegill	18	331	316	38	31	120	2	856	684.80	74.40
Redear sunfish		21	30	7	12	196	49	315	252.00	30.74

nedsunlr.d05

Table 59. Length frequency and CPUE of bluegill and redear sunfish collected in spring electrofishing samples collected at Lake Reba from 2003 through 2005. CPUE = fish/hour.

	Inch class							
	<3.0		3.0-5.9		6.0-7.9		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
Bluegill								
2003	178.40	27.87	356.00	49.65	49.60	20.06	584.00	75.25
2004	191.54	37.87	180.00	25.93	22.31	6.73	393.85	56.00
2005	279.20	37.00	308.00	42.74	97.60	19.41	684.80	74.40
Redear sunfish								
2003	13.60	5.73	119.20	19.83	178.40	68.83	311.20	82.91
2004	16.92	4.41	56.92	17.62	64.62	13.18	138.85	29.21
2005	16.80	5.90	39.20	5.52	196.00	33.38	252.00	30.74

nedsunlr.d05,04,03.

Table 60. Electrofishing catch rate (fish/hour) for each age bluegill collected from Lake Reba from 2003 through 2005.

	Year		
Age	2003	2004	2005
1	178.40	191.54	279.20
2	297.42	156.41	290.84
3	93.30	39.21	84.36
4	4.96	2.23	9.60
7	4.96	2.23	9.60
8	4.96	2.23	9.60

nedsunlr.d03,04,05.
nedaaglr.d03.

Table 61. Electrofishing catch rate (fish/hour) for each age redear sunfish collected from Lake Reba from 2003 through 2005.

	Year		
Age	2003	2004	2005
1	24.00	26.15	40.80
2	108.80	47.69	15.20
3	156.07	56.15	153.53
4	4.20	1.73	14.70
5	15.33	5.58	17.97
6	2.80	1.15	9.80

nedsunlr.d03,04,05.
nedaaglr.d03.

Table 62. Length-frequency and CPUE (fish/hour) of largemouth bass collected in 1.5 hours of nocturnal electrofishing (15 minute runs) for largemouth bass at Lake Reba (Madison Co.) on 10 October 2005.

	Inch class																			Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	error
Largemouth bass	1	18	73	87	43	12	29	48	31	26	15	7	5	3	3	1	2	404	404.00	49.61

nedwrslr.d05

Table 63. Fishery statistics derived form a daytime creel survey at Lake Reba during 20 April through 30 October 2005.

	2005
Fishing trips	
No. of fishing trips (per acre)	7,772 (99.64)
Fishing pressure	
Total man-hours (S.E.)	19,302 (746)
Man-hours/acre	248
Catch / harvest	
No. of fish caught (S.E.)	36,240 (3,735)
No. of fish harvested (S.E.)	9,249 (1,410)
Lbs. of fish harvested	1,984
Harvest rate	
Fish/hour	0.43
Catch rates	
Fish/hour	1.85
Fish/acre	464.6
Misc. characteristics (%)	
Male	76.5
Female	23.5
Resident	98.0
Non-residence	2.0
Method (%)	
Still fishing	77.0
Casting	17.9
Fly fishing	2.5
Trolling	2.6
Mode	
Boat	14.9
Bank	85.1

(S.E.) = standard error

Table 64. Fish harvest statistics derived from a creel survey at Lake Reba from 20 April through 30 October 2005.

	Largemouth bass	Bluegill	Redear sunfish	Channel catfish	White crappie	Black crappie	Warmouth	Bullhead	Black bass group	Catfish group	Panfish group	Crappie group	Illegal group	Anything
No. caught (per acre)	3,776 (48.42)	27,644 (354.41)	2,997 (38.42)	624 (8.01)	625 (8.01)	130 (1.67)	404 (5.18)	29 (0.37)	3,776 (48.42)	653 (8.38)	31,045 (398.02)	755 (9.68)	10 (0.12)	
No. harvested (per acre)	60 (0.78)	6,722 (86.18)	1,636 (20.98)	395 (5.06)	319 (4.09)	31 (0.40)	46 (0.59)	29 (0.37)	60 (0.78)	424 (5.43)	8,404 (107.75)	351 (4.50)	10 (0.12)	
% of total no. harvested	0.65	72.68	17.69	4.27	3.45	0.34	0.5	0.31	0.65	4.58	90.87	3.79	0.11	
Lbs. Harvested (per acre)	144.1 (1.85)	815.4 (10.45)	327.4 (4.20)	557.7 (7.15)	84.8 (1.09)	14.1 (0.18)	6.1 (0.08)	27.2 (0.36)	144.1 (1.85)	585.4 (7.51)	1,148.9 (14.73)	98.9 (1.27)	6.3 (0.08)	
% of total Lbs. harvested	7.3	41.1	16.5	28.1	4.3	0.7	0.3	1.4	7.3	29.5	57.9	5.0	0.3	
Mean length (in)	16.6	5.9	6.6	15.2	9.0	9.5	5.8	13.5					11.0	
Mean weight (lb)	2.4	0.1	0.2	1.2	0.3	0.5	0.1	0.9					0.7	
No. fishing trips for that species									2,030	860	2,854	55		1,973
% of all trips									26.1	11.1	36.7	0.7		25.4
Hours fished for that species (per acre)									5,042 (64.65)	2,137 (27.39)	7,088 (90.87)	136 (1.75)		4,899 (62.81)
No. harvested fishing for that species									50	204	6,657	120		
Lbs. harvested fishing for that species									127	400	865	49		
No. per hour fishing for that species									0.01	0.08	0.91	0.95		
% success fishing for that species									1.54	12.26	28.49	57.14		16.48

Table 65. Length distribution (length of released fish are estimates) for each species of fish harvested at Lake Reba from 20 April through 30 October 2005.

Species		Inch class																					
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	23	24
Largemouth bass	H														17	26		9		8			
	R							596	373	339	745	960	199	273	43	137	17		26	7			
Bluegill	H		113	545	2,934	2,460	1,023	56	131														
	R		1,904	7,626	6,982	3,976	334	100															
Redear sunfish	H				232	455	852	29	68														
	R		97	386	346	411	97	8	15														
Channel catfish	H								19	9	9	75	28	9	47	9	38	38	38		19	9	47
	R						16	8	74	49	16	16		16			34						
White Crappie	H			29			10	48	106	106	10	10											
	R		10	49		79	30	59	20	30	20	8											
Black crappie	H								24		7												
	R			9		45		27		17													
Warmouth	H				9	36																	
	R	8	32	40	40	56	127	55															
Bullhead	H											14			14								
	R																						

Table 66. Black bass catch and harvest statistics derived from a creel survey at Lake Reba for black bass caught and released by all anglers from 20 April to 30 October 2005.

		Largemouth bass Catch and Release		
	Harvest	12.0-14.9 in.	≥ 15.0 in.	Total
Total no. of bass	60.5	1432.2	230.7	3,776.40
% of black bass harvested by no.	100			
Total weight of fish (lbs)	144.1	918.9	522.7	2,903.70
% of black bass harvest by weight	100			
Mean length	16.6			
Mean weight	2.39			
Rate (fish/h)	0.003			

Table 67. Monthly black bass angling success at Lake Reba during the 2005 creel survey period.

Month	Total no. of black bass caught by all anglers	Total no. of 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/hour by black bass anglers	Black bass harvested by black bass anglers	Black bass harvested/hour by black bass anglers
Apr*	192.3		161.25	400.47	154	0.46		
May	1526.4	31.47	533.41	1324.75	1164	0.81	31	0.02
Jun	995.6	29.00	570.51	1416.88	938	0.72	19	0.02
Jul	310.7		236.92	588.40	284	0.62		
Aug	224.4		213.77	530.91	189	0.41		
Sep	286.3		212.78	528.45	229	0.46		
Oct	240.7		101.66	252.48	214	0.74		
Total	3776.4	60.47	2030.31	5042.33	3172		50	
Mean						0.66		0.01

*Creel did not start until 20 April.

Table 68. Length frequency and CPUE (fish/hour) of black bass collected in 0.37 hours of nocturnal electrofishing (3-7.5 minute runs) for black bass at Rebel Trace Lake (Menifee Co.) on 05 May 2005.

	Inch class															Std.
Species	3	4	5	6	7	8	9	10	11	12	13	14	18	Total	CPUE	error
Largemouth bass	1	3	8	6	5	8	8	8	10	5	3	1	1	67	178.67	62.71

nedpsdrt.d05

Table 69. Length frequency and CPUE (fish/hour) of largemouth bass collected in 0.375 hours of nocturnal electrofishing (3-7.5 minute runs) for largemouth bass at Rebel Trace (Menifee Co.) on 22 September 2005.

	Inch class															Std.
Species	2	3	4	5	6	7	8	9	11	12	13	14	16	18	Total	CPUE	error
Largemouth bass	4	8	2	3	2	3	14	8	6	2	3	2	1	1	59	157.33	35.28

nedwrsrt.d05

Table 70. Length frequency and CPUE (fish/hour) of black bass collected in 1.25 hour of nocturnal electrofishing (5-15 minute runs) for black bass at Smoky Valley Lake on 12 May 2005.

	Inch class															
Species	3	4	5	6	7	8	9	10	11	12	13	14	16	Total	CPUE	Std. error
Largemouth bass	4	9	14	7	34	27	27	84	100	62	13	4	1	386	308.80	30.76

nedpsdsv.d05

Table 71. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Smoky Valley Lake in May. CPUE = fish/hour.

	Inch class									
	<8.0		8.0-11.9		12.0-14.9		≥15.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2005	54.40	10.17	190.40	22.65	63.20	9.07	0.80	0.80	308.80	30.76
2001	117.33	11.62	180.00	14.05	46.67	12.72	2.67	2.67	346.67	11.62
2000	68.00	12.96	218.00	22.06	69.00	13.70	1.00	1.00	356.00	46.79

nedpsdsv.d05,01,00.

Table 72. Age frequency and CPUE (no./hour) of largemouth bass collected in 1.0 hours of nocturnal electrofishing at Smoky Valley Lake in May 2005.

	Inch class																
Age	3	4	5	6	7	8	9	10	11	12	13	14	16	Total	%	CPUE	Std error
1	4	8	12	1										24	6	19.09	4.87
2		2	2	6	34	24	24							93	24	74.19	10.95
3						3	3	84	91	25				205	53	164.09	18.04
4									9	25	8			42	11	33.35	5.18
5										6	5			11	3	9.12	1.82
6										6		4		10	3	8.16	1.25
7													1	1	0	0.8	0.8
Total	4	9	14	7	34	27	27	84	100	62	13	4	1	386	100		
%	1	2	4	2	9	7	7	22	26	16	3	1	0	100			

nedaagsv.d01
nedpsdsv.d05

Table 73. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Smoky Valley Lake in 2001 and 2005.

Age	Year	
	2001	2005
1	23.07	19.09
2	149.47	74.19
3	131.73	164.09
4	26.40	33.35
5	8.93	9.12
6	4.40	8.16
7	1.33	0.80
8	1.33	

nedpsdsv.d01,05.
nedaagsv.d01.

Table 74. Population assessment for largemouth bass based on spring sampling at Smoky Valley Lake in 2005.

Parameter	2001		2005	
	Actual value	Assessment score	Actual value	Assessment score
Length at age 3	11.0	3	11.0	3
Spring CPUE Age 1 fish	23.1	2	19.1	2
Spring CPUE 12-14.9-in. fish	46.7	3	63.2	4
Spring CPUE ≥ 15-in. fish	2.7	1	0.8	1
Spring CPUE ≥ 20-in. fish	0	0	0	0
Instantaneous mortality (z)				0.3533
Annual mortality (A)				29.8
Total score:		9		10
Assessment rating:		F		F

nedaagsv.d01,nedpsdsv.d01,05

Table 75. Length frequency and CPUE (fish/hour) of bluegill collected in 1.0 hour of electrofishing (8-7.5 min runs) for bluegill at Smoky Valley Lake (Carter Co.) on 06 June 2005*.

	Inch class										
Species	1	2	3	4	5	6	7	8	Total	CPUE	Std. error
Bluegill	46	118	83	55	31	20	18	4	375	375.00	59.96

***Note:** In previous years bluegill less than 3-inches were not collected.
nedsunsv.d05

Table 76. Length frequency and CPUE of bluegill collected in spring electrofishing samples collected at Smoky Valley Lake from 2003 through 2005. CPUE = fish/hour.

	Inch class									
	<3.0*		3.0-5.9		6.0-7.9		>8.0		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2005	164.00	41.49	169.00	30.33	38.00	9.17	4.00	3.02	375.00	59.96
									(329 w/o 1 in)	
2004	24.79	6.76	139.32	22.00	25.64	4.62	0.85	0.85	190.60	27.31
2003	200.00	61.11	102.00	30.30	107.00	32.39	4.00	2.14	413.00	99.80
									(213 w/o 1 in)	

nedsunsv.d05,04,03.
* Includes 1 inch long bluegill in 2003 and 2005, but not in 2004.

Table 77. Age frequency and CPUE (No./hour) of bluegill collected in 1.0 hour of diurnal electrofishing at Smoky Valley Lake in June 2005.

	Inch class											
Age	1	2	3	4	5	6	7	8	Total	%	CPUE	Std error
1	46	49	9						104	28	104.39	25.79
2		69	55	9					133	36	133.33	28.03
3			18	46	31	8			103	28	103.28	19.23
4						4	7		11	3	10.55	2.92
5						8	7		15	4	14.55	3.44
6							3	1	4	1	4.27	1.32
7							2		2	0	1.64	0.67
8								1	1	0	1	0.76
9								2	2	1	2	1.51
Total	46	118	83	55	31	20	18	4	375	100		
%	12	31	22	15	8	5	5	1	100			

nedaagsv.d03, nedsunsv.d05

Table 78. Electrofishing catch rate (fish/hour) for each age bluegill collected from Smoky Valley Lake 2003 through 2005.

	Year		
Age	2003	2004	2005
1	176.75	16.22	104.39
2	51.75	59.90	133.33
3	93.50	94.14	103.28
4	30.73	6.81	10.55
5	40.73	9.88	14.55
6	11.36	2.08	4.27
7	5.18	0.93	1.64
8	1.00		1.00
9	2.00	0.43	2.00

nedsunsv.d03,04,05.
nedaagsv.d03.

Table 79. Relative abundance and CPUE (fish/hour) of largemouth bass collected in 1.5 hours of 15-minute nocturnal electrofishing runs for black bass in Lake Wilgreen on 02 May 2005

Species	Inch class																Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19			
Largemouth bass	6	25	42	45	12	8	48	64	135	123	33	7	1	4	1	3	557	371.3	45.3

nedpsdlw.d05

Table 80. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Lake Wilgreen in May 2005. CPUE = fish/hour.

Year	Inch class									
	<8.0		8.0-11.9		12.0-14.9		>15.0		Total	
	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2005	86.67	17.88	170.00	12.76	108.67	22.99	6.00	2.68	371.33	45.30
2004	No data collected									
2003	89.20	11.12	376.80	41.02	48.00	6.34	12.80	2.52	526.80	50.18
2002	No data collected									
2001	No data collected									
2000	361.00	50.95	274.00	10.89	58.00	12.27	6.00	1.15	699.00	57.02
1999	156.00	8.00	234.00	34.00	54.00	14.00	4.00	0.00	448.00	40.00

nedpsdlw.d05,03,00,99.

Table 81. Age frequency and CPUE (no./hour) of largemouth bass collected in 1.5 hours of diurnal electrofishing at Lake Wilgreen in May 2005.

	Inch class																	Std
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	%	CPUE	error
1	25	42	45	9	1										122	22	81.15	16.58
2				3	7	34									44	8	29.25	2.95
3						14	32								46	8	30.93	4.17
4							32	116	77						225	41	149.73	16.60
5								19	31	33	5	1			89	16	59.13	11.16
6									15		2		4	1	23	4	15.14	3.04
Total	25	42	45	12	8	48	64	135	123	33	7	1	4	1	548	100		
%	5	8	8	2	1	9	12	25	22	6	1	0	1	0	100			

nedaaglw.d03
nedpsdlw.d05

Table 82. Length frequency and CPUE (fish/hour) of bluegill and redear sunfish collected in 1.25 hours of electrofishing (10-7.5 min runs) in Lake Wilgreen on 26 May 2005.

	Inch class											
Species	1	2	3	4	5	6	7	8	9	Total	CPUE	Std. error
Bluegill	10	254	466	206	49	20	31	1		1037	829.6	122.74
Redear sunfish			2	2	1	6	3	8	1	23	18.40	5.97

nedsunlw.d05

Table 83. Age frequency and CPUE (No./hour) of bluegill collected in 1.25 hours of diurnal electrofishing at Lake Wilgreen on 26 May 2005.

	Inch class									Std
Age	2	3	4	5	6	7	Total	%	CPUE	error
1	254	466	103				823	80	658.40	112.73
2			103	42	8	10	153	15	122.40	12.54
3				7	12	21	40	4	31.73	7.39
4						10	10	1	8.27	2.65
Total	254	466	206	49	20	31	1026	100		
%	25	45	20	5	2	3	100			

nedsunlw.d05,nedaaglw.d02

Figure 1. Angler attitude survey summary for Lake Reba in 2005.

LAKE REBA ATTITUDE SURVEY 2005

1. Have you been surveyed this year? Yes – stop surveyNo – continue

2. Name_____ and Phone number_____(Optional)

3. Which species of fish do you fish for at Lake Reba? **(check all that apply)**
Largemouth bass 59.4 % Bluegill 77.4 % Redear sunfish 32.3 % Channel catfish 44.9 % Crappie 6.3 % Anything 0.2 %

4. Which one species do you fish for most at Lake Reba? **(check only one)**
Largemouth bass 32.1 % Bluegill 47.3 % Redear sunfish 0.9 % Channel catfish 17.5 % Crappie 2.2 %

-Answer the following questions for each species you fish for – (see question 3)

Largemouth bass Anglers
5. What level of satisfaction do you have with bass fishing at Lake Reba?
Very satisfied 14.5 % Somewhat satisfied 30.9 % Neutral 32.7 % Somewhat dissatisfied 16.4 % Very dissatisfied 5.5 %

Bluegill Anglers
6. What level of satisfaction do you have with bluegill fishing at Lake Reba?
Very satisfied 41.4 % Somewhat satisfied 36.3 % Neutral 15.5 % Somewhat dissatisfied 4.2 % Very dissatisfied 2.5 %

Redear sunfish Anglers
7. What level of satisfaction do you have with redear sunfish fishing at Lake Reba?
Very satisfied 20.5 % Somewhat satisfied 35.6 % Neutral 33.6 % Somewhat dissatisfied 7.5 % Very dissatisfied 2.7 %

Catfish Anglers
8. What level of satisfaction do you have with channel catfish fishing at Lake Reba?
Very satisfied 20.7 % Somewhat satisfied 33.2 % Neutral 32.2 % Somewhat dissatisfied 9.6 % Very dissatisfied 4.3 %

FINDINGS

Lake Cumberland

Black Bass Sampling (Spring)

Nocturnal electrofishing studies were conducted at Wolf Creek dam, and in the Beaver Creek, Harmon Creek, Fishing Creek, and Lily Creek embayments of Lake Cumberland during April and May 2005 to assess the black bass populations. The length-frequency and CPUE of the three black bass species collected in each area is shown in Table 1. The catch-per-hour (by area and size class) of the three black bass species for 2001-2005 is shown in tables 2-5. Table 6 compares the catch-per-hour by size group of black bass in Lake Cumberland to other SEFD lakes sampled in 2005.

The catch rates of largemouth bass were less than management objectives for all size groups. The catch rate of 12.0-14.9-in largemouth bass (9.9 fish/hour) approached the management objective of ≥ 10.0 fish/hour. The catch rates of largemouth bass ≥ 15.0-in (5.5 fish/hour) and ≥ 20.0-in (0.0 fish/hour) were both below the management objectives of ≥ 8.0 and ≥ 0.5 fish/hour, respectively. The assessment rating for largemouth bass in 2005 was "fair" (Table 7). The largemouth bass population in Lake Cumberland has rated "fair" since 1999.

The catch rates of spotted bass were greater than management objectives for all size groups except for the ≥ 17.0-in group. The catch rates of 11.0-13.9-in (11.2 fish/hour) and ≥ 14.0-in (3.1 fish/hour) spotted bass exceeded the management objectives of ≥ 5.0 fish/hour and ≥ 1.5 fish/hour, respectively. The catch rate of spotted bass > 17.0-in (0.0 fish/hour) failed to meet the management objective of ≥ 0.10 fish/hour. The assessment rating for spotted bass in 2005 was "good" (Table 8). The spotted bass population in Lake Cumberland has maintained a "good" rating since 1995.

Mean length at capture of age-3 (2002 year class) smallmouth bass was 12.2, which was greater than the management objective of 11.0 inches. The catch rate of age-1 (2004 year class) smallmouth bass was 0.8 fish/hour, which was below the management objective of ≥ 2.0 fish/hour. The catch rates of smallmouth bass were greater than management objectives for all size groups except for the 11.0-13.9-in length group. The catch rate of 11.0-13.9-in. smallmouth bass (1.3 fish/hour) was below the management objective of ≥ 3.0 fish/hour. The catch rates of smallmouth bass ≥ 14.0-in. (3.9 fish/hour) and ≥ 17.0-in. (1.3 fish/hour) were both above the management objectives of ≥ 2.0 and ≥ 0.5 fish/hour, respectively.

The largemouth bass and smallmouth bass populations both exhibited excellent size structure, with a PSD value of 91 and an RSD_{15} value of 32 for largemouth bass and a PSD value of 80 and an RSD_{14} value of 59 for smallmouth bass (Table 9). Spotted bass also exhibited good size structure (PSD=50, RSD_{14}=11). Table 10 compares the size structure values of black bass populations in Lake Cumberland to other SEFD lakes sampled in 2005. The age-growth of smallmouth bass collected during 2005 is shown in Table 11. Smallmouth bass grew rapidly, reaching 13.1 inches by age 3. Smallmouth bass ages 2-4 smallmouth bass were the most abundant year classes collected during spring sampling, comprising about 77% of the catch (Table 12). The smallmouth bass assessment score was 17 (rating=excellent; Table 13).

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in the Fishing Creek embayment during September to index the largemouth bass year class strength (Tables 14 and 15). CPUE of age 0 largemouth bass were lower in Fishing Creek in 2005, compared to 2004 rates. Table 16 compares the CPUE of age 0 largemouth bass in Lake Cumberland to other SEFD lakes sampled in fall 2005. Relative weight (Wr) values for largemouth bass and spotted bass collected during September sampling are shown in Table 17.

Table 18 compares Wr values for black bass in Lake Cumberland to other SEFD lakes sampled in fall 2005.

White Bass Sampling

Daytime electrofishing was conducted in the Big South Fork and Cumberland River of Lake Cumberland during April 2005 to assess the white bass population. The length-frequency and CPUE of white bass collected in each area is shown in Table 19. Age-growth of white bass from Big South Fork and Cumberland River is shown in tables 20 and 21, respectively. Age 2 white bass were the most abundant year class collected during spring sampling, comprising 86% of the catch in the Big South Fork (Table 22) and 80% of the catch in the Cumberland River (Table 23).

Crappie Sampling

Fall trap netting was conducted in the Fishing Creek and Wolf Creek embayments of Lake Cumberland during October 2005 to assess the crappie population. Length frequency and CPUE for black and white crappie from each area is in Table 24. White crappie exhibited a better size structure than black crappie as shown by the PSD and RSD_{10} values in Table 25. Age-growth data from white and black crappie collected in 2005 are shown in tables 26 and 27, respectively. Young-of-year (29%) and age 2 (39%) white crappie dominated the white crappie catch (Table 28). Age 1 (45%) and age 2 (31%) black crappie dominated the black crappie catch (Table 29). The crappie population assessments (white, black, and white and black crappie combined) are shown in Table 30. The white crappie assessment rating was "fair," and the assessment ratings for black crappie and white and black crappie combined were both "poor." The only crappie management objective that was met was the CPUE of age 1 and older crappie (5.72 fish/net-night), which was above the 5.0 fish/net-night objective. Neither of the management objectives for the CPUE of age 0 (3.0 fish/net-night) or age 1 (3.0 fish/net-night) was met, as CPUE of age 0 crappie was 1.36 fish/net-night and CPUE of age 1 crappie was 2.95 fish/net-night. The management objective for the CPUE of 8-inch crappie (2.0 fish/net-night) was not met, as CPUE of 8-inch fish was 1.9 fish/net-night. Age 2+ (2003 year class) crappie averaged 8.8 inches at capture, which was below the growth objective of 9.5 inches. Low numbers of crappie were collected in the Wolf Creek area, which detracted from the overall population assessment. Using crappie data collected in the Fishing Creek area only, the crappie population assessments (white, black, and white and black crappie combined) rated "fair" for all three categories (Table 31). Relative weight (Wr) values for black and white crappie are shown in Table 32.

Striped Bass Sampling

Gill nets were used in November and December 2005 to evaluate the striped bass population in Lake Cumberland. Thirty net-nights captured 103 striped bass for a catch rate of 3.4-fish/net-night. Length-frequency and CPUE of striped bass are shown in Table 33. Striped bass ranged from 13 to 36 inches with the mode being the 18-in class (14 fish). The age-growth of striped bass collected during 2005 is shown in Table 34. Eight year-classes were represented in the catch (Table 35). The 2003 (age 2+) year class was the most abundant (40%) year class collected, followed by the 2004 (age 1+) year class (35%). Mean length at capture of age 2+ fish (2003 year class) was 23.3, which exceeded the growth objective (21.0 inches at age 2) for the striped bass fishery. The CPUE of age 1+ and older fish was 3.4 fish/net-night, which was below the management objective of 4.0 fish/net-night. The striped bass assessment score was 11 (rating=good; Table 36). Relative weight (Wr) values were adequate, but condition values decreased slightly as fish grew larger (Table 37).

Laurel River Lake

Black Bass Sampling (Spring)

Nocturnal electrofishing sampling was conducted during April and May 2005 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 38. The catch-per-hour (by area and size class) of the three black bass species for 2001-2005 is shown in tables 39-42. Table 6 compares the catch-per-hour by size group of black bass in Laurel River Lake to other SEFD lakes sampled in 2005. Largemouth bass exhibited good size structure, with a PSD value of 73 and an RSD_{15} value of 40 (Table 43). The largemouth bass population assessment on Laurel River Lake in 2005 was "good" (Table 44). This is an improvement over the last five years assessments. Smallmouth bass PSD (89) and RSD_{14} (70) values were higher than 2004 values. The smallmouth bass population assessment at Laurel River Lake in 2005 was also "good" (Table 45). The smallmouth bass population in Laurel River Lake has rated "good" or "excellent" since 1992. Spotted bass also exhibited a good size structure, with a PSD value of 69 and an RSD_{14} value of 22. The spotted bass population in Laurel River Lake in 2005 rated "good" as well (Table 46).

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in the Laurel River arm during September 2005 to index largemouth bass year class strength (Tables 47 and 48). CPUE of age 0 largemouth bass in 2005 was consistent with 2004 rates; however, CPUE of age 0 bass in Laurel River Lake were lower than other SEFD lakes sampled in 2005 (Table 16). Relative weight (Wr) values for largemouth bass collected during September sampling are shown in Table 49.

Crappie Sampling

Daytime electrofishing was conducted during April, November, and December 2005 in Laurel River Lake to assess the crappie population. Table 50 shows the length frequency and CPUE for white, black, and blacknose crappie. PSD and RSD_{10} values for all crappie species collected in the fall are shown in Table 51. Age-growth data for white, black, and blacknose crappie collected in 2005 are in Tables 52, 53, and 54, respectively. Age-frequency data for white, black, and blacknose crappie are in Tables 55, 56, and 57, respectively. Relative weight values (Wr) for crappie collected in the fall are shown in Table 58. Although previous trap netting efforts had been relatively unsuccessful for crappie in Laurel River Lake, trap netting was conducted in early November 2005 in an attempt to sample the crappie population. Only three white crappie (9.5, 9.8, and 11.6 inch) were collected in 12-net days.

Walleye Sampling

Gill nets were used in November 2005 to evaluate the walleye population in Laurel River Lake. Eight net-nights captured 228 walleye for a catch rate of 28.5 fish/net-night. Length frequency and CPUE of walleye is shown in Table 59. Walleye ranged from 10-25 inches with the mode being the 19-in class (44 fish). Age-growth data for male and female walleye are shown in Tables 60 and 61, respectively. The age-growth for both sexes combined is shown in Table 62. Eight year-classes were represented in the catch, with the 2004 year class (age 1; 28%) and 2003 year class (age 2; 23%) being the most abundant year classes (Table 63). The walleye assessment score was 16 (rating=excellent; Table 64). Relative weight (Wr) values for walleye are shown in Table 65.

Dale Hollow Lake

Black Bass Sampling (Spring)

Nocturnal electrofishing studies were conducted at Illwill Creek and Sulphur Creek embayments of Dale Hollow Lake during May 2005 to assess the black bass population. The length frequency and CPUE of the three species of black bass is shown in Table 66. Table 6 compares the catch-per-hour (by size class) of black bass in Dale Hollow Lake to other SEFD lakes sampled in 2005. The largemouth bass population exhibited excellent size structure, with a PSD value of 100 for largemouth bass and a RSD_{15} value of 50 (Table 67). Smallmouth bass also exhibited excellent size structure (PSD=56, RSD_{14}=37). Table 10 compares the RSD and PSD values of black bass collected in Dale Hollow Lake to other SEFD lakes sampled in 2005. Age-growth of largemouth bass and spotted bass is shown in Tables 68 and 69, respectively. Three year classes of largemouth bass were represented in the catch, with the 2002 year class (age 3; 33%) being the most abundant (Table 70). Six year classes of spotted bass were represented in the catch, with the 2003 year class (age 2; 53%) being the most abundant (Table 71). A population assessment for largemouth was not conducted due to low number of largemouth bass collected. The spotted bass assessment score was 13 (rating=good; Table 72).

Cedar Creek Lake (Lincoln Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 3 May 2005 to assess the largemouth bass population in Cedar Creek Lake. The length-frequency and CPUE of largemouth bass is shown in Table 73. Size structure of largemouth bass was good (PSD=86, RSD_{15}=54; Table 74). The catch-per-hour (by area and size class) of largemouth bass for 2003-2005 is shown in Tables 75. Catch-per-hour of the larger size groups has increased since 2003. Age-growth data for largemouth bass collected in 2005 is shown in Table 76. Five year classes were represented in the catch, and the 2003 year class (age 2) was the most abundant, comprising 57% of the catch (Table 77). The largemouth bass population assessment score was 11 (rating=fair; Table 78). The lack of 20.0-in bass and the low spring CPUE of age 1 bass prevented a higher rating.

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted on 15 September 2005 to index the largemouth bass year-class strength (Tables 79 and 80). CPUE of age 0 largemouth bass in 2005 was greater than the CPUE of age 0 bass in 2004. Relative weight (Wr) values are found in Table 81 for largemouth bass.

Bluegill/Redear Sunfish Sampling

Electrofishing was conducted on 24 and 26 May 2005 to assess the bluegill and redear sunfish populations in Cedar Creek Lake. The length-frequency and CPUE of bluegill and redear sunfish is shown in Table 82. PSD and RSD values are shown in Table 83. Catch-per-hour (by size group and area) for bluegill and redear sunfish are shown in Table 84. Age-growth of bluegill and redear sunfish are in Tables 85 and 86, respectively. Three year classes were represented in the catch for both bluegill and redear sunfish (Tables 87 and 88, respectively). The bluegill population assessment score was 10 (rating=fair; Table 89). The redear sunfish population assessment score was 13 (rating=good; Table 90). Relative weight (Wr) values are found on Table 91 for bluegill and redear sunfish collected on 15 September.

2005 Daytime Creel Survey

A roving daytime creel survey was conducted on Cedar Creek Lake (784 acres) from 5 April - 29 October 2005. The survey was run 16 days per month.

Results are shown in Tables 92 through 98. Anglers made an estimated 10,110 fishing trips and expended 39,735 hours (50.7 man-hours/acre) during the survey period for the whole lake. Black bass fishermen (42.8%) and panfish fishermen (37.6%) accounted for over three-quarters of the fishing trips to the lake followed by crappie (3.8%), and catfish (2.2%) anglers.

Angler Attitude Survey

An angler attitude survey was conducted during the creel survey to gather opinions on the various fisheries (Figure 1). A total of 378 anglers were interviewed. Nearly all black bass anglers (98%) were satisfied with the bass fishery at Cedar Creek Lake and were supportive of current black bass regulations. One-third (34%) of the bass anglers felt that illegal harvest of black bass was a problem at Cedar Creek Lake.

Nearly all bluegill/redear sunfish anglers (98%) were satisfied with the bluegill/redear sunfish fishery at Cedar Creek Lake and were supportive of current bluegill/redear sunfish regulations.

Less than one-third (22%) of the crappie anglers were satisfied with the crappie fishery at Cedar Creek Lake. An overwhelming majority supported both the 9-inch size limit (100%) and the 15 fish creel limit (99%). A small number of crappie anglers (39%) would be in favor of raising the size limit on crappie to 10 inches.

The majority of catfish anglers (98%) were satisfied with the catfish fishery at Cedar Creek Lake and were supportive of the both the 12-inch size limit (100%) and the 4 fish creel limit (100%).

Lake Linville (Rockcastle Co.)

Black Bass Sampling

Nocturnal electrofishing was conducted in September 2005 to index the largemouth bass year-class strength (Tables 99 and 100). Table 16 compares the CPUE of age 0 largemouth bass in Lake Linville to other SEFD lakes sampled in 2005. Relative weight values for largemouth bass are in Table 101.

2005 Daytime Creel Survey

A daytime access point creel survey was conducted on Lake Linville (358 acres) from 4 April - 31 October 2005. The survey was run 16 days per month.

Results are shown in Tables 102 through 108. Anglers made an estimated 14,714 fishing trips and expended 51,346 hours (143.4 man-hours/acre) during the survey period for the whole lake. Panfish fishermen accounted for almost half (49.8%) of the fishing trips to the lake, followed by black bass (23.3%), catfish (16.0%), and crappie (7.7%) anglers.

Angler Attitude Survey

An angler attitude survey was conducted during the creel survey to gather opinions on the various fisheries (Figure 2). A total of 540 anglers were interviewed. Nearly half of all black bass anglers (43%) were satisfied with the bass fishery at Lake Linville. While three-quarters of the bass anglers were supportive of the current 12-inch size limit on largemouth bass (75%), a small number of bass anglers (41%) would be in favor of raising the size limit on largemouth bass to 15 inches. Only one-third of bass anglers supported the "no size" limit on spotted bass (34%).

Over half (51%) of the crappie anglers were satisfied with the crappie fishery at Lake Linville. Only one-third of crappie anglers supported the no size limit on crappie (34%), but over three-quarters of the crappie anglers supported the 30 fish creel limit (84%).

Over half of catfish anglers (58%) were satisfied with the catfish fishery at Lake Linville. Less than half of the catfish anglers supported the no size and no creel limits on channel catfish at the lake.

An overwhelming majority of bluegill anglers (85%) were satisfied with the bluegill fishery at Lake Linville.

Crappie Age-Growth

Crappie were collected during 2005 in conjunction with the daytime creel survey. Age-growth of white and black crappie are shown in tables 109 and 110.

Wood Creek Lake (Laurel Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted in May 2005 in the Dam, Pump Station, and Dock areas of Wood Creek Lake to assess the black bass population. Length frequency and CPUE for largemouth bass and spotted bass are shown in Table 111. Several walleye were also collected during the bass electrofishing and are also shown in Table 111. The size structure for black bass was good, with largemouth bass having a PSD value of 74 (RSD_{15}=23) and spotted bass having a PSD value of 57 (RSD_{14}=13; Table 112). Catch-per-hour (by size group) for black bass is shown in Table 113. Age-growth for largemouth bass collected during 2005 is shown in Table 114. Seven year-classes were represented in the catch, with ages 2-4 comprising 72% of the catch (Table 115). The largemouth bass population assessment score was 12 (rating=good; Table 116).

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in September 2005 in the Dam, Pump Station, and Dock areas of Wood Creek Lake to index largemouth bass year class strength (Tables 117 and 118). Yellow perch and walleye were also collected during fall electrofishing (Table 117). Table 16 compares the CPUE of age 0 largemouth bass in Wood Creek Lake to other SEFD lakes sampled in 2005. Relative weight values for largemouth bass are in Table 119.

Walleye Sampling

Gill nets were used in November to evaluate the native-strain walleye population in Wood Creek Lake. Nineteen net-nights captured 7 walleye for a CPUE of 0.37 fish/net-night. Length frequency and CPUE of walleye collected in gill nets is in Table 120. Walleye were also collected during fall bass electrofishing (Table 117). Age-growth of walleye collected in 2005 is in Table 121. Three year classes were represented in the fall gill net sample, with age 3 walleye (2002 year class) comprising 57% of the catch (Table 122). Relative weight (Wr) values for walleye collected during fall electrofishing and gill netting were low; however, Wr values increased as the fish grew larger (Table 123).

Table 1. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 7.5 hours of 15-minute nocturnal electrofishing runs for black bass in Lake Cumberland during April and May 2005; 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				3	2.00 (0.89)
	Spotted bass			6	13	17	4	9	4	10	11	7	9	6	2	3					111	74.00 (19.51)
	Smallmouth bass		1		2	3	4	1	3	2	4	2		2	2				1		27	18.00 (6.26)
Beaver	Largemouth bass				1		1								2	1					5	3.33 (1.91)
Creek	Spotted bass			1	2		6	7	4	6	5	3	1								35	23.33 (6.65)
	Smallmouth bass																				0	0.00 (0.00)
Harmon	Largemouth bass							1								1					2	1.33 (0.84)
Creek	Spotted bass		4	8	14	11	12	6	6	5	5	5	1		1						78	52.00 (8.13)
	Smallmouth bass		5		1							1	3	2	6	6	3	4	1	1	33	22.00 (4.82)
Fishing	Largemouth bass					2	2	2		3	6	12	31	25	8	4	5	3			103	68.67 (10.19)
Creek	Spotted bass					1	3	3	4	2	1	2	5								21	14.00 (5.54)
	Smallmouth bass																				0	0.00 (0.00)
Lily	Largemouth bass											1	1	4	8	4	2				20	13.33 (3.37)
Creek	Spotted bass			3	3	1	3	1	1	3	8	11	10	9	1	1					55	36.67 (13.20)
	Smallmouth bass					1									1						2	1.33 (0.84)
Total	Largemouth bass				1	2	3	3		3	6	13	32	29	20	10	8	3			133	17.73 (5.21)
	Spotted bass		4	18	32	30	38	26	19	26	30	28	26	15	4	4					300	40.00 (6.29)
	Smallmouth bass		6		3	4	4	1	3	2	4	3	3	4	9	6	3	4	2	1	62	8.27 (2.32)

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Table 2. Comparison of catch-per-hour of black bass (by area) captured during spring electrofishing on Lake Cumberland during the period of 2001-2005.

Species/Area	Stock					Quality					Preferred				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Largemouth bass															
Dam	8.0	6.7	1.3	4.7	2.0	5.3	6.7	1.3	3.3	2.0	4.0	4.0	1.3	2.0	2.0
Beaver Creek	36.0	14.0	24.7	23.3	2.0	23.3	12.0	11.3	18.7	2.0	10.7	6.7	7.3	10.0	2.0
Harmon Creek	4.7	1.3	1.0	0.7	1.3	4.0	0.7	1.0	0.7	0.7	4.0	0.7	1.0	0.0	0.7
Fishing Creek	31.3	45.3	48.7	46.0	66.0	18.0	40.0	42.7	30.0	58.7	2.7	10.0	23.3	14.0	13.3
Lily Creek	19.3	12.0	18.7	18.7	13.3	14.0	10.7	11.3	14.7	13.3	4.7	10.7	6.0	6.7	9.3
Mean	19.9	15.9	20.1	18.7	16.9	12.9	14.0	14.4	13.5	15.3	5.2	6.4	8.3	6.5	5.5
Spotted bass															
Dam	25.3	28.7	48.7	36.7	50.0	10.7	12.7	16.7	12.7	25.3	2.0	3.3	3.3	4.0	7.3
Beaver Creek	8.7	14.0	63.3	26.7	21.3	1.3	2.7	5.3	6.7	6.0	0.0	0.0	0.7	0.0	0.0
Harmon Creek	20.0	20.7	45.0	25.3	27.3	2.7	3.3	8.0	4.0	8.0	0.0	0.0	0.0	0.0	0.7
Fishing Creek	10.0	2.7	16.7	18.7	13.3	1.3	1.3	4.0	6.0	5.3	0.0	0.0	0.7	0.0	0.0
Lily Creek	50.0	27.3	88.0	109.3	32.0	15.3	13.3	24.7	32.7	26.7	6.0	4.0	8.7	5.3	7.3
Mean	22.8	18.7	52.9	43.3	28.8	6.3	6.7	12.0	12.4	14.3	1.6	1.5	2.9	1.9	3.1
Smallmouth bass															
Dam	4.7	21.3	22.7	16.7	14.0	2.7	8.7	11.3	3.3	7.3	1.3	0.7	8.0	0.7	3.3
Beaver Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Harmon Creek	7.3	18.7	29.0	11.3	18.0	4.0	8.0	16.0	9.3	18.0	3.3	4.0	11.0	6.0	15.3
Fishing Creek	0.7	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lily Creek	2.7	0.0	2.7	0.0	0.7	0.0	0.0	1.3	0.0	0.7	0.0	0.0	0.7	0.0	0.7
Mean	3.1	8.0	9.7	5.6	6.5	1.3	3.3	5.0	2.5	5.2	0.9	0.9	3.4	1.3	3.9

Largemouth bass - ≥ 8 in = stock, ≥12 in = quality, ≥15 in = preferred.

Smallmouth bass and spotted bass - ≥7 in = stock, ≥11 in = quality, ≥14 in = preferred.

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Table 3. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of largemouth bass collected at Lake Cumberland during May 2005.

	Inch class									
	< 8.0		8.0-11.9		12.0-14.9		≥ 15.0		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2005	0.8	0.5	1.6	0.7	9.9	3.6	5.5	1.3	17.7	5.2
2004	0.8	0.3	5.2	1.5	6.9	1.4	6.5	1.6	19.5	4.0
2003	2.0	0.8	5.7	1.4	6.1	1.9	8.3	1.9	22.1	4.3
2002	0.4	0.2	1.9	0.6	7.7	2.5	6.3	1.0	16.3	3.3
2001	1.2	0.8	6.9	1.4	7.7	1.9	5.2	1.1	21.1	3.7

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Table 4. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of spotted bass collected at Lake Cumberland during May 2005.

	Inch class									
	< 8.0		8.0-10.9		11.0-13.9		≥ 14.0		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2005	16.3	3.6	9.5	1.4	11.2	2.0	3.1	1.2	40.0	6.3
2004	15.6	2.7	25.5	3.9	10.5	2.1	1.9	0.7	53.5	7.8
2003	32.6	5.5	31.6	3.8	9.1	1.5	2.9	0.8	76.1	8.6
2002	8.1	1.8	10.3	1.7	5.2	1.1	1.5	0.5	25.1	3.7
2001	12.0	2.3	10.5	1.6	4.7	0.9	1.6	0.7	28.8	4.4

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Table 5. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of smallmouth bass collected at Lake Cumberland during May 2005.

	Inch class									
	< 8.0		8.0-10.9		11.0-13.9		≥ 14.0		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2005	2.3	0.9	0.8	0.6	1.3	0.5	3.9	1.5	8.3	2.3
2004	2.9	1.8	1.9	0.9	1.2	0.5	1.3	0.7	7.3	3.1
2003	2.1	1.0	3.9	1.1	1.6	0.6	3.4	1.1	11.0	2.7
2002	2.9	1.1	3.5	1.3	2.4	0.8	0.9	0.5	9.7	2.9
2001	1.2	0.4	1.1	0.3	0.4	0.2	0.9	0.4	3.6	0.9

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Table 6. Catch-per-hour of black bass captured during spring electrofishing on lakes in the Southeastern Fishery District during 2005.

Species/Lake	Stock*	Quality*	Preferred*
Largemouth bass			
Lake Cumberland	16.9	15.3	5.5
Laurel River Lake	56.0	41.0	22.5
Dale Hollow Lake	2.0	2.0	1.0
Wood Creek Lake	55.2	40.8	12.8
Cedar Creek Lake	92.3	79.4	49.4
Spotted bass			
Lake Cumberland	28.8	14.3	3.1
Laurel River Lake	16.3	11.3	3.7
Dale Hollow Lake	22.0	9.3	3.3
Wood Creek Lake	34.4	19.6	4.4
Smallmouth bass			
Lake Cumberland	6.5	5.2	3.9
Laurel River Lake	7.8	7.0	5.5
Dale Hollow Lake	9.0	5.0	3.3

*Largemouth bass - ≥8" = stock, ≥12" = quality, ≥15" = preferred
*Smallmouth and spotted bass - ≥7" = stock, ≥11" = quality, ≥14" = preferred

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bbrpsccl.d05
sedpsdwc.d05

Table 7. Population assessment for largemouth bass based on spring electrofishing at Lake Cumberland
from 1990-2005.

Year		Mean age-3 length at capture	Spring CPUE Age 1	Spring CPUE 12-14.9	Spring CPUE > 15 in	Spring CPUE > 20 in	Total Score	Assessement rating
1990	Value	13.5	19.6	10.1	4.2	0.00		
	Score	4	1	1	2	0	8	F
1991	Value	13.5	5.7	11.8	3.9	0.13		
	Score	4	1	1	1	1	8	F
1992	Value	13.5	3.7	27.1	4.4	0.17		
	Score	4	1	3	2	1	11	F
1993	Value	13.5	1.8	20.5	4.4	0.10		
	Score	4	1	2	2	1	10	F
1995	Value	13.5	1.5	21.7	13.9	0.38		
	Score	4	1	2	3	2	12	G
1996	Value	13.5	1.7	9.6	9.6	0.46		
	Score	4	1	1	2	2	10	F
1997	Value	13.5	2.6	29.5	18.6	0.44		
	Score	4	1	3	3	2	13	G
1999	Value	13.5	9.5	13.3	11.7	0.38		
	Score	4	1	1	2	2	10	F
2000	Value	13.5	2.8	9.5	5.2	0.27		
	Score	4	1	1	2	2	10	F
2001	Value	13.5	2.9	7.7	5.2	0.27		
	Score	4	1	1	2	2	10	F
2002	Value	13.6	0.4	7.6	6.4	0.13		
	Score	4	1	1	2	1	9	F
2003	Value	13.6	3.0	6.1	8.3	0.14		
	Score	4	1	1	2	1	9	F
2004	Value	13.6	1.1	7.0	6.5	1.00		
	Score	4	1	1	2	2	10	F
2005	Value	13.6	1.2	9.9	5.5	0.00		
	Score	4	1	1	2	0	8	F

Table 8. Population assessment for spotted bass based on spring electrofishing at Lake Cumberland
from 1990-
2005.

Year		Mean age-3 length at capture	Spring CPUE Age 1	Spring CPUE 11-13.9	Spring CPUE ≥ 14 in	Spring CPUE > 17 in	Total Score	Assessement rating
1990	Value	11.4	3.5	1.2	0.0	0.00		
	Score	4	2	2	0	0	8	F
1991	Value	11.4	1.3	1.3	0.0	0.00		
	Score	4	2	2	0	0	8	F
1992	Value	11.4	0.7	2.7	0.4	0.00		
	Score	4	1	3	3	0	11	F
1993	Value	11.4	0.7	2.7	0.0	0.00		
	Score	4	1	3	0	0	8	F
1995	Value	11.4	1.3	2.3	0.6	0.00		
	Score	4	2	3	3	0	12	G
1996	Value	11.4	1.0	6.6	1.3	0.00		
	Score	4	2	3	3	0	12	G
1997	Value	11.4	6.0	6.7	1.9	0.00		
	Score	4	2	3	3	0	12	G
1999	Value	11.4	3.0	11.2	3.0	0.13		
	Score	4	2	4	4	2	16	G
2000	Value	11.4	1.9	5.6	1.2	0.00		
	Score	4	2	3	3	0	12	G
2001	Value	11.4	2.1	4.7	1.6	0.00		
	Score	4	2	3	3	0	12	G
2002	Value	11.4	5.1	5.2	1.5	0.00		
	Score	4	2	3	3	0	12	G
2003	Value	11.4	16.7	9.1	2.9	0.00		
	Score	4	3	4	4	0	15	G
2004	Value	11.4	6.0	10.5	1.9	0.00		
	Score	4	2	4	3	0	13	G
2005	Value	11.4	5.1	11.2	3.1	0.00		
	Score	4	2	4	4	0	14	G

Table 9. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Lake Cumberland during May 2005; 95% confidence limits are in parentheses.

Area	Species	No. fish > stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Dam	Largemouth bass	3	100 (± 0)	100 (± 0)
	Spotted bass	75	51 (± 11)	15 (± 8)
	Smallmouth bass	21	52 (± 22)	24 (± 19)
Beaver Creek	Largemouth bass	3	100 (± 0)	100 (± 0)
	Spotted bass	32	28 (± 16)	0
	Smallmouth bass	0		
Harmon Creek	Largemouth bass	2	50 (± 98)	50 (± 98)
	Spotted bass	41	29 (± 14)	2 (± 5)
	Smallmouth bass	27	100 (± 0)	85 (± 14)
Fishing Creek	Largemouth bass	99	89 (± 6)	20 (± 8)
	Spotted bass	20	40 (± 22)	0
	Smallmouth bass	0		
Lily Creek	Largemouth bass	20	100 (± 0)	70 (± 21)
	Spotted bass	48	83 (± 11)	23 (± 12)
	Smallmouth bass	1	100	100
Total	Largemouth bass	127	91 (± 5)	32 (± 8)
	Spotted bass	216	50 (± 7)	11 (± 4)
	Smallmouth bass	49	80 (± 11)	59 (± 14)

[a]Largemouth bass = RSD-15, spotted and smallmouth bass = RSD-14

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Table 10. PSD and RSD values obtained for each black bass, bluegill and redear sunfish species taken in spring electrofishing samples at Lake Cumberland, Laurel River Lake, Dale Hollow Lake, Cedar Creek Lake, and Wood Creek Lake during 2005; 95% confidence limits are in parentheses.

	Largemouth bass		Smallmouth bass		Spotted bass		Bluegill		Redear sunfish	
Lake	PSD	RSD_{15}	PSD	RSD_{14}	PSD	RSD_{14}	PSD	RSD_{8}	PSD	RSD_{9}
Lake Cumberland	91 (5)	32 (8)	80 (11)	59 (14)	50 (7)	11 (4)				
Laurel River Lake	73 (5)	40 (5)	89 (9)	70 (13)	69 (9)	22 (8)				
Dale Hollow Lake	100 (0)	50 (44)	56 (19)	37 (19)	42 (12)	15 (9)				
Cedar Creek Lake	86 (4)	54 (5)					16 (5)	0 (0)	53 (8)	0 (0)
Wood Creek Lake	74 (7)	23 (7)			57 (11)	13 (7)				

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sedpsddh.d05
bbrpsccl.d05
sedbgccl.d05
sedpsdwc.d05

Table 11. Mean back calculated lengths (in) at each annulus for smallmouth bass collected from Lake Cumberland during 2005, including the 95% confidence interval (CI) for each mean length per age group.

Year	No.	Age 1	2	3	4	5	6	7	8	9	10	11
2003	13	4.4	7.3									
2002	15	6.0	9.2	12.4								
2001	17	5.7	10.3	13.4	16.2							
2000	7	5.8	10.4	14.6	16.4	17.8						
1996	1	6.3	9.3	12.2	16.7	19.1	20.0	20.3	20.6	20.9		
1994	1	4.1	6.9	10.0	12.8	15.6	16.6	17.6	18.1	18.9	19.1	19.4
Mean		5.5	9.2	13.1	16.1	17.7	18.3	19.0	19.4	19.9	19.1	19.4
Number		54	54	41	26	9	2	2	2	2	1	1
Smallest		3.6	5.5	9.4	12.8	15.2	16.6	17.6	18.1	18.9	19.1	19.4
Largest		7.5	13.5	16.8	18.5	19.1	20.0	20.3	20.6	20.9	19.1	19.4
Std error		0.1	0.3	0.3	0.3	0.5	1.7	1.3	1.2	1.0		
95% CI ±		0.3	0.5	0.6	0.6	1.0	3.3	2.7	2.5	2.0		

Otoliths were used for age-growth determinations; Intercept = 0
sedagcb.d05

Table 12. Age-frequency and CPUE of smallmouth bass collected during 7.5 hours of nocturnal electrofishing at Lake Cumberland in April and May 2005.

	Inch class																				
Age	3	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%	CPUE	Std. Error
1+	6																	6	9.7	0.80	
2+		3	4	4	1	2												14	22.6	1.87	1.03
3+						1	2	4	2	3	3							15	24.2	2.00	0.69
4+									1		1	8	5	2	2			19	30.6	2.53	0.96
5+												1	1	1	2	1		6	9.7	0.80	0.41
9+																	1	1	1.6	0.13	0.13
11+																1		1	1.6	0.13	0.09
Total	6	3	4	4	1	3	2	4	3	3	4	9	6	3	4	2	1	62	100.0	8.27	
%	9.7	4.8	6.5	6.5	1.6	4.8	3.2	6.5	4.8	4.8	6.5	14.5	9.7	4.8	6.5	3.2	1.6	100.0			

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sedpsdcb.d05

Table 13. Population assessment for smallmouth bass based on spring electrofishing at Lake Cumberland
from 1990-
2005.

Year		Mean age-3 length at capture	Spring CPUE Age 1	Spring CPUE 11-13.9	Spring CPUE ≥ 14 in	Spring CPUE > 17 in	Total score	Assessement rating
1990	Value	9.6	5.2	4.0	1.3	0.65		
	Score	2	4	4	4	4	18	E
1991	Value	9.6	3.2	5.5	2.3	0.76		
	Score	2	4	4	4	4	18	E
1992	Value	9.6	0.8	4.7	1.8	0.25		
	Score	2	2	4	4	3	15	G
1993	Value	9.6	0.7	2.2	1.1	0.19		
	Score	2	2	3	4	2	13	G
1995	Value	9.6	6.7	7.4	4.0	1.52		
	Score	2	4	4	4	4	18	E
1996	Value	9.6	0.1	3.2	2.5	0.80		
	Score	2	1	4	4	4	15	G
1997	Value	9.6	6.1	3.8	1.3	0.33		
	Score	2	4	4	4	3	17	E
1999	Value	9.6	0.5	2.6	2.5	0.75		
	Score	2	2	4	4	4	16	G
2000	Value	9.6	0.0	1.4	1.1	0.00		
	Score	2	0	3	4	0	9	F
2001	Value	9.6	0.5	0.4	0.9	0.53		
	Score	2	2	2	3	4	13	G
2002	Value	9.6	1.7	2.4	0.9	0.13		
	Score	2	3	3	3	2	13	G
2003	Value	9.6	1.3	1.6	3.4	1.00		
	Score	2	3	3	4	4	16	G
2004	Value	9.6	1.9	1.2	1.3	0.00		
	Score	2	3	3	4	0	12	G
2005	Value	12.2	0.8	1.3	3.9	1.33		
	Score	4	2	3	4	4	17	E

Table 14. Species composition, relative abundance, and CPUE (no./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 27 September 2005; standard error is in parentheses.

Species	Inch class																Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18		
Largemouth bass			1	5	12	3	15	19	11	4	6	1	5	5	1	1	89	59.3 (12.4)
Smallmouth bass					1												1	0.7 (0.7)
Spotted bass	2	3	2	2	28	36	25	15	16	25	12	2	1				169	112.7 (14.9)

sedyoycb.d05

Table 15. 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.

Year Class	Area	Age 0 Mean length	Age 0 Std. error	Age 0 CPUE	Age 0 Std. error	Age 0 ≥ 5.0 CPUE	Age 0 ≥ 5.0 Std. error	Age 1 CPUE	Age 1 Std. error
	Lake Cumberland								
2002	Fishing Creek	6.0	0.07	192.7	36.67	160.7	36.32	4.0	1.5
2003	Fishing Creek	5.8	0.42	6.0	2.68	4.0	2.53	1.3	0.8
2004	Fishing Creek	6.2	0.14	50.7	8.18	41.3	7.35	4.0	
2005	Fishing Creek	6.2	0.16	14.0	4.47	13.3	4.09		

sedyoycb.d05

Table 16. Year class strength at age 0 and mean lengths (in) of largemouth bass collected in September 2005 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	
Lake	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error
Lake Cumberland	Fishing Creek	6.2	0.16	14.0	4.47	13.3	4.09
Laurel River Lake	Laurel River Arm	4.4	0.16	14.0	3.54	3.3	1.61
Wood Creek Lake		4.0	0.09	23.7	11.90	3.3	1.38
Cedar Creek Lake		4.8	0.06	55.7	9.51	28.0	7.73
Lake Linville		4.4	0.16	20.7	9.82	6.0	2.00

sedyoycb.d05
sedyoylr.d05
sedyoywc.d05
sedwrccl.d05
sedyoyll.d05

Table 17. Number of fish and mean relative weight (Wr) for each length class of black bass collected in Fishing Creek of Lake Cumberland during 27 September 2005. Standard error is in parentheses.

Species	Size range					
	8.0 - 11.9 in.		12.0 - 14.9 in.		≥ 15.0 in.	
Largemouth bass	No.	Wr	No.	Wr	No.	Wr
	48	88 (1.1)	12	85 (3.0)	7	86 (2.0)
	7.0 - 10.9 in.		11.0 - 13.9 in.		≥ 14.0 in.	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	62	95 (1.0)	30	90 (1.2)	1	84 (-)

sedyoycb.d05

Table 18. Number of fish and mean relative weight (Wr) for each length class of black bass collected in Lake Cumberland, Laurel River Lake, Wood Creek Lake, Cedar Creek Lake, and Lake Linville during September 2005. Standard error is in parentheses.

Species	Location	Size range					
		No.	Wr	No.	Wr	No.	Wr
Largemouth bass		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in	
	Lake Cumberland	48	88 (1.1)	12	85 (3.0)	7	86 (2.0)
	Laurel River Lake	13	89 (2.3)	11	102 (8.4)	6	104 (3.0
	Wood Creek Lake	44	84 (1.0)	16	90 (2.2)	14	96 (2.4)
	Cedar Creek Lake	132	88 (0.8)	12	93 (2.9)	45	103 (1.9
	Lake Linville	62	86 (0.9)	25	87 (1.9)	11	93 (2.3)
Spotted bass		7.0 - 10.9 in		11.0 - 13.9 in		≥ 14.0 in	
	Lake Cumberland	62	95 (1.0)	30	90 (1.2)	1	84 (-)
	Laurel River Lake	14	105 (2.7)	3	103 (0.9)	1	103 (-)
	Wood Creek Lake	36	93 (1.4)	19	93 (2.0)	1	100 (-)
	Cedar Creek Lake			1	98 (-)		
	Lake Linville	64	90 (1.1)	31	88 (2.0)	5	83 (3.7)

sedyoycb.d05
sedyoylr.d05
sedyoywc.d05
sedwrccl.d05
sedyoyll.d05

Table 19. Length frequency and CPUE of white bass collected during 3.0 hours of electrofishing at Big South Fork and Cumberland River of Lake Cumberland in April 2005.

Location	Inch class									Total	CPUE	Std. error
	5	8	10	11	12	13	14	15	16			
Big South Fork				5	10	8	2	2	1	28	18.67	6.59
Cumberland River	1	2	7	18	36	19	19	3	2	107	71.33	18.40
Total	1	2	7	23	46	27	21	5	3	135	45.00	12.24

sedwbbsf.d05
sedwbcr.d05

Table 20. Mean back calculated lengths (in) at each annulus for white bass collected from the Big South Fork of Lake Cumberland during 2005, including the 95% confidence interval (CI) for each mean length per age group.

Year	No.	Age						
		1	2	3	4	5	6	7
2003	18	9.0	12.8					
2001	2	7.8	13.0	14.1	15.1			
1999	1	8.3	12.4	14.8	15.6	16.1	16.4	
1998	1	6.2	9.1	12.0	13.6	14.8	15.6	15.8
Mean		8.8	12.6	13.7	14.9	15.5	16.0	15.8
Number		22	22	4	4	2	2	1
Smallest		6.2	9.1	12.0	13.6	14.8	15.6	15.8
Largest		10.7	14.2	14.8	15.6	16.1	16.4	15.8
Std error		0.2	0.2	0.6	0.4	0.6	0.4	
95% CI ±		0.5	0.4	1.3	0.9	1.3	0.8	

Otoliths were used for age-growth determinations; Intercept = 0
sedagwhb.d05

Table 21. Mean back calculated lengths (in) at each annulus for white bass collected from the Cumberland River of Lake Cumberland during 2005, including the 95% confidence interval (CI) for each interval (CI) for each mean length per age group.

		Age			
Year	No.	1	2	3	4
2004	3	7.1			
2003	44	9.0	12.3		
2001	12	8.3	12.8	14.1	14.9
Mean		8.8	12.4	14.1	14.9
Number		59	56	12	12
Smallest		5.8	10.0	12.3	13.9
Largest		11.7	14.8	15.4	16.2
Std error		0.2	0.2	0.3	0.2
95% CI ±		0.4	0.3	0.5	0.4

Otoliths were used for age-growth determinations; Intercept = 0
sedagwhb.d05

Table 22. Age-frequency and CPUE of white bass collected during 1.5 hours of electrofishing at Big South Fork of Lake Cumberland in April 2005.

	Inch class									
Age	11	12	13	14	15	16	Total	%	CPUE	Std. Error
2+	5	10	8	1			24	85.7	16.00	6.43
4+				1	1		2	7.1	1.33	0.99
6+						1	1	3.6	0.67	0.67
7+					1		1	3.6	0.67	0.67
Total	5	10	8	2	2	1	28	100.0	18.67	
%	17.9	35.7	28.6	7.1	7.1	3.6	100.0			

sedagwb6.d05
sedwbbsf.d05

Table 23. Age-frequency and CPUE of white bass collected during 1.5 hours of electrofishing at Cumberland River of Lake Cumberland in April 2005.

	Inch class												
Age	5	8	10	11	12	13	14	15	16	Total	%	CPUE	Std. Error
1+	1	2								3	2.8	2.00	1.37
2+			7	18	36	18	8			86	80.4	57.33	15.54
4+						1	11	3	2	18	16.8	12.00	2.92
Total	1	2	7	18	36	19	19	3	2	107	100.0	71.33	
%	0.9	1.9	6.5	16.8	33.6	17.8	17.8	2.8	1.9	100.0			

sedagwb7.d05
sedwbcr.d05

Table 24. Length frequency and CPUE for each species of crappie collected at Lake Cumberland in 55 net nights during October 2005.

		Inch class														
Area	Species	2	3	4	5	6	7	8	9	10	11	12	15	Total	CPUE	Std. error
Wolf Creek																
	White crappie				1						1			2	0.08	0.06
	Black crappie		23	2	4	15	13	6	2	2				67	2.68	1.40
Fishing Creek																
	White crappie	1	8	2	1			4	3	9	8	2	1	39	1.30	0.26
	Black crappie	21	16	17	50	69	43	40	20	3	1			280	9.33	1.58
Total																
	White crappie	1	8	2	2			4	3	9	9	2	1	41	0.75	0.16
	Black crappie	21	39	19	54	84	56	46	22	5	1			347	6.31	1.15

sedtncb.d05

Table 25. PSD and RSD_{10} values calculated for crappie collected in trapnets at Lake Cumberland in October 2005; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD_{10}
White crappie			
Fishing Creek	28	96 (± 7)	71 (± 17)
Wolf Creek	2	50 (± 98)	50 (± 98)
Lake Cumberland	30	93 (± 9)	70 (± 17)
Black crappie			
Fishing Creek	226	28 (± 6)	2 (± 2)
Wolf Creek	42	24 (± 13)	5 (± 7)
Lake Cumberland	268	28 (± 5)	2 (± 2)

sedtncb.d05

Table 26. Mean back calculated lengths (in) at each annulus for white crappie collected from Lake Cumberland during 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age							
Year	No.	1	2	3	4	5	6	7	8
2004	5	4.3							
2003	16	4.1	8.8						
2002	6	5.4	8.3	10.5					
2001	1	4.1	8.6	10.5	11.3				
1997	1	3.2	8.5	10.2	11.7	12.9	13.7	14.2	14.9
Mean		4.4	8.7	10.4	11.5	12.9	13.7	14.2	14.9
Number		29	24	8	2	1	1	1	1
Smallest		3.2	7.4	10.0	11.3	12.9	13.7	14.2	14.9
Largest		6.0	9.4	11.3	11.7	12.9	13.7	14.2	14.9
Std error		0.1	0.1	0.1	0.2				
95% CI ±		0.3	0.2	0.3	0.4				

Otoliths were used for age-growth determinations; Intercept = 0
sedagcbc.d05

Table 27. Mean back calculated lengths (in) at each annulus for black crappie collected from Lake Cumberland during 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age			
Year	No.	1	2	3	4
2004	49	3.8			
2003	40	3.7	6.5		
2002	11	4.9	6.5	8.4	
2001	1	5.1	8.1	9.4	11.1
Mean		3.9	6.5	8.5	11.1
Number		101	52	12	1
Smallest		2.8	5.3	7.4	11.1
Largest		5.6	8.3	9.4	11.1
Std error		0.1	0.1	0.2	
95% CI ±		0.1	0.2	0.4	

Otoliths were used for age-growth determinations;
Intercept=0
sedagcbc.d05

Table 28. Age-frequency and CPUE of white crappie trap-netted at Lake Cumberland in 55 net-days in October 2005.

	Inch class													Std
Age	2	3	4	5	8	9	10	11	12	15	Total	%	CPUE	error
0+	1	8	2	1							12	29.3	0.22	
1+				1	4						5	12.2	0.09	0.05
2+						3	8	5			16	39.0	0.29	0.07
3+							1	4	1		6	14.6	0.11	0.03
4+									1		1	2.4	0.02	0.01
8+										1	1	2.4	0.02	0.02
Total	1	8	2	2	4	3	9	9	2	1	41	100.0	0.75	
%	2.4	19.5	4.9	4.9	9.8	7.3	22.0	22.0	4.9	2.4				

CPUE of > 8 in (quality size) crappie = 0.51
CPUE of > 10 in (preferred size) crappie = 0.38
sedtncb.d05
sedagcbc.d05

Table 29. Age-frequency and CPUE of black crappie trap-netted at Lake Cumberland in 55 net-days in October 2005.

	Inch class													
Age	2	3	4	5	6	7	8	9	10	11	Total	%	CPUE	Std error
0+	21	39	3								63	18.2	1.15	
1+			16	54	67	19					156	45.0	2.84	0.62
2+					17	37	40	12	1		107	30.8	1.95	0.44
3+							6	10	4		20	5.8	0.36	0.10
4+										1	1	0.3	0.02	0.02
Total	21	39	19	54	84	56	46	22	5	1	347	100.0	6.31	
%	6.1	11.2	5.5	15.6	24.2	16.1	13.3	6.3	1.4	0.3				

CPUE of > 8 in (quality size) crappie = 1.35
CPUE of > 10 in (preferred size) crappie = 0.11
sedtncb.d05
sedagcbc.d05

Table 30. Population assessment for crappie based on fall trap netting at Lake Cumberland from 1990-2005.

Year		CPUE ≥ Age 1			CPUE Age 1			CPUE Age 0			CPUE ≥ 8 inches			Mean length age 2 at capture			Total Score	Assessement rating
		WC	BC	ALL	WC	BC	ALL	WC	BC	ALL	WC	BC	ALL	WC	BC	ALL		
1990	Value	4.3	1.6	5.9	2.6	1.4	4.0	0.1	0.0	0.1	2.2	0.3	2.5	10.0		9.4		
	Score			2			2			1			2			3	10	F
1991	Value	3.6	1.5	5.1	2.2	0.3	2.6	1.8	0.3	2.1	2.5	1.1	3.5	9.8	8.4	9.3		
	Score			2			1			1			2			3	9	F
1993	Value	3.2	0.8	4.0	1.4	0.7	2.1	0.8	0.3	1.1	2.0	0.1	2.1	9.8	8.8	9.7		
	Score			1			1			1			2			4	9	F
1994	Value	2.8	1.2	4.0	1.6	0.7	2.3	2.0	0.4	2.4	1.7	0.3	2.0	9.7	7.6	8.9		
	Score			1			1			1			2			2	7	P
1995	Value	8.2	2.1	10.3	7.2	1.7	8.9	0.5	0.1	0.6	1.4	0.3	1.7	9.9	7.7	9.3		
	Score			2			3			1			1			3	10	F
1996	Value	3.3	0.9	4.2	0.5	0.5	1.0	2.7	0.2	2.9	1.5	0.1	1.6	8.7	6.8	8.5		
	Score			1			1			1			1			2	6	P
1998	Value	1.7	0.9	2.7	0.5	0.3	0.9	0.3	0.5	0.8	1.7	0.8	2.5	9.5		9.3		
	Score			1			1			1			2			3	8	F
2001	Value	0.4	0.6	1.0	0.1	0.4	0.6	0.3	4.0	4.3	0.3	0.2	0.5	10.4	9.3	9.7		
	Score			1			1			2			1			4	9	F
2003	Value	2.3	3.5	5.8	1.8	2.7	4.5	0.2	4.5	4.7	1.2	1.2	2.4	10.4	9.8	10.1		
	Score			2			2			2			2			4	12	F
2005	Value	0.5	5.2	5.7	0.1	2.8	3.0	0.2	1.2	1.4	0.5	1.4	1.9	10.6	8.1	8.8		
	Score			2			1			1			1			2	7	P

Table 31. Population assessment for white, black, and white and black crappie combined from the Fishing Creek embayment of Lake Cumberland collected during 25-27 October 2005.

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)	0.93	1	7.99	2	8.93	2
CPUE of age 1 crappie	0.17	1	4.50	2	4.67	2
CPUE of age 0 crappie	0.40	1	1.33	1	1.73	1
CPUE of crappie ≥ 8 inches	0.90	1	2.13	2	3.03	2
Mean age-2 length at capture	10.5	4	8.6	2	9.5	3
Instantaneous mortality (Z)	1.42		1.67		1.41	
Annual mortality (A)	75.7		81.2		75.7	
Total score:		8		9		10
Assessment rating:		F		F		F

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Table 32. Number of fish and mean relative weight (Wr) for each length class of crappie collected in Lake Cumberland in October 2005. Standard error is in parentheses.

		Size range					
		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	1	58	7	90 (2)	20	93 (1)
	Wolf Creek	1	91			1	87
	Lake Cumberland	2	75 (16)	7	90 (2)	21	93 (1)
Black crappie							
	Fishing Creek	161	94 (1)	60	92 (1)	4	87 (3)
	Wolf Creek	32	86 (1)	8	85 (2)	2	90 (4)
	Lake Cumberland	193	93 (1)	68	91 (1)	6	88 (2)

sedtncb.d05

Table 33. Length frequency and CPUE of striped bass collected at Lake Cumberland in 30 net-nights on 30 November and 1-2 December 2005

	Inch class																								
Species	13	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	34	35	36	Total	CPUE	Std. error
Striped bass	1	2	3	10	14	5	7	7	6	4	9	8	5	1	3	7	3	1	3	1	2	1	103	3.4	0.62

sedgncbs.d05

Table 34. Mean back calculated lengths (in) at each annulus for striped bass collected from Lake Cumberland during 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age							
Year	No.	1	2	3	4	5	6	7	8
2004	36	11.2							
2003	41	10.2	19.0						
2002	14	13.4	20.9	25.2					
2001	6	12.1	20.4	24.9	27.9				
2000	2	13.7	20.9	24.8	28.6	30.9			
1999	2	13.8	21.1	27.3	30.0	32.4	34.4		
1998	1	8.4	18.0	24.2	27.9	30.8	32.7	34.5	
1997	1	7.7	17.4	22.5	26.2	28.2	29.2	30.2	31.2
Mean		11.2	19.6	25.1	28.2	30.9	32.7	32.3	31.2
Number		103	67	26	12	6	4	2	1
Smallest		5.6	14.7	22.0	26.2	28.2	29.2	30.2	31.2
Largest		15.8	22.9	29.5	31.2	32.9	34.9	34.5	31.2
Std error		0.3	0.3	0.3	0.4	0.8	1.3	2.2	
95% CI ±		0.5	0.5	0.6	0.9	1.5	2.5	4.3	

Otoliths were used for age-growth determinations; Intercept = 0
sedagcbs.d05

Table 35. Age-frequency and CPUE of striped bass gill netted for 30 net-nights at Lake Cumberland on 30 November and 1-2 December 2005. Standard error is in parentheses.

	Inch class																									
Age	13	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	34	35	36	Total	%	CPUE	
1+	1	2	3	10	14	5		1															36	35.0	1.20	(0.29)
2+							7	6	6	4	8	8	2										41	39.8	1.37	(0.39)
3+											1		3	1	3	6							14	13.6	0.47	(0.16)
4+																1	3		2				6	5.8	0.20	(0.07)
5+																		1		1			2	1.9	0.07	(0.05)
6+																					1	1	2	1.9	0.07	(0.04)
7+																					1		1	1.0	0.03	(0.02)
8+																			1				1	1.0	0.03	(0.02)
Total	1	2	3	10	14	5	7	7	6	4	9	8	5	1	3	7	3	1	3	1	2	1	103	100.0	3.43	
%	1.0	1.9	2.9	9.7	13.6	4.9	6.8	6.8	5.8	3.9	8.7	7.8	4.9	1.0	2.9	6.8	2.9	1.0	2.9	1.0	1.9	1.0				

sedgncbs.d05

Table 36. Population assessment for striped bass based on fall gill netting at Lake Cumberland from 1994-2005.

Year		CPUE ≥ Age 1	Mean length age 2 at capture	CPUE of > 24.0 in	CPUE Age-1	Total Score	Assessement rating
1994	Value	4.3	21.7	0.8	2.7		
	Score	3	3	2	3	11	G
1995	Value	3.5	22.7	1.5	1.5		
	Score	2	4	3	2	11	G
1996	Value	2.7	22.2	0.9	1.0		
	Score	2	4	2	2	10	G
1997	Value	1.9	21.5	1.1	0.4		
	Score	1	3	3	1	8	F
1998	Value	5.3	21.5	0.4	4.8		
	Score	3	3	1	4	11	G
1999	Value	3.4	22.4	0.3	2.7		
	Score	2	4	1	3	10	G
2000	Value	3.4	23.3	0.7	2.5		
	Score	2	4	2	3	11	G
2001	Value	3.1	21.0	0.1	2.7		
	Score	2	3	1	3	9	F
2002	Value	3.5	22.9	1.3	1.8		
	Score	2	4	3	2	11	G
2003	Value	4.1	21.9	1.2	1.7		
	Score	3	3	3	2	11	G
2004	Value	4.4	23.4	2.1	1.8		
	Score	3	4	4	2	13	G
2005	Value	3.4	23.3	1.5	1.2		
	Score	2	4	3	2	11	G

Table 37. Number of fish and mean relative weight (Wr) for each length class of striped bass collected in Lake Cumberland during November and December 2005. Standard error is in parentheses.

Size range					
12.0 - 19.9 in.		20.0 - 29.9 in.		≥ 30.0 in.	
No.	Wr	No.	Wr	No.	Wr
35	97 (1.1)	57	91 (0.7)	11	88 (1.7)

sedgncbs.d05

Table 38. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 6.0 hours of 15-minute nocturnal electrofishing runs for black bass in Laurel River Lake during April and May 2005; standard error is in parentheses.

Area	Species	Inch class																		Total	CPUE
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	22		
Dam	Largemouth bass			2		6	10	5	6	4	7	5	6	8	7	10	4	1	1	82	54.67 (10.36)
	Spotted bass		3	2	2	4	4	2	1	1	4	7	10	2	2					44	29.33 (5.13)
	Smallmouth bass				1		2	3				1	3	2		2	6	2		22	14.67 (3.53)
Spruce	Largemouth bass			3	1	4	1	3		2	4	8	19	21	14	10		2		92	61.33 (4.70)
Creek	Spotted bass		1	1		1	2	2	1	2		1								11	7.33 (2.40)
	Smallmouth bass									3	3	1	3	3	3	5	2			23	15.33 (2.81)
Laurel	Largemouth bass		1	2	6	9	19	11	11	10	12	17	21	19	8	9	3	4		162	108.00 (12.82)
River	Spotted bass	1	3	1	3	1	1	1	1	3	5		1							21	14.00 (1.37)
Arm	Smallmouth bass																			0	0.00 (0.00)
Upper	Largemouth bass				2	1	2	3	1	2	2	2	8	6	5	3				37	24.67 (6.32)
Craigs	Spotted bass				2	4	1	1	3	10	7	6	4	3						41	27.33 (5.31)
Creek	Smallmouth bass											1	1		1					3	2.00 (1.37)
Total	Largemouth bass		1	7	9	20	32	22	18	18	25	32	54	54	34	32	7	7	1	373	62.17 (7.54)
	Spotted bass	1	7	4	7	10	8	6	6	16	16	14	15	5	2					117	19.50 (2.65)
	Smallmouth bass				1		2	3		3	3	3	7	5	4	7	8	2		48	8.00 (1.83)

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Table 39. Comparison of catch-per-hour of black bass (by area) captured during spring electrofishing on Laurel River Lake during the period of 2001-2005.

Species/Area	Stock					Quality					Preferred				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Largemouth bass															
Dam	40.0	49.3	68.0	30.7	49.3	28.7	36.0	48.7	18.7	32.7	3.3	0.7	18.7	12.7	20.7
Spruce Creek	48.0	50.7	58.7	56.0	56.0	32.7	24.7	28.7	48.7	52.0	2.0	6.7	12.0	18.7	31.3
Marsh Branch	10.0	*	*	*	*	9.3	*	*	*	*	0.0	*	*	*	*
Laurel River Arm	88.7	98.0	151.3	57.3	96.0	23.3	52.0	75.3	43.3	62.0	4.7	8.7	19.3	18.0	28.7
Craigs Cr. headwaters	37.3	24.7	42.7	30.7	22.7	29.3	14.0	20.0	20.0	17.3	2.7	5.3	5.3	7.3	9.3
Mean	44.8	55.7	80.2	43.7	56.0	24.7	31.7	43.2	32.7	41.0	2.5	5.4	13.8	14.2	22.5
Spotted bass															
Dam	62.7	46.7	66.7	48.0	24.7	15.3	13.3	26.7	30.0	17.3	0.0	0.7	2.7	6.0	9.3
Spruce Creek	4.0	6.0	10.0	4.7	6.0	2.0	0.7	2.7	2.7	2.0	0.0	0.0	0.0	0.7	0.0
Marsh Branch	16.7	*	*	*	*	6.7	*	*	*	*	0.0	*	*	*	*
Laurel River Arm	15.3	24.0	14.0	2.7	8.7	4.0	6.7	5.3	1.3	6.0	0.7	0.7	0.7	0.0	0.7
Craigs Cr. headwaters	41.3	22.0	72.7	50.0	26.0	14.0	2.7	9.3	14.0	20.0	0.0	0.0	0.0	2.0	4.7
Mean	28.0	24.7	40.8	26.3	16.3	8.4	5.9	11.0	12.0	11.3	0.1	0.4	0.8	2.7	3.7
Smallmouth bass															
Dam	14.0	12.0	28.0	6.0	14.0	8.7	7.3	3.3	4.7	10.7	2.7	2.7	2.0	3.3	10.0
Spruce Creek	11.3	20.7	24.0	9.3	15.3	3.3	2.0	12.0	2.7	15.3	0.7	0.0	6.7	1.3	10.7
Marsh Branch	7.3	*	*	*	*	5.3	*	*	*	*	1.3	*	*		*
Laurel River Arm	2.0	2.0	1.3	2.7	0.0	1.3	1.3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Craigs Cr. headwaters	0.7	0.7	4.0	0.0	2.0	0.7	0.7	0.7	0.0	2.0	0.7	0.0	0.0	0.0	1.3
Mean	7.1	8.9	14.3	4.5	7.8	3.9	2.8	4.0	1.8	7.0	1.1	0.7	2.2	1.2	5.5

Largemouth bass - ≥ 8 in = stock, ≥12 in = quality, ≥15 in = preferred.

Smallmouth bass and spotted bass - ≥7 in = stock, ≥11 in = quality, ≥14 in = preferred.

* Not sampled.

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Table 40. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of largemouth bass collected at Laurel River Lake during April and May 2005.

	Inch class									
	< 8.0		8.0-11.9		12.0-14.9		≥ 15.0		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err
2005	6.2	1.2	15.0	2.9	18.5	2.7	22.5	2.9	62.2	7.5
2004	3.8	1.5	11.0	1.4	18.5	3.0	14.2	1.9	47.5	4.8
2003	9.8	2.9	37.0	5.8	29.3	4.1	13.8	2.0	90.0	12.3
2002	21.7	5.0	24.0	3.8	23.3	3.3	8.3	1.4	77.3	9.7
2001	24.9	3.9	20.1	4.6	22.1	2.5	2.5	0.6	69.7	9.0

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Table 41. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of spotted bass collected at Laurel River Lake during April and May 2005.

	Inch class									
	< 8.0		8.0-10.9		11-13.9		≥ 14.0		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err
2005	4.8	0.8	3.3	0.8	7.7	1.6	3.7	1.1	19.5	2.7
2004	3.2	1.0	12.5	2.9	9.8	2.3	2.2	0.7	27.7	5.6
2003	23.3	5.3	17.8	3.1	10.2	2.0	0.8	0.5	52.2	8.9
2002	13.7	3.2	13.3	1.8	5.5	1.4	0.3	0.2	32.8	5.6
2001	13.3	2.7	17.2	3.2	8.3	1.5	0.1	0.1	38.9	6.3

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Table 42. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of smallmouth bass collected at Laurel River Lake during April and May 2005.

	Inch class									
	< 8.0		8.0-10.9		11.0-13.9		≥ 14.0		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err
2005	0.2	0.2	0.8	0.4	1.5	0.6	5.5	1.5	8.0	1.8
2004	2.0	0.6	1.2	0.4	0.7	0.4	1.2	0.5	5.0	1.1
2003	8.3	2.2	7.5	1.8	1.8	0.8	2.2	0.8	19.8	4.3
2002	8.2	2.5	4.5	1.5	2.2	0.6	0.7	0.3	15.5	3.8
2001	4.7	1.2	2.3	0.7	2.8	0.7	1.1	0.4	10.8	1.8

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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 April and May 2005; 95% confidence limits are in parentheses.

Area	Species	No. fish > stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Dam				
	Largemouth bass	74	66 (± 11)	42 (± 11)
	Spotted bass	37	70 (± 15)	38 (± 16)
	Smallmouth bass	21	76 (± 19)	71 (± 20)
Spruce Creek				
	Largemouth bass	84	93 (± 6)	56 (± 11)
	Spotted bass	9	33 (± 33)	0
	Smallmouth bass	23	100 (± 0)	70 (± 19)
Laurel River Arm				
	Largemouth bass	144	65 (± 8)	30 (± 8)
	Spotted bass	13	69 (± 26)	8 (± 15)
	Smallmouth bass	0		
Upper Craigs Creek				
	Largemouth bass	34	76 (± 14)	41 (± 17)
	Spotted bass	39	77 (± 13)	18 (± 12)
	Smallmouth bass	3	100 (± 0)	67 (± 65)
Total				
	Largemouth bass	336	73 (± 5)	40 (± 5)
	Spotted bass	98	69 (± 9)	22 (± 8)
	Smallmouth bass	47	89 (± 9)	70 (± 13)

[a]Largemouth bass = RSD-15, spotted and smallmouth bass = RSD-14
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Table 44. Population assessment for largemouth bass based on spring electrofishing at Laurel River Lake from 1990-2005.

Year		Mean age-3 length at capture	Spring CPUE Age 1	Spring CPUE 12-14.9	Spring CPUE ≥ 15 in	Spring CPUE > 20 in	Total Score	Assessement rating
1990	Value	13.7	17.5	10.2	4.9	1.10		
	Score	4	1	1	2	2	10	F
1991	Value	13.7	22.1	11.6	4.7	0.00		
	Score	4	2	1	2	0	9	F
1992	Value	13.7	9.1	24.4	8.8	1.31		
	Score	4	1	2	2	2	11	F
1993	Value	13.7	6.0	11.4	6.5	1.33		
	Score	4	1	1	2	2	10	F
1994	Value	13.7	5.7	13.9	7.0	1.29		
	Score	4	1	1	2	2	10	F
1995	Value	13.7	1.2	9.3	6.1	1.07		
	Score	4	1	1	2	2	10	F
1996	Value	13.7	8.7	15.4	6.6	0.86		
	Score	4	1	2	2	2	11	F
1997	Value	13.7	14.5	25.4	6.2	0.69		
	Score	4	1	3	2	2	12	G
1998	Value	13.7	6.0	9.2	7.8	1.50		
	Score	4	1	1	2	2	10	F
1999	Value	13.7	8.2	26.0	6.4	0.53		
	Score	4	1	3	2	2	12	G
2000	Value	13.7	2.3	16.3	2.1	0.14		
	Score	4	1	2	1	1	9	F
2001	Value	13.7	17.8	22.1	2.5	0.27		
	Score	4	1	2	1	2	10	F
2002	Value	13.7	18.2	23.3	8.8	0.00		
	Score	4	1	2	2	0	9	F
2003	Value	13.7	7.8	29.3	13.8	0.00		
	Score	4	1	3	3	0	11	F
2004	Value	13.7	2.6	18.5	14.2	0.00		
	Score	4	1	2	3	0	10	F
2005	Value	13.7	4.6	18.5	22.5	0.17		
	Score	4	1	2	4	1	12	G

Table 45. Population assessment for smallmouth bass based on spring electrofishing at Laurel River Lake from 1990-2005.

Year		Mean age-3 length at capture	Spring CPUE Age 1	Spring CPUE 11-13.9	Spring CPUE ≥ 14 in	Spring CPUE > 17 in	Total Score	Assessement rating
1990	Value	13.6	8.6	1.4	1.4	0.54		
	Score	4	4	3	4	4	19	E
1991	Value	13.6	0.4	0.4	0.0	0.00		
	Score	4	2	2	0	0	8	F
1992	Value	13.6	1.9	1.5	0.2	0.00		
	Score	4	3	3	2	0	12	G
1993	Value	13.6	1.6	0.6	0.4	0.30		
	Score	4	3	2	3	3	15	G
1994	Value	13.6	3.4	1.3	0.7	0.29		
	Score	4	4	3	3	3	17	E
1995	Value	13.6	1.2	0.5	1.1	0.27		
	Score	4	3	2	4	3	16	G
1996	Value	13.6	0.1	2.9	0.4	0.00		
	Score	4	1	4	3	0	12	G
1997	Value	13.6	6.7	2.1	1.5	0.14		
	Score	4	4	3	4	2	17	E
1998	Value	13.6	12.7	0.7	0.7	0.50		
	Score	4	4	2	3	4	17	E
1999	Value	13.6	2.1	1.9	0.5	0.13		
	Score	4	3	3	3	2	15	G
2000	Value	13.6	0.9	1.3	0.6	0.14		
	Score	4	2	3	3	2	14	G
2001	Value	13.6	3.4	2.8	1.1	0.00		
	Score	4	4	4	4	0	16	G
2002	Value	13.6	6.0	2.2	0.7	0.17		
	Score	4	4	3	3	2	16	G
2003	Value	13.6	4.0	1.8	2.2	0.17		
	Score	4	4	3	4	2	17	E
2004	Value	13.6	0.4	0.7	1.2	0.00		
	Score	4	2	2	4	0	12	G
2005	Value	13.6	0.1	1.5	5.5	2.83		
	Score	4	1	3	4	4	16	G

Table 46. Population assessment for spotted bass based on spring electrofishing at Laurel River Lake from 1990-2005.

Year		Mean age-3 length at capture	Spring CPUE Age 1	Spring CPUE 11-13.9	Spring CPUE ≥ 14 in	Spring CPUE > 17 in	Total Score	Assessement rating
1990	Value	11.5	6.7	3.2	2.4	0.00		
	Score	4	2	3	4	0	13	G
1991	Value	11.5	4.0	12.7	0.0	0.00		
	Score	4	2	4	0	0	10	F
1992	Value	11.5	3.4	13.2	1.0	0.00		
	Score	4	2	4	3	0	13	G
1993	Value	11.5	1.2	5.3	0.6	0.15		
	Score	4	2	3	3	2	14	G
1994	Value	11.5	4.8	5.4	1.4	0.00		
	Score	4	2	3	3	0	12	G
1995	Value	11.5	1.2	9.9	0.0	0.00		
	Score	4	2	4	0	0	10	F
1996	Value	11.5	0.3	7.9	0.7	0.00		
	Score	4	1	4	3	0	12	G
1997	Value	11.5	1.6	7.5	0.7	0.00		
	Score	4	2	4	3	0	13	G
1998	Value	11.5	6.6	4.8	0.3	0.00		
	Score	4	2	3	3	0	12	G
1999	Value	11.5	1.5	5.6	0.4	0.00		
	Score	4	2	3	3	0	12	G
2000	Value	11.5	2.6	2.3	0.1	0.00		
	Score	4	2	3	2	0	11	F
2001	Value	11.5	6.0	8.3	0.1	0.00		
	Score	4	2	4	2	0	12	G
2002	Value	11.5	2.2	5.5	0.3	0.00		
	Score	4	2	3	3	0	12	G
2003	Value	11.5	2.3	10.2	0.8	0.00		
	Score	4	2	4	3	0	13	G
2004	Value	11.5	0.0	9.8	2.2	0.00		
	Score	4	0	4	4	0	12	G
2005	Value	11.5	1.5	7.7	3.7	0.00		
	Score	4	2	4	4	0	14	G

Table 47. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 1.5 hours of 15-minute nocturnal electrofishing runs for black bass in Laurel River Lake during September 2005; 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		
Laurel River Arm	Largemouth bass	1	4	11	10	13	23	10	1	1	2	7	3	1	2	4	93	62.0 (11.6)
	Spotted bass	8	57	1	8	19	9	1	2	3	2	1		1			112	74.7 (10.2)

sedyoylr.d05

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		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
	Laurel River Lake								
2002	Laurel River Arm	4.5	0.11	30.7	5.81	8.7	3.49	10.3	4.1
2003	Laurel River Arm	3.4	0.05	36.7	13.99	0.7	0.67	2.6	1.0
2004	Laurel River Arm	4.9	0.15	14.0	5.82	8.0	3.43	8.3	2.4
2005	Laurel River Arm	4.4	0.16	14.0	3.54	3.3	1.61		

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Table 49. Number of fish and mean relative weight (Wr) for each length class of black bass collected at 312 Bridge in Laurel River Lake during 19 September 2005. Standard error is in parentheses.

Species	Size range					
	8.0 - 11.9 in.		12.0 - 14.9 in.		≥ 15.0 in.	
Largemouth bass	No.	Wr	No.	Wr	No.	Wr
	13	89 (2.3)	11	102 (8.4)	6	104 (3.0)
	7.0 - 10.9 in.		11.0 - 13.9 in.		≥ 14.0 in.	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	14	105 (2.7)	3	103 (0.9)	1	103 (-)

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Table 50. Length frequency and CPUE for each species of crappie collected during spring and fall electrofishing at Laurel River Lake in 2005. Spring daytime electrofishing was conducted for 1.5 hours at 312 Bridge on 19 April 2005. Fall daytime electrofishing was conducted for 3.75 hours at 312 Bridge (1.5 hours), Holly Bay (0.75 hours), and Hightop (1.5 hours) on 11 and 18 November and 13 December 2005.

Species	Inch Class						Total	CPUE	Std. error
	5	6	7	8	9	10			
Spring									
White crappie			1	7	1	2	11	7.3	5.88
Black crappie					2		2	1.3	0.84
Blacknose crappie					1		1	0.7	0.67
Fall									
White crappie				1			1	0.3	0.27
Black crappie				1			1	0.3	0.27
Blacknose crappie	3	3	5	1			12	3.2	1.84

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sedcrplr.d05

Table 51. PSD and RSD_{10} values calculated for crappie captured by electrofishing at 312 Bridge, Holly Bay, and Hightop in Laurel River Lake during November and December 2005; 95% confidence limits are in parentheses.

Species	No. fish > stock size	PSD	RSD_{10}
White crappie	1	100 (-)	0
Black crappie	1	100 (-)	0
Blacknose crappie	12	8 (16)	0

sedcrplr.d05

Table 52. Mean back calculated lengths (in) at each annulus for white crappie collected from Laurel River Lake during 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age			
Year	No.	1	2	3	4
2003	2	4.5	7.8		
2002	6	4.5	6.3	8.7	
2001	4	4.3	6.6	7.4	9.0
Mean		4.4	6.6	8.2	9.0
Number		12	12	10	4
Smallest		3.9	4.7	6.6	7.4
Largest		5.2	8.0	9.7	10.3
Std error		0.1	0.2	0.3	0.7
95% CI ±		0.2	0.5	0.5	1.4

Otoliths were used for age-growth determinations; Intercept = 0
sedaglrl.d05

Table 53. Mean back calculated lengths (in) at each annulus for black crappie collected from Laurel River Lake during 2005, including the 95% confidence interval (CI) for each mean length per age group.

Year	No.	Age 1	2	3
2004	1	4.8		
2002	2	5.0	6.2	9.5
Mean		4.9	6.2	9.5
Number		3	2	2
Smallest		4.7	5.7	9.0
Largest		5.2	6.7	9.9
Std error		0.2	0.5	0.5
95% CI ±		0.3	1.0	0.9

Otoliths were used for age-growth determinations; Intercept = 0
sedaglrl.d05

Table 54. Mean back calculated lengths (in) at each annulus for blacknose crappie collected from Laurel River Lake during 2005, including the 95% confidence interval (CI) for each mean length per age group.

Year	No.	Age 1	2	3
2004	12	3.5		
2002	1	3.5	6.3	9.8
Mean		3.5	6.3	9.8
Number		13	1	1
Smallest		2.9	6.3	9.8
Largest		4.2	6.3	9.8
Std error		0.1		
95% CI ±		0.2		

Otoliths were used for age-growth determinations; Intercept = 0
sedaglrl.d05

Table 55. Age-frequency and CPUE of white crappie collected during 3.75 hours of daytime electrofishing at 312 Bridge, Holly Bay, and Hightop areas of Laurel River Lake in November and December 2005.

	Inch Class				Std
Age	8	Total	%	CPUE	error
4+	1	1	100.0	0.27	0.27
Total	1	1	100.0	0.27	
%	100.0	100.0			

CPUE of > 8 in (quality size) crappie = 0.27
CPUE of > 10 in (preferred size) crappie = 0.0
sedaglrl.d05
sedcrplr.d05

Table 56. Age-frequency and CPUE of black crappie collected during 3.75 hours of daytime electrofishing at 312 Bridge, Holly Bay, and Hightop areas of Laurel River Lake in November and December 2005.

	Inch Class				Std
Age	8	Total	%	CPUE	error
1+	1	1	100.0	0.27	0.27
Total	1	1	100.0	0.27	
%	100.0	100.0			

CPUE of > 8 in (quality size) crappie = 0.27
CPUE of > 10 in (preferred size) crappie = 0.0
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sedcrplr.d05

Table 57. Age-frequency and CPUE of blacknose crappie collected during 3.75 hours of daytime electrofishing at 312 Bridge, Holly Bay, and Hightop areas of Laurel River Lake in November and December 2005.

	Inch class							Std
Age	5	6	7	8	Total	%	CPUE	error
1+	3	3	5	1	12	100.0	3.20	1.84
Total	3	3	5	1	12	100.0	3.20	
%	25.0	25.0	41.7	8.3	100.0			

CPUE of > 8 in (quality size) crappie =0.27
CPUE of > 10 in (preferred size) crappie = 0.0
sedaglrl.d05
sedcrplr.d05

Table 58. Number of fish and mean relative weight (Wr) for each length class of crappie collected in the 312 Bridge, Holly Bay, and Hightop areas of Laurel River Lake in November and December 2005. Standard error is in parentheses.

	Size range					
	5.0 - 7.9 in		8.0 - 9.9 in		≥ 10.0 in	
Species	No.	Wr	No.	Wr	No.	Wr
White Crappie			1	82		
Black crappie			1	116		
Blacknose crappie	11	106 (3)	1	116		

sedcrplr.d05

Table 59. Length frequency and CPUE of walleye collected at Laurel River Lake in 8 net-nights on 8 November 2005.

	Inch class																		
Species	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Total	CPUE	Std. error
Walleye	10	8	8	3	7	9	20	20	25	44	32	22	9	5	3	3	228	28.5	5.36

sedgnlrw.d05

Table 60. Mean back calculated lengths (in) at each annulus for male walleye collected from Laurel River Lake during 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2004	26	11.2						
2003	12	12.2	17.1					
2002	15	13.0	16.9	18.7				
2001	11	11.6	16.6	18.8	20.0			
2000	5	11.3	15.6	18.1	19.7	20.9		
1999	1	9.1	13.5	16.9	18.2	19.3	20.4	
1998	1	8.6	13.7	16.6	19.1	19.8	21.6	22.3
Mean		11.7	16.6	18.5	19.8	20.5	21.0	22.3
Number		71	45	33	18	7	2	1
Smallest		5.9	13.5	16.2	17.7	18.8	20.4	22.3
Largest		14.6	18.4	20.2	21.0	22.0	21.6	22.3
Std error		0.2	0.2	0.2	0.2	0.5	0.6	
95% CI ±		0.5	0.4	0.4	0.4	0.9	1.2	

Otoliths were used for age-growth determinations; Intercept = 0
sedaglrw.d05

Table 61. Mean back calculated lengths (in) at each annulus for female walleye collected from Laurel River Lake during 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age					
Year	No.	1	2	3	4	5	6
2003	13	12.7	18.3				
2002	7	13.3	18.0	20.5			
2001	3	13.4	18.2	20.9	22.4		
2000	2	12.9	17.4	19.5	21.0	22.6	
1999	2	10.4	15.5	18.2	21.6	23.0	24.2
Mean		12.8	17.9	20.1	21.8	22.8	24.2
Number		27	27	14	7	4	2
Smallest		9.5	14.8	16.8	20.7	22.1	24.0
Largest		15.3	20.3	22.0	23.0	23.3	24.4
Std error		0.3	0.3	0.4	0.3	0.3	0.2
95% CI ±		0.6	0.5	0.7	0.6	0.5	0.4

Otoliths were used for age-growth determinations; Intercept = 0
sedaglrw.d05

Table 62. Mean back calculated lengths (in) at each annulus for walleye (both sexes) collected from Laurel River Lake during 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2004	51	11.1						
2003	25	12.4	17.7					
2002	22	13.1	17.3	19.3				
2001	15	11.9	16.9	19.2	20.5			
2000	8	11.8	15.9	18.3	20.2	21.5		
1999	3	9.9	14.9	17.7	20.4	21.8	22.9	
1998	1	8.6	13.7	16.6	19.1	19.8	21.6	22.3
Mean		11.8	17.0	18.9	20.3	21.4	22.6	22.3
Number		125	74	49	27	12	4	1
Smallest		5.9	13.5	16.2	17.7	18.8	20.4	22.3
Largest		15.3	20.3	22.0	23.0	23.3	24.4	22.3
Std error		0.2	0.2	0.2	0.2	0.4	0.9	
95% CI ±		0.3	0.4	0.4	0.5	0.9	1.9	

Otoliths were used for age-growth determinations; Intercept = 0
sedaglrw.d05

Table 63. Age-frequency and CPUE of walleye gill netting for 8 net-nights at Laurel River Lake during November 2005. Standard error is in parentheses.

	Inch class																			
Age	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Total	%	CPUE	
0	10	7	8		1												26	11.5	3.25	(1.69)
1		1		3	6	9	20	17	6		2						64	28.2	8.00	(1.68)
2								2	15	20	11	5					53	23.3	6.63	(2.01)
3								1	4	17	9	6	3	3			43	18.9	5.38	(1.40)
4										3	9	8	2	1	1		24	10.6	3.00	(0.75)
5										3		2	3	1	2		11	4.8	1.38	(0.33)
6												2				3	5	2.2	0.63	(0.20)
7													1				1	0.4	0.13	(0.04)
Total	10	8	8	3	7	9	20	20	25	43	31	23	9	5	3	3	227	100.0	28.38	
%	4.4	3.5	3.5	1.3	3.1	4.0	8.8	8.8	11.0	18.9	13.7	10.1	4.0	2.2	1.3	1.3				

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Table 64. Walleye population assessment for walleye gill netted at Laurel River Lake in November 2005.

Parameter	Actual value	Assessment score
Population density (CPUE age 1 fish and older)	25.13	4
Growth rate (Mean length of age 2+ fish at capture)	19.5	4
Size structure (CPUE ≥ 20.0 inch fish)	9.25	4
Recruitment (CPUE of age 1 fish)	8.00	4
Total score		16
Assessment rating		E
Instantaneous mortality (Z)	0.665	
Annual mortality (A)	48.6	

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Table 65. Number of fish and mean relative weight (Wr) for each length class of walleye collected in Laurel River Lake during November 2005. Standard error is in parentheses.

Size range					
10.0 - 14.9 in.		15.0 - 19.9 in.		≥ 20.0 in.	
No.	Wr	No.	Wr	No.	Wr
36	96 (1.0)	116	98 (0.6)	70	96 (0.9)

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Table 66. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 3.0 hours of nocturnal electrofishing for black bass in Dale Hollow Lake during May 2005; standard error is in parentheses.

Species	Inch class																Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Illwill Creek																			
Largemouth bass													1					1	0.67 (0.67)
Spotted bass					2	1		3		3	2		1					12	8.00 (2.92)
Smallmouth bass	1	1			2	3	1	2	1	2					2	2	3	20	13.33 (1.69)
Little Sulphur Creek																			
Largemouth bass										1		2		1			1	5	3.33 (2.62)
Spotted bass	1	5	1	4	7	11	8	6	1	9	3	5	4					65	43.33 (15.33)
Smallmouth bass	1	3			1	1	1	1			2	1		2				13	8.67 (3.00)
Total																			
Largemouth bass										1		2	1	1			1	6	2.00 (1.35)
Spotted bass	1	5	1	4	9	12	8	9	1	12	5	5	5					77	25.67 (9.15)
Smallmouth bass	2	4			3	4	2	3	1	2	2	1		2	2	2	3	33	11.00 (1.78)

sedpsddh.d05

Table 67. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Dale Hollow Lake during May 2005; 95% confidence limits are in parentheses.

Area	Species	No. fish > stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Illwill Creek	Largemouth bass	1	100 (± 0)	100 (± 0)
	Spotted bass	12	50 (±30)	8 (± 16)
	Smallmouth bass	18	56 (± 24)	39 (± 23)
Little Sulphur Creek	Largemouth bass	5	100 (± 0)	40 (± 48)
	Spotted bass	54	41 (± 13)	17 (± 10)
	Smallmouth bass	9	56 (± 34)	33 (± 33)
Total	Largemouth bass	6	100 (± 0)	50 (± 44)
	Spotted bass	66	42 (± 12)	.15 (± 9)
	Smallmouth bass	27	56 (± 19)	37 (± 19)

[a]Largemouth bass = RSD-15, spotted and smallmouth bass = RSD-14
sedpsddh.d05

Table 68. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Dale Hollow Lake during May 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age					
Year	No.	1	2	3	4	5	6
2003	1	5.5	11.8				
2002	2	8.3	12.2	14.5			
2001	1	4.2	10.0	14.2	16.2		
1999	1	5.8	13.5	16.9	18.4	19.7	20.2
Mean		6.4	12.0	15.0	17.3	19.7	20.2
Number		5	5	4	2	1	1
Smallest		4.2	10.0	14.2	16.2	19.7	20.2
Largest		9.1	13.5	16.9	18.4	19.7	20.2
Std error		0.9	0.6	0.6	1.1		
95% CI ±		1.7	1.2	1.2	2.2		

Otoliths were used for age-growth determinations; Intercept = 0
sedagdh.d05

Table 69. Mean back calculated lengths (in) at each annulus for spotted bass collected from Dale Hollow Lake during May 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age					
Year	No.	1	2	3	4	5	6
2003	26	4.7	8.5				
2002	11	6.3	10.3	12.4			
2001	8	5.5	9.7	12.2	13.6		
2000	4	4.7	9.0	11.8	13.5	14.2	
1999	2	6.3	10.7	13.1	14.7	15.5	15.9
Mean		5.2	9.2	12.3	13.7	14.6	15.9
Number		51	51	25	14	6	2
Smallest		3.6	6.1	10.3	11.9	12.9	15.7
Largest		8.5	12.5	14.4	14.9	15.6	16.0
Std error		0.1	0.2	0.2	0.3	0.4	0.2
95% CI ±		0.3	0.4	0.4	0.5	0.8	0.3

Otoliths were used for age-growth determinations; Intercept = 0
sedagdh.d05

Table 70. Age-frequency and CPUE of largemouth bass collected during 3.0 hours of nocturnal electrofishing at Dale Hollow Lake in May 2005.

	Inch class								Std
Age	12	14	15	16	19	Total	%	CPUE	error
2	1					1	16.7	0.33	0.33
3		2				2	33.3	0.67	0.67
4				1		1	16.7	0.33	0.33
Not aged			1		1	2	33.3	0.67	
Total	1	2	1	1	1	6	100.0	2.00	
%	16.7	33.3	16.7	16.7	16.7 #				

sedpsddh.d05
sedagdh.d05

Table 71. Age-frequency and CPUE of spotted bass collected during 3.0 hours of nocturnal electrofishing at Dale Hollow Lake in May 2005.

	Inch class																Std
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	%	CPUE	error
1	1	5	1											7	9.1	2.33	
2				4	9	12	8	8						41	53.2	13.67	5.96
3								2		11		1		13	16.9	4.33	1.35
4									1	1	3	2		8	10.4	2.67	0.97
5											2	2		3	3.9	1.00	0.40
6													5	5	6.5	1.67	0.77
Total	1	5	1	4	9	12	8	9	1	12	5	5	5	77	100.0	25.67	
%	1.3	6.5	1.3	5.2	11.7	15.6	10.4	11.7	1.3	15.6	6.5	6.5	6.5				

sedpsddh.d05
sedagdh.d05

Table 72. Population assessment for spotted bass collected from Dale Hollow Lake in May 2005.

Parameter	Actual value	Assessment score
Mean age-3 length at capture	12.5	4
Spring CPUE of Age 1 fish	2.33	2
Spring CPUE of 11.0-13.9-in fish	6.00	3
Spring CPUE of ≥ 14.0-in fish	3.33	4
Spring CPUE of ≥ 17.0-in fish	0.00	0
Instantaneous mortality (Z)	0.567	
Annual mortality (A)	43.3	
Total score		13
Assessment rating		G

sedpsddh.d05

Table 73. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 3.5 hours of 15-minute nocturnal electrofishing runs for black bass in Cedar Creek Lake on 3 May 2005; standard error is in parentheses.

Area	Species	Inch class																Total	CPUE
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Lower	Largemouth bass	4	19	121	100	21	9	3	5	10	24	43	62	30	14	2	5	472	236.00 (25.02)
	Spotted bass													1				1	0.50 (0.50)
Upper	Largemouth bass		8	16	11	3		2	2	7	7	14	28	17	12	2	1	130	86.67 (12.88)
	Spotted bass																	0	0.00 (0.00)
Total	Largemouth bass	4	27	137	111	24	9	5	7	17	31	57	90	47	26	4	6	602	172.00 (33.36)
	Spotted bass													1				1	0.29 (0.29)

bbrpsccl.d05

Table 74. PSD and RSD values obtained for largemouth bass taken in spring electrofishing samples in each area of Cedar Creek Lake on 3 May 2005; 95% confidence intervals are in parentheses.

Area	No. fish ≥ stock size	PSD	RSD[a]
Lower	228	83 (78-88)	50 (43-56)
Upper	95	93 (87-98)	63 (53-73)
Total	323	86 (82-90)	54 (48-59)

Largemouth bass = RSD_{15}.

bbrpsccl.d05

Table 75. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected from each section of Cedar Creek Lake on 3 May 2005. CPUE = fish/hour, number in parentheses are standard errors.

Year		Inch class				
		<8.0	8.0-11.9	12.0-14.9	≥ 15.0	Total
2005	Lower	122.0	19.0	38.5	56.5	236.0
		(11.4)	(7.0)	(5.7)	(12.3)	(25.0)
	Upper	23.3	4.7	18.7	40.0	86.7
		(9.3)	(1.8)	(0.7)	(7.2)	(12.9)
	Total	79.7	12.9	30.0	49.4	172.0
		(21.1)	(4.8)	(5.1)	(7.9)	(33.4)
2004	Lower	37.8	38.3	68.7	6.5	151.3
		(7.3)	(5.7)	(15.1)	(3.1)	(22.5)
	Upper	11.3	28.0	84.7	6.0	130.0
		(3.5)	(7.2)	(11.7)	(2.0)	(24.1)
	Total	27.9	34.5	74.7	6.3	143.3
		(6.6)	(4.6)	(10.2)	(2.0)	(16.1)
2003	Lower	134.4	8.8	19.6	0.8	163.6
		(8.5)	(2.9)	(3.3)	(0.5)	(11.7)
	Upper	218.0	18.7	13.3		250.0
		(51.3)	(9.8)	(2.4)		(54.0)
	Total	165.8	12.5	17.3	0.5	196.0
		(23.3)	(4.1)	(2.4)	(0.3)	(24.7)

bbrpsccl.d05

Table 76. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Cedar Creek Lake during 2005, including the 95% confidence interval (CI) for each mean length per age group.

Year	No.	Age 1	2	3	4	5
2004	5	4.4				
2003	60	5.6	8.5			
2002	34	6.4	12.2	14.0		
2001	17	6.9	11.0	15.0	16.7	
2000	1	3.1	11.1	14.9	17.1	18.5
Mean		6.0	10.0	14.3	16.7	18.5
Number		117	112	52	18	1
Smallest		2.7	4.3	8.3	11.6	18.5
Largest		10.9	15.2	18.0	19.1	18.5
Std error		0.2	0.3	0.3	0.5	
95% CI ±		0.4	0.6	0.6	1.0	

Otoliths were used for age-growth determinations; Intercept = 0
bbrscccl.d05

Table 77. Age-frequency and CPUE of largemouth bass collected during 3.5 hours of electrofishing at Cedar Creek Lake during May 2005.

Age	Inch class 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	%	CPUE	Std error
1	3	3															6	1.0	1.71	0.91
2	1	24	137	111	20	8	5	5	6	7	17						341	56.6	97.43	25.41
3					4	1		1	9	24	34	72	24		1		170	28.2	48.57	7.03
4								1	2		6	18	24	26	2	6	85	14.1	24.29	4.58
5															1		1	0.2	0.29	0.08
Total	4	27	137	111	24	9	5	7	17	31	57	90	48	26	4	6	603	100.0	172.29	
%	0.7	4.5	22.7	18.4	4.0	1.5	0.8	1.2	2.8	5.1	9.5	14.9	8.0	4.3	0.7	1.0				

bbrpsccl.d05
bbrscccl.d05

Table 78. Population assessment for largemouth bass collected from Cedar Creek Lake in May 2005.

Parameter	Actual value	Assessment score
Mean age-3 length at capture	14.0	4
Spring CPUE of Age 1 fish	1.71	1
Spring CPUE of 12.0-14.9-in fish	30.00	2
Spring CPUE of ≥ 15.0-in fish	49.43	4
Spring CPUE of ≥ 20.0-in fish	0.00	0
Instantaneous mortality (Z)	1.884	
Annual mortality (A)	84.8	
Total score		11
Assessment rating		F

bbrpsccl.d05

Table 79. 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 15 September 2005; standard error is in parentheses.

Area	Inch class																		Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Lower	4	16	36	40	13	33	86	73	16	8	3	3	3	3	5	8	2	2	354	177.00 (33.71)
Upper		13	28	43	18	49	63	16	9	1	1		2	4	7	9	3	2	268	178.67 (34.97)
Total	4	29	64	83	31	82	149	89	25	9	4	3	5	7	12	17	5	4	622	177.71 (22.35)

sedwrccl.d05

Table 80. 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		Age 1	
Year Class	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2004	4.8	0.04	17.4	3.10	12.9		1.7	
2005	4.8	0.06	55.7	9.51	28.0	7.73		

sedwrccl.d05

Table 81. Number of fish and mean relative weight (Wr) for each length class of largemouth bass collected in Cedar Creek on 15 September 2005. Standard error is in parentheses.

		Size range					
		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in	
Species	Location	No.	Wr	No.	Wr	No.	Wr
Largemouth bass							
	Lower	90	87 (0.9)	9	94 (3.7)	20	100 (3.0)
	Upper	42	90 (1.4)	3	89 (1.8)	25	105 (2.5)
	Total	132	88 (0.8)	12	93 (2.9)	45	103 (1.9)

sedwrccl.d05

Table 82. Species composition, relative abundance, and CPUE (no./hr.) of bluegill and redear sunfish collected during 2.5 hours of 7.5-minute electrofishing runs for bluegill in Cedar Creek Lake on 24 and 26 May 2005; standard error is in parentheses.

Area	Species	Inch class								Total	CPUE
		1	2	3	4	5	6	7	8		
Lower	Bluegill	18	169	79	28	32	21	6		353	271.54 (26.80)
	Redear sunfish		4	52	24	5	16	25	36	162	124.62 (19.39)
Upper	Bluegill	28	151	34	14	12	3	7		249	191.54 (38.14)
	Redear sunfish		12	19	16	7	6	15	8	83	63.85 (12.14)
Total	Bluegill	46	320	113	42	44	24	13		602	231.54 (24.47)
	Redear sunfish		16	71	40	12	22	40	44	245	94.23 (13.13)

bbrpsccl.d05

Table 83. PSD and RSD values obtained for bluegill and redear sunfish taken in spring electrofishing samples in each area of Cedar Creek Lake on 24 and 26 May 2005; 95% confidence intervals are in parentheses.

Area	No. fish ≥ stock size	PSD	RSD[a]
Bluegill			
Lower	166	16 (11-22)	0 (0-0)
Upper	70	14 (6-23)	0 (0-0)
Total	236	16 (11-20)	0 (0-0)
Redear sunfish			
Lower	106	57 (48-67)	0 (0-0)
Upper	52	44 (31-58)	0 (0-0)
Total	158	53 (45-61)	0 (0-0)

Bluegill = RSD_8.

Redear sunfish = RSD_9.

bbrpsccl.d05

Table 84. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of bluegill and redear sunfish collected from each section of Cedar Creek Lake on 24 and 26 May 2005. CPUE = fish/hour, number in parentheses are standard errors.

		Inch class				
Year		<3.0	3.0-5.9	6.0-7.9	≥8.0	Total
Bluegill						
2005	Lower	143.9	106.9	20.8		271.5
		(20.3)	(25.7)	(5.6)		(26.8)
	Upper	137.7	46.2	7.7		191.5
		(35.2)	(10.3)	(3.2)		(38.1)
	Total	140.8	76.5	14.2		231.5
		(19.8)	(15.2)	(3.5)		(24.5)
2004	Lower	44.6	61.5	16.9		123.1
		(16.4)	(16.5)	(4.1)		(28.3)
	Upper		5.4	18.5		23.9
			(2.3)	(5.5)		(7.2)
	Total	22.3	33.5	17.7		73.5
		(9.5)	(10.3)	(3.4)		(18.2)
Redear sunfish						
2005	Lower	3.1	62.3	31.5	27.7	124.6
		(1.7)	(14.0)	(7.4)	(6.6)	(19.4)
	Upper	9.2	32.3	16.2	6.2	63.9
		(4.7)	(8.3)	(6.2)	(2.2)	(12.1)
	Total	6.2	47.3	23.9	16.9	94.2
		(2.5)	(8.6)	(5.0)	(4.2)	(13.1)
2004	Upper		2.3	53.1	0.8	56.2
			(1.6)	(18.1)	(0.8)	(18.6)
	Total		2.3	53.1	0.8	56.2
			(1.6)	(18.1)	(0.8)	(18.6)

bbrpsccl.d05

Table 85. Mean back calculated lengths (in) at each annulus for bluegill collected from Cedar Creek Lake during 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age		
Year	No.	1	2	3
2004	21	3.0		
2003	22	2.4	5.2	
2002	8	2.9	5.8	7.2
Mean		2.7	5.3	7.2
Number		51	30	8
Smallest		1.4	3.5	6.8
Largest		4.2	6.8	7.8
Std error		0.1	0.1	0.1
95% CI ±		0.2	0.3	0.2

Otoliths were used for age-growth determinations;
Intercept=0
bbrscccl.d05

Table 86. Mean back calculated lengths (in) at each annulus for redear sunfish collected from Cedar Creek Lake during 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age		
Year	No.	1	2	3
2004	24	3.4		
2003	19	2.5	5.7	
2002	19	2.7	6.0	7.9
Mean		2.9	5.9	7.9
Number		63	39	20
Smallest		1.7	3.7	7.2
Largest		4.5	7.2	8.5
Std error		0.1	0.1	0.1
95% CI ±		0.2	0.3	0.2

Otoliths were used for age-growth determinations;
Intercept=0
bbrscccl.d05

Table 87. Age-frequency and CPUE of bluegill collected during 2.5 hours of electrofishing at Cedar Creek Lake during May 2005.

	Inch class										Std
Age	1	2	3	4	5	6	7	Total	%	CPUE	error
1	46	320	113	17				496	82.4	198.40	21.98
2				25	44	21	3	93	15.4	37.20	6.62
3						3	10	13	2.2	5.20	1.58
Total	46	320	113	42	44	24	13	602	100.0	240.80	
%	7.6	53.2	18.8	7.0	7.3	4.0	2.2				

bbrpsccl.d05
bbrscccl.d05

Table 88. Age-frequency and CPUE of redear sunfish collected during 2.5 hours of electrofishing at Cedar Creek Lake during May 2005.

	Inch class										Std
Age	2	3	4	5	6	7	8	Total	%	CPUE	error
1	16	71	40	3				130	53.1	52.00	8.83
2				9	22	5		36	14.7	14.40	3.07
3						35	44	79	32.2	31.60	6.25
Total	16	71	40	12	22	40	44	245	100.0	98.00	
%	6.5	29.0	16.3	4.9	9.0	16.3	18.0				

bbrpsccl.d05
bbrscccl.d05

Table 89. Population assessment for bluegill collected from Cedar Creek Lake in May 2005.

Parameter	Actual value	Assessment score
Mean length age-2 at capture	5.6	4
Years to 6.0 inches	2-2+	4
Spring CPUE of ≥ 6.0-in fish	14.23	1
Spring CPUE of ≥ 8.0-in fish	0.0	1
Instantaneous mortality (Z)	1.800	
Annual mortality (A)	83.5	
Total score		10
Assessment rating		F

bbrpsccl.d05

Table 90. Population assessment for redear collected from Cedar Creek Lake in May 2005.

Parameter	Actual value	Assessment score
Mean length age-3 at capture	8.0	4
Years to 8.0 inches	3-3+	4
Spring CPUE of ≥ 8.0-in fish	16.92	4
Spring CPUE of ≥ 10.0-in fish	0.00	1
Instantaneous mortality (Z)	0.251	
Annual mortality (A)	22.2	
Total score		13
Assessment rating		G

bbrpsccl.d05

Table 91. Number of fish and mean relative weight (Wr) for each length class of bluegill and redear sunfish collected in Cedar Creek on 15 September 2005. Standard error is in parentheses.

Species	Location	Size range					
		No.	Wr	No.	Wr	No.	Wr
Bluegill		3.0 - 5.9 in		6.0 - 7.9 in			
	Lower	43	87 (2.2)	25	82 (1.9)		
	Upper	38	88 (2.1)	9	92 (3.3)		
	Total	81	87 (1.5)	34	84 (1.8)		
Redear		1.0 - 3.9 in		4.0 - 6.9 in		7.0 - 8.9 in	
	Lower	2	70 (8.5)	20	88 (1.0)	26	90 (1.9)
	Upper			42	95 (1.4)	19	91 (2.9)
	Total	2	70 (8.5)	62	93 (1.1)	45	90 (1.6)

sedwrccl.d05

Table 92. Fishery statistics derived from a creel survey on Cedar Creek Lake (784 acres) from 5 April - 29 October 2005.

Fishing trips	
Number of fishing trips (per acre)	10,110 (12.9)
Average trip length	3.93
Fishing pressure	
Total man-hours (S.E.)[a]	39,735 (939)
Man hours/acre	50.68
Catch/harvest	
Number of fish caught (S.E.)	76,439 (5,559)
Number of fish harvested (S.E.)	36,879 (3,017)
Pounds of fish harvested	6,887
Harvest rates	
Fish/hour	0.90
Fish/acre	47.0
Pounds/acre	8.8
Catch rates	
Fish/hour	1.9
Fish/acre	97.5
Miscellaneous characteristics (%)	
Male	83
Female	17
Resident	97
Non-resident	3
Method (%)	
Still fishing	54
Casting	46
Fly	1
Mode (%)	
Boat	82
Bank	18

[a]S.E. = standard error

Table 93. Fish harvest statistics derived from a daytime creel survey at Cedar Creek Lake (784 acres) from 6 April - 29 October 2005.

	Black bass group	Largemouth bass	Spotted bass	Smallmouth bass	Crappie group	Black crappie	Catfish group	Channel catfish	Flathead catfish	Panfish group	Bluegill	Longear sunfish	Redear sunfish	Warmouth	Green sunfish	Bullhead	Illegal catfish	Illegal bass	Illegal bl. crappie	Anything
No. caught	19,754	19,701	23	30	8,733	8,733	2,633	2,462	71	44,979	34,287	5	9,920	42	725	52	48	154	185	
(per acre)	25.20	25.13	0.03	0.04	11.14	11.14	3.36	3.14	0.09	57.37	43.73	0.01	12.65	0.05	0.92	0.07	0.06	0.20	0.24	
No. harvested	0	0	0	0	181	181	1,434	1,283	71	34,925	25,905	5	8,338	0	676	52	48	154	185	
(per acre)	0.00	0.00	0.00	0.00	0.23	0.23	1.83	1.61	0.09	44.55	33.04	0.01	10.64	0.00	0.86	0.07	0.06	0.20	0.24	
% of total no. harvested	0.0	0.0	0.0	0.0	0.5	0.5	3.9	3.4	0.2	94.7	70.2	t	22.6	0.0	1.8	0.1	0.1	0.4	0.5	
Lbs. harvested	0	0	0	0	76	76	1,455	1,357	69	5,117	3,671	t	1,376	0	70	29		215	24	
(per acre)	0.00	0.00	0.00	0.00	0.10	0.10	1.86	1.73	0.09	6.53	4.68	0.00	1.76	0.00	0.09	0.04		0.27	0.03	
% of total lbs harvested	0	0	0	0	1.1	1.1	21.1	19.7	1.0	74.3	53.3	t	20.0	0.0	1.0	0.4		3.1	0.3	
Mean length (in)						9.4		14.8	13.5		6.1	6.0	6.2		5.5	11.0	10.5	14.3	7.1	
Mean weight (lb)						0.44		1.04	0.97		0.14	0.13	0.17		0.11	0.55		1.58	0.15	
Number of fishing trips for that species	4,328				384		218			3,797										1382
Percent of all trips	42.8				3.8		2.2			37.6										13.7
Hours fished for that species	17,011				1,511		857			14,924										5432
Hours fished for that species (per acre)	21.70				1.93		1.09			19.04										6.93
Number harvested fishing for that species	0				47		468			32,000										
Lb harvested fishing for that species	0				21		550			4,708										
No./hr harvested fishing for that species	0.00				0.04		0.61			1.99										
Percent success fishing for that species	0.0				7.2		71.4			64.8										32.6

t < 0.005 fish/hr or < 0.05%

Table 94. Length distribution for each species of fish harvested and released at Cedar Creek Lake (784 acres) during 5 April - 29 October 2005.

	Inch class																				
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	23
Largemouth bass																					
Released							3993	142	3515	212	4161	2505	868	1912	1036	646	381	300	10	19	
Spotted bass																					
Released									8		14										
Smallmouth bass																					
Released									21					7							
Illegal bass																					
Harvested							9		17	9	17	17	9	26	17	17	9	7			
Black crappie																					
Harvested								134	39	8											
Released				309	1988	3420	2748	43			34	8									
Illegal black crappie																					
Harvested				37	30	52	66														
Channel catfish																					
Harvested											62	320	196	258	178	116	62	27	27	9	7
Released									570	101	125	152	63	54	63	45	18	8			
Flathead catfish																					
Harvested											18	9	36	8							
Illegal catfish																					
Harvested									24	23											
Bluegill																					
Harvested			195	6992	11966	5248	1478	26													
Released	9		1114	3995	2437	618	183	25													
Longear sunfish																					
Harvested					5																
Redear sunfish																					
Harvested			18	1256	4748	1871	436	8													
Released			138	1064	346	17	9	8													
Green sunfish																					
Harvested			9	442	216	9															
Released				48																	
Warmouth																					
Released				8	17	8	8														
Bullhead																					
Harvested									9	35	8										

Table 95. Black bass catch and harvest statistics derived from a daytime creel survey at Cedar Creek Lake (784 acres) for each species of black bass caught and released by all anglers from 5 April - 29 October 2005.

	Largemouth bass				Spotted bass				Smallmouth bass			
		C&R				C&R				C&R		
	Harvest	12.0-14.9	>15.0	Total	Harvest	12.0-14.9	>15.0	Total	Harvest	12.0-14.9	>15.0	Total
Total number of bass	0	7,534	4,305	19,701	0	15	0	23	0	0	8	30
% of black bass harvested by number	0				0				0			
Total weight of fish (lb)	0	6,362	3,750	16,750	0	10	0	15	0	0	13	23
% of black bass harvested by weight	0				0				0			
Mean length (in)												
Mean weight (lb)												
Rate (fish/hour)	0.00				0.00				0.00			

Table 96. Monthly black bass angling success at Cedar Creek Lake (784 acres) during the 2005 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	1,137	0	395	1,552	837	0.55	0	0.00
May	1,900	0	628	2,468	1,468	0.54	0	0.00
Jun	3,777	0	847	3,331	2,577	0.70	0	0.00
Jul	3,638	0	782	3,075	2,897	0.95	0	0.00
Aug	2,493	0	489	1,923	2,012	0.98	0	0.00
Sep	3,962	0	697	2,741	3,662	1.16	0	0.00
Oct	2,847	0	489	1,922	2,232	1.02	0	0.00
Total	19,754	0	4,327	17,012	15,685		0	
Mean						0.85		0.00

Table 97. Monthly crappie angling success at Cedar Creek Lake (784 acres) during the 2005 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	778	43	164	645	493	0.70	38	0.05
May	1,524	9	177	695	207	0.46	9	0.02
Jun	2,467	22	19	74	262	2.55	0	0.00
Jul	2,132	9	25	97	61	0.78	0	0.00
Aug	828	24	0	0	0	0.00	0	0.00
Sep	445	27	0	0	0	0.00	0	0.00
Oct	558	47	0	0	0	0.00	0	0.00
Total	8,732	181	385	1,511	1,023		47	
Mean						0.73		0.04

Table 98. Monthly catfish angling success at Cedar Creek Lake (784 acres) during the 2005 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	91	75	15	60	16	0.38	16	0.38
May	282	226	0	0	0	0.00	0	0.00
Jun	611	306	75	296	251	0.75	164	0.49
Jul	687	322	39	155	114	0.90	70	0.55
Aug	426	237	39	153	182	1.22	127	0.85
Sep	327	145	41	162	127	1.22	82	0.78
Oct	208	123	8	31	9	0.77	9	0.77
Total	2,632	1,434	217	857	699		468	
Mean						0.91		0.61

Table 99. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 1.5 hours of 15-minute nocturnal electrofishing runs for black bass in Lake Linville during September 2005; standard error is in parentheses.

Species	Inch class																	Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
Largemouth bass	1	10	11	6	5	25	39	22	14	20	11	9	5	4	2	3	2	189	126.0 (31.6)
Spotted bass	2	8	3	17	36	42	48	45	21	18	10	5	2	2	1			260	173.3 (17.5)

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Table 100. 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.

Year Class	Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2005	4.4	0.16	20.7	9.82	6.0	2.00		

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Table 101. Number of fish and mean relative weight (Wr) for each length class of black bass collected in Lake Linville during 29 September 2005. Standard error is in parentheses.

Species	Size range					
	8.0 - 11.9 in.		12.0 - 14.9 in.		≥ 15.0 in.	
	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	62	86 (0.9)	25	87 (1.9)	11	93 (2.3)
	7.0 - 10.9 in.		11.0 - 13.9 in.		≥ 14.0 in.	
	No.	Wr	No.	Wr	No.	Wr
Spotted bass	64	90 (1.1)	31	88 (2.0)	5	83 (3.7)

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Table 102. Fishery statistics derived from a creel survey on Lake Linville (358 acres) from 4 April - 31 October 2005.

Fishing trips	
Number of fishing trips (per acre)	14,714 (41.1)
Average trip length	3.49
Fishing pressure	
Total man-hours (S.E.)a	51,346 (1,521)
Man hours/acre	143.42
Catch/harvest	
Number of fish caught (S.E.)	104,018 (13,000)
Number of fish harvested (S.E.)	46,862 (7,676)
Pounds of fish harvested	10,264
Harvest rates	
Fish/hour	0.82
Fish/acre	130.9
Pounds/acre	28.7
Catch rates	
Fish/hour	1.8
Fish/acre	290.6
Miscellaneous characteristics (%)	
Male	78
Female	22
Resident	98
Non-resident	2
Method (%)	
Still fishing	77
Casting	22
Trolling	0
Other (spider rig)	0
Mode (%)	
Boat	32
Bank	67
Dock	1

aS.E. = standard error

Table 103. Fish harvest statistics derived from a daytime creel survey at Lake Linville (358 acres) from 4 April - 31 October 2005.

	Black bass group	Largemouth bass	Spotted bass	Smallmouth bass	Crappie group	White crappie	Black crappie	White bass	Catfish group	Channel catfish	Flathead catfish	Panfish group	Bluegill	Longear sunfish	Redear sunfish	Warmouth	Rock bass	Green sunfish	Common carp	Illegal bass	Anything
No. caught	14,599	9,708	4,721	171	4,968	4,860	108	134	2,272	2,101	171	81,821	79,190	810	375	187	545	715	64	159	
(per acre)	40.78	27.12	13.19	0.48	13.88	13.58	0.30	0.37	6.35	5.87	0.48	228.55	221.20	2.26	1.05	0.52	1.52	2.00	0.18	0.44	
No. harvested	2,844	1,672	1,135	37	3,107	3,037	71	24	1,450	1,377	73	39,251	37,923	612	151	37	64	464	25	159	
(per acre)	7.94	4.67	3.17	0.10	8.68	8.48	0.20	0.07	4.05	3.85	0.20	109.64	105.93	1.71	0.42	0.10	0.18	1.30	0.07	0.44	
% of total no. harvested	6.1	3.6	2.4	0.1	6.6	6.5	0.2	0.1	3.1	2.9	0.2	83.8	80.9	1.3	0.3	0.1	0.1	1.0	0.1	0.3	
Lbs. harvested	3,078	2,238	772	68	574	547	27	11	1,199	1,109	89	5,003	4,873	41	31	7	12	39	313	86	
(per acre)	8.60	6.25	2.16	0.19	1.60	1.53	0.08	0.03	3.35	3.10	0.25	13.97	13.61	0.11	0.09	0.02	0.03	0.11	0.87	0.24	
% of total lbs harvested	30.0	21.8	7.5	0.7	5.6	5.3	0.3	0.1	11.7	10.8	0.9	48.7	47.5	0.4	0.3	0.1	0.1	0.4	3.1	0.8	
Mean length (in)		13.6	11.2	15.5		7.9	8.6	10.0		15.6	13.8		5.8	4.2	6.5	6.5	6.3	4.8	30.0	10.3	
Mean weight (lb)		1.29	0.64	1.76		0.21	0.35	0.46		1.42	1.08		0.12	0.05	0.19	0.19	0.19	0.08	12.46	0.54	
Number of fishing trips for that species	3,428				1,138				2,353			7,317									458
Percent of all trips	23.3				7.7				16.0			49.8									3.1
Hours fished for that species	11,962				3,963				8,212			25,535									1,598
(per acre)	33.41				11.07				22.94			71.33									4.46
Number harvested fishing for that species	2,553				2,869				977			37,301									
Lb harvested fishing for that species	2,984				528				920			4,884									
No./hr harvested fishing for that species	0.14				0.78				0.16			1.50									
Percent success fishing for that species	15.1				25.2				10.3			30.4									5.9

t < 0.005 fish/hr or < 0.05%

Table 104. Length distribution for each species of fish harvested and released at Lake Linville (358 acres) during 4 April - 31 October 2005.

	Inch class																							
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	24	25	28	30
Largemouth bass																								
Harvested											578	475	124	186	103	103	41	41	20					
Released							1553	657	1732	2329	892	446	116	97	78		97	38						
Spotted bass																								
Harvested							279	60	60	60	458	120	20	60			18							
Released							1571	333	628	665	240	74	18	18		38								
Smallmouth bass																								
Harvested														19	18									
Released							75		25		33													
Illegal bass																								
Harvested								20	80	59														
White crapple																								
Harvested			61	106	364	911	896	455	213	30														
Released		66	198	22	439	176	461	132	66	66	176				21									
Black crapple																								
Harvested							14	28	28															
Released			19						18															
White bass																								
Harvested									24															
Released							44		22	22	22													
Channel catfish																								
Harvested								175	213	330	291	19		19	58	19	39	58	19	58	19	39	21	
Released					18	36	36	72	181	217	127				18				18					
Flathead catfish																								
Harvested											24		24			24								
Released								49					24						24					
Bluegill																								
Harvested		775	1821	8173	21537	4958	387	271																
Released	91	8896	22071	6270	3373	566																		
Longear sunfish																								
Harvested		63	232	274	43																			
Released		82	99	16																				
Redear sunfish																								
Harvested				25		125																		
Released		17	34	138	35																			
Warmouth																								
Harvested					19	18																		
Released				85	64																			
Rock bass																								
Harvested				21		43																		
Released		21	42	272	125		20																	
Green sunfish																								
Harvested			146	244	24	49																		
Released			251																					
Common carp																								
Harvested																								
Released									20		19													25

Table 105. Black bass catch and harvest statistics derived from a daytime creel survey at Lake Linville (358 acres) for each species of black bass caught and released by all anglers from 4 April - 31 October 2005.

	Largemouth bass				Spotted bass				Smallmouth bass			
		C&R				C&R				C&R		
	Harvest	12.0-14.9	>15.0	Total	Harvest	12.0-14.9	>15.0	Total	Harvest	12.0-14.9	>15.0	Total
Total number of bass	1,672	1,454	310	9,708	1,135	332	57	4,721	37	33	0	171
% of black bass harvested by number	58.8				39.9				1.3			
Total weight of fish (lb)	2,238	1,697	362	7,162	772	131	22	2,193	68	27	0	125
% of black bass harvested by weight	72.7				25.1				2.2			
Mean length (in)	13.6				11.2				15.5			
Mean weight (lb)	1.29				0.64				1.76			
Rate (fish/hour)	0.03				0.02				0.00			

Table 106. Monthly black bass angling success at Lake Linville (358 acres) during the 2005 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	3,345	676	620	2,164	2046	0.76	434	0.16
May	4,650	1,106	870	3,036	3,670	0.72	1,056	0.21
Jun	2,157	326	420	1,464	1,279	0.82	326	0.21
Jul	1,466	361	411	1,435	1,398	0.80	361	0.21
Aug	1,128	133	444	1,549	1,012	0.48	133	0.06
Sep	961	26	355	1,238	820	0.48	26	0.02
Oct	894	217	308	1,075	881	0.59	217	0.15
Total	14,601	2,845	3,428	11,961	11,106		2,553	
Mean						0.65		0.14

Table 107. Monthly catfish angling success at Lake Linville (358 acres) during the 2005 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	104	104	113	394	87	0.21	87	0.21
May	101	0	332	1,159	0	0.00	0	0.00
Jun	176	125	715	2,493	50	0.03	25	0.01
Jul	1,038	767	545	1,903	542	0.36	474	0.32
Aug	663	365	269	939	448	0.47	315	0.33
Sep	167	77	237	825	102	0.16	64	0.10
Oct	24	12	143	498	12	0.03	12	0.03
Total	2,273	1,450	2,354	8,211	1,241		977	
Mean						0.21		0.16

Table 108. Monthly crappie angling success at Lake Linville (358 acres) during the 2005 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	1,473	1,282	417	1,456	1,213	0.70	1,109	0.64
May	1,759	402	380	1,325	1,709	1.32	402	0.31
Jun	75	0	68	237	0	0.00	0	0.00
Jul	68	68	36	125	23	0.08	23	0.08
Aug	116	0	0	0	0	0.00	0	0.00
Sep	64	51	44	152	51	0.58	51	0.58
Oct	1,413	1,304	177	617	1,389	1.83	1,304	1.72
Total	4,968	3,107	1,122	3,912	4,385		2,889	
Mean						1.05		0.78

Table 109. Mean back calculated lengths (in) at each annulus for white crappie collected from Lake Linville during 2005, including the 95% confidence interval (CI) for each mean length per age group.

Year	No.	Age 1	2	3	4	5
2004	43	5.0				
2003	38	3.9	7.1			
2002	25	4.9	7.3	8.7		
2001	13	3.9	6.9	8.2	9.2	
2000	3	5.5	8.4	9.7	10.7	11.4
Mean		4.5	7.2	8.6	9.5	11.4
Number		122	79	41	16	3
Smallest		3.0	5.9	7.5	8.6	10.4
Largest		6.8	9.5	11.1	12.2	13.2
Std error		0.1	0.1	0.1	0.2	0.9
95% CI ±		0.2	0.2	0.3	0.5	1.7

Otoliths were used for age-growth determinations; Intercept = 0
sedagll.d05

Table 110. Mean back calculated lengths (in) at each annulus for black crappie collected from Lake Linville during 2005, including the 95% confidence interval (CI) for each mean length per age group.

Year	No.	Age 1	2	3
2003	5	3.8	6.9	
2002	1	3.4	6.2	8.3
Mean		3.7	6.8	8.3
Number		6	6	1
Smallest		3.1	6.2	8.3
Largest		4.1	7.6	8.3
Std error		0.2	0.2	
95% CI ±		0.3	0.4	

Otoliths were used for age-growth determinations; Intercept = 0
sedagll.d05

Table 111. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 2.5 hours of 15-minute nocturnal electrofishing runs for black bass in Wood Creek Lake during May 2005; standard error is in parentheses.

Area	Species	Inch class																				Total	CPUE
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	20	21	22	24		
Dam	Largemouth bass				1	1	4	2	2	3	4	9	7	1		2						36	48.00 (8.00)
	Spotted bass	3		2	1	2	5	6	9	6	7	2	3	1	1							48	64.00 (24.11)
	Walleye					2	2		1	1			3									9	12.00 (4.62)
Pump Station	Largemouth bass	1			1	1	3	6	1	3	9	17	8	3	3	3	3	2	1	2		67	67.00 (10.25)
	Spotted bass	5	1	2	4	1	4	3	5	9	5	3	2	1	1							46	46.00 (12.70)
	Walleye				1	3	1		2	1			1									9	9.00 (1.91)
Dock	Largemouth bass	1	1	1		2	5	3		4	6	6	4	4	1	2	2	1		1	1	45	60.00 (30.20)
	Spotted bass				1				2	4	2		2									11	14.67 (4.81)
	Walleye				1		1		1		1	1										5	6.67 (2.67)
Total	Largemouth bass	2	1	1	2	4	12	11	3	10	19	32	19	8	4	7	5	3	1	3	1	148	59.20 (9.27)
	Spotted bass	8	1	4	6	3	9	9	16	19	14	5	7	2	2							105	42.00 (10.18)
	Walleye				2	5	4		4	2	1	1	4									23	9.20 (1.69)

sedpsdwc.d05

Table 112. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Wood Creek Lake during May 2005; 95% confidence limits are in parentheses.

Area	Species	No. fish > stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Dam				
	Largemouth bass	34	68 (± 16)	9 (± 10)
	Spotted bass	42	48 (± 15)	12 (± 10)
Pump Station				
	Largemouth bass	64	80 (± 10)	27 (± 11)
	Spotted bass	34	62 (± 17)	12 (± 11)
Dock				
	Largemouth bass	40	70 (± 14)	30 (± 14)
	Spotted bass	10	80 (± 26)	20 (± 26)
Total				
	Largemouth bass	138	74 (± 7)	23 (± 7)
	Spotted bass	86	57 (± 11)	13 (± 7)

[a]Largemouth bass = RSD-15, spotted bass = RSD-14

sedpsdwc.d05

Table 113. Spring electrofishing catch-per-unit-effort (CPUE) for each size of black bass collected at Wood Creek Lake during May 2005. CPUE = fish/hour.

	Inch class									
	< 8.0		8.0-11.9		12.0-14.9		≥ 15.0		Total	
Species	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
Largemouth bass	4.0	2.0	14.4	3.6	28.0	4.4	12.8	2.3	59.2	9.3

	< 8.0		8.0-10.9		11.0-13.9		≥ 14.0		Total	
	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
Spotted bass	8.8	2.9	13.6	5.5	15.2	2.8	4.4	1.3	42.0	10.2

sedpsdlr.d05

Table 114. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Wood Creek Lake during May 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age							
Year	No.	1	2	3	4	5	6	7	8
2004	2	5.5							
2003	19	4.7	9.0						
2002	15	4.9	9.3	12.3					
2001	20	4.5	9.3	11.8	13.8				
2000	11	5.7	9.9	12.7	14.3	15.7			
1999	3	4.9	9.4	12.1	14.2	15.6	16.9		
1997	1	7.2	10.6	11.9	13.4	15.6	17.8	18.6	19.5
Mean		4.9	9.4	12.2	14.0	15.6	17.1	18.6	19.5
Number		71	69	50	35	15	4	1	1
Smallest		3.5	7.2	10.4	11.5	13.5	14.6	18.6	19.5
Largest		7.6	11.6	15.1	16.7	18.0	18.0	18.6	19.5
Std error		0.1	0.1	0.1	0.2	0.3	0.8		
95% CI ±		0.3	0.3	0.3	0.3	0.6	1.6		

Otoliths were used for age-growth determinations; Intercept = 0
sedagwc.d05

Table 115. Age-frequency and CPUE of largemouth bass collected during 2.5 hours of electrofishing at Wood Creek Lake during May 2005.

Age	Inch class																							Std
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	20	21	22	24	Total	%	CPUE	error
1	2	1	1	2																	6	4.1	2.40	
2					4	12	11	2	4												32	21.6	12.80	3.48
3								2	4	17	12										34	23.0	13.60	2.37
4									3	2	20	12	3	1							40	27.0	16.00	2.21
5												6	5	3	2						17	11.5	6.80	0.74
6												1			5						6	4.1	2.40	0.71
8																5					5	3.4	2.00	0.67
Not aged																	3	1	3	1	8	5.4	3.20	
Total	2	1	1	2	4	12	11	3	10	19	32	19	8	4	7	5	3	1	3	1	148	100.0	59.20	
%	1.4	0.7	0.7	1.4	2.7	8.1	7.4	2.0	6.8	12.8	21.6	12.8	5.4	2.7	4.7	3.4	2.0	0.7	2.0	0.7				

sedpsdwc.d05
sedagwc.d05

Table 116. Population assessment for largemouth bass collected from Wood Creek Lake in May 2005.

Parameter	Actual value	Assessment score
Mean age-3 length at capture	12.3	4
Spring CPUE of Age 1 fish	2.4	1
Spring CPUE of 12.0-14.9-in fish	28.0	2
Spring CPUE of ≥ 15.0-in fish	12.8	2
Spring CPUE of ≥ 20.0-in fish	3.2	3
Instantaneous mortality (Z)	0.404	
Annual mortality (A)	33.2	
Total score		12
Assessment rating		G

sedpsdwc.d05

Table 117. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 3.0 hours of 15-minute nocturnal electrofishing for black bass in Wood Creek Lake during September 2005; standard error is in parentheses.

Area	Species	Inch class 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Dam	Largemouth bass			1	1	3	6	1	1	1	2	1			1	1			19	19.00 (5.26)
	Spotted bass		1	9	5	4	1	4	5	4	2	1	3						39	39.00 (11.00)
	Smallmouth bass				1														1	1.00 (1.00)
	Walleye							1	1	1									3	3.00 (1.91)
	Yellow perch																		0	0
Pump Station	Largemouth bass	2	13	3	14	15	9	2	2	5		1	2	2	5				75	75.00 (11.36)
	Spotted bass	4	8	10	17	5	8	3	2	6	4	3	4						74	74.00 (11.94)
	Smallmouth bass				1														1	1.00 (1.00)
	Walleye							4	3	1	2			1					11	11.00 (3.00)
	Yellow perch						1												1	1.00 (1.00)
Dock	Largemouth bass	3	24	15	12	8	24	6	8	10	6	2	3	5	3	2	1	1	133	133.00 (59.05)
	Spotted bass		1	1	5	8	7	2	1	1	1	1			1				29	29.00 (7.19)
	Smallmouth bass																		0	0
	Walleye							2	9							2			13	13.00 (4.12)
	Yellow perch																		0	0
Total	Largemouth bass	5	37	19	27	26	39	9	11	16	8	4	5	7	9	3	1	1	227	75.67 (22.98)
	Spotted bass	4	10	20	27	17	16	9	8	11	7	5	7		1				142	47.33 (7.91)
	Smallmouth bass				2														2	0.67 (0.45)
	Walleye							7	13	2	2			1		2			27	9.00 (2.10)
	Yellow perch						1												1	0.33 (0.33)

sedyoywc.d05

Table 118. 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 Wood Creek Lake.

Year Class	Age 0 Mean length	Age 0 Std. error	Age 0 CPUE	Age 0 Std. error	Age 0 ≥ 5.0 CPUE	Age 0 ≥ 5.0 Std. error	Age 1 CPUE	Age 1 Std. error
2004	4.2	0.13	17.9	4.78	4.3	1.46	0.8	0.53
2005	4.0	0.09	23.7	11.90	3.3	1.38		

sedyoywc.d05

Table 119. Number of fish and mean relative weight (Wr) for each length class of black bass collected at Wood Creek Lake during 20 and 22 September 2005. Standard error is in parentheses.

Species	Size range					
	8.0 - 11.9 in.		12.0 - 14.9 in.		≥ 15.0 in.	
Largemouth bass	No.	Wr	No.	Wr	No.	Wr
	44	84 (1.0)	16	90 (2.2)	14	96 (2.4)
	7.0 - 10.9 in.		11.0 - 13.9 in.		≥ 14.0 in.	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	36	93 (1.4)	19	93 (2.0)	1	100 (-)

sedyoywc.d05

Table 120. Length frequency and CPUE of walleye collected at Wood Creek Lake in 19 net-nights on 2-4 November 2005.

Species	Inch class						Total	CPUE	Std. error
	11	12	15	17	24	25			
Walleye	1	2	1	1	1	1	7	0.37	0.17

sedgnwcw.d05

Table 121. Mean back calculated lengths (in) at each annulus for walleye collected from Wood Creek Lake during 2005, including the 95% confidence interval (CI) for each mean length per age group.

		Age		
Year	No.	1	2	3
2004	11	7.8		
2003	8	8.9	11.8	
2002	5	11.6	15.1	17.9
Mean		9.0	13.1	17.9
Number		24	13	5
Smallest		6.7	10.4	14.4
Largest		14.4	18.3	22.6
Std error		0.4	0.7	1.8
95% CI ±		0.7	1.4	3.5

Otoliths were used for age-growth determinations; Intercept = 0
sedagwcw.d05

Table 122. Age-frequency and CPUE of walleye gill netting for 19 net-nights at Wood Creek Lake during November 2005. Standard error is in parentheses.

	Inch Class									
Age	11	12	15	17	24	25	Total	%	CPUE	
1	1						1	14.3	0.05	(0.05)
2		2					2	28.6	0.11	(0.07)
3			1	1	1	1	4	57.1	0.21	(0.12)
Total	1	2	1	1	1	1	7	100.0	0.37	
%	14.3	28.6	14.3	14.3	14.3	14.3				

sedgnwcw.d05
sedagwcw.d05

Table 123. Number of fish and mean relative weight (Wr) for each length class of walleye collected in Wood Creek Lake during fall 2005. Standard error is in parentheses.

Size range					
10.0 - 14.9 in.		15.0 - 19.9 in.		≥ 20.0 in.	
No.	Wr	No.	Wr	No.	Wr
8	66 (2.4)	4	77 (3.1)	2	93 (1.3)

sedgnwcw.d05
sedyoywc.d05

EASTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Buckhorn Lake

The muskellunge population was sampled by electrofishing in February 2005. Length frequency, catch-per-unit-effort (CPUE), and population assessment are in Tables 1 – 2. Although of legal size for anglers to keep, the number of fish greater than 40 inches continues to increase in the electrofishing sample. The $\log_{10}$ length-weight equation for muskellunge was $-4.35 + 3.50(\log_{10}$ length).

The black bass populations were sampled during the spring and fall (Tables 3 – 8). The CPUE of age-0 largemouth bass in the fall was low compared to recent years (Table 8). A stocking of 9,925 fingerling largemouth bass was done in October to supplement this lower natural recruitment. During the spring of 2006 this supplemental stocking will be evaluated.

Trap netting was completed for white crappie in November and this information is presented in Tables 9 - 13. The majority of fish sampled were ages 1 – 2 (Table 13). The population assessment of "Fair" was improved over the 2004 assessment (Table 13).

A day (13 April -31 October) creel survey was conducted at Buckhorn Lake and tailwater during 2005. Each day that was surveyed consisted of 4 hours on the lake and 2 hours at the tailwater. Dates, times, and order of surveys were randomized. Total angler counts were conducted at the middle of a survey period. Data obtained is presented in Tables 14 – 22. The number of fishing trips and angler hours was lower than the last creel survey in 2001. However, the 2005 survey covered approximately 1.5 fewer months than the 2001 survey, flooding in April and again in May hindered the 2005 survey, and the price of gas doubled during the survey period. Angler success rates at Buckhorn Lake during 2005 were 5.00% for muskellunge, 2.22% for black bass, and 73.95% for white crappie. During the 2001 Buckhorn Lake survey, angler success rates were 1.74% for muskellunge, 7.66% for black bass, and 78.39% for white crappie. White crappie were the most numerous fish caught during the 2005 Buckhorn Lake and tailwater surveys (Tables 15 & 16).

Angler attitude surveys were conducted at the lake and tailwater to obtain further information (Appendices A & B). Anglers were asked to answer a series of questions regarding the fishery at Buckhorn Lake (Appendix A) or tailwater (Appendix B). Anglers were surveyed throughout the creel during 2005 with anglers only being asked the questions once. A total of 197 surveys were completed during the lake creel and 25 surveys were completed at the tailwater creel. Crappie were the most popular species fished for on the lake and channel catfish were the most popular species fished for at the tailwater.

Carr Creek Lake

The black bass population was sampled during May and October. Tables 23 – 30 provide data from the spring and fall sampling. Total CPUE of largemouth bass during the spring was lower compared to recent years and recruitment of age-0 largemouth bass was also lower. During October, the lake was stocked with 7,174 fingerling largemouth bass to supplement the weak 2005-year class. The $\log_{10}$ length-weight equation for largemouth bass was $-3.58 + 3.25(\log_{10}$ length).

Walleye sampling was conducted during March. Tables 31 – 33 list length frequency, CPUE, population assessment, and relative weights for walleye. The CPUE of walleye has remained consistent for several years and population assessments have been "Good" to "Excellent".

Cranks Creek

Black bass were sampled in Cranks Creek Lake once on 11 May 2005. Largemouth bass were collected from 4 – 22 inches total length (Table 34). Numbers of largemouth bass greater than 15 inches are low as well as the PSD (Tables 35 – 36). However, recent sampling data is slightly improved and anglers report catches of more quality fish in their catch of late.

Dewey Lake

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.

During spring and fall, black bass were sampled at Dewey Lake. The largemouth bass fishery continues to do well and is gaining the attention of more tournaments. Tables 37 – 43 contain spring and fall sampling data. The population assessment of largemouth bass has been "Good" for 2003 – 2005 (Table 40). The $\log_{10}$ length-weight equation for largemouth bass was – 3.46+ 3.09($\log_{10}$ length).

Fishpond

Bluegill were sampled on 25 May 2005. Data collected is presented in Tables 44 – 48. The 2005 population assessment of "Excellent" is improved over the last assessment (Table 48). This fishery is doing well at present and produces some quality size fish in angler catches.

Fishtrap Lake

At Fishtrap Lake, black bass were sampled in the spring and fall. Both largemouth and smallmouth bass are doing well and provide quality fish for anglers. Data from sampling is contained in Tables 49 – 54. The population assessment of largemouth bass continues to remain a "Good" rating (Table 52).

Hybrid-striped bass sampling was completed in late November. Fish were sampled from 6 – 24 inches total length (Table 55). Tables 56 – 58 list age and growth information and population assessment. At the present time, this fishery is doing excellent.

Trap netting was completed in November for white crappie. A total of 22 net-nights were used for the information in Tables 59 – 63. White crappie provide a popular fishery with anglers at Fishtrap Lake and continue to have a population assessment of "Good" (Table 63).

Martin County Lake (Milo Lake)

During May, bluegill and redear sunfish were sampled. Tables 64 – 68 contain a summary of the data. The 2005 population assessment of bluegill improved to "Good" from the previous rating of "Fair" in 2003 (Table 68).

Martin County Reservoir

Bluegill were sampled by electrofishing on 26 May. The number of fish sampled was low due to early completion of spawning and fish were not near banks. Future bluegill sampling will be completed earlier. Tables 69 – 71 report CPUE, length frequency, PSD, and RSD values.

Martins Fork Lake

Martins Fork Lake was sampled for black bass in the spring and fall and walleye in the spring. Black bass data for spring is shown in Tables 72 – 75 and for fall in Tables 76-77. Spring CPUE and length frequency for walleye is in Table 72. The population assessment for largemouth bass in 2005 was the same as in 2004 and 2003 rating a "Fair" score (Table 75).

Pikeville City Lake

This lake continues to do well producing large bass. Largemouth bass were sampled during the day this spring (Tables 78 – 80). PSD and RSD values for largemouth bass are very good (Table 80). Beginning 1 March 2006, largemouth bass will be managed with a catch-and-release only regulation.

Paintsville Lake

Tables 81 – 87 provide sampling information on black bass for spring and fall. Walleye were not sampled in spring of 2005. During 2006 walleye will be sampled by electrofishing during March. Recent recruitment of young largemouth bass has been very good at the lake. This has worked against our objective of reducing small largemouth bass numbers in the lake with the 12 – 15 inch slot length limit. The spring total CPUE of largemouth bass is the highest obtained to date (Table 82).

Pan Bowl Lake

Largemouth bass were sampled in April (tables 88 – 90). The PSD of largemouth bass is remaining good (Table 90), although fish greater than 12 inches has declined some (Table 89). The fishery looks stable at present.

Yatesville Lake

Black bass were sampled during the spring and fall (Tables 92 - 99). The largemouth bass population at this lake receives a great amount of fishing pressure and many bass tournaments occur on the lake. However, largemouth bass continue to do very well and sampling data shows no dramatic declines in the CPUE of various size groups (Table 92). Year class strength of largemouth bass has been similar from 2003 – 2005 (Table 99). During 2006, sampling of largemouth bass will also include testing for largemouth bass virus (LMBV) and other diseases or health issues.

Appendix B. Buckhorn Lake Tailwater Angler Attitude Survey - Frequency Table (N=25)

4. What species of fish do you fish for at Buckhorn Lake?

	Frequency	Percent
Bass	10	40.0%
Crappie	19	76.0%
Channel Catfish	20	80.0%
Muskie	13	52.0%
Other	1	4.0%
Bluegill	1	4.0%
Trout	2	8.0%

5. Which one species do you fish for most at Buckhorn Lake?

	Frequency	Percent
Bass	1	4.3%
Crappie	6	26.1%
Channel Catfish	13	56.5%
Trout	2	8.7%
Carp	1	4.3%
Total	23	
No Response	2	

6. What level of satisfaction do you have with the bass fishing at Buckhorn Lake?

	Frequency	Percent
Very Satisfied	8	80.0%
Somewhat Satisfied	2	20.0%
Neutral	0	0.0%
Somewhat Dissatisfied	0	0.0%
Very Dissatisfied	0	0.0%
Total	10	
No Response	15	

7. Do you support or oppose the current 15-inch size limit on largemouth bass at the lake?

	Frequency	Percent
Support	10	100.0%
Oppose	0	0.0%
Total	10	
No Response	15	

7a. What size limit would you prefer on largemouth bass at the lake?

	Frequency	Percent
Current (15")	10	100.0%
12"	0	0.0%
Other	0	0.0%
Total	10	
No Response	15	

Appendix B. Buckhorn Lake Angler Attitude Survey - continued

8. What level of satisfaction do you have with the crappie fishing at Buckhorn Lake?

	Frequency	Percent
Very Satisfied	16	84.2%
Somewhat Satisfied	2	10.5%
Neutral	0	0.0%
Somewhat Dissatisfied	1	5.3%
Very Dissatisfied	0	0.0%
Total	19	
No Response	6	

9. Do you support or oppose the no size limit regulation on crappie at the lake?

	Frequency	Percent
Support	13	68.4%
Oppose	6	31.6%
Total	19	
No Response	6	

9a. What size limit would you prefer on crappie at the lake?

	Frequency	Percent
Current (None)	13	68.4%
9"	2	10.5%
10"	1	5.3%
Other (12")	1	5.3%
Other (8")	2	10.5%
Total	19	
No Response	6	

10. Do you support or oppose the 30 fish daily creel limit on crappie at the lake?

	Frequency	Percent
Support	18	94.7%
Oppose	1	5.3%
Total	19	
No Response	6	

10a. What daily creel limit do you prefer on crappie at the lake?

	Frequency	Percent
Current (30)	18	94.7%
20	0	0.0%
15	1	5.3%
10	0	0.0%
Other	0	0.0%
Total	19	
No Response	6	

Appendix B. Buckhorn Lake Angler Attitude Survey - continued

11. What level of satisfaction do you have with the channel catfish fishing at Buckhorn Lake?

	Frequency	Percent
Very Satisfied	17	89.5%
Somewhat Satisfied	2	10.5%
Neutral	0	0.0%
Somewhat Dissatisfied	0	0.0%
Very Dissatisfied	0	0.0%
Total	19	
No Response	6	

12. Do you support or oppose the no size limit regulation on channel catfish at the lake?

	Frequency	Percent
Support	18	94.7%
Oppose	1	5.3%
Total	19	
No Response	6	

12a. What size limit would you prefer on channel catfish at the lake?

	Frequency	Percent
Current (none)	18	94.7%
12"	1	5.3%
14"	0	0.0%
Other	0	0.0%
Total	19	
No Response	6	

13. Do you support or oppose the no creel limit regulation on channel catfish at the lake?

	Frequency	Percent
Support	18	94.7%
Oppose	1	5.3%
Total	19	
No Response	6	

13a. What creel limit would you prefer on channel catfish at the lake?

	Frequency	Percent
Current (None)	18	94.7%
5	0	0.0%
15	1	5.3%
30	0	0.0%
Other	0	0.0%
Total	19	
No Response	6	

Appendix B. Buckhorn Lake Angler Attitude Survey - continued

14. What level of satisfaction do you have with the muskie fishing at Buckhorn Lake?

	Frequency	Percent
Very Satisfied	14	58.3%
Somewhat Satisfied	3	12.5%
Neutral	6	25.0%
Somewhat Dissatisfied	0	0.0%
Very Dissatisfied	1	4.2%
Total	24	
No Response	1	

15. Do you support or oppose the 40-inch minimum size limit on muskie at the lake?

	Frequency	Percent
Support	14	58.3%
Oppose	10	41.7%
Total	24	
No Response	1	

15a. What size limit would you prefer on muskie at the lake?

	Frequency	Percent
Current (40")	13	56.5%
36"	1	4.3%
30"	7	30.4%
Other (24")	2	8.7%
Total	23	
No Response	2	

16. Do you support or oppose the 1 fish creel limit on muskie at the lake?

	Frequency	Percent
Support	18	75.0%
Oppose	6	25.0%
Total	24	
No Response	1	

16a. What creel limit would you prefer on muskie at the lake?

	Frequency	Percent
Current (1)	18	75.0%
2	0	0.0%
3	2	8.3%
4	2	8.3%
Other (5)	2	8.3%
Total	24	
No Response	1	

Table 1. Length frequency and electrofishing CPUE (no./hour) of muskellunge collected during spring sampling on Buckhorn Lake from 2000-2005; numbers in parentheses are standard errors.

	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	Total	CPUE
2000		1	3	2	3	1								4				1	2		7	1		1	1			2	1				1					31	8.2 (0.5)
2001					4	1	1				1			1									1		1	1		1									1	13	3.2 (0.7)
2002							1							2	1						3	1		1			2				1							12	6.0 (0.8)
2003	1		5	2	1	1									2	1	1		1	1	2	1	1				1									1		22	7.1 (1.9)
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	16.7 (2.1)
2005					4	5	2					1		2	2							1			1			2	1	1	3		1				1	27	6.3 (1.7)

Table 2. Population assessment for muskellunge from Buckhorn Lake captured during spring electrofishing from 1998-2005. 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
CPUE Age 1 muskellunge	2	2	2	1	1	2	3	2
	(3.5)	(2.0)	(2.7)	(1.5)	(0.5)	(3.3)	(5.9)	(2.5)
CPUE ≥ 20.0 inch muskellunge	2	3	3	1	3	2	4	2
	(3.2)	(8.5)	(5.4)	(1.7)	(5.5)	(3.9)	(11.1)	(3.7)
CPUE ≥ 30.0 inch muskellunge	1	2	3	1	4	3	4	3
	(0.9)	(1.8)	(3.8)	(1.2)	(4.0)	(2.0)	(6.3)	(2.6)
CPUE ≥ 36.0 inch muskellunge	1	1	3	2	4	4	4	4
	(0.3)	(0.2)	(1.0)	(0.5)	(1.5)	(0.7)	(2.8)	(2.1)
CPUE ≥ 40.0 inch muskellunge	1	1	2	3	3	3	3	4
			(0.2)	(0.3)	(0.5)	(0.3)	(0.3)	(1.1)
Total Score	7	9	13	8	15	14	18	15
Assessment Rating	Fair	Fair	Good	Fair	Good	Good	Excellent	Good

Table 3. Length frequency and CPUE (no./hour) of black bass collected in 3 hours of 15-min nocturnal electrofishing runs at Buckhorn Lake on 23 May 2005; numbers in parentheses are standard errors.

Area/	Inch class																				
species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Upper																					
Largemouth bass		2	9	15	13	1	1	16	36	23	33	11	5	7	1	1	2			176	117.3 (10.1)
Spotted bass									1											1	0.7 (0.7)
Lower																					
Largemouth bass		2	1	2	4	2	2	8	21	28	29	23	14	8	2		3		1	150	100.0 (11.9)
Spotted bass					1	2														3	2.0 (1.4)
Total																					
Largemouth bass		4	10	17	17	3	3	24	57	51	62	34	19	15	3	1	5		1	326	108.7 (7.9)
Spotted bass					1	2			1											4	1.3 (0.8)

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Table 4. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Buckhorn Lake. CPUE=fish/hour, SE=standard error.

	Inch Class							
	<8.0		8.0-11.9		12.0-14.9		≥15.0	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	22.7	3.5	18.7	2.3	28.3	3.8	6.3	1.2
2004	38.0	6.2	51.7	6.5	29.3	4.2	4.3	1.5
2005	17.0	3.5	45.0	5.1	38.3	5.5	8.3	1.2

EFDBLLSS.D03
EFDBLLSS.D04
EFDBLLSS.D05

Table 5. PSD and RSD values for largemouth bass taken in spring electrofishing samples in each area of Buckhorn Lake on 23 May 2005; 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8"	PSD (+/- 95%)	RSD* (+/- 95%)
Upper	Largemouth bass	136	44.1 (35.7-52.5)	8.1 (3.5-12.7)
	Spotted bass	1		
Lower	Largemouth bass	139	57.6 (49.3-65.8)	10.1 (5.1-15.1)
	Spotted bass	2		
Total	Largemouth bass	276	50.9 (45.0-56.8)	9.1 (5.7-12.5)
	Spotted bass	3		

* Largemouth bass RSD = 15; Spotted bass RSD = 14
EFDBLLSS.D05

Table 6. Population assessments for largemouth bass collected during spring at Buckhorn Lake. Actual values are in parentheses.

Parameter	Year 2003	2004	2005
Length at age 3	4 (12.6)	4 (12.6)	4 (12.6)
Spring CPUE of age 1 fish	1 (19.2)	2 (35.5)	1 (16.3)
Spring CPUE 12-14.9 in. fish	3 (28.3)	3 (29.3)	4 (38.3)
Spring CPUE ≥ 15.0 in. fish	2 (6.3)	2 (4.3)	2 (8.3)
Spring CPUE ≥ 20.0 in. fish	1	1	2 (0.3)
Total score	11	12	13
Assessment rating	Fair	Good	Good
Instantaneous mortality (z)	0.61	0.85	0.67
Annual mortality (A)	45.6	57.2	48.7

EFDBLLSS.D03
EFDBLLSS.D04
EFDBLLSS.D05

Table 7. Length frequency and electrofishing CPUE (no./hour) of black bass collected in 1.5 hours of 15-min nocturnal electrofishing runs at Buckhorn Lake on 22 September 2005; numbers in parentheses are standard errors.

Area/	Inch class																				
species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Upper																					
Largemouth bass	6	10	6	6	3	1	3	6	4	2	5	4	1							57	76.0 (14.1)
Spotted bass																					0.0
Lower																					
Largemouth bass	11	8	11	2	4	10	14	3	2	6	1	6	2	2				1		83	110.7 (15.0)
Spotted bass		1							1											2	2.7 (2.7)
Total																					
Largemouth bass	17	18	17	8	7	11	17	9	6	8	6	10	3	2				1		140	93.3 (12.0)
Spotted bass		1							1											2	1.3 (1.3)

EFDBLLSF.D05

Table 8. Indices of year class strength at age-0 and age-1 and mean lengths (in) of age-0 largemouth bass at Buckhorn Lake from electrofishing. CPUE=fish/hour, SE=standard error.

	Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2001			24.0		18.7		21.3	0.6
2002	5.8	0.2	99.3	7.4	38.7	2.6		
2003	4.7	0.5	106.0	13.8	39.7	4.6	22.7	3.5
2004	3.6	0.0	176.7	34.0	9.3	4.6	16.3	3.5
2005	4.0	0.2	44.7	6.6	10.0	3.5		

EFDBLLFS.D01
EFDBLLFS.D02
EFDBLLFS.D03
EFDBLLFS.D04
EFDBLLFS.D05

Table 9. Length frequency and CPUE (fish/net-night) of white crappie collected by trap net at Buckhorn Lake in 26 net-nights from 8-10 November 2005. Standard errors are in parentheses.

Inch class												
2	3	4	5	6	7	8	9	10	11	Total	CPUE	
	2	8	88	69	121	75	16	7	9	395	15.20	(1.9)

EFDBLCTF.D05

Table 10. PSD and RSD values calculated for crappie collected in trap nets at Buckhorn Lake during November 2005; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD	RSD
White crappie	385	27.8 (23.3-32.3)	4.2 (2.2-6.2)

EFDBLCTF.D05

Table 11. Mean back-calculated length (in) at each annulus for white crappie collected from Buckhorn Lake in November 2005, including 95% confidence intervals.

Year		Age				
Class	No.	1	2	3	4	5
2004	22	4.6				
2003	24	4.5	6.6			
2002	18	5.0	7.2	8.8		
2001	3	4.6	6.5	7.8	9.2	
2000	2	4.3	6.0	7.1	8.0	9.1
Mean		4.7	6.8	8.5	8.7	9.1
Smallest		3.6	5.5	6.3	7.1	8.0
Largest		6.7	8.3	10.4	10.1	10.2
STD error		0.1	0.1	0.2	0.5	1.1
95% CI LO		4.5	6.5	8.1	7.7	6.9
95% CI HI		4.8	7.0	8.9	9.8	11.3

Intercept = 0
EFDBLCAF.D05

Table 12. Age frequency and CPUE (fish/net night) of white crappie collected by trap netting for 26 net-nights at Buckhorn Lake in November 2005; numbers in parentheses are standard errors.

	Inch class													
Age	2	3	4	5	6	7	8	9	10	11	Total	Age%	CPUE	
0		2	8								10	3	0.38	(0.15)
1				88	41	55	7				191	48	7.35	(1.24)
2					28	55	55	9	1		148	37	5.66	(0.64)
3						11	14	4	6	6	41	10	1.58	(0.20)
4								1		2	3	1	0.13	(0.03)
5								1		1	2	1	0.09	(0.02)
Total		2	8	88	69	121	76	15	7	9	395	100		
%		1	2	22	17	31	19	4	2	2				

CPUE of ≥8 in (quality size) = 4.12
CPUE of ≥10 in (preferred size) = 0.62
EFDBLCAF.D05
EFDBLCTF.D05

Table 13. Population assessments for white crappie collected from Buckhorn Lake.

	2003		2004		2005	
Parameter	Assessment value	Assessment score	Assessment value	Assessment score	Assessment value	Assessment score
CPUE of crappie (excluding age 0)	31.4	4	5.5	2	14.8	3
CPUE of age 1 crappie	17.4	4	0.65	1	7.4	3
CPUE of age 0 crappie	28.2	4	0.75	1	0.4	1
CPUE of crappie ≥ 8 in.	4.2	2	2.2	2	4.1	2
Mean age 2 length @ capture	8.2	1	8.1	1	8.3	1
Instantaneous mortality (z)	1.316		1.373		1.301	
Annual Mortality (A)	73.2		74.7		72.8	
Total score		15		7		10
Assessment rating		Good		Poor		Fair

EFDBLCTF.D03
EFDBLCAF.D03
EFDBLCTF.D04
EFDBLCAF.D04
EFDBLCTF.D05

Table 14. Fish harvest statistics derived from a creel survey at Buckhorn Lake (1,230 acres) and tailwater (1 acre) from 13 April through 31 October 2005. Standard errors are in parentheses.

	Lake	Tailwater
Fishing trips		
No. of fishing trips	1,423	267
No. of fishing trips per acre	1.16	267
Fishing pressure		
Total angler hours	7,363 (579)	2,078 (267)
Man-hours/acre	5.99	2,078
Catch/harvest		
No. of fish caught	9,676 (2,176)	910 (407)
No. of fish harvested	5,605 (1,427)	397 (182)
Lb of fish harvested	2,403	230
Harvest rates		
Fish/hour	0.82	0.20
Fish/acre	4.56	396.65
Lb/acre	1.95	229.90
Catch rate		
Fish/hour	1.34	0.40
Fish/acre	7.87	909.16
Miscellaneous characteristics (%)		
Male	97.6	82.1
Female	2.4	17.9
Resident	98.0	94.6
Non-resident	2.0	5.4
Method (%)		
Still fishing	47.4	94.6
Casting	41.8	5.4
Fly fishing	0.0	
Trolling	10.0	
Other	0.8	
Mode (%)		
Boat	99.6	10.7
Bank	0.4	89.3

Table 15. Fish harvest statistics derived from a creel survey at Buckhorn Lake (1,230 acres) from 13 April through 31 October 2005.

	White bass	Muskellunge	Flathead catfish	Channel catfish	Warmouth	Bluegill	Smallmouth bass	Spotted bass	Largemouth bass	White Crappie
No. caught		100	12	36	6	1463			1143	6915
(per acre)		(0.08)	(0.01)	(0.03)	(0.01)	(1.19)			(0.93)	(5.62)
No. harvested		15	6	30	6	956			71	4520
(per acre)		(0.01)	(0.01)	(0.02)	(0.01)	(0.78)			(0.06)	(3.68)
% of total no. harvested		0.27	0.11	0.54	0.11	17.06			1.27	80.66
Lb harvested		309.8	52.3	71.3	0.9	181.4			133.9	1653.5
(per acre)		(0.25)	(0.04)	(0.06)	(t)	(0.15)			(0.11)	(1.34)
% of total lb harvested		12.89	2.18	2.97	0.04	7.55			5.57	68.81
Mean length (in)		42.5	28.0	19.6	6.0	6.7			16.1	9.3
Mean weight (lb)		20.41	8.69	2.37	0.15	0.19			2.17	0.38

	Muskellunge	Catfish group	Panfish group	Black bass group	Crappie group	Anything
No. of fishing trips for that species	83	25	34	523	703	45
% of all trips	5.87	1.77	2.41	37.01	49.75	3.18
Hours fished for that species	428.03	128.45	175.52	2703.41	3635.16	234.39
(per acre)	(0.35)	0.10	(0.14)	(2.20)	(2.96)	(0.19)
No. harvested fishing for that species	9	36	493	29	4500	
Lb harvested fishing for that species	176.40	123.20	83.70	60.80	1643.00	
No./hour harvested fishing for that species	0.021	0.280	2.809	0.011	1.238	
% success fishing for that species	5.00	33.33	85.71	2.22	73.95	50.00

t < 0.01

Table 16. Fish harvest statistics derived from a creel survey at Buckhorn Lake tailwater (1 acre) from 13 April through 31 October 2005.

	Drum	Common carp	Muskellunge	White bass	Channel catfish	Warmouth	Bluegill	Spotted bass	Largemouth bass	White Crapple	Rainbow trout
No. caught	7	38		38	158	26	270	13		308	52
(per acre)	(6.6)	(37.5)		(38.3)	(158.5)	(25.5)	(270.5)	(12.7)		(307.7)	(52.0)
No. harvested	7			38	106	26	23			159	37
(per acre)	(6.6)			(38.3)	(106.3)	(25.5)	(22.9)			(159.3)	(37.5)
% of total no. harvested	1.76			9.60	26.77	6.57	5.81			40.15	9.34
Lb harvested	9.5			30.1	115.7	3.8	3.8			57.5	9.5
(per acre)	(9.5)			(30.1)	(115.7)	(3.8)	(3.8)			(57.5)	(9.5)
% of total lb harvested	4.13			13.09	50.33	1.65	1.65			25.01	4.13
Mean length (in)	15.0			12.3	15.1	6.0	6.5			9.2	9.0
Mean weight (lb)	1.43			0.78	1.14	0.15	0.18			0.34	0.30

	Catfish group	Panfish group	Black bass group	Crapple group	Trout group	Anything
No. of fishing trips for that species	51			77		270
% of all trips	12.70			19.50		67.80
Hours fished for that species	260.00			398.70		1390.92
(per acre)	(260.00)			(398.70)		(1390.92)
No. harvested fishing for that species	37			136		
Lb harvested fishing for that species	26.8			52.8		
No./hour harvested fishing for that species	0.14			0.42		
% success fishing for that species	33.30			22.20		31.57

t < 0.01

Table 17. Species composition and length distribution of each species of fish harvested (H) and released (R) from a creel survey on Buckhorn Lake (1,230 acres) from 13 April to 31 October 2005.

Species		Inch class																																
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	23	24	25	28	29	31	32	33	34	36	39	41	42	43	48
Muskellunge	H																																	
	R																															8	7	
Channel catfish	H																				9		9	9		9			24		8		8	9
	R																																	
Flathead catfish	H																																	
	R																						6											
Bluegill	H			341	532	83															6													
	R	11	405	79	11																													
Warmouth	H			6																														
	R																																	
Spotted bass	H																																	
	R																																	
Largemouth bass	H												51	10	10																			
	R					75	43	32	11	322	193	97	150	75	43	11	11	9																	
Smallmouth bass	H																																	
	R																																	
White crappie	H			89	142	1143	931	1383	629	151	27	25																							
	R		312	1164	701	123	28	38		9	9	11																							

Table 18. Species composition and length distribution of each species of fish harvested (H) and released (R) from a creel survey on Buckhorn Lake tailwater (1 acre) from 13 April to 31 October 2005.

		Inch class																	
Species		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Common carp	H																		
	R													13		13			11
Drum	H																		
	R													7					
Muskellunge	H																		
	R																		
Channel catfish	H										21			43	21	21			
	R												13	26	13				
Flathead catfish	H																		
	R																		
White bass	H									13		25							
	R																		
Bluegill	H				11	11													
	R	18	35	106	88														
Warmouth	H				26														
	R																		
Spotted bass	H																		
	R						13												
Largemouth bass	H																		
	R																		
Rainbow trout	H				12		12			13									
	R				14														
White crappie	H						27	80	40	12									
	R				81	27	40												

Table 19. Monthly black bass angling success at Buckhorn Lake during the 2005 creel survey period.

	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
Apr	221	63	121	625	116	0.190	21	0.034
May	275	8	145	749	267	0.508	8	0.015
Jun	165		81	418	165	0.342		
Jul	271		78	403	271	0.692		
Aug	92		31	158	93	0.667		
Sep	65		36	188	46	0.625		
Oct	54		31	162	48	0.444		
Total	1144	71	523	2703	1006		29	
Mean						0.405		0.013

Table 20. Monthly white crappie angling success at Buckhorn Lake during the 2005 creel survey period.

	Total no. of white crappie caught	Total no. of white crappie harvested	No. of white 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	1917	1559	242	1250	1833	1.41	1538	1.19
May	3981	2528	284	1470	3974	2.37	2528	1.50
Jun	156	130	54	279	156	0.69	130	0.58
Jul	302	0	33	173	211	1.40	0	0.00
Aug	312	139	36	185	312	1.42	139	0.63
Sep	140	93	23	117	139	0.94	93	0.63
Oct	108	72	31	162	108	0.57	72	0.38
Total	6916	4520	703	3635	6733		4500	
Mean						1.75		1.19

Table 21. Monthly muskellunge angling success at Buckhorn Lake during the 2005 creel survey period.

	Total no. of musky caught	Total no. of musky harvested	No. of musky fishing trips	Hours fished by musky anglers	Musky caught by musky anglers	Musky caught/hour by musky anglers	Musky harvested by musky anglers	Musky harvested/hour by musky anglers
Apr	0		0					
May	0		0					
Jun	26		22	116	26	0.224	0	0.000
Jul	0		0					
Aug	0		0					
Sep	56	9	27	141	56	0.397	9	0.064
Oct	18	6	22	113	12	0.106	0	0.000
Total	100	15	71	370	94		9	
Mean						0.254		0.024

Table 22. Catch and harvest statistics derived from a creel survey at Buckhorn Lake (1,230 acres) in 2005 for largemouth bass and muskellunge.

	Largemouth bass				Muskellunge			
		Catch & release				Catch & release		
	Harvest	12-14.9	≥15.0	Total	Harvest	< 30.0	≥30.0	Total
Total number	71	612	299	1144.00	15	60	25	100
Total weight (lb)	134.0	508.0	627.0	1404.00	303.7	480.7	596.5	1380.9
Mean length (in)	16.1	12.6	15.9		42.5	31.4	44.2	
Mean weight (lb)	2.17	0.95	2.10		20.25	8.01	23.86	
Rate (fish/hour)	0.026	0.226	0.111		0.035	0.140	0.058	

Table 23. Species composition, relative abundance and CPUE (fish/hour) of black bass collected in 9.0 hours of 30-minute electrofishing runs at Carr Creek Lake on 16-17 May 2005; lower = 3.0 hours, middle = 4.5 hours, and upper = 1.5 hours.

		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
Lower	Smallmouth bass															2					2	0.7 (0.4)
	Spotted bass			2	8	6	19	23	25	16	13	6	4		2	1					125	41.7 (5.6)
	Largemouth bass			8	40	6	13	22	14	16	12	25	32	25	20	8	15	8	2	2	268	89.3 (8.9)
Middle	Smallmouth bass						1	1		2					1						5	1.1 (0.7)
	Spotted bass		3	1	5	16	25	36	34	22	10	12	5	2	3	1					175	38.9 (8.3)
	Largemouth bass		1	5	50	10	24	36	22	18	16	28	56	26	22	14	9	6	4	1	348	77.3 (6.2)
Upper	Smallmouth bass																				0	0.0 (0.0)
	Spotted bass		1	2	1		1	6	9	2	4	2	2	1							31	20.7 (3.7)
	Largemouth bass			3	7	7	6	6	8	2	6	12	9	10	5	3	2	3	2		91	60.7 (10.4)
Total	Smallmouth bass						1	1		2					1	2					7	0.8 (0.4)
	Spotted bass		4	5	14	22	45	65	68	40	27	20	11	3	5	2					331	36.8 (4.7)
	Largemouth bass		1	16	97	23	43	64	44	36	34	65	97	61	47	25	26	17	8	3	707	78.6 (4.9)

BBRPSCFL.D05

Table 24. Spring electrofishing CPUE for each size class of largemouth bass collected at Carr Creek Lake. CPUE = fish/hour, SE=standard error.

	Inch class									
	<8.0		8.0-11.9		12.0-14.9		≥15.0		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	117.6	7.2	15.9	0.9	12.0	0.7	7.1	0.6	152.7	13.3
2003	67.6	11.3	15.9	2.2	11.1	1.5	10.7	1.5	105.2	14.4
2004	135.0	17.7	24.4	5.3	8.4	1.4	9.0	1.2	176.9	18.8
2005	20.0	2.7	19.8	1.6	24.8	2.4	14.0	1.8	78.6	4.9

BBRPSCFL.D02
BBRPSCFL.D03
BBRPSCFL.D04
BBRPSCFL.D05

Table 25. PSD and RSD values for each species of black bass in each area of Carr Creek Lake in 2005. Number of fish (No.) is the number of stock-size or larger fish collected and numbers in parentheses are 95% confidence intervals.

	Largemouth bass			Smallmouth bass			Spotted bass		
Area	No.	PSD	RSD*	No.	PSD	RSD*	No.	PSD	RSD*
Lower	201	68.2 (61.7-74.6)	27.4 (21.2-33.5)	2	100.0 (100.0)	100.0 (100.0)	109	23.9 (15.8-31.9)	2.8 (-0.3-5.8)
Middle	258	64.3 (58.5-70.2)	21.7 (16.7-26.7)	5	20.0 (100.0)	20.0 (-19.2-59.2)	150	22 (15.3-28.7)	4 (0.9-7.1)
Upper	68	67.6 (56.4-78.8)	22.1 (12.1-32.0)	0			27	33.3 (15.2-51.5)	3.7 (-3.6-11.0)
Total	527	66.2 (62.2-70.3)	23.9 (20.3-27.6)	7	42.9 (3.3-82.5)	42.9 (3.3-82.5)	286	23.8 (18.8-28.7)	3.5 (1.4-5.6)

* Largemouth bass RSD = 15; Smallmouth and Spotted bass RSD = 14

BBRPSCFL.D05

Table 26. Population assessments for largemouth bass collected from Carr Creek Lake 2002-2005. Actual values are in parentheses.

Parameter	Year 2002	2003	2004	2005
Length at age 3	4 (13.2)	4 (13.2)	4 (13.2)	4 (13.2)
Spring CPUE of age 1 fish	4 (114.4)	3 (66.2)	4 (133.7)	2 (18.8)
Spring CPUE 12-14.9 in. fish	1 (12.0)	1 (11.1)	1 (8.4)	2 (24.8)
Spring CPUE ≥ 15.0 in. fish	2 (7.1)	2 (10.7)	2 (9.0)	2 (14.0)
Spring CPUE ≥ 20.0 in. fish	1	1 (0.4)	1 (0.2)	1 (0.3)
Total score	12	11	12	11
Assessment rating	Good	Fair	Good	Fair
Instantaneous mortality (z)		0.52	0.54	0.47
Annual mortality (A)		40.3	42.0	37.5

BBRPSCFL.D02
BBRPSCFL.D03
BBRPSCFL.D04
BBRPSCFL.D05

Table 27. Spring electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Carr Creek Lake from 1998-2005.

Age	Year 1998	1999	2000	2001	2002	2003	2004	2005
1	21.0	129.6	66.9	160.4	114.4	66.2	133.7	18.8
2	23.9	31.8	21.2	16.1	17.3	17.1	25.2	20.8
3	23.3	17.0	17.3	13.4	11.9	6.9	5.4	14.3
4	26.7	16.1	18.3	20.1	7.2	6.9	5.7	13.2
5	4.0	12.0	10.6	8.2	1.3	3.2	2.5	4.4
6	1.5	2.7	4.0	2.7	0.4	0.0	0.0	0.0
7	1.1	0.6	0.3	0.7		2.1	1.8	2.7
8	0.2	0.4				2.0	2.0	3.7
9		0.3				0.1	0.0	0.0
10						0.8	0.6	0.6

Table 28. Length frequency and electrofishing CPUE (no./hour) of black bass collected in 4.5 hours of 30-min nocturnal electrofishing runs at Carr Creek Lake on 3 October 2005; numbers in parentheses are standard errors.

Area	Species	Inch class																		Total	CPUE	
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
Lower	Smallmouth bass		1	1	1	1														4	2.7	(1.3)
	Spotted bass	2	19	16	16	6	3	10	12	4	5	3		3	1					100	66.7	(10.7)
	Largemouth bass	1	12	23	15	2	9	11	4	5	2	6	1	1	1				1	94	62.7	(18.7)
Middle	Smallmouth bass					1	1													2	1.3	(0.7)
	Spotted bass	1	3		2	14	5	10	6	7	6	4	1			1				60	40.0	(11.4)
	Largemouth bass		1	2	3	2	11	19	17	7	2	3	3	3	2	3				78	52.0	(26.9)
Upper	Smallmouth bass			2		2						1								5	3.3	(1.8)
	Spotted bass	1	6	3	11	17	7	9	5	8	5	2		1						75	50.0	(8.7)
	Largemouth bass		5	2		3	4	11	7	3	5	3	2	3	1	1		1		51	34.0	(9.0)
Total	Smallmouth bass		1	3	1	4	1					1								11	2.4	(0.7)
	Spotted bass	4	28	19	29	37	15	29	23	19	16	9	1	4	1	1				235	52.2	(6.5)
	Largemouth bass	1	18	27	18	7	24	41	28	15	9	12	6	7	4	4		1	1	223	49.6	(10.7)

BBRWRCCL.D05

Table 29. 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. CPUE=fish/hour, SE=standard error.

Year class	Age 0 Mean length	SE	Age 0 CPUE	SE	Age 0 ≥ 5.0 CPUE	SE	Age 1 CPUE	SE
2003	4.4	0.1	14.0	5.4	5.8	2.3	67.6	11.3
2004	5.2	0.0	132.0	17.3	88.2	12.7	18.8	2.6
2005	4.7	0.1	15.8	6.7	5.6	1.70		

BBRWRCFL.D03
BBRWRCFL.D04
BBRWRCFL.D05

Table 30. Number of fish and relative weight (Wr) for each length class of bass collected at Carr Creek Lake on 3 October 2005. Standard errors are in parentheses.

Species	Area	Size range					
		No.	Wr	No.	Wr	No.	Wr
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Largemouth bass	Upper						
	Middle	45	89.2 (1.3)	9	94.3 (2.2)	5	105.7 (2.4)
	Lower						
	Total	45	89.2 (1.3)	9	94.3 (2.2)	5	105.7 (2.4)
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
Smallmouth bass	Upper						
	Middle	1	91.8				
	Lower						
	Total	1	91.8				
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
Spotted bass	Upper						
	Middle	27	93.5 (1.4)	11	96.9 (3.3)	1	100.8
	Lower						
	Total	27	93.5 (1.4)	11	96.9 (3.3)	1	100.8

Table 31. Length frequency and CPUE (fish/hour) of walleye collected at Carr Creek Lake during spring electrofishing.

Year	Inch Class																			Total	CPUE	SE
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27			
2000						5	28	10	6	8	2	3	3	1		1	6	4	1		78	20.8	(4.6)
2001						2	4	3	14	8	6	2	2	1				2			44	20.4	(4.7)
2002	no data																						
2003	2	1			1	1	2			3	7		4	2		1	1	1	1	1	28	26.7	(8.5)
2004										1	3	13	10	13	13	4	3	1			61	27.1	(7.4)
2005								1	1	2	10	2	10	6	5	4	3	1	1		46	28.2	(5.0)

EFDCLWSS.D00-D05

Table 32. Electrofishing population assessments for the walleye population at Carr Creek Lake. Actual values are in parentheses.

Parameter	Year 2003	2004	2005
Population Density (CPUE all fish)	4 (26.7)	4 (27.1)	4 (28.2)
Growth rate (mean length of age 3 fish at capture)	4 (20.6)	4 (20.6)	4 (20.6)
Size structure (CPUE of fish ≥ 20 in.)	4 (10.5)	4 (19.5)	4 (18.4)
Recruitment (CPUE of fish < 13 in.)	4 (3.8)	1	1
Total Score	16	13	13
Assessment Rating	Excellent	Good	Good
Instantaneous mortality (z)	0.72	1.12	0.26
Annual mortality (A)	51.4	67.3	22.5

EFDCLWSS.D05
EFDCLWSS.D04
EFDCLWAS.D03

Table 33. Number of fish and relative weight (Wr) for each length category of walleye collected at Carr Creek Lake during 2005. Numbers in parentheses are standard errors.

Size range					
10.0-14.9 in		15.0-19.9 in		>20.0 in	
No.	Wr	No.	Wr	No.	Wr
		14	100.5 (1.4)	30	102.3 (1.8)

EFDCLWSS.D05

Table 34. Length frequency and CPUE (no./hour) of black bass collected in 1.25 hours of 15-min nocturnal electrofishing runs at Cranks Creek Lake on 11 May 2005; numbers in parentheses are standard errors.

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	22			
Largemouth bass			19	37	14	4	18	19	43	8	1	3	1	2	1		1	1	1	1	1	175	140.00	(17.34)
Spotted bass		2	13	2	7	5	5	8	3		3	1										49	39.20	(1.50)

EFDCCLSS.D05

Table 35. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Cranks Creek Lake. CPUE=fish/hour, SE=standard error.

	Inch Class							
	<8.0		8.0-11.9		12.0-14.9		≥15.0	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2004	40.7	7.6	40.0	5.8	3.3	1.9	4.0	2.1
2005	59.2	16.6	70.4	10.5	4.0	1.3	6.4	2.0

EFDCCLSS.D04
EFDCCLSS.D05

Table 36. PSD and RSD values for black bass taken in spring electrofishing samples from Cranks Creek on 11 May 2005; 95% confidence intervals are in parentheses.

Species	No. fish ≥ 8"	PSD (+/- 95%)	RSD*(+/- 95%)
Largemouth bass	101	12.9 (6.3-19.4)	7.9 (2.6-13.2)
Spotted Bass	25	16.0 (1.3-30.7)	

* Largemouth bass RSD = 15; Spotted bass RSD = 14.
EFDCCLSS.D05

Table 37. Species composition, relative abundance and CPUE (fish/hour) of black bass collected in 30-minute electrofishing runs for black bass by area (6.29 hours total) of Dewey Lake on 18-19 May 2005.

		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	1	1	3	7	3	7	3	3											28	14.0	(11.5)
	Largemouth bass		9	26	16	44	65	36	41	32	28	23	33	29	8	10	7	1	1	409	204.5	(9.0)
Middle	Spotted bass	4	8	4	7	3	5	3	1	2	1									38	15.2	(7.0)
	Largemouth bass	3	22	46	25	32	45	28	30	35	14	13	37	27	13	10	7	3		390	156.0	(12.8)
Upper	Spotted Bass																			0	0.0	
	Largemouth bass		1	3	14	29	30	27	20	12	16	28	16	22	6	11	6	2	1	244	111.2	(17.8)
Total	Spotted bass	5	9	7	14	6	12	6	4	2	1									66	9.4	(4.2)
	Largemouth bass	3	32	75	55	105	140	91	91	79	58	64	86	78	27	31	20	6	2	1043	153.9	(12.8)

BBRPSDEW.D05

Table 38. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Dewey Lake. CPUE=fish/hour, SE=standard error.

	Inch Class									
	<8.0		8.0-11.9		12.0-14.9		≥15.0		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
1987	44.6		38.3		12.0		0.6		95.4	
1988	84.0		40.7		26.7		2.0		154.7	
1989	75.0		27.5		10.8		7.0		120.7	
1990	58.8		68.0		32.0		11.4		171.4	
1991	73.8		50.6		18.4		3.5		146.4	
1992	57.4		64.1		17.2		7.4		146.1	
1993	43.7		71.8		15.6		8.8		140.0	
1994	no data									
1995	46.6		59.6		28.5		3.6		138.3	16.9
1996	no data									
1997	15.3		53.3		32.3		11.0		112.0	12.2
1998	20.1		51.4		43.2		7.2		122.0	8.5
1999	78.9		34.6		39.5		12.8		165.8	12.7
2000	62.2	4.7	44.0	4.4	23.6	3.5	10.3	1.3	140.1	9.5
2001	150.1	17.2	57.8	5.7	26.9	2.7	17.8	1.6	252.6	22.8
2002	no data									
2003	71.1	10.1	55.6	4.4	23.1	1.8	22.0	2.1	171.8	14.6
2004	96.2	11.9	34.7	3.8	20.0	3.2	17.5	2.6	168.3	13.9
2005	39.3	5.0	59.2	6.3	31.0	3.2	24.5	1.9	153.9	12.8

EFDDLLSS.D87-D01
BBRPSDEW.D03
BBRPSDEW.D04
BBRPSDEW.D05

Table 39. PSD and RSD values for each species of black bass in each area of Dewey Lake during spring 2005. Numbers in parentheses are 95% confidence intervals.

	Largemouth bass			Spotted bass	
Area	No.≥8 in.	PSD	RSD_{15}	No.≥8 in.	PSD
Lower	314	44.6 (47-60)	17.8 (13.6-22.1)	16	
Middle	262	47.3 (41.3-53.4)	22.9 (17.8-28.0)	15	20 (-1.0-41.0)
Upper	197	54.8 (47.9-61.8)	24.4 (18.4-30.4)		
Total	773	48.1 (44.5-51.6)	21.2 (18.3-24.1)	31	9.7 (-0.9-20.3)

BBRPSDEW.05

Table 40. Population assessments for largemouth bass collected from Dewey Lake. Actual values are in parentheses.

	Year		
Parameter	2003	2004	2005
Length at age 3	1 (10.5)	1 (10.5)	1 (10.5)
Spring CPUE of age 1 fish	4 (61.2)	4 (79.7)	2 (24.8)
Spring CPUE 12-14.9 in. fish	2 (23.1)	2 (20.0)	3 (31.0)
Spring CPUE ≥ 15.0 in. fish	4 (22.0)	3 (17.5)	4 (24.5)
Spring CPUE ≥ 20.0 in. fish	2 (0.7)	2 (1.0)	2 (0.3)
Total score	13	12	12
Assessment rating	Good	Good	Good
Instantaneous mortality (z)	0.41	0.40	0.42
Annual mortality (A)	33.6	32.6	34.3

BBRPSDEW.D03
BBRPSDEW.D04
BBRPSDEW.D05

Table 41. Spring electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Dewey Lake from 1998-2005.

	Year							
Age	1998	1999	2000	2001	2002[a]	2003	2004	2005
1	17.8	75.1	55.3	125.7		62.2	79.7	24.8
2	28.5	18.3	35.6	47.1		36.6	30.1	37.6
3	15.4	26.7	11.3	34.9		17.2	12.8	20.9
4	29.3	28.4	18.8	14.3		22.1	17.8	28.2
5	19.8	12.7	9.7	16.7		11.4	9.4	15.5
6	1.5	7.3	3.7	6.5		2.1	1.9	3.1
7	1.8	2.6	3.3	2.3		7.4	5.6	7.6
8	0.2	2.8	0.4	1.8		4.4	3.2	4.8
9	0.7	0.4	1.7	1.8		8.4	6.5	10.7
10			0.4	1.0		0.3	1.0	0.4
11						0.3		
12						0.3		
13							0.3	0.4

[a]No spring sample

Table 42. Length-frequency distribution of each black bass species captured during 4.5 hours of 30-minute electrofishing runs (1.5 hours in each area) at Dewey Lake on 4 October 2005. 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	20	21	Total	CPUE	
Lower	Spotted bass		10	1	6	16	5	3	5	5	1	2		2								56	37.3	(15.0)
	Largemouth bass	8	10	12	4	3	5	31	31	20	9	8	5	1	2	2	1	1				153	102.0	(23.2)
Middle	Spotted bass	3	10		6	20	14	6	3	5		1										68	45.3	(5.2)
	Largemouth bass	7	40	41	12	2	11	26	27	18	6	4	4	3	5	2	3	1	1		1	214	142.7	(27.4)
Upper	Spotted Bass																					0	0.0	
	Largemouth bass	1	17	52	43	12	17	30	26	19	6	7	3	4	3	5	2	2	1			250	166.7	(32.0)
Total	Spotted bass	3	20	1	12	36	19	9	8	10	1	3		2								124	27.6	(8.4)
	Largemouth bass	16	67	105	59	17	33	87	84	57	21	19	12	8	10	9	6	4	2		1	617	137.1	(16.8)

EFDDLLSF.D05

Table 43. Number of fish and the relative weight (Wr) for each length class of bass collected at Dewey Lake in October 2005. Standard errors are in parentheses.

Species	Area	Size range					
		No.	Wr	No.	Wr	No.	Wr
		8.0-11.9 in		12.0-14.9 in		>15.0 in	
Largemouth bass	Upper						
	Middle	77	86.06 (1.7)	11	87.4 (3.1)	13	90.6 (2.4)
	Lower						
	Total	77	86.06 (1.7)	11	87.4 (3.1)	13	90.6 (2.4)
		7.0-10.9		11-13.9		>14.0	
Spotted bass	Upper						
	Middle	28	90.7 (1.2)	1	95.1		
	Lower						
	Total	28	90.7 (1.2)	1	95.1		

EFDDLLSF.D05

Table 44. Length-frequency and CPUE (no./hour) of sunfish collected in 0.75 hours of 7.5 min. electrofishing runs in Fishpond Lake 25 May 2005; number in parenthesis is standard error.

Species	Inch class								Total	CPUE	
	1	2	3	4	5	6	7	8			
Bluegill	3	41	64	40	16	13	38	8	223	285.9	(70.7)
Warmouth		3	26	17	2	7	3	1	59	75.6	(14.8)

EFDFPBSS.D05

Table 45. Length frequency and CPUE of bluegill collected in spring electrofishing samples at Fishpond Lake; SE = standard error.

	Inch class											
	<3.0		3.0-5.9		6.0-7.9		8.0-9.9		≥10.0		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	37.1	1.0	105.6	2.1	11.3	0.6	5.6	0.2			163.5	23.8
2005	56.4	17.7	153.9	43.7	65.4	23.9	10.3	4.7			285.9	70.7

EFDFPBSS.D02
EFDFPBSS.D05

Table 46. Electrofishing catch rate (fish/hour) for each age of bluegill collected from Fishpond Lake.

	Year			
Age	2002	2003	2004	2005
1	72.9			102.1
2	74.2			167.7
3	5.3			12.3

EFDFPBSS.D02
EFDFPBAS.D02
EFDFPBSS.D05

Table 47. PSD and RSD values obtained for bluegill collected at Fishpond Lake on 25 May 2005; 95% confidence intervals are in parenthesis.

No. fish ≥ stock size	PSD	RSD_8
179	33.0	4.5
	(26.1-39.9)	(1.4-7.5)

EFDFPBSS.D05

Table 48. Population assessment for spring collected bluegill from Fishpond Lake. Actual values are in parentheses.

Parameter value	Year 2002	2005
Mean length of age 2+ fish at capture	4 (4.94)	4 (4.94)
Years to 6 inches	4 (2-2+)	4 (2-2+)
CPUE ≥ 6.0 inches	1 (16.9)	4 (75.7)
CPUE ≥ 8.0 inches	2 (5.6)	3 (10.3)
Total score	11	15
Assessment rating	Good	Excellent
Instantaneous mortality (Z)	1.30	1.04
Annual mortality (A)	72.9	64.6

EFDFPBSS.D02
EFDFPBAS.D02
EFDFPBSS.D05

Table 49. Length frequency and CPUE (no./hour) of black bass collected in 2.75 hours of 15-min nocturnal electrofishing runs on Fishtrap Lake 9 May 2005; numbers in parentheses are standard errors.

Area/	Inch class																			
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Upper																				
Largemouth bass		1	18	46	30	9	7	28	61	30	27	12	7	8	4	7	4	2	301	200.7 (35.1)
Smallmouth bass							1	1		1		1		1	1				6	4.0 (2.1)
Spotted bass			1				4	1	2	1									9	6.0 (2.7)
Lower																				
Largemouth bass			8	35	19	4	6	18	22	14	29	16	16	5	2	6	2	1	203	162.4 (18.5)
Smallmouth bass			5	7			6	4	1	7	2	1	1	1		1			36	28.8 (7.9)
Spotted bass			4	4		1	6	7	6	1	1								30	24.0 (10.0)
Total																				
Largemouth bass		1	26	81	49	13	13	46	83	44	56	28	23	13	6	13	6	3	504	183.3 (20.8)
Smallmouth bass			5	7			7	5	1	8	2	2	1	2	1	1			42	15.3 (5.3)
Spotted bass			5	4		1	10	8	8	2	1								39	14.2 (5.3)

EFDFLLSS.D05

Table 50. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass at Fishtrap Lake. CPUE = fish/hour.

	Inch class									
	<8.0		8.0-11.9		12.0-14.9		>15.0		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2000	28.7	4.2	29.0	2.3	19.0	2.6	23.0	4.3	99.7	9.9
2001	20.3	3.7	32.7	4.3	17.3	2.5	10.3	2.9	80.7	7.7
2002	no data									
2003	43.0	4.4	25.0	7.6	16.0	4.9	11.0	3.4	95.0	4.1
2004	44.7	6.8	45.1	5.8	19.3	2.2	13.1	3.9	122.2	10.7
2005	61.8	10.2	67.6	10.0	38.9	6.5	14.9	2.0	183.3	20.8

EFDFLLSS.D93 - D05

Table 51. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Fishtrap Lake on 9 May 2005; 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8"	PSD (+/- 95%)	RSD* (+/- 95%)
Upper	largemouth bass	197	36.0 (29.3-42.8)	12.7 (8.0-17.4)
	smallmouth bass	6	66.7 (25.3-108.0)	33.3 (-8.0-74.7)
	spotted bass	8	12.5 (-12.0-37.0)	
Lower	largemouth bass	137	56.2 (47.9-64.5)	11.7 (6.3-17.1)
	smallmouth bass	24	54.2 (33.8-74.5)	12.5 (-1.0-26.0)
	spotted bass	22	9.1 (-3.2-21.4)	
Total	largemouth bass	334	44.3 (39.0-49.6)	12.3 (8.8-15.8)
	smallmouth bass	30	56.7 (38.6-74.7)	16.7 (3.1-30.2)
	spotted bass	30	10.0 (-0.9-20.9)	

* Largemouth bass RSD = 15; Smallmouth and Spotted bass RSD = 14

EFDFLLSS.D05

Table 52. Population assessment for largemouth bass collected from Fishtrap Lake. Actual values are in parentheses.

Parameter	Year 2003	2004	2005
Length at age 3	4 (13.6)	4 (13.6)	4 (13.6)
Spring CPUE of age 1 fish	3 (42.0)	4 (35.4)	4 (61.5)
Spring CPUE 12-14.9 in. fish	2 (16.0)	2 (19.3)	4 (38.9)
Spring CPUE ≥ 15.0 in. fish	2 (11.0)	3 (13.1)	3 (14.9)
Spring CPUE ≥ 20.0 in. fish	3 (2.0)	2 (1.5)	1
Total score	14	15	16
Assessment rating	Good	Good	Good
Instantaneous mortality (z)	0.52	0.56	0.65
Annual mortality (A)	40.4	42.7	48.0

EFDFLLSS.D03
EFDFLLSS.D04
EFDFLLSS.D05

Table 53. Length frequency and CPUE (no./hour) of black bass collected in 1.5 hours of 15-min nocturnal electrofishing runs at Fishtrap Lake on 21 September 2005; numbers in parentheses are standard errors.

Area/ Species	Inch Class 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	
Upper																					
Smallmouth bass			1					1											2	2.7	(1.3)
Spotted bass		11	34	10	1		1		5										62	82.7	(45.0)
Largemouth bass	1	22	59	11	1		4	10	12	10	13	3	2		1		1	1	151	201.3	(77.5)
Lower																					
Smallmouth bass		2	22	4		1	6	6	1	1	2			2	1	1		1	50	66.7	(19.2)
Spotted bass		20	22	2	4	9	3			1									61	81.3	(65.3)
Largemouth bass		3	41	19	5		8	11	10	6	2	2	3	1	2	3		1	117	156.0	(52.8)
Total																					
Smallmouth bass		2	23	4		1	6	7	1	1	2				1	1		1	50	34.7	(16.7)
Spotted bass		31	56	12	5	9	4		5	1									123	82.0	(35.4)
Largemouth bass	1	25	100	30	6		12	21	22	16	15	5	5	1	3	3	1	2	268	178.7	(43.1)

EFDFLLSF.D05

Table 54. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected at Fishtrap Lake.

Year class	Age 0 Mean length	Age 0 Std. error	Age 0 CPUE	Age 0 Std. error	Age 0 ≥ 5.0 CPUE	Age 0 ≥ 5.0 Std. error	Age 1 CPUE	Age 1 Std. error
2003	5.1	0.04	106.2	32.9	59.6	15.9	35.4	6.0
2004	5.0	0.03	256.0	51.1	122.7	23.9	61.5	10.2
2005	4.5	0.05	108.0	41.3	24.0	11.1		

EFDFLLSF.D03
EFDFLLSF.D04
EFDFLLSF.D05

Table 55. Length frequency and gillnetting CPUE (no./net night) of hybrid striped bass collected in 8 net nights on Fishtrap Lake on 29-30 November 2005; numbers in parentheses are standard errors.

Inch class																						
5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	CPUE	
	3	2				4	6	29	30	6	7	38	24	8	4	21	38	12	1	233	29.1	(8.8)

EFDFLHGF.D05

Table 56. Mean back-calculated length (in) at each annulus for hybrid striped bass collected from Fishtrap Lake in 2005, including the length range of bass at each age and the 95% confidence intervals for each age group.

Year class	No.	Age 1	2	3	4	5	6	7
2004	34	9.3						
2003	33	9.2	15.0					
2002	5	10.1	15.1	18.8				
2001	18	10.6	15.4	18.8	20.7			
2000	10	9.9	15.1	18.4	20.5	21.7		
1999	3	9.6	14.1	17.3	19.8	21.1	22.1	
1998	1	9.3	13.8	17.8	21.0	21.8	22.6	23.4
Mean		9.6	15.1	18.5	20.6	21.6	22.2	23.4
Smallest		6.5	11.3	16	18.6	19.9	20.8	23.4
Largest		12.7	18.6	21.7	23.5	23.1	23	23.4
Std error		0.1	0.1	0.2	0.2	0.3	0.5	
95% CI (±)		0.3	0.3	0.4	0.4	0.5	0.4	

intercept=0
EFDFLHAF.D05

Table 57. Age frequency and CPUE (no./net night) of hybrid striped bass collected at Fishtrap Lake in November, 2005.

	Inch class																					
Age	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	Age%	CPUE
0	3	2																		5	2	0.63 (0.38)
1						4	6	29	30	6										75	32	9.38 (2.54)
2											7	38	24	6						75	32	9.38 (2.98)
3														2		4	4			10	4	1.30 (0.45)
4															3	13	17	4		37	16	4.60 (1.61)
5															1	2	17	4	1	25	11	3.08 (1.09)
6																2		3		5	2	0.60 (0.25)
7																		1		1	1	0.17 (0.07)
Total	3	2				4	6	29	30	6	7	38	24	8	4	21	38	12	1	233	100	
%	1	1				2	3	12	13	3	3	16	10	3	2	9	16	5	0			

EFDFLHAF.D05
EFDFLHGF.D05

Table 58. Hybrid striped bass population assessment for fish gill netted at Fishtrap Lake from 1997 - 2005.

	Year					
Parameters	1997	1999	2000	2002	2004	2005
Population Density	2	3	3	4	3	4
Actual value	9.8	10.5	31.4	28.8	15.0	29.1
Growth Rate	2	3	2	3	1	3
Actual value	16.7	17.3	16.0	17.3	13.8	17.3
Size structure	3	3	3	4	3	4
Actual value	7.9	8.5	18.8	16.9	5.0	14.9
Recruitment	1	3	3	4	2	3
Actual value	1.8	7.1	7.9	12.6	4.6	9.4
Total Score	8	12	11	15	9	14
Assessment rating	Fair	Good	Good	Excellent	Fair	Excellent
Instantaneous mortality	0.56	0.67	0.67	0.87	0.45	0.62
Annual mortality	42.9	48.9	48.6	58.2	36.0	46.4

EFDFLHAF.D97-D05
EFDFLHGF.D97-D05

Table 59. Length frequency and CPUE (fish/net day) for white crappie collected at Fishtrap Lake in 22 net-nights from 22-23 November 2005. Standard errors are in parentheses.

Inch class													
3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	
17	441	37	55	231	400	125	32	9	3	1	1351	61.41	(11.00)

WC = white crappie
EFDFLCTF.D05

Table 60. PSD and RSD values calculated for crappie collected in trap nets at Fishtrap Lake during November 2005; 95% confidence intervals are in parentheses.

No. fish ≥ stock size	PSD	RSD
893	63.8 (60.7-67.0)	5.0 (3.6-6.5)

EFDFLCTF.D05

Table 61. Mean back-calculated length (in) at each annulus for white crappie collected from Fishtrap Lake in November 2005, including 95% confidence intervals.

Year		Age						
Class	No.	1	2	3	4	5	6	7
2004	9	4.1						
2003	12	5.2	6.8					
2002	21	5.0	6.9	8.4				
2001	15	5.1	7.0	8.2	9.3			
2000	6	5.3	7.4	8.4	9.4	10.5		
1999	1	4.7	5.7	6.6	7.0	7.8	8.5	
1998	1	4.4	6.2	6.3	6.7	7.1	8.0	8.5
Mean		4.9	6.9	8.2	9.1	9.8	8.2	8.5
Smallest		3.3	4.6	6.3	6.7	7.1	8.0	8.5
Largest		12.3	8.8	10.4	11.5	12.4	8.5	8.5
STD error		0.1	0.1	0.2	0.3	0.7	0.3	
95% CI LO		4.7	6.7	7.9	8.6	8.4	7.7	
95% CI HI		5.2	7.1	8.5	9.6	11.1	8.8	

Intercept = 0
EFDFLCAF.D05

Table 62. Age frequency and CPUE (no./net day) of white crappie collected by trap netting for 22 net-nights at Fishtrap Lake in November 2005; numbers in parentheses are standard errors.

	Inch Class														
Age	3	4	5	6	7	8	9	10	11	12	13	Total	Age%	CPUE	
0	17	441	37									495	37	22.50	(6.96)
1				45								45	3	2.05	(0.48)
2				10	128	109	13	3				263	19	11.96	(2.10)
3					103	182	50	13	4			352	26	15.95	(2.85)
4						36	50	16	3	2		107	8	4.87	(0.88)
5							13		3	1	1	18	1	0.78	(0.12)
6						36						36	3	1.65	(0.31)
7						36						36	3	1.65	(0.31)
Total	17	441	37	55	231	399	126	32	10	3	1	1352	100	61.41	(11.00)
%	1	33	3	4	17	30	9	2	1	0	0				

CPUE of ≥8 in (quality size) = 25.9
CPUE of ≥10 in (preferred size) = 2.05
EFDFLCAF.D05
EFDFLCTF.D05

Table 63. Population assessment scores for white crappie collected from Fishtrap Lake. Actual assessment values are in parentheses.

	Year	
Parameter	2003	2005
CPUE of crappie (excluding age 0)	4 (100.0)	4 (38.90)
CPUE of age 1 crappie	4 (33.2)	1 (2.1)
CPUE of age 0 crappie	1 (0.0)	4 (22.50)
CPUE of crappie ≥ 8 in.	4 (15.9)	4 (25.90)
Mean age 2 length @ capture	1 (7.1)	1 (8.2)
Instantaneous mortality (z)	1.45	0.56
Annual Mortality (A)	76.6	43.1
Total score	14	14
Assessment rating	Good	Good

EFDFLCTF.D03
EFDFLCAF.D03
EFDFLCTF.D05
EFDFLCAF.D05

Table 64. Length frequency and CPUE (no./hour) of bluegill and redear sunfish collected in 22.5 minutes of daytime electrofishing in Martin County Lake (Milo Lake) on 24 May 2005. SE = standard error.

	Inch class										
Species	1	2	3	4	5	6	7	8	Total	CPUE	SE
Bluegill		51	37	24	6	4	4	3	129	330.77	32.03
Redear sunfish		3	4			1			8	20.51	5.13

EFDMCBSS.D05

Table 65. Length frequency and CPUE (fish/hour) of bluegill and redear sunfish collected in spring electrofishing samples at Martin County Lake (Milo Lake). SE = standard error.

	Inch class											
	<3.0		3.0-5.9		6.0-7.9		8.0-9.9		≥10.0		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
Bluegill												
2002	215.4	5.5	223.1	2.5	10.3	0.3	7.7	0.0	2.6	0.0	459.0	39.8
2003	90.6	27.4	240.2	72.4	13.3	1.5	1.5	1.5			345.6	99.2
2005	130.8	35.5	171.8	9.3	20.5	6.8	7.7	4.4			330.8	32.0
Redear sunfish												
2002					12.8	0.3	2.6	0.0	5.1	0.0	20.5	5.1
2003							4.6	3.1			4.6	3.1
2005	7.7	7.7	10.3	2.6	2.6	2.6					20.5	5.1

EFDMCBSS.D02
EFDMCBSS.D03
EFDMCBSS.D05

Table 66. Electrofishing catch rate (fish/hour) for each age of bluegill collected from Martin County Lake (Milo Lake).

	Year		
Age	2002	2003	2005
1	315.4	177.0	187.7
2	124.4	146.6	111.0
3	9.0	17.4	21.8
4	2.6		
5	5.1		

EFDMCBSS.D02
EFDMCBAS.D02
EFDMCBSS.D03
EFDMCBSS.D05

Table 67. PSD and RSD values obtained for bluegill and redear sunfish collected at Martin County Lake (Milo Lake) on 24 May 2005; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD	RSD_8
Bluegill	78	14.1 (6.3-21.9)	3.8 (-0.4-8.1)
Redear sunfish	1	0.0	0.0

EFDMCBSS.D05

Table 68. Population assessment for bluegill collected from Martin County Lake (Milo Lake). Actual values are in parentheses.

	Year		
Parameter	2002	2003	2005
mean length age-2 at capture	3 (4.5)	3 (4.5)	3 (4.5)
years to 6 inches	3 (3-3+)	3 (3-3+)	3 (3-3+)
CPUE ≥ 6.0 inches	1 (20.6)	1 (14.8)	2 (28.2)
CPUE ≥ 8.0 inches	3 (10.3)	2 (1.5)	3 (7.7)
Total score	10	9	11
Assessment rating	Fair	Fair	Good
Instantaneous mortality (Z)	1.69	1.16	1.05
Annual mortality (A)	81.6	68.8	64.9

EFDMLLSS.D03

Table 69. Length frequency and CPUE (no./hour) of bluegill collected in 45 minutes of daytime electrofishing in Martin County Reservoir on 26 May 2005. SE = standard error.

Inch class										
1	2	3	4	5	6	7	8	Total	CPUE	SE
	2	3	3	7	1	2	2	20	25.64	7.61

EFDMRBSS.D05

Table 70. Length frequency and CPUE (fish/hour) of bluegill collected in spring electrofishing samples at Martin County Reservoir. SE = standard error.

	Inch class											
	<3.0		3.0-5.9		6.0-7.9		8.0-9.9		≥10.0		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2005	2.6	1.6	7.7	6.3	10.3	3.8	5.1	3.2			25.6	7.6

EFDMRBSS.D05

Table 71. PSD and RSD values obtained for bluegill collected at Martin County Reservoir on 26 May 2005; 95% confidence intervals are in parentheses.

No. fish ≥ stock size	PSD	RSD_8
18	66.7	22.2
	(44.3-89.1)	(2.5-42.0)

EFDMRBSS.D05

Table 72. Length frequency and CPUE (no./hour) of black bass and walleye collected in 1.25 hours of 15-min nocturnal electrofishing runs in Martins Fork Lake on 11 May 2005; 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		2	3	1		10	5	6	8	11	8	3	3		2		1	63	50.4 (10.8)
Coosa bass			1	1	2													4	3.2 (1.5)
Spotted bass		3		10	4	3	10	7	4	3				1				45	36.0 (6.3)
Walleye					2	1				1			1	2		1		8	6.4 (2.7)

EFDMLLSS.D05

Table 73. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Martins Fork Lake. CPUE=fish/hour, S.E. = standard error.

	Inch Class									
	<8.0		8.0-11.9		12.0-14.9		≥15.0		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2003	14.0	3.7	22.0	3.8	3.3	1.2	5.3	2.0	68.0	15.7
2004	2.7	2.7	89.3	19.2	4.0	2.3	5.3	3.5	101.3	26.8
2005	4.8	2.3	23.2	6.0	17.6	4.8	4.8	2.0	50.4	10.8

EFDMLLSS.D03
EFDMLLSS.D04
EFDMLLSS.D05

Table 74. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in Martins Fork Lake in May 2005; 95% confidence intervals are in parentheses.

Species	No. fish ≥ 8"	PSD (+/- 95%)	RSD* (+/- 95%)
Spotted bass	32	25 (9.8-40.2)	3.1 (3.1-9.3)
Largemouth bass	57	49.1 (36.0-62.2)	10.5 (2.5-18.6)

* Largemouth bass RSD = 15; Spotted bass RSD = 14
EFDMLLSS.D05

Table 75. Spring electrofishing population assessments for largemouth bass collected from Martins Fork Lake. Actual values are in parentheses.

	Year		
Parameter	2003	2004	2005
Length at age 3	4 (14.3)	4 (14.3)	4 (14.3)
Spring CPUE of age 1 fish	2 (32.2)	1 (10.9)	1 (5.4)
Spring CPUE 12-14.9 in. fish	1 (3.3)	1 (4.0)	2 (17.6)
Spring CPUE ≥ 15.0 in. fish	2 (5.3)	2 (5.3)	2 (4.8)
Spring CPUE ≥ 20.0 in. fish	1	1	1
Total score	10	9	10
Assessment rating	Fair	Fair	Fair
Instantaneous mortality (z)	1.24	2.04	1.08
Annual mortality (A)	71.1	87.0	66.0

EFDMLLSS.D03
EFDMLLSS.D04
EFDMLLSS.D05

Table 76. Length frequency and CPUE (no./hour) of black bass collected at Martins Fork Lake during 1.0 hours of 15 minute runs on 20 September 2005; numbers in parentheses are standard errors.

	Inch class																			
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Largemouth bass		3	10	9	9	2	2	2	3	2	1	3	1	1				1	49	49.0 (3.0)
Coosa bass			3		7	1		2	1	1									15	15.0 (3.4)
Spotted bass		5	9	2	5	6	6	7	6	2	2	3				1			54	54.0 (10.7)

EFDMLLSF.D05

Table 77. Electrofishing indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected during 2003 - 2005 at Martins Fork Lake; CPUE = fish/hour.

	Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
Year class	Mean length	Standard error	CPUE	Standard error	CPUE	Standard error	CPUE	Standard error
2002	5.5	0.12	34.4	8.6	25.6	7.9	15.3	3.6
2003							77.5	18.5
2004							24.6	5.9
2005	4.4	0.17	32.0	4.3	10.0	2.6		

EFDMLLSF.D02
EFDMLLSF.D05

Table 78. Length frequency and electrofishing CPUE (no./hour) of black bass collected in 0.75 hours of 7.5-min. electrofishing runs in Pikeville City Lake on 26 April 2005; 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	22	Total	CPUE
Largemouth bass		1			7	2	4	1	3	1			1	5	6	5	5	12	5	1	1	60	76.9 (8.1)

EFDHALSS.D05

Table 79. Spring electro fishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Pikeville City Lake. CPUE=fish/hour, S.E. = standard error.

	Inch Class									
	<8.0		8.0-11.9		12.0-14.9		≥15.0		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2004	5.1	2.6	12.8	12.8	15.4	7.7	30.8	8.9	64.1	2.6
2005	12.8	4.3	11.5	3.3	1.3	1.3	51.3	9.5	76.9	8.1

EFDHALSS.D04
EFDHALSS.D05

Table 80. PSD and RSD values obtained for largemouth bass species taken in spring electrofishing samples in Pikeville City Lake on 26 April 2005; 95% confidence intervals are in parentheses.

No. fish ≥ 8"	PSD (+/- 95%)	RSD_{15} (+/- 95%)
50	82.0 (71.2-92.8)	80.0 (68.8-91.2)

EFDHALSS.D05

Table 81. Length frequency and CPUE (no./hour) of black bass collected in 3.0 hours of 15-min nocturnal electrofishing runs in Paintsville Lake on 20 April, 2005; numbers in parentheses are standard errors.

	Inch class																					
Species/Area	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	
Upper																						
Largemouth bass		4	14	12	7	6	41	54	26	21	22	12	10	5	2				1	237	158.0	(15.1)
Smallmouth bass																				0	0.0	
Spotted bass			1	2	7	6	4	4	2		3									29	19.3	(5.1)
Lower																						
Largemouth bass		2	18	40	51	27	34	71	28	25	23	7	5	4		2				337	449.3	(184.2)
Smallmouth bass																				0	0.0	
Spotted bass		1			1	3	1	1	3	1	1	1								13	17.3	(17.3)
Total																						
Largemouth bass		6	32	52	58	33	75	125	54	46	45	19	15	9	2	2			1	574	255.1	(72.7)
Smallmouth bass																				0	0.0	
Spotted bass		1	1	2	8	9	5	5	5	1	4	1								42	18.7	(6.0)

EFDPLLSS.D05

Table 82. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Paintsville Lake. CPUE = fish/hour.

	Inch class									
	<8.0		8.0-11.9		12.0-14.9		>15.0		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	41.8	1.8	70.5	2.7	36.0	1.4	2.2	0.2	150.9	14.2
2003	106.0	21.2	71.0	10.8	19.7	5.7	3.0	1.3	199.7	35.2
2004	62.7	10.9	92.0	19.2	17.0	3.4	2.0	0.9	173.7	25.4
2005	80.4	31.9	133.3	38.9	35.1	6.0	6.2	1.2	255.1	72.7

EFDPLLSS.D02
EFDPLLSS.D03
EFDPLLSS.D04
EFDPLLSS.D05

Table 83. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Paintsville Lake on 20 April 2005; 95% confidence intervals are in parentheses.

Area	Species	No. fish>8"	PSD (+/- 95%)	RSD*(+/- 95%)
Upper	Smallmouth bass			
	Spotted bass	19	15.8 (-1.1-32.6)	
	Largemouth bass	194	26.8 (20.6-33.1)	4.1 (1.3-6.9)
Lower	Smallmouth bass			
	Spotted bass	11	27.3 (-0.3-54.9)	
	Largemouth bass	199	20.6 (15.0-26.2)	3.0 (0.6-5.4)
Total	Smallmouth bass			
	Spotted bass	30	20 (5.4-34.6)	
	Largemouth bass	393	23.7 (19.5-27.9)	3.6 (1.7-5.4)

* Largemouth bass RSD = 15; Smallmouth and Spotted bass RSD = 14
EFDPLLSS.D05

Table 84. Spring electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Paintsville Lake.

Age	2000	2001	2002	2003	2004	2005
1	11.8	41.0	41.2	68.3	54.6	75.6
2	68.8	29.7	50.3	21.4	81.8	104.1
3	42.6	65.7	42.8	11.2	22.4	55.6
4	7.1	9.6	8.7	4.5	9.6	8.7
5	2.9	3.9	3.9	1.3	2.6	4.1
6	1.7	2.8	2.5	0.3	1.1	1.9

Table 85. Spring electrofishing population assessments for largemouth bass collected in Paintsville Lake. Actual values are in parentheses.

Parameter	Year			
	2002	2003	2004	2005
Length at age 3	2 (11.6)	2 (11.6)	2 (11.6)	2 (11.6)
Spring CPUE of age 1 fish	3 (41.2)	4 (95.2)	4 (61.4)	4 (75.6)
Spring CPUE 12-14.9 in. fish	4 (36.0)	2 (19.7)	2 (17.0)	4 (35.1)
Spring CPUE ≥ 15.0 in. fish	1 (2.2)	1 (3.0)	1 (2.0)	2 (6.2)
Spring CPUE ≥ 20.0 in. fish	1	2 (0.3)	1	2 (0.4)
Total score	11	11	10	14
Assessment rating	Fair	Fair	Fair	Good
Instantaneous mortality (z)	0.83	0.95	1.15	1.10
Annual mortality (A)	56.5	61.3	68.2	66.6

EFDPLLSS.D03
EFDPLLSS.D04
EFDPLLAS.D03

Table 86. Length frequency and CPUE (no./hour) of black bass collected in 1.5 hours of 15-min nocturnal electrofishing runs in Paintsville Lake on 27 September 2005; numbers in parentheses are standard errors.

Area/	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	
Upper																							
Largemouth bass	2	8	17	4	2	13	31	7	6	2	4	1	2						1		100	133.3	(50.7)
Smallmouth bass													1								1	1.3	(1.3)
Spotted bass				1	1		3	2	2												9	12.0	(0.0)
Lower																							
Largemouth bass		5	21	9	2	22	43	9	8	3	4	3	2							1	132	176.0	(60.4)
Smallmouth bass																					0	0.0	
Spotted bass						3	1	1													5	6.7	(3.5)
Total																							
Largemouth bass	2	13	38	13	4	35	74	16	14	5	8	4	4						1	1	232	154.7	(36.5)
Smallmouth bass													1								1	0.7	(0.7)
Spotted bass				1	1	3	4	3	2												14	9.3	(2.0)

EFDPLLSF.D05

Table 87. Electrofishing indices of year class strength at age-0 and age-1 and mean lengths (in) of largemouth bass collected at Paintsville Lake; CPUE = fish/hour.

	Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
Year class	Mean length	Standard error	CPUE	Standard error	CPUE	Standard error	CPUE	Standard error
2003	4.8	0.08	31.3	6.1	14.0	2.2	61.4	10.7
2004	5.1	0.06	65.7	10.8	37.3	8.6	75.6	29.2
2005	4.5	0.09	46.0	9.6	10.7	2.7		

EFDPLLSF.D03
EFDPLLSF.D04
EFDPLLSF.D05

Table 88. Length frequency and electrofishing CPUE (no./hour) of largemouth bass collected at Pan Bowl Lake during 1.13 hours of 7.5 minute runs on 19 April 2005; numbers in parentheses are standard errors.

Inch class																					
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
		1	2	1	11	27	31	11	8	4	5	2		4	4	8	3	1	1	124	106.0 (18.9)

EFDPBLSS.D05

Table 89. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Pan Bowl Lake. CPUE = fish/hour.

	Inch class									
	<8.0		8.0-11.9		12.0-14.9		≥15.0		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2000	34.0	9.1	52.0	11.4	18.0	4.5	34.7	4.0	138.7	21.8
2001	36.0	17.7	55.0	16.9	27.0	8.2	28.0	2.8	146.0	40.4
2002	no data									
2003	28.8	10.2	47.2	9.6	12.0	1.3	25.6	4.1	113.6	20.5
2004	no data									
2005	12.8	4.1	65.8	13.3	9.4	3.6	18.0	4.3	106.0	18.9

EFDPBLSS.D05

Table 90. PSD and RSD values for largemouth bass taken in spring electrofishing samples in Pan Bowl Lake on 19 April 2005; 95% confidence intervals are in parentheses.

No. fish ≥ 8"	PSD (+/- 95%)	RSD_{15} (+/- 95%)
158	51.9 (44.1-59.7)	19.6 (13.4-25.8)

EFDPBLSS.D05

Table 91. Length frequency and electrofishing CPUE (no./hour) of black bass collected at Yatesville Lake during 3.0 hours of 15 minute runs on 12 May 2005; numbers in parentheses are standard errors.

Area/	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
Upper																						
Largemouth bass		1	6	12	20	7	14	29	18	15	19	20	12	11	12	5	1	1		1	204	136.0 (12.7)
Spotted bass								3													3	2.0 (2.0)
Lower																						
Largemouth bass	1	4	13	34	22	11	13	34	33	28	28	29	18	12	11	3	7	1			302	201.3 (21.3)
Spotted bass		1			5	4	8	5		2	2	2	1								30	20.0 (8.5)
Total																						
Largemouth bass	1	5	19	46	42	18	27	63	51	43	47	49	30	23	23	8	8	2		1	506	168.7 (15.4)
Spotted bass		1			5	4	8	8		2	2	2	1								33	11.0 (5.0)

EFDYLLSS.D05

Table 92. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass at Yatesville Lake. CPUE = fish/hour.

	Inch class									
	<8.0		8.0-11.9		12.0-14.9		>15.0		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
1993	153.7		82.9		20.1		7.4		264.0	
1994	no data									
1995	no data									
1996	21.5		65.5		7.8		1.5		96.3	11.5
1997	50.7		23.7		16.7		2.0		93.0	10.5
1998	10.7		25.7		16.3		5.7		58.3	7.2
1999	42.7		29.0		16.3		13.7		101.7	12.2
2000	63.3	8.0	55.7	7.9	9.3	1.1	7.0	1.6	135.5	13.7
2001	35.0	7.0	58.3	7.5	19.3	3.2	9.7	2.1	122.3	7.8
2002	54.3	7.8	50.0	4.4	19.3	2.9	16.7	3.2	140.3	7.4
2003	no data									
2004	12.7	2.8	40.3	10.5	23.7	5.1	9.0	2.2	85.7	19.4
2005	43.7	7.8	61.3	6.6	42.0	4.7	21.7	2.1	168.7	15.4

EFDYLLSS.D93 - D05

Table 93. PSD and RSD values for largemouth bass taken in spring electrofishing samples in each area of Yatesville Lake on 12 May 2005; 95% confidence intervals are in parentheses. Sample sizes were too small to figure PSDs for spotted bass.

Area	Species	No. fish ≥ 8"	PSD (+/- 95%)	RSD_{15} (+/- 95%)
Upper	Largemouth bass	158	51.9 (44.1-59.7)	19.6 (13.4-25.8)
Lower	Largemouth bass	217	50.2 (43.6-56.9)	15.7 (10.8-20.5)
Total	Largemouth bass	375	50.9 (45.9-56.0)	17.3 (13.5-21.2)

EFDYLLSS.D05

Table 94. Spring electrofishing population assessments for largemouth bass collected at Yatesville Lake. Actual values are in parentheses.

	Year		
Parameter	2002	2004	2005
Mean age-3 length at capture	4 (13.2)	4 (13.2)	4 (13.2)
Spring CPUE of age 1 fish	4 (52.1)	1 (13.0)	3 (42.3)
Spring CPUE 12-14.9 in. fish	2 (19.3)	2 (23.7)	4 (42.0)
Spring CPUE ≥ 15.0 in. fish	3 (16.7)	2 (9.0)	4 (21.7)
Spring CPUE ≥ 20.0 in. fish	1	1	2 (0.3)
Total score	14	10	17
Assessment rating	Good	Fair	Excellent
Instantaneous mortality (z)	0.86	1.07	0.91
Annual mortality (A)	57.8	65.8	59.8

EFDYLLSS.D02 - D05

Table 95. Mean back-calculated length (in) at each annulus for largemouth bass collected from Yatesville Lake 12 May 2005, including 95% confidence intervals.

Year Class	No.	Age 1	2	3	4	5	6	7	8
2004	37	5.8							
2003	34	5.6	9.6						
2002	30	6.6	10.3	13.1					
2001	19	6.1	10.5	13.4	15.3				
2000	3	7.1	11.3	14.8	16.7	18.3			
1999	4	6.1	10.7	13.9	16.1	17.3	18.3		
1997	1	7.5	12.4	16.0	17.7	18.5	19.3	19.9	20.7
Mean		6.0	10.1	13.4	15.7	17.8	18.5	19.9	20.7
Smallest		3.7	7.5	9.8	12.0	16.3	17.1	19.9	20.7
Largest		8.9	13.1	16.3	18.0	19.5	19.3	19.9	20.7
STD error		0.1	0.1	0.2	0.3	0.3	0.4		
95% CI LO		5.9	9.9	13.0	15.1	17.2	17.8		
95% CI HI		6.2	10.4	13.8	16.3	18.5	19.3		

Intercept = 0
EFDYLLAS.D05

Table 96. Spring electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Yatesville Lake.

Age	2000	2001	2002	2003	2004	2005
1	59.7	32.2	52.1		13.0	42.3
2	56.0	54.9	46.6		35.7	54.9
3	11.3	23.4	22.7		23.6	43.0
4	5.7	8.5	16.4		11.9	23.2
5	1.1	1.2	1.0		0.6	1.9
6	1.6	1.8	1.2		0.9	2.8
7						
8		0.3				

Table 97. Age frequency and CPUE (no./hour) of largemouth bass collected by electrofishing at Yatesville Lake 12 May 2005; 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	Total	Age%	CPUE	
1	5	19	46	42	12	3												122	25	42.3	(7.1)
2					6	24	57	51	27									165	33	54.9	(6.2)
3							6		16	42	36	20	9					129	26	43.0	(4.4)
4										5	13	10	14	23	4			69	14	23.2	(1.5)
5															2	3	1	6	1	1.9	(0.5)
6															2	5	1	8	2	2.8	(0.8)
Total	5	19	46	42	18	27	63	51	43	47	49	30	23	23	8	8	2	504	100		
%	1	4	9	8	4	5	13	10	9	9	10	6	5	5	2	2	0				

EFDYLLSS.D05
EFDYLLAS.D05

Table 98. Length frequency and CPUE (no./hour) of black bass collected at Yatesville Lake during 2.0 hours of 15 minute electrofishing runs on 26 September 2005; numbers in parentheses are standard errors.

Area/	Inch class																				
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Upper																					
Largemouth bass		2	12	14	21	10	1	6	12	12	1	3	2		3	1				100	100.0 (21.3)
Spotted bass																				0	
Lower																					
Largemouth bass	1	2	5	12	9	1	4	12	3	4	2	2	5	1					1	64	64.0 (19.9)
Spotted bass		3	15	9	4	2	3	1	4	4	1	2								48	48.0 (10.6)
Total																					
Largemouth bass	1	4	17	26	30	11	5	18	15	16	3	5	7	1	3	1			1	164	82.0 (15.2)
Spotted bass		3	15	9	4	2	3	1	4	4	1	2								48	24.0 (10.3)

EFDYLLSF.D05

Table 99. Electrofishing indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected during 2003 - 2005 at Yatesville Lake; CPUE = fish/hour.

Year class	Age 0 Mean length	Age 0 Standard error	Age 0 CPUE	Age 0 Standard error	Age 0 > 5.0 CPUE	Age 0 > 5.0 Standard error	Age 1 CPUE	Age 1 Standard error
2003	5.3	0.06	46.0	6.3	29.3	4.4	12.7	2.8
2004	4.8	0.08	69.5	13.5	32.5	10.8	42.3	7.1
2005	4.7	0.11	47.0	12.3	20.0	7.1		

EFDYLLSF.D03
EFDYLLSF.D04
EFDYLLSF.D05