Commonwealth of Kentucky

Sport Fish Restoration Grant F-50, Segment 29

Date: June 30, 2007

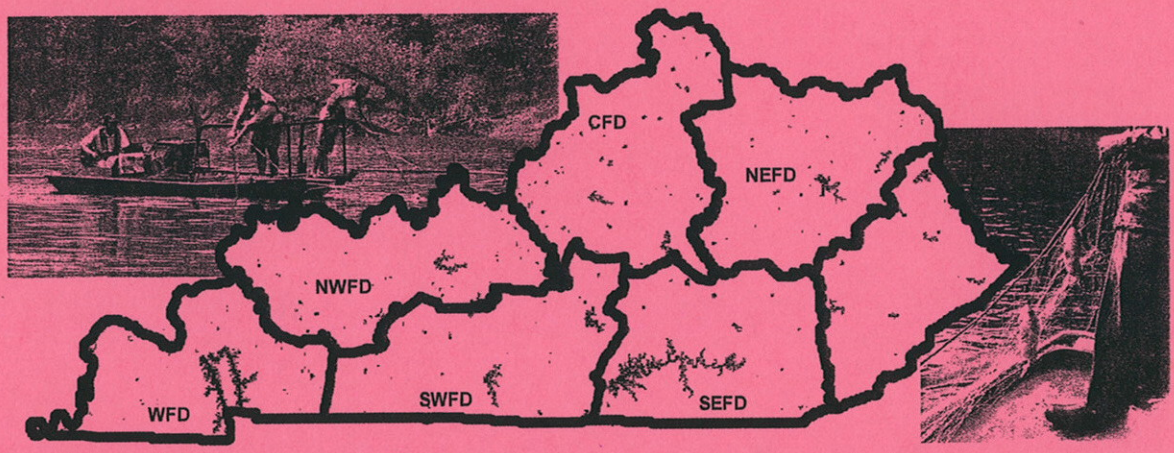
Period: 01 April 2006
through
31 March 2007

ANNUAL PERFORMANCE REPORT

District Fisheries Management

Part I

Project 1: Lake and Tailwater Fishery Surveys



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State: Kentucky Project No.: F-50-29

Grant Title: District Fisheries Management

Grant Period Covered: 1 April 2006 through 31 March 2007

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 2007
Work accomplishment: 31 March 2007

C. SIGNIFICANT DEVIATIONS

None

D. REMARKS

See accompanying report

E. COST

Accurate estimates of project and/or grant level costs are not currently available for the inclusion into this Annual Performance Report. Final project and/or grant level costs will be submitted for this grant in the forthcoming SF-269 Report.

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TABLE OF CONTENTS

Project 1: Lake and Tailwater Fishery Surveys

WESTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Kentucky Lake

During May, 951 black bass were collected by diurnal electrofishing from standardized sampling locations on Kentucky Lake. Largemouth bass comprised almost 90% (85.4 f/h) of this catch (Table 1). An objective in the Kentucky Lake Fish Management Plan (KLFMP) for the largemouth bass population is to maintain a catch rate of at least 24.0 f/h that are <8.0 in. The catch rate of largemouth bass <8.0 in was 28.3 f/h (Table 2). Using a regression model with a correlation of 0.64, it is estimated that this is the minimum value needed in order to produce an adequate number of harvestable size (≥15.0 in) largemouth bass in five years. The KLFMP objective for largemouth bass ≥15.0 in is to maintain a catch rate of at least 18.0 f/h. The catch rate of harvestable-size largemouth bass was 23.6 f/h during this year's sample. The catch rate for the trophy size (≥20.0 in) was 0.6 f/hr. This value has been below average for the past 9 years. Higher values were recorded during, and following a period when aquatic vegetation was prolific throughout the lake (Figure 1). In 2005 and 2006 the acreage of vegetation in the lake increased. It is likely that the number of trophy size bass will also increase during the next few years. Table 3 lists the PSD and RSD values for bass collected during the spring of 2006. The PSD value calculated for all largemouth bass was 77, which is slightly above the targeted ranges (PSD, 55-75) suggested in the KLFMP. The number of largemouth bass 8-12 inches collected during spring has been below average for the past two years. This decrease, along with an increase in the number of bass ≥15 in explains the higher calculated PSD value. The calculated RSD_{15} was 37, which falls into the range reported in the KLFMP (RSD_{15}, 20-40).

Otoliths were not collected from largemouth bass for age and growth determinations this spring. Age frequency for the spring data were determined using age data from previous year's data sets. The catch rate of age 1 largemouth bass was 31.8 f/hr (Table 4). The KLFMP objective for age 1 largemouth bass is to maintain a catch rate of at least 36 f/h. Table 2 lists the historical catch rates of age 1 largemouth bass at Kentucky Lake. This value may increase as habitat, such as aquatic vegetation, increases.

An assessment for largemouth bass was used to evaluate this population (Table 5). The largemouth bass population has been rated "good" during the past five years. The catch of age 1 largemouth bass continues to be below a "good" rating, as does the number of bass in the 11.0 to 14.9 and greater than 20.0 inch ranges. However, the largemouth bass in Kentucky Lake continue to show excellent growth patterns, as measured by the average length at age 3. The catch rate of largemouth bass greater than 15 inches is at a high enough level to also be considered "excellent". Table 2 lists the historical values for each of these parameters for largemouth bass at Kentucky Lake.

During October, 510 black bass were collected by diurnal electrofishing at two locations that had been previously sampled during the spring. Largemouth bass comprised 89% (90.6 f/h) of this catch (Table 6). Length and weight data were recorded from all bass collected to calculate relative weight values. The relative weight for all largemouth bass was 96. For smallmouth bass this value was slightly less, 82. Table 7 lists the relative weights by sample location and size groups. Length-weight equations for black bass species at Kentucky Lake are:

Largemouth bass	Log_{10} (weight) = -3.54616 + 3.22146 x Log_{10} (length)
Smallmouth bass	Log_{10} (weight) = -3.44612 + 3.07442 x Log_{10} (length)
Spotted bass	Log_{10} (weight) = -3.66216 + 3.30339 x Log_{10} (length)

The CPUE of age-0 largemouth bass during the fall sample was 13.6 f/h (Table 8). The CPUE of age-0 largemouth bass ≥5.0 in was 4.0 f/h, and comprised 29% of all age-0 bass collected. Mean length of the age-0 cohort (2006 year-class) largemouth bass was 4.2 in. It is suggested that having larger age 0 bass, will reduce the winter mortality. These bass ranged in length from 2.7 to 5.7 in by October. The average mean length for 15 years of data is 3.9 inches.

Trap nets were fished for crappie in Blood River and Jonathan Creek embayments for a total of 80 net-nights (nn) during October. This sampling effort yielded 1,689 crappie (21.1 f/nn), of which 3.8 f/nn (18%) were white crappie and 17.3 f/nn (82%) were black crappie (Table 9). The number of black crappie has dominated the trap net catch for the past 10 years (Figure 2). It is expected that the density of black crappie in the population has increased, but not by the magnitude suggested from fall trap netting. This change in catch may also be related to the water quality of Kentucky Lake. It is possible that due to the clearer water conditions the white crappie are staying deeper, while black crappie are running the shoreline in shallower water. Under this scenario, the black crappie would be more susceptible to capture in the trap nets.

The crappie population at Kentucky Lake continues to be a quality fishery. The number of crappie ≥ 8.0 in collected in trap nets made up 64% (13.5 f/nn) of the sample (Table 10). The number of crappie ≥ 10.0 in made up 18% (3.9 f/nn) of the sample. The KLFMP objective for crappie is to maintain a catch rate of at least 10 f/nn for crappie ≥8.0 in, and 3.0 f/nn for crappie ≥10 in. Both of these objectives were met. PSD and RSD_{10} values are reported in Table 11. Length-weight equations for white and black crappie are listed below.

White crappie	Log_{10} (weight) = -3.62638 + 3.31978 x Log_{10} (length)
Black crappie	Log_{10} (weight) = -3.59988 + 3.32714 x Log_{10} (length)

Otoliths aged from crappie collected in the 2004 trap netting sample were used to extrapolate against this year's length frequency data to determine age frequency of white and black crappie (Tables 12 and 13, respectively). The age 1 white crappie comprised almost 40% (1.7 f/nn) of the sample, while the age 1 black crappie comprised almost 36% (6.6 f/nn) of the sample. Combined, the catch of age 1 crappie was considered "good" in the crappie population assessment (Table 14). A third management objective is to maintain a catch of age 1 crappie of at least 11 f/nn. However, this value has been below the management objective for the past two years. This low recruitment will likely lead to a poorer crappie fishery in 2009. Although, crappie are known for having a cyclic population due to variable recruitment. At Kentucky Lake, it is hypothesizes that spring water level fluctuations and timing of critical water temperature greatly affect spawning, leading to the variable recruitment. Environmental effects such as clear water and increased density of aquatic vegetation may also help to explain the reduced number of age 0 crappie collected. Similar conditions occurred in the late 1980's, also when low numbers of these smaller crappie were recorded. The catch of age 0-crappie has also been low for three consecutive years, and considered to be "poor". Creel statistics from a 2004 creel survey do not indicate over harvest. Overall, the crappie population at Kentucky Lake rated "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.

Blue and channel catfish were collected using 100-hook trotlines (tl) and hoop nets during May. The trotlines were baited with cheese bait, and the hoop nets were baited with tubes of cheese. Data collected was used to determine CPUE, length and age frequencies. A total of 120 catfish were collected at a rate of 13.3 f/tl. No catfish were collected in hoop nets. CPUE of blue and channel catfish was 5.2 and 8.1 f/tl, respectively (Table 15). 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 condition and are listed in Table 16. The length-weight equations for blue and channel catfish are:

Blue catfish	Log_{10} (weight) = -3.62644 + 3.18150 x Log_{10} (length)
Channel catfish	Log_{10} (weight) = -3.85543 + 3.31361 x Log_{10} (length)

Age frequencies for this year's catch data of blue and channel catfish were determined using age data collected in 2004. Catch of blue catfish ages 5 and 6 dominated the overall catch, comprising almost 70% of the total catch of blue catfish (Table 17). Catch of channel catfish that were age 6 comprised 52% of the total catch of channel catfish (Table 18).

During October, WFD staff assisted a Murray State University biology student with a project to age larger catfish, not normally collected during the previous sampling. The catfish used for analysis were collected by commercial fisherman from the lake. At the time, blue catfish were dominating these anglers catch, therefore only blue catfish were used for the age sample. Otoliths were removed from 50 blue catfish. The length and weight was also recorded for each of these fish. This sample yielded 41 otoliths that were readable for aging.

The oldest age blue catfish was 19 years old. This fish weighed 34.8 pounds and was 38.2 inches in length at time of capture (Table 19).

Lake Barkley

Black bass were collected by diurnal electrofishing from 24-27 May 2006 at standardized sampling sites on Lake Barkley. A total of 1,329 black bass were collected at a rate of 132.9 f/h (Table 20). Spotted and smallmouth bass accounted for less than 7% of the total black bass sampled, and too few individuals were collected to look at the true population characteristics. Largemouth bass accounted for 93.2% of the total catch, and had a catch rate of 124.4 f/h. This catch rate lies below the 22-year average catch of largemouth bass (145.0 f/h) at Lake Barkley (Table 21). The CPUE of all size-classes except stock size (8-11.9 in) largemouth bass decreased in 2006. However, the catch rates of stock size (12-14.9 in) and harvestable (>15 in) largemouth bass still exceed their respective management goals found in the Barkley Lake Fish Management Plan (BLFMP). These size classes will maintain fishing success in the near future, despite poor year-classes in each of the last two years (Table 21). The catch rate of largemouth bass ≥20.0 in was 2.1 f/h, and failed to meet the management objective of 3 f/h.

The PSD value for largemouth bass (83) was the same in 2006 as that recorded in 2005 (Table 22). This value is well above the twenty year average (61) for Lake Barkley, suggesting a better size distribution than in years past. The RSD_{15} (28) decreased slightly, but exceeds the 20-year average. Both PSD and RSD_{15} values met or exceeded their objective goals (PSD of 55-75 and RSD_{15} of 20-40) established in the BLFMP.

Ninety-five largemouth bass were collected for age and growth analysis (Table 23). Ages ranged from 0-8, and the dominant age-class was age-3 (Table 24). The mean length at age-3 (13.4 in) exceeds the management objective (12.0 in). On average, largemouth bass reached harvestable size between ages 4-5. Catch rates by age-class are shown in Table 25. The annual mortality of largemouth bass older than a year was 35% in 2006 as determined using catch-curve regression.

The assessment rating of the largemouth bass fishery at Lake Barkley has varied between "good" and "excellent" over the past five years (Table 26). This year it was downgraded from "excellent" to a rating of "good". The lower rating is the result of decreased catch of age-1 and harvestable size bass in the 2006 sample. Table 27 lists the assessment parameters and their respective values determined from the past 22 years of sampling on Lake Barkley.

Largemouth bass were sampled in late October and early November 2006 to collect length-weight data, and determine the strength of the 2006 year-class. Four hundred sixteen black bass were collected at a catch rate of 92.22 f/h (Table 28). The length-weight equations for each species of black bass at Lake Barkley are:

Largemouth bass	Log_{10} (weight) = -3.61024 + 3.27628 x Log_{10} (length)
Smallmouth bass	Log_{10} (weight) = -3.43581 + 3.10033 x Log_{10} (length)
Spotted bass	Log_{10} (weight) = -3.55259 + 3.24425 x Log_{10} (length)

Similar to previous years, despite high r^2-values for both spotted (r^2 = 1.0) and smallmouth (r^2 = 0.99) bass, low overall sample sizes of spotted (n = 2) and smallmouth (n = 5) bass were collected during the fall sample and therefore these length-weight equations should be used with caution.

Relative weight values of all size-classes of largemouth bass increased for the fourth consecutive year, indicating excellent condition of the largemouth bass in the population (Table 29). Mean length of the age-0 cohort was 4.8 in (Table 30). Year class strength has been low in consecutive years. CPUE of age-0 largemouth bass was 9.3 f/h, the second lowest catch-rate recorded to date. CPUE of age-0 largemouth bass ≥5.0 in was 4.0 f/h. Fortunately, consecutive poor year classes may not produce a noticeable impact to the fishermen. However, a third poor year class in 2007 will likely result in a noticeable decline in fishing success in coming years.

Blue and channel catfish were collected using 100-hook trotlines (tl) from 22-25 May 2006. In 2006, 208 catfish were collected at a rate of 16.0 f/tl-night. The CPUE of blue catfish was 10.7 f/tl-night (Table 31). Approximately 55% of all blue catfish collected were ≥15.0 in, and 16% were ≥20.0 in.

Only one blue catfish was captured ≤8.0 in. The CPUE of channel catfish was 5.3 f/tl-night. Approximately 94% of all channel catfish collected were ≥12.0 in, and 43% were ≥15.0 in. Similar to blue catfish, no small channel catfish (≤8.0 in) were captured. Relative weight values of both blue and channel catfish indicate excellent condition and are listed in Table 32. The length-weight equations of blue and channel catfish are:

Blue catfish	Log_{10} (weight) = -3.72131 + 3.19929 x Log_{10} (length)
Channel catfish	Log_{10} (weight) = -4.10605 + 3.46520 x Log_{10} (length)

Age frequency determinations were made using 2004 age data and 2006 catch data for blue and channel catfish. The catch of blue catfish ages 5 and 6 dominated the overall catch, comprising 28 and 25% of the total catch, respectively (Table 33). The catch of channel catfish ages 4 and 5 dominated the overall catch, comprising 19 and 31% of the total catch, respectively (Table 34). The catch of young (ages 1-3) blue and channel catfish was extremely low during 2006 and is most likely the result of gear selectivity towards larger catfish. Alternative sampling schemes will be considered in 2007 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 80 net-nights (nn) from 31 October - 3 November 2006. A total of 624 crappie were collected at a rate of 7.9 f/nn (Table 35). White crappie accounted for 63% of the total catch, and were collected at a rate of 5.0 f/nn. Black crappie were collected at a rate of 2.9 f/nn. The number of black crappie has increased in the catch of trap nets, but not to the magnitude seen at Kentucky Lake (Figure 3). The CPUE of harvestable-size (≥10.0 in) crappie was 1.3 f/nn (Table 36). In twenty-two years of sampling, this value has ranged from 0.55-3.37 f/nn. Despite failing to meet the management objective (1.7 f/nn) set in the BLFMP, there should be plenty of harvestable crappie available this season. The CPUE of quality-size (≥8.0 in) crappie (3.6 f/nn) also failed to meet the management objective (4.0 f/nn) set in the BLFMP. However, this value is just shy of the twenty-two year average, so there should be plenty of younger crappie growing into harvestable size fish next year. In 2006, the PSD (54.9) and RSD_{10} (35.3) of white crappie decreased from 2005 values (Table 37). 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 in 2006, neither exceeding the 20-year average of 53 and 19, respectively. The length-weight equations of white and black crappie from Lake Barkley are:

White crappie	Log_{10} (weight) = -3.96322 + 3.67757 x Log_{10} (length)
Black crappie	Log_{10} (weight) = -3.84960 + 3.59890 x Log_{10} (length)

Otoliths were collected from 79 black crappie and 106 white crappie for age and growth analysis in 2006 (Tables 38 and 39). The catch of black crappie was dominated by age-1 fish (Table 40) while age-0 black crappie were rare in our catch (0.1 f/nn). The catch of age-1 white crappie (3.8 f/nn) comprised 77% of the total catch (Table 41). The total CPUE of age-0 crappie was 0.23 f/nn, which failed to meet the management objective (5.4 f/nn) established in the BLFMP. The annual mortality of crappie in Lake Barkley during 2006, calculated using catch curve analysis was 67.3%.

Assessment of the white and black crappie populations yielded a rating of "fair" at Lake Barkley in 2006 (Table 42, 43, 44, respectively). The lowest assessment values for white crappie were the recruitment parameter (CPUE of age-0 white crappie) and the population density parameter (CPUE of age-1 and older). The highest assessment value continues to be the growth parameter (mean length at capture of age-2 white crappie). The black crappie population received poor assessment values for all parameters except growth. These ratings have been consistent over the past five years as indicated by the population assessment scores of white crappie, black crappie, and both white and black crappie populations combined from 2001-2006.

Lake Beshear

Largemouth bass were collected by diurnal electrofishing during May. A total of 210 largemouth bass were collected at a rate of 84.0 f/h (Table 45). CPUE of harvestable-size (≥12.0 in) and ≥15.0 in largemouth bass were 41.2 and 34.0 f/h, respectively (Table 46). 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.

Because the bass fishery at Lake Beshear is considered to be a high quality bass fishery, a second objective is to maintain a high catch rate of bass ≥15.0 and ≥20.0 inches. Ideally, these catch rates should be greater than 30 and 4 f/hr, respectively. This year was the first time in several years the catch rate of the trophy size (20 inch) bass was above the recommended rate. The historical mean for this catch rate is 3.7 f/hr, while the highest rate was recorded, in the late 1990's (8.5 f/hr). In the year following that date, LMB virus was suspected as being the cause of some bass die offs.

Age and growth determinations were made using otoliths collected during the spring sampling. Largemouth bass reach 12.0 in (harvestable-size) as early as age 2, but more commonly by age 3 (Table 47). The age frequency data is present in table 48. Although, age 1 largemouth bass made up more than a fourth of the sample, their catch rate (24.8 f/hr) is considered only to be fair. The catch rate for this age class of bass should be at least double this value. Overall, the largemouth bass population has rated "good" the past five years (Table 49). A third objective for managing a quality fishery at this lake is to maintain good growth. Ideally, the mean age -3 length at capture should be at least 12 inches. Although, the current growth exceeds this objective, growth has declined since bass were last aged in 2001. What limits this fishery is recruitment; however the number of quality fish is always high. The low recruitment could be a condition of sampling in clear water, therefore reducing the catch in the spring electrofishing sample. Although, nocturnal sampling was conducted in 1995 to 2002, and yielded similar results as diurnal sampling in other years.

During October, largemouth bass were collected by diurnal electrofishing. The catch rate (50.0 f/h) was below that of the spring sample (Table 45). However, the number of bass of <8.0 in was slightly higher when compared to the spring data; 27.6 f/hr and 30.0 f/hr, respectively. 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 length-weight equation for largemouth bass at Lake Beshear is:

$$\text{Log}_{10}\,(\text{weight}) = -3.76961 + 3.40440 \times \text{Log}_{10}\,(\text{length})$$

Otoliths were removed from a sub sample of largemouth bass ≤ 8.0 in to determine the mean fall length of the age-0 cohort. The catch rate for this year class was 23.0 f/h (Table 50). The average length of the age-0 bass was 4.2 in.

Lake Pennyrile

Lake Pennyrile was sampled by diurnal electrofishing on 12 April 2006. Largemouth bass were collected at a rate of 218.0 f/h (Table 51). This catch rate was lower than that recorded in 2005 (260.4 f/h), but similar to the catch rates in previous years (Table 52). The CPUE of largemouth bass ≤8.0 in was 81.0 f/h, compared to 101.5 f/h recorded in 2005. Similarly, CPUE of largemouth bass 8.0-11.9 in was 105.0 f/h, compared to 127.5 f/h recorded in 2005. CPUE of largemouth bass 12.0-14.9 in was 26 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 remained higher than the average for all years of sampling. The catch of the larger size bass has exceeded the management objective (5.0 f/h) in consecutive years. This is the fourth year that a 12.0-15.0 in protective slot limit has been in place on Lake Pennyrile. Continued high catch rates of largemouth bass <12 in suggests the slot limit has not been effective. However, improved catch rates of ≥15 in bass suggest some improvement in larger fish. PSD and RSD_{15} values, listed in Table 53, lie well below the management objectives set in the LPFMP for PSD (40-50) and RSD_{15} (10), and are reflective of the high density of small fish in the population.

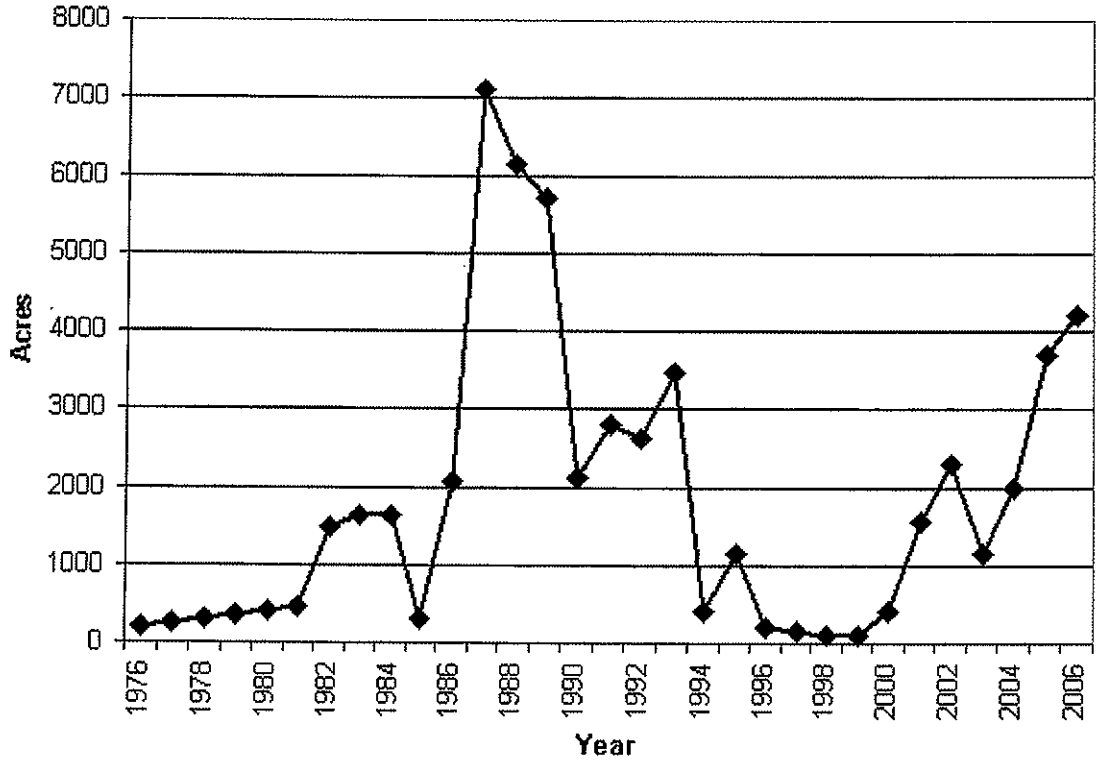
The largemouth bass population was rated as "fair" during 2006 (Table 54). However, the assessment rating is somewhat misleading. For example, the 2006 value decreased because of a lower catch rate of age-1 bass. However, because our management objective is to decrease catch rates of smaller bass and improve growth and catch rates of larger bass, the assessment may not be effective at gauging the quality of this fishery. The lowest ratings were assigned for poor growth (mean length at capture of age-3 bass), which is expected in a stunted population.

A fall largemouth bass sample was taken on 14 September 2006. One hundred nine largemouth bass were captured ranging from 3-15 in, at a catch rate of 109.0 f/h (Table 55). The largemouth bass relative weight was 77.5 (Table 56). If a relative weight of 100 is optimal, in concept, these largemouth bass are less than ideal in condition.

Hematite Lake

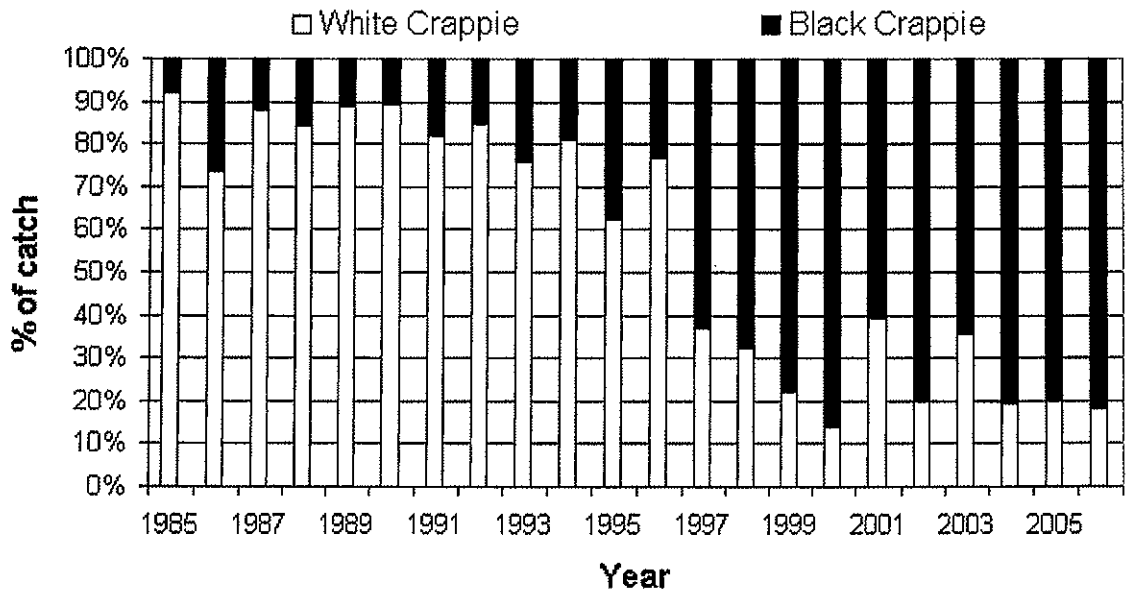
Hematite Lake is a 90-acre sub-impoundment of Lake Barkley located within the Land Between the Lakes Recreational Area. The management objective for this lake is to establish a quality redear fishery, seen in the late 1980's before the lake was drained due to a levee failure. In spring 2002, the lake was sampled by electrofishing. During that study redear sunfish were collected at a catch rate of 159.0 f/h. In 2005, the redear sunfish population was again sampled resulting in a catch rate of 187.6 f/h, and in 2006 146.0 (Table 57). Redear sunfish between 3-6 in dominate the size structure of this population (Table 58). The harvest of redear sunfish is regulated by a creel limit of 10 fish $\geq$10.0 in. This size limit should be revisited given the low catch rate of harvestable fish. However, these sampling conditions are not ideal due to the density of aquatic vegetation present in the lake. Until this vegetation is thinned, samples may continue to be low. Also, the dense vegetation may provide too much cover for small sunfish, limiting the needed predation by bass to keep the sunfish population in balance.

Figure 1. Estimated acres of aquatic vegetation in Kentucky Lake. Data provided by Tennessee Valley Authority.



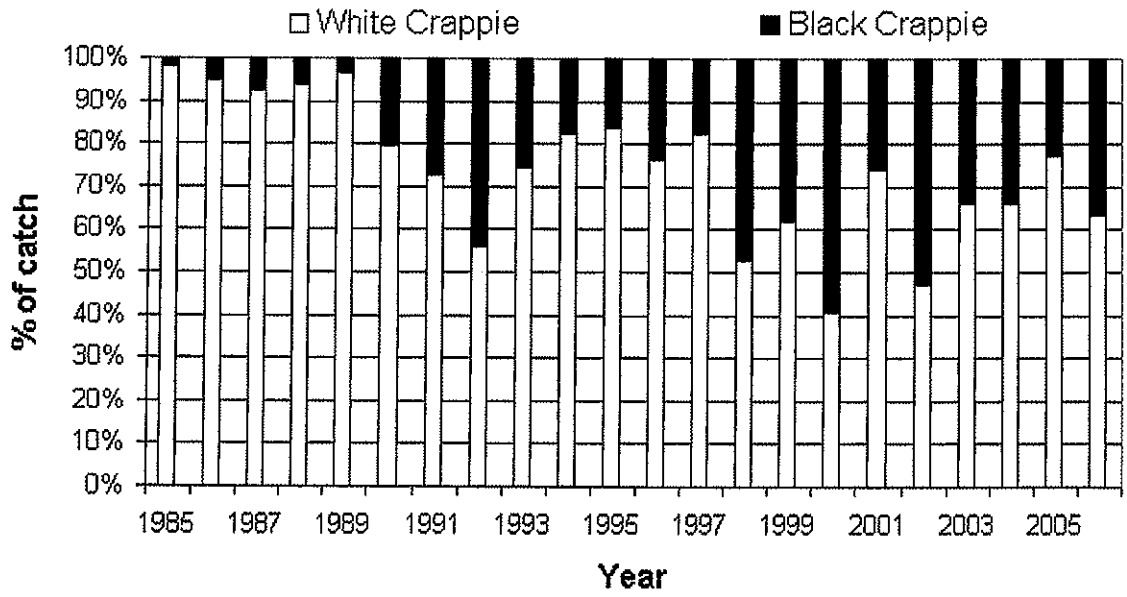
2005	3700
2006	4200

Figure 2. Relative species composition of white and black crappie collected during annual fall trap-netting from 1985-2006 at Kentucky Lake.



(Kentucky_Crappie_Database.xls)

Figure 3. Relative species composition of white and black crappie collected during annual fall trap-netting from 1985-2006 at Lake Barkley.



(Barkley_Crappie_Database.xls)

Table 1. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected during 10.0 hours (20 x 30-minute runs) of diurnal electrofishing at Kentucky Lake during May 2006.

		Inch Classes																						
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		4	4	5		1			1				1								16	6.4	5.0
	Spotted bass	1		1			2	1	1	6	8	9	2	1								32	12.8	11.3
	Largemouth bass		14	26	21	24	7	7	8	7	13	15	27	18	6	12	4		1	1	1	214	85.6	16.5
Big Bear	Smallmouth bass									1												1	0.4	0.4
	Spotted bass							1														1	0.4	0.4
	Largemouth bass		2	5	9	11	7	1	6	13	19	28	35	42	17	10	4	4	2			215	86.0	5.1
Jonathan	Spotted bass						1															1	0.4	0.4
	Largemouth bass	2	5	3	4	8	2	9	14	15	15	16	26	25	11	6	11	3		1		176	70.4	9.3
Sugar Bay	Smallmouth bass		3	7	2	3	5	2	1	1	2	3	1	1		1						32	12.8	7.1
	Spotted bass	1	2	1			2	2	1	1	1	2	1									14	5.6	3.2
	Largemouth bass	5	23	42	46	33	11	4	5	10	12	10	20	15	8	4	1					249	99.6	9.7
TOTAL	Smallmouth bass		7	11	7	3	6	2	1	3	2	3	1	2		1						49	4.9	2.3
	Spotted bass	2	2	2			5	4	2	7	9	11	3	1								48	4.8	2.9
	Largemouth bass	7	44	76	80	76	27	21	33	45	59	69	108	100	44	32	20	7	3	2	1	854	85.4	5.6

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Table 2. Spring diurnal electrofishing CPUE of each size group of largemouth bass collected at Kentucky Lake during May from 1983 - 2006.

	Mean length age-3 at	age-1		Inch Groups										Total	
				≤8.0		12 - 14.9		≥15.0		≥18.0		≥20.0			
Year	capture	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr
1983				3.00		1.33		4.21						16.00	
1984				3.30	1.1	6.30	0.7	5.80	0.8					24.60	
1985				6.30		2.04		3.61						15.90	
1986	10.6	17.34	1.2	12.60	1.6	10.30	2.0	10.10	1.5	5.07		1.53	0.3	45.10	5.3
1987	11.2	41.01	3.8	36.90	5.8	10.10	1.3	11.90	1.8	4.01		1.34	0.5	77.30	8.7
1988	11.3	26.00	5.2	28.90	7.4	24.20	4.4	14.30	3.8	5.63		2.59	0.7	106.10	24.2
1989	11	33.75	3.6	29.20	6.3	23.70	3.9	9.80	1.9	4.11		1.83	0.4	92.80	14.7
1990	11.4	16.20	1.3	6.20	1.6	12.50	1.8	14.30	1.8	6.57		2.09	0.6	60.40	5.9
1991	11.3	41.40	3.9	38.50	7.1	27.00	2.5	19.40	2.5	9.23		3.14	0.6	99.60	10.3
1992	10.9	31.49	2.7	23.40	4.6	17.70	1.4	21.90	1.9	11.54		4.27	0.7	95.40	7.5
1993	11.6	33.08	2.9	33.20	5.4	26.90	3.2	31.40	3.2	14.80		5.50	1.0	107.20	9.3
1994	11.6	25.42	1.8	21.00	3.0	19.60	1.7	18.40	2.0	9.00		2.87	0.6	84.00	5.7
1995	11	9.17	0.8	5.90	1.2	19.60	2.5	24.60	2.1	13.30		6.18	0.9	65.40	5.0
1996	11	14.25	1.5	11.90	2.6	15.60	1.8	27.00	2.6	12.10		5.56	0.7	61.20	4.6
1997	12.7	7.30	0.7	6.70	1.3	10.80	1.8	21.40	2.4	2.70		2.59	0.7	46.60	4.7
1998	12.7	51.95	3.6	17.30	2.0	9.60	1.7	10.00	1.7	1.10		1.73	0.5	44.80	3.9
1999	13.9	41.89	3.4	18.70	3.3	11.40	1.5	11.90	1.7	1.10		0.80	0.3	52.00	4.9
2000	13.9	21.80	2.2	19.40	3.8	19.00	1.8	22.50	3.5	1.80		1.52	0.4	74.40	6.2
2001	14.4	73.90	4.3	60.60	7.3	12.20	1.6	12.00	1.5	1.70		0.40	0.2	111.00	10.7
2002	13.7	35.50	2.8	32.40	5.4	21.80	2.3	12.90	1.1	1.80		0.90	0.3	93.80	5.9
2003	13.7	30.90	2.7	21.80	3.8	43.60	5.2	15.60	1.9	4.20	0.9	1.00	0.3	105.40	11.4
2004	13.7	11.99	1.6	17.70	2.6	22.70	2.1	18.10	1.8	3.70	0.9	1.00	0.4	83.60	5.8
2005	13.8	28.70	3.0	24.50	2.5	46.50	4.4	23.60	2.2	3.70	0.7	0.80	0.4	107.40	7.6
2006	13.8	31.79	7.0	28.30	6.3	23.60	2.4	20.90	2.3	3.30	0.6	0.60	0.2	85.40	5.5
Average	12.3	29.75		21.15		18.25		16.07		5.74		2.30		73.14	

(Kentucky Bass Database.xls)

Table 3. PSD and RSD values calculated for black bass species collected during diurnal electrofishing at Kentucky Lake during May 2006; 95% confidence limits are in parentheses.

Area	Species	No. Fish ≥ 8 in	PSD	(+/- 95%)	RSD[a]	(+/- 95%)
Blood River	Smallmouth bass	3	67	(+/- 65)	33	(+/- 65)
	Spotted bass	30	87	(+/- 12)	10	(+/- 11)
	Largemouth bass	129	78	(+/- 7)	35	(+/- 8)
Big Bear Creek	Largemouth bass	188	86	(+/- 5)	42	(+/- 7)
Jonathan Creek	Largemouth bass	154	92	(+/- 4)	33	(+/- 6)
Sugar Bay	Smallmouth bass	17	45	(+/- 22)	15	(+/- 16)
	Spotted bass	10	50	(+/- 33)	10	(+/- 20)
	Largemouth bass	100	70	(+/- 9)	28	(+/- 9)
TOTAL	Smallmouth bass	21	50	(+/- 20)	17	(+/- 15)
	Spotted bass	42	74	(+/- 13)	10	(+/- 9)
	Largemouth bass	571	77	(+/- 3)	37	(+/- 4)

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

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Table 4. Age frequencies and CPUE of largemouth bass collected during diurnal electrofishing for 10 hours (20 x 30-minute runs) at Kentucky Lake during May 2006.

	Inch Classes																					
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	44	76	80	76	27	8													318	37.2	31.8	6.69
2							13	33	37	24										107	12.5	10.7	1.07
3									8	35	63	32	13							151	17.7	15.1	1.77
4											6	33	25	7						71	8.3	7.1	0.61
5												32	63	29	32	12	2			170	19.9	17.0	1.69
6												11		7			2			20	2.3	2.0	0.18
7																8	4	1		13	1.5	1.3	0.27
8																		1	2	3	0.4	0.3	0.14
9																		1		1	0.1	0.1	0.05
Total	7	44	76	80	76	27	21	33	45	59	69	108	101	43	32	20	8	3	2	854			
%	1	5	9	9	9	3	2	4	5	7	8	13	12	5	4	2	1	0	0		0		

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Table 5. Population assessment of largemouth bass based on spring sampling at Kentucky Lake from 2002-2006.

	2006		2005		2005		2003		2002	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at Age-3	13.8	4	13.8	4	13.7	4	13.7	4	13.7	4
Spring CPUE of Age-1 Fish	31.8	2	28.7	2	12.0	1	30.9	2	35.5	2
Spring CPUE 12-14.9-in Fish	23.6	2	46.5	4	22.7	2	43.6	4	21.8	2
Spring CPUE ≥ 15.0-in Fish	20.9	4	23.6	4	18.1	3	15.6	3	12.9	3
Spring CPUE ≥ 20-in Fish	0.6	2	0.8	2	1.3	2	1.0	2	0.9	2
Instantaneous Mortality (z)	0.666		0.639		0.697		0.728		0.873	
Annual Mortality (A)%	48.6		47.2		50.2		51.7		58.2	
Total Score		14		16		12		15		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 6. Species composition, relative abundance and CPUE (fish/hour) of black bass collected during 5.0 hours (10 x 30-minute runs) of diurnal electrofishing runs for black bass at Kentucky Lake during October 2006.

		Inch Classes																						
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	StdErr
Blood River	Smallmouth bass		1	4	2		1	2	2		2			3								17	6.8	3.38
	Spotted bass		2	2				1			2	1	2	1								11	4.4	2.04
	Largemouth bass		12	11	12	12	4	5	18	17	19	19	17	22	8	10	6	5	3	3		203	81.2	6.05
Jonathan	Smallmouth bass		1	1	1				1		1	1	1	1	1							9	3.6	1.47
	Spotted bass		2	5	3	1			1	2	4	1	1									20	8.0	2.53
	Largemouth bass	3	14	11	12	5	4	9	21	20	21	24	17	35	24	18	11	4	4	2		259	100.0	14.10
TOTAL	Smallmouth bass		2	5	3		1	2	3		3	1	1	4	1							26	5.2	1.82
	Spotted bass		4	7	3	1		1	1	2	6	2	3	1								31	6.2	1.65
	Largemouth bass	3	26	22	24	17	8	14	39	37	31	43	34	57	32	28	17	9	7	5		453	90.6	7.88

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Table 7. Number of bass, and relative weight (Wr) for each length group of black bass collected at Kentucky Lake during October 2006. Standard errors are in parentheses.

		Inch Groups								
		8.0-11.9 in			12.0-14.9 in			> 15.0 in		
Species	Area	No.	Wr		No.	Wr		No.	Wr	
Largemouth bass	Blood River	58	99	(1.07)	58	97	(1.17)	35	96	(1.57)
	Jonathan Creek	62	97	(1.59)	76	92	(1.23)	63	95	(1.36)
	Total	120	98	(0.97)	134	94	(0.89)	98	95	(1.04)

		Inch Groups								
		7.0-10.9 in			11.0-13.9 in			> 14.0 in		
Species	Area	No.	Wr		No.	Wr		No.	Wr	
Spotted bass	Blood River	1	110		5	92	(5.62)	1	107	
	Jonathan Creek	3	89	(4.47)	6	93	(3.84)			
	Total	4	94	(6.21)	11	93	(3.13)	1	107	
Smallmouth bass	Blood River	5	84	(3.73)	2	84	(3.45)	3	78	(6.29)
	Jonathan Creek	1	85		3	81	(4.44)	2	83	(6.06)
	Total	6	95	(3.05)	5	82	(2.76)	5	80	(4.09)

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Table 8. 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	31.8	6.69
2006	4.2	13.6	2.87	4.0		
Average	3.9	21.7		4.5	30.7	

[A] Data collected by fall (October) diurnal electrofishing. Mean lengths were determined by analysis of otoliths, removed from a subsample of LMB < 8.0 in, 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 9. Species composition, relative abundance, and CPUE (fish/net night) of crappie collected by trap nets fished during 80 net-nights in two embayments of Kentucky Lake during October 2006.

Area	Species	Inch Classes													Total	CPUE	StdErr
		2	3	4	5	6	7	8	9	10	11	12	13	14			
Blood River	White Crappie	2	54	8	1	28	25	3	4	15	12	5	1	1	159	4.0	1.19
	Black Crappie	17	45	6	41	108	57	119	140	62	30	4	1	1	631	15.8	2.27
Jonathan Cr.	White Crappie	3	32			15	13	5	28	37	8	9			150	3.8	0.56
	Black Crappie	7	19	2	7	90	32	183	285	101	23				749	18.7	3.19
TOTAL	White Crappie	5	86	8	1	43	38	8	32	52	20	14	1	1	309	3.9	0.65
	Black Crappie	24	64	8	48	198	89	302	425	163	53	4	1	1	1,380	17.3	1.95

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Table 10. Crappie population parameters used to manage the population at Kentucky Lake, with values determined from fall trap netting.

Year	Total CPUE (f/nn) excluding age-0			CPUE (f/nn) age-0			Mean length (in) age-2 at capture			CPUE (f/nn) for crappie ≥8 inches			CPUE (f/nn) age-1			CPUE (f/nn) for crappie ≥10 inches		
	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie
1985	15.70	1.85	17.55	5.65	0.33	5.98	9.0	8.4	8.4	1.73	0.78	2.51	16.91	0.80	17.71	0.50	0.35	0.85
1986	5.20	2.88	8.08	3.29	0.27	3.56	10.3	10.5	10.6	3.50	2.43	5.93	1.79	1.33	3.12	1.80	1.34	3.14
1987	9.80	3.64	13.44	2.35	0.19	2.54	10.5	9.9	10.5	8.32	1.64	9.96	9.05	1.29	10.34	4.00	0.38	4.38
1988	5.20	0.85	6.05	0.95	0.14	1.09	11.0	10.6	10.5	3.66	0.64	4.30	2.66	0.34	3.00	0.83	0.31	1.14
1989	15.60	2.39	17.99	20.41	1.12	21.53	9.3	9.4	9.9	1.74	0.23	1.97	6.08	2.18	8.26	0.87	0.04	0.91
1990	14.10	1.70	15.80	3.73	0.48	4.21	9.7	10.3	10.6	2.62	0.78	3.40	13.83	1.00	14.83	0.71	0.49	1.20
1991	12.70	3.82	16.52	4.95	0.08	5.03	9.7	8.6	9.4	5.56	0.46	6.02	6.84	3.19	10.03	1.14	0.10	1.24
1992	16.00	3.25	19.25	3.06	0.28	3.34	9.5	8.6	9.3	5.49	1.85	7.34	10.95	0.65	11.60	1.74	0.35	2.09
1993	12.00	3.43	15.43	1.96	0.95	2.91	9.0	8.6	9.6	4.69	1.76	6.45	7.61	1.68	9.29	2.73	0.76	3.49
1994	10.50	2.33	12.83	2.35	0.72	3.07	9.6	8.7	9.4	5.52	0.75	6.27	5.23	1.60	6.83	2.30	0.34	2.64
1995	11.00	6.61	17.61	3.54	2.02	5.56	10.4	9.4	9.9	3.34	1.56	4.90	8.49	5.04	13.53	1.69	0.94	2.63
1996	11.90	9.84	21.74	28.02	2.16	30.18	10.0	9.3	9.7	4.24	3.20	7.44	7.94	6.01	13.95	1.73	0.48	2.21
1997	7.00	11.59	18.59	1.70	2.49	4.19	9.6	8.5	9.0	3.33	5.50	8.83	3.29	4.82	8.11	1.61	0.70	2.31
1998	9.60	31.27	40.87	9.49	8.64	18.13	9.3	9.3	9.3	5.75	11.27	17.02	3.21	17.49	20.70	1.68	1.34	3.02
1999	5.40	21.66	27.06	0.95	1.00	1.95	9.5	8.9	9.1	2.30	12.66	14.96	3.42	6.30	9.72	1.26	1.83	3.09
2000	2.70	18.63	21.33	0.45	1.31	1.76	10.0	8.9	9.4	2.38	10.57	12.95	1.01	7.56	8.57	0.77	2.17	2.94
2001	4.69	22.59	27.28	26.76	24.52	51.28	10.8	9.3	9.8	2.21	12.55	14.76	2.34	9.67	12.01	1.29	3.17	4.46
2002	3.90	15.14	19.04	0.71	3.06	3.77	10.8	9.9	10.4	2.74	8.60	11.34	3.30	9.80	13.10	0.68	4.21	4.89
2003[A]	3.75	20.33	24.08	10.46	5.4	15.86	10.8	9.9	10.4	2.55	6.2	8.75	2.34	15.52	17.86	1.35	1.76	3.11
2004	7.47	32.46	39.93	0.65	0.98	1.63	10.8	9.2	9.7	2.71	11.67	14.38	6.2	18.60	24.80	1.09	2.99	4.08
2005[A]	3.91	22.75	26.66	2.29	1.92	4.21	10.8	9.2	9.7	2.45	13.78	16.23	2.55	10.31	3.10	1.12	3.42	4.54
2006[A]	2.62	16.07	18.69	1.24	1.18	2.42	10.8	9.2	9.7	1.60	11.86	13.46	1.68	6.60	8.28	1.10	2.78	3.88
Average	8.7	11.6	20.3	6.1	2.7	8.8	10.1	9.3	9.7	3.56	5.49	9.05	5.76	5.99	11.31	1.45	1.37	2.83

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

Table 11. Proportional stock density (PSD) and relative stock density (RSD10) of white and black crappie collected by trap-nets (80 net-nights) at Kentucky Lake during October 2006.

Location	Species	N	PSD	RSD10
Blood River				
	White Crappie	41	43 (± 10)	36 (± 10)
	Black Crappie	357	63 (± 4)	17 (± 3)
Jonathan Creek				
	White Crappie	87	76 (± 8)	47 (± 9)
	Black Crappie	592	82 (± 3)	17 (± 3)
Total				
	White Crappie	128	61 (± 7)	42 (± 7)
	Black Crappie	949	74 (± 2)	17 (± 2)

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Table 12. Age frequencies and CPUE of white crappie collected in trap nets fished for 80 net nights in Kentucky Lake during October 2006. Age data was obtained using otoliths collected in 2000-2002, and 2004.

	Inch Classes																
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	%	CPUE	StdErr
0	5	86	8											99	32.0	1.24	0.36
1				1	43	38	7	19	9	1				118	38.2	1.47	0.30
2							1	9	27	9	2			48	15.5	0.59	0.11
3								2	9	7	3			21	6.8	0.26	0.05
4								1	5	2	4			12	3.9	0.15	0.03
5								1		1	3			5	1.6	0.06	0.02
6									1		1		1	3	1.0	0.04	0.01
7									1		1			2	0.6	0.02	0.01
9												1		1	0.3	0.01	0.00
Total	5	86	8	1	43	38	8	32	52	20	14	1	1	309			
%	2	28	3	0	14	12	3	10	17	6	5	0	0		100		

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Table 13. Age frequencies and CPUE of black crappie collected in trap nets fished for 80 net-nights in Kentucky Lake during October 2006. Age data was obtained using otoliths collected in 2000-2002, and 2004.

	Inch Classes																
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	%	CPUE	StdErr
0	24	64	7	4										99	7.2	1.24	0.33
1			1	44	194	66	104	73	10	1				493	35.7	6.17	0.74
2					4	23	193	234	51	11				516	37.4	6.46	0.79
3							5	100	72	20	1			198	14.3	2.47	0.36
4								6	20	10	2			38	2.8	0.47	0.08
5								6	7	6	1	1		21	1.5	0.26	0.04
6								6	3	3			1	13	0.9	0.16	0.02
7										1				1	0.1	0.01	0.00
10										1				1	0.1	0.01	0.00
Total	24	64	8	48	198	89	302	425	163	53	4	1	1	1,380			
%	2	5	1	3	14	6	22	31	12	4	0	0	0		100		

wfdtpntk.d06, wfdmycad.d06

Table 14. Population assessment determined from white and black crappie based on fall trap netting at Kentucky Lake from 2002-2006, table 14a - white crappie and table 14b - black crappie.

	2006		2005		2004		2003		2002	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE of crappie (excluding age 0)	18.63	3	26.66	4	39.43	4	24.08	4	18.98	3
CPUE of age 1 crappie	7.64	3	12.86	3	24.80	4	17.86	4	13.10	4
CPUE of age 0 crappie	2.48	1	4.21	1	1.63	1	15.86	4	3.77	2
CPUE of crappie ≥ 8 inches	13.46	4	16.24	4	14.38	4	8.75	3	11.34	4
Mean age-2 length at capture	9.7	4	9.7	4	9.7	4	10.4	4	10.4	4
Instantaneous Mortality (Z)	0.729		0.788		0.649		0.709		0.673	
Annual Mortality (A)%	51.7		54.5		47.7		50.8		49.0	
Total Score		15		16		17		19		17
Assessment Rating		G		G		G		E		G

Table 14a. White Crappie

	2006		2005		2004		2003		2002	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE of crappie (excluding age 0)	2.63	1	3.91	1	7.38	2	3.75	1	3.85	1
CPUE of age 1 crappie	1.48	1	2.55	1	6.20	2	2.34	1	3.30	2
CPUE of age 0 crappie	1.24	1	2.29	1	0.65	1	10.46	4	0.71	1
CPUE of crappie ≥ 8 inches	1.60	1	2.45	2	2.71	2	2.55	2	2.74	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)	0.506		0.469		0.517		0.255		0.360	
Annual Mortality (A)%	39.7		37.4		40.4		22.5		43.3	
Total Score		8		9		11		12		10
Assessment Rating		F		F		F		F		F

Table 14b. Black Crappie

	2006		2005		2004		2003		2002	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE of crappie (excluding age 0)	16.00	3	22.75	4	32.05	4	20.33	3	15.14	3
CPUE of age 1 crappie	6.16	2	10.31	3	18.60	4	15.53	4	9.80	3
CPUE of age 0 crappie	1.24	1	1.92	1	0.98	1	5.40	2	3.06	2
CPUE of crappie ≥ 8 inches	11.86	4	13.78	4	11.67	4	6.20	3	8.60	3
Mean age-2 length at capture	9.2	3	9.2	3	9.2	3	9.9	4	9.9	4
Instantaneous Mortality (Z)	0.797		1.208		0.685		0.748		0.716	
Annual Mortality (A)%	54.9		70.1		49.6		52.7		51.1	
Total Score		13		15		16		16		15
Assessment Rating		G		G		G		G		G

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

WFDTPNTK.D06, WFDTPNTK.D05, WFDTPNTK.D04, WFDTPNTK.D03, WFDTPNTK.D02

Table 15. Length frequency and CPUE (fish/trotline) of blue and channel catfish collected from Kentucky Lake in May 2006 using 3 100-hook trotlines baited with cheese bait for 3 line nights.

	Inch Classes																								Std.
Species	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	~	34	35	Total	CPUE	Error
Blue catfish		1		1	1				3	6	8	7	2	2	6	4	2		2		1	1	47	5.2	0.9
Channel catfish	1	1		1	1	2	3	5	4	8	8	10	11	11	3	1	2	1					73	8.1	1.4

(wfdcftl.d06)

Table 16. Relative weight (Wr) of each length-group of blue and channel catfish collected at Kentucky Lake during May 2006. Fish were collected using trotlines (9 trotline-nights).

	Inch Groups											
	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	3	139.3	24.07	40	110.2	1.2	4	113.4	8.81	47	112.4	2.04

	Inch Groups											
	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	3	96.4	7.14	41	101.5	1.55	29	100.1	2.8	73	100.8	1.43

wfdcftlk.d06

Table 17. Age frequencies and CPUE of blue catfish collected from Kentucky Lake in May 2006 using 3 100-hook trotlines baited with cheese bait for 3 nights. Age data was obtained using otoliths collected during the 2004 study.

	Inch Classes																		
Age	15	16	~	20	21	22	23	24	25	26	27	28	29	~	34	Total	%	CPUE	StdErr
3	1	1														2	4.3	0.2	0.1
4				1	3		1									5	10.9	0.6	0.2
5				2	2	8	2	1								15	32.6	1.7	0.4
6					1		4	1	2	6	2					16	34.8	1.8	0.2
7											2	2				4	8.7	0.4	0.3
8												1	2			3	6.5	0.3	0.2
10															1	1	2.2	0.1	0.1
Total	1	1		3	6	8	7	2	2	6	4	3	2		1	46			
%	2	2		7	13	17	15	4	4	13	9	7	4		2		100		

wfdcftlk.d06, wfdcfagk.d04

Table 18. Age frequencies and CPUE of channel catfish collected from Kentucky Lake in May 2006 using 3 100-hook trotlines baited with cheese bait for 3 nights. Age data was obtained using otoliths collected during the 2004 study.

	Inch Classes																	
Age	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total	%	CPUE	StdErr
3	1		1												2	2.9	0.22	0.19
4				2	1										3	4.3	0.3	0.1
5					2			2	3						7	10.0	0.8	0.2
6		1			2	2	4	6	7	8	5		1		36	51.4	4.0	0.7
7				1			2				3	2		2	10	14.3	1.1	0.3
8			1			2	2			3	3				11	15.7	1.2	0.2
9												1			1	1.4	0.1	0.1
Total	1	1	2	3	5	4	8	8	10	11	11	3	1	2	70			
%	1	1	3	4	7	6	11	11	14	16	16	4	1	3		100		

wfdcftlk.d06, wfdcfagk.d04

Table 19. Mean back-calculated length (in) at each annulus of blue catfish including the range in length at each age, and the 95% confidence interval of each age group. . Otoliths were collected from larger fish at Ronnie Hopkins fish market during November.

		Age																		
Year-Class	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2003	4	5.0	10.1	14.1																
2002	2	5.7	9.7	14.1	17.7															
2001	4	5.7	9.4	12.5	15.9	18.6														
2000	7	5.5	10.0	13.8	16.7	19.5	22.2													
1999	9	5.9	10.1	14.5	17.9	20.7	23.2	26.7												
1998	4	4.1	8.1	11.1	14.0	16.4	19.0	21.6	24.1											
1997	2	5.5	9.0	13.3	16.5	19.2	22.0	24.4	27.2	28.8										
1996	3	4.7	8.5	12.0	15.0	18.0	19.8	21.7	24.1	26.1	28.1									
1995	2	5.0	7.5	9.8	13.0	15.4	18.5	20.1	22.9	25.6	27.2	28.7								
1994	2	5.1	9.6	12.2	14.1	17.5	19.8	22.1	24.3	26.2	27.7	29.2	31.5							
1993	1	3.9	7.1	9.4	13.4	15.7	18.9	20.4	22.8	24.4	26.7	28.3	29.9	33.0						
1987	1	4.0	7.2	9.9	13.2	14.5	16.5	17.8	19.8	21.7	23.1	25.7	26.3	27.7	29.6	31.0	32.9	33.6	34.9	36.9
Mean		5.3	9.3	13.0	16.0	18.6	21.2	23.5	24.8	26.0	27.1	28.3	29.8	20.2	29.6	31.0	32.9	33.6	34.9	36.9
Number		41	41	41	39	35	28	19	15	11	9	6	4	2	1	1	1	1	1	1
Smallest		3.1	5.6	7.5	9.9	12.4	14.9	16.8	18.6	21.7	23.1	25.6	26.3	27.7						
Largest		10.3	16.5	20.6	24.7	26.7	28.8	33.9	29.7	31.4	31.9	32.9	35.3	33.0						
Std. Error		0.3	0.4	0.4	0.5	0.5	0.5	0.8	0.9	0.9	1.0	1.3	2.3							
Low 95% CI		4.8	8.7	12.3	15.1	17.7	20.3	22.1	22.6	24.5	25.7	26.3	26.5							
High 95% CI		5.8	10.1	13.8	17.0	19.8	22.3	25.3	26.0	28.2	29.5	31.4	35.4							

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

Table 20. 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 24-27 May 2006.

		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	Std. Error
Lower																								
Donaldson Cr.	Smallmouth bass																					0		
	Spotted bass																					0		
	Largemouth bass		1	12	12	9	5	15	29	34	35	56	50	24	17	11	9	7	6			332	132.8	21.3
Ford's Bay	Smallmouth bass																					0		
	Spotted bass			1				2														3	3.0	3.0
	Largemouth bass		2	5	6	3	1	2	8	13	11	34	15	8	7	4	2	6	2		1	130	130.0	26.0
Parsons Bay	Smallmouth bass																					0		
	Spotted bass							1	1	1	2		1									6	6.0	4.0
	Largemouth bass			7	4	4	3		6	10	11	21	18	7	3	7	7	2	2			112	112.0	22.0
Middle																								
Little River	Smallmouth bass											1										1	2.0	0.0
	Spotted bass				1		1	1	2	1	1	2										9	18.0	0.0
	Largemouth bass		1	2	4	5	2	1	6	9	7	5	14	11	6	2					1	76	152.0	0.0
Eddy Cr.	Smallmouth bass																					0		
	Spotted bass							1		2	2	1										6	2.4	2.4
	Largemouth bass	1	3	5	11	4	5	13	15	33	23	40	54	32	20	18	13	5	7	1		303	121.2	14.1
Upper																								
Nickel Br.	Smallmouth bass		3	5	6			2		1												17	11.3	7.3
	Spotted bass		1				1	3	4	5	6											20	13.3	10.5
	Largemouth bass	1	1	17	17	7	4	2	6	35	20	20	39	17	2	6	3	1				198	132.0	16.2
Willow Cr.	Smallmouth bass			1	2		1				1											5	10.0	0.0
	Spotted bass		1				1	8	2	4	1			1								18	36.0	0.0
	Largemouth bass				2	3			2	4	8	3	12	4	4	1	1	1	1			46	92.0	0.0
Demumbers Bay	Smallmouth bass																					0		
	Spotted bass																					0		
	Largemouth bass		2	5			2			2	6	9	7	10	2		2					47	94.0	0.0
Total	Smallmouth bass		3	6	8		1	2		1	1	1										23	2.3	1.4
	Spotted bass		2	1	1		3	16	9	13	12	3	1	1								62	6.2	2.5
	Largemouth bass	2	10	53	56	35	22	33	72	140	121	188	209	113	61	49	37	22	18	1	2	1244	124.4	7.4

(wfdpsdb.d06)

Table 21. Spring diurnal electrofishing CPUE of each size group of largemouth bass collected at Lake Barkley during late April/early May since 1985.

	Inch Groups											
	< 8.0 inch		8.0 - 11.9 inch		12.0 - 14.9 inch		≥ 15.0 inch		≥ 20.0 inch		Total	
Year	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error	CPUE	Std. Error
1985	3.0	1.0	11.6	1.7	4.7	1.0	3.6	1.0	0.2	0.2	22.9	2.6
1986	6.1		7.3		39.0		12.2		1.2		64.6	
1987	64.9	12.4	84.1	11.2	14.5	3.0	25.9	6.1	2.2	1.3	189.4	27.7
1988	39.5	6.6	98.2	12.6	76.9	21.8	29.0	9.5	2.9	1.6	243.6	45.5
1989	28.7	8.7	74.6	7.4	34.8	4.2	25.0	4.5	0.9	0.5	163.2	15.5
1990	10.4	2.5	47.2	6.9	33.8	5.3	26.6	3.5	3.4	1.1	118.0	12.9
1991	57.8	7.6	72.9	7.5	59.4	6.1	34.0	3.9	1.9	0.7	224.1	16.4
1992	30.7	4.8	79.0	7.6	20.5	1.7	29.5	2.3	2.7	0.7	159.7	9.0
1993	40.2	12.1	65.0	6.0	69.2	6.1	32.2	4.5	3.4	1.0	206.6	15.2
1994	49.2	8.4	51.0	6.3	72.8	6.2	36.0	5.3	4.2	1.1	209.0	19.8
1995	12.2	2.8	55.6	6.4	42.2	4.3	56.0	5.9	7.6	1.2	166.0	12.3
1996	14.4	5.9	36.0	4.0	45.6	7.8	43.2	6.4	7.6	1.5	139.2	16.6
1997	7.2	1.0	23.0	2.9	22.4	2.1	35.8	3.3	6.2	1.2	88.4	5.7
1998	22.2	4.7	26.2	4.2	28.6	3.0	29.8	3.5	7.1	1.0	106.8	5.9
1999	16.3	1.9	21.0	2.2	22.7	2.5	34.0	2.6	4.7	0.7	93.9	6.0
2000	32.8	4.2	28.6	2.3	24.7	2.3	27.9	2.4	2.7	0.7	114.1	6.0
2001	70.4	8.3	61.2	5.1	31.1	2.5	19.0	1.5	1.6	0.7	181.7	10.8
2002	26.4	3.6	49.7	5.9	40.6	4.1	16.3	1.8	1.3	0.4	133.0	8.5
2003	41.1	5.2	38.5	3.9	75.3	5.3	26.9	2.3	1.7	0.4	181.8	10.4
2004	11.3	1.3	40.9	2.9	29.3	1.6	24.7	2.2	1.8	0.4	106.2	5.1
2005	36.6	4.9	19.3	1.9	59.4	4.8	37.5	3.3	2.0	0.6	152.7	10.3
2006	15.6	2.2	26.7	2.2	51.8	3.9	30.8	2.4	2.1	0.6	124.2	7.4
Average	29.0		46.3		40.9		28.9		3.2		145.0	

(Barkley_LMB_Database.xls)

Table 22. 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 24-27 April 2006. 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8.0 inch	PSD (± 95% CI)	RSD[A] (± 95% CI)
Upper[1]	Largemouth bass	260	73 (6)	23 (5)
	Spotted bass	44	48 (15)	2 (4)
	Smallmouth bass	6	50 (44)	*
Middle[2]	Largemouth bass	577	82 (3)	29 (3)
	Spotted bass	6	83 (33)	*
	Smallmouth bass	0	*	*
Lower[3]	Largemouth bass	251	81 (5)	29 (6)
	Spotted bass	8	50 (38)	12 (24)
	Smallmouth bass	0	*	*
Total	Largemouth bass	1088	83 (2)	32 (3)
	Spotted bass	58	88 (13)	*
	Smallmouth bass	6	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.

(wfdpsdb.d06)

Table 23. Mean back-calculated length (in) at each annulus of largemouth bass collected during diurnal electrofishing at Lake Barkley during April 2006.

Year-Class	N	Age 1	2	3	4	5	6	7	8
2005	28	6.7							
2004	25	7.6	10.9						
2003	14	7.5	10.7	13.1					
2002	11	7.9	11.4	13.1	13.6				
2001	9	7.8	12.2	13.9	15.1	16.3			
2000	5	8.4	12.0	14.1	15.3	16.5	17.4		
1999	2	7.0	11.1	13.5	15.5	16.3	17.3	18.6	
1998	1	6.8	11.1	14.5	15.9	16.7	17.3	17.7	17.9
Mean		7.3	11.0	13.2	14.6	16.4	17.4	18.3	17.9
Smallest		4.7	8.2	10.5	12.7	14.6	15.2	17.7	17.9
Largest		10.1	13.7	16.2	17.4	18.5	19.7	18.8	17.9
Std. Error		0.2	0.2	0.3	0.3	0.3	0.6	0.3	
Low 95% CI		7.1	10.7	12.9	14.1	15.8	16.2	17.7	
High 95% CI		7.8	11.6	14.0	15.1	17.0	18.5	18.9	

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

wfdlbagb.d06

Table 24. Age frequencies and CPUE of largemouth bass collected during diurnal electrofishing at Lake Barkley in May 2006.

Age	Inch Classes 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	%	CPUE	StdErr
1	10	53	56	35	22	8											184	15.1	28.70	2.86
2						25	72	126	55								278	22.8	12.21	1.25
3								14	44	63	163	14					298	24.4	30.14	3.05
4									22	125	46	28					221	18.1	10.54	0.95
5												57	20	49	15		141	11.5	20.66	1.74
6												14	41			22	77	6.3	3.12	0.32
7															15		15	1.2	1.44	0.28
8															7		7	0.6	0.30	0.15
Total	10	53	56	35	22	33	72	140	121	188	209	113	61	49	37	22	1,221			
%	1	4	5	3	2	3	6	11	10	15	17	9	5	4	3	2		0		

wfdpsdb.d06, wfdlbagb.d06

Table 25. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Lake Barkley spring samples.

	Year									
Age	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	3.0	23.0	17.3	23.4	76.9	25.1	59.0	29.0	42.5	18.4
2	4.5	15.2	18.0	21.5	70.0	72.4	13.1	17.8	9.1	27.8
3	18.4	23.8	11.7	15.2	8.9	10.7	65.9	25.5	50.9	28.6
4	15.6	8.1	15.3	14.9	11.0	10.8	33.7	23.3	35.7	23.3
5	10.2	16.1	5.0	4.9	0.5	0.7	5.7	5.5	8.3	14.1
6	14.0		10.9	10.6	5.3	4.7	0.0	2.1	2.7	7.7
7	2.5			1.3	0.5	0.4	1.6	1.2	1.7	1.5
8	4.9				1.5	0.1	0.0	0.2	0.3	0.7
9	2.8				0.5	0.7	1.0	0.7	0.9	
10							0.2			
11							0.6			

(Barkley_LMB_Database.xls)

Table 26. Population assessment of largemouth bass based on spring sampling at Lake Barkley from 2002-2006.

	2002		2003		2004		2005		2006	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at Age-3	14.7	4	12.9	4	12.9	4	12.9	4	13.6	4
Spring CPUE of Age-1 Fish	28.9	2	59.2	4	29.2	2	42.5	3	18.4	1
Spring CPUE 12-14.9-in Fish	40.6	4	75.3	4	29.3	3	59.4	4	51.8	4
Spring CPUE ≥ 15.0-in Fish	16.3	3	26.9	4	24.7	4	37.5	4	30.8	4
Spring CPUE ≥ 20-in Fish	1.3	2	1.7	3	1.8	3	2.0	3	2.0	3
Instantaneous Mortality (z)									0.431	
Annual Mortality (A)%									0.35	
Total Score		15		19		16		18		16
Assessment Rating		G		E		G		E		G

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

wfdpsdky.dxx

Table 27. Spring diurnal electrofishing CPUE of each size-class of largemouth bass collected at Lake Barkley during May from 1985 - 2006. This table also includes the other parameters that are included in the BLFMP and used in calculating the black bass assessment values.

	Mean length			Inch Groups							
	age-3 at	age-1		12 - 14.9		≥15.0		≥20.0		Total	
Year	capture	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr
1985	10.6	*	*	4.7	1.0	3.6	1.0	0.2	0.2	22.9	2.6
1986	10.8	*	*	39.0	0.0	12.2	0.0	1.2	*	64.6	0.0
1987	11.1	*	*	14.5	3.0	25.9	6.1	2.2	1.3	189.4	27.7
1988	11.2	*	*	76.9	21.8	29.0	9.5	2.9	1.6	243.6	45.5
1989	*	*	*	34.8	4.2	25.0	4.5	0.9	0.5	163.2	15.5
1990	11.7	*	*	33.8	5.3	26.6	3.5	3.4	1.1	118.0	12.9
1991	11.4	*	*	59.4	6.1	34.0	3.9	1.9	0.7	224.1	16.4
1992	11.0	*	*	20.5	1.7	29.5	2.3	2.7	0.7	159.7	9.0
1993	11.3	*	*	69.2	6.1	32.2	4.5	3.4	1.0	206.6	15.2
1994	11.1	*	*	72.8	6.2	36.0	5.3	4.2	1.1	209.0	19.8
1995	11.0	*	*	42.2	4.3	56.0	5.9	7.6	1.2	166.0	12.3
1996	10.9	*	*	45.6	7.8	43.2	6.4	7.6	1.5	139.2	16.6
1997	10.9	3.0	0.59	22.4	2.1	35.8	3.3	6.2	1.2	88.4	5.7
1998	12.0	23.0	4.77	28.6	3.0	29.8	3.5	7.0	1.0	106.8	5.9
1999	12.6	17.3	1.34	22.7	2.5	34.0	2.6	4.7	0.7	93.9	6.0
2000	12.6[A]	37.3	2.93	24.7	2.3	27.9	2.4	2.7	0.7	114.1	6.0
2001	14.7	81.0	8.59	31.1	2.5	19.0	1.5	1.6	0.7	181.7	10.8
2002	14.7[A]	28.9	3.21	40.6	4.1	16.3	1.8	1.3	0.4	133.0	8.5
2003	12.9	59.2	6.36	75.3	5.3	26.9	2.3	1.7	0.4	181.8	10.4
2004	12.9[A]	29.2	2.42	29.3	1.6	24.7	2.2	1.8	0.4	106.2	5.09
2005	12.9[A]	42.5	5.44	59.4	4.8	37.5	3.3	2.0	0.6	152.7	10.3
2006	13.4	18.4	2.35	51.8	3.9	30.8	2.4	2.0	0.6	124.2	7.36
Average	11.7	33.98		40.88		28.90		3.29		144.96	

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

Table 28. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected during 4.5 hours of diurnal electrofishing (9 runs; each 0.50 hours) for black bass in each area of Lake Barkley from 17-19 October 2006.

Area	Species	Inch Classes																			Total	CPUE	Std. Error
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Middle																							
Eddy Creek	Largemouth bass	4	10	4	3		4	17	23	26	48	36	23	22	10	6	3	2	2	1	244	97.20	8.01
	Spotted bass											1									1	0.40	0.40
	Smallmouth bass		1		1		1						1	1							5	2.00	1.26
Little River	Largemouth bass	4	6	7	4	2	6	11	14	11	28	21	21	19	4	6	1	4	2	1	172	86.00	10.42
	Spotted bass			1	1																2	1.00	0.58
	Smallmouth bass			1																	1	0.5	0.5
Total	Largemouth bass	8	16	11	7	2	10	28	37	37	76	57	44	41	14	12	4	6	4	2	416	92.22	6.31
	Spotted bass			1	1							1									3	0.67	0.33
	Smallmouth bass		1	1	1		1						1	1							6	1.33	0.75

(wfdwrb.d06)

Table 29. Number of fish and the relative weight (Wr) values of each size-class of largemouth, spotted, and smallmouth bass collected at Lake Barkley during 4.5 hours (9 runs; each 0.50 hours) of diurnal electrofishing on 17-19 October 2006.

		Inch Groups											
		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													
	Eddy Creek	70	92.73	1.03	107	99.5	7.89	45	98.45	1.93	222	97.16	3.83
	Little River	42	113.3	23.09	70	92.37	1.22	37	99.4	1.5	149	100	6.53
	Total	112	100.46	8.67	177	96.68	4.79	82	98.9	1.25	371	98.3	3.48
		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													
	Eddy Creek				1	103.02					1	103.02	
	Little River												
	Total				1	103					1	103.0	
Smallmouth bass													
	Eddy Creek	1	82.19					2	91.01	5.54	3	88.07	4.35
	Little River												
	Total	1	82.19					2	91.01	5.54			

(wfdwrb.d06)

Table 30. Indices of year-class strength at age 0 and age 1 and mean length (in) of largemouth bass collected during fall electrofishing 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[C]	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	18.4	2.4
2006	4.8	0.15	9.3	1.7	4.0	1.3	*	

[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 31. Length frequency and CPUE (fish/trotline) of blue, channel, and flathead catfish collected by trotline at Lake Barkley from 22-25 May 2006. A total of 13 trotline nights were conducted.

Species	Inch Classes																					Total	CPUE	Std. Error
	6	~	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27			
Blue catfish	1		12	14	12	15	5	3	11	8	15	6	9	6	5	8	2	1	2	3	1	139	10.7	1.9
Channel catfish				1	3	6	11	10	8	12	9	3	3	3								69	5.3	0.1

(wfdcatb.d06)

Table 32. Relative weight (Wr) of each length-class of blue and channel catfish collected at Lake Barkley from 22-25 May 2006. Fish were collected using trotlines (13 trotline-nights).

	Inch Groups											
	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	72	104.98	1.7	28	95.6	4.3				100	102.35	1.7
	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	37	90.7	5.2	30	91.6	3.5				67	91	3.2

(wfdcatb.d06)

Table 33. Age frequencies and CPUE of blue catfish collected during 13 trotline-nights at Lake Barkley during 22-25 May 2006.

	Inch Classes																		Cum.		Std.
Age	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total	Percent	Percent	CPUE	Error
3	12	15																27	23.1	23.1	2.1	0.7
4			5	3	6		3											17	14.5	37.6	1.2	0.3
5					6	8	8	5			1	4	1					33	28.2	65.8	2.4	0.4
6							5	2	9	5	2	3	1		1	2		30	25.6	91.5	2.2	0.4
7										2	2	1		1		1		7	6.0	97.4	0.5	0.2
8											1						1	2	1.7	99.1	0.1	0.1
9															1			1	0.9	100.0	0.1	0.1
Total	12	15	5	3	12	8	16	7	9	7	6	8	2	1	2	3	1	117	100.0			
%	10	13	4	3	10	7	14	6	8	6	5	7	2	1	2	3	1	100				

(wfdcatb.d06) (wfdbcagb.d04)

Table 34. Age frequencies and CPUE of channel catfish collected during 13 trotline-nights at Lake Barkley during 22-25 May 2006.

	Inch Classes															Cum.		Std.
Age	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	Percent	Percent	CPUE	Error
3	1			2										3	4.1	2.8	0.3	0.1
4		3	4	4	3									14	18.9	21.7	1.1	0.2
5			2	4	5	3	5	2	1		1			23	31.1	52.8	1.7	0.3
6					2	3	5			2	1			13	17.6	70.4	0.9	0.2
7						2	2	2				1		7	9.5	79.8	0.4	0.1
8								2	1				2	5	6.8	86.6	0.2	0.1
9									1	2	1			4	5.4	92.0	0.3	0.1
10								5						5	6.8	100.0	0.4	0.1
Total	1	3	6	10	10	8	12	11	3	4	3	1	2	74				
%	1	4	8	14	14	11	16	15	4	5	4	1	3	100				

(wfdcatb.d06) (wfdccagb.d04)

Table 35. Length frequency and CPUE (#/net-night) of each inch-class of white and black crappie collected by trap-net (80 net-nights) at Lake Barkley from 31 October-3 November 2006.

		Inch Classes															Std.
Location	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE	Error
Little River																	
	White Crappie		1	1	1	19	40	35	70	30	8	14	1	1	221	5.68	0.83
	Black Crappie		5	1	2	39	34	23	10	8	4	1			127	3.18	0.61
Donaldson Creek																	
	White Crappie	2	1		18	64	34	13	19	16	4	2	1		174	4.35	0.74
	Black Crappie		5		2	40	24	6	8	6	6	5			102	2.60	0.34
Total																	
	White Crappie	2	2	1	19	83	74	48	89	46	12	16	2	1	395	5.01	0.56
	Black Crappie		10	1	4	79	58	29	18	14	10	6			229	2.89	0.35

(wfdtpntb.d06)

Table 36. CPUE for size groups of crappie collected from multiple years of trap netting on Barkley Lake. Includes mean lengths at capture for age 2 crappie and % of trap netting catch that is age-4 or older (catch excludes age-0 fish).

	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
1985	3.39	0.12	3.51	1.22	0.05	1.27	7.5	6.1	0.10	0.04	0.20
1986	5.88	0.16	6.04	2.29	0.04	2.33	7.7	6.8	1.05	0.00	1.00
1987	2.04	0.35	2.39	1.51	0.11	1.63	8.5	7.6	0.78	0.00	0.72
1988	3.46	0.16	3.63	1.48	0.09	1.56	8.4	8.5	3.01	8.33	3.22
1989	1.26	0.11	1.38	0.50	0.05	0.55	6.9	7.7	10.70	0.00	9.95
1990	4.55	0.15	4.71	1.95	0.01	1.96	8.4	8.9	0.00	0.00	0.00
1991	3.19	0.23	3.41	1.06	0.06	1.13	7.6	7.3	0.98	0.00	0.69
1992	2.10	1.99	4.09	0.91	0.39	1.30	8.2	7.5	0.00	0.00	0.00
1993	1.35	0.49	1.85	0.52	0.27	0.78	8.3	7.6	0.59	13.73	3.64
1994	3.41	0.82	4.23	1.13	0.65	1.78	7.4	7.4	1.06	10.91	3.53
1995	4.44	0.74	5.18	1.01	0.22	1.23	8.4	7.2	0.22	2.05	0.47
1996	5.60	0.74	6.34	2.89	0.18	3.06	7.9	7.1	0.67	0.00	0.46
1997	2.51	0.60	3.11	1.10	0.11	1.20	7.9	7.3	0.26	1.47	0.44
1998	4.50	1.51	6.01	1.25	0.21	1.46	7.9	7.2	5.11	0.63	2.99
1999	1.92	1.00	2.92	1.35	0.09	1.44	7.5	7.1	1.03	1.65	1.27
2000	2.03	1.86	3.89	0.79	0.60	1.39	7.7	7.3	9.19	0.95	3.99
2001	1.08	1.55	2.63	0.94	1.03	1.96	7.6	8.1	2.17	7.78	5.79
2002	2.56	2.74	5.30	1.10	0.64	1.74	6.4	6.5	2.71	6.80	4.88
2003	2.26	1.63	3.89	1.09	1.13	2.21	8.8	8.3	4.20	4.27	4.24
2004	5.47	1.82	7.29	1.04	0.74	1.78			1.83	3.43	2.30
2005	3.8	1.4	5.2	2.75	0.62	3.37	8.9	7.7	0.00	0.01	0.01
2006	2.68	0.96	3.64	0.96	0.38	1.34	7.8	8.4	0.01	0.01	0.02
Average	3.2	1.0	4.1	1.3	0.3	1.7	7.9	7.5	2.1	2.8	2.3

(Barkley_Crappie_Database.xls)

Table 37. Proportional stock density (PSD) and relative stock density (RSD) of white and black crappie collected by trap-nets (80 net-nights) at Lake Barkley from 31 October-3 November 2006. Numbers in parentheses represent 95% confidence intervals.

Location	Species	N	PSD	RSD_{10}
Barkley Lake				
	White Crappie	390	54.9 (±5.0)	19.7 (±3.9)
	Black Crappie	218	35.3 (±6.3)	13.8 (±4.6)

(wfdtpntb.06)

Table 38. Mean back-calculated length (in) at each annulus of black crappie collected by trap-netting (80 net-nights) at Lake Barkley from 31 October-3 November 2006, 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
2005	48	4.3			
2004	24	4.9	8.5		
2003	5	4.8	8.2	10.5	
2002	2	4.5	7.4	10.5	12.0
Mean		4.5	8.4	10.5	12.0
Smallest		3.1	6.6	9.2	11.6
Largest		6.6	10.5	11.5	12.3
Std. Error		0.1	0.2	0.3	0.4
Low 95% CI		4.4	8.0	10.0	11.3
High 95% CI		4.7	8.7	11.1	12.7

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

(wfdtpntb.d06) (wfdtnagb.d06)

Table 39. Mean back-calculated length (in.) at each annulus of white crappie collected by trap-netting (80 net-nights) at Lake Barkley from 31 October- 3 November 2006, 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	5
2005	60	4.1				
2004	25	4.2	7.4			
2003	19	4.6	8.2	10.3		
2001	2	5.1	9.3	11.0	12.5	13.3
Mean		4.2	7.8	10.3	12.5	13.3
Smallest		2.5	4.4	6.2	12.2	12.9
Largest		6.2	11.7	12.9	12.7	13.6
Std. Error		0.1	0.3	0.3	0.2	0.4
Low 95% CI		4.1	7.3	9.7	12.0	12.6
High 95% CI		4.4	8.3	11.0	12.9	14.0

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

(wfdtpntb.d06) (wfdtnagb.d06)

Table 40. Age frequencies and CPUE of black crappie collected during 80 net-nights at Lake Barkley during 31 October-3 November 2006.

	Inch Classes												Cum.		Std.
Age	3	4	5	6	7	8	9	10	11	12	Total	Percent	Percent	CPUE	Error
0	10	1									11	4.8	4.8	0.1	0.1
1			4	79	58	24	10	1			176	77.2	82.0	2.2	0.3
2						5	8	11	9	1	34	14.9	96.9	0.4	0.1
3								1	1	3	5	2.2	99.1	0.1	0.0
4										2	2	0.9	100.0	0.0	0.0
Total	10	1	4	79	58	29	18	13	10	6	228				
%	4	0	2	35	25	13	8	6	4	3					

(wfdtpntb.d06) (wfdtnagb.d06)

Table 41. Age frequencies and CPUE of white crappie collected during 80 net-nights at Lake Barkley during 31 October-3 November 2006.

	Inch Classes													Cum.		Std.
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	Percent	Percent	CPUE	Error
0	2	2	1	2										7	1.8	1.8	0.1	0.0
1				17	83	68	48	82	5					303	76.7	78.5	3.8	0.5
2						6		7	34	6	4			57	14.4	92.9	0.7	0.1
3									7	6	12	1		26	6.6	99.5	0.3	0.1
4														0	0.0	99.5	0.0	0.0
5												1	1	2	0.5	100.0	0.0	0.02
Total	2	2	1	19	83	74	48	89	46	12	16	2	1	395				
%	1	1	0	5	21	19	12	23	12	3	4	1	0					

(wfdtpntb.d06) (wfdtnagb.d06)

Table 42. Population assessment for white crappie from Lake Barkley trap-net data collected in November 2001-2006.

Parameter	2001		2002		2003		2004		2005		2006	
	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Population Density (CPUE of age-1 and older crappie)	1.14	1	2.73	1	2.94	1	6.48	2	4.3	1	2.7	1
Recruitment (CPUE of age-1 crappie)	0.69	1	1.49	1	1.84	1	5.15	2	1.7	1	3.8	2
Recruitment (CPUE of age-0 crappie)	19.49	4	0.81	1	9.89	3	1.73	1	7.4	3	0.1	1
Size Structure (CPUE of > 8.0 inches)	1.08	1	2.56	2	2.26	2	5.47	3	3.8	2	2.7	2
Growth (Mean age-2 length at capture)	11.3	4	10.4	4	11.1	4	11.1	4	10.6	4	10.7	4
Instantaneous Mortality (Z)		1.04		1.33		1.2		1.52		1.4		1.0
Annual Mortality (A)%		83.6		73.6		70		78.3		75.4		63.3
Total Score:		11		9		11		12		11		10
Assessment Rating:		F		F		F		F		F		F

(Barkley_Crappie_Database.xls)

Table 43. Population assessment for black crappie from Lake Barkley trap-net data collected in November 2001-2006.

Parameter	2001		2002		2003		2004		2005		2006	
	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Population Density (CPUE of age-1 and older crappie)	2.11	1	3.12	1	4.39	1	2.70	1	2.2	1	4.9	1
Recruitment (CPUE of age-1 crappie)	0.88	1	2.13	1	2.96	1	1.17	1	1.4	1	2.2	1
Recruitment (CPUE of age-0 crappie)	8.03	3	0.94	1	2.14	1	1.50	1	1.2	1	0.1	1
Size Structure (CPUE of > 8.0 inches)	1.55	1	2.74	2	1.63	1	1.82	1	1.4	1	1.0	1
Growth (Mean age-2 length at capture)	10.2	4	10.0	4	10.3	4	10.3	4	9.7	4	10.5	4
Instantaneous Mortality (Z)		0.92		0.82		1.12		1.11		1.18		1.61
Annual Mortality (A)%		68.2		62.0		55.9		67.2		69.5		80.0
Total Score:		10		9		8		8		8		8
Assessment Rating:		F		F		F		F		F		F

(Barkley_Crappie_Database.xls)

Table 44. Population assessment for all crappie from Lake Barkley trap-net data collected in November 2001-2006.

Parameter	2001		2002		2003		2004		2005		2006	
	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Population Density (CPUE of age-1 and older crappie)	3.25	1	5.85	2	7.33	2	9.18	2	6.5	2	7.6	2
Recruitment (CPUE of age-1 crappie)	1.57	1	3.62	2	4.80	2	6.32	2	3.1	2	6.0	2
Recruitment (CPUE of age-0 crappie)	36.66	4	1.90	1	12.03	4	3.23	2	8.6	3	0.2	1
Size Structure (CPUE of > 8.0 inches)	2.63	2	5.30	3	3.89	2	7.29	3	5.2	3	3.6	2
Growth (Mean age-2 length at capture)	10.4	4	10.2	4	10.7	4	10.7	4	10.7	4	10.6	4
Instantaneous Mortality (Z)		1.34		1.01		1.14		1.51		1.42		1.49
Annual Mortality (A)%		74.0		64.0		68.0		77.8		75.8		77.5
Total Score:		12		12		14		13		14		11
Assessment Rating:		F		F		G		G		G		F

(Barkley_Crappie_Database.xls)

Table 45. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected during diurnal electrofishing at Lake Beshear during 2006.

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	1	10	34	15	9	8	21	6	3	7	4	7	6	14	20	21	12	9	2	1	210	84.0	13.3
Fall	Largemouth bass	16	24	6	1	13	6	5	3	1	7	7	2	4	2		2	1				100	50.0	4.9

wfdpsdlb.d06 and wfdwrlb.d06

Table 46. 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

	Mean length age-3 at	age-1		Inch Groups												Total	
				≤8.0		≥12.0		12 - 14.9		≥15.0		≥18.0		≥20.0			
Year	capture	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr	CPUE	StdErr
1986				4.8		18.5		4.0		14.5		4.8		0.8		34.7	
1987				4.0		9.7		4.0		5.7		1.6		0.0		56.7	
1988				1.8		38.4		7.9		30.5		15.2		4.9		22.6	
1989				9.8		54.9		28.4		26.5		6.9		0.0		80.4	
1990		1.33		4.7	1.8	38.7	3.3	9.3	1.8	29.3	4.8	13.3	1.3	3.3	0.7	50.7	2.9
1991		7.50		15.0	2.4	34.0	5.7	10.5	1.9	23.5	4.0	10.5	3.9	5.0	2.1	65.0	6.0
1992		1.33		2.7	0.7	65.3	0.7	20.0	1.2	45.3	1.8	18.0	1.2	6.0	1.2	92.0	5.3
1993		4.00		6.5	1.7	37.5	13.7	6.0	2.9	31.5	10.8	17.0	5.6	5.0	2.6	48.0	15.4
1994		6.00		11.2	2.9	48.8	10.8	14.8	3.9	34.0	9.5	14.8	5.0	6.8	2.9	68.0	10.1
1995	9.5	15.60	8.3	13.5	3.7	51.0	16.5	15.5	4.1	35.5	12.6	16.5	5.9	4.0	1.8	87.0	21.6
1996		2.00		5.5	2.2	55.5	5.1	16.5	1.9	39.0	4.2	19.5	4.6	8.0	2.4	73.5	6.2
1997		2.50		4.5	2.5	39.0	7.0	10.5	2.9	28.5	4.8	14.0	2.6	4.0	1.8	53.5	8.3
1998		0.00		5.0	1.3	70.0	8.7	17.0	4.4	53.0	5.3	22.0	2.2	8.5	1.7	88.0	8.3
1999		3.50		4.0	1.8	39.5	6.7	14.0	2.9	25.5	4.9	8.0	2.7	1.0	1.0	55.0	8.8
2000		3.20		11.2	3.7	36.0	8.7	4.0	2.1	32.0	7.6	16.4	3.1	2.8	0.5	65.2	10.9
2001	14.1	1.00	2.0	5.0	2.4	26.0	6.1	10.5	2.5	15.5	3.8	5.5	1.3	1.5	1.0	73.0	6.7
2002		3.50		11.5	1.7	64.5	10.7	28.0	4.2	36.5	8.6	11.5	2.9	3.5	1.3	100.0	16.4
2003	14.0	0.80	3.8	5.2	2.9	33.6	7.8	8.0	1.9	25.6	7.2	3.6	0.7	2.0	1.1	45.2	9.5
2004		6.40		4.4	1.6	52.0	9.3	9.6	2.6	42.4	8.5	16.0	3.7	2.8	1.4	68.4	11.7
2005		38.80		30.8	4.9	51.6	6.2	7.2	2.1	44.4	5.9	19.6	2.4	3.6	1.2	94.8	8.5
2006	12.7	24.80	15.3	27.6	8.2	41.2	5.6	7.2	2.9	34.0	3.0	18.0	1.9	4.8	1.5	84.0	13.3
Average	12.6	7.2		9.0		43.1		12.0		31.1		13.0		3.7		66.9	

wfdpsdlb.dxx

Table 47. Mean back-calculated length (in) at each annulus of largemouth bass, including the range in length at each age, and the 95% confidence interval of each age group, for fish caught during April at Lake Beshear.

		Age										
Year-Class	N	1	2	3	4	5	6	7	8	9	10	11
2005	17	5.4										
2004	15	4.9	8.6									
2003	17	5.3	9.2	12.7								
2002	7	7.1	11.9	15.5	16.9							
2001	6	6.2	10.2	14.2	16.1	16.9						
2000	6	6.8	10.9	14.1	16.1	17.6	18.5					
1999	2	6.4	11.3	15.0	17.2	18.6	19.5	20.3				
1998	2	6.4	10.3	14.0	15.9	17.1	18.1	18.9	19.4			
1995	1	6.2	9.2	12.7	15.7	17.1	17.5	17.9	18.3	18.7	19.1	19.3
Mean		5.7	9.8	13.8	16.4	17.4	18.5	19.3	19.0	18.7	19.1	19.3
Number		73	56	41	24	17	11	5	3	1	1	1
Smallest		3.9	6.9	10.2	14.2	15.2	17.0	17.9	18.2			
Largest		8.3	13.9	17.6	18.4	19.6	20.2	21.1	20.5			
Std. Error		0.1	0.2	0.3	0.2	0.3	0.3	0.6	0.7			
Low 95% CI		5.4	9.4	13.3	15.9	16.8	17.9	18.0	17.5			
High 95% CI		5.9	10.2	14.3	16.9	18.0	19.2	20.5	20.5			

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

wfdlbbag.d06

Table 48. Age frequencies and CPUE of largemouth bass collected from Lake Beshear in May 2006 during 2.5 hours of diurnal sampling.

	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	1	10	34	15	2															62	29.5	24.8	7.8
2					7	8	21	3												39	18.6	15.7	2.7
3								3	3	7	4	7	2							26	12.4	10.2	3.4
4													2	11	4	4				21	10.0	8.4	1.1
5													3	3	8	4				18	8.6	7.2	1.2
6															8	8	4	5		25	11.9	10.0	1.2
7																	4		2	6	2.9	2.4	0.6
8																4		5		9	4.3	3.5	0.7
11																	4			4	1.9	1.6	0.5
Total	1	10	34	15	9	8	21	6	3	7	4	7	7	14	20	20	12	10	2	210			
%	0	5	16	7	4	4	10	3	1	3	2	3	3	7	10	10	6	5	1		100		

wfdpsdlb.D06, wfdlbbag.D06

Table 49. Population assessment determined from largemouth bass based on spring sampling at Lake Beshear from 2002-2006.

	2006		2005		2004		2003		2002	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at Age 3	12.7	4	14.0	4	14.0	4	14.0	4	14.0	4
Spring CPUE of Age 1 fish	24.8	2	38.8	2	6.4	1	0.8	1	3.5	1
Spring CPUE 12-14.9-in fish	7.2	1	7.2	1	9.6	1	8.0	1	28.0	2
Spring CPUE ≥ 15.0-in fish	34.0	4	44.4	4	42.4	4	25.6	3	36.5	4
Spring CPUE ≥ 20-in fish	4.8	4	3.6	3	2.8	3	2.0	3	3.5	3
Instantaneous Mortality (z)	0.344		0.262		0.430		0.547		0.803	
Annual Mortality (A)%	29.1		23.0		34.9		54.7		55.2	
Total Score	15		14		13		12		14	
Assessment Rating	G		G		G		G		G	

Rating

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

WFDPSDLB.Dxx

Table 50. 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		37.0	9.5
2006	4.2		23.0	0.08	3.0			

[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 51. Relative abundance and CPUE (#/hour) of largemouth bass collected during 1.0 hour (4 runs; each 900s) of diurnal electrofishing at Pennyrile Lake on 12 April 2006.

	Inch Classes																			Std.
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	~	21	Total	CPUE	Error
Largemouth bass	3	33	30	12	3	15	25	37	28	17	7	2	2	1	1	1		1	218	218.0	30.31

(wfdpsdp.d06)

Table 52. Spring, diurnal electrofishing CPUE of each size-class of largemouth bass collected at Pennyrile Lake from 1990-2006.

	Inch Groups									
	< 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
1990	28.0	2.0	87.0	1.0	3.0	1.0	0.0	0.0	118.0	0.0
1994	47.0	9.0	52.0	6.0	2.0	2.0	1.0	1.0	102.0	12.0
1998	12.0	8.0	70.0	1.0	7.0	1.0	2.0	2.0	91.0	21.0
1999[A]	26.0	8.0	102.0	8.0	3.0	1.0	2.0	2.0	133.0	1.0
2000[A]	46.0	4.0	87.0	5.0	11.0	7.0	3.0	3.0	147.0	1.0
2001[A]	54.0	0.0	138.0	10.0	12.0	4.0	5.0	1.0	209.0	15.0
2002	132.3	24.2	116.2	14.7	30.8	5.4	5.4	3.3	284.0	36.9
2003	96.6	17.6	118.8	9.4	24.8	4.8	0.9	0.9	241.0	27.3
2004	27.5	7.1	63.7	10.7	26.4	4.7	2.2	1.4	119.8	14.4
2005	101.1	11.6	127.5	21.0	25.3	5.8	6.6	2.6	260.4	22.9
2006	81.0	21.6	105.0	11.8	26.0	5.0	6.0	2.6	218.0	30.3
Mean	59.2		97.0		15.6		3.1		174.8	

[A] Data collected by spring, nocturnal electrofishing.

Table 53. PSD and RSD values obtained for largemouth bass collected during 1.0 hour of diurnal electrofishing (4 runs; each 900s) at Pennyrile Lake on 12 April 2006.

Species	N	PSD (+ 95% CI)	RSD (+ 95% CI)
Largemouth bass	137	23.4 (±7.1)	4.4 (±3.5)

(wfdpsdp.d06)

Table 54. Population assessment of the largemouth bass population based on spring diurnal electrofishing at Pennyrile Lake from 2000-2006.

	2002[D]		2003		2004[E]		2005[E]		2006[E]	
Parameter[A]	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score	Actual Value	Score
Growth (Mean length at capture of age-3 LMB)	9.7	1	9.7	1	9.7	1	9.7	1	9.7	1
Recruitment (Spring CPUE of age-1)	111.5	4	59.4	3	13.1	1	85.7	4	68.3	3
Size Structure (Spring CPUE of LMB 12.0-14.9 in.)	30.8	2	24.8	2	26.4	2	25.3	2	26.0	2
Size Structure (Spring CPUE of LMB ≥ 15.0 in.)	5.4	2	0.9	1	2.2	1	6.6	2	6.0	2
Size Structure (Spring CPUE of LMB ≥ 20.0 in.)	0.8	1	0.0	1	0.0	1	3.3	3	1.0	2
Instantaneous Mortality (Z)			0							
Annual Mortality (A)%			37							
Total Score		10		8		6		12		10
Assessment Rating		Fair		Fair		Poor		Good		Fair

[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 surr

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

Table 55. Relative abundance and CPUE (#/hour) of largemouth bass collected during 1.0 hour (4 runs; each 900s) of diurnal electrofishing at Pennyrile Lake on 14 September 2006.

Species	Inch Classes													Total	CPUE	Std. Error
	3	4	5	6	7	8	9	10	11	12	13	14	15			
Largemouth bass	7	37	22	1	5	6	4	5	10	8	1	0	3	109	109.00	11.00

(wfdwrp.d06)

Table 56. Number of fish and the relative weight (Wr) values of each size-class of largemouth bass collected at Lake Pennyrile during 1.0 hour (4 runs; each 900s) of diurnal electrofishing on 14 September 2006.

Species	Inch Groups									Total		
	8.0 - 11.9 inch			12.0 -14.9 inch			≥15.0 inch					
	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error	N	Wr	Std. Error
Largemouth Bass	25	77.9	1.5	9	75.5	2.5	3	80.3	2.5	37	77.5	1.2

(wfdwrp.d06)

Table 57. Relative species abundance, size distribution, and CPUE of fish collected during diurnal electrofishing (2 runs; total 0.50 hours) at Hematite Lake on 13 April 2006.

Species	Inch-Class														Total	CPUE	Std. Error
	1	2	3	4	5	6	~	11	12	13	14	15	16	17 | 18			
Largemouth bass			1			1		1	2	2	1	1	1	1	11	22.0	6.00
Redear sunfish	1	5	40	24	2	1									73	146.0	14.00
Bluegill	1	16	73	45	10	2									147	294.0	50.00

wfdpsdhl.d06

Table 58. Spring electrofishing CPUE for each inch group of redear sunfish collected at Hematite Lake. Standard error in parentheses.

Year	Inch Group				Total
	< 3.0	3.0 - 5.9	6.0 - 7.9	> 8.0	
2002	1.0	73.0	69.0	16.0	159.0
	(1.0)	(17.5)	(10.0)	(4.0)	(22.9)
2004	8.4	216.0	27.5	1.2	253.9
	(3.6)	(26.1)	(3.6)	(1.2)	(25.8)
2005	4.0	147.7	35.9	0.0	187.6
	(4)	(34.8)	(19.2)	0	(49.2)
2006	12.0	132.0	2.0	0.0	146.0
	(0)	(16.0)	(2.0)	0	(14.0)

wfdpsdhl.dxx

NORTHWESTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Nolin River Lake

Black Bass Sampling

Electrofishing to document black bass population characteristics was conducted during April 2006 (Tables 1-6). Water level was 6.5 ft below summer pool and temperature 65-70^0 F. With the exception of 12-15 inch fish, catch rates decreased somewhat from 2005 (an exceptional year). Otoliths were removed from a representative sub-sample of largemouth bass to determine growth rates. Growth rates declined slightly compared to last analysis in 2002, but are still very good. The largemouth bass population assessment rating also declined in 2006 reflecting the decreased catch rates. Instantaneous mortality was estimated at 0.447 and annual mortality at 36.05%. Fall electrofishing (Table 7) to determine relative weights (Table 8) and CPUE and mean length of age 0 largemouth bass (Table 9) was conducted in September. Relative weights for all size ranges were acceptable. The log 10 length weight equation is log W = -3.56 + 3.23 (log L). CPUE and mean length of age 0 largemouth bass were similar to those collected the last few years. The CPUE of age 0 largemouth bass $\geq$ 5.0 inches was again substantially greater than those collected 2001-2004. The Nolin Lake Strategic Management Plan (SMP) objectives for largemouth bass state: a mean length at age 3 of $\geq$ 12.5 inches, a CPUE of $\geq$ 30.0 f/h for age 1 fish, a CPUE of $\geq$ 25.5 f/h for 12.0-14.9 inch fish, a CPUE of $\geq$ 12.5 f/h for $\geq$ 15.0 inch fish, and a CPUE of $\geq$ 1.0 f/h for $\geq$ 20.0 inch fish. The only management objective met in 2006 was the mean length of age 3 fish which was 12.64.

Crappie Sampling

Trap netting to assess the crappie population at Nolin Lake was conducted during October (Tables 10-14). A total of 627 white crappie and 97 black crappie were collected during 79 net nights of effort for an average of 9.16 crappie/net night. Catch rates declined slightly in 2005 and markedly in 2006. The decrease in the number of harvestable size fish in 2006 is most likely the result of poor recruitment in 2004 and 2005. The log 10 length weight equation is log W = -3.48 + 3.16 (log L). Nolin Lake SMP objectives for white crappie management state: a CPUE (excluding age 0 fish) of $\geq$ 10.0 f/nn, a CPUE for age 1 fish of $\geq$ 6.0 f/nn, a CPUE of age 0 fish of $\geq$ 3.0 f/nn, a CPUE of $\geq$ 8.0 inch fish of $\geq$ 7.0 f/nn, and a mean length of age 2+ fish at capture of $\geq$ 9.6 inches. The only management objective met in 2006 was mean length at capture (9.7 inches).

Walleye Sampling

Gill netting to assess the walleye population was conducted the last week of October (Tables 15-20). Water levels and temperature were 6-8 ft below summer pool and 52^0 F respectively. Catch rates increased substantially in 2006 when compared to data collected from 2000-2003. Catch rates declined in 2000 and remained depressed through 2003 when the lake was last sampled. Catch rates in 2006 are similar to catch rates collected from 1991-1998. The population is composed primarily of age 1-3 fish. Growth rates are good and similar to past years. Monitoring will continue annually to document population trends. The log 10 length weight equation is log W = -3.47 + 3.01(log L). Nolin Lake SMP objectives state: a CPUE of $\geq$ 4.0 f/nn for $\geq$ age 1 fish, a mean length of $\geq$ 17.0 inches for age 2+ fish, a CPUE of $\geq$ 0.75 f/nn for $\geq$ 20.0 inch fish, and a CPUE of $\geq$ 1.5 f/nn for age 1 fish. With the exception of the CPUE of $\geq$ 20.0 inch fish, all objectives were met for the first time since 1998.

White Bass Sampling

White bass were gill netted in conjunction with walleye during October to document population parameters (Tables 21-26). White bass CPUEs were lower in 2006 than when last sampled in 2003, but higher than in 2000 and 2001. Growth rate is good and similar to previous determinations. The population is primarily composed of age 0 and age 1 fish. The log 10 length weight equation is log W = -3.60 + 3.26(log L). Nolin Lake SMP objectives for white bass management state: a CPUE of ≥ 20.0 f/nn for age 1 and older fish, a mean length of ≥ 13.0 inches for age 2+ fish at capture, a CPUE of ≥ 10.0 f/nn for ≥ 12.0 inch fish, and a CPUE of ≥ 10.0 f/nn for age 1 fish. The only objective met in 2006 was mean length of age 2+ fish at capture (13.3 in 2006).

Channel Catfish Sampling

Channel catfish were sampled in conjunction with walleye and white bass during October gill netting. Length frequency and CPUE data are contained in Table 27, and relative weight data in Table 28. This is the first year any population statistics have been collected for channel catfish at Nolin Lake.

Rough River Lake

Black Bass Sampling

Electrofishing for the black bass population assessment was conducted in April (Tables 29-33). Catch rates for all size ranges of largemouth bass were down slightly in 2006, but well within the range of rates observed over the last several years. The only trend noted is a slow decline in the catch rate for age 1 fish since 2003 which will be monitored during future population assessments. Electrofishing was conducted again in September (Table 34) to assess relative weights and the CPUE and mean length of age 0 largemouth bass. Relative weights are excellent for all size ranges (Table 8). The log 10 length weight equation is log W = -3.52 + 3.20(log L). Mean length and CPUE of age 0 fish (Table 35) are consistent with previous collections.

Rough River Lake SMP objectives for largemouth bass management state: a mean length age 3 fish at capture of ≥ 12.5 inches, a spring CPUE of age 1 fish ≥ 30.0 f/h, a spring CPUE of ≥ 25.5 f/h for 12.0-14.9 inch fish, a spring CPUE of ≥ 12.2 f/h for ≥ 15.0 inch fish, and a spring CPUE of ≥ 0.50 for fish ≥ 20.0 inches. Only the CPUE of 12.0-14.9 inch fish objective was met, however the CPUE of > 15.0 fish and the CPUE of ≥ 20.0 fish objectives were nearly met.

Crappie Sampling

Crappie trap netting at Rough River Lake was conducted during November (Tables 36-40). Trap netting is normally conducted during the last week of October but was postponed until November 14-16 (temperature 51-53, -1.5 to + 1.0 ft summer pool) due to heavy rains and high water levels. Heavy rains caused the lake level to rise again mid- week and sampling was not completed until November 28-29. Catch rates of white crappie increased in 2006 from the fairly low rates observed in 2005. This increase was due to an increase in the CPUE of age 1 fish. The CPUE of white crappie ≥ 8.0 inches was almost equal to the 2005 catch rate. The majority of the population (94%) is comprised of age 0 and age 1 fish. Growth rates are excellent and have averaged approximately an inch larger from 2003-2006 than from 1998-2002. The low number of fish ≥ 8.0 inches is likely due to low recruitment observed in 2004 and 2005. The log 10 length weight equation is log W = -3.60 + 3.30(log L). Rough River Lake SMP objectives for white crappie management state: a CPUE of ≥ 10.0 fish/nn (excluding age 0 fish), a CPUE of 7.0 fish/nn for age 1 fish, a CPUE of ≥ 3.0 fish/nn for age 0 fish, a CPUE of ≥ 6.0 fish/nn for white crappie ≥ 8.0 inches, and a mean length of ≥ 9.8 inches for age 2+ fish at capture. The only two objectives met were the CPUE of age 1 fish and the mean length of age 2+ fish at capture.

Hybrid Striped Bass Sampling

Gill netting was conducted November 28-29 and Dec 5-6 (water temperature 46-51^0 F) for hybrid striped bass (Tables 41-46). A rise in lake level due to heavy rain in November forced removal of the nets and sampling was completed in December. With the exception of age 1 fish, CPUEs declined in 2006 from when last sampled in 2003. The CPUE of age 1 fish increased in 2006, but was extremely low in 2003. Age-frequency data suggests low survival for some year classes of stocked fish. The Wr value for > 15.0 inch fish is low and will be noted in future sampling. The log 10 length weight equation is log W = -3.22 + 2.89(log L). Oxygen-temperature profiles will be conducted during summer 2007 to determine if low oxygen and/or high temperatures could be leading to the low relative weights for larger size hybrids. Rough River Lake SMP management objectives state: a mean length at capture of ≥ 16.5 inches for age 2+ fish, a CPUE (excluding age 0 fish) of ≥ 25.0 fish/nn, a CPUE of ≥ 15.0 fish/nn for ≥ 15.0 inch fish, and a CPUE of ≥ 8.0 fish/nn for age 1 fish. All objectives were either met or nearly met.

Channel Catfish Sampling

Channel catfish were collected in conjunction with hybrid striped bass sampling in November and December. Length-frequency and CPUE data is presented in Table 47 and relative weight data in Table 48. This is the first year channel catfish have been sampled at Rough River Lake.

Lake Malone

Creel Survey

A random, stratified, roving, 4-day per week creel survey was conducted at Lake Malone from 16 May – October 31, 2006 to estimate angler pressure and angler catch/harvest statistics (Tables 49-53). Days were divided into two time periods (morning and afternoon) each with equal probability and 6 hours in length. Weekend day probability was 2.5x week day probability. The lake was divided into 3 "sub-areas" of approximately equal size in which the creel clerk would spend 2 of the 6 hour time period counting and interviewing before moving to the next sub-area.

General pressure, catch and harvest statistics were very similar to estimates obtained in 1998 when Lake Malone was last surveyed. Largemouth bass was the most sought after species (30,710 m/hrs) in 2006 followed by panfish (23,592 m/hrs), crappie (10,192 m/hrs), "anything" group (9,496 m/hrs) and catfish (6,149 m/hrs). Largemouth bass and panfish group pressures were similar to 1998 results. Crappie pressure declined (19,342 m/hrs in 1998 vs. 10,192 m/hrs in 2006) while catfish pressure increased (3,873 m/hrs in 1998 vs. 6,149 m/hrs in 2006).

The total number of largemouth bass caught (20,860) is similar to 1998 estimates but the total number harvested decreased (3,526 in 2006 vs. 4,699 in 1998). The mean length of harvested largemouth bass increased (13.6 inches in 2006 vs. 11.7 inches in 1998) as did the mean weight (1.38 lbs. in 2006 vs. 0.79 lbs. in 1998) in the 2006 estimates. The estimated number of bluegill caught and harvested in 2006 were both increases from 1998 estimates by 11,000-12,000 fish each. Mean lengths and weights of harvested bluegill were similar but with a slight decrease in 2006. The number of redear sunfish caught decreased dramatically (807 in 2006 vs. 3,612 in 1998) as did the harvest (702 in 2006 vs. 3,067 in 1998). Mean length and weight at harvest was similar for both years. Channel catfish catch (8,177) and harvest (5,384) both increased during 2006 compared to 1998 estimates (4,502 caught and 3,756 harvested). Mean length and mean weight of harvested channel catfish also increased (14.9 inches in 2006 vs. 13.2 inches in 1998 and 1.06 pounds in 2006 and 0.77 pounds in 1998). These increases are probably the result of a 12-inch minimum length limit for channel catfish that went into effect on Lake Malone in March 2006. Crappie catch and harvest estimates changed dramatically from 1998. In 2006, a total of 10,795 white crappie were caught and 8,507 white crappie were harvested. During 1998, 27,467 white crappie were caught and 17,178 were harvested. Conversely, black crappie catch and harvest estimates increased. In 2006 1,986 black crappie were caught and 1,658 were harvested versus 343 caught and 319 harvested during 1998.

An angler attitude survey was conducted in conjunction with the creel survey. In general anglers seem satisfied with their fishing experience at Lake Malone. Survey questions and results are as follows:

LAKE MALONE ANGLER ATTITUDE SURVEY 2006 (247 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 Lake Malone? (check all that apply)

Bass (62.5%) Bluegill (36.4%) Redear Sunfish (11.34%) Crappie (46.1%) Channel Catfish (31.2%) All (0.8%)

4. Which **ONE** species do you fish for most at Lake Malone? (Check only one) **(n = 236)**

Bass (51.0%) Bluegill (14.4%) Redear Sunfish ((0.8%) Crappie (16.5%) Channel Catfish (16.1%)

-Please answer following questions relevant to each species fished for-

Bass Anglers

5. What level of satisfaction do you have with bass fishing at Lake Malone? **(n = 150)**
Very satisfied (22.7%) Somewhat satisfied ((52.7%) Neutral (11.3%) Somewhat dissatisfied (7.3%) Very dissatisfied (2.7%)

6. Do you support or oppose the 12-15" slot limit on largemouth bass at the lake? Support (91.2%) Oppose (5.4%) No opinion (3%)

6A. What size limit would you prefer on largemouth bass at the lake? current (12-15 slot) (90.4%) 12" 15" 18" Other (9.5%)

Crappie Anglers

8. What level of satisfaction do you have with crappie fishing at Lake Malone? (n = 91)
Very satisfied (14.3%) Somewhat satisfied (35.2) Neutral (19.8%) Somewhat dissatisfied (20.9%) Very dissatisfied (6.6%)

9. Do you support or oppose the no size limit on crappie at the lake? (n = 91) Support (63.7%) Oppose (28.6%) No opinion (7.7%)

9A. What size limit would you prefer? Current (none) (67%) 8" 9" 10" Other (32.9%)_____

10. Do you support or oppose the 30 fish creel limit on crappie at the lake? Support (77.4%) Oppose (19.0%) No opinion (3.6%)

10A. What creel limit would you prefer? (n = 87) Current (30) (79.3%) 40 20 10 (1.1%) Other (9.2%)

Catfish Anglers

16. What level of satisfaction do you have with the channel catfish fishing at Lake Malone? (n = 85)
Very satisfied (45.9%) Somewhat satisfied (32.9%) Neutral (10.6%) Somewhat dissatisfied (4.7%) Very dissatisfied (1.2%)

17. Do you support or oppose the 12" size limit on channel catfish at Lake Malone? Support (89.0%) Oppose (8.5%) No Opinion (2.4%)

17a. If not what size limit would you prefer? Current (12") (93.4%) 10" 15" Other (6.6%).

10. Do you support or oppose the no creel limit on channel catfish at the lake? Support (65.0%) Oppose (27.5%) No opinion (7.5%)

10A. If not what creel limit would you prefer? Current (none) (68.0%) 10 15 Other (18.67%)

Boat Length – Horsepower Limit

Do you support the present horsepower limit regulations on Lake Malone (150 hp limit from the weekend before Memorial Day through the weekend after Labor Day, and 200 hp limit from weekend after Labor Day until weekend before Memorial Day)?

Yes (71.9%) No (26.8%)

Would you be in favor of removing the restrictions on boat length and horsepower limit on Lake Malone? Yes (7.7%) NO (89.8%)

If yes, would you be in favor of establishing idle speed only zones (ie. in coves and embayments)? Yes (90.6%) NO (7.8%)

What horsepower limit would you prefer on Lake Malone?

50hp (9.7%) 75hp (2.4%) 100hp (2.4%) 150hp (76.3%) 200hp (7.3%) 250hp (2.0%) 300hp unlimited hp (0.4%)

What is the maximum boat length that should be allowed on Lake Malone?

Current (22 ft) (93.1%) 18ft 20 ft 25 ft (2.9%) unlimited (0.4%)

Largemouth Bass Sampling

Electrofishing to monitor the largemouth bass population was conducted during April (Tables 54-58). The 2006 catch rate of largemouth bass < 12.0 inches was similar to 2005 while the CPUE for fish larger than 12 inches declined, especially those 15 inches and larger. The catch rate of 15 inch and larger bass at Lake Malone was exceptional during 2002-2005. The catch rate for 2006 is similar to the rates observed prior to 2002. The CPUE of > 20.0 bass declined, but is greater than the CPUE's collected prior to 2002. A protective 12-15 inch slot limit was instituted at Lake Malone in 1996. The catch rate of 12.0-14.9 inch fish has steadily declined since 1999 although the catch rate for fish > 15.0 inches has not. Harvest of < 12.0 inch fish could be leading to a decline of 12.0-14.9 inch fish, but is not leading to a decline of bass > 15.0 inches. This trend will be monitored during future sampling. Fall electrofishing was conducted in October (Table 59) to determine relative weights (Table 8) and the CPUE and mean length of age 0 largemouth bass (Table 60). The log 10 length weight equation is log W = -3.53 + 3.18(log L). Lake Malone SMP objectives for management of largemouth bass state: a mean length of ≥ 12.0 inches at age 3 at capture, a CPUE of ≥ 20.0 f/h for age 1 fish, a CPUE of ≥ 35.0 f/h for 12.0-14.9 inch fish, a CPUE of ≥ 40.0 f/h for ≥ 15.0 inch fish, and a CPUE of ≥ 6.0 f/h for ≥ 20.0 inch fish. Only mean length at age 3 and CPUE of age 1 fish objectives were met in 2006.

Bluegill/Redear Sunfish Sampling

Electrofishing to assess the bluegill/redear population was conducted during May (Tables 61-66). The CPUE of 3-5.9 inch bluegill and the total bluegill CPUE were similar to 2005 while the CPUE of 6.0-7.9 inch fish increased. Lake Malone's bluegill population is still dominated by 3-5 inch fish, but the increase in 6-8 inch fish is encouraging. Age-growth data was collected during 2006 and growth rates increased slightly from when last surveyed in 2002. Lake Malone SMP objectives for bluegill management state: a mean length of 4.5 inches for age 2 fish at capture, 3-3+ years to reach 6 inches, a CPUE of ≥ 50.0 f/h for ≥ 6.0 inch fish, and a CPUE of at least 1.0 f/h for ≥ 8.0 inch fish. With the exception of the CPUE of > 8.0 inch fish, all objectives were met.

The number of redear sunfish collected during electrofishing at Lake Malone began to decline in the mid 1990s and has not recovered. The number of redear sunfish caught and harvested during the 2006 creel survey period significantly decreased from 1998 creel survey estimates. Possible causes of the decline will be investigated in an effort to enhance this population. The numbers of redear sunfish collected since 1996 has been too few to calculate any population assessments.

Lake Mauzy

Largemouth Bass Sampling

Electrofishing to assess Lake Mauzy's largemouth bass population was conducted during April (Tables 67-70). The total CPUE of largemouth bass decreased in 2006. The CPUE of 8.0-11.9 inch bass increased slightly, the CPUE of 12.0-14.9 inch bass decreased markedly, while the CPUE > 15.0 inch bass increased markedly. This shift in catch rates for the various size groups is probably the result of an abundance of available forage for bass during the 2003 drawdown and renovation and limited recruitment that also resulted from the drawdown. Although the 2006 catch rate of bass > 15.0 inches is greater than any previous catch rate, recruitment appears low, but did increase slightly in 2006. If recruitment does not increase, supplemental stocking of remedial bass may be necessary. Electrofishing for relative weight data (Table 8) was conducted in October (Table 71). The log 10 length weight equation is log W = -3.58 + 3.24(log L).

Bluegill/Redear Sunfish Sampling

Electrofishing for bluegill and redear sunfish was conducted in May (Tables 72-77). Following renovation in 2003, the number of 3.0-5.9 inch bluegill has increased dramatically, while the number of > 6.0 inch

bluegill has decreased. This has lead to a stunted slow growing bluegill population. If largemouth bass recruitment does not increase and provide additional predators for these small bluegill and reverse this trend, remedial bass may need to be stocked. A drawdown conducted during the 2006-2007 winter may help reverse this situation. Redear sunfish were stocked in 2004 and 2005, but few have been collected.

Carpenter Lake

This is the first year gizzard shad have been observed in Carpenter Lake. Gizzard shad were first discovered in April while electrofishing for largemouth bass. Annual monitoring will reveal how this additional forage specie effects the bass and bluegill populations, but negative impacts to what has historically been an excellent bluegill fishery could occur.

Largemouth Bass Sampling

Electrofishing to assess the largemouth bass population was conducted during April (Tables 78-81). Catch rates for all size groups of largemouth bass decreased in 2006. A general trend of increasing numbers of bass < 12.0 inches and decreasing number of bass > 12.0 inches has been observed the last few years. Age data will be collected in 2007 to determine growth rates. Carpenter Lake was again electrofished during October (Table 82) for largemouth bass relative weight data (Table 8). The Wr value for 8.0-11.9 inch fish is less than optimal. The log 10 length weight equation is log W = -3.44 + 3.06(log L). Carpenter Lake SMP objectives for largemouth bass management state: a mean length of ≥ 11.5 inches at age 3 at capture, a CPUE of ≥ 46.0 fish/h for age 1 fish, a CPUE of ≥ 35.0 fish/h for 12.0-14.9 inch fish, a CPUE of ≥ 20.0 fish/h for ≥ 15.0 inch fish and a CPUE of ≥ 1.0 fish/h for ≥ 20.0 inch fish. Only the growth rate and age 1 CPUE objectives were met in 2006.

Bluegill/Redear Sunfish Sampling

Sampling to assess the bluegill and redear sunfish populations was conducted in May (Tables 83-87). The 2006 catch rate of 6.0-7.9 inch bluegill was similar to 2005 results however, all other catch rates decreased substantially as did the total CPUE. Bluegill catch rates are highly variable with no clear trends evident. Carpenter Lake SMP bluegill management objectives state: a mean length of ≥ 5.0 inches at age 2 at capture, 2-2+ years to reach 6.0 inches, a CPUE of at least 50.0 fish/h for bluegill ≥ 6.0 inches, and a CPUE of at least 15.0 fish/h for bluegill ≥ 8.0 inches. With the exception of the CPUE of ≥ 8.0 inch fish all objectives were met.

Kingfisher Lake

Largemouth Bass Sampling

Largemouth bass electrofishing was conducted at Kingfisher Lake in April (Tables 88-91). As it has been for the last several years, Kingfisher Lake's largemouth bass population is dominated by an abundance of slow-growing 8-11 inch fish. The removal of sub-legal bass has occurred in previous years in an effort to reduce competition and increase growth. Catch rates for 2005 indicated an increase in the > 12.0 inch fish, but this trend did not continue in 2006. Additional fish will be removed in 2007 in a continued effort to correct this situation. Kingfisher Lake was again electrofished in October (Table 92) to determine relative weight values (Table 8). The log 10 length weight equation is log W = -3.28 + 2.90(log L).

Bluegill Sampling

Kingfisher Lake's bluegill population was sampled during May (Tables 93-97). Bluegill catch rates at Kingfisher Lake have been erratic, but the general trend has been a decrease in the number of > 6.0 inch

bluegill and an increase in the number of < 6.0 inch bluegill. The abundance of sub-legal bass should be leading to a decrease in the number of small bluegill, but this has not been the case.

Washburn Lake

Largemouth Bass Sampling

Electrofishing to assess the largemouth bass population was conducted in April (Tables 98-101). The CPUE of largemouth bass ≥ 12.0 inches increased in 2006 for the second year in a row. The 2005 sample was the first sample that largemouth bass ≥ 12.0 inches were collected since renovation and re-stocking in 2000. The population assessment rating for largemouth is excellent in 2006 due to the catch rate of larger fish. Electrofishing to determine Wr values (Table 8) was conducted during October (Table 102). The log 10 length weight equation is log W = -3.24 + 2.87(log L).

Bluegill Sampling

Sampling to assess Washburn Lake's bluegill population was conducted in May (Tables 103-108). The catch rate for bluegill 6.0-7.9 inches increased slightly in 2006. A general trend over the last few years has been a decrease in bluegill ≥ 6.0 inches. Bluegill ≥ 8.0 inches have not been collected since 2004. Washburn Lake receives substantial bluegill angling pressure during the spring and may account for the decrease. Age data collected during 2006 indicate growth rates are excellent.

Peabody WMA

SCUBA transects were conducted during June to assess fish populations in 3 lakes on Peabody WMA. The SCUBA transects were initiated in 2005 to survey the fish population of lakes where clear water and high conductivity make electrofishing ineffective. Three transects are swam at the 10-foot depth contour parallel to shoreline for 30 minutes each at Goose Lake (Table 109), and 20 minutes each at Musky Lake (Table 110) and Bottom Lake (Table 111).

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 2006.

		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		7	12	8	7	13	7	8	14	11	24	30	13	4	2	8	3	3	2	176	70.40	8.93
	Spotted bass			1	2		2		2	6	3	1									17	6.80	1.96
Lower	Largemouth bass		1	5	8	12	7	4	6	9	12	9	20	10	2	4	4	2			115	57.50	5.44
	Spotted bass	1			2	11	7	5	5		8	1									40	20.00	7.16
Total	Largemouth bass		8	17	16	19	20	11	14	23	23	33	50	23	6	6	12	5	3	2	291	64.67	5.68
	Spotted bass	1		1	4	11	9	5	7	6	11	2									57	12.67	3.87

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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 2006; 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8.0"	PSD (± 95%)	RSD[a] (± 95%)
Upper	Largemouth bass	129	69 (± 8)	17 (± 7)
	Spotted bass	14	28 (± 24)	
Lower	Largemouth bass	82	62 (± 10)	15 (± 7)
	Spotted bass	26	35 (± 19)	
Total	Largemouth bass	211	66 (± 6)	16 (± 5)
	Spotted bass	40	32 (± 15)	

[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 1999-2006. 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.
2006	17.78	2.82	15.78	1.54	23.56	2.68	7.56	1.48	0.44	0.44	64.67	5.68
2005	27.11	4.98	27.11	4.14	25.33	3.86	14.22	2.32	0.44	0.29	93.78	10.08
2004	23.74	1.61	16.44	3.65	16.22	2.41	8.89	2.58	0.44	0.29	65.33	6.76
2003	12.89	3.73	10.22	2.3	8.89	2.21	7.56	1.99	0.00		39.56	9.16
2002	4.00	1.33	9.78	2.59	8.00	3.13	8.00	1.63	0.00		29.78	5.44
2001	5.50	1.68	27.00	7.44	18.00	3.30	9.00	2.80	0.00		59.50	11.72
2000	9.50	3.11	35.00	6.27	41.50	5.12	14.00	4.34	0.50	0.50	100.00	13.07
1999	n/d		61.33	16.84	56.89	9.18	8.00	1.76	0.44	0.44	126.22	26.01

Table 4. Population assessment for largemouth bass based on spring electrofishing at Nolin River Lake from 1999-2006.

	Year															
	1999		2000		2001		2002		2003		2004		2005		2006	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Length at age 3	13.09	4	13.09	4	13.09	4	13.09	4	13.09	4	13.09	4	13.09	4	12.64	4
Spring CPUE age 1 fish	n/d		9.00	1	5.00	1	3.78	1	11.33	1	22.89	2	26.22	2	17.04	1
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	23.56	2
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	7.56	2
Spring CPUE ≥ 20.0 inch fish	0.44	2	0.50	2	0.00	1	0.00	1	0.00	1	0.22	2	0.44	2	0.44	2
Instantaneous Mortality (z)									0.534		0.684		0.617		0.447	
Annual Mortality (A)%									41.4		49.5		46.0		36.0	
Total score				14		10		9		9		12		14		11
Assessment rating				G		F		F		F		G		G		F

Table 5. Mean back calculated lengths (in) at each annulus for largemouth bass collected at Nolin River Lake in April 2006.

Year		Age							
class	No.	1	2	3	4	5	6	7	8
2005	20	5.7							
2004	27	5.9	10.2						
2003	15	6.1	10.6	12.6					
2002	15	6.5	10.8	13.1	14.3				
2001	4	5.9	11.1	13.1	14.3	15.0			
2000	1	7.9	12.5	15.4	17.0	18.7	19.1		
1999	3	5.2	10.7	13.6	15.1	15.9	16.8	17.4	
1998	1	7.3	12.0	14.1	16.7	18.0	19.4	20	20.2
Mean		6.0	10.6	13.0	14.6	16.0	17.8	18	20.2
No.		86	66	39	24	9	5	4	1
Smallest		3.5	7.3	10.7	11.4	11.8	15.5	16.3	20.2
Largest		10.2	13.9	15.7	17.0	18.7	19.4	20.0	20.2
Std error		0.2	0.1	0.2	0.3	0.7	0.7	0.8	
95% CI (±)		0.3	0.3	0.4	0.6	1.5	1.4	1.5	

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Table 6. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Nolin River Lake during April 2006.

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

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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 2006.

		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	20	100	48	44	43	26	14	13	16	9	15	11	3	3	1	3	2		1	372	148.80	38.94
	Spotted bass	2	10	3		2	1	1	2	4	3	2	1								31	12.40	2.48
Lower	Largemouth bass	1	5	23	41	18	4	9	6	12	13	16	10	4	3		1		1	1	168	84.00	12.19
	Spotted bass	1	5	2		3	7	2	3	4	6	3									36	18.00	2.94
Total	Largemouth bass	21	105	71	85	61	30	23	19	28	22	31	21	7	6	1	4	2	1	2	540	120.00	23.99
	Spotted bass	3	15	5		5	8	3	5	8	9	5	1								67	14.89	2.03

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Table 8. Number of fish and relative weight (Wr) for length groups of largemouth bass collected in NWFD lakes during September and October 2006.

Species	Location	Siz Range					
		8.0-11.9 in		12.0-14.9 in		≥ 15.0 in	
		No.	Wr	No.	Wr	No.	Wr
Largemouth Bass	Nolin River Lake						
	Upper	35	92 (1.2)	25	92 (1.7)	9	97 (2.5)
	Lower						
	Total	35	92 (1.2)	25	92 (1.7)	9	97 (2.5)
	Rough River Lake						
	Upper	24	100 (1.87)	10	94 (2.66)	8	98 (3.44)
	Lower	0		1	108	5	92 (5.12)
	Total	24	100 (1.87)	11	96 (2.44)	13	96 (2.85)
	Lake Malone	83	87 (0.64)	42	89 (1.47)	34	91 (1.57)
	Mauzy Lake	50	87 (0.91)	19	94 (1.81)	22	94 (1.56)
	Carpenter Lake	50	82 (1.00)	1	89	3	104 (4.00)
	Kingfisher Lake	95	86 (0.66)	1	87		
	Washburn Lake	32	87 (1.01)	3	93 (4.19)		

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

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

Table 10. Length frequency and CPUE for each species of crappie collected in 79 net-nights of sampling at Nolin River Lake during October 2006.

	Inch class													
Species	2	3	4	5	6	7	8	9	10	11	12	Total	CPUE	Std. Error
White crappie	4	57	99	26	21	74	145	139	48	11	3	627	7.94	0.93
Black crappie		5	2	1	13	15	19	20	16	6		97	1.23	0.24

nwdnltn.d06

Table 11. PSD and RSD values calculated for crappie collected in trap nets from Nolin River Lake during October 2006; 95% confidence limits are in parentheses.

Lake/Species	No.	PSD	RSD-10
Nolin River Lake			
White Crappie	467	74 (±8)	13 (±3)
Black Crappie	90	68 (±8)	24 (±9)

nwdnltn.d06

Table 12. Age-frequency and CPUE (no./net-night) per inch class of white crappie trap netted for 79 net-nights at Nolin River Lake in October 2006. 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	4	57	99									163	2.06		26
1				26	18	58	114	38				254	3.21	0.38	40
2					3	16	21	76	34	5		154	1.95	0.3	25
3							10	25	10	6		52	0.65	0.11	8
4									5		2	6	0.08	0.02	1
7											1	1	0.02	0.01	< 1
Total	4	57	99	26	21	74	145	139	48	11	3	627			100
(%)	< 1	9	16	4	3	12	23	22	8	2	< 1				

nwdnltn.d06, nwdnlcag.d04

Table 13. Population assessment for white crappie trap netted at Nolin River Lake during October 2006.

Parameter	Actual Value	Assessment Score
Population density (CPUE age 1 fish and older)	5.91	2
Growth rate (Mean length of age 2+ fish at capture)	9.7	4
Size Structure (CPUE fish ≥ 8.0 in.)	4.37	2
Recruitment (CPUE of age 1 fish)	3.21	2
Recruitment (CPUE of age 0 fish)	2.02	1
Total Score		11
Assessment rating		Fair
Instantaneous mortality (Z)		Z = .8759
Annual mortality (A)		A = 58.35%

Table 14. Population assessment for white crappie based on fall trapnetting at Nolin River Lake from 1999-2006.

	Year													
	1999		2001		2002		2003		2004		2005		2006	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
CPUE (excluding age 0)	8.72	2	10.21	2	11.99	2	13.23	3	8.56	2	8.76	2	5.91	2
CPUE of age 1	4.85	2	4.82	2	10.02	3	8.00	3	4.15	2	3.64	2	3.2	2
CPUE of age 0	0.18	1	2.62	1	4.26	2	2.04	1	5.09	2	1.42	1	2.02	1
CPUE of crapple ≥ 8.0 in.	5.55	3	3.87	2	8.78	3	8.65	3	6.93	3	7.41	3	4.37	2
Mean length age 2 + at capture	9.8	4	9.1	3	9.5	3	9.8	4	9.7	4	9.7	4	9.7	4
Instantaneous Mortality (z)	1.040		0.910		1.571		1.107		0.630		0.749		0.876	
Annual Mortality (A)%	64.7		59.7		79.2		66.9		46.7		52.7		58.3	
Total score		12		10		13		14		13		12		11
Assessment rating		F		F		G		G		G		F		F

Table 15. Length frequency and CPUE for walleye collected in 15 net-nights of gill netting at Nolin River Lake during November 2006.

	Inch Class														
Species	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	Std. Error
Walleye	2	6	4		1	5	22	14	18	21	10	4	107	7.13	1.35

nwdnlgn.d06

Table 16. Mean back calculated lengths (in) at each annulus for walleye collected at Nolin River Lake in November 2006.

Year		Age			
class	No.	1	2	3	4
2005	21	11.0			
2004	38	10.7	14.8		
2003	20	10.7	14.6	16.6	
2002	1	11.0	13.8	16.9	17.8
Mean		10.8	14.7	16.6	17.8
No.		80	59	21	1
Smallest		7.9	13.0	15.4	17.8
Largest		12.6	16.8	18.7	17.8
Std error		0.1	0.1	0.2	
95% CI (±)		0.2	0.2	0.4	

nwdnweag.d06

Table 17. Age-frequency and CPUE (no./net-night) per inch class of walleye gill netted for 15 net-nights at Nolin River Lake in November 2006.

	Inch class															
Age	8	9	10	11	12	13	14	15	16	17	18	19	No.	CPUE	Std. Error	Age %
0	2	6	4		1								13	0.87		12.1
1						5	17	4					26	1.71	0.46	24.3
2							5	10	12	12	3	2	45	2.98	0.64	42.1
3									6	9	6	2	23	1.5	0.33	21.5
4											1		1	0.07	0.03	0.9
Total	2	6	4		1	5	22	14	18	21	10	4	107			
(%)	1.9	5.6	3.7		0.9	4.7	20.6	13.1	16.8	19.6	9.3	3.7				

nwdnlgn.d06, nwdnweag.d06

Table 18. Population assessment for walleye gill netted at Nolin River Lake during November 2006.

Parameter	Actual Value	Assessment Score
Population density (CPUE age 1 fish and older)	6.27	4
Growth rate (Mean length of age 2+ fish at capture)	16.58	2
Size Structure (CPUE fish ≥ 20 in.)	0	0
Recruitment (CPUE of age 1 fish)	1.71	2
Total Score		8
Assessment rating		F
Instantaneous mortality (Z)		Z = 1.152
Annual mortality (A)		A = 68.40%

Table 19. Population assessment for walleye based on fall gill netting at Nolin River Lake from 1999-2006.

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

Table 20. Number of fish and the relative weight (Wr) for each length category of walleye collected at Nolin River Lake during November 2006. Standard errors are in Parentheses.

Size Range					
10.0-14.9 in		15.0-19.9 in		≥ 20.0 in	
No.	Wr	No.	Wr	No.	Wr
32	94.85 (1.20)	67	92.10 (0.67)	0	

nwdnlgn.d06

Table 21. Length frequency and CPUE for white bass collected in 15 net-nights of sampling at Nolin River Lake during November 2006.

	Inch Class													
Species	6	7	8	9	10	11	12	13	14	15	16	Total	CPUE	Std. Error
White Bass	6	41	11		15	40	36	19	9			177	11.80	3.07

nwdnlgn.d06

Table 22. Mean back calculated lengths (in) at each annulus for white bass collected at Nolin River Lake in November 2006.

Year		Age				
class	No.	1	2	3	4	5
2005	30	9.2				
2004	16	9.3	12.2			
2003	6	8.6	12.0	13.4		
2002	1	10.2	12.2	13.4	14.2	
Mean		9.2	12.1	13.4	14.2	
No.		53	23	6	1	
Smallest		6.9	11.3	12.7	14.2	
Largest		11.0	13.1	14.1	14.2	
Std error		0.1	0.1	0.2		
95% CI (±)		0.2	0.2	0.3		

nwdnwbag.d06

Table 23. Age-frequency and CPUE (no./net-night) per inch class of white bass gill netted for 15 net-nights at Nolin River Lake in November 2006. Numbers in parentheses are standard errors.

	Inch class												Age (%)
Age	6	7	8	9	10	11	12	13	14	No.	CPUE	(Std. Error)	
0	6	41	11							58	3.87		32.8
1					15	40	26			81	5.38	1.88	45.8
2							10	14	5	29	1.91	0.55	16.4
3								5	3	8	0.57	0.16	4.5
4									1	1	0.08	0.04	0.6
Total	6	41	11		15	40	36	19	9	177			
(%)	3.3	22.9	6.1		8.4	22.3	20.1	10.6	5				

nwdnwbag.d06, nwdnlgn.d06

Table 24. Population assessment for white bass gill netted at Nolin River Lake during November 2006.

Parameter	Actual Value	Assessment Score
Population density (CPUE age 1 fish and older)	7.93	2
Growth rate (Mean length of age 2+ fish at capture)	13.3	4
Size Structure (CPUE fish ≥ 12.0 in.)	4.27	2
Recruitment (CPUE of age 1 fish)	5.38	3
Total Score		11
Assessment rating		G
Instantaneous mortality (Z)		Z = 1.134
Annual mortality (A)		A = 67.84%

Table 25. Population assessment for white bass based on fall gill netting at Nolin River Lake from 1996-2006.

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

Table 26. Number of fish and the relative weight (Wr) for each length category of white bass collected at Nolin River Lake during November 2006. Standard errors are in Parentheses.

Size Range					
6.0-8.9 in		9.0-11.9 in		≥ 12.0 in	
No.	Wr	No.	Wr	No.	Wr
45	90.53	46	95.81	59	99.72
	(0.97)		(1.47)		(1.20)

nwdnlgn.d06

Table 27. Length-frequency and CPUE of catfish collected during 15 net nights of gill netting at Nolin River Lake in November 2006.

	Inch class																										
Species	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	Total	CPUE	Std. Error
Channel Catfish	1	1	3	3	7	8	16	24	31	17	7	8	7	3	1	2			1	1		2			143	9.53	1.24
Flathead catfish						1						1												1	3	0.20	0.14

nwdnlgn.d06

Table 28. Number of fish and the relative weight (Wr) for each length category of channel catfish collected at Nolin River Lake during November 2006. Standard errors are in Parentheses.

Size Range					
11-15.9 in		16.0-23.9 in		≥ 24.0 in	
No.	Wr	No.	Wr	No.	Wr
75	85.28	22	91.90	4	89.05
	(0.92)		(2.62)		(3.60)

nwdnlgn.d06

Table 29. 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 2006.

		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	1	5	10	8	14	10	8	5	21	21	25	24	16	5	6	2	4	3	1	189	75.60	9.30
	Spotted bass						1	2	1	1	1	1	1								8	3.20	1.20
Lower	Largemouth bass			6	14	14	13	13	12	27	22	26	25	11	11	12	1	4	1	1	213	106.50	36.85
	Spotted bass		2	1	4		4	7	9	10	8	7	1	1							54	27.00	3.32
Total	Largemouth bass	1	5	16	22	28	23	21	17	48	43	51	49	27	16	18	3	8	4	2	402	89.33	16.73
	Spotted bass		2	1	4		5	9	10	11	9	8	2	1							62	13.78	4.44

nwdrrpsd.d06

Table 30. Spring electrofishing CPUE for each size class of largemouth bass collected at River River Lake during April 2006. 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.
2006	21.11	2.58	28.67	10.06	28.22	4.38	11.33	2.81	0.44	0.29	89.33	16.73
2005	26.89	6.15	34.00	7.60	38.89	5.15	14.22	2.48	0.67	0.33	114.00	41.65
2004	31.11	3.86	35.56	5.12	12.89	2.16	9.78	1.08	0.22	0.22	89.33	9.50
2003	61.56	7.01	27.78	6.93	20.00	5.56	18.44	3.18	0.67	0.33	127.78	15.36
2002	7.33	1.70	7.11	2.29	2.00	0.88	1.56	0.44	0.00	0.00	18.00	3.82
2001	30.67	7.45	21.33	4.47	16.44	4.96	3.11	1.74	0.00	0.00	71.56	11.18
2000	15.11	3.45	32.89	4.31	21.78	2.76	5.33	2.11	1.78	0.97	75.11	6.42
1999	n/d		28.44	2.05	21.33	4.11	8.89	2.38	0.44	0.44	58.67	4.57

nwdrrpsd.d06

Table 31. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Rough River Lake during April 2006; 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8.0"	PSD (+/- 95%)	RSD[a] (+/- 95%)
Upper	Largemouth bass	141	61 (± 8)	15 (± 6)
	Spotted bass	8		
Lower	Largemouth bass	166	55 (± 8)	18 (± 6)
	Spotted bass	47	36 (± 14)	2 (± 4)
Total	Largemouth bass	307	58 (± 6)	17 (± 4)
	Spotted bass	55	36 (± 16)	2 (± 4)

[a] Largemouth bass = RSD-15, spotted bass = RSD-14.
nwrrlpsd.d06

Table 32. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Rough River Lake during spring samples 2002-2006.

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

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

Table 33. Population assessment for largemouth bass based on spring electrofishing at Rough River Lake from 1999-2006.

Parameter	Year															
	1999		2000		2001		2002		2003		2004		2005		2006	
	Value	Score	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	13.6	4
Spring CPUE age 1 fish	2.96	1	10.52	1	28.00	2	7.93	1	44.30	3	32.82	3	28.04	2	21.98	2
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	28.22	3
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	11.33	2
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	0.44	2
Instantaneous Mortality (z)									0.797		0.862		0.759		0.773	
Annual Mortality (A)%									54.9		57.8		53.2		53.8	
Total score		11		12		10		8		14		12		15		13
Assessment rating		F		G		F		F		G		G		G		G

Table 34. 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 2006.

Area	Species	Inch class																Total	CPUE	Std. Error
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
Upper	Largemouth bass	18	89	21	34	52	16	14	9	11	10	7	9	3	4	5	2	304	121.60	24.24
	Spotted bass	1	4			1	1	1						1				9	3.6	2.64
Lower	Largemouth bass	6	8	10	5	8	9	9	6	9	5	12	5	6	5	2	2	107	53.50	11.24
	Spotted bass																		17.5	5.12
Total	Largemouth bass	24	97	31	39	60	25	23	15	20	15	19	14	9	9	7	4	411	91.33	18.09
	Spotted bass	5	16	5	2	5	5	3	1		1			1				44	9.78	3.5

nwdrrlmb.d06

Table 35. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall electrofishing samples at Rough River Lake.

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

Table 36. Length frequency and CPUE for each specie of crappie collected in 75 net-nights of sampling at Rough River Lake during November 2006.

	Inch class													
Species	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std. Error
White crappie	2	108	65	142	178	163	81	25	16	6	1	787	10.49	1.34
Black crappie	4	2	2	4	11	16	8					47	0.63	0.17

nwdrrtn.d06

Table 37. PSD and RSD values calculated for crappie collected in trap nets from Rough River Lake during November 2006; 95% confidence limits are in parentheses.

Lake/Species	No.	PSD	RSD-10
Rough River Lake			
White Crappie	677	43 (± 4)	7 (± 2)
Black Crappie	41	59 (± 16)	0

nwdrrtn.d06

Table 38. Age-frequency and CPUE (no./net night) per inch class of white crappie trap netted for 75 net nights at Rough River Lake in November 2006. Numbers in parentheses are standard errors.

Age	3	4	5	6	7	8	9	10	11	12	13	No.	CPUE	Std. Error	Age (%)
0	2	108	65									175	2.19		22.2
1				142	178	163	81					564	7.52	1.00	71.7
2								25	5	3		33	0.44	0.10	4.2
3									8	2		10	0.13	0.04	1.3
4									3	2	1	6	0.07	0.02	0.8
Total	2	108	65	142	178	163	81	25	16	7	1	787			
(%)	0.2	13.7	8.2	18.0	22.6	20.7	10.3	3.2	2.0	0.9	0.1				

nwdrrtn.d06, nwdrrcag.d06

Table 39. Population assessment for white crappie trap netted at Rough River Lake during October 2006.

Parameter	Actual Value	Assessment Score
Population density (CPUE age 1 fish and older)	8.16	2
Growth rate (Mean length of age 2+ fish at capture)	10.7	4
Size Structure (CPUE fish ≥ 8.0 in.)	3.89	2
Recruitment (CPUE of age 1 fish)	7.52	3
Recruitment (CPUE of age 0 fish)	2.33	1
Total Score		12
Assessment rating		Fair
Instantaneous mortality (Z)		Z = 2.18
Annual mortality (A)		A = 88.72%

Table 40. Population assessment for white crappie based on fall trapnetting at Rough River Lake from 1998-2006.

Parameter	Year													
	1998		2000		2002		2003		2004		2005		2006	
	Value	Score	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	8.16	2
CPUE of age 1	7.50	3	1.36	1	10.02	3	10.8	3	5.5	2	3.5	2	7.52	3
CPUE of age 0	1.87	1	2.12	1	4.26	2	18.85	4	1.8	1	4.61	2	2.33	1
CPUE of crappie ≥ 8.0 in.	5.46	3	3.07	2	8.78	3	9.92	3	7.1	3	3.25	2	3.89	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	10.7	4
Instantaneous Mortality (z)	1.231		1.160		0.871		1.066		0.734		0.869		2.180	
Annual Mortality (A)%	70.8		68.7		58.5		65.5		52.0		58.1		88.7	
Total score		12		8		13		17		12		12		12
Assessment rating		F		F		G		G		F		F		F

Table 41. Length frequency and CPUE for hybrid striped bass collected in 12 net-nights of sampling at Rough River Lake during November and December 2006.

Species	Inch Class																		Total	CPUE	Std. Error
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
Hybrid striped bass	9	19	5	3	8	37	27	35	13	27	41	36	25	10	13	8	1	1	318	26.5	5.51

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Table 42. Mean back calculated lengths (in) at each annulus for hybrid striped bass collected at Rough River Lake in November and December 2006.

Year		Age								
class	No.	1	2	3	4	5	6	7	8	9
2005	44	9.8								
2004	29	10.4	15.7							
2003	9	10.6	15.6	17.5						
2001	12	10.3	15.2	17.2	18.6	19.2				
2000	8	10.3	15.3	17.8	18.8	19.7	20.5			
1999	1	9.5	15.2	18.2	19.5	20.0	20.5	20.7		
1998	8	10.3	14.1	16.5	17.6	18.7	19.3	19.8	20.3	
1997	1	11.4	17.3	19.2	21.3	21.8	22.5	23.7	23.9	24.2
Mean		10.2	15.4	17.3	18.5	19.3	20.1	20.3	20.7	24.2
No.		112	68	39	30	30	18	10	9	1
Smallest		6.9	12.6	15.2	16.2	17.3	17.8	18.2	18.8	24.2
Largest		13.5	17.3	19.2	21.3	21.8	22.5	23.7	23.9	24.2
Std error		0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.6	
95% CI (±)		0.2	0.3	0.3	0.4	0.4	0.6	1.0	1.1	

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Table 43. Age-frequency and CPUE (no./net-night) per inch class of hybrid stiped bass gill netted for 12 net-nights at Rough River Lake in November and December 2006. Numbers in parentheses are standard errors.

Age	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	No.	CPUE	Std. Error	Age (%)
0	9	19	5																33	2.75		10.4
1				3	8	37	27	32											107	8.92	2.04	33.6
2								3	13	25	33	10							83	6.92	2.24	26.1
3										2	5	16	3						27	2.23	0.85	8.5
4																				0		
5											3	10	10	2	6				30	2.51	0.94	9.4
6													3	6	4	4			16	1.35	0.46	5.0
7															2				2	0.15	0.07	0.6
8													10	2	2	4			18	1.49	0.49	5.7
9																		1	1	0.08	0.08	0.3
Total	9	19	5	3	8	37	27	35	13	27	41	36	25	10	13	8	0	1	318			
(%)	2.8	6.0	1.6	0.9	2.5	11.6	2.23	11.0	4.1	2.2	12.9	11.3	7.9	3.1	4.1	2.5		0.3				

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Table 44. Hybrid striped bass population assessement for hybrids gill netted at Rough River Lake during November and December 2006.

Parameter	Actual Value	Assessment Score
Population density (CPUE age 1 and older fish)	23.67	4
Growth rate (mean length at capture of age 2+ fish)	16.9	2
Size structure (CPUE of age 1 and older fish ≥ 15.0 in.)	14.50	4
Recruitment (CPUE of age 1 fish)	8.92	3
Total score		13
Assessment rating		Good
Instantaneous mortality (Z)	Z = .4474	
Annual mortality (A)	A = 36.07	

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Table 45. Population assessment for hybrid striped bass based on fall gill netting at Rough River Lake from 1999-2006.

	Year							
	1999		2001		2003		2006	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score
CPUE excluding age 0	26.38	4	29.88	4	33.87	4	23.67	4
Mean length age 2+ at capture	16.5	2	15.9	1	16.5	2	16.9	2
CPUE fish ≥ 15.0 inches	18.5	4	16.75	4	30.87	4	14.50	4
CPUE of age 1 fish	8.13	3	13.08	4	3.13	2	8.92	3
Instantaneous Mortality (z)					0.680		0.447	
Annual Mortality (A)%					49.8		36.1	
Total score		13		13		12		13
Assessment rating		G		G		G		G

Table 46. Number of fish and the relative weight (Wr) for each length category of hybrid striped bass collected at Rough River Lake during November and December 2006. Standard errors are in Parentheses.

Size Range					
8.0-11.9 in		12.0-14.9 in		> 15.0 in	
No.	Wr	No.	Wr	No.	Wr
21	96.10	65	89.31	108	80.75
	(1.56)		(0.73)		(0.70)

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Table 47. Length-frequency and CPUE of channel catfish collected during 12 net nights of gill netting at Rough River Lake in November 2006.

	Inch class																	
Species	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std. Error
Channel Catfish	1	1		2	2	3	1	5	8	4	2	6	6	2	3	46	3.83	1.51

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Table 48. Number of fish and the relative weight (Wr) for each length category of channel catfish collected at Rough River Lake during November 2006. Standard errors are in Parentheses.

Size Range					
11-15.9 in		16.0-23.9 in		> 24.0 in	
No.	Wr	No.	Wr	No.	Wr
18	89.15	23	95.99	0	
	(2.00)		(1.41)		

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Table 49. Fishery statistics derived from a creel survey at Lake Malone (826 acres) from March 16 through October 30 2006.

Fishing trips		
No. of fishing trips (per acre)	18,116	(21.93)
Fishing pressure		
Total man-hours (S.E.)[a]	80,141	(1113.62)
Man-hours/acre	97.02	
Catch/harvest		
No. of fish caught (S.E.)	109,937	(6388.45)
No. of fish harvested (S.E.)	57,801	(4073.58)
Lb of fish harvested	20,674	
Harvest rates		
Fish/hour	0.73	
Fish/acre	69.98	
Lb/acre	25.03	
Catch rates		
Fish/hour	1.38	
Fish/acre	133.1	
Miscellaneous characteristics (%)		
Male	81.55%	
Female	18.45%	
Resident	95.32%	
Non-resident	4.68%	
Method (%)		
Still fishing	57.77%	
Casting	41.43%	
Fly fishing	0.30%	
Trolling	0.40%	
Mode (%)		
Boat	85.21	
Bank	6.42	
Dock	8.37	

$t < 0.5\%$

[a]S.E. = standard error

Table 50. Fish harvest statistics derived from a creel survey at Lake Malone (826 acres) during 16 March through 30 October 2006.

	Channel catfish	Green Sunfish	Bullhead	Warmouth	Bluegill	Redear sunfish	Blacknose Crappie	Largemouth bass	White crappie	Black crappie	Gar	Black bass group	Catfish group	Panfish group	Anything group
No. caught	8177.54	744.10	58.00	248.00	66171.00	807.00	19.00	20860.64	10795.07	1986.23	8.34	20,860.64	8,253.42	67,970.14	
(per acre)	(9.9002)	(.9008)	(.071)	(.300)	(80.11)	(0.98)	(0.022)	(25.2550)	(13.069)	(2.4046)	(0.0101)	(25.2550)	(9.9920)	(82.2883)	
No. harvested	5384.00	34.38	24.91	96.42	37790.00	702.00	19.00	3526.15	8503.74	1658.70	0.00	3,526.15	5,426.16	38,623.61	
(per acre)	(6.518)	(.0416)	(.030)	(.1167)	(45.751)	(0.85)	(0.022)	(4.269)	(10.295)	(2.008)		(4.268)	(6.569)	(46.759)	
% of total no. harvested	0.09	0.03	0.03	0.17	65.38	1.21	0.03	6.10	14.71	2.90	0.00	6.10	9.39	66.82	
Lb harvested	5669.30	4.80	14.50	18.60	6336.50	303.60	5.70	4409.30	3180.00	680.40	0.00	4,409.30	5,683.80	6,663.50	
(per acre)	(6.864)	(.0058)	(.017)	(.023)	(7.671)	(0.368)	(.007)	(5.338)	(3.850)	(0.824)		(5.338)	(6.881)	(8.067)	
% of total lb harvested	27.42	0.02	0.07	0.09	30.65	1.47	0.03	21.33	15.38	3.29	0.00	21.33	27.49	32.23	
Mean length (in)	14.86	6.00	10.25	6.57	6.41	8.30	8.50	13.57	9.47	10.06	0.00	0.00	0.00	0.00	
Mean weight (lb)	1.06	0.14	0.50	0.19	0.17	0.41	0.31	1.38	0.39	0.56	0.00	0.00	0.00	0.00	
No. of fishing trips for that species												6,942.34	1,390.10	5,333.19	2,146.61
% of all trips												38.32	7.67	29.44	11.85
Hours fished for that species												30,710.62	6,149.36	23,592.29	9,495.88
(per acre)												(37.1799)	(7.4447)	(28.5621)	(11.50)
No. harvested fishing for that species												3,179.00	3,892.00	35,092.00	0.00
Lb harvested fishing for that species												4,258.20	4,041.20	5,995.40	0.00
No./hour harvested fishing for that species												0.09	0.59	1,656.81	0.00
% success fishing for that species												13.46	46.36	51.03	23.24

Table 50 Continued.

	Crappie group	Illegal Catfish	Illegal bass
No. caught	12,799.84	18.00	44.16
(per acre)	(15.4962)	0.02	(0.0535)
No. harvested	10,180.99	18.00	44.16
(per acre)	(12.3256)	0.02	(0.0535)
% of total no. harvested	17.61	0.03	0.08
Lb harvested	3,866.10		51.50
(per acre)	(4.68051)		(0.06235)
% of total lb harvested	18.70		0.25
Mean length (in)	0.00	10.00	13.20
Mean weight (lb)	0.00		1.16
No. of fishing trips for that species	2,304.05		
% of all trips	12.72		
Hours fished for that species	10,192.37		
(per acre)	(12.3394)		
No. harvested fishing for that species	9,505.00		
Lb harvested fishing for that species	3,603.90		
No./hour harvested fishing for that species	0.94		
% success fishing for that species	51.64		

Table 51. Length distribution for each species of fish harvested or released at Lake Malone (826 a) during 16 March - 30 October 2006.

	Inch class																							
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	30	36
Bullhead																								
Harvested						8				8	9													
Sublegal								17	16															
Blacknose Crappie																								
Harvested						9	10																	
Sublegal																								
Gar																								
Harvested																								
Sublegal																								8
Green sunfish																								
Harvested				34																				
Sublegal		92	610	7																				
Channel catfish																								
Harvested										179	1324	1592	653	823	268	233	72	80	45					
Sublegal				18	101	476	686	796	437															
Flathead Catfish																								
Harvested																								
Sublegal																								
White crappie																								
Released																								
Harvested			42	67	261	1,110	3,550	2,221	824	269	34	67	34	24										
Sublegal			107	841	849	297	82	58	33	24														
Black Crappie																								
Released																								
Harvested					92	251	687	478	101	25	24													
Sublegal			42	151	134																			
Warmouth																								
Harvested				44	52																			
Sublegal			84	50	17																			
Bluegill																								
Harvested		109	958	19,433	16,769	395	8	8	92	18														
Sublegal	9	5,501	18,466	3,145	1,174	43	34	8																
Longear sunfish																								
Harvested																								
Sublegal																								

Table 51 continued.

Species	Inch class																						
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	30
Largemouth bass																							
Harvested				9	9	54	108	852	1139				90	332	296	206	188	45	117	63	18		
Released				198	275	2070	3290	4303	2190				275	412	163	120	86	86	52	26			
Sublegal										1,281	1,405	1,103											
Spotted Bass																							
Harvested																							
Sublegal																							
Hybrid Striped Bass																							
Harvested																							
Released																							
Sublegal																							
Redear																							
Harvested				50	201	75	209	75	75	17													
Sublegal		24	24	16	16		16	9															
Illegal Blk Crappie																							
Harvested																							
Illegal Wh Crappie																							
Harvested																							
Illegal catfish																							
Harvested								18															
Illegal Bass																							
Harvested											35	9											

Table 52. Monthly black bass angling success at Lake Malone (826 a) from 16 March - 30 Oct. 2006 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
march	1288.35	407.82	911	4029.95	1252	0.28	408	0.09
Apr	3,240.69	430.99	997.64	4,413.22	2,793	0.56	332	0.07
May	2,800.15	368.24	870.33	3,850.05	2,401	0.48	322	0.06
Jun	2,651.40	308.50	765.02	3,384.20	2,501	0.82	283	0.09
Jul	3,925.67	820.99	821.83	3,635.50	3,728	0.82	802	0.18
Aug	2,903.79	604.07	804.76	3,559.97	2,703	0.70	509	0.13
Sep	1,761.13	329.57	871.86	3,856.82	1,637	0.32	288	0.06
Oct	2,289.45	255.96	899.91	3,980.90	2,162	0.43	235	0.05
Total	20,860.64	3,526.15	6,942.34	30,710.62	19,177	0.53	3,179	0.73
Mean						0.62		0.09

Table 53. Black bass catch and harvest statistics derived from a creel survey at Lake Malone (826 a) from 16 March - October 30, 2006.

	Largemouth bass						
	Harvest			Catch and release			
	<11.9	≥15.0	Total	<11.9	12.0-14.9	>15.0	Total
Total no. of bass	2,171	1,355	3,526	12,326	3,788	1,219	17,333
% of black bass harvested by no.							
Total weight of fish (lb)			4,409.30				
% of bass harvested by weight							
Mean length (in.)			13.57				
Mean weight (lbs.)			1.38				
Rate (f/hr)			0.04				

Table 54. 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 2006.

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			
Largemouth bass	4	17	20	19	19	59	62	53	30	19	21	16	17	13	12	8	7	7	4	2	409	163.60	19.82

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Table 55. Spring electrofishing CPUE for each size class of largemouth bass collected at Lake Malone 1999-2006. CPUE = fish/hour.

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

Table 56. Population assessment for largemouth bass based on spring electrofishing at Lake Malone from 1999-2006.

	Year															
	1999		2000		2001		2002		2003		2004		2005		2006	
Parameter	Value	Score	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	11.5	4
Spring CPUE age 1 fish	n/d		2.44	1	14.00	1	6.00	1	35.00	2	19.00	2	19.00	2	20.20	2
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	22.40	2
Spring CPUE > 15.0 inch fish	23.33	3	24.00	3	31.33	4	41.71	4	48.00	4	53.20	4	53.60	4	28.00	3
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	5.20	4
Instantaneous Mortality (z)									0.416		0.365		0.387		0.526	
Annual Mortality (A)%									34.1		31.1		32.0		40.9	
Total score		14+		15		14		17		17		17		17		15
Assessment rating				G		G		E		E		E		E		G

Table 57. 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 2006; 95% confidence intervals are in parentheses.

Lake	Species	No. fish ≥ 8.0"	PSD (+/- 95%)	RSD[a] (+/- 95%)
Malone	Largemouth	330	38 (± 5)	21 (± 5)
Carpenter	Largemouth	126	20 (± 7)	6 (± 3)
Kingfisher	Largemouth	129	3 (± 3)	0
Mauzy	Largemouth	93	68 (± 10)	48 (± 10)
Washburn	Largemouth	68	46 (± 11)	10 (± 7)

[a] Largemouth bass = RSD-15

Table 58. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Lake Malone during spring samples 2002- 2006.

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

*nocturnal sample
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Table 59. Relative abundance, and CPUE (no./hour) of largemouth bass collected during 2.5 hours of 30-minute diurnal electrofishing runs at Lake Malone in October 2006.

		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	Std. Error
Total	Largemouth bass	1	28	42	11	15	49	32	37	17	22	15	17	5	10	3	8	2	4	2		320	128.00	17.61

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Table 60. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall electrofishing samples at Lake Malone.

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

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Table 61. Length frequency and CPUE for bluegill and redear sunfish collected in 1.25 hours of electrofishing at Lake Malone in May 2006.

	Inch class													
Species	1	2	3	4	5	6	7	8	9	10	11	Total	CPUE	Std. Error
Bluegill	2	58	103	120	177	89	27	1				577	461.60	57.01
Redear sunfish				6		1	1	1	3	2	1	15	12	6.56

nwdlmbg.d06

Table 62. Spring electrofishing CPUE for each size class of bluegill collected at Lake Malone during spring 1999-2006. 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.
2006	48.00	18.51	320.00	36.19	92.80	13.76	0.80	0.80			461.60	57.01
2005	27.69	8.21	376.92	44.63	46.15	10.76	0.00				450.77	54.06
2004	16.15	9.62	300.77	49.90	73.08	15.44	0.00				390.00	56.47
2003	25.38	6.49	173.08	24.06	22.31	6.22	0.00				220.77	25.54
2002	16.67	6.21	331.67	40.59	59.17	10.50	0.00				407.50	50.54
2001	7.33	2.17	222.00	30.51	46.67	8.98	0.67	0.67			276.67	34.54
2000	21.33	5.23	130.67	21.95	50.67	15.79	2.00	0.89			204.67	30.51
1999	53.33	14.30	20.67	4.31	0.67	0.67	0.00				74.67	18.03

Table 63. PSD and RSD values calculated for bluegill and redear sunfish collected by electrofishing from Lake Malone during May 2006; 95% confidence limits are in parentheses.

Lake/Species	No.	PSD	RSD-8
Lake Malone			
Bluegill	517	23 (± 3)	0.2 (± 0.2)
Redear sunfish	15	53 (± 26)	40 (± 25)

nwdlmbg.d06

Table 64. Mean back calculated lengths (in) at each annulus for bluegill collected at Lake Malone in May 2006.

Year		Age						
class	No.	1	2	3	4	5	6	7
2005	15	2.8						
2004	8	2.5	4.2					
2003	7	3.1	4.7	5.6				
2002	11	3.1	4.5	5.7	6.4			
2001	9	2.2	4.0	5.0	5.9	6.6		
2000	2	2.3	3.9	4.9	5.4	6.1	6.5	
1999	1	2.4	3.5	4.5	5.6	6.3	6.6	6.9
Mean		2.7	4.3	5.4	6.1	6.5	6.5	6.9
No.		53	38	30	23	12	3	1
Smallest		1.5	3.0	4.2	4.6	5.2	5.6	6.9
Largest		4.4	6.0	6.4	7.2	7.3	7.3	6.9
Std error		0.1	0.1	0.1	0.2	0.2	0.5	
95% CI (±)		0.2	0.2	0.2	0.3	0.4	1	

nwdlmbgag.d06

Table 65. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Lake Malone during spring samples 2002- 2006.

	Year				
Age	2002	2003	2004	2005	2006
1	16.67	23.85	15.38	26.15	129.9
2	167.38	106.59	120.33	216.92	100.83
3	169.72	69.19	189.63	165.27	82.67
4	53.73	19.60	63.88	40.88	75.81
5					47.49
6					16.56
7					5.93

nwdlmbg.d06, nwdmbgag.d06

Table 66. Population assessment for bluegill based on spring electrofishing at Lake Malone from 1999-2006.

	Year															
	1999		2000		2001		2002		2003		2004		2005		2006	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age 2+ at capture	3.9	2	3.9	2	3.9	2	3.9	2	3.9	2	3.9	2	3.9	2	4.4	2
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	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	93.60	4
CPUE of > 8.0 inch fish	0.67	2	2.00	2	0.67	2	0.00	1	0.00	1	0.00	1	0.00	1	0.80	2
Instantaneous Mortality (z)									1.028						0.452	
Annual Mortality (A)%									64.2						36.4	
Total score		8		10		9		9		7		9		8		11
Assessment rating		F		F		F		F		P		F		F		G

Table 67. Length-frequency and CPUE (no./hour) of largemouth bass collected during 0.75 hours of diurnal electrofishing runs at Mauzy Lake in April 2006.

	Inch class																		
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	Std. Error
Largemouth bass	1	19	14	4	13	12	2	8	8	6	5	7	23	17	4	1	144	192.00	21.17

nwdmzpsd.d06

Table 68. Spring electrofishing CPUE for each size class of largemouth bass collected at Mauzy Lake during spring 1999-2006. 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.
2006	68.00	14.05	40.00	4.00	24.00	4.00	60.00	4.62	0.00		192.00	21.17
2005	52.00	8.64	25.00	6.61	147.00	11.47	21.00	7.90	4.00	1.63	245.00	22.29
2004	20.00	9.24	132.00	2.31	5.33	1.33	6.67	1.33	0.00		164.00	10.58
2003*	98.61	18.69	163.19	31.92	73.61	6.05	20.83	6.36	2.78	2.78	356.25	58.72
2002	36.00	14.05	169.33	40.55	9.33	1.33	6.67	2.67	1.33	1.33	221.33	45.39
2001	12.00	2.31	246.67	53.53	26.67	10.67	4.00	2.31	0.00		289.33	64.18
2000	37.33	5.81	224.00	20.53	2.67	1.33	5.33	3.53	0.00		269.33	25.33
1999	n/d		165.33	8.74	17.33	5.35	4.00	2.31	1.33	1.33	186.67	14.11

* Mauzy renovated summer 2003

Table 69. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Mauzy Lake during spring samples 2004 - 2006.

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

nwdmzlag.d04, nwdmzpsd.d05, nwdmzpsd.d06

Table 70. Population assessment for largemouth bass based on spring electrofishing at Mauzy Lake from 2000-2006.

	Year													
	2000		2001		2002		2003*		2004		2005		2006	
Parameter	Value	Score	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	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	24.00	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	24.00	2
Spring CPUE ≥ 15.0 inch fish	5.33	2	4.00	2	6.67	2	20.83	3	6.67	2	21.00	3	60.00	4
Spring CPUE ≥ 20.0 inch fish	0.00	1	0.00	1	1.33	2	2.78	3	0.00	1	4.00	4	0	1
Instantaneous Mortality (z)									0.884				0.755	
Annual Mortality (A)%									58.7				53.0	
Total score		8		8		9		16		7		15		11
Assessment rating		P		P		F		G		P		G		F

*Mauzy renovated summer2003

Table 71. Length-frequency and CPUE (no./hour) of largemouth bass collected during 1.00 hours of diurnal electrofishing runs at Mauzy Lake in October 2006.

	Inch class																		
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	Std. Error
Largemouth bass	38	9	4	38	31	15	11	8	2	7	10	5	7	8		2	195	195.00	23.97

nwdmzlmb.d06

Table 72. Length frequency and CPUE for bluegill collected during 0.50 hours of electrofishing at Mauzy Lake in May 2006.

	Inch class										
Species	1	2	3	4	5	6	7	8	Total	CPUE	Std. Error
Bluegill	3	45	173	121	13	4	1		360	720.00	163.43
Redear sunfish			1			2	2	4	9	18.00	18.00

nwdmzbg.d06

Table 73. Spring electrofishing CPUE for each size class of bluegill collected at Mauzy Lake during spring 1999-2006. 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.
2006	96.00	27.90	614.00	137.73	10.00	7.57	0.00		0.00		720.00	163.43
2005	289.74	45.54	596.15	101.27	14.10	5.76	0.00		0.00		900.00	86.60
2004	101.10	18.03	84.62	17.53	64.84	11.97	1.10	1.10	0.00		251.65	36.11
2003*												
2002	9.33	3.53	94.67	19.64	125.33	29.24	1.33	1.33	0.00		230.67	48.02
2001	5.33	3.53	65.33	16.22	137.33	27.94	1.33	1.33	0.00		209.33	40.68
2000	1.33	1.33	52.00	4.00	73.33	5.33	4.00	2.31	0.00		130.67	10.91
1999			28.00	6.11	114.67	6.67	4.00	0.00	0.00		146.67	5.33

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

Table 74. PSD and RSD values calculated for bluegill collected by electrofishing from Mauzy Lake during May 2006; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD-8
Bluegill	312	2 (± 2)	0

nwdmzbg.d06

Table 75. Mean back calculated lengths (in) at each annulus for bluegill collected at Mauzy Lake in May 2006.

Year		Age		
class	No.	1	2	3
2005	4	2.7		
2004	5	2.3	3.6	
2003	21	1.8	3.4	4.4
Mean		2.0	3.4	4.4
No.		30	26	21
Smallest		1.3	2.7	3.4
Largest		3.3	4.3	5.3
Std error		0.1	0.1	0.1
95% CI (±)		0.2	0.1	0.2

nwdmzbag.d06

Table 76. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Mauzy Lake during spring samples 2004-2006.

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

nwdmzbg.d06, nwdmzbag.d06

Table 77. Population assessment for bluegill based on spring electrofishing at Mauzy Lake from 2001-2006.

	Year									
	2001		2002		2004		2005		2006	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age 2 at capture	4.3	2	4.3	2	4.3	2	4.3	2	3.7	2
Years to 6 inches	2-2+	4	2-2+	4	2-2+	4	2-2+	4	4-4+	1
CPUE of > 6.0 inch fish	138.66	4	126.66	4	65.94	3	14.10	1	10.00	1
CPUE of > 8.0 inch fish	1.33	2	1.33	2	1.10	2	0.00	1	0.00	1
Insantaneous Mortality (z)									0.755	
Annual Mortality (A)%									53.0	
Total score		12		12		11		8		5
Assessment rating		G		G		G		F		P

*2003 not sample due to renovation drawdown

Table 78. 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 2006.

	Inch Class																	
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	Std. Error
Largemouth bass	14	44	13	2	32	36	19	14	11	6	1	3	3		1	199	265.33	55.44

nwdclpsd.d06

Table 79. Spring electrofishing CPUE for each size class of largemouth bass collected at Carpenter Lake during April 2006. 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.
2006	52.00	12.00	98.67	8.74	1.33	1.33	4.00	2.31	265.33	55.44
2005	157.33	3.53	165.33	48.57	30.67	3.53	2.67	1.33	356.00	54.60
2004	80.00	16.65	128.00	28.00	22.67	3.53	21.33	8.74	252.00	47.72
2003	181.33	49.33	97.33	11.39	18.67	4.81	36.00	12.22	333.33	63.43
2002	12.00	4.62	52.00	4.62	12.00	0.00	21.33	3.53	97.33	4.81
2001	14.67	8.74	29.33	5.33	90.67	9.33	66.67	2.67	201.33	17.64
2000	2.67	1.33	45.33	7.06	48.00	2.31	0.00		96.00	8.33
1999	1.33	1.33	142.67	18.52	29.33	13.53	1.33	1.33	174.67	31.01

Table 80. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Carpenter Lake during spring samples 2002- 2006.

	Year				
Age	2002	2003	2004	2005	2006
1	12.00	162.67	56.00	132.00	78.67
2	36.93	57.60	90.13	88.93	101.60
3	25.73	55.73	56.53	107.07	55.73
4	1.33	2.67	4.00	0.00	1.33
5	0.00	0.00	0.00	0.00	5.33
6	10.67	14.67	8.00	0.00	0

nwdcllag.d03, nwdclpsd.d06

Table 81. Population assessment for largemouth bass based on spring electrofishing at Carpenter Lake from 1999-2006.

	Year															
	1999		2000		2001		2002		2003		2004		2005		2006	
Parameter	Value	Score	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	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	78.67	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	1.33	1
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	4.00	2
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	1	0.00	1
Instantaneous Mortality (z)									0.943		1.155				1.160	
Annual Mortality (A)%									61.1		68.5				68.67	
Total score		8+		10		15		10		18		16		12		12
Assessment rating		F		F		G		F		E		G		G		G

nwdcllag.d03 nwdclpsd.d06

Table 82. Length frequency and CPUE (no./hour) of largemouth bass collected during 0.75 hours of 15-minute diurnal electrofishing runs at Carpenter Lake in October 2006.

	Inch Class															
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	Total	CPUE	Std. Error
Largemouth bass	7	17	9	6	43	20	11			1			3	117	156.00	13.86

nwdcllmb.d06

Table 83. Length frequency and CPUE for bluegill and redear sunfish collected during 0.75 hours of electrofishing at Carpenter Lake in May 2006.

	Inch class									
Species	3	4	5	6	7	8	9	Total	CPUE	Std. Error
Bluegill	3	8	32	62	15			121	161.33	21.31
Redear sunfish					8	6	1	15	20.00	10.88

nwdclbg.d06

Table 84. Spring electrofishing CPUE for each size class of bluegill collected at Carpenter Lake during spring 1999-2006. 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.
2006	1.33	1.33	57.33	10.00	102.67	12.12	0.00		0.00		161.33	21.31
2005	12.09	9.77	190.11	17.09	98.90	6.80	18.68	9.02	0.00		319.78	23.07
2004	12.31	4.62	26.15	7.13	46.15	11.41	1.54	1.54	0.00		86.15	20.41
2003	7.69	2.81	102.56	22.96	47.44	13.24	3.85	1.72	0.00		161.54	34.11
2002	2.30		8.05		17.24		1.15		0.00		28.74	0.00
2001			198.67	74.7	152.00	22.74	41.33	12.72	0.00		392.00	108.89
2000			4.00	2.31	10.67	4.81	12.00	6.11	0.00		26.67	9.61
1999			10.67	2.57	82.67	10.91	12.00	8.00	0.00		105.33	17.99

Table 85. PSD and RSD values calculated for bluegill and redear sunfish collected by electrofishing from Carpenter Lake during May 2006; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD-8
Bluegill	120	64 (± 9)	
Redear sunfish	15	100 (± 0)	7 (± 13)

nwdclbg.d06

Table 86. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Carpenter Lake during spring samples 2002- 2006.

	Year				
Age	2002	2003	2004	2005	2006
1	2.30	7.69	12.31	10.99	4.39
2	14.71	98.80	25.23	180.24	121.69
3	9.43	27.26	33.23	66.76	32.09
4	2.30	7.26	6.15	26.62	2.22

nwdclbg.d06, nwdcbgag.d02

Table 87. Population assessment for bluegill based on spring electrofishing at Carpenter Lake from 1999-2006.

	Year															
	1999		2000		2001		2002		2003		2004		2005		2006	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age 2+ at capture	5.6	4	5.6	4	5.6	4	5.6	4	5.6	4	5.6	4	5.6	4	5.6	4
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	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	84.61	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	0.00	1
Instantaneous Mortality (z)									1.427						1.657	
Annual Mortality (A)									76.0						80.9	
Total score		15		12		16		10		13		12		16		13
Assessment rating		E		G		E		F		G		G		E		G

Table 88. Length frequency, and CPUE (no./hour) of largemouth bass collected during 0.37 hours of 7.5-minute diurnal electrofishing runs at Kingfisher Lake in April 2006.

	Inch class												
	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std. Error
Largemouth bass	15	43	12	1	20	58	32	15	3	1	200	533.33	62.88

nwdkfpsd.d06

Table 89. Spring electrofishing CPUE for each size class of largemouth bass collected at Kingfisher Lake during April 1999-2006. 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.
2006	189.33	14.11	333.33	46.26	10.67	2.67	0.00		533.33	62.88
2005	287.18	97.44	428.21	53.54	41.03	6.78	12.82	5.13	769.23	141.21
2004	161.54	45.07	243.59	45.58	12.82	6.78	2.56	2.56	420.51	92.45
2003	105.56	28.19	425.00	55.49	8.33	4.81	0.00		538.89	59.77
2002	116.28		258.14		4.65		0.00		379.07	
2001	89.74		364.10		20.51		2.56		476.91	
2000	137.78		493.33		24.44		6.67		662.22	
1999	n/d		315.56		17.78		2.22		335.56	

Table 90. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Kingfisher Lake during April 2006.

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

nwdkflag.d04, nwdkfpsd.d06

Table 91. Population assessment for largemouth bass based on spring electrofishing at Kingfisher Lake from 1999-2006.

	Year															
	1999		2000		2001		2002		2003		2004		2005		2006	
Parameter	Value	Score	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	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	149.33	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	10.67	1
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	0.00	1
Spring CPUE > 20.0 inch fish	0.00	1	4.44	4	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1
Instantaneous Mortality (z)									1.330		1.230				1.335	
Annual Mortality (A)%									73.6		70.8				73.7	
Total score		6+		15		11		10		10		10		13		10
Assessment rating				G		F		F		F		F		G		F

Table 92. Length frequency, and CPUE (no./hour) of largemouth bass collected during 0.37 hours of 7.5-minute diurnal electrofishing runs at Kingfisher Lake in October 2006.

	Inch class												
	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std. Error
Largemouth bass	12	10	3	1	32	38	20	5		1	122	325.33	110.88

nwdkflmb.d06

Table 93. Length frequency and CPUE for bluegill collected in 0.5 hours of electrofishing at Kingfisher Lake in May 2006.

	Inch class								
Species	2	3	4	5	6	7	Total	CPUE	Std. Error
Bluegill	7	24	26	2	2	2	67	134.00	43.98

nwdkfbg.d06

Table 94. Spring electrofishing CPUE for each size class of bluegill collected at Kingfisher Lake during spring 1999 - 2006. 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.
2006	16.00	13.47	104.00	33.78	14.00	2.00	0.00		0.00		134.00	43.98
2005	0.00		53.85	7.69	12.82	6.78	10.26	6.78	0.00		76.92	8.88
2004	0.00		15.38	8.88	23.08	11.75			0.00		38.46	4.44
2003	12.82	6.78	56.41	2.56	15.38	7.69	5.13	2.56	0.00		89.74	5.13
2002			9.30		62.79		6.98		0.00		79.07	0.00
2001			61.54		66.67		7.69		0.00		135.90	0.00
2000			31.11		66.67		11.11		0.00		108.99	0.00
1999			6.67		20.00		4.44		0.00		31.11	0.00

Table 95. PSD and RSD values calculated for bluegill collected by electrofishing from Kingfisher Lake during May 2006; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD-8
Bluegill	59	12 (± 8)	0

nwdfkbg.d06

Table 96. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Kingfisher Lake during spring samples 2002- 2006.

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

nwdkfbg.d06, nwdkbgag.d03

Table 97. Population assessment for bluegill based on spring electrofishing at Kingfisher Lake from 1999-2006.

	Year															
	1999		2000		2001		2002		2003		2004		2005		2006	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age 2 at capture	5.7	4	5.7	4	5.7	4	5.7	4	5.7	4	5.7	4	5.7	4	5.7	4
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	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	14.00	1
CPUE of > 8.0 inch fish	4.44	2	11.11	3	6.67	2	6.98	2	5.40	2	0.00	1	10.26	3	0.00	1
Instantaneous Mortality (z)									0.865						1.587	
Annual Mortality (A)%									57.9						79.5	
Total score		11		15		13		13		11		10		12		10
Assessment rating		G		E		G		G		G		F		G		F

*2003 age data

Table 98. 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 2006.

	Inch Class																		
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	21	Total	CPUE	Std. Error
Largemouth bass	1	4	13	10	8	3	4	16	14	10	11	3	2	3	1	1	104	277.33	25.44

nwdwlpsd.d06

Table 99. Spring electrofishing CPUE for each size class of largemouth bass collected at Washburn Lake* during April 2001-2006. 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.
2006	96.00	9.24	98.67	39.28	64.00	0.00	18.67	5.33	2.67	2.67	277.33	25.44
2005	43.59	11.18	146.15	16.01	28.21	5.13	2.56	2.56	2.56	2.56	220.51	25.25
2004	46.15	4.44	353.85	49.45	0.00		0.00		0.00		400.00	51.22
2003	123.08	33.53	438.46	49.45	0.00		0.00		0.00		561.54	52.36
2002	50.00		321.43		0.00		0.00		0.00		371.43	0.00
2001	260.00		8.00		0.00		0.00		0.00		268.00	0.00

*Washburn Lake renovated summer 1999 and restocked spring 2000

Table 100. Electrofishing catch rate (fish/hr) for each age of largemouth bass collected from Washburn Lake during spring samples 2003- 2006.

	Year			
Age	2003	2004	2005	2006
1	131.62	48.29	41.03	94.67
2	380.96	218.38	53.38	36.73
3	8.16	27.56	27.21	17.88
4	40.79	105.77	65.56	42.73

nwdwlpsd.d06 nwdwllag.d04

Table 101. Population assessment for largemouth bass based on spring electrofishing at Washburn Lake from 2003-2006*.

	Year							
	2003		2004		2005		2006	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score
Length at age 3 at capture	11.2	3	11.2	3	11.2	3	11.2	3
Spring CPUE age 1 fish	131.62	4	48.29	3	41.03	3	94.67	4
Spring CPUE 12-14.9 in fish	0.00	1	0.00	1	28.21	2	64.00	4
Spring CPUE ≥ 15.0 inch fish	0.00	1	0.00	1	2.56	1	18.67	3
Spring CPUE ≥ 20.0 inch fish	0.00	1	0.00	1	2.56	3	2.67	3
Instantaneous Mortality (z)							0.669	
Annual Mortality (A)%							48.8	
Total score		10		9		12		17
Assessment rating		F		F		G		E

*Washburn Lake renovated and restocked spring 2000

Table 102. Length frequency, and CPUE (no./hour) of largemouth bass collected during 0.37 hours of 7.5-minute diurnal electrofishing runs at Washburn Lake in October 2006.

	Inch class												
	3	4	5	6	7	8	9	10	11	12	Total	CPUE	Std. Error
Largemouth bass	6	27	25	4	1	7	22	1	2	3	98	261.33	38.46

nwdwblmb.d06

Table 103. Length frequency and CPUE for bluegill collected in 0.37 hours of electrofishing at Washburn Lake in May 2006.

	Inch class								
Species	2	3	4	5	6	7	Total	CPUE	Std. Error
Bluegill	22	26	26		4	8	86	229.3	81.63

nwdwlbg.d06

Table 104. PSD and RSD values calculated for bluegill collected by electrofishing from Washburn Lake during May 2006; 95% confidence limits are in parentheses.

Species	No.	PSD	RSD-8
Bluegill	64	19 (± 10)	

nwdwlbg.d06

Table 105. Mean back calculated lengths (in) at each annulus for bluegill collected at Washburn Lake in May 2006.

Year class	No.	Age 1	2	3
2005	19	3.1		
2004	15	2.7	5.4	
2003	6	2.3	5.4	7.4
Mean		2.8	5.4	7.4
No.	40	40	21	6
Smallest		1.5	4.2	7
Largest		4.6	7.5	7.9
Std error		0.1	0.2	0.2
95% CI (±)		0.2	0.5	0.3

nwdwbbag.d06

Table 106. Spring electrofishing CPUE for each size class of bluegill collected at Washburn Lake during May 2006. CPUE = fish/hour.

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

*Washburn Lake renovated summer 1999 and restocked spring 2000

Table 107. Electrofishing catch rate (fish/hr) for each age of bluegill collected from Washburn Lake during spring samples 2003- 2006.

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

nwdwlbg.d06, nwdwbgag.d06

Table 108. Population assessment for bluegill based on spring electrofishing at Washburn Lake 2003-2006.

	Year							
	2003		2004		2005		2006	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age 2+ at capture	5.4	4	5.4	4	5.4	4	5.3	4
Years to 6 inches	2-2+	4	2-2+	4	2-2+	4	2-2+	4
CPUE of > 6.0 inch fish	118.00	4	32.69	2	9.62	1	32.00	2
CPUE of > 8.0 inch fish	0.00	1	22.00	4	0.00	1	0.00	1
Instantaneous Mortality (z)								
Annual Mortality (A)%								
Total score		13		14		6		11
Assessment rating		G		E		P		G

Table 109. Length frequency, composition, and number per hour of fish observed during 1.50 hours of 30-minute scuba transects swam at Goose Lake (Peabody WMA) in June 2006.

		Inch groups						
Species	Year	5-8 in.	8-12 in.	12-15 in.	>15 in.	Total	No./hr	Std. Error
Largemouth bass	2005	14	29	15	9	67	44.67	8.17
	2006	18	28	8	2	56	37.33	8.21

		Inch groups						
		3-5 in.	5-8 in.	8-10 in.	> 10 in	Total	No./hr	Std Error
Bluegill	2005	141	62	12		215	143.33	42.10
	2006	181	106	1		288	192.00	23.06
Redear sunfish	2005	0	0	8		8	5.33	2.67
	2006	5	23	3		32	20.67	1.45

Table 110. Length frequency, composition, and number per hour of fish observed during 1.00 hours of 20-minute scuba transects swam at Musky Lake (Peabody WMA) in June 2006.

		Inch groups						
Species	Year	5-8 in.	8-12 in.	12-15 in.	>15 in.	Total	No./hr	Std. Error
Largemouth bass	2005	9	26	18	7	60	60.00	
	2006	27	44	26	13	110	110.00	8.00

		Inch groups						
		3-5 in.	5-8 in.	8-10 in	> 10	Total	No./hr	Std Error
Bluegill	2005	91	55	13		159	159.00	
	2006	320	125	10		455	455.00	7.84
Redear sunfish	2005	33	38	15	0	86	86.00	
	2006	17	44	18	2	81	81.00	6.56

Table 111. Length frequency, composition, and number per hour of fish observed during 1.00 hours of 20-minute scuba transects swam at Bottom Lake (Peabody WMA) in July 2006.

		Inch groups						
Species	Year	5-8 in.	8-12 in.	12-15 in.	>15 in.	Total	No./hr	Std. Error
Largemouth bass	2006	23	7	1	2	33	33.00	2.00

		Inch groups						
		3-5 in.	5-8 in.	8-10 in	> 10	Total	No./hr	Std Error
Bluegill	2006	40	59	7	1	107	107	3.76
Redear sunfish	2006	1	11	16		28	28	2.40

SOUTHWESTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Barren River Lake (10,000 acres)

Black bass sampling results are presented in Tables 1-6. Largemouth bass size structure remains diverse (PSD = 68.7, RSD_{15} = 29.9) with the strong 2003 year class bolstering a CPUE of 170.2 fish/hr. The spotted bass population continues to be low density (CPUE = 26.8 fish /hour), but with good size structure (PSD=74.7 RSD_{14}=34.4). Smallmouth bass population characteristics are unknown due to small sample size (n=10). The largemouth bass population assessment 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 301.0 fish/hr and 21.8 fish/hr $\geq$ 5 inches.

Crappie sampling with trap nets is presented in Tables 7-11. Recruitment of both species appeared negligible; potentially due to delayed achievement of full pool (1 month) and lower than normal influx of spring rains/nutrients. Overall catch rates dipped as well, with the last decent year class coming from the 2003 black crappie spawn as it seemingly continues to carry the fishery. White crappie numbers remain chronically low with 1998 as the last good year class. Crappie assessment values were "Poor" for each species; combined assessment barely achieved "Fair" rating. The 2007 creel survey should give additional insight on the state of the crappie fishery.

Fall experimental gill net sampling for 18 net nights for white bass and hybrid striped bass again met with poor results. Extremely low sample sizes for both species and other species by-catch suggested "unfortunate" timing/weather and or water conditions. No data was reported as comparisons to previous years seemed unreasonable. Sampling of historic sites on lower end of the reservoir will be incorporated into 2007 morone sampling regime to supplement catch numbers and serve as control for upper lake sampling sites.

Briggs Lake (18 acres)

Bass sampling results are presented in Tables 12-14. Largemouth bass remain somewhat stockpiled below 12 inches; similar to previous years (PSD = 17.7). Compounding this situation is the presence of the exceptionally strong 2003 year class of largemouth bass.

The sunfish population (bluegill, redear and warmouth) continues to be lower density, but with good size structure. CPUE of bluegill $\geq$ 6 inches increased to 152.0 fish/hr and the fishery maintained an "Excellent" assessment rating. Similarly, CPUE of larger redear substantially increased and population assessment improved to an "Excellent" rating. Results are presented in Tables 16-21

Marion County Lake (25 acres)

Bass sampling results are presented in Tables 22-24. The size structure (PSD = 37) dipped from the previous year; likely due to presence of unusually strong 2004 year class. Overall size structure continues to steadily improve compared to previous years (2004 PSD = 26, 2003 PSD = 18). Removal of smaller bass (2001) and liming of the lake (2004) have been done to help to improve the stunted largemouth bass population created by overstocking following lake renovation in 1995. The CPUE of 368.0 fish/hour was similar to previous years.

Bluegill CPUE ($\geq$ 6 inches) dipped to 29 fish/hour and the bluegill population assessment fell to "fair". However, the overall bluegill CPUE jumped to 608.0 fish/hr due to marked increase in 3-5 inch size range fish. The redear population assessment maintained an "Excellent" rating. Results are presented in Tables 25-31.

Shanty Hollow Lake (136 acres)

Bass sampling results are presented in Tables 32-34. The total CPUE of largemouth (342 fish/hour) remained higher than previous years due to good 2004 year class. The size structure index was also skewed by influx of 2004 year class as PSD (16) dipped from previous years.

The bluegill population assessment improved to "Excellent" as CPUE of ≥ 8 inch fish increased. The redear population continues to remain low density and maintained a "Fair" assessment rating. This lake experiences notable water level fluctuations due to a leak; ranging from 2-12 feet below normal pool within a year depending on rainfall. This may help explain some of the erratic population shifts in sunfish whether due to heightened predation, spawning interruptions, etc. Sunfish sampling results are presented in Tables 35-41.

Spurlington Lake (25 acres)

The largemouth bass size structure remained diverse (PSD = 56) and CPUE (364.0 fish/hr) was similar to previous years (Tables 42-44).

The bluegill population assessment remained "Good" and overall CPUE (500.0 fish/hr) was higher than previous years due to a jump in < 3-inch fish collected. Bluegill sampling results are presented in tables 45-48.

Metcalfe County Lake (22 acres)

Results of the largemouth bass sampling are presented in tables 49-51. The size structure remains diverse (PSD = 41); however, the population is at a lower density (CPUE = 142.0, 2004 CPUE = 138.0). The lake is highly productive and supports a substantial (bluegill 2005 CPUE = 1295.0 fish/hour) and varied (bluegill, crappie, & longear) sunfish population along with gizzard shad. Though not measured since 2002, condition of larger bass (15-inch +) is excellent (2000 -2002; Wr = 105).

Mill Creek Lake (109 acres)

Bass sampling results are presented in tables 55-57. Largemouth bass size structure remains fairly diverse (PSD = 35); though bass population appears slow growing . Lake is not overly productive and will likely remain so (back up water supply lake for city of Tompkinsville). Historically, lake has had a good smallmouth bass fishery according to conservation officer and bass club information.

Green River Lake (8,210 acres)

Muskellunge sampling results are presented in Tables 55-56. 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). Since the change to the reservoir drawdown and guide curve in 2003, historical sampling conditions (stained – muddy water) have been limited and may warrant a change in sampling strategy to improve sampling efficiency and future data comparability. The muskellunge assessment however, still rated "Excellent", similar to previous years.

Bass sampling results are presented in Tables 57-62. Largemouth bass size structure remains diverse (PSD = 52; RSD_{15} = 25) with the strong year class of 2004 bolstering a higher than average CPUE of 97.0 fish/hr. The population assessment for largemouth bass slipped to "Fair". Fall YOY sampling suggests a very weak 2006 year class (overall CPUE = 13.5 fish/hr; ≥ 5-inch = 3.7 fish/hr). The lake received a supplementary stocking of 5-inch fingerling largemouth in the fall of 2006 to dampen effects of apparent poor reproduction.

Results from trap netting for white crappie are presented in Tables 63-67. The moderate year classes of 2003 & 2004 appear to be carrying the fishery. The crappie population assessment for Green River Lake returned to "Good" status having been mired in the fair category since 1996. Creel results presented later indicate 2006 was one of the better crappie fishing years in a while for this lake. YOY crappie CPUE (1.4 fish/net-night) suggests a poor 2006 year class.

Results of the experimental gill net sampling for white bass and walleye are presented in Tables 68-74. The moderate year classes of 2003 & 2004 white bass appear to be to carrying the fishery. White bass assessment fell to "Fair" status due to poor recruitment of the 2005 year class. The 2006 year class strength appears to be lean as well.

Walleye CPUE (4.1 fish/net-night) rebounded from a 3-year skid with fair recruitment of the 2005 year class. Walleye population assessment improved, but remained "Fair"; similar to most years. Alewives are firmly established in this system since being noted in 2004 gill net by-catch. Alewife numbers have steadily increased since and were as equally represented in gill net catch as gizzard shad in 2006.

Green River Lake Creel (8,210 acres)

Creel survey: Results of a roving, daytime creel survey are presented in Tables 75-84. Anglers made an estimated 27,246 trips and fished for 146,395 hours with the average trip approximating 5.15 hours. Declines in total trips and man hours from previous creels were 15,000 and 80,000 respectively. Crappie eclipsed bass as the most sought after fish for the first time since 1991, accounting for 40% of effort followed by bass (30%), muskie (8%), catfish (6 %), white bass (3%) and walleye (1%) anglers.

Crappie harvest rate (1 fish/hour) was up from previous creels which averaged 0.75 crappie/hr. Angler hours (58,333) and trips (11,327) were similar to previous creels.

Muskie angler hours (11,671) were nearly half of average hours (20,980) noted in previous surveys. Muskie anglers averaged 22.7 hours to catch a keeper muskie, which was slightly lower than average of previous creels (27.4 hours). Muskie angler catch and release of 79.4% was the best ever reported in previous creel surveys (62.4%) and far exceeded the average catch and release rate (47.1%).

Bass angler trips (8,387) and hours (43,193) dipped 37% and 41% respectively below average from previous surveys. Overall catch rate (0.44 fish/hour) and keeper catch rate (0.19 fish/hour) were similar to previous surveys.

Angler attitude survey: Results of the angler attitude survey are presented in Appendix A. Anglers identified crappie (41%), bass (37%) and muskie (12 %) as species they fished for the most. Angler satisfaction with muskie and crappie fisheries was overwhelmingly good with 70 – 80% of responses falling in the "very satisfied to somewhat satisfied" categories. Percentages of anglers falling into these categories for bass (53%), white bass (56%), and walleye (49%) were lower.

Bass anglers supported the current 12-inch size limit on largemouth (72%) and smallmouth bass (67%); however, they were equally divided on whether they preferred the 12-inch size limit (51%) or a different size limit (49%). For both largemouth and smallmouth bass, 15-inch and 14-inch were the most preferred "alternative" size limits.

General angler response to muskie size (63%) and creel limit (65%) questions was overwhelmingly "no opinion". General angler support for the current 30-inch size limit was 28.2% and opposition was 9.1%. Support for a 36-inch size limit was 22.5% with 12.2% opposed. When asked what size limit they would prefer, 13.7% preferred the current 30-inch size limit, 19.7% preferred a size limit greater than 33 inches and 2.6% preferred a size limit less than 30 inches. The remaining anglers had no opinion.

GREEN RIVER LAKE ANGLER ATTITUDE SURVEY 2006 (n=875)

1. Name _____ and Phone number _____ **(Optional)**
2. Which species do you fish for at Green River Lake (check all)?
   Bass (49%) Crappie (56.2%) Muskie (19%) Walleye (7%) White Bass (7.3%) Catfish (9.4%) Bluegill (7%)
3. Which species do you fish for most at Green River Lake (check one)?
   Bass (36.6%) Crappie (41.1%) Muskie (11.8%) White Bass (2.6%) Catfish (3.6%) Bluegill (2.1%) Walleye (1.3%)

Bass Anglers (n=429)

4. What level of satisfaction do you have with bass fishing at Green River Lake?
   6.8% -very satisfied 46.6%-somewhat satisfied 5.1%-neutral 28.9%- somewhat dissatisfied 5.4%-very dissatisfied 7.2%-no opinion
5. Do you support or oppose the 12-inch size limit on largemouth bass at the lake? 71.5%-Support 28.5-Oppose
   What size limit would you prefer on largemouth bass at the lake? 50.9%- current 12-inch size limit
   49.1%- Other (73.5% -15-inch, 13.7% -14-inch, 10.4% -slot limit, 2.4% - misc.)
6. Do you support or oppose the 12-inch size limit on smallmouth bass at the lake? 67.1% -Support 31.5%- Oppose 1.4% -No opinion
   What size limit would you prefer on smallmouth bass at the lake? 51.2% -current 12-inch size limit
   48.8 –Other (64.9% -15-inch, 14.6% - 14-inch, 9.8% -18-inch, 8.3% - slot limit, 2.4% -misc.)
7. Do you support or oppose the no size limit on spotted bass at the lake? 64.7% -Support 28.7% -Oppose 6.6% -No opinion
   What size limit would you prefer on spotted bass at the lake? 67.1% -current no size limit
   32.9% -Other (81.2% -12-inch, 6.8% -10-inch, 6.8% -15-inch, 5.2% -misc.)

Crappie Anglers (n=485)

8. What level of satisfaction do you have with crappie fishing at Green River Lake?
   12.8% -Very satisfied 56.9% -somewhat satisfied 3.3% -neutral 20.4% -somewhat dissatisfied 1% -very dissatisfied 5.6% -no opinion
9. Do you support or oppose the 9-inch size limit on crappie at the lake? 87.5% - Support 12.4% -Oppose 0.2% -No opinion
   What size limit would you prefer? 72.9% -current 9-inch size limit
   27.1% -Other (93.2% -10-inch, 3% -8-inch, 3.8% - misc.)
10. Do you support or oppose the 30 fish daily creel limit on crappie at the lake? 93% -Support 7% -Oppose
    What daily creel limit would you prefer? 83.9% -current 30 16.1% -Other (43% - 20, 36.7% -15, 10.1% -25, 10.1% -misc.)

Muskie Anglers (n=154)

11. What level of satisfaction do you have with muskie fishing at Green River Lake?
    35.7% -Very satisfied 43.5% -somewhat satisfied 7.1% -neutral 6.5% -somewhat dissatisfied 0% -very dissatisfied 7.1% -no opinion

Walleye Anglers (n=72)

12. What level of satisfaction do you have with walleye fishing at Green River Lake?
    5.6% -Very satisfied 43.1% -somewhat satisfied 15.3% -neutral 30.6% -somewhat dissatisfied 4.2% -very dissatisfied 1.4% -no opinion
13. Would you support or oppose increasing the 15-inch size limit on walleye at the lake? 98.4% -Support 1.6% -Oppose
    What size limit on walleye would you prefer? 96.7% -current 15-inch 3.3% -Other (18-inch)
14. Would you support or oppose the 6 fish daily creel limit on walleye at the lake? 95.1% -Support 4.9% -Oppose
    What daily creel limit on walleye would you prefer? 86.9% -current 6 13.1% -misc.

White Bass Anglers (n=59)

15. What level of satisfaction do you have with white bass fishing at Green River Lake?
    17% -Very satisfied 39% -somewhat satisfied 5.1% -neutral 32.2% -somewhat dissatisfied 0% -very dissatisfied 6.8% -no opinion

All Anglers

20. Do you support or oppose the current 30-inch size limit on muskie at Green River Lake? 28.2% -Support 9.1% -Oppose 62.7% -No opinion
21. Would support of oppose a 36-inch size limit on muskie at Green River Lake? 22.5% -Support 12.2% -Oppose 65.2% -No opinion
22. What size limit would you prefer on muskie at the lake? 63.5% - no opinion 19.7% - $\geq$ 33-inch (9.6% - 36-inch, 6.7% -40-inch, 3.4% misc.)
    13.7% -current 30-inch 2.6% - < 30-inch

Table 1. Species composition, relative abundance, and CPUE (fish/hour) of black bass collected in 6 hours of 30-minute diurnal electrofishing runs at Barren River Lake during mid-April 2006; 1.5 hours effort for each area.

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			
Beaver Creek	Largemouth bass			1	8	6	5	7	23	27	21	30	42	24	19	10	5	2	1		231	154.0	23.4
	Spotted bass								1		1	3		1							6	4.0	2.0
	Smallmouth bass																				0	0.0	
Peter Creek	Largemouth bass		2	7	12	14	5	13	12	8	10	20	28	24	13	6	9	3	2		188	125.3	13.5
	Spotted bass		1		1	1	4	4	8	12	7	13	17	16	7						91	60.7	8.7
	Smallmouth bass			1					1			1							1		4	2.7	1.3
Dam	Largemouth bass	1	4	10	12	9	20	20	26	9	9	19	16	19	8	8	3				193	128.7	5.7
	Spotted bass			1	3	5	6	2	4	8	5	1	4	1		1					41	27.3	6.7
	Smallmouth bass		1		2	1	2														6	4.0	2.3
Walnut Creek	Largemouth bass		2	4	15	30	11	26	32	33	36	50	62	37	32	20	7	7	2	3	409	272.7	29.7
	Spotted bass			1			2	1	1	2	5	5	5	1							23	15.3	8.5
	Smallmouth bass																				0	0.0	
Total	Largemouth bass	1	8	22	47	59	41	66	93	77	76	119	148	104	72	44	24	12	5	3	1021	170.2	21.8
	Spotted bass		1	2	4	6	12	7	14	22	18	22	26	19	7	1					161	26.8	6.4
	Smallmouth bass		1	1	2	1	2		1			1							1		10	1.7	0.6

SWDBRLBB.D06

Table 2. PSD and RSD values by area for black bass collected from diurnal spring electrofishing samples at Barren River Lake in 2006; 95% confidence intervals are in parentheses. Smallmouth bass and spotted bass omitted where sample sizes too small.

Area	Species	No. > 8 inches	PSD	RSD
Beaver Creek	Largemouth bass	216	71.3 (± 6.1)	28.2 (± 6.0)
Dam	Largemouth	157	52.2 (± 7.8)	24.2 (± 6.7)
	Spotted bass	32	54.1 (± 16.3)	16.2 (± 12.0)
Peter Creek	Largemouth bass	153	75.2 (± 6.9)	37.3 (± 7.7)
	Spotted bass	88	80.9 (± 17.2)	44.9 (± 10.4)
Walnut Creek	Largemouth bass	358	71.5 (± 4.7)	30.2 (± 4.8)
Total	Largemouth bass	884	68.7 (± 3.1)	29.9 (± 3.0)
	Spotted bass	154	74.7 (± 6.9)	34.4 (± 7.5)

SWDBRLBB.D06

Table 3. Spring diurnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Barren River Lake from 1997 - 2006.

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.
2006	22.8	4.7	46.2	6.9	57.2	9.8	44.0	6.0	170.2	21.8
2005	15.7	2.9	60.2	7.7	28.9	4.7	31.7	3.4	152.0	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 - .D06

Table 4. Largemouth bass assessment from spring diurnal electrofishing at Barren River Lake 1997 - 2006.

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	19.4	1	48.4	4	52.7	4	3.3	4	17	E
1998	14.10	4	8.3	1	23.2	2	33.4	4	1.2	2	13	G
1999	14.10	4	24.6	2	42.2	4	38.7	4	2.3	3	17	E
2000	14.10	4	15.6	1	33.0	3	28.7	4	1.4	2	14	G
2001	14.10	4	27.8	2	49.3	4	63.1	4	1.1	2	16	G
2002	14.10	4	15.0	1	30.4	3	38.9	4	1.3	2	14	G
2003	14.10	4	19.6	1	20.5	2	39.9	4	0.3	2	13	G
2004	14.10	4	26.0	2	16.7	2	18.4	3	0.7	2	13	G
2005	14.10	4	13.5	1	31.5	3	36.8	4	2.0	2	14	G
2006	14.10	4	17.5	1	57.2	4	44.0	4	1.3	2	15	G

SWDBRLBB.D97 - .D06

Table 5. Length frequency and CPUE of largemouth bass collected during early fall diurnal electrofishing from Barren River Lake 2006.

Age	Inch group																			
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18+	Total	Percent	CPUE
YOY	535	1033	99	51	68	18												1804	92.5	300.7
≥ Age-1					9	7	12	15	20	18	18	17	10	11	3	2	5	147	7.5	24.5
Total	535	1033	99	51	75	27	12	15	20	18	18	17	10	11	3	2	5	1951	100.0	325.2

SWDBRLYY.D06
SWDBRLAG.D06

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		Age 0		Age 0 >=5.0 inch		Age 1	
		Mean length	Std error	CPUE	Std Error	CPUE	Std Error	CPUE	Std Error
2006	Total	3.36	0.02	299.7	87.2	21.8	5.6		
2005	Total	3.72	0.04	160.7	25.6	25.3	4.2	17.5	
2004	Total	3.72	0.04	108.4	22.2	20.8	3.9	11.2	2.5
2003	Total	4.40	0.04	198.0	30.8	84.0	18.7	44.9	13.3
2002	Total	3.96	0.05	171.7	25.8	34.2	4.1	26.9	3.7

SWDBRLYY.D02 – D06
SWDBRLAG.D02 – D06
SWDBRLBB.D03 – D06

Table 7. Length frequency and CPUE of crappie collected in 86 net nights with trap nets at Barren River Lake, 2006. Standard error is in parentheses.

Species	Inch class													Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14		
White crappie				1			2	14	4		1	1		23	0.3 (0.1)
Black crappie	2	39	6	7	25	88	41	34	29	6	3			277	3.2 (0.7)

SWDBRLTN.D06

Table 8. PSD and RSD values calculated for crappie collected in trap nets at Barren River Lake during late-October and early-November 2006. 95% confidence limits are in parentheses.

Species	No. > 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)

SWDBRLTN.D06

Table 9. Black crappie assessment from trap netting at Barren River Lake from 1985 - 2006.

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	3.5	1	0.7	1	0.3	1	0.8	1	7.44	1	5	P
1986	10.7	2	6.9	3	3.8	2	2.8	1	8.69	2	10	F
1987	3.3	1	1.9	1	2.8	1	1.3	1	9.57	4	8	F
1988	6.2	2	5.7	2	0.1	1	0.4	1	9.30	3	9	F
1989	9.2	2	1.5	1	7.5	3	5.9	2	8.19	1	9	F
1990	29.1	4	26.1	4	0.1	1	1.9	1	8.80	2	12	F
1991	3.5	1	1.0	1	0.9	1	3.6	1	7.63	1	5	F
1992	9.2	2	3.5	2	0.1	1	4.2	2	7.66	1	8	F
1993	12.6	2	1.1	1	0.3	1	9.1	2	8.05	1	7	P
1994	0.7	1	0.1	1	0.8	1	0.7	1	8.80	2	6	P
1995	7.4	2	6.5	2	1.3	1	0.5	1	8.94	2	8	F
1996	9.0	2	0.8	1	0.5	1	4.2	2	7.84	1	7	P
1997	9.1	2	1.5	1	0.9	1	6.0	2	7.60	1	7	P
1998	1.7	1	0.1	1	1.8	1	1.6	1	8.19	1	5	P
1999	4.7	1	3.8	2	0.3	1	0.9	1	8.61	2	7	P
2000	1.8	1	0.2	1	0.2	1	0.7	1	7.79	1	5	P
2001	5.7	2	0.3	1	0.4	1	4.5	2	7.60	1	7	P
2002	4.6	1	1.0	1	3.1	2	3.3	1	8.72	2	7	P
2003	2.4	1	1.2	1	5.4	2	0.9	1	9.68	4	9	F
2004	6.9	2	4.4	2	0.7	1	2.2	1	9.22	3	9	F
2005*	6.4	2	2.3	1	2.0	1	4.4	2	9.13	3	9	F
2006*	2.7	1	1.4	1	0.6	1	1.3	1	8.94	3	7	P

* Age assessment data extrapolated from previous age data on black crappie

SWDBRLTR.D85 – D06

Table 10. White crappie assessment from trap netting at Barren River Lake from 1985 - 2006.

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	31.0	4	24.4	4	0.4	1	2.2	1	9.41	3	13	G
1986	13.6	3	3.6	2	1.9	1	8.9	2	8.97	2	10	F
1987	4.0	1	1.3	1	0.4	1	2.5	1	10.79	4	8	F
1988	3.1	1	2.5	1	0.2	1	2.5	1	11.07	4	8	F
1989	4.2	1	1.7	1	3.3	2	2.6	1	11.03	4	9	F
1990	22.8	4	20.8	4	0.5	1	13.4	2	10.79	4	15	G
1991	31.0	4	0.5	1	1.0	1	8.9	2	9.83	4	12	F
1992	6.8	2	5.1	2	0.1	1	4.0	2	11.50	4	11	F
1993	5.8	2	0.6	1	0.04	1	5.2	2	10.00	4	10	F
1994	0.7	1	0.1	1	0.7	1	0.4	1	10.60	4	8	F
1995	8.0	2	7.7	3	0.6	1	5.5	2	11.50	4	12	F
1996	6.3	2	0.8	1	1.4	1	5.6	2	9.70	4	10	F
1997	6.7	2	5.1	2	1.04	1	5.2	2	10.23	4	11	F
1998	1.2	1	0.7	1	6.7	3	0.9	1	10.91	4	8	F
1999	6.5	2	5.9	2	0.5	1	2.9	1	10.85	4	10	F
2000	2.5	1	0.3	1	0.03	1	2.4	1	9.30	3	7	P
2001	1.6	1	0.5	1	0.2	1	1.3	1	10.45	4	8	F
2002	1.4	1	0.3	1	1.2	1	0.8	1	10.67	4	8	F
2003	1.4	1	1.0	1	0.4	1	1.1	1	11.45	4	8	F
2004	1.6	1	0.9	1	0.2	1	1.3	1	11.08	4	8	F
2005*	0.7	1	0.6	1	0.01	1	0.7	1	11.01	4	8	F
2006*	0.3	1	0.2	1	0.0	0	0.2	1	10.58	4	7	P

* Age assessment data extrapolated from previous data on white crappie
SWDBRLTR.D85 – D06

Table 11. Crappie population assessment for Barren River Lake trap netting data collected in October and November 2006.

Parameter	White crappie		Black crappie		Combined	
	Actual value	Assessment	Actual value	Assessment	Actual value	Assessment
Total CPUE (excluding age-0 fish)	0.3	1	2.7	1	2.9	1
CPUE of age 1 crappie	0.2	1	1.4	1	1.6	1
CPUE of age 0 crappie	0.0	0	0.7	1	0.6	1
CPUE of crappie >= 8 inches	0.2	1	1.3	1	1.5	1
Mean ag-2 length at capture	11.0	4	9.1	3	10.2	4
Total score		7		7		8
Assessment rating		Poor		Poor		Fair

SWDBRLTN.D06

Table 12. Nocturnal bass electrofishing relative abundance and CPUE (0.625 hours) at Briggs Lake on April 20, 2006

Species	Inch class																					
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	Fish/hour	Std. err.
Largemouth bass	1	1	16	11	6	25	32	26	24	9	5	2	2	2	1			2		165	264.0	12.1

SWDBRGBB.D06

Table 13. PSD and RSD values for largemouth bass from nocturnal spring electrofishing samples at Briggs Lake 2006. 95% confidence intervals are in parentheses.

No. > 8 inches	PSD	RSD_{15}
130	17.7 (± 6.6)	5.4 (± 3.9)

SWDBRGBB.D06

Table 14. Spring nocturnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Briggs Lake from 2000 - 2006.

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.
2006	56.0	4.4	171.2	9.7	25.6	4.7	11.2	5.4	264.0	12.1
2005	46.0	6.8	194.0	21.3	28.0	5.2	26.0	5.0	294.0	27.4
2004	11.5	5.0	117.3	3.7	51.9	10.6	7.7	3.1	196.0	20.3
2003	28.9	13.8	175.0	39.0	19.2	5.0	26.9	5.0	260.0	51.1
2002	27.5	10.4	109.8	8.6	39.2	7.1	21.6	5.2	202.0	17.5
2001	120.6	21.6	73.5	10.9	41.2	9.3	5.9	4.2	241.0	25.0
2000	27.9	8.1	92.6	19.1	64.7	12.0	10.3	2.8	195.6	36.0

SWDBRGBB.D00 - .D06

Table 15. Diurnal sunfish sampling at Briggs Lake on May 22, 2006 for 0.50 hours.

Species	Inch class									Total	Fish /hour	Std. error
	2	3	4	5	6	7	8	9	10			
Warmouth	1		1	9	6	6	3			23	46.0	26.6
Bluegill	2	10	21	12	8	42	24	2		121	242.0	72.1
Redear sunfish	2			1	11	24	8	2	1	49	98.0	10.5

SWDBRGSF.D06

Table 16. Bluegill population assessment for Briggs Lake during 2006.

Parameter	Value	Assessment score
Mean length age - 2 at capture	5.24	4
Years to 6.0 inches	2.3	4
CPUE >= 6.0 inches	152.0	4
CPUE >= 8.0 inches	52.0	4
Total score		16
Assessment rating		Excellent

SWDBRGSF.D06
SWDBRGAG.D02

Table 17. Population assessment for bluegill at Briggs Lake 2002 – 2006.

Parameter	2002	2003	2004	2005	2006
Mean Length age-2 at capture	4	4	4	4	4
Years to 6.0 inches	4	4	4	4	4
CPUE > 6.0 inches	4	4		4	4
CPUE > 8.0 inches	2	1	3	4	4
Total	14	13	15	16	16
Rating	E	E	E	E	E

SWDBRGSF.D02 - 06
SWDBRGAG.D02

Table 18. Spring diurnal electrofishing CPUE (fish/hour) for each size class of bluegill collected at Briggs Lake in 2006.

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.
2006	4.0	2.3	86.0	33.5	100.0	42.9	52.0	14	242.0	72.1
2005	14.0	14.0	80.0	16.3	84.0	14.8	18.0	8.3	196.0	12.4

SWDBRLSF.D06

Table 19. Redear population assessment for Briggs Lake during 2006.

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	22.0	4
Size Structure	CPUE >= 10.0 inches	2.0	2
Total score			14
Assessment rating			Excellent

SWDBRGSF.D06
SWDBRGAG.D02

Table 20. Population assessment for redear at Briggs Lake 2002 – 2006.

Parameter	2002	2003	2004	2005	2006
Mean Length age-2 at capture	4	4	4	4	4
Years to 8.0 inches	4	4	4	4	4
CPUE > 8.0 inches	3	4	3	1	4
CPUE > 10.0 inches	1	1	1	1	2
Total	12	13	12	10	16
Rating	G	G	G	F	E

SWDBRGSF.D02 – 06
SWDBRGAG.D02

Table 21. Spring diurnal electrofishing CPUE (fish/hour) for each size class of redear collected at Briggs Lake in 2006.

	Inch Class											
	< 3.0		3.0 – 5.9		6.0 – 7.9		> 8.0		> 10.0		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2006	4.0	2.3	2.0	2.0	70.0	8.3	22.0	6.0	2.0	2.0	98.0	10.5
2005	0.0		14.0	8.9	2.0	2.0	4.0	4.0	0.0		20.0	6.9

SWDBRGSF.D02 - 06

Table 22. Nocturnal bass electrofishing relative abundance and CPUE (0.875 hours) at Marion County Lake on April 18, 2006.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	Fish/hour	Std. err.
Largemouth bass	4	11	2	8	73	80	29	19	21	13	20	19	17	9	6		2	333	380.6	53.8

SWDMCLBB.D06

Table 23. 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}
235	36.6 (± 6.2)	14.5 (± 4.5)

SWDMCLBB.D06

Table 24. Spring nocturnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Marion County Lake from 1997 - 2006.

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.
2006	112.0	20.8	170.3	30.6	59.4	5.5	38.9	4.07	380.6	53.8
2005	101.7	17.7	123.4	13.4	133.7	20.2	9.1	2.7	368.0	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	1.0	1.0	2.9	2.0	384.0	31.3
2000	88.2	14.9	177.5	22.4	6.9	3.2	9.8	2.0	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 - .D06

Table 25. Diurnal sunfish sampling at Marion County Lake on May 9, 2006 for 0.75 hours.

Species	Inch class										Total	Fish /hour	Std. error
	1	2	3	4	5	6	7	8	9	10			
Bluegill	11	47	132	169	75	8	11	3			456	608.0	34.1
Redear sunfish				3	10	10	3	2	14	2	44	58.7	12.8

SWDMCLSF.D06

Table 26. Bluegill population assessment for Marion County Lake during 2006.

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	29.3	2
Size Structure CPUE >= 8.0 inches	4.0	2
Total score		10
Assessment rating		Fair

SWDMCLSF.D06
SWDMCLAG.D02

Table 27. Population assessment for bluegill at Marion County Lake 2002 – 2006.

Parameter	2002	2003	2004	2005	2006
Mean Length age-2 at capture	4	4	4	3	3
Years to 6.0 inches	4	4	4	3	3
CPUE > 6.0 inches	4	4	2	3	2
CPUE > 8.0 inches	4	2	2	2	2
Total	16	14	10	11	10
Rating	E	E	F	G	F

SWDMCLSF.D02 – 06
SWDMCLAG.D02

Table 28. Spring diurnal electrofishing CPUE (fish/hour) for each size class of bluegill collected at Marion County Lake in 2006.

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.
2006	77.3	15.1	501.3	25.5	25.3	7.6	4.0	2.7	608.0	34.1
2005	94.3	22.1	182.2	40.23	61.1	17.5	3.0	2.1	394.0	70.1

SWDMCLSF.D05 - 06

Table 29. Redear population assessment for Marion County Lake during 2006.

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	24.0	4
Size Structure	CPUE >= 10.0 inches	2.7	3
Total score			14
Assessment rating			Excellent

SWDMCLSF.D06
SWDMCLAG.D02

Table 30. Population assessment for redear at Marion County Lake 2002 – 2006.

Parameter	2002	2003	2004	2005	2006
Mean Length age-2 at capture	4	4	4	4	4
Years to 6.0 inches	3	3	3	3	3
CPUE > 8.0 inches	4	4	2	4	4
CPUE > 10.0 inches	1	2	2	3	3
Total	12	13	11	16	14
Rating	G	G	G	E	E

SWDMCLSF.D02 – 06
SWDMCLAG.D02

Table 31. Length frequency of redear sunfish by size group collected in spring electrofishing sampling at Marion County Lake 2006.

	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.
2006			17.3	6.7	17.3	7.0	24.0	6.2	2.7	1.7	58.7	12.8
2005			28.5	6.6	25.2	10.2	22.1	7.9	3.0	1.5	89.0	19.0

SWDMCLSF.D05 - 06

Table 32. Nocturnal bass electrofishing relative abundance and CPUE (1.5 hours) at Shanty Hollow Lake on April 25, 2006.

	Inch class																					
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	Total	Fish/hour	Std. err.
Largemouth bass	1	20	49	46	13	58	121	85	58	32	9	4	2	1	1	1	4	5	2	513	342.0	26.7

SWDSHLBB.D06

Table 33. PSD and RSD values for largemouth bass from spring electrofishing samples at Shanty Hollow Lake 2006. 95% confidence intervals are in parentheses.

No. > 8 inches	PSD	RSD_{15}
213	16.1 (± 3.7)	4.4 (± 2.1)

SWDSHLBB.D06

Table 34. Spring nocturnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Shanty Hollow Lake from 1999 - 2006.

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.
2006	86.0	15.8	214.7	11.4	30.0	3.1	11.3	2.0	342.0	26.7
2005	76.7	10.8	174.0	18.2	44.7	3.8	16.0	3.6	311.3	28.0
2004	19.4	3.6	133.7	9.7	36.6	5.0	24.0	2.8	213.8	17.0
2003	17.7	4.0	125.1	12.5	76.6	6.7	32.0	5.0	251.4	18.0
2002	20.0	4.1	52.0	8.0	69.7	6.2	16.0	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	48.0	3.6	162.3	7.0
1999	8.6	2.5	75.4	11.1	90.3	6.5	28.0	6.0	202.3	16.7

SWDSHLBB.D99 - .D06

Table 35. Diurnal sunfish sampling at Shanty Hollow Lake on May 22, 2006.

Species	Inch class										Total	Fish /hour	Std. error
	1	2	3	4	5	6	7	8	9	10			
Bluegill	80	121	52	32	34	57	91	16	3		486	324.0	50.2
Redear sunfish			3		9	5	4	11	2		34	22.7	5.6

SWDSHLSF.D06

Table 36. Bluegill population assessment for Shanty Hollow Lake during 2006.

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	111.3	4
Size Structure CPUE >= 8.0 inches	12.7	3
Total score		14
Assessment rating		Excellent

SWDSHLSF.D06
SWDSHLAG.D02

Table 37. Population assessment for bluegill at Shanty Hollow Lake 2002 – 2006.

Parameter	2002	2003	2004	2005	2006
Mean Length age-2 at capture	3	3	3	3	3
Years to 6.0 inches	4	4	4	4	4
CPUE > 6.0 inches	4	4	4	4	4
CPUE > 8.0 inches	3	2	1	2	3
Total	14	13	12	13	14
Rating	E	E	G	G	E

SWDSHLSF.D02 – 06
SWDSHLAG.D02

Table 38. Spring diurnal electrofishing CPUE (fish/hour) for each size class of bluegill collected at Shanty Hollow Lake in 2006.

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.
2006	134.0	45.3	78.7	8.9	98.7	13.9	12.7	4.7	324.0	50.2
2005	70.9	13.1	180.6	21.8	115.4	12.0	1.1	0.8	396.0	34.5

SWDSHLSF..D05 - 06

Table 39. Redear population assessment for Shanty Hollow Lake during 2006.

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	8.7	2
Size Structure	CPUE >= 10.0 inches	0.0	1
Total score			10
Assessment rating			Fair

SWDSHLSF.D06
SWDSHLAG.D02

Table 40. Population assessment for redear at Shanty Hollow Lake 2002 – 2006.

Parameter	2002	2003	2004	2005	2006
Mean Length age-2 at capture	4	4	4	4	4
Years to 6.0 inches	3	3	3	3	3
CPUE > 8.0 inches	2	3	3	1	2
CPUE > 10.0 inches	1	1	1	1	1
Total	10	11	11	9	10
Rating	F	G	G	F	F

SWDSHLSF.D02 – 06
SWDSHLAG.D02

Table 41. Length frequency of redear sunfish by size group collected in spring diurnal electrofishing sampling at Shanty Hollow Lake 2006.

	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.
2006	0.0	0.0	8.0	3.3	6.0	2.2	8.7	2.9	0.0		22.7	5.6
2005	1.1	1.1	3.4	1.4	8.6	2.0	3.4	1.4	0.0		16.6	3.3

SWDSHLSF.D05 – 06

Table 42. Nocturnal bass electrofishing relative abundance and CPUE (0.625 hours) at Spurlington Lake on April 18, 2006.

	Inch class																					
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	21	24	Total	Fish/hour	Std. err.
Largemouth bass	1	3	4	11	26	30	24	25	36	27	23	9	2	1	3	1	1	1	228	364.8	19.7	

SWDSPLBB.D06

Table 43. PSD and RSD values for largemouth bass from nocturnal spring electrofishing samples at Spurlington Lake 2006. 95% confidence intervals are in parentheses.

No. > 8 inches	PSD	RSD_{15}
209	49.8 (6.8)	8.6 (3.8)

SWDSPLBB.D06

Table 44. Spring nocturnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Spurlington Lake from 2002 - 2006.

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.
2006	30.4	11.7	168.0	26.9	137.6	22.7	28.8	7.4	364.8	19.7
2005	42.0	13.2	130.0	26.2	146.0	12.4	20.0	2.3	338.0	23.2
2004	28.9	6.6	200.0	40.6	109.6	10.6	19.2	5.0	372.0	39.8
2003	61.5	14.4	233.9	29.2	123.1	11.4	12.3	3.1	448.0	47.2
2002	21.6	3.9	145.1	14.1	174.5	22.1	35.3	3.4	384.0	32.8

SWDSPLBB.D02 - .D06

Table 45. Length frequency and CPUE of sunfish collected by diurnal electrofishing at Spurlington Lake on May 9, 2006.

Species	Inch class										Total	Fish/hour	Std. error
	1	2	3	4	5	6	7	8	9	10			
Bluegill	42	27	68	51	32	7	16	7			250	500.0	100.2
Warmouth		1	2	6	11	11	4				35	70.0	30.2

SWDSPLSF.D05 -06

Table 46. Bluegill population assessment for Spurlington Lake during 2006.

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	60.0	3
Size Structure CPUE >= 8.0 inches	14.0	3
Total score		12
Assessment rating		Good

SWDSPLSF.D06
SWDSPLAG.D03

Table 47. Population assessment for bluegill at Spurlington Lake 2002 – 2006.

Parameter	2002	2003	2004	2005	2006
Mean Length age-2 at capture	2	2	2	2	2
Years to 6.0 inches	4	4	4	4	4
CPUE > 6.0 inches	4	3	3	3	3
CPUE > 8.0 inches	4	4	4	4	3
Total	14	13	13	13	12
Rating	E	G	G	G	G

SWDSPLSF.D02 – 06
SWDSPLAG.D02

Table 48. Spring diurnal electrofishing CPUE (fish/hour) for each size class of bluegill collected at Spurlington Lake in 2006.

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.
2006	138.0	47.7	302.0	54.7	46.0	8.9	14.0	2.0	500.0	100.2
2005	66.0	14.4	216.0	45.7	50.0	15.8	16.0	8.6	348.0	68.9

SWDSPLSF..D05 - 06

Table 49. Diurnal bass electrofishing relative abundance and CPUE (0.5 hours) at Metcalfe County Lake on April 27, 2006.

Species	Inch class																					
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	Fish/hour	Std. err.
Largemouth bass	2	1			5	11	10	14	3	5	5	1	4	3	3	1	1	1	1	71	142.0	12.4

SWDMETBB.D06

Table 50. PSD and RSD values for largemouth bass from diurnal spring electrofishing samples at Metcalfe County Lake 2006. 95% confidence intervals are in parentheses.

No. > 8 inches	PSD	RSD_{15}
68	41.2 (± 11.8)	22.1 (± 9.9)

SWDMETBB.D06

Table 51. Spring diurnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Metcalfe County Lake from 2004 & 2006.

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.
2006	10.0	2.0	76.0	12.0	26.0	5.0	26.0	5.0	142.0	12.4
2004	24.0	4.6	64.0	21.2	24.0	4.6	32.0	4.6	138.5	23.1

SWDMETBB.D04 & D06

Table 52. Nocturnal bass electrofishing relative abundance and CPUE (1.5 hours) at Mill Creek Lake on April 27, 2006.

Species	Inch class																					
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	Fish/hour	Std. err.
Largemouth bass		3	10	25	26	26	29	56	75	35	12	8	4	4	11	11	5	4	5	349.0	232.7	16.5
Spotted bass	2			5	2	7	17	8	3	1	1									46.0	30.7	6.1
Smallmouth bass							1										1			2.0	1.3	1.3

SWDSMILBB.D06

Table 53. PSD and RSD values for largemouth bass from spring electrofishing samples at Mill Creek Lake 2006. 95% confidence intervals are in parentheses.

Year	No. > 8 inches	PSD	RSD_{15}
2006	285	34.7 (± 5.5)	15.4 (± 4.2)
2005	276	24.2 (5.07)	14.1 (4.15)

SWDMILBB.D06

Table 54. Spring diurnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Mill Creek Lake from 2005 - 2006.

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.
2006	42.7	6.8	124.0	6.8	36.7	3.8	29.3	8.4	232.7	16.5
2005	23.6	3.1	147.5	5.8	19.3	3.8	27.0	4.4	219.0	7.3

SWDMILBB.D05 - D06

Table 55. Length frequency and diurnal electrofishing CPUE (fish/hour) of muskellunge collected during late-winter/early spring on Green River Lake in 2006 for 6.75 hours.

	Inch class																												Fish	Std
	13	14	15	16	17	18	19	20	22	23	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	42	43	45	Total	/hour	error
Muskellunge	8	15	7	2					1	1	2	2	2	1		2	1	2	2	3	3	6	2	1	1	1	1	1	70	10.4	1.0

swdgrlmy.d06

Table 56. Muskellunge assessment for Green River Lake spring electrofishing from 1990 to 2006.

	CPUE age 1 fish		CPUE >= 20.0 inches		CPUE >= 30.0 inches		CPUE >= 36.0 inches		CPUE >= 40.0 inches			
Year	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1990	12.7	4	7.0	3	2.1	2	1.2	3	0.0	0	12	G
1991	10.2	4	3.9	2	1.4	1	0.4	1	0.2	1	9	F
1992	2.3	2	6.1	3	1.7	2	0.7	2	0.1	1	10	F
1993	13.4	4	7.0	3	4.4	4	1.3	3	0.6	3	17	E
1994	4.1	3	8.9	3	3.9	3	2.3	4	0.9	4	17	E
1995	15.7	4	7.0	3	2.8	3	0.8	2	0.4	3	15	E
1996	5.2	3	16.0	4	3.5	3	0.8	2	0.2	2	14	E
1997	5.8	3	13.0	4	6.8	4	1.2	3	0.5	3	17	E
1998	9.3	4	9.0	3	5.1	4	1.9	4	0.5	3	18	E
1999	8.8	3	9.8	3	4.8	4	1.4	3	0.3	3	16	E
2000	2.6	2	7.6	3	4.2	4	2.0	4	0.8	4	17	E
2001	10.8	4	6.4	3	4.5	4	1.5	3	0.6	3	17	E
2002	5.8	3	10.6	4	4.5	4	2.9	4	0.9	4	19	E
2003	4.5	3	9.9	3	6.2	4	1.7	4	0.8	4	18	E
2004	6.5	3	8.3	3	5.2	4	1.8	4	0.2	4	18	E
2005	2.4	2	7.2	3	4.8	4	1.9	4	1.0	4	17	E
2006	4.7	3	5.5	3	4.3	4	2.2	4	0.7	4	18	E

SWDGRLMY.D90 – D06

Table 57. 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																			Total	CPUE	Std. Error
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			
Holmes Bend	Largemouth bass	1	2	4	4	8	3	13	18	18	19	16	7	5	9	2	3	3				135	90.0	16.2
(upper GR arm)	Spotted bass			2	6	4	9	14	16	6	4											61	40.7	6.4
	Smallmouth bass				1	2	2	5	2	2	1	1	1	1		1	2	2				23	15.3	0.7
Ramp 1	Largemouth bass		1	4	11	6	9	13	18	18	14	11	12	7	10	5						139	92.7	4.8
(lower GR arm)	Spotted bass	1	1	4	3	8	5	15	12	11	4											64	42.7	1.8
	Smallmouth bass	1	2	1	2	4	2	1			1											14	9.3	4.7
Lone Valley	Largemouth bass	3	1	6	15	7	6	16	18	23	8	6	9	15	11	5	5	2				156	104.0	16.2
(lower RC arm)	Spotted bass	6	8	5	5	14	9	23	14	14	5	1										104	69.3	10.7
	Smallmouth bass					2	1	4	1	2	1				1							12	8.0	3.1
Smith Ridge	Largemouth bass			8	10	3	9	5	14	32	12	8	9	11	8	9	5	3	1			147	98.0	2.0
(upper RC arm)	Spotted bass		6	4	2	3	4	6	8			1										34	22.7	6.4
Total	Largemouth bass	4	4	22	40	24	27	47	68	91	53	41	37	38	38	21	13	8	1			577	96.2	5.3
	Spotted bass	8	16	16	17	33	35	68	53	36	14	2	1									263	43.8	5.9
	Smallmouth bass	1	2	1	3	8	5	11	5	6	3	1	1	1	1	1	2	2				49	7.2	2.0

SWDGRLBB.D06

Table 58. PSD and RSD values by area for black bass collected from nocturnal spring electrofishing samples at Green River Lake in 2006; 95% confidence intervals are in parentheses. Smallmouth bass and spotted bass omitted where sample sizes too small.

Area	Species	Fish ≥ 8 inches	PSD	RSD[a]
Holmes Bend	Largemouth bass	116	55.2 (± 9.1)	19.0 (± 7.2)
	Spotted bass	53	18.9 (± 0.6)	0
Ramp 1	Largemouth	117	50.4 (±9.1)	30.5 (± 8.3)
	Spotted bass	55	27.3 (± 11.9)	0
Lone Valley	Largemouth bass	124	49.2 (± 8.8)	28.3 (± 8.9)
	Spotted bass	80	25.0 (± 9.6)	0
Smith Ridge	Largemouth bass	126	52.4 (± 8.8)	29.4 (± 12.6)
Total	Largemouth bass	483	51.8 (± 4.5)	24.6 (±3.8)
	Spotted bass	210	21.9 ((± 5.6)	0
	Smallmouth bass	42	38.1(± 14.9)	19.0 (± 20.6)

SWDBRLBB.D06

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

Table 59. Largemouth bass assessment for Green River Lake spring electrofishing from 1991 to 2006.

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 Assessment	Rating
	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment		
1991	12.50	4	22.5	2	12.8	1	2.8	1	0.3	2	10	F
1992	12.50	4	2.7	1	21.7	2	14.6	3	2.4	3	13	G
1993	12.50	4	4.7	1	21.6	2	11.5	2	1.1	2	11	F
1994	12.50	4	9.1	1	22.7	2	19.2	3	2.4	3	13	G
1995	12.50	4	2.0	1	9.5	1	6.8	2	1.8	3	11	F
1996	12.50	4	6.7	1	14.5	1	9.3	2	0.5	2	10	F
1997	12.50	4	2.8	1	23.3	2	24.3	4	1.2	2	13	G
1998	12.65	4	33.5	2	8.8	1	19.5	3	2.0	3	13	G
1999	12.65	4	19.3	1	21.0	2	18.5	3	3.0	4	14	G
2000	12.65	4	1.6	1	24.2	2	17.8	3	3.2	4	14	G
2001	12.65	4	10.7	1	32.2	3	12.5	3	1.7	3	14	G
2002	12.65	4	5.0	1	20.5	2	13.0	3	1.2	2	12	G
2003	14.35	4	7.3	1	5.8	1	20.0	4	1.8	3	13	G
2004	13.20	4	13.8	1	11.6	1	16.5	3	0.9	2	11	F
2005	13.20	4	65.3	4	11.8	1	16.8	2	1.5	2	13	G
2006	13.20	4	14.3	1	21.8	2	19.8	3	0.2	1	11	F

SWDGRLAG.D91,98,03; SWDGRLBB.D91-06

Table 60. Spring nocturnal electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Green River Lake from 1997 - 2006.

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.
1991	40.1	8.9	36.1	6.7	13.3	1.5	2.5	0.8	91.9	14.8
1992	3.7	1.3	35.7	3.6	24.0	3.9	11.8	2.1	75.2	6.2
1993	19.3	3.8	15.4	2.3	21.7	2.2	10.6	1.1	67.0	6.7
1994	24.1	6.8	86.1	9.3	22.4	2.8	16.6	2.1	149.2	14.0
1995	NA		NA	NA	NA		NA		NA	
1996	NA		NA	NA	NA		NA		NA	
1997	3.7	1.0	22.3	2.5	23.3	2.8	23.2	2.1	72.5	5.2
1998	33.5	7.7	9.0	1.8	8.8	2.0	17.5	1.8	68.8	8.6
1999	21.4	3.7	53.5	7.2	19.4	4.0	14.3	1.7	117.5	12.5
2000	2.5	0.9	41.0	4.4	24.2	3.4	14.7	3.4	82.3	8.6
2001	10.2	2.5	26.7	3.0	32.2	6.5	12.5	1.5	81.5	7.8
2002	5.0	1.1	9.5	1.5	20.5	2.5	13.0	2.5	48.0	4.2
2003	5.8	1.4	12.3	2.1	5.8	1.8	18.2	3.0	42.2	4.1
2004	17.3	2.7	22.8	2.1	11.6	1.8	15.6	2.6	67.3	6.4
2005	67.8	8.0	30.7	2.8	11.7	1.9	16.8	2.5	127.0	12.5
2006	15.7	2.3	38.8	2.4	21.8	3.3	19.8	2.4	96.2	5.3

SWDGRLBB.D91 - .D06

Table 61. Fall diurnal electrofishing length frequency and CPUE (fish/hour) for YOY largemouth bass collected from Green River Lake 2006.

	Inch group																			
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	Percent	CPUE
YOY	10	26	23	13	8	1												81	61.8	13.5
≥ Age-1							4	9	9	8	9	4	4		2	1		50	38.2	8.3
Total	10	26	23	13	8	1	4	9	9	8	9	4	4		2	1		131		21.8

Swdgrlyy.d06
Swdgrlag.d06

Table 62. 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
2006	4.3	0.1	13.5	3.4	3.7	1.2		
2005	5.2	0.1	31.7	7.4	16.8	4.3	14.3	2.4
2004	5.0	0.1	60.8	9.0	28.0	3.6	65.3	7.7
2003	3.9	0.1	32.8	9.7	5.5	1.2	11.9	2.1
2002	3.9	0.1	32.7	9.7	5.3	1.2	7.3	1.6

SWDGRLWR.D02 – D04, SWDGRLYY.D05 -06
SWDGRLAG.D03 - D06
SWDGRLBB.D03 – D06

Table 63. Length frequency and CPUE of crappie collected in 56 net nights with trap nets during mid-November at Green River Lake, 2006. Standard error is in parentheses.

	Inch class														
	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE
White crappie		55	25	23	298	235	128	136	81	16		1		998	17.8 (2.9)

SWDBRLTN.D06

Table 64. PSD and RSD values calculated for crappie collected in trap nets at Green River Lake during mid-November 2006. 95% confidence limits are in parentheses.

Species	No.	PSD	RSD_{10}
White crappie	918	39.4 (3.1)	10.7 (2.0)

SWDGRLTN.D06

Table 65. White crappie population assessment for Green River Lake during 2006.

Parameter	Value	Assessment score
CPUE of ≥ age 1+ crappie	16.4	3
CPUE of age -1 crappie	10.2	3
CPUE of age-0 crappie	1.4	1
CPUE of crappie ≥ 8 inches	6.5	3
Mean age-2 length at capture	9.67	3
Instantaneous mortality (z)	1.09	
Annual mortality (A)	66.4	
Total score		13
Assessment rating		Good

SWDGRLTN.D06
SWDGRLAG.D06

Table 66. White crappie assessment for Green River Lake from 1985 to 2006.

	CPUE excluding age 0		CPUE age 1		CPUE age 0		CPUE >= 8 inches		Mean age-2 length at capture			
Year	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1986	16.9	3	3.2	2	1.2	1	4.0	1	7.9	1	8	F
1987	15.4	3	4.1	2	19.2	4	5.2	3	8.1	1	13	G
1988	15.9	3	8.9	3	18.6	4	4.5	2	8.0	1	13	G
1989	26.3	4	20.2	4	1.3	1	6.4	3	9.6	4	16	G
1990	12.6	2	5.9	2	0.4	1	7.6	3	9.2	3	11	F
1991	8.7	2	2.9	2	6.9	3	6.2	3	9.3	3	13	G
1992	28.3	4	24.5	4	1.8	1	8.5	3	10.0	4	16	G
1993	24.8	4	7.0	3	1.2	1	15.5	4	9.0	2	14	G
1994	8.7	2	2.5	1	11.8	4	6.1	3	9.3	3	13	G
1995	16.2	3	11.1	3	13.2	4	10.7	3	10.0	4	17	E
1996	13.4	3	6.5	2	3.2	2	6.0	2	9.2	3	12	F
1997	14.1	3	3.9	2	1.9	1	8.1	3	8.7	2	11	F
1998	9.2	2	2.5	1	3.8	2	8.0	3	9.3	3	11	F
1999	7.4	2	5.2	2	1.0	1	2.9	1	9.9	4	10	F
2000	6.3	2	1.5	1	0.01	1	5.2	2	9.7	4	10	F
2001	4.3	1	0.2	1	10.9	4	4.2	2	9.5	3	11	F
2002	10.9	2	9.7	3	0.5	1	4.1	2	9.8	4	12	F
2003	13.0	2	5.1	2	3.3	2	6.8	3	9.1	3	12	F
2004	17.7	3	9.6	3	3.8	2	7.9	3	8.4	1	12	F
2005	13..8	3	3.0	2	1.7	1	8.0	3	8.4	1	10	F
2006	16.4	3	10.2	3	1.4	1	6.5	3	9.7	3	13	G

SWDGRLTN.D86 - 06

Table 67. Mean back-calculated length (in) at each annulus from white crappie otoliths collected from Green River Lake during mid-November, 2006, including the length ranges of white crappie at each age and 95% confidence interval for each age.

		Age				
Year Class	No.	1	2	3	4	5
2005	44	5.0				
2004	28	5.4	8.2			
2003	1	4.1	7.1	8.7		
2002	2	4.8	6.4	7.5	8.2	
2001	1	4.6	6.6	7.7	8.9	9.5
Mean	76	5.1	8.0	7.8	8.4	9.5
Smallest		2.7	6.2	7.4	8.1	9.5
Longest		10.3	12.0	8.7	8.9	9.5
Std. error		0.1	0.2	0.3	0.2	
95% CI (+)		0.3	0.4	0.6	0.5	

SWDGRLAG.D06

Table 68. Length frequency and CPE for white bass and walleye collected by experimental gillnets (14 net nights) during early-November at Green River Lake, KY 2006. Standard error in parentheses.

	Inch Class															
Species	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	CPUE
White bass	18	1	1	8	15	8	24	17	1	1					101	6. 3 (2.1)
Walleye	2		10	13	1		5	12	3	1	1	5	3	1	57	4.1 (0.8)

SWDGRLGN.D06

Table 69. Walleye assessment from gill netting from Green River Lake 1996-2006.

Year	CPUE age 1 fish and older		Mean length of age 2+ fish at capture		CPUE >=20.0 inches		CPUE of age 1 fish			
	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1996	1.8	1	18.6	4	0.1	1	1.4	2	8	F
1997	0.8	1	17.3	3	0.2	1	0.4	1	6	F
1998	0.5	1	17.6	3	0.1	1	0.3	1	6	F
1999	3.2	2	17.3	3	0.1	1	1.7	2	8	F
2000	5.0	3	18.1	4	0.2	1	4.1	4	12	G
2001	5.8	3	17.8	3	0.0	1	5.0	4	11	G
2002	2.6	2	17.8	3	0.4	1	0.7	1	7	F
2003	2.1	2	18.3	4	0.5	2	1.6	2	10	G
2004	1.1	1	16.4	2	0.0	1	0.8	1	5	P
2005*	0.6	1	17.8	3	0.1	1	0.5	1	6	F
2006	2.3	2	17.9	3	0.1	1	1.6	2	9	F

* Used mean values from previous years for age data
SWDGRLGL.D96 – D06

Table 70. Walleye population assessment for Green River Lake during 2006.

	Value	Assessment score
CPUE of ≥ age 1+ walleye	2.3	2
CPUE of age -1 walleye	1.6	2
CPUE > 20 inches	0.1	1
Mean age-2 length at capture	17.94	3
Instantaneous mortality (z)	0.496	
Annual mortality (A)	38.7	
Total score		10
Assessment rating		Fair

SWDGRLGN.D06
SWDGRLAG.D06

Table 71. Mean back-calculated length (in) at each annulus from walleye otoliths collected from Green River Lake during early-November, 2006, including the length ranges of walleye at each age and 95% confidence interval for each age.

		Age				
Year Class	No.	1	2	3	4	5
2005	15	10.0				
2004	10	10.5	15.0			
2003	5	10.3	13.9	15.6		
Mean	30	10.2	14.6	16.1		
Smallest		6.6	11.6	13.3		
Longest		12.7	17.0	18.1		
Std. error		0.3	0.5	0.8		
95% CI (+)		0.7	1.0	1.6		

SWDGRLAG.D06

Table 72. White bass assessment from fall gill netting at Green River Lake 1991-2006.

	CPUE age 1 fish and older		Mean length of age 2+ fish at capture		CPUE >=12.0 inches		CPUE of age 1 fish			
Year	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Assessment	Rating
1991	22.2	4	14.0	4	10.7	4	14.6	4	16	E
1992	33.8	4	13.4	4	16.8	4	10.1	4	16	E
1993	32.3	4	13.7	4	16.3	4	15.0	4	16	E
1994	22.6	4	13.4	4	15.6	4	4.5	2	14	E
1995	17.6	3	13.5	4	11.9	4	9.1	3	14	E
1996	33.1	4	13.6	4	18.9	4	18.4	4	16	E
1997	17.1	3	12.9	3	10.9	4	3.8	2	12	G
1998	19.1	3	12.9	3	6.3	3	6.4	3	12	G
1999	26.6	4	13.3	4	13.4	4	16.2	4	16	E
2000	11.5	3	13.6	4	9.4	3	2.8	2	12	G
2001	8.0	2	14.0	4	4.9	2	0.1	1	9	F
2002	10.2	3	13.8	4	4.4	2	5.4	3	12	G
2003	18.9	3	12.5	3	1.3	1	2.3	1	8	F
2004	5.8	2	12.8	3	0.5	1	3.5	2	8	F
2005*	7.4	2	12.4	3	3.5	2	5.8	3	10	G
2006	5.8	2	13.5	4	4.1	2	2.1	1	9	F

* Used mean values from previous years for age data

SWDGRLGL.D91 – D06

Table 73. White bass population assessment for Green River Lake during 2006.

	Value	Assessment score
CPUE of ≥ age 1+ white bass	5.8	2
CPUE of age -1 white bass	5.4	3
CPUE of white bass ≥ 12 inches	4.4	2
Mean age-2 length at capture	13.5	4
Instantaneous mortality (z)	0.489	
Annual mortality (A)	28.9	
Total score		9
Assessment rating		Fair

SWDGRLGN.D06
SWDGRLAG.D06

Table 74. Mean back-calculated length (in) at each annulus from white bass otoliths collected from Green River Lake during early-November, 2006, including the length ranges of white bass at each age and 95% confidence interval for each age.

		Age				
Year Class	No.	1	2	3	4	5
2005	27	8.3				
2004	27	8.1	12.0			
2003	24	7.4	11.0	13.4		
2002	3	7.0	10.3	11.6	13.3	
Mean	81	7.9	11.5	13.2	13.3	
Smallest		4.7	8.0	11.3	12.6	
Longest		10.6	13.7	14.7	14.4	
Std. error		0.2	0.2	0..2	0.6	
95% CI (±)		0.3	0.4	0.4	0.9	

SWDGRLAG.D06

Table 75. Fish harvest statistics derived from a creel survey at Green River Lake from 16 March through 31 October 2006.

		Number	Std. error
Fishing trips			
	Number of fishing trips	28,426	
	Average trip length (hours)	5.15	
Fishing pressure			
	Total man-hours	146,395	2,800
Catch/harvest			
	Number of fish caught	208,529	16,815
	Number of fish harvested	75,570	566
	Pounds of fish harvested	43,138	
Harvest rates			
	Fish/hour	0.77	
Catch rates			
	Fish/hour	1.46	
Miscellaneous characteristics (%)			
	Male	88.6	
	Female	11.4	
	Resident	95	
	Non-resident	5	
Method (%)			
	Still fishing	55	
	Casting	42.3	
	Fly	0.1	
	Trolling	2.6	
Mode (%)			
	Boat	94.7	
	Bank	5.2	
	Dock	0.1	

Table 76. Fish harvest statistics derived from a creel survey at Green River Lake from 16 March to 31 October 2006.

	Muskellunge	Channel catfish	Flathead catfish	White bass	Bluegill	Smallmouth bass	Spotted bass	Largemouth bass	White crappie	Walleye	Drum	
No. caught	1,051	8,661	100	2,675	15,512	962	2,510	21,462	153,208	694	751	
No. Harvested	155	6,689	41	2,233	5,136	234	477	3,888	55,805	279	421	
% total harvest	0.2	8.9	0.1	3	6.8	0.3	0.6	5.1	73.8	0.4	0.6	
Lb harvested	1432.3	7436	115.2	1761.7	812.6	368.6	349.6	5259.3	24630.7	576.4	371.9	
% of total lb harvested	3.3	17.2	0.3	4.1	1.9	0.9	0.8	12.2	57.1	1.3	0.8	
Mean length (in)	33.6	15.4	19.5	11.7	6.3	15.5	12	14.2	9.8	19.2	12.6	
Mean weight (lb)	9.25	1.17	2.98	0.69	0.16	1.82	0.75	1.49	0.43	2.58	0.93	
	Muskie	Catfish group		W. bass	Panfish group		Black bass group		Crappie group		Walleye	Anything
No. of fishing trips for that species	2,266	1,777		877	1,451		8,387		11,327		313	2,028
% of all trips	8	6.3		3.1	5.1		29.5		39.8		1.1	7.1
Hours fishing for that species	11,670.60	9,153		4,517.30	7,471.50		43,192.60		58,333.30		1,612.20	10,444
No. harvested fishing for that species	106	5,525		2,049	4,302		4,185		55,367		162	
Lb harvested fishing for that species	992.1	6188.5		1665.2	678		5556.5		24441		208.8	
No./hour harvested for that species	0.01	0.56		0.7	0.89		0.09		1		0.12	
% success fishing for that species	1.9	45		26.8	41.5		15.4		59.3		22.2	12.2

Table 77. Length distribution and species composition (released fish lengths were estimates) for each species of fish harvested at Green River Lake from 16 March to 31 October 2006.

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	27	28	31	32	33	34	35	36	37	38	40	41	42	43	44
Muskellunge	Harvest																											77			52	26							
	Released										21			43			21		21		43		64	21		42	52	103	26	26	26	103	26	77	52	26	26	52	25
Channel catfish	Harvest						24	24	97	97	1014	580	1594	773	893	362	483	121	362		48	121	72	24																
	Released				53		263	26	789	26	289	53	26	158	184		79		26																				
Flathead catfish	Harvest																20			21																				
	Released								38														18																
White bass	Harvest						51		411	283	565	359	436	129																										
	Released				46		209	23	93		70																												
Bluegill	Harvest		73	219	3164	1485	195																																
	Released	76	2924	6052	1324																																		
Smallmouth bass	Harvest							106				104		52	26		26	26																					
	Released				20		59	79	197	39	72	120			24		72	24		23																			
Spotted bass	Harvest								38	114	210	76	39																										
	Released						201	81	1328	141	121	121		20		20																								
Largemouth bass	Harvest										946	1214	782	309	206	185	165	41	40																				
	Released				582	112	739	515	7857	1700	2076	1871	730	388	342	182	160	68	68	46	46	46	45																
White crappie	Harvest						77	15238	32410	6243	1635	259	20																											
	Released			636	4182	19559	71553	957	417	49	50																												
Walleye	Harvest													116	23	47	23		23	23					24														
	Released								270		83	21	41																										
Drum	Harvest								140		117		70	47	23	24																							
	Released				22						110	22	66	22		22	44				23																		

Table 78. Monthly black bass angling success at Green River Lake during the 2006 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
March	950	53	632	3,255	607	0.20	53	0.02
April	1,807	403	801	4,127	1,326	0.26	327	0.06
May	5,728	1,754	1,837	9,458	5,261	0.44	1,733	0.14
June	8,450	535	2,146	11,053	7,914	0.66	450	0.04
July	1,936	675	880	4,533	1,730	0.27	645	0.10
August	1,124	98	672	3,460	1,000	0.28	72	0.02
September	1,142	273	459	2,365	932	0.39	112	0.05
October	3,797	807	959	4,941	3,678	0.57	793	0.12
Total	24,934	4,599	8,387	43,193	22,448	0.44	4,185	0.09

Table 79. Monthly crappie angling success at Green River Lake during the 2006 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
March	7,920	3,564	1,014	5,221	7,894	1.43	3,564	0.65
April	43,527	21,071	3,469	17,866	43,450	2.70	21,052	1.31
May	24,390	9,448	2,229	11,481	23,904	2.30	9,405	0.90
June	22,561	5,464	922	4,746	22,194	4.67	5,154	1.08
July	10,089	1,994	475	2,445	10,030	3.78	1,994	0.75
August	8,379	2,516	467	2,405	8,281	3.10	2,467	0.92
September	21,139	6,515	1,478	7,613	21,122	2.54	6,499	0.78
October	15,152	5,232	1,273	6,558	15,114	2.94	5,232	1.02
Total	153,208	55,805	11,327	58,333	151,989	2.70	55,367	1.00

Table 80. Monthly catfish angling success at Green River Lake during the 2006 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
March	924	924	66	339	924	1.94	924	1.94
April	231	96	55	283	38	0.17	0	0.00
May	634	486	150	773	339	0.58	254	0.43
June	2,929	1,634	408	2,103	1,971	0.72	1,239	0.45
July	1,613	1,290	475	2,445	1,349	0.54	1,232	0.49
August	1,441	1,392	369	1,899	1,270	0.56	1,221	0.54
September	837	772	201	1,035	643	0.73	595	0.68
October	149	135	54	277	60	0.44	60	0.44
Total	8,758	6,729	1,777	9,153	6,594	0.66	5,525	0.56

Table 81. Monthly walleye angling success at Green River Lake during the 2006 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	38	0	11	57	0	0.00	0	0.00
May	359	148	139	714	296	0.41	106	0.15
June	141	56	82	421	84	0.20	56	0.13
July	59	59	0	0	0	0.00	0	0.00
September	97	16	0	0	0	0.00	0	0.00
Total	694	279	313	1,612	380	0.24	162	0.10

Table 82. Monthly white bass angling success at Green River Lake during the 2006 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
March	26	0	0	0	0	0.00	0	0.00
April	385	346	99	509	211	0.66	211	0.66
May	63	21	0	0	0	0.00	0	0.00
June	789	535	327	1,682	732	0.52	507	0.36
July	1,202	1,202	326	1,681	1,202	1.81	1,202	1.81
September	145	129	43	222	145	0.60	129	0.53
Total	2,675	2,233	877	4,517	2,290	0.77	2,049	0.69

Table 83. Monthly muskie angling success at Green River Lake during the 2006 creel survey period.

Month	Total number of muskie caught	Total number of muskie harvested	Number of muskie fishing trips	Hours fished by muskie anglers	Number caught by muskie anglers	Number caught/hour by muskie anglers	Number harvested by muskie anglers	Number harvested/hour by muskie anglers
March	132	106	487	2,509	106	0.043	106	0.043
April	58	0	560	2,883	38	0.010	0	0.000
May	42	21	254	1,309	21	0.012	0	0.000
June	282	28	338	1,742	169	0.083	0	0.000
July	293	0	287	1,487	293	0.221	0	0.000
August	122	0	66	338	73	0.260	0	0.000
September	32	0	0	0	0	0.000	0	0.000
October	90	0	188	970	15	0.002	0	0.000
Total	1,051	155	2,266	11,671	609	0.046	106	0.043

Table 84. Black bass catch and harvest statistics derived from a creel survey at Green River Lake (8,210 acres) for each species of black bass.

	Largemouth bass						Spotted bass				Smallmouth bass					
	Harvest			Catch and release			Harvest	Catch and release			Harvest			Catch and release		
	12.0-14.9	≥ 15.0	Total	12.0-14.9	≥15	Total	Total	12.0-14.9	≥15.0	Total	≥ 12.0	≥ 15.0	Total	12.0-14.9	≥15	Total
Total number of bass	2942	946	3,888	4677	1391	6068	477	242	40	282	104	129	234	192	143	235
% of black bass harvested by number	64	20.6	84.6				10.4				0.02	0.03	5.1			
Total weight of fish (lb)			5,259	6295	1872	8167				350			369	323	243	566
% of bass harvested by weight			88							5.8			6.2			
Mean length (in)			14.2				12						15.5			
Mean weight (lb)			1.49				0.75						1.82			
Rate (fish/hour)			0.028				0.004						0.001			

CENTRAL FISHERIES DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Taylorsville Lake

Spring diurnal electrofishing was completed in April 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. Numbers of bass collected were significantly lower than last year. Catch rate of 8.0 – 11.9 inch largemouth bass was consistent with the 10-year average (37 f/h) at 39.6 f/h. Catch rate for bass 12.0 – 14.9 inches, 20.3 f/h, was half of the rate observed in 2005 and significantly lower than the 10-year average (30.2 f/a). Catch rate for bass ≥ 15 inches was 16.5 f/h compared to 34.3 f/h in 2005. This rate was consistent with the 10-year average (17.3 f/h) for these harvestable-size fish (Table 2). The middle section (Ashes Creek area) continued to have the highest catch rate for largemouth bass. The PSD for largemouth bass decreased from 68 in 2005 to 48 in 2006. The RSD_{15} value also decreased. It decreased from 31 in 2005 to 22 in 2006 (Table 3). Largemouth bass age and growth rates were determined using otoliths collected from 123 bass of various size ranges (Tables 4 - 6). Growth rates indicated most bass are reaching harvestable size (15 in) between age 4 and 5. There still appears to be significantly lower numbers of bass larger than 17 inches or bass older than age 5 as seen in the 10-year pattern (Table 6). The largemouth bass population assessment score (based on spring electrofishing data) declined to 12 ("Good"), compared to 17 ("Excellent") in 2005 (Table 7). Length frequencies, Relative Weight (Wr), age 0 and age 1strength of largemouth bass based on September electrofishing are presented in Tables 8 – 10. Relative weight data collected indicate good body condition for ≥ 15 inch bass. Mean length of age 0 and age 0 ≥ 5.0 inch largemouth bass captured increased from 2005. CPUE of Age 1 largemouth bass decreased significantly from 2005. The index indicated no largemouth bass fingerlings needed to be stocked. However, before these data were tabulated, the Minor Clark Fish Hatchery needed to move bass fingerlings due to hatchery pond repairs. A total of 15,370 largemouth bass fingerlings (4.9 inch, 5 f/a) were stocked due to the lake's historical requirement for bass fingerlings. 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 based (since 2004) on results of the September year class strength.

Trap netting efforts for crappie (Table 11) resulted in the collection of 45 white crappie (153 in 2005) and 183 black crappie (280 in 2005). Crappies were sampled during 48 net-nights. Most crappie were 10 inches or less. PSD and RSD values are shown in Table 12. Age and growth determinations were completed using otoliths removed from 42 white crappie and 74 black crappie (Tables 13 – 16). Age studies indicate white crappie reach 9 inches between age 2 and age 3. Black crappie on average were reaching 9 inches between age 3 and 4. White crappie collected were mostly age 2+ (89%). Sizes and ages of black crappie were more distributed with 13% being age 0, 31% being age 2, and 52% being age 3. The crappie population assessment score (Table 17) based on Colvin and Vasey assessment method was 8 ("Fair") compared to 11 ("Fair") in 2005. Ratings for the separate species were also "Fair". The cause for the continued increase in catch rate of black crappie and the decrease in white crappie catch rates in recent years is not entirely known.

Fall gill netting for hybrid striped bass and white bass was conducted during October 2006 (Tables 18 – 26). A total of 89 hybrid striped bass were collected compared to 69 in 2005. Hybrid striped bass were captured in 8 net nights for a CPUE of 11.13 (± 3.08) 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. The majority (96%) of hybrid striped bass collected were age 0 and age 1 (≤ 15 inches). Annual stocking rates for hybrid striped bass have been about 20 f/a (1.4 to 2.0 in) for the last 10 years. Age and growth studies were completed for hybrid striped bass using otoliths. Studies indicate hybrid striped bass reach harvestable size (15 inches) between age 2 and 3, typical growth at Taylorsville Lake. Relative weight (Wr) index for hybrid striped bass show them to have below average body weights. The population assessment for hybrid striped bass was rated at "Fair" compared to "Poor" in 2005. A total of 62,614 (20/acre) hybrid striped bass (1.4 in) were stocked in Taylorsville Lake in 2006.

White bass collected during fall 2006 gillnetting studies are presented in Tables 18, and 23 - 26. White bass comprised 71% of the *Morones* sampled, compared to 58% in 2005. No white bass older than age 3 were collected and none exceeded 12 inches. Of those collected, 96% were Age 1 or less (Table 24). Wr values revealed fair to good body weights for all sizes (Table 25). The white bass population assessment gave a rating of "Fair" (Table 26). (***Note:*** See Creel Survey section below for new regulations on hybrid striped bass and white bass in 2006.)

Channel catfish and blue catfish population data were collected while fall gill netting for *Morones* at Taylorsville Lake for 8 net-nights in October (Table 28). Catfish were also collected for the first time on a trial basis by low-pulse DC electrofishing in September (Table 27). Channel catfish dominated the netting studies (63%), while blue catfish dominated (99%) the electrofishing studies. A total of 820 blue catfish were collected during 4.5 hours of electrofishing while only 43 were sampled with nets during 8 net-nights. Netting produced more channel catfish (74) than electrofishing (8). Age and growth studies (otoliths) from netting efforts indicated channel catfish reaching 12 inches between age 2 and 3, and 15 inches between age 3 and 4 (Table 27), a more rapid growth rate than seen in previous studies. Of the channel catfish collected, 56% were age 1+ compared to 67% in 2005 (Table 29). Wr data indicate channel catfish are of average body weight (Table 32). The population assessment for channel catfish continues to indicate a "Good" fishery present (Table 33).

Blue catfish were stocked in Taylorsville Lake for the first time in 2002. In 2006, blue catfish captured by either means ranged from 7 in to 26 in. This maximum size increased by 4 inches from 2005. Age frequency and CPUE data from electrofishing results indicate good numbers of all sizes of blue catfish. Five year classes were well-represented with the majority (37%) being age 4+. This age class also had the widest size variation, ranging from 12 to 26 inches. It also had the highest stocking rate (29 f/a) and the widest size range of fish stocked (4 to 12 inches). Size variation though appears to be a common trait with all the age classes (Table 30). A total of 16,780 (5.5 f/a) blue catfish ranging from 8 to 14 inches (age 1+) were stocked in 2006. All four year classes of stocked fish were collected. Wr data for blue catfish indicate good body condition (Table 31). The population assessment for blue catfish using gill net data indicated a "Good" population present (Table 34).

A roving daytime angler creel survey was conducted at Taylorsville Lake from March through October. The last creel survey conducted at this lake was in 2003. Table 35 provides descriptive statistical parameters of the lake fishery. The number of fishing trips in 2006 (28,253) dropped dramatically from 2003 (50,855). Accordingly, fishing pressure (man-hours), catch and harvest also declined. While numbers and pounds of fish harvested per hour increased, numbers and pounds of fish harvested per acre decreased. Catch rate (fish/hr) increased slightly, while fish/acre caught decreased. Other parameters such as gender, residency, method and mode remained about the same from 2003.

Numbers of **largemouth bass** caught in 2006 dropped by half the number seen in 2003 (Table 36), while numbers of those harvested actually doubled. Mean length of largemouth bass harvested increased from 15.9 inches in 2003 to 16.4 inches in 2006 (Tables 36 and 37). The number of fishing trips for black bass was 9,352, while in 2003 it was 17,110. Black bass was the most sought-after group in 2006 and in 2003. Pounds of bass harvested by bass fishermen doubled from the level seen in 2003, going from 2,345 to 4,907 in 2006. Catch rate of bass by bass fishermen increased from 0.014 f/hr in 2003, to 0.044 f/hr in 2006. Bass anglers had a 9.4% success rate compared to 3.8% success rate in 2003. Largemouth bass continue to dominate the black bass population with only incidental catches of smallmouth bass and spotted bass. Black bass catch, harvest and monthly angling success are shown in Tables 38 and 39.

Crappie were the species caught most in 2006 (second most sought-after), increasing from 43,651 fish caught in 2003 to 52,425 in 2006. The number of crappie harvested declined from 27,181 fish in 2003 to 23,829 in 2006. Mean length of crappie harvested was 10.0 inches, slightly larger than three years ago. The number of fishing trips for crappie declined from 12,222 in 2003 to 6,980 in 2006. Crappie anglers in 2006 harvested a total of 10,510 lbs of crappie while in 2003 they took 11,415 lbs. Catch rate by crappie anglers increased from 0.42 f/hr to 0.61 f/hr. Percent success of crappie anglers decreased from 49.7% in 2003 to 43.4% in 2006. White crappie represented 57.7% of the crappie caught (80% in 2003) and 62.2% of the crappie harvested (78% in 2003). Crappie catch, harvest and monthly angling success are shown in Tables 40 and 41.

The third most sought-after group was the **catfish** with 2,721 trips by catfish anglers compared to 4,074 trips in 2003. Catfish numbers caught was about the same as those seen in 2003. Blue catfish contributed only about 14.4% of the catfish caught, while channel catfish were 84.2%.

Pounds of catfish harvested increased from 7,521 lbs in 2003 to 11,437 lbs in 2006. Pounds of blue catfish harvested by catfish anglers increased from 679 lbs in 2003 to 3,178 lbs in 2006. Mean length of channel catfish harvested by catfish anglers was 13.6 inches (12.1 in 2003) while that of blue catfish was 16.9 inches (16.8 inches in 2003). Number of fishing trips for catfish dropped by almost half that seen in 2003 (4,074 to 2,721). Hours spent fishing for catfish also dropped, going from 18,777 hours in 2003 to 13,698 hours in 2006. Pounds of catfish harvested by catfish anglers increased from 5,271 lbs in 2003 to 7,793 lbs in 2006. Catch rate by catfish anglers increased from 0.45 f/hr to 0.51 f/hr over the same period. Success rate for catfish anglers increased from 41% in 2003 to 50% in 2006. Catfish catch, harvest and monthly angling success are shown in Tables 44 and 45.

The *Morone* group (**hybrid striped bass** and **white bass**) was the fourth most sought-after group at Taylorsville Lake in 2006, dropping from third in 2003. In March 2006, new statewide regulations on *Morone* creel and size limits were imposed which included Taylorsville Lake. The regulation changed from "10 fish per day, only 5 of which could be 15 inches or greater" (since 2002), to "15 fish per day, only 5 of which can be 15 inches or greater". The number of hybrid striped bass (HSB) caught decreased from 16,325 fish (5,070 harvested) in 2003 to 8,086 (1,667 harvested) in 2006. The number of white bass (WB) caught also decreased—with 11,359 caught in 2003 (3,017 harvested) and 4,024 caught in 2006 (305 harvested). Pounds of HSB harvested in 2006 totaled 1,760 lbs (0.58 lbs/a), whereas in 2003 is was 6,589 lbs (2.16 lb/a). Pounds of WB harvested in 2006 totaled 205 lbs (0.07 lbs/a) while in 2003 it was 1,882 lbs (0.62 lbs/a). Mean length of HSB harvested in 2006 was 13.3 inches while in 2003 it was 13.6. Mean length of WB harvested in 2006 was 12.1 inches, with 11.2 inches being the average in 2003. The number of trips for *Morones* dropped from 5,088 trips in 2003 to 1,426 trips in 2006. Hours spent fishing for these fish dropped from 23,450 hrs (7.69 hrs/a) in 2003 to 7,181 hrs (2.35 hrs/a) in 2006. Harvest rate for *Morone* fishermen dropped from 0.3 f/hr in 2003 to 0.15 f/hr in 2006. Success rate for these anglers dropped from 27.6% in 2003 to 16.1% in 2006. *Morone* catch, harvest and monthly angling success are shown in Tables 42 and 43.

Panfish, primarily **bluegill**, were a close second to crappie (most-caught species) as far as total numbers caught in 2006 at 51,755 fish caught during the 2006 season. In 2003 they were the group with the most fish caught (97,946 fish). They, however, exceeded crappie with numbers harvested in 2006 at 25,914 fish. Pounds harvested in 2006 was only slightly less than that seen in 2003—going from 3,893 lbs (1.28 lbs/a) in 2003 to 3,332 lbs (1.09 lbs/a) in 2006. The average length of bluegill harvested was 5.6 inches. Only 921 trips were taken for panfish in 2006, with 2,374 trips in 2003. The catch rate for panfish was 2.6 f/hr (< 0.01 in 2003). The percentage of successful panfish anglers was 60.9% while in 2003 it was 51%. Length distribution and numbers of species caught and harvested are shown in Table 37.

An angler attitude survey was conducted at Taylorsville Lake during the creel survey. Surveys were handed out to anglers to fill out and return at a later date or filled out on site if time permitted. A total of 175 surveys were completed by anglers (322 surveys in 2003). Results were similar to those received in 2003. The attitude survey reflected the sharp decrease in anglers seeking hybrid striped bass and white bass, and the increase in preference for catfish. The majority of bass fishermen and crappie fishermen expressed some form of positive satisfaction for their species of preference. Satisfaction for the hybrid striped bass and white bass fisheries declined by about 10 percentage points each. Catfish anglers exhibited the highest level of satisfaction with 82% being either "very" or "somewhat" satisfied.

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 46. The lower section of the lake had about half the number of bass sampled as the middle and upper sections. Largemouth bass dominated the black bass fishery, with spotted bass comprising 14% of the bass sampled (similar to last year). Numbers of 12.0 – 14.9 in largemouth bass increased while all other groups decreased (Table 47).

The PSD for largemouth bass was 61, compared to 43 in 2005. The RSD_{15} was 20 compared to 21 in 2005 (Table 48). Age frequency for largemouth bass and ten year comparison data are presented in Tables 49 and 50. A total of 83% (89% in 2005) of the largemouth bass collected were age 3 or younger. Overall, numbers of older bass have declined during the last five years. The population assessment based on spring electrofishing data indicated a "Good" population (Table 51), as was seen last year. Fall electrofishing was done to evaluate largemouth bass relative weight index (Tables 52 and 53) and index of year class strength. Year class strength at age 0 and age 1 are shown in Table 54. Indices indicated bass did not need to be stocked. Kentucky Utilities made a concerted effort to keep the lake level stable during the largemouth bass spawn (mid-April through mid-May).

Diurnal electrofishing studies were completed in April to monitor the crappie population (Table 55). Upper, middle, and lower lake sections were sampled for a total of 4.5 hours (six 15-min runs per section). A total of 84 crappie were collected compared to 367 crappie collected in March of 2006. Catch in the upper and middle sections of the lake was dominated by white crappie, while black crappie were the only species captured in the lower section. PSD values are shown in Table 56. Age and growth studies of white crappie indicated they reach 9 inches by age 2, and almost 11 inches by age 3 (Table 57). Age frequency of white crappie show that an excellent year class was produced in 2003 (Table 58). Black crappie also reach 9 inches by age 2 (Table 59). Age 3 black crappie dominated the black crappie sample (Table 60). A population assessment method for crappie using electrofishing data has not been established.

Gill netting for hybrid striped bass (HSB) and white bass (WB) was completed in October 2006. During the 16 net night sampling period 85 HSB and 33 WB were collected (Table 61). Otoliths were taken from both species for age and growth determinations. Results of these studies indicate excellent growth rates (Table 62). HSB reach 15 inches between age 1 and 2, as they have historically. HSB may reach 20 inches between age 2 and age 3. Of the HSB sampled, 93% were age 0 or age 1 (Table 63). The population assessment for HSB indicates a "Fair" population, as it has the last few years (Table 64). WB age and growth determinations show they reach 9 inches by age 1 and 12 inches by age 2 (Table 65). Good year classes were produced in 2005 and 2003 (Table 66). The WB population assessment indicated a "Fair" population, as it was last year (Table 67). Herrington Lake was stocked with 51,557 (21 fish/acre, 1.5 inch) HSB in June 2006. Due to surpluses at Minor Clark Fish Hatchery: an additional 2.6 million fry were added in May, and 1,100 4.2 – 5.5 inch fingerlings were stocked in September.

Guist Creek Lake

Spring electrofishing studies were completed for length frequency, CPUE, age frequency and population assessment for largemouth bass in April 2006 (Table 68). Total largemouth bass catch rate (of all sizes) was the lowest seen in four years (Table 69), but the number of bass ≥ 15 in was nearly the same as last year. The greatest decline was seen in bass 12.0 to 14.9 in. The PSD for largemouth bass was 59 compared to 67 in 2005 (Table 70). The RSD_{15} increased from 35 in 2005 to 41 in 2006. Age frequency indicated largemouth bass present in good numbers between age 1 and age 4 (Tables 71 and 72). Over 45% of the bass collected were ≤ 11 in. About 22% were 12.0 to 15.0 in, and almost 26% were ≥ 15 in. The number of trophy-size bass should be on the increase. The population assessment gave a rating of "Good", downgraded from last year's "Excellent" (Table 73). Fall sampling for relative weight data (Wr) was done, as was the index for year class strength at age 0 and age 1 (Tables 74 –76). Weight indices indicate good body condition for bass, particularly larger fish. Mean length of Age 0 fish decreased from last year while their catch rate increased. The catch rate of age 0 bass ≥ 5.0 in doubled from last year.

Gill netting was completed in October for hybrid striped bass (Tables 77 – 81). Four nets were fished for two nights (8 net-nights) in similar sites as in past years. A total of 27 HSB were captured in 2006, and 27 in 2005. Age and growth studies were completed using otoliths. Calculations indicate they reach 15 inches between age 2 and 3, and 20 in between age 3 and 4. Most HSB captured were age 2 or 3, measuring in the 16 to 22 inch range. The Relative Weight Index for these fish showed they were below average in weight for their size. The population assessment indicated a rating of "Fair", up from a "Poor" rating in 2005. Length frequency and CPUE of yellow bass captured while netting for hybrid striped bass are also shown.

This was the third year (2004 – 2006) for stocking large fingerlings (7 in) HSB at the average rate of 16.4 f/a. The size of stocked fish was increased in an effort to improve survival. Most fish captured in 2006 were from stockings in 2005 and 2004. Age 0 fish continue to be difficult to sample with gill nets. Few age 1(2004 stocking) fish were sampled in 2005, and few age 1 and 2 were captured in 2006. Stocking of these larger fingerlings may not be advantageous. The best catch rate of HSB in 2006 was of age 3 fish that were stocked at 60 f/a that averaged 1.5 in.

Channel catfish and white catfish were collected from gill nets while sampling for hybrid striped bass (8 net-nights) in 2006 (Table 82). (Results of the second year of channel catfish sampling with baited tandem hoop nets by the Black Bass Research Project are in their Annual Performance Report.) Channel catfish captured in gill nets ranged from 8 in to 27 in and totaled 58 fish. Of channel catfish captured, 57 % were 8 in through 12 in. This was the third year for the 12-in size limit regulation on channel catfish at this lake. Due to potential crowding of small channel catfish realized through hoop netting, annual stocking of channel catfish may be reduced to once every two or three years. White catfish captured ranged from 3 to 16 in and totaled 28 fish.

Beaver Lake

The sport fish population continues to improve following gizzard shad removal in 1998. Beaver Lake was sampled for largemouth bass in April 2006 (Tables 83 – 88). The CPUE for all sizes was 382.5 f/hr compared to 423.5 f/hr in 2005 (Table 84). Catch rates for bass < 8 in increased from last year. Numbers of bass between 8.0 and 11.9 in decreased, while bass between 12.0 and 14.9 in remained about the same as the last three years. Largemouth bass ≥ 15 in decreased slightly. The PSD and RSD_{15} for largemouth bass respectively were 19 and 4, compared to 16 and 4 in 2005 (Table 85). Ninety-seven percent of the bass collected were Age 4 or less (Table 86). Spring electrofishing catch rates by age from 1999 through 2006 are shown in Table 87. The population assessment score indicated a "Good" bass population (Table 88), the same as in 2005. Fall electrofishing results for Relative Weight Index and the index of largemouth bass year class strength are presented in Tables 89 - 91. The Wr index reflected below-average weights for all three size groups (crowding and dense aquatic vegetation). Mean length of Age 0 bass increased (Table 91). Catch rates of age 0 bass decreased sharply from 2005. No age 0 largemouth bass ≥ 5.0 in were captured.

Bluegill and redear sunfish were sampled in May 2006 for CPUE, PSD, age and growth, and age frequency (Tables 92 – 103). Length frequency results showed many bluegill in the 7 in range, with most redear sunfish between 6- and 8 in (Table 92). The PSD for bluegill was 51 compared to 48 in 2005. The RSD_8 was 7 compared to 2 in 2005. Redear sunfish PSD and RSD_9 respectively were 53 and 2 (Table 93), similar to 2005. CPUE for bluegill ≥ 8 in was the highest seen in over 15 years (Table 94). Age and growth studies indicated bluegill reached 6 inches between ages 3 and 4, and 8 in between Age 7 and 8 (Table 95). Age frequency of bluegill is shown in Table 96. Catch rate at each age of bluegill shows an increasing number of older and larger bluegill present since the gizzard shad removal in 1998 (Table 97). The population assessment for bluegill indicated a "Fair" population rating compared to "Good" in 2005 (Table 98). Redear sunfish sampling indicated continual improvement in numbers and quality. Catch rate of fish ≥ 8 inches was 35.7 f/hr compared to 62.4 f/hr in 2005 (Table 99). Age and growth studies continue to show redear sunfish reaching 6 in between age 2 and 3, and 8 in between Age 4 and 5 (Table 100). No fish ≥ 10 in were collected. Age frequency (Table 101) indicates a good number of age 4 (6 to 8 in) redear sunfish in the fishery. An increasing number of age 4 through age 7 redear sunfish has been sampled since 1999 (Table 102). The population assessment indicated a "Fair" redear sunfish fishery (Table 103). Relative Weight Index data for bluegill and redear sunfish are shown in Table 104, with both showing slightly 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 embayments 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, PSD, age frequency and population assessment was done in April 2006 (Tables 105 – 111). Results indicate a below-average size bass population (all sizes). Most bass (76%) were age 4 or younger (≤ 15 in, Table 106). Largemouth bass were stocked in 2004 and 2005 (first time since 1966). The population assessment indicated a "Fair" bass population as it did in 2005 (Table 111). Boltz Lake has been a blue catfish study lake (Black Bass Research Project) since 1998. Stocking of blue catfish ended in 2004. A noticeable decline in numbers of all smaller size groups (less than 15 inches) of largemouth bass has been seen since 2002.

Spring electrofishing for bluegill and redear sunfish was done in May 2006 (Tables 112 – 118). All sizes of bluegill increased, while redear sunfish were almost absent. Age and growth data indicated bluegill are reaching 6.0 inches between age 3 and age 4. Redear sunfish were collected in too few numbers to provide age data. The population assessment for bluegill indicated a "Fair" population present (Table 118).

Bullock Pen Lake

Bullock Pen Lake was electrofished in April 2006 for largemouth bass length frequency, CPUE, age frequency and population assessment (Tables 119 – 125). Catch rates were close to last year's values. Catch rates of bass < 12 inches increased, while those for largemouth bass ≥ 15 inches remained about the same. Numbers and year class strength are widely distributed and numerous through Age 9 (Table 122). Growth rates are typical for all sizes through age 6, then seem to slow between ages 7 and 13. The population assessment for largemouth bass indicated a "Fair" population present compared to "Good" last year (Table 125). 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 2006 to collect largemouth bass length frequency, CPUE, PSD, age frequency and population assessment (Tables 126 – 131). Catch rate for largemouth bass ≥ 15 inches increased from 2005, but all other size groups decreased (Table 127). Bass stocking done in 2004 was reflected in the 7 to 10 inch fish (age 2). The PSD for largemouth bass was 46, nearly the same as 2005 (Table 128). The RSD_{15} increased from 10 in 2005 to 25 in 2006. The population assessment for largemouth bass was rated "Fair" compared to "Good" in 2005 (Table 131). Fall electrofishing for largemouth bass was done to determine year class strength and the Wr (Tables 132 – 134). Weights of largemouth bass are still below average. Largemouth bass mean length at Age 0 increased by 0.5 inch, with catch rates of all Age 0 sizes increasing greatly from last year (Table 134).

Electrofishing for bluegill and redear sunfish was done in May 2006 to obtain length frequency, CPUE, age and growth, age frequency and population assessment data (Tables 135 – 146). Most bluegill were 5 inches or less (Table 135). The bluegill PSD was 13 compared to 24 in 2005 (Table 136). Redear sunfish numbers and quality continue to decline. Age and growth studies showed that bluegill reach 6 inches between age 3 and 4 (Table 138). Population assessment of the bluegill reflected a "Fair" population (Table 141). Catch rate for redear sunfish ≥ 8 inches dropped from 31.2 f/hr in 2005 to 7.6 f/hr in 2006 (Table 142). Catch rates for redear sunfish ≥ 10 inches declined from 3.2 f/h in 2005 to 0.4 f/hr in 2006. Age and growth studies show redear sunfish reaching 6 in between Age 2 and 3 (Table 143). The population assessment for redear sunfish was rated "Good" in 2006, down from "Excellent" in 2005 (Table 145). Relative weight index for bluegill and redear sunfish was done in the fall (Table 146). The Index indicated poor body condition for all bluegill and redear sunfish sizes, particularly bluegill in the 6- to 7-inch range.

A gizzard shad removal was conducted in January 2006 at Corinth Lake. A concentration of 0.2 ppm of 5% emulsified liquid rotenone is recommended. In an effort to reduce impact on the quality redear sunfish population, a concentration of 0.175 ppm was used—a rate within the range known to eradicate gizzard shad with minimal harm to other fish species. The lake water level was not lowered. Measurements indicated a surface acreage of 78.6 acres, less than the historical 96a as thought. The lake was divided in to five areas: 15.57a, 17.36a, 11.12a, 13.41a, and 21.09a for treatment by seven crews. Spring sampling in 2006 revealed that these efforts failed to remove all the gizzard shad. A second attempt for the removal of gizzard shad will be determined at a later date.

Elmer Davis Lake

Elmer Davis Lake was sampled for largemouth bass in April 2006. Length frequency, CPUE, PSD, age and growth, age frequency and population assessment data were collected (Tables 147 – 152). Catch rates of largemouth bass of all sizes decreased (Table 148). There was a significant decrease in numbers of bass in the protected slot (12- to 15-inches) and ≥ 15 inches. The PSD remained unchanged at 28, (Table 149). The RSD_{15} was 4 compared to 6 last year. The most numerous year classes were from 2005 and 2003 (Table 150). Population assessment data indicated a "Good" bass population, the same as last year (Table 152). Fall electrofishing for the Wr index and year class strength for largemouth bass was done in September 2006 (Tables 153 – 155). Weights indicate low averages (Table 154) with the exception of ≥ 15 inch fish. Studies indicate fair numbers of Age 0 bass, with decreasing numbers of Age 0 bass ≥ 5.0 in (Table 155). Mean length of age 0 largemouth bass also decreased.

Electrofishing for length frequency, CPUE, age and growth, age frequency and population assessment was done for bluegill and redear sunfish in May 2006 (Tables 156 – 167). Bluegill catch rates for all sizes were the highest seen since 2002 (Table 158). Catch rates of bluegill ≥ 8 inches were the highest seen in ten years. The PSD value for bluegill was 34, compared to 42 in 2005 (Table 157). The RSD_8 continues to increase, going from 5 in 2005 to 9 in 2006. Age and growth studies on bluegill showed that they reach 6 inches between age 2 and 3, and 8 inches now by age 5 (age 6 last year, Table 159). The population assessment for bluegill was "Excellent" compared to "Good" the last two years (Table 162). CPUE for all redear sunfish size groups decreased significantly from 2005 (Table 163). There was a decrease in numbers of redear sunfish greater than ≥ 8 in, and no change in the numbers of redear sunfish ≥ 10 in. The PSD for redear sunfish was 92 compared to 66 last year. The RSD_9 was 46 compared to 19 in 2005 (Table 157). Age and growth studies indicated good growth rates with redear sunfish reaching 6 inches by age 2, 8 inches by age 3, and 10 inches by age 4+ (Table 164). Relative weight index results for bluegill indicated declining body condition with increasing size, while the index for redear sunfish indicated excellent body condition (Table 168).The redear sunfish population assessment indicated an "Excellent" population present as it did in 2005 (Table 167). Gizzard shad removal efforts were done in 1997 with success. The probable source for the previous and any future shad invasions can be attributed to the city of Owenton's water supply reservoir, Lower Thomas Lake, located in the drainage of Elmer Davis Lake. One large gizzard shad was collected and removed during spring sampling in 2006. Future sampling will determine if a viable population has developed.

Kincaid Lake

Spring electrofishing studies were conducted in April 2006 for PSD, length frequency, age frequency and CPUE for largemouth bass (Tables 169 – 174). Total catch rate of all sizes remained high. This rate was 260.5 f/hr in 2005, while in 2006 it was 252 f/hr (Table 170). Numbers of bass ≥ 15.0 inches were high and stable. The largemouth bass PSD and RSD_{15} respectively were 65 (77 in 2005) and 47 (same in 2005) in 2006 (Table 171). Age frequency studies indicate good numbers of all age classes (through age 12), with a particularly good year class present from 2002 (Table 172). The population assessment indicated a "Good" bass population, the same as in 2005 (Table 174). Fall electrofishing for Wr and index of year class strength at age 0 was done in September (Tables 175 – 177). Catch rate of age 0 largemouth bass was lower than last year (Table 177). Mean length at Age 0 increased slightly 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 except for fish ≥ 15 inches (Table 176).

McNeely Lake

McNeely Lake was electrofished for largemouth bass population analysis in April 2006. Data for length frequency, CPUE, PSD, age frequency and population assessment were collected (Tables 178 – 183). Overall catch rates for all sizes of largemouth bass continued to increase (Table 179). Catch rate for fish ≥ 15 inches remained high from last year. The PSD was 46 compared to 50 last year, and the RSD_{15} was 18 compared to 20 in 2005 (Table 180). Age frequency studies indicated good numbers of age 1 through age 4 bass ranging from 3 to 14 inches (Table 181). The population assessment continued to be "Good" in 2006 (Table 183). Electrofishing for largemouth bass in September 2006 was done to collect Wr and the index of year class strength at age 0 (Table 184 – 186). All values decreased slightly from last year: age 0 mean length and their catch rate, and catch rate of Age 0 that were ≥ 5 inches. 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 2006 for length frequency, CPUE, age and growth, age frequency and population assessment (Tables 187 – 198). Catch rates for all sizes of bluegill decreased from 2005 (Table 189). The bluegill PSD dropped to 41 compared to 52 in 2005 (Table 188). The RSD_8 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 improved from "Fair" in 2005 to "Good" in 2006 (Table 193). Catch rates for redear sunfish decreased from 2005 to 2006 (Table 194). A decrease was seen in redear sunfish numbers ≥ 8 inches. The PSD for redear sunfish was 41 and the RSD_9 was 0. Age and growth studies showed redear reaching 8 inches between Age 3 and 4, and 9 inches by age 4 (Table 195). The redear sunfish fishery was rated "Good", the same as in 2005 (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, but both species had under-average body weight.

Lincoln Homestead Lake

Lincoln Homestead Lake was sampled for largemouth bass in April 2006. Data for length frequency, CPUE, PSD, age frequency and population assessment were collected (Tables 200 – 204). Catch rates for all size groups of bass decreased slightly from 2005, though numbers of largemouth bass ≥ 15 inches increased (Table 201). The largemouth bass PSD was 66 in 2006 and 64 in 2005 (Table 202). The RSD_{15} was 16 compared to 8 last year. Of bass captured, 86% were ≤ age 4 (Table 203). The population assessment indicated a "Fair" fishery (Table 204).

Electrofishing for bluegill and redear sunfish data was done in May 2006 (Tables 205 – 210). Data for length frequency, CPUE, PSD and population assessment were collected. All size categories of bluegill have declined since 2003 (Table 207). Bluegill ≥ 8 inches were collected for the first time in three years. The PSD for bluegill was 56 in 2006 and the RSD_8 was 1 (Table 206). The PSD for redear sunfish was 82 and the RSD_9 was 16. The bluegill population assessment was determined to be "Good", an improvement from "Fair" last year (Table 208). Total numbers of redear sunfish declined from last year (Table 209), though redear sunfish ≥ 8.0 inches increased greatly. Ten-inch ("trophy") redear sunfish were collected for the first time since 2002. The population assessment for redear sunfish indicated an improvement from "Good" in 2005 to "Excellent" in 2006 (Table 210).

Lake Jericho

Bluegill and redear sunfish were sampled by electrofishing in May 2006 to collect length frequency, CPUE, age and growth, age frequency and population assessment data (Tables 211 – 214). Bluegill through 8 inches were present in good numbers, and redear sunfish numbers were low, with none exceeding 6 inches. Age and growth studies of bluegill showed they reach 6 inches between age 3 and age 4, and exhibit slow growth beyond 6 inches (Table 212). The bluegill population assessment indicated a "Good" population present (Table 214). Numbers of redear sunfish collected were too few to assess the population.

Largemouth bass were not sampled in the spring. Fall electrofishing was done at Lake Jericho in September for length frequency and CPUE for largemouth bass and bluegill (Table 215). Largemouth bass were collected up to 22 inches, with good numbers of fish between 12 and 16 inches.

Lower Sportsman's (Game Farm) Lake

Species composition, relative abundance, and CPUE of the fish sampled in the Lower Game Farm Lake in 2006 are presented in Table 216. The most numerous species in the lake were largemouth bass, bluegill and yellow bass. Largemouth bass were present up to 20 inches. Rainbow trout and channel catfish are stocked as maintenance stockings and periodically for kid's fishing events. This lake, by regulation, is for children 12 years of age and younger. There are no size limits on any species, just a three-fish (any species) creel limit.

General Butler State Park Lake

Length frequency, relative abundance and CPUE of largemouth bass were collected in April 2006 at General Butler State Park Lake. Results are shown in Table 217. Largemouth bass fingerlings have been stocked annually since 1999. A gizzard shad removal effort was made in December 2005 using liquid 5% rotenone at 0.15 ppm. These electrofishing studies indicated that removal efforts were successful. Largemouth bass ranging from 5 to 20 inches were collected in good numbers.

Lake Shelby

Length frequency, relative abundance and CPUE of largemouth bass were collected in September 2006. Good numbers of bass ranging from 3 to 21 inches were collected (Table 218). Several years ago Shelby Co. Parks and Recreation made an effort to deepen this heavily silted lake by creating islands with a bulldozer after a lake drawdown. Forage fish in this 17a lake is composed primarily of gizzard shad and sunfish.

Doe Run Lake

Length frequency, relative abundance and CPUE of fish collected by electrofishing at Doe Run Lake (Kenton Co.) in April 2006 are shown in Table 219. A successful gizzard shad removal was done in January. Fall electrofishing for length frequency and CPUE of largemouth bass and bluegill was done (Table 220). Studies indicate an excellent largemouth bass spawn following the shad removal. Supplemental bass stocking has been needed in years past.

Leary Lake

Species composition, length frequency, and CPUE of fishes collected from Leary Lake in April 2006 are presented in Table 221. This Lloyd WMA lake (3a) receives heavy fishing pressure. Aquatic vegetation (cattails, duckweed, watermeal and naiads) removal was done this year. Studies show largemouth bass from 5 to 14 inches in fair numbers. Bluegill up to 9 inches were collected.

Willisburg Lake

Length frequency and CPUE of largemouth bass were collected at Willisburg Lake in April 2006 (Table 222). Bass from 3 to 21 inches were collected. All inch classes were present in good numbers, particularly bass in the 13 to 17 inch range.

Jacobson Park Lake

Length frequency and CPUE of largemouth bass collected in May 2006 at Jacobson Park Lake are presented in Table 223. Largemouth bass were present in fair numbers. Advanced fingerling largemouth bass were stocked annually (20 f/a to 30 f/a) between 1995 and 2004. Stocking of bass may need to be done on an annual basis to maintain the fishery. Gizzard shad is the primary forage fish for bass in this the only public fishing lake in Lexington.

Kleber Pond

Length frequency, relative abundance, and CPUE of fishes collected in April, 2006 at Kleber WMA Pond are presented in Table 224. Largemouth bass, ranging from 3 to 12 inches, were present in low numbers in the heavily fished pond. Excess fish from Pfeiffer Fish Hatchery are occasionally brought here.

Lower Thomas Lake

Length frequency, relative abundance, and CPUE of fishes collected in April, 2006 at Lower Thomas Lake (16a, Owenton water supply) are presented in Table 225. Electrofishing studies showed largemouth bass present up to 20 inches. Occasionally, large predator fish species such as striped bass and catfish are stocked when available from the Pfeiffer Fish Hatchery as a management strategy to reduce gizzard shad numbers. This lake is in the Elmer Davis Lake watershed and is the source for shad contamination there in the past. A shad removal will be conducted at Lower Thomas Lake when water pumps and pipeline from the Kentucky River directly to the water plant are complete. Currently, the water level at Lower Thomas Lake is maintained by pumped Kentucky River water.

New Haven Optimist Lake

Length frequency, relative abundance, and CPUE of fishes collected in April, 2006 at the New Haven Optimist Lake (2.5a) are presented in Table 226. While fair numbers of smaller largemouth bass were collected, only one bass over 12 inches was seen. Bluegill up to 8 inches were seen.

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 April 2006: numbers in parentheses are standard errors.

	Inch Class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	CPUE
Van Buren																				
Largemouth bass			5	6	7	11	26	23	20	8	9	6	11	3	3	2			140	56.0 (6.5)
Ashes Creek																				
Largemouth bass		6	14	14	13	47	30	19	16	26	18	33	18	18	15	5	3	1	296	118.4 (17.2)
Big Beech Creek																				
Largemouth bass	3	16	33	24	11	35	36	24	10	12	21	19	21	12	8	1	2		289	115.6 (17.7)
Total																				
Largemouth bass	3	22	52	44	31	93	92	66	46	46	48	58	50	33	26	8	5	1	725	96.7 (11.0)

Dataset = cfdpstvl.d06

Table 2. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Taylorsville Lake from 1984-2006 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)
2006	20.3	(4.0)	39.6	(3.7)	20.3	(3.7)	16.5	(2.7)	96.7	(11.0)

Dataset = cfdpstvl.d06

Table 3. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in each area of Taylorsville Lake in 2006 confidence intervals are in parentheses.

Area	Species	No. fish > stock size	PSD	RSD_{15}
Big Beech	Largemouth bass	202	48 (± 7)	22 (± 6)
Ashes Creek	Largemouth bass	249	55 (± 6)	24 (± 5)
Van Buren	Largemouth bass	122	34 (± 8)	16 (± 6)
Total	Largemouth bass	573	48 (± 4)	22 (± 3)

Dataset = cfdpstvl.d06

Table 4. Mean back calculated lengths (in.) at each annulus for otoliths from largemouth bass collected at Taylorsville Lake in 2006.

		Age								
Year Class	No.	1	2	3	4	5	6	7	8	9
2005	36	5.4								
2004	30	5.6	9.3							
2003	30	6.3	10.3	12.9						
2002	8	6.5	10.0	12.5	14.2					
2001	11	6.3	11.2	13.4	15.4	16.5				
2000	6	5.4	10.5	12.8	14.1	15.3	16.3			
1999	1	6.3	11.3	13.1	14.4	15.7	17.1	18.1		
1997	1	6.3	10.6	13.1	16.3	18.0	19.1	20.0	20.5	21.1
Mean	123	5.9	10.1	13.0	14.7	16.2	16.7	19.0	20.5	21.1
Smallest		3.2	7.5	10.1	12.5	13.5	14.5	18.1	20.5	21.1
Largest		9.0	13.2	15.4	17.2	18.6	19.2	20.0	20.5	21.1
Std Error		0.1	0.1	0.2	0.3	0.4	0.8	0.9		
95% ConLo		5.7	9.8	12.6	14.2	15.5	15.2	17.2		
95% ConHi		6.1	10.4	13.3	15.3	16.9	18.2	20.9		

Intercept Value = 0.00
Dataset = cfdagtvl.d06

Table 5. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 7.5 hours of electrofishing at Taylorsville Lake during April 2006. Fish were collected in 30-minute runs.

	Inch Class																				STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	%	CPUE	ERR
1	3	22	52	44	10														131	18	17.51	3.75
2					21	93	92	44	20	5									275	38	36.70	3.63
3								22	26	36	37	24	15						160	22	21.31	2.62
4										5	11	15	20						50	7	6.70	1.01
5												5	10	33	26	5			79	11	10.56	1.78
6												15	5				5		25	3	3.27	0.79
7																3			3	0	0.36	0.13
8																			0	0	0.00	0.00
9																		1	1	0	0.13	0.13
Total	3	22	52	44	31	93	92	66	46	46	48	58	50	33	26	8	5	1	724	100	96.67	11.01
%	0	3	7	6	4	13	13	9	6	6	7	8	7	5	4	1	1	0	100			

Dataset = cfdagtvl.d06 and cfdpstvl.d06

Table 6. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Taylorsville Lake from 1997-2006.

	Year									
Age	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	20.4	12.0	17.8	14.1	20.5	34.8	21.2	14.9	38.3	17.5
2	22.3	18.8	27.4	12.4	26.7	16.7	46.1	19.8	27.8	36.7
3	54.9	28.5	14.3	17.7	24.8	13.1	26.3	33.4	27.3	21.3
4	18.2	10.8	17.8	10.8	12.5	6.2	12.6	16.6	29.0	6.7
5	8.4	9.1	6.7	7.7	16.6	3.6	5.9	6.1	13.0	10.6
6	9.0	11.9	6.5	6.9	9.7	1.4	2.9	3.5	4.3	3.3
7	3.4	5.2	6.8	4.5	4.8	0.7	0.7	0.8	1.9	0.4
8	0.8	1.2	1.0	1.5	1.7	0.4	0.5	0.6	1.0	0.0
9	0.3	0.4	2.3	0.9	1.5	1.6	1.3	1.3	3.1	0.1
10	0.6	0.5	0.6	0.2	0.3					
11				0.5	0.2					
12				0.3	0.3					

Table 7. Population assessment from largemouth bass collected from Taylorsville Lake during April 2006.

Parameter	Value	Assessment Score
Length at age 3	12.9 ± 0.3	4
Spring CPUE of Age 1	17.51 ± 3.75	1
Spring CPUE 12-14.9 in fish	20.27 ± 3.68	2
Spring CPUE ≥ 15.0-in fish	16.53 ± 2.67	3
Spring CPUE ≥ 20.0-in fish	0.27 ± 0.18	2
Instantaneous mortality (z)	0.695	
Annual mortality (A)	50.1	
Total Score		12
Assessment Rating		Good

Table 8. 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 2006: numbers in parentheses are standard errors.

	Inch Class																		
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Van Buren																			
Largemouth bass		1	23	21	15	4	1	5	7	6	6	3	1	1				94	62.7 (7.6)
Ashes Creek																			
Largemouth bass	4	30	27	21	21	4	5	13	14	5	3	4	1	1				153	102.0 (8.8)
Big Beech Creek																			
Largemouth bass	1	29	15	14	20	4	6	14	8	6	4	2		3	3	3	1	133	88.7 (4.2)
Total																			
Largemouth bass	5	60	65	56	56	12	12	32	29	17	13	9	2	5	3	3	1	380	84.4 (5.5)

Dataset = cfdwrtvl.d06

Table 9. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Taylorsville Lake on 5-7 September 2006. 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	19	95.9 (2.8)	10	93.5 (2.1)	1	92.1	30	94.9 (1.9)
	Ashes	37	91.5 (1.2)	7	88.7 (2.5)	1	98.8	45	91.3 (1.1)
	Big Beech	34	89.8 (1.3)	6	92.4 (3.9)	10	98.9 (3.0)	50	91.9 (1.2)
	Total	90	91.8 (0.9)	23	91.7 (1.6)	12	98.3 (2.6)	125	92.4 (0.8)

Dataset = cfdwrtvl.d06

Table 10. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Taylorsville Lake.

Year Class	Area	Age 0		Age 0		Age 0 ≥ 5.0		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	17.5	3.8
2006	Total	4.9	0.1	54.7	4.9	25.8	2.9		

Dataset = cfdwrtvl.d06

Table 11. Length distribution and CPUE (no./hour) of each species of crappie collected at Taylorsville Lake in 48 net-nights during October 2006.

Species	Inch Class									Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11			
White crappie				2		7	20	15	1	45	0.94	0.18
Black crappie	8	15			2	18	84	52	4	183	3.81	0.67

Dataset = cfdtntvl.d06

Table 12. PSD and RSD_{10} values calculated for crappie collected at Taylorsville Lake in 48 net-nights during October 2006.

Species	No. fish > stock size	PSD	RSD_{10}
White crappie	45	95 (± 6)	36 (± 14)
Black crappie	160	99 (± 2)	35 (± 7)

Dataset = cfdtntvl.d06

Table 13. Mean back calculated lengths (in.) at each annulus for otoliths from white crappie trap netted at Taylorsville Lake in 2006.

		Age		
Year Class	No.	1	2	3
2004	39	4.8	7.9	
2003	3	4.6	8.2	9.4
Mean	42	4.8	7.9	9.4
Smallest		3.8	6.8	8.8
Largest		5.7	9.1	10.0
Std Error		0.1	0.1	0.3
95% ConLo		4.6	7.7	8.7
95% ConHi		4.9	8.1	10.0

Intercept value = 0.00
Dataset = cfdagtvl.d06

Table 14. Age frequency and CPUE (no./net night) per inch class of white crappie trap netted for 48 net nights at Taylorsville Lake in 2006.

	Inch Class									STD
Age	6	7	8	9	10	11	Total	%	CPUE	ERR
0+	2						2	4	0.04	0.03
1+							0		0.00	
2+			7	19	14		89	89	0.83	0.15
3+				1	1	1	7	7	0.06	0.02
Total	2		7	20	15	1	45	100	0.94	0.18
(%)	4		16	44	33	2	100			

Dataset = cfdtntvl.d06 and cfdagtvl.d06
CPUE of ≥ 8 in. white crappie = 0.90 ± 0.17; ≥ 10 in. = 0.33 ± 0.10

Table 15. Mean back calculated lengths (in.) at each annulus for otoliths from black crappie trap netted at Taylorsville Lake in 2006.

		Age			
Year Class	No.	1	2	3	4
2005	6	4.6			
2004	25	4.7	7.8		
2003	42	4.3	7.6	8.8	
2002	1	4.3	8.7	10.2	10.9
Mean	74	4.5	7.7	8.9	10.9
Smallest		3.1	6.3	7.6	10.9
Largest		8.3	8.9	10.2	10.9
Std Error		0.1	0.1	0.1	
95% ConLo		4.3	7.6	8.7	
95% ConHi		4.6	7.8	9.0	

Intercept value = 0.00
Dataset = cfdagtvl.d06

Table 16. Age frequency and CPUE (no./net night) per inch class of black crappie trap netted for 48 net nights at Taylorsville Lake in 2006.

	Inch Class													STD
Age	3	4	5	6	7	8	9	10	11	12	13	Total	%	CPUE ERR
0+	8	15										23	13	0.48 0.20
1+					2	4						6	3	0.13 0.04
2+						7	36	14	1			58	31	1.20 0.25
3+						7	48	38	2			95	52	1.99 0.39
4+									1			1	1	0.02 0.02
Total	8	15	0	0	2	18	84	52	4			183	100	3.81 0.67
%	4	8	0	0	1	10	46	28	2			100		

Dataset = cfdtntvl.d06 and cfdagtvl.d06
CPUE of ≥ 8 in. black crappie = 3.29 ± 0.66; ≥ 10 in. = 1.17 ± 0.28

Table 17. Population assessment for crappie trap netted at Taylorsville Lake in October 2006.

	White Crappie Only		Black Crappie Only		White and Black Crappie Combined	
Parameter	Actual Value	Assessment Value	Actual Value	Assessment Value	Actual Value	Assessment Value
CPUE of crappie (excluding age 0)	0.90 ± 0.17	1	3.33 ± 0.66	1	4.23 ± 0.75	1
CPUE of age 1 crappie	0.0	1	0.13 ± 0.04	1	0.13 ± 0.04	1
CPUE of age 0 crappie	0.04 ± 0.03	1	0.48 ± 0.20	1	0.52 ± 0.20	1
CPUE of crappie ≥ 8.0 Inches	0.90 ± 0.17	1	3.29 ± 0.66	2	4.19 ± 0.75	2
Mean age-2+ length at Capture	9.61 ± 0.11	4	9.46 ± 0.14	3	9.55 ± 0.08	3
Assessment Total		8		8		8
Assessment Rating		Fair		Fair		Fair

Table 18. Length distribution and CPUE (no./net night) of white bass and hybrid striped bass collected during 8 net-nights of gill netting in Taylorsville Lake in October 2006: numbers in parentheses are standard errors.

Species	Inch Class														Total	CPUE
	5	6	7	8	9	10	11	12	13	14	15	16	17	24		
White bass	38	39	94	17		17	11	6							222	27.75 (3.82)
Hybrid striped bass	8	1	7	4	1		1	43	11	7	2	2	1	1	89	11.13 (3.08)

Dataset = cfdgntvl.d06

Table 19. Mean back calculated lengths (in.) at each annulus for otoliths from hybrid striped bass gill netted at Taylorsville Lake in 2006.

		Age				
Year Class	No.	1	2	3	4	5
2005	62	8.2				
2004	3	8.2	14.8			
2001	1	7.9	14.1	18.4	21.4	23.0
Mean	66	8.2	14.6	18.4	21.4	23.0
Smallest		6.5	14.1	18.4	21.4	23.0
Largest		12.1	15.8	18.4	21.4	23.0
Std Error		0.2	0.4			
95% ConLo		7.8	13.8			
95% ConHi		8.5	15.4			

Intercept Value = 0.00
Dataset = cfdagtvl.d06

Table 20. Age frequency and CPUE (no./net night) per inch class of hybrid striped bass gill netted for 8 net nights at Taylorsville Lake in 2006.

	Inch Class																STD
Age	5	6	7	8	9	11	12	13	14	15	16	17	24	Total	%	CPUE	ERR
0+	8	1	7	4	1									21	24	2.63	0.91
1+						1	43	11	7	2				64	72	8.00	2.51
2+											2	1		3	3	0.38	0.38
5+													1	1	1	0.13	0.13
Total	8	1	7	4	1	1	43	11	7	2	2	1	1	89	100	11.13	3.08
%	9	1	8	4	1	1	48	12	8	2	2	1	1	100			

Dataset = cfdagtvl.d06 and cfdgntvl.d06

Table 21. Number of fish and the relative weight (Wr) for each length category of hybrid striped bass collected at Taylorsville Lake in October 2006.

		Size Range							
Species	Area	8.0 – 11.9 in		12.0 – 14.9 in		≥ 15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Hybrid striped bass	Total	6	92.7 (1.9)	61	86.7 (0.6)	6	82.6 (2.4)	73	86.9 (0.6)

Dataset = cfdgntvl.d06

Table 22. Population assessment for hybrid striped bass gill netted at Taylorsville Lake in October 2006.

Parameter	Actual Value	Assessment Value
CPUE of hybrid striped bass (excluding age 0)	8.50 ± 2.75	2
Mean age-2+ length at capture	16.8 ± 0.5	2
CPUE of fish ≥ 15.0 in	0.75 ± 0.62	1
CPUE of age 1+ hybrid striped bass	8.00 ± 2.51	3
Assessment Total		8
Assessment Rating		Fair

Table 23. Mean back calculated lengths (in.) at each annulus for otoliths from white bass gill netted at Taylorsville Lake in 2006.

		Age Class		
Year Class	No.	1	2	3
2005	22	6.9		
2004	7	7.0	10.4	
2003	3	6.0	10.0	11.6
Mean	32	6.8	10.3	11.6
Smallest		5.8	9.8	11.2
Largest		8.8	10.8	12.0
Std Error		0.1	0.1	0.2
95% ConLo		6.5	10.0	11.2
95% ConHi		7.1	10.5	12.0

Intercept Value = 0.00
Dataset = cfdagtvl.d06

Table 24. Age frequency and CPUE (no./net night) per inch class of white bass gill netted for 8 net nights at Taylorsville Lake in 2006

	Inch Class											STD
Age	5	6	7	8	9	10	11	12	Total	%	CPUE	ERR
0+	38	39	94	17					188	85	23.50	3.35
1+						17	7		24	11	3.00	0.96
2+							4	3	7	3	0.88	0.39
3+								3	3	1	0.38	0.21
Total	38	39	94	17	0	17	11	6	222	100	27.75	3.82
%	17	18	42	8		8	5	3	100			

Dataset = cfdagtvl.d06 and cfdgntvl.d06

Table 25. Number of fish and the relative weight (Wr) for each length category of white bass collected at Taylorsville Lake in October 2006.

Species	Area	Size Range							
		6.0 – 8.9 in		9.0 – 11.9 in		≥ 12.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
White bass	Total	150	96.8 (0.4)	28	91.2 (1.4)	6	89.0 (2.4)	184	95.7 (0.5)

Dataset = cfdgntvl.d06

Table 26. Population assessment for white bass gill netted at Taylorsville Lake in October 2006.

Parameter	Actual Value	Assessment Value
CPUE of white bass (excluding age 0)	4.25 ± 1.37	1
Mean age-2+ length at capture	11.7 ± 0.2	2
CPUE of fish ≥ 12.0 in	0.75 ± 0.41	1
CPUE of age 1 white bass	3.00 ± 0.96	2
Assessment Total		6
Assessment Rating		Fair

Table 27. Length distribution and CPUE (no./hour) of blue, channel, and flathead catfish collected in 4.5 hours of 15-minute low-pulse electrofishing runs for catfish at Taylorsville Lake in September 2006: 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	25	26	27		
Blue catfish		1	15	24	54	100	117	145	107	71	66	47	20	18	8	4	7	5	5	5	1		820	182.22 (33.30)
Channel catfish	1	1	1		2	1	1	1					1										8	1.78 (0.81)
Flathead catfish													1									1	2	0.44 (0.30)

Dataset = cfdgntvl.d05

Table 28. Length distribution and CPUE (no./net night) of blue and channel catfish collected during 8 net-nights of gill netting in Taylorsville Lake in October 2006: 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	23	28			
Blue catfish			1		4	2	2	3	3	10	3	4	6	3	1	1			43	5.38 (1.87)
Channel catfish	5	16	15	10	6	3	4	1	1	3		6	3				1		74	9.25 (2.58)

Dataset = cfdgntvl.d06

Table 29. Age frequency and CPUE (no./net night) per inch class of channel catfish gill netted for 8 net nights at Taylorsville Lake in 2006

	Inch Class																STD
Age	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	%	CPUE	ERR
1+	5	16	12	6	2									41	56	5.13	1.66
2+			3	4	3	2								11	16	1.43	0.35
3+					1	1	2		1	1		3		9	12	1.12	0.56
4+							1	1		1				3	4	0.33	0.19
5+						1				1		3		4	6	0.53	0.29
6+							1			1				2	2	0.21	0.10
7+													3	3	4	0.38	0.26
Total	5	16	15	10	6	3	4	1	1	3		6	3	73	100	9.25	2.58
%	7	22	21	14	8	4	5	1	1	4		8	4	100			

Dataset = cfdagtvl.d05 and cfdgntvl.d06

Table 30. Age frequency and CPUE (fish /hour) per inch class of blue catfish collected in 4.5 hours of 15-minute low pulse electrofishing runs at Taylorsville Lake in 2006.

	Inch Class																				STD
Age	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Total	%	CPUE	ERR
1+	15	24	46	33	39	12			8											187	23	41.5	12.4
2+			8	67	26	21	15	6	17											159	19	35.4	9.8
3+					39	41	15	19	17	6	6		2							145	18	32.2	6.4
4+					13	62	76	45	17	41	14	18	3	3	4	3	1	1	1	303	37	67.3	11.6
5+									8				3	1	3	2	4	4	1	26	3	5.7	1.3
Total	15	24	54	100	117	145	107	71	66	47	20	18	8	4	7	5	5	5	1	819	100		
%	2	3	7	12	14	18	13	9	8	6	2	2	1	0	1	1	1	1	0	100			

Dataset = cfdagtvl.d06 and cfdbctvl.d06

Table 31. Number of fish and the relative weight (Wr) for each length category of blue catfish collected at Taylorsville Lake during September 2006.

		Size Range							
Species	Area	12.0 – 19.9 in		20.0 – 29.9 in		≥ 30.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Blue catfish	Total	588	91.8	35	101.6			623	92.4
			(0.4)		(2.6)				(0.4)

Dataset = cfdbctvl.d06

Table 32. Number of fish and the relative weight (Wr) for each length category of channel catfish collected at Taylorsville Lake during October 2006.

		Size Range							
Species	Area	11.0 – 15.9 in		16.0 – 23.9 in		≥ 24.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Channel catfish	Total	15	102.0	12	96.4	1	96.5	28	99.4
			(7.9)		(2.2)				(5.3)

Dataset = cfdgntvl.d06

Table 33. Population assessment for channel catfish gill netted at Taylorsville Lake in October 2006.

Parameter	Actual Value	Assessment Value
CPUE < 8.0 inches	0.63 ± 0.42	2
Total CPUE	9.25 ± 2.58	4
CPUE of fish ≥ 12.0 in	2.75 ± 1.35	4
CPUE of fish ≥ 15.0 in	1.75 ± 0.98	4
CPUE of fish ≥ 20.0 in	0.13 ± 0.13	1
Instantaneous mortality (z)	0.4426	
Annual mortality (A)	35.8%	
Assessment Total		15
Assessment Rating		Good

Table 34. Population assessment for blue catfish gill netted at Taylorsville Lake in October 2006.

Parameter	Actual Value	Assessment Value
Total CPUE	5.38 ± 1.87	3
CPUE of fish ≥ 12.0 in	4.75 ± 1.93	4
CPUE of fish ≥ 15.0 in	3.88 ± 1.83	4
CPUE of fish ≥ 20.0 in	0.63 ± 0.50	2
Assessment Total		13
Assessment Rating		Good

Table 35. Fishery statistics derived from a daytime creel survey at Taylorsville Lake (3050 acres) during 14 March through 31 October 2006.

Fishing Trips		
No. of fishing trips (per acre)	28,253	(9.26)
Fishing Pressure		
Total man-hours (S.E.)[a]	142,230	(4,752.80)
Man-hours/acre	46.63	
Catch / Harvest		
No. of fish caught (S.E.)	173,169	17,585.83
No. of fish harvested (S.E.)	68,836	8,970.38
Lb of fish harvested	36,031	
Harvest Rates		
Fish/hour	0.48	
Lb/hour	0.50	
Fish/acre	22.57	
Lb/acre	11.81	
Catch Rates		
Fish/hour	1.20	
Fish/acre	56.78	
Miscellaneous Characteristics		
Male	89.65	
Female	10.35	
Resident	99.51	
Non-resident	0.49	
Method (%)		
Still fishing	58.07	
Casting	41.39	
Fly	0.05	
Trolling	0.49	
Mode (%)		
Boat	87.00	
Bank	12.95	
Dock	00.05	

[a] S.E. = Standard Error

Table 36. Fish harvest derived from a creel survey on Taylorsville Lake (3050 acres) from 14 March to 31 October 2006.

	Black bass group	Largemouth bass	Smallmouth bass	Spotted bass	Crappie group	White crappie	Black crappie	Catfish group	Channel catfish	Blue catfish	Flathead catfish	Bullhead
No. caught	31,983.96	31,911.89	38.28	33.79	52,425.22	30,257.94	22,167.28	21,333.03	17,963.61	3,071.57	201.84	96.01
(per acre)	(10.49)	(10.46)	(0.01)	(0.01)	(17.19)	(9.92)	(7.27)	(6.99)	(5.89)	(1.01)	(0.07)	(0.03)
No. harvested	2,471.53	2,471.53	0.00	0.00	23,828.90	14,845.30	8,983.60	12,601.81	9,888.10	2,440.73	201.84	71.15
(per acre)	(0.81)	(0.81)			(7.81)	(4.87)	(2.95)	(4.13)	(3.24)	(0.80)	(0.07)	(0.02)
% of total no. harvested	3.59	3.59			34.62	21.57	13.05	18.31	14.36	3.55	0.29	0.10
Lb harvested	5,686.5	5,686.5	0.00	0.00	11,353.8	6,603.9	4,749.9	11,436.6	7,967.8	3,177.8	222.4	68.6
(per acre)	(1.86)	(1.86)			(3.72)	(2.17)	(1.56)	(3.75)	(2.61)	(1.04)	(0.07)	(0.02)
% of total lb harvested	15.78	15.78			34.62	18.33	13.18	31.74	22.11	8.82	0.62	0.19
Mean length (in)		16.4				10.0	10.0		13.6	16.9	15.5	14.0
Mean weight (lb)		2.27				0.45	0.53		0.81	1.87	1.59	0.95
No. of fishing trips for that species	9,351.64				6,980.44			2,721.04				
% of all trips	33.10				24.71			9.63				
Hours fished for that species (per acre)	47,077.02 (15.44)				35,140.19 (11.52)			13,697.95 (4.49)				
No. harvested fishing for that species	2,171				21,611			7,639				
Lb harvested fishing for that species	4,907.1				10,510.1			7,792.9				
No./hour harvested fishing for that species	0.044				0.606			0.506				
% success fishing for that species	9.42				43.40			50.00				

Table 36 (cont). Fish harvest derived from a creel survey on Taylorsville Lake (3050 acres) from 14 March to 31 October 2006.

	Panfish group	Bluegill	Rock bass	Warmouth	Longear sunfish	Redear sunfish	Morone group	Hybrid striped bass	White bass	Walleye
No. caught	51,754.80	48,097.54	1,283.78	1,811.08	506.91	55.49	12,109.78	8,086.10	4,023.67	26.98
(per acre)	(16.97)	(15.77)	(0.42)	(0.59)	(0.17)	(0.02)	(3.97)	(2.65)	(1.32)	(0.01)
No. harvested	25,913.65	25,330.19	76.56	0.00	506.91	0.00	1,972.05	1,666.58	305.48	0.00
(per acre)	(8.50)	(8.30)	(0.03)		(0.17)		(0.65)	(0.55)	(0.10)	
% of total no. harvested	37.65	36.80	0.11	0.00	0.74	0.00	2.86	2.42	0.44	0.00
Lb harvested	3,331.5	3,279.5	12.1	0.00	39.9	0.00	1,964.7	1,760.2	204.5	0.00
(per acre)	(1.09)	(1.08)	(t)		(0.01)		(0.64)	(0.58)	(0.07)	
% of total lb harvested	9.25	9.10	0.03	0.00	0.11	0.00	5.45	4.89	0.57	0.00
Mean length (in)		5.6	6.0	6.0	5.0			13.3	12.1	
Mean weight (lb)		0.11	0.16	0.16	0.08			1.27	0.75	
No. of fishing trips for that species	921.46						1,426.46			
% of all trips	3.26						5.05			
Hours fished for that species (per acre)	4,638.72 (1.52)						7,180.94 (2.35)			
No. harvested fishing for that species	12,420						1,045			
Lb harvested fishing for that species	1,606.7						1,102.8			
No./hour harvested fishing for that species	2.649						0.148			
% success fishing for that species	60.87						16.05			

Table 36 (cont). Fish harvest derived from a creel survey on Taylorsville Lake (3050 acres) from 14 March to 31 October 2006.

	Carp	Drum	Illegal Black crappie	Illegal White crappie	Illegal Black bass	Anything
No. caught	835.14	1,792.29	273.06	580.79	53.70	
(per acre)	(0.27)	(0.59)	(0.09)	(0.19)	(0.02)	
No. harvested	679.16	461.21	273.06	580.79	53.70	
(per acre)	(0.22)	(0.15)	(0.09)	(0.19)	(0.01)	
% of total no. harvested	0.99	0.67	0.40	0.84	0.08	
Lb harvested	1,550.7	505.1	52.7	127.5	21.8	
(per acre)	(0.51)	(0.17)	(0.02)	(0.04)	(0.01)	
% of total lb harvested	4.30	1.40	0.15	0.35	0.61	
Mean length (in)	16.5	12.9	7.7	7.4	9.5	
Mean weight (lb)	2.34	1.01	0.18	0.21	0.42	
No. of fishing trips for that species						6,852.24
% of all trips						24.25
Hours fished for that species						34,494.78
(per acre)						(11.31)
No. harvested fishing for that species						
Lb harvested fishing for that species						
No./hour harvested fishing for that species						
% success fishing for that species						24.71

Table 37. Length distribution (Length of released fish are estimated) for each species of fish harvested at Taylorsville Lake from 14 March – 31 October 2006.

	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	32
Largemouth bass																													
Harvested													688	688	563	375	125		33										
Released				1133	1308	3225	1773	8078	2296	5085	2528	2063	896	608	288	64	64			32									
Smallmouth bass																													
Released								38																					
Spotted bass																													
Released												34																	
White crappie																													
Harvested							5539	6549	1674	739	344																		
Released		111	223	1363	3171	8624	1332	279	217	93																			
Black crappie																													
Harvested							2700	4173	1399	712																			
Released		31		1610	4118	7122	165	82	55																				
Bluegill																													
Harvested		243	4274	20188	591		34																						
Released	583	10770	5953	5461																									
Rock bass																													
Harvested				77																									
Released	59	766	206	176																									
Warmouth																													
Released	52	1552	129	52	26																								
Longear sunfish																													
Released			507																										
Redear sunfish																													
Released								28		27																			
Hybrid striped bass																													
Harvested							132	344	79	291	212	159	344	26	53			27											
Released				193	64	1156	867	1476	610	899	96	225	578	32	193			31											
White bass																													
Harvested									139	111	55																		
Released		502		603	553	427	377	603	301	151	176	25																	

Table 37 (cont). Length distribution (Length of released fish are estimated) for each species of fish harvested at Taylorsville Lake from 14 March – 31 October 2006.

	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	32
Channel catfish																													
Harvested				60		391	90	631	511	2254	1954	1052	902	751	180	571	21	60	60	150	30								
Released				952	923	2105	865	1356	231	519	231	663	202			29												31	
Blue catfish																													
Harvested								88	29	176	176	471	382	206	235	441	59	118				29		31					
Released								221	32	63	95			63		63	32	62											
Flathead catfish																													
Harvested											168					34													25
Bullhead																													
Harvested											36		35																
Released						25																							
Walleye																													
Released												27																	
Drum																													
Harvested						31		31	31	31	92	61	154					30											
Released				62	31	31				279	31	310	93	124	31	217	31	62		29									
Carp																													
Harvested								34	34	68			15			374	68	33											
Released											31	31				31						31		32					
Illegal bass																													
Harvested							36	18																					
Illegal black crappie																													
Harvested					68	205																							
Illegal white crappie																													
Harvested			138			443																							

Table 38. Black bass catch and harvest statistics derived from a creel survey at Taylorsville Lake (3,050 acres) for black bass caught and released by all anglers from 14 March to 31 October 2006.

		Largemouth bass Catch and Release		
	Harvest	12.0 – 14.9 in.	≥ 15.0 in.	Total
Total no of bass	2,471.5	9,675.7	1,951.7	31,911.9
% of black bass harvested by no.	100.0			
Total weight of fish (lbs)	5,686.5	7,515.0	4,077.4	25,429.9
% of black bass harvest by weight	100.0			
Mean length	16.4			
Mean weight	2.27			
Rate (fish/h)	0.016			

Table 39. Monthly black bass angling success at Taylorsville Lake during the 2006 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
March	186.2	0.00	445.22	2,241.28	93	0.04	0	0.00
April	3,427.5	347.09	1,053.62	5,304.00	2,213	0.44	282	0.06
May	8,191.7	803.86	2,618.03	13,179.40	6,164	0.52	804	0.07
June	7,130.5	811.05	1,455.37	7,326.47	5,644	0.79	608	0.08
July	5,752.0	230.08	1,475.48	7,427.70	5,456	0.69	197	0.02
August	2,908.4	74.57	905.42	4,557.97	2,362	0.49	75	0.02
September	2,563.1	188.86	866.51	4,362.11	1,619	0.40	189	0.05
October	1,824.5	16.00	531.99	2,678.10	1,312	0.44	16	0.01
Total	31,984.0	2,471.53	9,351.64	47,077.02	24,863		2,171	0.04
Mean						0.53		

t = < 0.01

Table 40. Crappie catch and harvest statistics derived from a creel survey at Taylorsville Lake (3,050 acres) for crappie caught and released by all anglers from 14 March to 31 October 2006.

	White crappie				Black crappie			
		Catch and Release				Catch and Release		
	Harvest	< 9.0 in.	≥ 9.0 in.	Total	Harvest	< 9.0 in.	≥ 9.0 in.	Total
Total no of crappie	14,845.3	13,491.64	1,921.0	30,257.9	8,983.6	12,881.24	302.5	22,167.3
% of crappie harvested by no.	62.3				37.7			
Total weight of fish (lbs)	6,603.9	2,309.2	728.7	9,641.8	4,749.9	2,617.4	144.6	7,511.9
% of crappie harvest by weight	58.2				41.8			
Mean length	10.0				10.0			
Mean weight	0.45				0.53			
Rate (fish/h)	0.12				0.07			

Table 41. Monthly crappie angling success at Taylorsville Lake during the 2006 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
March	930.76	93.08	630.73	3,175.15	931	0.25	93	0.02
April	12,929.18	5,943.95	2,164.49	10,896.26	10,782	0.94	4,968	0.43
May	13,857.03	3,636.51	1,579.13	7,949.48	11,752	1.16	2,871	0.28
June	7,164.30	2,196.60	422.53	2,127.04	6,523	2.54	1,994	0.78
July	1,577.70	361.56	121.69	612.59	1,117	2.13	262	0.50
August	7,755.76	4,698.20	549.19	2,764.67	7,581	2.64	4,648	1.62
September	4,721.49	3,858.13	820.09	4,128.42	4,479	1.05	3,750	0.88
October	3,489.00	3,040.87	692.59	3,486.58	3,441	0.94	3,025	0.83
Total	52,425.22	23,828.90	6,980.44	35,140.19	46,606		21,611	
Mean						1.19		0.61

Table 42. Morone catch and harvest statistics derived from a creel survey at Taylorsville Lake (3,050 acres) for Morones caught and released by all anglers from 14 March to 31 October 2006.

	Hybrid striped bass				White bass			
		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
Total no of hybrids	1,666.6	1,220.0	833.5	5,956.7	305.5	352.2	0	4,023.67
% of Morones harvested by no.	84.5%				15.5%			
Total weight of fish (lbs)	1,760.2	798.0	544.5	8,086.1	204.5	119.9	0	1,468.4
% of Morones harvest by weight	89.6%				10.4%			
Mean length	13.3				12.1			
Mean weight	1.27				0.75			
Rate (fish/h)	0.013				0.002			

Table 43. Monthly Morone angling success at Taylorsville Lake during the 2006 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 Morones anglers	Morones caught by Morone anglers	Morones caught/hr by Morone anglers	Morones harvested by Morone anglers	Morones harvested/hr by Morone anglers
March								
April	412.17	86.77	160.33	807.13	0	0	0	0
May	2,602.98	306.23	332.45	1,673.57	957	0.78	115	0.09
June	1,520.72	67.59	297.33	1,496.81	338	0.15	68	0.03
July	4,667.35	821.72	304.22	1,531.49	3,681	3.15	789	0.68
August	770.60	24.86	133.59	672.49	323	0.44	25	0.03
September	647.52	296.78	30.95	155.79	0	0	0	0
October	1,488.43	368.11	130.49	656.89	704	1.42	48	0.09
Total	12,109.78	1,972.05	1,426.46	7,180.94	6,003		1,045	
Mean						0.92		0.15

Table 44. Catfish catch and harvest statistics derived from a creel survey at Taylorsville Lake (3,050 acres) for catfish caught and released by all anglers from 14 March to 31 October 2006.

	Channel catfish Catch and Release				Blue catfish Catch and Release				Flathead catfish Catch and Release				Bullhead 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	9,888.1	1,413.0	230.5	17,963.6	2,440.7	158.0	219.8	3,071.6	201.8	-	-	201.8	71.2	-	-	96.0
% of catfish harvested by no.	78.5%				19.4%				1.6%				0.6%			
Total weight of fish (lbs)	7,967.8	428.0	70.7	10,415.5	3,177.8	129.0	180.7	3,693.5	222.4	-	-	222.4	68.6	-	-	75.4
% of catfish harvest by weight	69.7%				27.8%				1.9%				0.6%			
Mean length	13.6				16.9				15.5				14.0			
Mean weight	0.81				1.87				1.59				0.95			
Rate (fish/h)	0.067				0.017				0.001				0.0004			

Table 45. Monthly catfish angling success at Taylorsville Lake during the 2006 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
March	139.61	46.54	111.31	560.32	140	0.26	47	0.09
April	1,865.62	607.41	332.12	1,671.91	564	0.31	282	0.15
May	4,019.30	2,526.42	706.45	3,556.34	1,723	0.50	1,149	0.33
June	5,339.43	3,379.39	281.68	1,418.03	1,995	1.24	1,589	0.99
July	3,516.95	2,333.68	395.49	1,990.93	2,070	0.75	1,840	0.66
August	4,524.19	2,659.83	623.40	3,138.28	3,853	1.19	2,162	0.67
September	1,591.82	728.46	170.21	856.84	945	0.92	378	0.37
October	336.10	320.09	100.38	505.30	192	0.44	192	0.44
Total	21,333.03	12,601.81	2,721.04	13,697.95	11,482		7,639	
Mean						0.77		0.51

TAYLORSVILLE LAKE ANGLER ATTITUDE SURVEY 2006

1. Have you been surveyed this year? Yes - stop survey No – continue
2. Name _____ and Phone number _____ **(Optional)**
3. What species of fish do you fish for (check all) and which one do you primarily fish for at Taylorsville Lake (Circle 1 & go to that section below)?

Fished for: 54.8 Crappie 50.8 Bass 17.9 Hybrids / White Bass 33.0 Catfish 11.7 Bluegill 1.1 Other
Preferred: 35.2 Crappie 42.1 Bass 5.0 Hybrids / White Bass 16.4 Catfish 0.6 Bluegill 0.6 Other

-Ask following questions relevant to each species fished for

Crappie Fisherman

4. What level of satisfaction do you have with crappie fishing at Taylorsville Lake?
   24.5 Very satisfied 39.4 somewhat satisfied 9.7 neutral 19.2 somewhat dissatisfied 7.5 very dissatisfied
5. Do you support or oppose the current 9-inch length limit regulation on crappie at the lake? 75.6 Support 22.2 Oppose 2.2 No opinion
   What size limit would you prefer? 2.2 8 73.3 9 24.4 10 1.1 Other
6. Do you support or oppose the current 15 fish creel limit on crappie at the lake? 81.3 Support 15.4 Oppose 3.3 No opinion
   What creel limit would you prefer? 82.7 current 5.7 30 3.4 20 3.4 10 1.1 60 3.4 other

Bass Fisherman

7. What level of satisfaction do you have with bass fishing at Taylorsville Lake?
   7.4 Very satisfied 46.3 somewhat satisfied 6.3 neutral 28.4 somewhat dissatisfied 10.5 very dissatisfied 1.1 No opinion
8. Do you support or oppose the current 15-inch size limit on largemouth bass? 79.1 Support 16.5 Oppose 4.4 No opinion
   What size limit would you prefer on largemouth bass at the lake 77.8 current 3.3 12 3.3 18 15.6 Other
9. Do you support or oppose the current 6 fish daily creel limit on largemouth bass? 82.6 Support 10.9 Oppose 6.5 No opinion
   What daily creel limit would you prefer on largemouth bass at Taylorsville Lake? 83.7 current 2.3 5 3.5 4 2.3 3 7.0 Other

Hybrid Striped Bass/White Bass Fisherman

10. What level of satisfaction do you have with white bass fishing at Taylorsville Lake?
    8.6 Very satisfied 34.3 somewhat satisfied 31.4 neutral/no opinion 17.1 somewhat dissatisfied 8.6 very dissatisfied
11. What level of satisfaction do you have with the hybrid striped bass fishing at Taylorsville Lake?
    5.7 Very satisfied 40.0 somewhat satisfied 17.1 neutral/no opinion 20.0 somewhat dissatisfied 17.1 very dissatisfied
12. Do you support or oppose the current "15 fish daily creel limit, with only 5 fish over 15 inches" regulation on the hybrid striped bass and white bass? 77.4 Support 6.5 Oppose 16.1 No opinion

Catfish Fishermen

13. What level of satisfaction do you have with catfish fishing at Taylorsville Lake?
    37.1 Very satisfied 45.2 somewhat satisfied 8.1 neutral/no opinion 9.7 somewhat dissatisfied 0.0 very dissatisfied
14. Do you support or oppose the no size on channel catfish? 68.3 Support 15.9 Oppose 15.9 No opinion
    What size limit would you prefer on catfish? 76.8 no size limit 12.5 12 5.3 15 5.3 Other
15. Do you support or oppose the no creel limit on channel catfish? 71.9 Support 17.5 Oppose 10.5 No opinion
    What daily creel limit would you prefer on catfish? 81.1 no daily creel limit 1.9 5 5.6 10 11.3 Other
16. Blue catfish are currently being stocked in Taylorsville Lake.
    Would you be in favor of a trophy blue catfish fishery at Taylorsville Lake? 45.7 Yes 9.3 No 45.1 No opinion

Table 46. Species composition, relative abundance, and CPUE of black bass collected in 7.5 hours of 15-minute electrofishing runs in Herrington Lake, May 2006; numbers in parenthesis are standard errors.

	Inch Class																					
Location/Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Upper																						
Largemouth bass			2	22	48	61	41	19	36	44	28	11	9	5	9	7	5	6	2	1	356	142.40 (15.85)
Spotted bass								1		1											2	0.80 (0.53)
Smallmouth bass							1														1	0.40 (0.40)
Middle																						
Largemouth bass		1		2	7	29	24	12	24	41	76	42	28	15	23	18	13	5			360	144.00 (10.99)
Spotted bass					3	4	22	18	14		2		1								64	25.60 (3.33)
Smallmouth bass							1														1	0.40 (0.40)
Lower																						
Largemouth bass		1		1	2	9	5	1	7	21	37	36	21	9	12	13	2				177	70.80 (7.64)
Spotted bass	1		1		1	5	24	16	19	6	2	2	3								80	32.00 (2.98)
Total																						
Largemouth bass		2	2	25	57	99	70	32	67	106	141	89	58	29	44	38	20	11	2	1	893	119.07 (9.20)
Spotted bass	1		1		4	9	46	35	33	7	4	2	4								146	19.47 (2.89)
Smallmouth bass							2														2	0.27 (0.19)

dataset = cfdpsher.d06

Table 47. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Herrington Lake from 1994-2006; 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)
2006	24.7	(4.8)	36.7	(4.8)	38.4	(3.8)	19.3	(1.8)	119.1	(9.2)

Dataset = cfdpsher.d06

Table 48. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in each area of Herrington Lake in 2006; confidence intervals are in parentheses.

Area	Species	No. fish > stock size	PSD	RSD_{15}
Lower	Largemouth bass	164	79 (± 6)	22 (± 6)
Middle	Largemouth bass	321	69 (± 5)	23 (± 5)
Upper	Largemouth bass	223	37 (± 6)	16 (± 5)
Total	Largemouth bass	708	61 (± 4)	20 (± 3)

Dataset = cfdpsher.d06

Table 49. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 7.5 hours of electrofishing at Herrington Lake during April 2006 Fish were collected in 15-minute runs.

	Inch Class																					STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE ERR
1	2	2	25	57	87	16														188	21	25.09 4.87
2					12	54	32	67	67	78	13									324	36	43.24 4.52
3									39	63	76	45	13							236	26	31.44 2.75
4												13	5	22	8					48	5	6.37 0.70
5													5		23	15	2			45	5	6.04 0.71
6													5	11			4			21	2	2.76 0.37
7														11		5				16	2	2.13 0.29
8																	2		1	3	0	0.36 0.09
9															8					8	1	1.01 0.15
10																	2			2	0	0.29 0.07
11																		2	1	3	0	0.33 0.19
Total	2	2	25	57	99	70	32	67	106	141	89	58	29	44	38	20	11	2	1	893	100	119.07 9.20
%	0	0	3	6	11	8	4	8	12	16	10	6	3	5	4	2	1	0	0	100		

Dataset = cfdagher.d03 and cfdpsher.d06

Table 50. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Herrington Lake from 1996-2006.

	Year									
Age	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	17.2	38.5	17.8	13.1	28.2	16.7	20.9	33.5	72.1	25.1
2	15.0	33.4	27.4	24.9	41.4	27.9	28.0	65.2	60.7	43.2
3	16.0	26.3	14.3	24.2	15.1	11.9	26.9	37.0	23.8	31.4
4	10.8	11.6	17.8	28.4	17.4	13.3	6.0	10.0	6.4	6.4
5	9.2	9.3	6.7	9.1	9.8	12.5	4.1	7.1	5.8	6.0
6	5.6	6.3	6.5	4.3	4.4	6.2	2.9	4.7	3.4	2.8
7	2.7	2.9	6.8	1.2	2.6	5.4	1.6	2.4	1.9	2.1
8	3.0	2.9	1.0	1.7	2.3	3.2	0.5	0.4	0.2	0.4
9	2.7	2.0	2.3	1.3	1.6	1.8	0.5	0.8	0.8	1.0
10	1.9	1.2	0.6	0.1	1.0	2.2	0.3	0.3	0.2	0.3
11	0.9	0.5					0.9	1.33	0.8	0.3

Table 51. Population assessment from largemouth bass collected from Herrington Lake during May 2006

Parameter	Value	Assessment Score
Length at age 3*	13.7 ± 0.2	4
Spring CPUE of Age 1	25.09 ± 4.87	2
Spring CPUE 12-14.9 in fish	38.40 ± 3.81	4
Spring CPUE ≥ 15.0-in fish	19.33 ± 1.76	3
Spring CPUE ≥ 20.0-in fish	0.40 ± 0.22	2
Instantaneous mortality (z)	0.525	
Annual mortality (A)	40.9%	
Total Score		15
Assessment Rating		Good

* 2003 age and growth dataset was used

Table 52. 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 2006: 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	21	Total	CPUE
Lower																			
Largemouth bass	6	10	15	8	4	3	2	1	1	2	4	1	3		1	1		62	41.3 (8.3)
Middle																			
Largemouth bass	15	9	7	9	14	7	7	5	11	6	7	4	4	1				106	70.7 (25.1)
Upper																			
Largemouth bass	4	11	15	27	17	6	2	9	8	2	2	4	1		1		1	110	73.3 (8.9)
Total																			
Largemouth bass	25	30	37	44	35	16	11	15	20	10	13	9	8	1	2	1	1	278	61.8 (9.4)

Dataset = cfdwrher.d06

Table 53. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Herrington Lake on 8 and 11-12 September 2006. Standard errors are in parentheses.

Species	Area	Size Range						Total	
		8.0 – 11.9 in		12.0 – 14.9 in		≥ 15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Lower	6	84.3 (3.1)	8	88.6 (2.7)	2	93.9 (0.7)	16	87.7 (1.2)
	Middle	29	90.8 (1.7)	15	92.1 (2.0)	1	89.0 (2.5)	45	91.2 (1.3)
	Upper	21	91.2 (1.8)	7	90.8 (3.5)	2	88.1 (9.4)	30	90.9 (1.6)
	Total	56	90.3 (1.2)	30	90.9 (1.4)	5	90.6 (3.3)	91	90.5 (0.9)

Dataset = cfdwrher.d06

Table 54. 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	25.1	4.9
2006	Total	4.8	0.1	40.9	5.8	20.4	4.3		

Table 55. Species composition, relative abundance, and CPUE of crappie collected in 4.5 hours of 15-minute electrofishing runs in Herrington Lake, April 2006; numbers in parenthesis are standard errors.

Location/Species	Inch Class							Total	CPUE
	4	7	8	9	10	11	12		
Upper									
White crappie		1	2	2	22	14	1	42	28.00 (8.52)
Black crappie	1	1	1	1	1	8	1	14	9.33 (4.22)
Middle									
White crappie				1	6	3		10	6.67 (5.90)
Black crappie			1	1	2	5	4	13	8.67 (2.40)
Lower									
White crappie								0	0.00 (0.00)
Black crappie					1	4		5	3.33 (1.85)
Total									
White crappie		1	2	3	28	17	1	52	11.56 (4.35)
Black crappie	1	1	2	2	4	17	5	32	7.11 (1.85)

Dataset = cfdpsher.d06

Table 56. PSD and RSD_{10} values calculated for crappie collected at Herrington Lake in electrofished during April 2006.

Species	No. fish > stock size	PSD	RSD_{10}
White crappie	52	98 (± 4)	88 (± 9)
Black crappie	31	97 (± 6)	84 (± 13)

Dataset = cfdpsher.d06

Table 57. Mean back calculated lengths (in.) at each annulus for otoliths from white crappie electrofished at Herrington Lake in 2006.

		Age		
Year Class	No.	1	2	3
2005	1	7.0		
2004	3	4.9	8.9	
2003	25	6.0	9.2	10.8
Mean	29	5.9	9.1	10.8
Smallest		4.6	8.0	9.7
Largest		7.1	10.5	12.0
Std Error		0.1	0.1	0.1
95% ConLo		5.6	8.9	10.6
95% ConHi		6.2	9.4	11.0

Intercept value = 0.00
Dataset = cfdagher.d06

Table 58. Age frequency and CPUE (no./hour) per inch class of white crappie electrofished at Herrington Lake in 2006.

	Inch Class									STD
Age	7	8	9	10	11	12	Total	%	CPUE	ERR
1	1						1	2	0.22	0.22
2		2	1				3	6	0.67	0.41
3			2	28	17	1	48	92	10.67	4.10
Total	1	2	3	28	17	1	52	100	11.56	4.35
(%)	2	4	6	54	33	2	100			

Dataset = cfdpsher.d06 and cfdagher.d06
CPUE of ≥ 8 in. crappie = 11.33 ± 4.29; ≥ 10 in. = 10.22 ± 3.98

Table 59. Mean back calculated lengths (in.) at each annulus for otoliths from black crappie electrofished at Herrington Lake in 2006.

		Age		
Year Class	No.	1	2	3
2005	1	4.4		
2004	5	5.4	9.2	
2003	26	5.6	9.6	11.4
Mean	32	5.5	9.5	11.4
Smallest		4.4	7.2	8.8
Largest		7.1	11.0	12.4
Std Error		0.1	0.2	0.2
95% ConLo		5.3	9.2	11.1
95% ConHi		5.8	9.8	11.7

Intercept value = 0.00
Dataset = cfdagher.d06

Table 60. Age frequency and CPUE (no./hour) per inch class of black crappie collected during 4.5 hours of electrofishing at Herrington Lake in 2006.

	Inch Class										STD
Age	4	7	8	9	10	11	12	Total	%	CPUE	ERR
1	1							1	3	0.22	0.22
2		1	1	2	1			5	15	1.04	0.39
3			1		3	17	5	26	82	5.85	1.67
Total	1	1	2	2	4	17	5	32	100	7.11	1.85
%	3	3	6	6	13	53	16	100			

Dataset = cfdpsher.d06 and cfdagher.d06
CPUE of ≥ 8 in. crappie = 6.67 ± 1.68; ≥ 10 in. = 5.78 ± 1.69

Table 61. Length distribution and CPUE (no./net night) of white bass and hybrid striped bass collected during 16 net-nights of gill netting in Herrington Lake in October 2006: numbers in parentheses are standard errors.

Species	Inch Class																	Total	CPUE
	7	8	9	10	11	12	13	14	15	16	17	18	20	21	22	23	26		
White bass		3		1	8	4	5	11	1									33	2.06 (0.67)
Hybrid striped bass	1	19	33	11				1	1	7	5	1	1	1	2	1	1	85	5.31 (1.54)

Dataset = cfdgnher.d06

Table 62. Mean back calculated lengths (in.) at each annulus for otoliths from hybrid striped bass gill netted at Herrington Lake in 2006.

		Age				
Year Class	No.	1	2	3	4	5
2005	14	12.6				
2004	2	12.0	18.9			
2003	1	13.6	18.7	21.6		
2002	1	14.3	20.9	24.0	25.4	
2001	2	13.5	18.2	20.7	21.4	22.0
Mean	20	12.7	19.0	21.7	22.7	22.0
Smallest		10.9	18.1	20.4	21.3	21.8
Largest		14.3	20.9	24.0	25.4	22.1
Std Error		0.2	0.4	0.8	1.3	0.1
95% ConLo		12.4	18.2	20.2	20.1	21.7
95% ConHi		13.1	19.8	23.3	25.4	22.2

Intercept Value = 0.00
Dataset = cfdagher.d06

Table 63. Age frequency and CPUE (no./net night) per inch class of hybrid striped bass gill netted for 16 net nights at Herrington Lake in 2006.

	Inch Class																STD
Age	7	8	9	10	15	16	17	18	20	21	22	23	26	Total	%	CPUE	ERR
0+	1	19	33	11										64	76	4.00	1.51
1+					1	7	5	1						14	17	0.88	0.48
2+									1	1				2	2	0.13	0.09
3+												1		1	1	0.06	0.06
4+													1	1	1	0.06	0.06
5+											2			2	2	0.13	0.09
Total	1	19	33	11	1	7	5	1	1	1	2	1	1	84	100	5.31	1.54
%	1	23	39	13	1	8	6	1	1	1	2	1	1	100			

Dataset = cfdagher.d06 and cfdgnher.d06

Table 64. Population assessment for hybrid striped bass gill netted at Herrington Lake in October 2006.

Parameter	Actual Value	Assessment Value
CPUE of hybrid striped bass (excluding age 0)	1.31 ± 0.56	1
Mean age-2+ length at capture	21.4 ± 0.5	4
CPUE of fish ≥ 15.0 in	1.31 ± 0.56	1
CPUE of age 1 hybrid striped bass	4.00 ± 1.51	2
Instantaneous mortality (z)		
Annual mortality (A)		
Assessment Total		8
Assessment Rating		Fair

Table 65. Mean back calculated lengths (in.) at each annulus for otoliths from white bass gill netted at Herrington Lake in 2006.

		Age		
Year Class	No.	1	2	3
2005	14	9.1		
2004	3	9.8	12.7	
2003	14	9.5	12.6	13.7
Mean	31	9.3	12.6	13.7
Smallest		5.2	11.9	12.9
Largest		10.7	13.4	14.6
Std Error		0.2	0.1	0.1
95% ConLo		9.0	12.4	13.4
95% ConHi		9.7	12.8	13.9

Intercept Value = 0.00
Dataset = cfdagher.d06

Table 66. Age frequency and CPUE (no./net night) per inch class of white bass gill netted for 16 net nights at Herrington Lake in 2006.

	Inch Class											STD
Age	8	9	10	11	12	13	14	15	Total	%	CPUE	ERR
0+	3								3	9	0.19	0.19
1+			1	8	4	1			14	42	0.88	0.27
2+						2	1		3	9	0.18	0.09
3+						2	10	1	13	40	0.82	0.39
Total	3	0	1	8	4	5	11	1	33	100	2.06	0.67
%	9	0	3	24	12	15	33	3	100			

Dataset = cfdagher.d06 and cfdgnher.d06

Table 67. Population assessment for white bass gill netted at Herrington Lake in October 2006.

Parameter	Actual Value	Assessment Value
CPUE of white bass (excluding age 0)	1.88 ± 0.63	1
Mean age-2+ length at capture	13.9 ± 0.1	4
CPUE of fish ≥ 12.0 in	1.31 ± 0.51	1
CPUE of age 1 white bass	0.19 ± 0.19	1
Assessment Total		7
Assessment Rating		Fair

Table 68. Species composition, relative abundance, and CPUE of black bass collected in 3.0 hours of 15-minute electrofishing runs in Guist Creek Lake, April 2006; numbers in parenthesis 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	23	
Largemouth bass			15	34	17	24	41	54	62	51	26	26	39	47	48	57	26	18	7	2	1	595	198.3 (19.0)

Dataset = cfdpsgcl.d06

Table 69. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Guist Creek Lake from 1992-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 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)
2006	30.0	(6.6)	69.3	(8.2)	30.3	(3.3)	68.7	(6.4)	198.3	(19.0)

Dataset = cfdpsgcl.d06

Table 70. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Guist Creek Lake in 2006; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	505	59 (± 4)	41 (± 4)

Dataset = cfdpsgcl.d06

Table 71. 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 2006. Fish were collected in 15-minute runs.

	Inch Class																						STD
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	21	23	Total	%	CPUE	ERR
1	15	31																			46	8	15.20	4.51
2		3	17	24	41	49	14														148	25	49.26	6.83
3						5	48	34	19	3											110	18	36.59	3.94
4								17	2	13	31	31	10								104	18	34.83	3.00
5									5	10	8	16	29								67	11	22.25	1.84
6													10	43							52	9	17.45	2.26
7														14	13						27	5	9.08	0.86
8																					0	0	0.00	0.00
9															13	18					31	5	10.33	1.30
10																	7				7	1	2.33	0.92
11																					0	0	0.00	0.00
12																			2	1	3	1	1.00	0.72
Total	15	34	17	24	41	54	62	51	26	26	39	47	48	57	26	18	7	0	2	1	617	100	198.33	19.02
%	3	6	3	4	7	9	10	9	4	4	7	8	8	10	4	3	1	0	0	0	100			

Dataset = cfdaggcl.d06 and cfdpsgcl.d06

Table 72. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Guist Creek Lake from 1999-2006.

	Year							
Age	1999	2000	2001	2002	2003	2004	2005	2006
1	50.8	16.8	25.7	23.8	16.3	22.1	21.4	15.2
2	31.3	19.8	32.9	30.1	58.3	33.8	106.5	49.3
3	12.9	4.5	7.5	6.3	18.3	9.9	36.7	36.6
4	32.9	11.4	11.2	12.0	29.9	32.1	54.5	34.8
5	17.1	17.1	20.3	19.7	33.7	47.3	32.9	22.3
6	11.0	13.8	15.4	11.6	16.9	21.6	11.3	17.5
7	14.6	6.1	10.3	8.9	10.6	10.8	7.3	9.1
8	8.8	10.0	8.3	8.6	8.8	10.6	0.0	0.0
9	9.4	4.7	6.4	7.3	6.9	9.1	9.3	10.3
10	9.8	2.2	3.7	3.4	4.6	4.1	2.7	2.3
11	1.9	3.9	1.8	1.6	2.0	2.7	0.0	0.0
12	1.3		0.6	1.1	1.6	1.7	2.0	1.0

Table 73. Population assessment from largemouth bass collected from Guist Creek Lake during April 2006.

Parameter	Value	Assessment Score
Length at age 3*	11.5 ± 0.2	4
Spring CPUE of Age 1	15.20 ± 4.51	1
Spring CPUE 12-14.9 in fish	30.33 ± 3.25	2
Spring CPUE ≥ 15.0-in fish	68.67 ± 6.44	4
Spring CPUE ≥ 20.0-in fish	3.33 ± 1.46	3
Instantaneous mortality (z)	0.456	
Annual mortality (A)	36.6%	
Total Score		14
Assessment Rating		Good

* 2005 Age and growth dataset was used

Table 74. Length distribution and CPUE (no./hour) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Guist Creek Lake in September 2006: 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		
Largemouth bass	6	43	12	14	1		18	13	13	9	6	8	5	2	9	2	1	2	1	165	110.0 (15.0)

Dataset = cfdwrgcl.d06

Table 75. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Guist Creek Lake on 7 September 2006. 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	53	89.0 (1.1)	19	96.0 (1.7)	17	99.9 (2.2)	89	92.6 (1.0)

Dataset = cfdwrgcl.d06

Table 76. 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	15.2	4.5
2006	Total	3.9	0.1	50.7	8.5	10.0	4.2		

Table 77. Length distribution and CPUE (no./net night) of hybrid striped bass and yellow bass collected during 8 net-nights of gill netting in Guist Creek Lake in October 2006: numbers in parentheses are standard errors.

	Inch Class																					
Species	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Total	CPUE
Hybrid striped bass							2				3	1	1	4	5	4	4		1	2	27	3.38 (1.31)
Yellow bass	43	64	3																		110	13.75 (6.65)

Dataset = cfdgngcl.d06

Table 78. Mean back calculated lengths (in.) at each annulus for otoliths from hybrid striped bass gill netted at Guist Creek Lake in 2006.

		Age				
Year Class	No.	1	2	3	4	5
2005	2	8.5				
2004	5	8.3	13.3			
2003	16	7.2	14.2	18.7		
2002	2	9.3	15.9	19.5	22.5	
2001	2	7.8	11.6	17.1	21.3	24.4
Mean	27	7.7	14.0	18.6	21.9	24.4
Smallest		5.7	8.4	14.5	19.7	24.2
Largest		10.1	16.8	22.0	23.4	24.7
Std Error		0.2	0.3	0.4	0.8	0.2
95% ConLo		7.3	13.3	17.9	20.3	24.0
95% ConHi		8.2	14.6	19.4	23.6	24.9

Intercept Value = 0.00
Dataset = cfdaggcl.d06

Table 79. 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 2006.

	Inch Class													STD
Age	12	16	17	18	19	20	21	22	24	25	Total	%	CPUE	ERR
1+	2										2	7	0.25	0.25
2+		3	1	1							4	19	0.63	0.18
3+					4	5	4	3			6	59	2.00	0.78
4+								1	1		7	7	0.25	0.15
5+										2	2	7	0.25	0.16
Total	2	3	1	1	4	5	4	4	1	2	27	100	3.38	1.31
%	7	11	4	4	15	19	15	15	4	7	100			

Dataset = cfdaggcl.d06 and cfdgngcl.d06

Table 80. Number of fish and the relative weight (Wr) for each length category of hybrid striped bass collected at Guist Creek Lake in October 2006.

Size range					
8.0 – 11.9 inch		12.0 – 14.9 inch		≥ 15.0 inch	
No.	Wr	No.	Wr	No.	Wr
0		2	83.03 (5.26)	25	86.53 (1.71)

Dataset = cfdgngcl.d06

Table 81. Population assessment for hybrid striped bass gill netted at Guist Creek Lake in October 2006.

Parameter	Actual Value	Assessment Value
CPUE of hybrid striped bass (excluding age 0)	3.38 ± 1.31	1
Mean age-2+ length at capture	17.1 ± 0.3	3
CPUE of fish ≥ 15.0 in	3.13 ± 1.14	2
CPUE of age 1+ hybrid striped bass	0.25 ± 0.25	1
Assessment Total		7
Assessment Rating		Fair

Table 82. Length distribution and CPUE (no./net night) of channel catfish and white catfish collected during 8 net-nights of gill netting in Guist Creek Lake in October 2006: numbers in parentheses are standard errors.

Species	Inch Class																				Total	CPUE
	3	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	24	26	27		
Channel catfish			1	8	8	12	4	3	3	2	1	2	1	1	3	3	3	1	1	1	58	7.25 (2.97)
White catfish	1	2	8	6	3	3	1	2	1		1										28	3.50 (0.98)

Dataset = cfdgngcl.d06

Table 83. Length frequency, relative abundance, and CPUE of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Beaver Lake, April 2006; numbers in parenthesis 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	22		
Largemouth bass	1	75	119	20	15	78	90	138	129	58	16	6	3	3	2	4	3	2	0	3	765	382.5 (34.9)

Dataset = cfdpsbvr.d06

Table 84. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Beaver Lake from 1992-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 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)
2006	115.0	(11.3)	217.5	(36.5)	40.0	(3.7)	10.0	(2.3)	382.5	(34.9)

Dataset = cfdpsbvr.d06

Table 85. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Beaver Lake in 2006; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	535	19 (± 3)	4 (± 2)

Dataset = cfdpsbvr.d06

Table 86. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Beaver Lake during April 2006. Fish were collected in 15-minute runs.

	Inch Class																						STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	ERR
1	1	75	119	20	2																217	28	108.3	10.2
2					13	69	54	13													149	20	74.6	12.1
3						9	18	38	47		5										117	15	58.3	9.0
4							18	88	82	58	11	4	3	1							264	34	131.9	16.2
5												2		1	1	1					5	1	2.5	0.8
7														1		2	2				5	1	2.3	0.4
8														1	1	2	1				4	1	2.1	0.4
11																		2		3	5	1	2.5	1.1
Total	1	75	119	20	15	78	90	138	129	58	16	6	3	3	2	4	3	2	0	3	765	100	382.5	34.9
%	0	10	16	3	2	10	12	18	17	8	2	1	0	0	0	1	0	0	0	0	100			

Dataset = cfdagbvr.d03 and cfdpsbvr.d06

Table 87. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Beaver Lake from 1999-2006.

	Year							
Age	1999	2000	2001	2002	2003	2004	2005	2006
1	25.5	33.1	47.8	35.4	133.2	97.6	38.7	108.3
2	25.4	36.8	149.0	96.8	68.8	160.9	160.7	74.6
3	27.7	7.5	14.4	19.9	29.8	44.8	68.3	58.3
4	50.4	29.4	14.3	11.5	64.4	97.0	141.2	131.9
5	3.4	13.3	15.3	9.5	5.6	5.6	4.1	2.5
6	0.4	6.2	15.6	9.4	0.0	0.0	0.0	0.0
7	5.3	1.9	4.8	4.6	3.5	4.6	3.0	2.3
8	3.5	1.3	2.6	2.5	5.3	5.0	3.0	2.1
9	2.6	1.2	5.7	7.1	0.5	0.0	0.0	0.0
10	0.7	0.3	1.4	1.9	0.0	0.0	0.0	0.0
11	5.8	1.4	0.5	0.8	0.5	2.0	4.5	2.5
12	1.8	0.7	2.2	1.2	0.5	0.0	0.0	0.0

Table 88. Population assessment from largemouth bass collected from Beaver Lake during April 2006.

Parameter	Value	Assessment Score
Length at age 3*	10.7 ± 0.43	2
Spring CPUE of Age 1	108.33 ± 10.21	4
Spring CPUE 12-14.9 in fish	40.00 ± 3.70	3
Spring CPUE ≥ 15.0-in fish	10.00 ± 2.39	2
Spring CPUE ≥ 20.0-in fish	2.50 ± 1.05	3
Instantaneous mortality (z)	0.4602	
Annual Mortality (A)	36.9%	
Total Score		14
Assessment Rating		Good

* 2003 age and growth dataset was used

Table 89. 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 2006: numbers in parentheses are standard errors.

Species	Inch Class															Total	CPUE
	3	4	5	6	7	8	9	10	11	12	13	14	15	18	21		
Largemouth bass	2	10	0	33	95	79	49	74	69	45	11	5	3	1	1	477	318.0 (19.6)

Dataset = cfdwrbvr.d06

Table 90. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Beaver Lake on 27 September 2006. 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	84	83.9 (0.8)	36	84.6 (0.9)	5	81.9 (4.4)	125	84.0 (0.6)

Dataset = cfdwrbvr.d06

Table 91. 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	4.0	0.03	199.3	26.3	18.7	4.1	108.3	10.2
2006	Total	4.3	0.1	8.0	2.7	0.0			

Table 92. Species composition, relative abundance, and CPUE of bluegill and redear sunfish collected in 2.50 hours of 7.5-minute electrofishing runs in Beaver Lake, May 2006; numbers in parenthesis are standard errors.

Species	Length Class									Total	CPUE
	1	2	3	4	5	6	7	8	9		
Bluegill	9	42	63	53	38	34	106	21		366	145.1 (24.7)
Redear sunfish		1	19	35	63	90	118	81	9	416	164.4 (13.8)

Dataset = cfdpsbvr.d06

Table 93. PSD and RSD values calculated for sunfish collected during 2.50 hours of electrofishing at Beaver Lake during May 2006. Fish were collected in 7.5-minute runs.

Species	No. fish > stock size	PSD	RSD
Bluegill	315	51 (± 6)	7 (± 3)
Redear sunfish	396	53 (± 5)	2 (± 1)

Bluegill = RSD-8; Redear = RSD-9
Dataset = cfdpsbvr.d06

Table 94. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from Beaver Lake from 1992-2006; 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	
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)
2006	20.1	(4.9)	60.9	(8.6)	55.7	(13.5)	8.3	(2.9)	0.0		145.1	(24.7)

Dataset = cfdpvr.d06

Table 95. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Beaver Lake in 2006.

		Age						
Year	No.	1	2	3	4	5	6	7
2005	3	2.1						
2004	24	1.9	3.4					
2003	23	1.8	3.6	5.2				
2002	12	2.6	4.5	6.5	7.5			
2001	7	2.4	4.3	5.5	6.7	7.3		
2000	1	3.0	4.7	5.4	7.0	7.8	8.1	
1999	4	3.0	4.9	6.0	6.6	7.1	7.6	7.8
Mean	74	2.1	3.8	5.7	7.1	7.2	7.7	7.8
Smallest		1.0	2.1	4.1	5.2	5.5	7.0	7.2
Largest		3.6	5.6	7.2	8.1	8.2	8.1	8.2
Std Error		0.1	0.1	0.1	0.1	0.2	0.2	0.2
95% ConLo		2.0	3.6	5.4	6.8	6.8	7.3	7.4
95% ConHi		2.2	4.0	5.9	7.4	7.7	8.1	8.3

Intercept value = 0.00
Dataset = cfdagbvr.d06

Table 96. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 2.50 hours of electrofishing at Beaver Lake during May 2006. Fish were collected in 7.5-minute runs.

	Inch Class											STD
Age	1	2	3	4	5	6	7	8	Total	%	CPUE	ERR
1	9	8							17	5	6.85	1.94
2		34	63	14	3				114	31	45.13	7.87
3				39	33	15			86	23	33.76	4.11
4						10	74	7	91	25	36.18	9.62
5					3	10	11	7	30	8	11.92	2.56
6								2	2	1	0.93	0.32
7							21	5	26	7	10.29	2.95
Total	9	42	63	53	38	34	106	21	366	100	145.07	24.66
%	2	11	17	14	10	9	29	6	100			

Dataset = cfdagbvr.d06 and cfdpsbvr.d06

Table 97. Electrofishing catch rate (fish/hour) of each age of bluegill collected from Beaver Lake from 1999-2006.

	Year							
Age	1999	2000	2001	2002	2003	2004	2005	2006
1	12.7	62.0	44.8	10.2	31.1	31.7	13.6	6.9
2	11.9	243.2	167.7	70.4	100.1	102.2	63.2	45.1
3	3.9	52.1	140.0	201.7	26.4	17.9	62.0	33.8
4	6.3	43.5		49.5	119.6	50.6	37.8	36.2
5	0.7	3.2		1.8	26.8	79.9	32.3	11.9
6						15.3	15.8	0.9
7								10.3

Table 98. Population assessment for spring-collected bluegill collected from Beaver Lake in May 2006.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	3.4 ± 0.2	1
Years to 6 inches	3 - 3+	3
CPUE of fish ≥ 6.0 in	64.07 ± 15.90	3
CPUE of fish ≥ 8.0 in	8.33 ± 2.87	3
Instantaneous mortality (z)	0.565	
Annual Mortality (A)	43.2%	
Assessment Total		10
Assessment Rating		Fair

Table 99. Electrofishing CPUE data (no./hour) for each size group of redear sunfish collected from Beaver Lake from 1992-2006; 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	
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)
2006	0.4	(0.4)	46.1	(6.2)	82.2	(6.2)	35.7	(5.7)	0.0		164.4	(13.8)

Dataset = cfdpsbvr.d06

Table 100. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from Beaver Lake in 2006.

		Age						
Year	No.	1	2	3	4	5	6	7
2005	1	2.4						
2004	22	2.4	4.1					
2003	14	2.2	4.3	5.7				
2002	20	3.1	5.1	6.9	7.7			
2000	8	3.4	5.8	7.1	7.9	8.5	8.9	
1999	5	3.1	6.0	7.3	7.8	8.1	8.4	8.6
Mean	70	2.7	4.8	6.6	7.7	8.3	8.7	8.6
Smallest		1.1	3.2	4.7	6.2	7.0	7.6	8.5
Largest		5.0	7.1	8.1	8.7	9.2	9.6	9.0
Std Error		0.1	0.1	0.1	0.1	0.2	0.2	0.1
95% ConLo		2.6	4.6	6.4	7.5	8.0	8.4	8.4
95% ConHi		2.9	5.0	6.9	7.9	8.6	9.0	8.8

Intercept value = 0.00
Dataset = cfdagbvr.d06

Table 101. Age frequency and CPUE (no./hour) per inch class of redear sunfish collected during 1.25 hours of electrofishing at Beaver Lake during May 2006. 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	0	0.40	0.40
2		19	27	23					69	17	27.33	3.89
3			8	40	56				104	25	41.06	4.71
4					34	107	41		182	44	71.78	7.14
5									0			
6						11	17	7	35	8	13.95	1.99
7							23	2	25	6	9.89	1.58
Total	1	19	35	63	90	118	81	9	416	100	164.40	13.78
%	0	5	8	15	22	28	19	2	100			

Dataset = cfdagbvr.d06 and cfdpsbvr.d06

Table 102. Electrofishing catch rate (fish/hour) of each age of redear sunfish collected from Beaver Lake from 1999-2006.

	Year							
Age	1999	2000	2001	2002	2003	2004	2005	2006
1	0.0	2.0	11.4	0.3	2.4	8.8		0.4
2	0.0	3.7	48.6	37.9	18.3	28.5	23.6	27.3
3	1.0	2.8	4.5	61.7	37.8	14.0	97.1	41.1
4	1.2	5.2	4.5	30.8	58.3	57.5	9.9	71.8
5	1.4	0.7	4.0	2.9			54.1	
6	4.5	1.8		0.8			5.0	14.0
7								9.9

Table 103. Population assessment for spring collected redear sunfish collected from Beaver Lake in May 2006.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	5.7 ± 0.1	2
Years to 8 inches*	4 - 4+	3
CPUE of fish ≥ 8.0 in	35.67 ± 5.70	4
CPUE of fish ≥ 10.0 in	0.00	1
Assessment Total		10
Assessment Rating		Fair

Table 104. Number of fish and the relative weight (Wr) for each length category of largemouth bass, bluegill and redear sunfish collected at Beaver Lake on 27 September 2006. Standard errors are in parentheses.

Species	Size Range									
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0 – 5.9 in		6.0 – 7.9 in						Total	
Bluegill	75	98.9 (2.9)	28	80.5 (1.9)					103	93.9 (2.3)
	1.0 – 3.9 in		4.0 – 6.9 in		7.0 – 9.0 in		≥9.0 in		Total	
Redear sunfish	26	86.5 (4.5)	75	97.9 (1.2)	30	96.5 (1.2)	1	87.3	132	95.3 (1.2)

Dataset = cfdwrbvr.d06

Table 105. Length frequency, relative abundance, and CPUE of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Boltz Lake, April 2006; 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	1	4	8	1	9	30	30	24	12	9	13	12	7	6	7	10	4	1	1	189	94.50 (9.91)

Dataset = cfdpsbol.d06

Table 106. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Boltz Lake from 1991-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 8.0		8.0 - 11.9		12.0 - 14.9		≥ 15.0		All sizes	
1991			43.6	(4.9)	10.8	(2.0)	6.5	(1.2)	60.8	(6.6)
1993	25.2	(6.4)	70.0	(4.8)	12.0	(2.3)	7.3	(2.2)	114.8	(8.9)
1994	48.4	(9.5)	45.0	(5.7)	32.4	(6.5)	3.6	(1.4)	129.6	(9.6)
1995	155.2	(10.8)	50.0	(3.3)	31.5	(3.9)	6.0	(1.7)	242.4	(10.4)
1997	34.8	(8.6)	183.6	(29.4)	36.8	(4.6)	14.4	(2.2)	268.8	(38.6)
1998	43.2	(6.0)	172.0	(18.8)	22.4	(3.3)	9.6	(2.2)	247.2	(24.8)
1999	87.2	(16.6)	184.8	(42.4)	90.4	(16.0)	13.8	(6.8)	560.0	(31.2)
2000	92.0	(30.4)	148.0	(7.7)	226.4	(18.4)	8.8	(2.9)	475.2	(16.8)
2001	24.0	(5.2)	212.8	(15.8)	133.6	(13.0)	9.6	(3.5)	380.0	(26.3)
2002	5.6	(2.7)	101.6	(20.1)	67.2	(11.4)	45.6	(9.2)	220.0	(27.3)
2003	10.7	(2.9)	39.3	(10.4)	61.3	(12.9)	40.0	(5.0)	151.3	(25.1)
2004	64.0	(12.9)	38.5	(4.9)	19.5	(4.4)	25.5	(5.9)	147.5	(22.9)
2005	69.0	(10.1)	39.5	(4.0)	21.0	(2.4)	20.0	(6.2)	149.5	(8.4)
2006	11.5	(1.4)	48.0	(4.7)	17.0	(3.7)	18.0	(2.9)	94.5	(9.9)

Dataset = cfdpsbol.d06

Table 107. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Boltz Lake in 2006; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	166	42 (± 8)	22 (± 6)

Dataset = cfdpsbol.d06

Table 108. Mean back calculated lengths (in.) at each annulus for otoliths from largemouth bass collected at Boltz Lake in 2006.

		Age										
Year Class	No.	1	2	3	4	5	6	7	8	9	10	11
2005	7	4.9										
2004	25	5.2	8.3									
2003	16	4.9	8.2	10.3								
2002	14	6.1	9.3	11.4	13.2							
2001	1	5.9	9.8	12.0	13.4	14.6						
2000	5	6.4	10.6	12.7	13.9	14.9	15.7					
1999	5	6.8	10.3	12.0	12.9	13.8	14.6	15.4				
1998	3	6.6	11.2	12.8	13.9	14.8	15.5	16.2	17.0			
1997	2	6.0	9.4	12.0	13.5	15.0	16.2	17.3	18.1	18.8		
1996	2	7.9	11.3	13.6	15.5	16.4	17.5	18.3	19.0	19.7	20.4	
1995	1	8.7	11.1	13.0	13.7	14.7	15.6	16.2	17.3	18.0	19.2	20.2
Mean	81	5.6	9.1	11.5	13.5	14.7	15.6	16.4	17.8	19.0	20.0	20.2
Smallest		3.3	7.1	9.1	10.8	11.8	12.7	13.4	16.2	18.0	19.2	20.2
Largest		8.8	12.4	14.7	16.3	17.4	18.7	19.5	20.2	20.8	21.5	20.2
Std Error		0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.8	
95% ConLo		5.4	8.8	11.1	13.1	14.1	14.9	15.5	16.9	18.0	18.5	
95% ConHi		5.9	9.3	11.9	14.0	15.4	16.3	17.2	18.8	20.1	21.5	

Intercept Value = 0.00
Dataset = cfdagbol.d06

Table 109. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Boltz Lake during April 2006. Fish were collected in 15-minute runs.

	Inch Class																					STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1	1	4	8	1																14	7	7.00	1.81
2					9	30	14	5												57	30	28.72	2.34
3							16	19	10											46	24	22.92	3.45
4									2	8	10	5	5							29	15	14.32	3.00
5												2								2	1	1.20	0.45
6										1		2		2	7					13	7	6.34	1.30
7											3	2	2	2						10	5	4.99	1.39
8														2		5				7	4	3.50	0.87
9																5	2			7	4	3.50	0.91
10																	2		1	3	2	1.50	0.63
11																		1		1	1	0.50	0.50
Total	1	4	8	1	9	30	30	24	12	9	13	12	7	6	7	10	4	1	1	189	100	94.50	9.91
%	1	2	4	1	5	16	16	13	6	5	7	6	4	3	4	5	2	1	1	100			

Dataset = cfdagbol.d06 and cfdpsbol.d06

Table 110. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Boltz Lake from 1997-2006.

	Year									
Age	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	0.4	25.9	77.7	55.0	0.8	0.8	0.0	51.0	15.5	7.0
2	71.4	45.8	86.1	52.6	29.6	11.2	16.1	27.4	68.8	28.7
3	72.8	71.4	212.2	50.8	115.3	101.8	23.8	16.3	17.4	22.9
4	61.5	70.5	92.2	115.0	81.6	27.2	47.0	21.1	19.5	14.3
5	33.0	11.8	47.8	132.0	42.3	18.8	16.5	5.6	6.1	1.2
6	14.2	7.9	30.2	62.2	55.3	18.1	15.4	7.8	6.3	6.3
7	9.8	6.1	3.5	5.2	41.9	23.0	20.9	10.2	9.2	5.0
8	1.8	2.2	3.4	1.6	10.1	12.0	8.2	4.3	4.7	3.5
9	2.2	3.2	3.5	0.8	3.2	7.0	2.6	2.8	1.3	3.5
10	1.3	1.0	2.7				0.8	1.0	0.8	1.5
11	0.4	1.0	1.1							0.5

Table 111. Population assessment from largemouth bass collected from Boltz Lake during April 2006.

Parameter	Value	Assessment Score
Length at age 3	10.3 ± 0.2	2
Spring CPUE of Age 1	7.00 ± 1.81	1
Spring CPUE 12-14.9 in fish	17.00 ± 3.68	1
Spring CPUE ≥ 15.0-in fish	18.00 ± 2.93	3
Spring CPUE ≥ 20.0-in fish	1.00 ± 0.65	2
Instantaneous mortality (z)	0.361	
Annual Mortality (A)	30.3%	
Total Score		9
Assessment Rating		Fair

Table 112. Species composition, relative abundance, and CPUE of bluegill and redear sunfish collected in 1.00 hour of 7.5-minute electrofishing runs in Boltz Lake, May 2006; numbers in parenthesis are standard errors.

	Length Class								
Species	1	2	3	4	5	6	7	Total	CPUE
Bluegill	2	227	308	28	31	29	10	635	635.0 (63.5)
Redear sunfish			1					1	1.0 (1.0)

Dataset = cfdpsbol.d06

Table 113. PSD and RSD values calculated for sunfish collected during 1.00 hour of electrofishing at Boltz Lake during May 2006. Fish were collected in 7.5-minute runs.

Species	No. fish > stock size	PSD	RSD
Bluegill	406	42 (± 8)	22 (± 6)

Bluegill = RSD-8
Dataset = cfdpsbol.d06

Table 114. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from Boltz Lake from 1992-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		All Sizes	
1991	0.5	(0.5)	60.8	(8.5)	10.8	(2.1)			72.4	(9.6)
1993	15.2	(7.4)	57.2	(15.8)	10.0	(5.2)			82.8	(24.0)
1994	26.0	(7.3)	131.6	(17.6)	30.5	(5.1)	0.5	(0.5)	188.4	(25.6)
1995	50.0	(9.8)	232.5	(31.7)	57.6	(12.8)	1.5	(0.7)	347.6	(46.0)
1997	91.5	(16.9)	43.0	(7.5)	39.2	(7.0)	5.4	(2.0)	179.2	(19.9)
1998	886.9	(210.8)	94.6	(13.8)	53.1	(7.7)	13.1	(2.3)	1047.7	(216.9)
1999	144.6	(30.7)	140.0	(51.5)	35.4	(6.9)	6.9	(3.1)	326.2	(62.3)
2000	1799.2	(73.5)	393.8	(19.4)	10.8	(3.2)	0.8	(0.8)	2204.6	(63.8)
2001	167.8	(51.5)	257.7	(40.0)	11.5	(3.8)	0.8	(0.8)	437.7	(60.0)
2002	174.6	(26.8)	396.2	(45.6)	16.9	(3.6)			587.7	(62.4)
2003	156.9	(49.4)	373.1	(26.3)	51.5	(16.5)			581.5	(47.7)
2004	313.3	(29.9)	261.1	(27.2)	31.8	(12.0)			606.2	(58.8)
2005	131.5	(16.0)	205.4	(34.3)	15.4	(5.4)			352.3	(35.8)
2006	229.0	(42.0)	367.0	(41.6)	39.0	(12.0)			635.0	(63.5)

Table 115. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Boltz Lake in 2006.

		Age					
Year	No.	1	2	3	4	5	6
2005	21	2.9					
2004	16	2.6	4.7				
2003	7	3.2	5.2	6.7			
2002	14	3.0	4.6	5.6	6.6		
2001	2	2.5	4.1	4.9	5.6	6.2	
2000	1	3.4	4.7	5.6	6.2	6.7	7.1
Mean	61	2.9	4.7	5.8	6.5	6.4	7.1
Smallest		1.7	3.5	4.3	5.2	5.9	7.1
Largest		3.9	5.9	7.2	7.2	6.7	7.1
Std Error		0.1	0.1	0.1	0.2	0.2	
95% ConLo		2.7	4.6	5.6	6.2	5.9	
95% ConHi		3.0	4.9	6.1	6.8	6.8	

Intercept value = 0.00
Dataset = cfdagbvr.d06

Table 116. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 1.00 hours of electrofishing at Boltz Lake during May 2006. Fish were collected in 7.5-minute runs.

	Inch Class										STD
Age	1	2	3	4	5	6	7	Total	%	CPUE	ERR
1	1	227	308					537	85	537.00	66.74
2				28	14			42	7	41.78	12.14
3					3	10	3	16	3	16.11	4.16
4					10	16	6	32	5	32.44	7.93
5					3	3		7	1	6.67	1.74
6							1	1	0	1.00	0.25
Total	2	227	308	28	31	29	10	635	100	635.00	19.68
%	0	36	49	4	5	5	2	100			

Dataset = cfdagbol.d06 and cfdpsbo.d06

Table 117. Electrofishing catch rate (fish/hour) of each age of bluegill collected from Boltz Lake from 1999-2006.

	Year							
Age	1999	2000	2001	2002	2003	2004	2005	2006
1	12.7	62.0	44.8	10.2	31.1	31.7	13.6	537.0
2	11.9	243.2	167.7	70.4	100.1	102.2	63.2	41.8
3	3.9	52.1	140.0	201.7	26.4	17.9	62.0	16.1
4	6.3	43.5		49.5	119.6	50.6	37.8	32.4
5	0.7	3.2		1.8	26.8	79.9	32.3	6.7
6						15.3	15.8	1.0

Table 118. Population assessment for spring-collected bluegill collected from Boltz Lake in May 2006.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.7 ± 0.1	3
Years to 6 inches	3 – 3+	3
CPUE of fish ≥ 6.0 in	39.00 ± 11.95	2
CPUE of fish ≥ 8.0 in	0.00	1
Instantaneous mortality (z)	1.032	
Annual Mortality (A)	64.4%	
Assessment Total		9
Assessment Rating		Fair

Table 119. Length frequency, relative abundance, and CPUE of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Bullock Pen Lake, April 2006; numbers in parenthesis are standard errors.

Location/Species	Inch Class																		Total	CPUE
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Largemouth bass	1	5	9	12	18	25	18	10	14	13	24	28	29	32	16	18	1	1	274	137.00 (8.68)

Dataset = cfdpsbpl.d06

Table 120. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Bullock Pen Lake from 1991-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 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)
2006	13.5	(4.3)	35.5	(6.0)	25.5	(3.9)	62.5	(8.4)	137.0	(8.7)

Dataset = cfdpsbpl.d06

Table 121. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Bullock Pen Lake in 2006; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	247	71 (± 6)	51 (± 6)

Dataset = cfdpsbpl.d06

Table 122. Mean back calculated lengths (in.) at each annulus for otoliths from largemouth bass collected at Bullock Pen Lake in 2006.

		Age												
Year Class	No.	1	2	3	4	5	6	7	8	9	10	11	12	13
2005	4	5.3												
2004	33	4.3	7.6											
2003	20	4.1	7.7	10.2										
2002	20	4.9	8.7	11.0	12.8									
2001	8	4.2	8.3	11.1	12.9	14.0								
2000	6	3.6	7.7	10.7	12.7	13.8	14.6							
1999	5	5.7	9.1	11.9	14.2	15.4	16.3	16.9						
1998	3	4.6	8.7	10.5	12.5	14.2	15.0	15.8	16.3					
1997	5	5.7	9.7	11.4	12.9	14.2	15.1	16.1	16.7	17.1				
1996	2	6.2	10.1	12.6	14.6	16.0	17.1	17.9	18.4	18.7	19.0			
1994	1	5.6	9.1	12.3	14.9	17.1	18.1	18.7	19.2	19.7	20.3	20.5	20.8	
1993	1	5.7	9.8	11.7	12.7	13.7	15.0	15.5	15.8	16.1	16.3	16.6	16.8	17.1
Mean	108	4.6	8.2	10.9	13.0	14.4	15.5	16.6	17.0	17.6	18.6	18.6	18.8	17.1
Smallest		2.6	5.6	7.8	9.2	11.5	12.2	12.7	14.3	15.1	16.3	16.6	16.8	17.1
Largest		7.3	11.5	13.9	16.2	17.4	18.6	19.4	19.9	20.1	20.4	20.5	20.8	17.1
Std Error		0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	1.0	2.0	2.0	
95% ConLo		4.4	7.9	10.6	12.6	13.9	14.7	15.6	16.0	16.4	16.6	14.7	14.9	
95% ConHi		4.7	8.4	11.2	13.5	15.0	16.3	17.6	18.1	18.8	20.6	22.4	22.7	

Intercept Value = 0.00
Dataset = cfdagbpl.d06

Table 123. 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 2006. Fish were collected in 15-minute runs.

	Inch Class																			STD
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%	CPUE	ERR
1	1	4																5	2	2.50	1.33
2		1	9	11	14	12												46	17	23.06	5.85
3				1	5	10	14	6	3									38	14	19.07	2.37
4						4	4	2	6	7	11	7						41	15	20.48	1.97
5								2	2	4	5	7						20	7	10.11	1.14
6									2	1	5	4	15					26	10	13.17	2.79
7									2			4			5	12		22	8	11.19	1.79
8											3		15		5			23	8	11.25	2.21
9												7		11	5	6		29	11	14.50	1.90
10														11			1	11	4	5.58	0.93
11																		0		0	
12																	1	1	0	0.25	0.25
13														11				11	4	5.33	0.94
Total	1	5	9	12	18	25	18	10	14	13	24	28	29	32	16	18	1	255	100	137.00	8.68
%	0	2	3	4	7	9	7	4	5	5	9	10	11	12	6	7	0	100			

Dataset = cfdagbpl.d06 and cfdpsbpl.d06

Table 124. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Bullock Pen Lake from 1997-2006.

	Year									
Age	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1.2	3.0	4.0	6.8	0.0	0.5	1.8	0.0	1.3	2.5
2	26.7	21.4	18.6	13.0	17.7	11.4	14.6	17.1	9.0	23.1
3	40.8	25.7	26.8	15.4	19.6	32.9	13.8	24.8	19.7	19.1
4	29.8	30.5	29.6	12.5	19.3	14.3	18.4	23.8	20.3	20.5
5	20.6	16.7	22.7	13.7	20.5	35.5	21.1	23.5	21.1	10.1
6	10.5	10.9	5.4	11.1	18.9	13.6	16.4	16.2	15.9	13.2
7	11.9	7.2	6.2	9.9	25.8	11.3	15.9	15.3	15.6	11.2
8	7.9	9.5	11.3	14.5	12.3	6.6	5.8	6.2	7.1	11.3
9	4.4	2.6	2.4	9.0	10.2	2.7	5.2	6.0	7.2	14.5
10	1.4	2.8	0.6	6.5	2.6	1.4	1.2	2.0	3.0	5.6
11	1.0	2.7		0.8			2.8	3.8	4.3	0.0
12	2.2	0.6				0.7	0.6	2.0	3.0	0.3
										5.3

Table 125. Population assessment from largemouth bass collected from Bullock Pen Lake during April 2006.

Parameter	Value	Assessment Score
Length at age 3	10.2 ± 0.3	2
Spring CPUE of Age 1	2.50 ± 1.33	1
Spring CPUE 12-14.9 in fish	25.50 ± 3.92	2
Spring CPUE ≥ 15.0-in fish	62.50 ± 8.35	4
Spring CPUE ≥ 20.0-in fish	1.00 ± 0.65	2
Instantaneous mortality (z)	0.221	
Annual Mortality (A)	19.8%	
Total Score		11
Assessment Rating		Fair

Table 126. Length frequency, relative abundance, and CPUE of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs in Corinth Lake, April 2006; numbers in parenthesis are standard errors.

	Inch Class																				
Location/Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	1	6	8	1	14	43	48	30	28	14	23	21	24	22	8	9	3	2	1	306	153.00 (8.81)

Dataset = cfdpscor.d06

Table 127. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Corinth Lake from 1992-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 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)
2006	15.0	(2.7)	74.5	(6.8)	29.0	(1.3)	34.5	(4.7)	153.0	(8.8)

Dataset = cfdpscor.d06

Table 128. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Corinth Lake in 2006; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	276	46 (± 6)	25 (± 5)

Dataset = cfdpscor.d06

Table 129. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Corinth Lake during April 2006. Fish were collected in 15-minute runs.

	Inch Class																					STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1	1	6	8	1	6															22	7	11.11	2.69
2					6	34	35	7												82	27	41.10	4.00
3					2	9	13	20	7											50	16	25.12	2.77
4								3	21	14	17	8	17							81	27	40.56	2.35
5											6	13	3	13						35	11	17.49	1.97
6														9	4	4	3			19	6	9.70	1.62
7															4	2				6	2	2.90	0.84
8													3			2				5	2	2.61	0.34
9																2		2	1	5	2	2.40	0.89
Total	1	6	8	1	14	43	48	30	28	14	23	21	24	22	8	9	3	2	1	305	100	153.00	8.81
%	0	2	3	0	5	14	16	10	9	5	8	7	8	7	3	3	1	1	0	100			

Dataset = bbrsccor.d03 and cfdpscor.d06

Table 130. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Corinth Lake from 1999-2006.

	Year							
Age	1999	2000	2001	2002	2003	2004	2005	2006
1	120.4	293.2	63.4	35.3	54.3	21.1	32.4	11.1
2	36.6	57.0	134.2	26.3	68.0	37.1	71.3	41.1
3	34.5	62.5	119.1	114.1	53.8	25.3	34.6	25.1
4	9.8	34.0	34.0	24.3	49.3	54.8	88.6	40.6
5	15.7	19.0	25.5	2.4	3.3	4.3	14.6	17.5
6	1.0	3.9	8.2	6.4	1.9	1.5	6.1	9.7
7	2.0	2.4	2.7	2.2	0.7	0.3	1.3	2.9
8	5	0.8	1.6	2.9	0.8	0.3	1.3	2.6
9	2.6	3.2			1.3	1.0	2.8	2.4
10	0.7							
11	5.8							
12	1.8							

Table 131. Population assessment from largemouth bass collected from Corinth Lake during April 2006.

Parameter	Value	Assessment Score
Length at age 3*	10.1 ± 0.3	2
Spring CPUE of Age 1	11.11 ± 2.69	1
Spring CPUE 12-14.9 in fish	29.00 ± 1.25	2
Spring CPUE ≥ 15.0-in fish	34.50 ± 4.66	4
Spring CPUE ≥ 20.0-in fish	1.50 ± 0.73	2
Instantaneous mortality (z)	0.492	
Annual mortality (A)	38.9%	
Total Score		11
Assessment Rating		Fair

* 2003 age and growth dataset was used

Table 132. Length distribution and CPUE (no./hour) of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs for black bass in Corinth Lake on 26 September 2006: 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	21	176	127	34	2	30	38	20	7	7	4	4	0	3	0	2	1	1	1	478	239.00 (17.53)

Dataset = cfdwrcor.d06

Table 133. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Corinth Lake on 26 September 2006. 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	69	82.3 (0.7)	15	83.8 (2.6)	8	94.0 (3.2)	92	83.6 (0.8)

Dataset = cfdwrcor.d06

Table 134. 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	11.1	2.7
2006	Total	4.9	0.1	176.5	15.2	78.0	9.94		

Table 135. Species composition, relative abundance, and CPUE of bluegill and redear sunfish collected in 2.50 hours of 7.5-minute electrofishing runs in Corinth Lake, May 2006; numbers in parenthesis are standard errors.

Species	Length Class											Total	CPUE
	1	2	3	4	5	6	7	8	9	10	11		
Bluegill	5	96	146	282	100	75	7					711	284.4 (14.7)
Redear sunfish			3	25	21	51	84	18			1	203	81.2 (7.2)

Dataset = cfdpscor.d06

Table 136. PSD and RSD values calculated for sunfish collected during 2.50 hours of electrofishing at Corinth Lake during May 2006. Fish were collected in 7.5-minute runs.

Species	No. fish > stock size	PSD	RSD
Bluegill	610	13 (± 3)	0
Redear sunfish	200	52 (± 7)	1 (± 1)

Bluegill = RSD-8; Redear = RSD-9
Dataset = cfdpscor.d06

Table 137. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from Corinth Lake from 1992-2006; 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	
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)
2006	40.4	(6.0)	211.2	(17.9)	32.8	(6.4)	0.0		0.0	284.4	(14.7)

Dataset = cfdpscor.d06

Table 138. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Corinth Lake in 2006.

		Age				
Year	No.	1	2	3	4	5
2005	13	2.7				
2004	22	2.4	4.1			
2003	7	2.6	4.5	5.7		
2002	16	2.4	4.2	5.6	6.3	
2001	1	2.2	4.7	5.7	6.8	7.2
Mean	59	2.5	4.2	5.6	6.4	7.2
Smallest		1.4	2.6	4.9	5.3	7.2
Largest		3.4	5.5	6.6	7.0	7.2
Std Error		0.1	0.1	0.1	0.1	
95% ConLo		2.4	4.1	5.5	6.1	
95% ConHi		2.6	4.4	5.8	6.6	

Intercept value = 0.00
Dataset = cfdagcor.d06

Table 139. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 2.50 hours of electrofishing at Corinth Lake during May 2006. Fish were collected in 7.5-minute runs.

	Inch Class										STD
Age	1	2	3	4	5	6	7	Total	%	CPUE	ERR
1	5	96	18					119	17	47.70	5.96
2			128	282	11			421	59	168.34	15.73
3					56	13		68	10	27.22	2.79
4					33	63	5	101	14	40.43	5.64
5							2	2	0	0.70	0.30
Total	5	96	146	282	100	75	7	711	100	284.40	14.71
%	1	14	21	40	14	11	1	100			

Dataset = cfdagcor.d06 and cfdpscor.d06

Table 140. Electrofishing catch rate (fish/hour) of each age of bluegill collected from Corinth Lake from 1999-2006.

	Year							
Age	1999	2000	2001	2002	2003	2004	2005	2006
1	37.7	32.0	11.5	2.4	14.2	23.3	12.0	47.7
2	81.2	295.5	167.5	108.4	153.8	142.0	200.8	168.3
3	8.9	37.9	140.9	71.8	47.8	33.6	98.3	27.2
4	26.1	2.2	1.5	16.6	22.1	20.6	34.2	40.4
5	6.4	13.3	3.9		33.2	34.2	11.5	0.7
6	2.3	2.2						
7	2.1	2.2						

Table 141. Population assessment for spring-collected bluegill collected from Corinth Lake in May 2006.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.1 ± 0.1	2
Years to 6 inches	3 - 3+	3
CPUE of fish ≥ 6.0 in	32.80 ± 6.43	2
CPUE of fish ≥ 8.0 in	0.0	1
Instantaneous mortality (z)	1.605	
Annual mortality (A)	79.9%	
Assessment Total		8
Assessment Rating		Fair

Table 142. Electrofishing CPUE data (no./hour) for each size group of redear sunfish collected from Corinth Lake from 1992-2006; 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	
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)
2006	0.0		19.6	(3.9)	54.0	(6.6)	7.6	(1.5)	0.4	(0.4)	81.2	(7.2)

Dataset = cfdpscor.d06

Table 143. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from Corinth Lake in 2006.

		Age			
Year	No.	1	2	3	4
2005	3	3.3			
2004	16	3.3	5.3		
2003	24	3.4	6.1	7.3	
2002	6	3.6	6.1	7.3	7.8
Mean	49	3.4	5.8	7.3	7.8
Smallest		2.2	4.3	5.8	6.5
Largest		4.5	7.2	8.3	8.6
Std Error		0.1	0.1	0.1	0.3
95% ConLo		3.2	5.6	7.0	7.2
95% ConHi		3.5	6.0	7.5	8.4

Intercept value = 0.00
Dataset = cfdagcor.d06

Table 144. Age frequency and CPUE (no./hour) per inch class of redear sunfish collected during 2.50 hours of electrofishing at Corinth Lake during May 2006. Fish were collected in 7.5-minute runs.

	Inch Class									STD
Age	3	4	5	6	7	8	Total	%	CPUE	ERR
1	3						3	1	1.20	0.66
2		25	19				44	22	17.70	3.91
3			2	45	69	12	128	63	51.12	5.88
4				6	15	6	27	13	10.78	1.31
Total	3	25	21	51	84	18	202	100	81.20	7.16
%	1	12	10	25	42	9	100			

Dataset = cfdagcor.d06 and cfdpscor.d06

Table 145. Population assessment for spring collected redear sunfish collected from Corinth Lake in May 2006.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	7.3 ± 0.1	4
Years to 8 inches	4 - 4+	3
CPUE of fish ≥ 8.0 in	7.60 ± 1.48	2
CPUE of fish ≥ 10.0 in	0.40 ± 0.40	2
Assessment Total		11
Assessment Rating		Good

Table 146. Number of fish and the relative weight (Wr) for each length category of bluegill and redear sunfish collected at Corinth Lake on 26 September 2006. Standard errors are in parentheses.

	Size Range							
Species	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0 – 5.9 in		6.0 – 7.9 in		≥ 8.0 in		Total	
Bluegill	83	87.6 (1.3)	22	80.2 (1.4)			105	86.1 (1.1)
	4.0 – 6.9 in		7.0 – 8.9 in		≥ 9.0 in		Total	
Redear sunfish	29	90.8 (1.5)	27	87.7 (1.2)			56	89.3 (1.0)

Dataset = cfdwrcor.d06

Table 147. Species composition, relative abundance, and CPUE of black bass collected in 2.0 hours of 15-minute electrofishing runs in Elmer Davis Lake, April 2006; numbers in parenthesis are standard errors.

	Inch Class																				
Location/Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	2	47	67	27	6	30	39	94	84	50	17	14		5	2	2	2	1	1	490	245.00 (15.38))

Dataset = cfdpselm.d06

Table 148. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Elmer Davis Lake from 1996-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 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)
2006	74.5	(11.5)	123.5	(12.2)	40.5	(7.9)	6.5	(1.8)	245.0	(15.4)

Dataset = cfdpselm.d06
Shad eradication in fall of 1997

Table 149. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Elmer Davis Lake in 2006; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	341	28 (± 5)	4 (± 2)

Dataset = cfdpselm.d06

Table 150. 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 2006. Fish were collected in 15-minute runs.

	Inch Class																					STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1	2	47	67	20																136	28	68.13	10.22
2				7	6	30	20													62	13	31.13	5.44
3							16	65	37	4										122	25	61.09	6.66
4							4	7		13										24	5	11.82	1.35
5								22	19	25	6	7								78	16	39.01	5.25
6									28	8	11	7		4						58	12	29.21	3.84
7														1	2	1	1			5	1	2.46	0.96
8																1	1			2	0	0.83	0.41
9																			1	1	0	0.50	0.50
10																1				1	0	0.33	0.33
11																		1		1	0	0.50	0.50
Total	2	47	67	27	6	30	39	94	84	50	17	14	0	5	2	2	2	1	1	490	100	245.00	15.38
%	0	10	14	6	1	6	8	19	17	10	3	3	0	1	0	0	0	0	0	100			

Dataset = cfdagelm.d04 and cfdpscor.d06

Table 151. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Elmer Davis Lake from 2000-2006.

	Year						
Age	2000	2001	2002	2003	2004	2005	2006
1	73.8	52.8	80.6	57.5	94.4	78.1	68.1
2	123.7	151.2	45.0	96.1	66.1	93.1	31.1
3	80.3	103.3	67.7	85.4	47.9	72.9	61.1
4	12.4	42.5	30.9	52.4	10.3	16.0	11.8
5	14.5	10.7	3.8	8.6	22.6	50.2	39.0
6	17.6	4.2	1.5	1.4	14.4	43.5	29.2
7	4.3	4.3	1.4	1.3	5.3	5.3	2.5
8	2.0	5.1	2.2	1.8	2.4	2.1	0.8
9	0.5	2.5	1.4	1.8	1.0	1.0	0.5
10	1.5	3.0	1.9	4.8	1.2	0.3	0.3
11	1.0	0.5	0.9	0.6	2.5	2.5	0.5
12				3.0			
13				0.5			
14		0.5					

Table 152. Population assessment from largemouth bass collected from Elmer Davis Lake during April 2006.

Parameter	Value	Assessment Score
Length at age 3*	10.5 (0.2)	2
Spring CPUE of Age 1	68.13 (10.22)	3
Spring CPUE 12-14.9 in fish	40.50 (7.94)	3
Spring CPUE ≥ 15.0-in fish	6.50 (1.84)	2
Spring CPUE ≥ 20.0-in fish	1.00 (0.65)	2
Instantaneous mortality (z)	0.575	
Annual mortality (A)	43.7%	
Total Score		12
Assessment Rating		Good

* 2004 age and growth dataset was used.

Table 153. 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 2006: 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	22		
Largemouth bass	15	160	62	10	2	12	96	38	34	47	24	14	14	3	1	532	354.67 (15.38)

Dataset = cfdwrelm.d06

Table 154. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Elmer Davis Lake on 25 September 2006. 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	81	83.2 (0.5)	47	85.0 (1.1)	4	99.3 (5.6)	132	84.3 (0.6)

Dataset = cfdwrelm.d06

Table 155. 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)	68.1	10.2
2006	Total	3.7	(0.04)	166.0	(17.4)	8.0	(2.5)		

Table 156. 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 2006; numbers in parenthesis are standard errors.

Species	Length Class										Total	CPUE
	1	2	3	4	5	6	7	8	9	10		
Bluegill	26	177	77	54	13	18	35	20			420	336.00 (43.83)
Redear sunfish		4	12	4			6	16	17	5	64	51.20 (9.99)

Dataset = cfdpselm.d06

Table 157. PSD and RSD values calculated for sunfish collected during 1.25 hours of electrofishing at Elmer Davis Lake during May 2006. Fish were collected in 7.5-minute runs.

Species	No. fish > stock size	PSD	RSD
Bluegill	217	34 (± 6)	9 (± 4)
Redear sunfish	48	92 (± 8)	46 (± 14)

Bluegill = RSD-8; Redear-9
Dataset = cfdpselm.d06

Table 158. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from Elmer Davis Lake from 1994-2006; 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)
2006	162.4	(35.9)	115.2	(20.1)	42.4	(8.5)	16.0	(4.5)	336.0	(43.8)

Dataset = cfdpselm.d06

Table 159. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Elmer Davis Lake in 2006.

		Age				
Year	No.	1	2	3	4	5
2005	29	3.0				
2004	18	2.9	5.1			
2003	13	2.6	5.1	6.9		
2002	10	2.8	4.9	6.7	7.9	
2001	5	2.5	5.2	6.4	7.4	8.0
Mean	75	2.8	5.0	6.8	7.7	8.0
Smallest		1.7	3.4	5.2	6.8	7.2
Largest		4.5	6.6	8.0	8.3	8.8
Std Error		0.1	0.1	0.1	0.1	0.3
95% ConLo		2.7	4.8	6.5	7.5	7.5
95% ConHi		3.0	5.3	7.0	8.0	8.5

Intercept value = 0.00
Dataset = cfdagelm.d06

Table 160. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 1.25 hours of electrofishing at Elmer Davis Lake during May 2006. Fish were collected in 7.5-minute runs.

	Inch Class											STD
Age	1	2	3	4	5	6	7	8	Total	%	CPUE	ERR
1	26	177	69	25					297	71	237.78	44.44
2			8	29	13	2			52	12	41.62	5.30
3						16	16	2	34	8	26.93	4.84
4							13	12	25	6	19.78	3.26
5							6	6	12	3	9.89	1.63
Total	26	177	77	54	13	18	35	20	420	100	336.00	43.83
%	6	42	18	13	3	4	8	5	100			

Dataset = cfdagcor.d06 and cfdpscor.d06

Table 161 Electrofishing catch rate (fish/hour) of each age of bluegill collected from Elmer Davis Lake from 2001-2006.

	Year					
Age	2001	2002	2003	2004	2005	2006
1	2.6	35.8	21.2	43.1	21.2	237.8
2	45.4	69.4	75.9	95.0	97.2	41.6
3	212.9	20.0	34.6	45.4	47.4	26.9
4	7.6	246.3	21.3	29.6	12.2	19.8
5		14.2	107.8	7.8	6.0	9.9
6				46.8	5.0	
7				1.1	3.9	

Table 162. Population assessment for spring-collected bluegill collected from Elmer Davis Lake in May 2006.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	5.1 ± 0.2	4
Years to 6 inches	2 – 2+	4
CPUE of fish ≥ 6.0 in	58.40 ± 9.24	3
CPUE of fish ≥ 8.0 in	16.00 ± 4.46	4
Instantaneous mortality (z)	0.715	
Annual mortality (A)	51.1%	
Assessment Total		15
Assessment Rating		Excellent

Table 163. Electrofishing CPUE data (no./hour) for each size group of redear sunfish collected from Elmer Davis Lake from 1994-2006; 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)
2006	0.0		12.8	(4.0)	4.8	(1.8)	30.4	(6.5)	4.0	(1.3)	51.2	(10.0)

Dataset = cfdpselm.d06

Table 164. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from Elmer Davis Lake in 2006.

		Age			
Year	No.	1	2	3	4
2005	17	3.4			
2004	5	3.8	7.3		
2003	18	3.3	6.5	8.8	
2002	7	3.6	6.8	9.1	9.9
Mean	47	3.5	6.7	8.9	9.9
Smallest		2.4	5.4	8.2	9.6
Largest		4.7	8.5	9.8	10.1
Std Error		0.1	0.1	0.1	0.1
95% ConLo		3.3	6.4	8.7	9.8
95% ConHi		3.6	7.0	9.0	10.1

Intercept value = 0.00
Dataset = cfdagelm.d06

Table 165. 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 2006. Fish were collected in 7.5-minute runs.

	Inch Class												STD
Age	2	3	4	5	6	7	8	9	10	Total	%	CPUE	ERR
1	4	12	4							20	31	16.00	4.77
2						6				6	9	4.80	1.77
3							16	13		29	46	23.38	5.32
4								4	5	9	9	7.02	1.82
Total	4	12	4			6	16	13	5	64	100	128.80	26.86
%	6	19	6			9	25	27	8	100			

Dataset = cfdagelm.d06 and cfdpselm.d06

Table 166. Electrofishing catch rate (fish/hour) of each age of redear sunfish collected from Elmer Davis Lake from 2001-2006.

	Year					
Age	2001	2002	2003	2004	2005	2006
1	0.0	35.8	7.2	7.2	0.0	16.00
2	0.5	69.4	34.4	78.8	61.3	4.80
3	13.5	20.0	4.1	8.7	53.6	23.38
4	7.9	246.3	13.5	8.5	10.1	7.02
5	5.6	14.2			1.0	
6	0.5				2.8	

Table 167. Population assessment for spring collected redear sunfish collected from Elmer Davis Lake in May 2006.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	8.8 ± 0.1	4
Years to 8 inches	2 – 2+	4
CPUE of fish ≥ 8.0 in	30.40 ± 6.51	4
CPUE of fish ≥ 10.0 in	4.00 ± 1.33	3
Assessment Total		15
Assessment Rating		Excellent

Table 168. Number of fish and the relative weight (Wr) for each length category of bluegill and redear sunfish collected at Elmer Davis Lake on 25 September 2006. 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	74	101.1 (3.0)	50	88.8 (0.9)	13	81.4 (2.0)	137	94.7 (1.8)
	4.0 – 6.9 in		7.0 – 8.9 in		≥ 9.0 in		Total	
Redear sunfish	39	100.3 (1.8)	10	100.8 (1.3)	10	103.1 (2.3)	59	100.8 (1.3)

Dataset = cfdwrelm.d06

Table 169. Species composition, relative abundance, and CPUE of black bass collected in 2.0 hours of 15-minute electrofishing runs in Kincaid Lake, April 2006; numbers in parenthesis are standard errors.

Species	Inch Class																			Total	CPUE
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
Spotted bass			1		1	2		2	4	3	3									16	8.00 (2.83)
Largemouth bass	3		4	22	31	39	50	44	16	26	44	48	45	40	34	25	19	9	5	504	252.00 (14.93)

Dataset = cfdpskin.d06

Table 170. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Kincaid Lake from 1992-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 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)
2006	14.5	(3.5)	82.0	(8.3)	43.0	(5.0)	112.5	(9.8)	252.0	(14.9)

Dataset = cfdpskin.d06

Table 171. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Kincaid Lake in 2006; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	475	65 (± 4)	47 (± 4)

Dataset = cfdpskin.d06

Table 172. Age frequency and CPUE (no./hour) per inch class of largemouth bass collected during 2.00 hours of electrofishing at Kincaid Lake during April 2006. Fish were collected in 15-minute runs.

	Inch Class																					STD
Age	4	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	%	CPUE	ERR
1	3																		3	1	1.50	0.73
2		4	22	31	16														73	15	36.30	4.43
3					20	36	18												74	15	36.77	4.17
4					4	14	22	14	23	24	19	9							130	26	64.95	4.34
5							4	2	3	16	10		11						45	9	22.59	2.38
6										4	19	27	23						73	15	36.53	2.91
7												9	6	11	6				32	6	16.15	1.09
8														23	13				35	7	17.58	2.64
9															6	10			16	3	7.88	2.44
10																		5	5	1	2.50	0.73
11																10			10	2	4.75	1.85
12																	5		5	1	2.25	0.80
Total	3	4	22	31	39	50	44	16	26	44	48	45	40	34	25	19	5	5	497	100	252.00	14.93
%	1	1	4	6	8	10	9	3	5	9	10	9	8	7	5	4	1	1	100			

Dataset = cfdagkin.d05 and cfdpskin.d06

Table 173. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from Kincaid Lake from 1999-2006.

	Year							
Age	1999	2000	2001	2002	2003	2004	2005	2006
1	3.5	1.5	0.0	0.0	0.0	1.0	0.0	1.50
2	26.0	26.8	17.4	15.5	39.9	12.5	36.1	36.30
3	32.5	28.1	26.9	24.8	48.1	61.0	25.7	36.77
4	28.6	27.6	45.6	43.6	31.2	35.7	81.3	64.95
5	31.3	23.2	29.8	22.3	26.7	23.9	25.3	22.59
6	10.2	15.4	28.6	35.0	30.0	20.9	35.4	36.53
7	28.3	11.0	20.9	4.5	6.5	5.1	17.2	16.15
8	11.1	17.3	13.4	5.3	28.4	22.8	19.9	17.58
9	16.0	15.2	9.3	1.3	6.5	5.1	10.1	7.88
10	7.3	5.8	9.2		0.6	1.0	0.5	2.50
11		9.5	9.2		3.1	3.6	5.5	4.75
12	13.3	3.3	2.3				1.8	2.25
13	3.5	0.5	0.6					
14		1.0						
15				5.3				
16				1.3				
17							1.8	

Table 174. Population assessment from largemouth bass collected from Kincaid Lake during April 2006.

Parameter	Value	Assessment Score
Length at age 3*	10.5 ± 0.2	2
Spring CPUE of Age 1	1.50 ± 0.73	1
Spring CPUE 12-14.9 in fish	43.00 ± 5.00	3
Spring CPUE ≥ 15.0-in fish	112.50 ± 9.81	4
Spring CPUE ≥ 20.0-in fish	16.50 ± 4.17	4
Instantaneous mortality (z)	0.309	
Annual mortality (A)	26.6%	
Total Score		14
Assessment Rating		Good

*2005 age and growth dataset was used.

Table 175. Length distribution and CPUE (no./hour) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for largemouth bass in Kincaid Lake in September 2006: 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	22	21		
Largemouth bass	1	48	10	5	28	32	14	12	8	22	24	12	15	14	5	3	7	1	1		262	174.67 (23.79)

Dataset = cfdwrkin.d06

Table 176. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at Kincaid Lake on 20 September 2006. 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	66	91.1 (1.0)	41	95.2 (2.7)	17	101.7 (2.1)	124	93.9 (1.1)

Dataset = cfdwrkin.d06

Table 177. 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 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
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		1.5	(0.7)
2006	64	2.7	(0.1	42.7	(11.9)	0.0			

Dataset = cfdwrkin.d06

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 2006; numbers in parenthesis 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	3	11	36	26	8	22	31	32	24	18	24	14	9	6	6	9	4	1	1	285	190.00 (14..63)

Dataset = cfdpsmcl.d06

Table 179. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from McNeely Lake from 1996-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 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)
2006	56.0	(5.6)	72.7	(12.1)	37.3	(6.5)	24.0	(2.5)	190.0	(14.6)

Dataset = cfdpsmcl.d06

Table 180. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in McNeely Lake in 2006; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	201	46 (± 7)	18 (± 5)

Dataset = cfdpsmcl.d06

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 2006. Fish were collected in 15-minute runs.

	Inch Class																					STD
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	ERR
1	3	11	36	26																76	27	50.67	7.20
2					8	22	10													40	14	26.89	6.32
3							21	27	19			2								69	24	45.91	5.96
4								5	5	18	12	5								45	16	29.87	4.32
5											6	5	3	5						18	6	12.11	1.01
6											6		3	2	2					12	4	8.00	1.19
7												2	3		3					8	3	5.56	1.00
8																9		1	1	11	4	7.33	1.23
9																				0	0	0.00	0.00
10															2		4			6	2	3.67	1.94
Total	3	11	36	26	8	22	31	32	24	18	24	14	9	6	6	9	4	1	1	264	100	190.00	14.63
%	1	4	13	9	3	8	11	11	8	6	8	5	3	2	2	3	1	0	0	100			

Dataset = cfdagmcl.d04 and cfdpsmcl.d06

Table 182. Electrofishing catch rate (fish/hour) of each age of largemouth bass collected from McNeely Lake from 2001-2006.

	Year					
Age	2001	2002	2003	2004	2005	2006
1	70.0	23.3	20.0	24.7	12.7	50.7
2	53.1	22.6	72.9	13.8	27.6	26.9
3	35.6	10.6	22.8	41.4	51.1	45.9
4	62.1	22.1	26.9	21.4	43.7	29.9
5	47.5	17.9	22.5	11.6	12.1	12.1
6	31.4	14.4	20.6	6.3	9.6	8.0
7	23.0	13.2	20.0	5.9	8.6	5.6
8	7.8	3.6	9.2	7.3	5.3	7.3
9	5.1	1.0	3.9	0.0	0.0	0.0
10	5.1		1.7	4.2	5.5	3.7
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 2006.

Parameter	Value	Assessment Score
Length at age 3*	11.0 ± 0.4	3
Spring CPUE of Age 1	50.67 ± 7.20	3
Spring CPUE 12-14.9 in fish	37.33 ± 6.50	3
Spring CPUE ≥ 15.0-in fish	24.00 ± 2.53	3
Spring CPUE ≥ 20.0-in fish	1.33 ± 0.84	2
Instantaneous mortality (z)	0.355	
Anural mortality (A)	29.9%	
Total Score		14
Assessment Rating		Good

*2004 age and growth dataset was used.

Table 184. Length distribution and CPUE (no./hour) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in McNeely Lake in September 2006: 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		
Largemouth bass	4	34	75	47	5	30	76	39	23	30	18	13	16	14	9	1	3	3	440	293.33(38.03)

Dataset = cfdwrmcl.d06

Table 185. Number of fish and the relative weight (Wr) for each length category of largemouth bass collected at McNeely Lake on 21 September 2006. 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	87.9 (2.8)	47	91.2 (2.5)	30	93.5 (1.5)	157	90.0 (1.6)

Dataset = cfdwrmcl.d06

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)	50.7	(7.2)
2006	Total	4.5	(0.1)	108.7	(23.3)	33.3	(5.7)		

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 2006; numbers in parenthesis are standard errors.

Species	Length Class									Total	CPUE
	1	2	3	4	5	6	7	8	9		
Bluegill	3	44	33	59	53	58	43			293	293.0 (40.6)
Redear sunfish		1	6	7	2	12	8	14	2	52	52.0 (6.2)

Dataset = cfdpsmcl.d06

Table 188. PSD and RSD values calculated for sunfish collected during 1.00 hours of electrofishing at McNeely Lake during May 2006. Fish were collected in 7.5-minute runs.

Species	No. fish > stock size	PSD	RSD
Bluegill	246	41 (± 6)	0
Redear sunfish	45	53 (± 15)	4 (± 6)

Bluegill = RSD-8; Redear-9
Dataset = cfdpsmcl.d06

Table 189. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from McNeely Lake from 1994-2006; 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)
2006	47.0	(11.1)	145.0	(23.7)	101.0	(27.6)	0.0		293.0	(40.6)

Dataset = cfdpsmcl.d06

Table 190. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from McNeely Lake in 2006.

		Age					
Year	No.	1	2	3	4	5	6
2005	20	2.9					
2004	20	3.0	5.1				
2003	6	2.3	4.2	5.8			
2002	4	2.9	4.9	6.1	7.0		
2001	7	2.9	4.7	5.8	6.6	7.2	
2000	1	2.1	3.7	4.9	5.5	6.2	6.7
Mean	58	2.8	4.8	5.8	6.6	7.1	6.7
Smallest		1.6	3.4	4.8	5.5	6.2	6.7
Largest		4.3	6.6	6.7	7.5	7.7	6.7
Std Error		0.1	0.1	0.1	0.1	0.2	
95% ConLo		2.7	4.6	5.6	6.4	6.8	
95% ConHi		3.0	5.1	6.1	6.9	7.4	

Intercept value = 0.00
Dataset = cfdagmcl.d06

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 2006. Fish were collected in 7.5-minute runs.

	Inch Class										STD
Age	1	2	3	4	5	6	7	Total	%	CPUE	ERR
1	3	44	29	7				82	28	82.43	19.60
2			4	46	43	17		111	38	110.78	13.41
3				7	10	17		34	11	33.59	3.96
4						17	5	23	8	22.78	5.38
5						6	32	38	13	38.05	14.20
6							5	5	2	5.38	2.22
Total	3	44	33	59	53	58	43	293	100	293.00	40.62
%	1	15	11	20	18	20	15	100			

Dataset = cfdagmcl.d06 and cfdpsmcl.d06

Table 192. Electrofishing catch rate (fish/hour) of each age of bluegill collected from McNeely Lake from 2001-2006

	Year					
Age	2001	2002	2003	2004	2005	2006
1	131.7	53.6	27.4	5.5	29.1	82.4
2	76.0	244.7	39.2	79.3	103.3	110.8
3	142.1	128.0	96.6	108.3	79.4	33.6
4	40.2	186.1	9.5	64.9	111.4	22.8
5	37.2	14.9	0.5		31.8	38.1
6		32.6	0.5			5.4
7			0.9	2.0		
8	0.8					

Table 193. Population assessment for spring-collected bluegill collected from McNeely Lake in May 2006.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	5.1 ± 0.2	4
Years to 6 inches	3 – 3+	3
CPUE of fish ≥ 6.0 in	101.00 ± 27.59	4
CPUE of fish ≥ 8.0 in	0.00	1
Assessment Total		12
Assessment Rating		Good

Table 194. Electrofishing CPUE data (no./hour) for each size group of redear sunfish collected from McNeely Lake from 1998-2006; 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	
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)
2006	1.0	(1.0)	15.0	(3.8)	20.0	(4.0)	16.0	(2.6)	0.0	52.0	(6.2)

Dataset = cfdpsmcl.d06

Table 195. Mean back calculated lengths (in.) at each annulus for otoliths from redear sunfish collected from McNeely Lake in 2006.

		Age			
Year	No.	1	2	3	4
2005	12	3.8			
2004	11	3.6	6.6		
2003	13	3.6	6.3	7.9	
2002	3	3.6	6.3	7.9	9.1
Mean	39	3.7	6.4	7.9	9.1
Smallest		2.9	5.2	6.5	8.8
Largest		4.6	7.1	8.6	9.4
Std Error		0.1	0.1	0.1	0.2
95% ConLo		3.5	6.2	7.6	8.7
95% ConHi		3.8	6.6	8.2	9.4

Intercept value = 0.00
Dataset = cfdagmcl.d06

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 2006. 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	6	7						14	27	14.00	3.63
2				2	11	3			16	31	15.93	2.55
3					2	5	12		19	36	18.52	2.37
4							2	2	4	7	3.56	1.29
Total	1	6	7	2	12	8	14	2	52	100	52.00	6.23
%	2	12	13	4	23	15	27	4	100			

Dataset = cfdagmcl.d06 and cfdpsmcl.d06

Table 197. Electrofishing catch rate (fish/hour) of each age of redear sunfish collected from McNeely Lake from 2001-2006.

	Year				
Age	2001	2003	2004	2005	2006
1	0.0	3.6	0.8	1.0	14.0
2	8.8	8.8	15.2	39.3	15.9
3	7.4	16.4	39.2	20.6	18.5
4	8.6			7.4	3.6
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 2006.

Parameter	Actual Value	Assessment Value
Mean length age-3 at capture	6.6 ± 0.2	4
Years to 8 inches	3 - 3+	4
CPUE of fish ≥ 8.0 in	16.00 ± 2.62	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 21 September 2006. Standard errors are in parentheses.

	Size Range							
Species	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0 – 5.9 in		6.0 – 7.9 in		≥ 8.0 in		Total	
Bluegill	75	91.3 (1.8)	37	79.4 (1.5)	0		112	87.3 (1.4)
	4.0 – 6.9 in		7.0 – 8.9 in		≥ 9.0 in		Total	
Redear sunfish	51	89.8 (1.2)	38	92.5 (1.1)	6	87.9 (2.8)	97	91.8 (1.2)

Dataset = cfdwrmcl.d06

Table 200. Length frequency, relative abundance, and CPUE of largemouth bass collected in 0.50 hours of 15-minute electrofishing runs in Lincoln Homestead Lake, April 2006; numbers in parenthesis 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	1		2	1	8	11	4	2	2	6	14	8	3	1	1	2	1		1	68	136.00 (4.00)

Dataset = cfdpslhl.d06

Table 201. Electrofishing CPUE data (no./hour) for each size group of largemouth bass collected from Lincoln Homestead Lake from 1999-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 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)
2006	24.0	(4.0)	38.0	(2.0)	56.0	(8.0)	18.0	(10.0)	136.0	(4.0)

Dataset = cfdpslhl.d06

Table 202. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Lincoln Homestead Lake in 2006; confidence intervals are in parentheses.

Species	No. fish > stock size	PSD	RSD_{15}
Largemouth bass	56	66 (± 13)	16 (± 10)

Dataset = cfdpslhl.d06

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 2006. Fish were collected in 5-minute runs.

	Inch Class																				STD
Age	3	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	Total	%	CPUE	ERR
1	1	2	1															4	5	7.00	3.00
2			1	6	10	4												20	29	39.98	3.22
3				2	1		2		6									12	17	23.02	3.78
4								2		14								16	24	32.00	12.00
5											4							47	6	8.00	4.00
6											4	1						5	8	10.90	5.90
7												1	1	1				3	4	5.40	3.40
8												1			2	1		4	6	7.70	2.70
9																	1	1	1	2.00	2.00
Total	1	2	1	8	11	4	2	2	6	14	8	3	1	1	2	1	1	68	100	136.00	4.00
%	1	3	1	12	16	6	3	3	9	21	12	4	1	1	3	1	1	100			

Dataset = cfdaglhl.d00 and cfdpslhl.d06

Table 204. Population assessment from largemouth bass collected from Lincoln Homestead Lake during April 2006.

Parameter	Value	Assessment Score
Length at age 3*	9.5 ± 0.7	1
Spring CPUE of Age 1	7.00 ± 3.00	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 0.625 hours of 7.5-minute electrofishing runs in Lincoln Homestead Lake, May 2006; numbers in parenthesis are standard errors.

	Length Class										
Species	2	3	4	5	6	7	8	9	10	Total	CPUE
Bluegill	2	5	13	24	29	24	1			98	156.8 (51.5)
Redear sunfish			1	1	5	14	11	5	1	38	60.8 (16.9)

Dataset = cfdpslhl.d06

Table 206. PSD and RSD values calculated for sunfish collected during 0.625 hours of electrofishing at Lincoln Homestead Lake during May 2006 Fish were collected in 7.5 minute runs.

Species	No. fish > stock size	PSD	RSD
Bluegill	96	56 (± 10)	1 (± 1)
Redear sunfish	38	82 (± 12)	16 (± 12)

Bluegill = RSD-8; Redear-9
Dataset = cfdpslhl.d06

Table 207. Electrofishing CPUE data (no./hour) for each size group of bluegill collected from Lincoln Homestead Lake from 1999-2006; numbers in parentheses are standard errors.

	Inch Class									
Year	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		All Sizes	
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)
2006	3.2	(3.2)	67.2	(18.4)	84.8	(32.7)	1.6	(1.6)	156.8	(51.5)

Dataset = cfdpslhl.d06

Table 208. Population assessment for spring-collected bluegill collected from Lincoln Homestead Lake in May 2006.

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	86.40 ± 34.17	4
CPUE of fish ≥ 8.0 in	1.60 ± 1.60	2
Assessment Total		12
Assessment Rating		Good

*2005 age and growth dataset was used.

Table 209. Electrofishing CPUE data (no./hour) for each size group of redear sunfish collected from Lincoln Homestead Lake from 2000-2006; 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	
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)
2006	0.0		3.2	(2.0)	30.4	(12.5)	27.2	(5.4)	1.6	(1.6)	60.8	(16.9)

Dataset = cfdpslhl.d06

Table 210. Population assessment for spring collected redear sunfish collected from Lincoln Homestead Lake in May 2006.

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	27.20 ± 5.43	4
CPUE of fish ≥ 10.0 in	1.60 ± 1.60	2
Assessment Total		14
Assessment Rating		Excellent

*2005 age and growth dataset was used.

Table 211. Species composition, relative abundance, and CPUE of bluegill and redear sunfish collected in 1.25 hours of 7.5-minute electrofishing runs in Jericho Lake, May 2006; numbers in parenthesis are standard errors.

	Length Class									
Species	1	2	3	4	5	6	7	8	Total	CPUE
Bluegill	2	45	26	10	16	58	8	1	166	132.80 (23.71)
Redear sunfish			2		2	3			38	5.60 (2.68)

Dataset = cfdpsjer.d06

Table 212. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected from Jericho Lake in 2006.

		Age					
Year	No.	1	2	3	4	5	6
2005	22	3.1					
2004	14	3.0	4.7				
2003	2	3.3	5.3	6.3			
2002	17	3.1	4.8	5.8	6.5		
2000	2	2.5	4.1	5.4	6.0	6.4	6.8
Mean	57	3.1	4.8	5.8	6.4	6.4	6.8
Smallest		2.1	3.5	5.2	5.9	6.3	6.7
Largest		4.6	6.5	7.5	8.0	6.5	6.9
Std Error		0.1	0.1	0.1	0.2	0.1	0.1
95% ConLo		2.9	4.6	5.6	6.2	6.2	6.6
95% ConHi		3.2	5.0	6.1	6.7	6.6	7.0

Intercept value = 0.00
Dataset = cfdagjer.d06

Table 213. Age frequency and CPUE (no./hour) per inch class of bluegill collected during 1.00 hours of electrofishing at Jericho Lake during May 2006. Fish were collected in 7.5-minute runs.

	Inch Class											STD
Age	1	2	3	4	5	6	7	8	Total	%	CPUE	ERR
1	2	45	22	3					73	44	58.10	12.48
2			4	7	9				19	19	15.42	4.34
3						8			8	5	6.63	2.50
4					7	41	8	1	58	35	46.03	14.67
6						8			8	5	6.63	2.50
Total	2	45	26	10	16	58	8	1	166	100	132.80	23.71
%	1	27	16	6	10	35	5	1	100			

Dataset = cfdagjer.d06 and cfdpsjer.d06

Table 214. Population assessment for spring-collected bluegill collected from Jericho Lake in May 2006.

Parameter	Actual Value	Assessment Value
Mean length age-2 at capture	4.7 ± 0.2	3
Years to 6 inches	3 – 3+	3
CPUE of fish ≥ 6.0 in	53.60 ± 18.36	3
CPUE of fish ≥ 8.0 in	0.80 ± 0.80	2
Assessment Total		11
Assessment Rating		Good

Table 215. Species composition, relative abundance, and CPUE of fish collected in 0.75 hours of electrofishing in Jericho Lake, September 2006.

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	22		
Largemouth bass	5	36	16	1	11	23	19	6	8	11	18	17	13	7	13	3	2	4	1	214	285.33 (29.98)
Bluegill	3	13	15	8	4	1														44	58.67 (27.99)

Dataset = cfdwrjer.d06

Table 216. Species composition, relative abundance, and CPUE of fish collected in 0.25 hours of in the Lower Sportsman's Lake (formerly Lower Game Farm Lake), March 2006.

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	24		
Largemouth bass			1	1		2	1		2	1	2	1	3	1	5	3	3	3	1			30	120.0
Bluegill	2	16	31	54	9																	122	448.0
Redear sunfish					1																	1	4.0
Black crappie							1	2														3	12.0
Channel catfish					1													3	2	2	1	9	36.0
Yellow bass				15	1		8	5														29	116.0

Dataset = cfdpsgfl.d06

Table 217. 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 2006; numbers in parenthesis are standard errors.

Species	Inch Class																Total	CPUE (fish/hr)
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Largemouth bass	3	2	6	3	4	5	17	2	3	2	5	7	4	14	2	4	83	66.40 (10.48)

Dataset = cfdpsgbs.d06

Table 218. Length frequency, relative abundance, and CPUE of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs in Shelby Lake, September 2006; 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	21		
Largemouth bass	1	3	2	15	18	10	16	17	15	15	22	11	17	12	6	5	6	1	192	128.00 (16.30)

Dataset = cfdpswbn.d06

Table 219. Species composition, relative abundance, and CPUE of fish collected in 1.25 hours of electrofishing in Doe Run Lake, April 2006.

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			9	1	4	4	2		1	4	4	11	4	2	47	37.60 (2.04)
Bluegill	8	40	70	22														140	112.00 (17.84)
White crappie						1			1									2	1.60 (0.98)
Black crappie				1	1													2	1.60 (0.98)
Channel catfish											1							1	0.80 (0.80)

Dataset = cfdpsdoe.d06

Table 220. Species composition, relative abundance, and CPUE of fish collected in 0.75 hours of electrofishing in Doe Run Lake, September 2006.

Species	Inch Class																	Total	CPUE (fish/hr)
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
Largemouth bass	15	216	9	3			1	4	3	7	3	4	1	3	1	1	1	272	362.67 (74.99)
Bluegill	12	2	8	6	4													32	42.67 (7.42)

Dataset = cfdwrdoe.d06

Table 221. Species composition, relative abundance, and CPUE of fishes collected in 0.278 hours of electrofishing in Leary Lake, April 2006.

Species	Inch Class												Total	CPUE (fish/hr)
	3	4	5	6	7	8	9	10	11	12	13	14		
Largemouth bass			2	3	2	8	2	3	12	12	11	2	57	203.57
Bluegill	1	14	13	13	9	5	2						57	203.57
White crappie						1	2		3				6	21.43

Dataset = cfdpslry.d06

Table 222. Length frequency, relative abundance, and CPUE of largemouth bass collected in 1.50 hours of 15-minute electrofishing runs in Willisburg Lake, April 2006; 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	21		
Largemouth bass	6	12	9	19	18	13	16	14	7	9	14	20	48	23	17	7	2	1	255	170.00 (13.57)

Dataset = cfdpswlb.d06

Table 223. Length frequency, relative abundance, and CPUE of largemouth bass collected in 1.00 hours of 15-minute electrofishing runs in Jacobson Park Lake, May 2006; 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	3	7	2	4	8	11	6	1	3	5	8	10	12	8	1		1	90	90.00 (22.42)

Dataset = cfdpsjac.d06

Table 224. Species composition, relative abundance, and CPUE (fish/hour) of fish collected in 0.50 hours of 15-minute electrofishing runs in Kleber Pond, April 2006.

Species	Inch Class																Total	CPUE (fish/hr)
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	27	29		
Largemouth bass				4	8	9	1		6	7	9	8	2				54	163.64
Bluegill	1	3	13	25	14	2	4										62	187.88
Redear sunfish			1						3	1							5	15.15
Black crappie					1			3	3	2		1					10	30.30
Channel catfish														1	2	2	5	15.15

Dataset = cfdpsklb.d06

Table 225. Species composition, relative abundance, and CPUE of fish collected in 0.50 hours of 15-minute electrofishing runs in Lower Thomas Lake, April 2006.

Species	Inch Class																				Total	CPUE (fish/hr)
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	28	31	32	34	
Largemouth bass	2	16	12		5	13	6	5	5		3		1		1	2	1					72	144.00 (44.00)
Bluegill	1	1	1	1																		4	8.00 (8.00)
Redear sunfish				1	2																	3	6.00 (6.00)
Blue catfish												3	3	1				1	1		1	10	20.00 (4.00)
Striped bass																			1	2		3	6.00 (6.00)

Dataset = cfdpslth.d06

Table 226. Species composition, relative abundance, and CPUE (fish/hour) of fish collected in a 15-minute electrofishing run in New Haven Optimist Lake, April 2006.

Species	Inch Class														Total	CPUE (fish/hr)
	1	2	3	4	5	6	7	8	9	10	11	12	13	23		
Largemouth bass			2	7	7	4			19	8	18	7		1	73	292.00
Bluegill	4	7	4	9	2		20	10							56	224.00
White crappie													1		1	4.00
Black crappie					3										3	12.00
Warmouth															1	4.00

Dataset = cfdpsnho.d06

NORTHEASTERN FISHERY DISTRICT

Project 1: Lake and Tailwaters Fishery Surveys

FINDINGS

Cave Run Lake (8,270a)

Muskellunge Sampling

Portions of six days (03 through 07 and 12 April) were spent electrofishing a total of 18 hours (30-min runs) for muskellunge. During this period 96 muskellunge were sampled with a catch rate (CPUE) of 5.3 f/h (Table 1). Of these 45.8% were 9.0 to 18.9 in. (age 1), 13.5% = 20.0-29.9 in, 32.3% = 30.0-39.9 in, 8.3% = 40.0-49.9 in and none were collected exceeding 50.0 in long; however one fish was 49.0 in. long. Population assessment values were in the fair category as compared to excellent to good in recent years (Table 2). The lower assessment value may be attributed to weather conditions at the time of sampling and inexperienced dippers. Environmental conditions during this sampling period: water temperature (54-59° F), secchi disc (11 in. to 4.5 ft.), lake level (1 ft above summer pool to 2 ft. below summer pool).

Black Bass Sampling (Spring)

The upper, middle and lower shoreline sections of Cave Run were sampled (boat electrofishing) for black bass on the nights of 1-3 May 2006. The Black Bass Research personnel's involvement in sampling the lake to evaluate the 13.0-16.0 in slot limit was completed in 2004. Therefore total hours sampled for black bass has been reduced by 50% in 2005 and 2006 (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 the routine lower lake sample ("starting") sites in 2005 never reached, due to less time spent, areas where these fish were captured in greatest abundance in past years. Of the three black bass species sampled (Table 3), 64.7% were largemouth bass (124.0 f/h), 32.0% spotted bass (61.3 f/h), and 3.3% smallmouth bass (6.3 f/h). Largemouth bass (4.7-5.3 in long) stocked in 2005 comprised 7.66% of the largemouth sampled (Table 3a). Largemouth management objectives were met only for the ≥ 15.0 in class as seen below and this data is compared to the past several years in Table 4.

Inch Class	8.0-11.9	12.0-14.9	≥ 15.0
2006 CPUE	48.5	14.6	10.2
CPUE objective	70.0*	≥30.0	≥6.0

(*BBR objectives were ≥35.0 for 8.0-11.9 in largemouth bass, ≥30 for 12.0-14.9 in and ≥5.8 for ≥15.0 in)

For the past several years, prior to 2006, the CPUE of largemouth bass within the 13.0-16.0 in (size limit slot) and >16.0 in class has been declining. Based on this decline and some anglers' perceptions, sampling efforts will be intensified and a creel survey will be conducted in 2007 in order to further examine these declines in CPUE. Following are the catch rates of largemouth bass within the slot in recent years; again, some of the differences could be a reflection of the reduced sampling effort in 2005 and 2006.

	Inch Class					
	8-12.9		13-15.9		≥ 16.0	
Year	CPUE	%	CPUE	%	CPUE	%
2006	55.3	44.6	11.2	9.0	6.8	5.5
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

Table 5 compares proportional and relative stock density values for the three black bass species collected per lake section. The 2006 population assessment (Table 6) for largemouth bass rated the population as fair. The rating had been good for 2003, 2004 and 2005. Table 7 shows electrofishing catch rates for each age largemouth bass with age 1 comprising 40% of the total catch. Again, the last two year's CPUE values are difficult to compare to past years as the effort was half that of past years. Environmental conditions during sampling period: water temperature 66° F, seechi disc 3.5 to 8 ft, weather clear, wind calm to slight breeze.

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 on 18-19 September. Sampling was carried out several weeks earlier in 2006 and 2005 than 2004. Total CPUE of 130.5 f/h (Table 8) increased from 2005 (96 f/h). Drought conditions and higher water temperatures in the 80° F range may have influenced the 2005 CPUE. Of the total number of largemouth sampled, 86% were collected from the upper section of the lake (Table 8). Relative weight values for fall captured largemouth bass are found in (Table 9). CPUE values for all largemouth bass age 0 and age 0 ≥5.0 in long (Table 10) were sufficient enough not to require a supplemental stocking of 4.0-5.0 in fish in 2006. The water temperature was 75° F, seechi disc readings were from 8-10 ft and weather conditions ranged from calm to heavy rains.

Crappie Trap Netting

During October (24-27) trap nets were set for crappie within the lake. Fifteen nets were set exclusively in the upper reaches of the lake for a total of 60 net-nights. 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 687 (248 in 2005 and 1,021 in 2004) crappie were netted. White crappie made up the majority of the catch (93%) with young of the year and age 1 comprising 84% (61% in 2005). Stock density values (Table 12) were below the desired PSD and RSD ranges. One of the fish management goals for white crappie is for a CPUE of ≥ 0.75 white crappie ≥ 8.0 inches long per trap net night. This management objective was not met this year as the CPUE was 0.65/trap net night. Young-of-year white crappie accounted for 35% of the total catch ranging from 2.0-4.0 inches long. Age one (48%) and age two (9%) ranged from 4.0-6.0 inches and 6.0-9.0 inches respectively. Eighty five percent of the age 2 white crappie ranged from 6.0-7.0 in long (Table 13). The white crappie assessment values were fair and are shown in Table 14. A total of 49 black crappie were collected, and with such a small representation no statistics were processed. The water temperature was a constant 53° F; lake level was falling and water conditions were turbid.

Miscellaneous

During the year 217 x-mas trees were placed into the lake in three locations to serve as fish attractors. Also during the year, 2,798 muskellunge averaging 13.6 inches long were stocked into the lake in October.

Grayson Lake (1,512a)

Black Bass Sampling (Spring)

Upper, middle and lower sections (areas) of Grayson Lake were sampled (boat electrofishing) for black bass on the nights of 24, 25 and 26 April. Half hour (1800 sec) sampling periods totaling two hours was completed within each section of the lake for a total effort of six hours (two hours each section). Length frequency and CPUE from each section (and total) is shown in Table 15. Largemouth bass continued to be the dominant bass species within Grayson Lake comprising 75.9% of the total black bass numbers sampled.

This was followed by spotted bass (23.9%) and smallmouth bass (0.2%). Only two smallmouth bass were collected. Of the total black bass captured, largemouth bass comprised 64.6%, 77.6%, and 92.6% of the total found within the lower, middle, and upper sections of the lake, respectively. Largemouth bass were stocked into Grayson Lake from 1998 to 2004 as part of a project to try and improve their numbers in the lake. Of the total numbers of largemouth bass sampled during spring of 2006, only 10.5% (10.8 f/h) were stocked bass. These stocked bass ranged in size from 8.2 to 15.8 inches long. Most were 9.0 to 11.0 inches long (78.5%). In 2005, 19.4% of the total largemouth bass sampled were stocked fish (note: total effort in 2005 was 9h as compared to 6h in 2006). Total catch rates of largemouth bass have declined from 255.9 f/h in 2004, 148.0 f/h in 2005, to 103.3 f/h in 2006. These values again reflect the cessation of stocking as the majority of the decline were bass < 8.0 inches long and the older stocked bass are disappearing (hooking or natural mortality) from the overall population.

Table 16 compares catch rates for various size classes of largemouth bass. Catch rates (fish/hour) for bass < 8.0 in long (18.8 f/h) showed the greatest decline; again an indication of the past influence of annually stocked fish on this size class. Largemouth bass 8.0 to 11.9 in long (55.5 f/h; 46.7 f/h wild, 8.8 f/h stocked) were found to be the most abundant size class of largemouth bass sampled in 2006. The Management Objective or goal (MO) for this size class is 60.0 f/h. Largemouth bass 12.0 to 14.9 in long were collected at a rate of 23.7 f/h or 22.9% of the total bass sampled. Of those, 22.0 f/h were wild and 1.7 f/h were stocked largemouth bass. The MO for this size range is 20.0 f/h; it was 23.8 f/h in 2005. This 20 f/h objective was met in 1999, 2005 and 2006. Only in 2006 was this objective met without the contribution of stocked bass; except perhaps the stocked bass's spawn which over time could contribute to the total. Of the largemouth bass collected ≥15.0 in long, 4.8 f/h were wild and 0.3 f/h were stocked. Combined, this size class accounted for 5.3 f/h (5.2%) of the total largemouth bass sampled. Catch rates for this size bass was 2.7 f/h in 2005; 3.0 f/h including stocked bass. Only in 2000 (6.7 f/h) was the catch rate for ≥ 15.0 inch long bass higher than 2006 values; the MO is 6.0 f/h. Fifty percent of all bass ≥ 15.0 in were taken from the upper lake section.

Proportional and relative stock values are shown in Table 17. Table 18 compares 2006 largemouth bass catch rates by age to that found in past years. The overall assessment value for largemouth bass was rated fair as was it was in 2005; however the overall score based on prescribed values was lower in 2006 than that found in 2005 (Table 19).

Black Bass Sampling (Fall)

On the nights of 11, 12, and 13 September 2006, the upper, middle, and lower reaches of the lake were again sampled for black bass (4.5 h total; 1.5h each section). Length frequency and catch rates from this sampling are shown in Table 20. The CPUE for largemouth bass was 133.1 f/h (103.3 in spring), 96.0 f/h (32.5 in spring) for spotted bass, and 0.9 f/h (0.3 in spring) for smallmouth bass. Of the 1,035 black bass sampled, 57.9% were largemouth bass, 41.7% were spotted bass, and 0.4% were smallmouth bass. Of the largemouth bass collected, 38.9 f/h or 75.4% were ≥ 8.0 in (52.5 f/h / 74.3% in 2005), 10.0f/h or 19.4% were ≥ 12.0 in (11.8 f/h / 22.5% in 2005), and 2.7 f/h or 5.2% were ≥ 15.0 in (1.7 f/h / 3.2% in 2005). Relative weight (Wr) values can be compared in Table 21, and were highest for largemouth bass ≥ 15.0 in long collected from the middle and upper sections of the lake. The MO Wr value is ≥ 90 and this was met only in these two areas by that size fish. These values were highest for spotted bass 7.0-10.9 in. The 2006 index of largemouth bass year class strength at age-0 and age-1 is shown in Table 22. In 2006, the catch rate for age-0 largemouth bass was 87.1 f/h; twice that found in 2004 (40.4 f/h). Mean length of the 2006 age-0 cohort was 4.1 in which was barely larger than the 2005 value of 4.0 in, both somewhat smaller than found in 2004 and 2003 (4.3 in both years). In general, mean lengths for this age have been similar since 1992.

Crappie Electrofishing (Fall)

Crappie were sampled from the upper section of Grayson Lake on 17 October for 2.5 hours using electrofishing gear. In all, 671 white crappie were collected that ranged in size from 2.0 to 12.0 in (Table 23).

The total CPUE for white crappie was 268.4 f/h; 42.4 f/h for crappie ≥ 8.0 in and 11.2 f/h for those ≥ 10.0 in. These values were a significant increase over the same values found in 2005 when the total CPUE was 43.7 f/h. Eleven black crappie were also collected. Table 24 shows PSD and RSD values white and black crappie. Age and growth information is provided in Table 25. The mean length of crappie at age 2 was 5.6 in and those ages 4 and older represented 19.8% of the total. Mean length of age 4+ crappie was 8.8 in. The dominant year classes occurred from 2003 through 2005. Age frequency data for white crappie (Table 26) shows age 2+ and 6.0 in class crappie to be the most numerous, closely followed by 5.0 in age 1+ fish. As this crappie data was gathered using electrofishing and not trap netting, assessment values and ratings could not be made, however Table 27 compares 2006 values generally used for assessment purposes to those found in 2004 and 2005.

Lake Carnico (114a)

Black bass electrofishing (Spring)

On May 11 the shoreline of Lake Carnico (Nicholas County) was nocturnally electrofished for black bass. During six 15-minute runs, 146 largemouth bass were captured. Length frequency for largemouth bass captured is shown in Table 28. The population assessment (Table 29) rates Lake Carnico as a "Fair" bass fishery which remains the same as in 2005. Tables 30 and 31 show largemouth bass catch rates by age and size structure. PSD values for largemouth are shown in Table 32. The PSD value for largemouth bass was 40 (37 in 2005) and the RSD_{15} was 14 (14 in 2005). The water temperature was 65° F and the seechi disc reading was 1.5 ft.

Bluegill/Redear sunfish sampling

The shoreline of Lake Carnico was electrofished during the daytime on May 25 for bluegill and redear sunfish. The last time bluegill and redear sunfish were sampled was in 2003; therefore comparisons will not be attempted. A total of 1,212 bluegill and 20 redear sunfish were sampled. Table 33 shows length frequencies and CPUE of fish sampled. CPUE for size classes of bluegill collected are shown in Table 34. Age 0 fish, ranging in size from 1.0-3.0-inches and comprised 61% of the total bluegill sampled. Quality size bluegill (≥6.0 in.) accounted for 5% of the total catch (Table 35). The population assessment for bluegill (Table 36) was "Fair". The PSD value (11) is below the desired range for bluegill (Table 37). Table 38 shows age and growth data obtained from otoliths. The water temperature was 67° F and seechi disc reading was 3 ft.

Black bass electrofishing (Fall)

On 09 September, nocturnal electrofishing yielded relative weight values of 83 for bass 8.0-11.9-inches long, 85 for 12.0-14.9-inch long fish and 91 for those bass 15.0-inches long or longer (Table 39). Table 40 shows length frequency and CPUE for fall sampling. The water temperature was 69° F; seechi disc reading was 20.0-inches. Sampling was conducted three weeks earlier than in 2005.

Clear Creek Lake (40a)

Black bass electrofishing (Spring)

Spring nocturnal electrofishing along the shoreline of Clear Creek Lake (Bath County) for largemouth bass was accomplished on 10 May 2006. Table 41 shows length frequencies and CPUE of all largemouth bass sampled during that time. The total CPUE for all size classes (349.3) increased compared to the last two years (Table 42). The most notable increase was for those fish in the 8.0-11.9 size class category (189.3 in 2006; 80.0 in 2005). The PSD value for largemouth bass was 11 (Table 43) and continues to remain below the desired level. Seechi disc reading was 4 ft.

Bluegill/redear sunfish electrofishing

Bluegill and redear sunfish sampling was conducted on 19 May during the daytime (5-7.5 minutes runs). The last time this lake was sampled for sunfish was in 2002; therefore no comparisons will be made. A total of 351 bluegill and 94 redear sunfish were collected. Tables 44 and 45 show length frequencies and CPUE for each size class of sunfish collected. Age 1 bluegill, ranging in size from 1.0-5.0 in, accounted for 66% of the total catch (Table 46). The PSD value was within the desirable range (Table 47). The population assessment (Table 48) rates the bluegill fishery as "Good". The water temperature was 63° F; seechi disc reading was 4.5 ft.

Black bass electrofishing (Fall)

The lake was again sampled in the fall (04 Oct) for largemouth bass and those findings can be found in Table 49. Relative weight values were 81 for bass 8.0-11.9-inches long, 79 for bass 12.0-15.0-inches long and 100 for bass ≥15.0-inches (Table 50). Water temperature was 69° F; secchi disc reading was 1.5 ft.

Greenbo Lake (181a)

Black bass electrofishing (Spring)

The shoreline of Greenbo Lake (Greenup County) was nocturnally electrofished on April 27. Six 900-second runs produced 244 largemouth bass. Table 51 shows length frequencies and CPUE of all fish sampled during that time. Catch rates for largemouth bass exceeded the designated levels as specified in the lake management plan (≥ 8.0 inches long – desired = 100 f/h, actual = 135 f/h; ≥ 12.0 inches long – desired = 50 f/h, actual = 69 f/h; ≥ 15.0 inches long – desired = 15 f/h, actual = 19 f/h). The PSD value (Table 52) remains within the desired range and continues to increase with a value in 2006 of 51 (2005 = 41, 2004 = 39). The age frequency of largemouth bass is shown in Table 53. This table does not include 11 fish captured ≥20.0-inches as there is no age data available. The CPUE by size class (and year) is shown in Table 54. The population assessment rated Greenbo Lake as an "Excellent" bass fishery (Table 55). Electrofishing catch rates for each age of largemouth bass from 1999 through 2005 are shown in Table 56. This table does not include 11 fish captured ≥20.0-inches as there is no age data available. The water temperature was 67° F; seechi disc readings ranged from 8-12 ft.

Bluegill/redear sunfish electrofishing (Spring)

On 30 May 2006 Greenbo Lake was electrofished during the daytime (10-7.5 minute runs) for bluegill and redear sunfish. A total of 387 bluegill and 30 redear sunfish were captured. Table 57 shows length frequencies and CPUE of sunfish sampled. A CPUE of 309 f\h for bluegill was lower than that found in 2005 (580 f\h). The decrease in CPUE could be attributed to certain habitats not sampled (beaver lodges) and the combined inexperience of two new employees at capturing fish with a dip net. The only size class of bluegill to show a decrease in CPUE were those fish <3.0-inches (Table 58). The PSD value was 26 (Table 59) compared to 11 in 2005. Age frequencies are found in Table 60. Age 1 bluegill accounted for 57% of the total catch. The population assessment for bluegill (Table 61) remains "Good" and should remain the same or improve due to the 15-fish creel limit implemented in 2005. The water temperature was 76° F; seechi disc reading was 4 ft.

Black bass electrofishing (Fall)

Nocturnal electrofishing for relative weights and length frequencies for largemouth bass was accomplished on 20 September. A total of 211 largemouth bass were collected during 1.5 hours of sampling (six 900 second runs). Table 62 shows relative abundance and CPUE of fall sampling. Largemouth bass Wr values (Table 63) showed improvement over 2005 values. Largemouth bass indices of year class strength at age 0 and age 1 are found in Table 64. The year class strength was sufficient enough not to warrant supplemental stocking of young-of-year bass in 2006. The water temperature was 73° F; seechi disc readings were from 12-15 ft.

Miscellaneous

The 15-fish creel limit for sunfish, initiated on 01 March 2005, remains in effect. Efforts continued in establishing aquatic vegetation with the transplantation of american pondweed, arrowhead, curly pondweed, giant smartweed and lizard tail from various locations throughout the district. Various amounts of the aforementioned species were planted in June and again in September. Results are basically the same as they have been in the past with some minute sprigs found outside of the enclosures of which were not purposefully transplanted. Two new enclosures (5 x 20 ft) were constructed in 2006 and intentional efforts continued in transplanting aquatic vegetation outside of the enclosures along the littoral zone. Grass carp continue to be observed from their original stocking in 1989. During the year, 4,254 channel catfish and 15,000 rainbow trout were stocked.

Mill Creek Lake (41a)

Mill Creek Lake had not been sampled during spring for largemouth bass since 2004 and on the night of 15 May 2006 the lake was sampled for one hour (nearly complete shoreline). A total of 182 f/h largemouth bass were sampled (Table 65). Total catch rates were higher than numbers collected in 2000, 2001, and 2004 (Table 66). The majority of the bass ranged from 8.0 to 11.9 inches long; nearly 60%. Catch rates for bass $\geq$ 15.0 inches long were also greater than when last sampled. Proportional stock density values are shown in Table 67. Management objectives (MO) for largemouth bass included a CPUE of 15 f/h for bass 12.0 – 14.9 in and 5 f/h for those $\geq$ 15.0 in. Both of these objectives were met in 2006. The MO for PSD was set at $\geq$ 40 for bass; it was 21 in 2006; population assessment ratings are shown in Table 68. The population assessment for largemouth bass has remained fair offer these years. This lake was not sampled during fall.

Also in May (31), the sunfish population was sampled, chiefly for bluegill, and findings from this event are shown in Table 69. As would be suspected, one and two inch long bluegill were found to be most numerous, followed by those 3.0 to 5.9 in (Table 70). No sunfish larger than 8.0 in were captured. Stock density values can found in Table 71. Findings in 2006 met both of the MO goals set for bluegill that could be determined by electrofishing. The CPUE for bluegill $\geq$ 8.0 in was 9.1 f/h (22.7 f/h in 2005); the goal for this size bluegill was 5 f/h. The desired MO for PSD was set at $\geq$ 30, it was 36 in 2006. The bluegill population was rated as fair based on 2006 sampling; however this rating was good in 2005 (Table 72).

Lake Reba (76a)

Table 73 displays the length frequency and total catch (f/h) of largemouth bass collected the night of 08 May 2006. There was an increase in the total catch for various size groups compared to that found in 2005 and 2004 (Table74) but that increase was chiefly for bass less than 8.0 in long. Those largemouth bass 8.0-11.9 in represented a 10% increase compared to that size collected in 2005 but a 40% decrease in bass $\geq$ 15.0 long compared to that found in 2005; no bass were collected $\geq$ 20.0 in long. Stock density values from 2000-2006 are given in Table 75. Age and growth rates (Table76) for largemouth bass show that it takes five years on average for a bass to reach 15.0 inches long which is the minimum size limit for largemouth bass in this lake. The majority (66%) of the bass were age 1, followed by age 3 (16%- Table 77). Catch rates by age for largemouth bass can be compared to that from recent years in Table 78. The population assessment ratings have been fair for the last three years and comparisons from 2000- 2006 can be seen in Table 79. In 2000, 2001, and 2002 largemouth bass were stocked into the lake to compare natural, wild reared, pellet reared and pellet switched-wild bass; all were fin clipped. Of 438 bass collected, one 11.1 in wild reared largemouth bass showed up in 2006 sampling.

During the day of 26 May the lake was again sample but this time for sunfish. Bluegill, redear sunfish, and warmouth were collected and these findings can be compared in Table 80. Fair numbers of green sunfish were also observed but not collected. Since sampling was begun on the lake, no bluegill have been collected exceeding 7.9 in long. The greatest increase in bluegill CPUE were bluegill $\leq$ 3.0 in long. Numbers of this size fish substantially increased the overall CPUE when compared to others years as shown in Table 81.

This increase was chiefly due to increased effort to collect these fish as they are generally not collected in proportion to their population. Numbers of bluegill in size classes ≥ 3.0 in decreased when compared to that found in 2005. On the other hand redear sunfish CPUE were highest in 2006 for all size classes collected than compared to past years findings. Redear sunfish within the 7.0 in class were the most numerous closely followed by 2.0 in fish. Bluegill proportional stock density values compared from 2003 are shown in Table 82. Relative stock density values could not be determined due to lack of fish within preferred size ranges. Catch rates for age 1 – 8 bluegill are shown Table 83 and that for redear sunfish in Table 84. Assessment ratings for both bluegill (Table 85) and redear sunfish (Table 86) indicated a fair population for these species as has been the case for both species since 2003.

In September (14), the lake was once again sampled (nocturnal electrofishing) for largemouth bass (Table 87). Bass captured at this time ranged from 2.0 to 19.0 in long. No fin clipped bass were collected among the 714 sampled at this time. Relative weight values were above 90 for all length groups (Table 88). Indices of year class strength and mean length for these fish were within desired ranges (Table 89).

An additional note: In 2006 submerged aquatic vegetation, filamentous algae and creeping water primrose were more abundant than any other year since the lake was renovated and re-impounded. Growth in some areas completely eliminated the ability to fish. Plans are to conservatively stock grass carp into this lake in 2007.

Rebel Trace Lake (19a)

Rebel Trace Lake (Menifee County) was nocturnally electrofished in the spring for largemouth bass on 10 May. Table 90 gives length frequency and CPUE for largemouth bass collected. The PSD value (27) is below the desirable range (Table 91). CPUE for each size class of largemouth bass are presented in Table 92. The water temperature was 70° F and the seechi disc reading was 5 ft. On 19 May the lake was electrofished during the daytime for sunfish. Length frequencies of sunfish collected are found in Table 93 and CPUE for selected size classes are presented in Table 94. The PSD value is below the desirable range (Table 95). The water temperature was 63° F; seechi disc reading was 4 ft. On 04 October largemouth bass were once again sampled for relative weight values (Table 96), length frequency and CPUE (Table 97). Relative weight values were 89 for 8.0-11.9-inch bass, 84 for 12.0-14.9-inch bass and 83 for 15.0-inch or longer bass. The water temperature was 73° F and the seechi disc reading was 2 ft. Approximately 33% of the shoreline around this 19-acre lake can no longer be sampled due to increased sediment loading.

Smoky Valley Lake (36a)

Largemouth bass were sampled for one hour (most of the shoreline) at this lake located at Carter Caves S.P. on the night of 09 May 2006. In all, 434 bass were collected ranging from 2.0 to 18.0 in long (Table 98). Catch rates for various size classes are shown in Table 99. As can be seen, the catch rates were higher than that from 2005; except within the 12.0-14.9 in size class where 2005 values were 1.2 f/h greater. Largemouth bass numbers were greatest within the 8.0-11.9 in size range (60%). Last year (2005) only one bass was collected ≥ 15.0 in long; in 2006 there were four, of which the largest was 18.0 in long. Table 100 compares 2006 PSD/RSD values to that found in 2005. A good population assessment rating was determined for the largemouth bass; in past years this rating was fair (Table 101). Beginning 01March 2005 a regulation went into effect that made jug and limb line fishing illegal within this lake. It was believed that the intensity of this activity had an impact on the largemouth bass population within the lake and it is hoped that removing this form of fishing will increase the numbers of larger size of bass to the benefit of rod and reel anglers.

Attempts were made to sample the largemouth bass population in fall of 2006, but lake levels were too high and muddy and sampling was not carried out.

The sunfish population at this lake was sampled during the day on 23 May 2006. A total of 568 bluegill were sampled; however the vast majority were 1.0 and 2.0 in long (81.7%; Table 102). Numbers collected per size class (except those < 3.0 in) declined over that found in 2005 (Table 103).

There were no bluegill collected larger than 7.0 in long. In Table 104, a comparison of 2005 and 2006 PSD/RSD values can be found. The vast majority of fishes collected were age 1 (64%) and 1.0 in long (50.5%- Tables 105 and 106). In past years the bluegill population was rated fair according to population assessment values; 2006 indicated a poor rating (Table 107). As discussed under Lake Reba, there increased effort to pick up all sizes of fish and many more 1.0 and 2.0- in long bluegill were collected than usual. The increase in numbers of this size fish makes it difficult to compare past data due to this. The best way to use CPUE of bluegill in cases like this would be to compare $\geq$ 3.0 in (2.0 in?) fish for comparison purposes.

Lake Wilgreen (169a)

Nocturnal sampling (1.5 h) for largemouth bass on this lake took place at night on 04 May 2006. At this time a total of 663 (422 f/h) bass were collected that ranged in size from 4.0 to 21.0 inches long (Table 108). During the same effort in 2005, 557 bass (371.3 f/h) were sampled ranging in size from 3.0 to 19.0 in. Catch rates for various size classes of largemouth bass can be compared to other year's findings in Table 109. Catch rates for bass $\geq$ 12.0 in long surpassed that found in all sample years since 1999. Stock density values for the bass sampled in 2006 are shown in Table 110. Age frequencies (Table 111) show that the greatest numbers (29%) of largemouth bass were age 4 and 12.0 inches in length. Age 4 largemouth bass were also dominant in the 2005 sample (Table 112). Population ratings for largemouth bass at Lake Wilgreen have been good since 2003 (Table 113).

On 22 May the lake was sampled during daylight hours for sunfish. Total numbers, CPUE, and inch class ranges collected can be seen in Table 114. Bluegill sampled ranged from 1.0 to 8.0 in and their total catch rate was 756 f/h. Numbers of redear sunfish collected ranged from 3.0 to 10.0 in long (35f/h). Green sunfish were also collected. Size classes of bluegill and redear sunfish can be compared to past years findings in Table 115. Bluegill catch rates found in 2006 exceeded 2005 values for $\geq$ 6.0 in long fish but in 2005 more bluegill were sampled < 6.0 inches long. Redear sunfish were found spawning and more $\geq$ 10.0 inches long were collected than in past years where none had been sampled of this size. Catch rates per size range of redear sunfish collected in 2006 exceeded that found in 2005 except for 6.0-7.9 in fish, where more from this size class were collected in 2005. Bluegill PSD/RSD values are provided in Table 116. Bluegill age frequency CPUE values are shown in Table 117 and catch rates by age are compared to past years in Table 118. The bluegill population was rated good and has been for several years (Table 119).

Largemouth bass were sampled at night on 03 October. Results of these efforts are shown in Table 120. Catch rates for bass sampled at this time were 321.3 f/h and they ranged from 3.0 to 18.0 in. When largemouth bass were last sampled during fall in the lake (2004), catch rates were 462 f/h and the bass ranged from 3.0 to 20.0 in. Relative weight values (Wr) for various size groups were above 90 (Table 121). These values for bass < 15.0 in long when sampled last in 2004 were below 90 and slightly higher at that time for bass >15.0 in as compared to bass of these sizes found in 2006.

Table 1. Relative abundance and CPUE (fish/hour) of muskellunge collected during 18 hours of electrofishing at Cave Run Lake on 03 through 07 and 12 April 2006.

	Inch class																																
Species	9	10	11	12	13	14	15	16	17	18	20	21	22	23	24	25	26	29	30	32	33	34	35	36	37	38	39	40	41	42	49	Total	CPUE	SE
Muskellunge	1	2	2	2	3	17	11	4	1	1	2	3	2	1	2	1	1	1	4	3	3	5	2	4	5	3	2	3	2	2	1	96	5.3	0.53

nedmuscr.d06

Table 2. Population assessments for muskullunge from Cave Run Lake captured during spring electrofishing from 2001-2006.

Parameter	2001		2003		2004		2005		2006	
	Actual value	Assessment value	Actual value	Assessment value	Actual value	Assessment value	Actual value	Assessment value	Actual value	Assessment score
CPUE Age 1 muskullunge	2.31	2	2.00	2	1.28	1	2.86	2	2.39	2
CPUE ≥ 20.0 inch muskellunge	4.40	2	3.22	5	3.20	2	5.53	3	2.89	1
CPUE ≥ 30.0 inch muskellunge	3.07	3	2.33	2	2.61	3	4.40	4	2.17	2
CPUE ≥ 36.0 inch muskellunge	1.51	4	1.00	3	1.28	3	2.00	4	1.22	3
CPUE ≥ 40.0 inch muskellunge	0.64	4	0.33	3	0.44	3	0.80	4	0.44	3
Total score		15		12		12		17		11
Assessment rating		G		G		G		E		F

nedmuscr.d01, 03, 04, 05, 06
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 in each area of Cave Run Lake from 1-3 May 2006.

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			
Upper	Smallmouth bass																			0	0.0	0.00
	Spotted bass					3	1	2	1											7	3.5	1.50
	Largemouth bass	7	22	47	40	15	14	46	45	21	17	8	7	7	4	2	2	1		305	152.5	18.84
Middle	Smallmouth bass		10	12			3	1		1							1			28	14.0	6.32
	Spotted bass	2	6	10	9	24	28	26	4	5										114	57.0	9.26
	Largemouth bass	2	25	24	13	1	12	22	13	11	12	3	7	4	2	7	5	2	1	166	83.0	23.16
Lower	Smallmouth bass			2	1	3	1		1		1	1								10	5.0	1.29
	Spotted bass	7	25	42	37	33	47	33	9	6	2	4	1	1						247	123.5	7.09
	Largemouth bass	1	18	57	24	8	26	47	24	10	12	9	13	9	8	5	1	1		273	136.5	47.18
Total	Smallmouth bass		10	14	1	3	4	1	1	1	1	1								38	6.3	2.62
	Spotted bass	9	31	52	46	60	76	61	14	11	2	4	1	1						368	61.3	15.22
	Largemouth bass	10	65	128	77	24	52	115	82	42	41	20	27	20	14	14	8	4	1	744	124.0	19.07

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Table 3a. Length frequency and CPUE (fish/hour) of stocked and wild largemouth bass during 6.0 hours (2.0 hrs in each area) of nocturnal electrofishing at Cave Run Lake from 1-3 May 2006.

Area	Type	Inch class																		Total	CPUE	Std. error
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Upper	Wild	7	20	44	40	15	14	46	45	21	17	8	7	7	4	2	2	1		300	150.0	18.46
	Stocked		2	3																5	2.5	1.26
Middle	Wild	2	23	16	13	1	12	22	13	11	12	3	7	4	2	7	5	2	1	156	78.0	26.04
	Stocked		2	8																10	5.0	5.00
Lower	Wild	1	13	23	21	8	26	47	24	10	12	9	13	9	8	5	1	1		231	115.5	36.16
	Stocked		5	34	3															42	21.0	11.70
Total	Wild	10	56	83	74	24	52	115	82	42	41	20	27	20	14	14	8	4	1	687	114.5	17.03
	Stocked		9	45	3															57	9.5	4.58

nedstkcr.d06, nedwldcr.d06

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
2006	50.7	10.14	48.5	7.70	14.7	1.99	10.2	1.42	124.0	19.07	L,M,U	6
2005	75.0	13.08	41.7	6.41	14.7	2.67	7.2	1.64	138.5	22.18	L,M,U	6
2004	29.0	3.02	60.7	5.88	26.0	3.03	14.1	1.35	129.8	10.14	L,M,U	12
2003	41.0	5.99	64.6	5.15	24.8	2.28	20.3	2.85	150.6	13.02	L,M,U	12
2002	No data collected											
2001	22.8	3.68	54.7	5.41	27.6	2.33	12.6	1.55	117.7	8.60	L,M,U	12
2000	45.1	4.88	78.3	6.48	26.8	2.89	9.0	1.51	159.3	10.69	L,M,U	12
1999	67.6	7.18	51.3	3.47	21.6	1.79	8.6	1.49	149.0	8.73	L,M,U	12
1998	18.7	3.52	17.9	2.94	20.6	2.14	6.9	1.54	64.0	7.64	L,M	7

nedpsdcr.d06,05,04,03,02,01,00,99,98.
* L - lower, M - middle, U - upper

Table 5. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Cave Run Lake from 1-3 May 2006; 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8"	PSD (± 95%)	RSD[a] (± 95%)
Lower	Smallmouth bass	7	29 (± 32)	
	Spotted bass	136	10 (± 5)	2 (± 2)
	Largemouth bass	165	35 (± 7)	15 (± 5)
Middle	Smallmouth bass	6	33 (± 37)	17 (± 25)
	Spotted bass	87	6 (± 5)	
	Largemouth bass	101	43 (± 10)	21 (± 16)
Upper	Largemouth bass	174	28 (± 7)	9 (± 4)
Total	Smallmouth bass	13	31 (± 26)	8 (± 11)
	Spotted bass	230	8 (± 4)	1 (± 1)
	Largemouth bass	440	34 (± 4)	14 (± 3)

[a] Largemouth bass = RSD15, Spotted and Smallmouth bass = RSD14
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Table 6. Population assessment for largemouth bass based on spring sampling from 2003 through 2006 at Cave Run Lake.

Parameter	2003		2004		2005		2006	
	Actual value	Assessment score	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	12.4	3
Spring CPUE of Age 1 Fish	39.76	3	28.09	2	63.36	4	49.21	3
Spring CPUE 12.0-14.9-in. fish	24.75	2	26.00	3	14.67	1	14.67	1
Spring CPUE ≥ 15.0-in. fish	20.25	4	14.08	3	7.17	2	10.17	2
Spring CPUE ≥ 20.0-in fish	0.75	2	0.33	2	0.67	2	0.17	1
Instantaneous mortality (z)		0.724		0.846		0.897		0.799
Annual mortality (A)		52.0%		57.0%		59.0%		55.0%
Total score		14		13		12		10
Assessment rating		Good		Good		Good		Fair

nedpsdcr.d03, 04, 05, 06; 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 - 2006.

	Year						
Age	1999	2000	2001	2003	2004	2005	2006
1	61.64	42.44	20.65	39.76	28.09	63.36	49.21
2	43.46	61.41	47.10	55.77	46.55	42.80	42.04
3	27.09	34.71	26.53	24.17	31.96	19.99	16.37
4	11.20	14.46	15.35	17.34	14.19	7.58	9.57
5	3.69	3.76	5.03	7.19	5.30	2.37	3.50
6	1.17	1.10	1.58	3.27	2.06	0.86	1.69
7	0.13	0.15	0.18	0.50	0.28	0.13	0.27
8	0.53	0.47	0.71	1.50	0.86	0.52	0.96
10	0.08	0.08	0.28	0.33	0.14	0.22	0.22
13		0.33	0.17	0.75	0.08	0.33	0.17

nedpsdcr.d99,00,01,03,04,05,06.
nedaagcr.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) in Cave Run Lake on September 18-19 2006.

	Inch class																			Std.
Area/Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	Total	CPUE	error
Lower																				
Smallmouth bass		2	3			1	2											8.0	4.0	1.4
Spotted bass		23	25	3	13	24	28	26	8	3	2				1			156.0	78.0	7.5
Largemouth bass			8	4		6	8	7	8	15	8		3	2	1		1	71.0	35.5	6.7
Upper																				
Spotted bass	1	10	12	2		1	1	1										28.0	14.0	2.3
Largemouth bass		25	115	97	29	3	23	54	33	24	32	7	3	1	4	1		451.0	225.5	13.1
Total																				
Smallmouth bass		2	3			1	2											8.0	2.0	1.0
Spotted bass	1	33	37	5	13	25	29	27	8	3	2				1			184.0	46.0	12.6
Largemouth bass		25	123	101	29	9	31	61	41	39	40	7	6	3	5	1	1	522.0	130.5	36.5

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Table 9. Number of fish and mean relative weight (W_r) values for length groups of black bass collected in Cave Run Lake sampled by nocturnal electrofishing on 18-19 September 2006. Standard errors are in parentheses.

Species	Area	Size range					
		8.0-11.9 in		12.0-14.9 in		≥ 15.0 in	
		No.	W_r	No.	W_r	No.	W_r
Largemouth bass	Lower	38	89(1.7)	11	86(2.9)	4	94(3.8)
	Upper	134	91(0.6)	42	97(1.1)	6	92(1.2)
	Total	172	91(0.6)	53	95(1.2)	10	92(1.6)
		7.0-10.9 in		11.0-13.9 in		≥ 14.0 in	
		No.	W_r	No.	W_r	No.	W_r
Spotted bass	Lower	86	98(1.1)	5	90(2.3)	1	126
	Upper	3	99(2.7)				
	Total	89	98(1.1)	5	90(2.3)	1	126

nedwrscr.d06

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 nocturnal electofishing 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
2006	Total	4.8	0.05	68.5	26.2	31.5	13.1		
2005	Total	4.1	0.07	51.5	19.4	10.8	3.5	49.2	9.9
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.d06, 05, 04, 03; nedpsdcr.d06; 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 24-27 October 2006.

Species	Inch class 2	3	4	5	6	7	8	9	10	11	12	Total	CPUE	Std. error
White crappie	3	203	21	212	118	42	18	12	6	1	2	638	10.6	1.98
Black crappie		11	2	10	15	5	2	3	1			49	0.8	0.22

nedctncr.d06

Table 12. PSD and RSD values for crappie collected in trap nets on Cave Run Lake during October 2006; 95% confidence limits are in parentheses.

	No.	PSD	RSD_{10}
White crappie	411	10 (± 3)	2 (± 1)
Black crappie	36	17 (± 12)	3 (± 4)

nedctncr.d06

Table 13. Age frequencies and CPUE of white crappie collected from trap nets fished in Cave Run Lake for 60 net nights during October 2006.

Age	Inch class 2	3	4	5	6	7	8	9	10	11	12	Total	%	CPUE	Std error
0+	3	203	19									225	35	3.75	0.92
1+			2	212	94							309	48	5.14	0.93
2+					12	38	7	2				59	9	0.99	0.22
3+							7	7	1	0		15	2	0.25	0.06
4+					12	4	4	1	5	1	1	27	4	0.45	0.09
5+								1	1	0		2	0	0.03	0.01
6+											1	1	0	0.02	0.01
Total	3	203	21	212	118	42	18	12	6	1	2	638	100		
%	0	32	3	33	18	7	3	2	1	0	0	100			

CPUE of ≥ 8 in (quality size) crappie = 0.65
CPUE of ≥ 10 in (preferred size) crappie = 0.15
nedctncr.d06, nedaagcr.d04

Table 14. Population assessment for white crappie from Cave Run Lake in October 2006 compared to previous years.

	2002		2003		2004		2005		2006	
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)	4.39	1	1.60	1	9.30	2	2.20	1	6.89	2
CPUE of age 1 crappie	1.09	1	0.22	1	4.20	2	0.70	1	5.14	2
CPUE of age 0 crappie	0.56	1	0.11	1	6.40	3	1.70	1	3.75	2
CPUE of crappie ≥ 8 inches	0.79	1	0.70	1	3.00	2	0.90	1	0.65	1
Mean age 2 length at capture	7.3	1	7.8	1	7.9	1	7.9	1	7.9	1
Instantaneous mortality (Z)	0.435		0.391		0.762		0.572		-0.951	
Annual mortality (A)	35.3%		32.3%		53.3%		43.6%		61.4%	
Total score:		5		5		11		5		8
Assessment rating:		P		P		F		P		F

nedctncr.d06, 05, 04, 03, 02; nedaagcr.d04;

Table 15. Length frequency and CPUE (fish/hour) of black bass collected in 6.0 hours of nocturnal electrofishing (12-30 minute runs, four in each area) at Grayson Lake on 24-26 April 2006.

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			
Lower	Smallmouth bass																	1			1	0.5	0.5
	Spotted bass	6	8	10	13	14	15	16	9	10	2										103	51.5	12.4
	Largemouth bass	4	20	18	4	3	14	25	21	22	24	15	11	6	3						190	95.0	13.7
Middle	Smallmouth bass		1																		1	0.5	0.5
	Spotted bass	6	16	9	10	7	12	11	7	2											80	40.0	2.2
	Largemouth bass	1	9	11	6	12	31	40	40	56	42	20	5	3	2	1			1		280	140.0	11.2
Upper	Spotted bass		3		1	7				1											12	6.0	1.8
	Largemouth bass	1	3	9	12		17	13	27	27	10	12	3	5	3	3	2	2		1	150	75.0	7.8
Total	Smallmouth bass		1															1			2	0.3	0.2
	Spotted bass	12	27	19	24	28	27	27	16	13	2										195	32.5	7.0
	Largemouth bass	6	32	38	22	15	62	78	88	105	76	47	19	14	8	4	2	2	1	1	620	103.3	10.1

nedpsdgl.d06

Table 16. Spring electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Grayson Lake from 1999-2006.

	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.
2006	18.8	2.9	55.5	7.4	23.7	3.9	5.3	1.1	103.3	10.1
2005	47.5	8.0	66.5	7.9	23.8	3.7	2.7	0.5	140.5	16.9
2004	162.3	22.0	77.8	10.1	12.9	1.4	2.9	0.6	255.9	31.9
2003	128.3	10.7	79.5	6.5	6.3	0.8	2.2	0.6	216.3	15.1
2002	132.5	17.9	54.5	5.5	4.8	1.4	3.0	0.8	194.8	22.7
2001	220.8	30.6	54.2	3.2	6.7	0.9	2.2	0.5	283.9	30.2
2000	143.3	20.6	65.7	5.9	13.4	1.5	6.7	1.0	229.1	25.9
1999	172.7	21.6	102.4	10.1	24.1	2.1	4.6	0.7	303.8	31.3

nedpsdgl.d06,05,04,03,02,01,00,99.

Table 17. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Grayson Lake from 24-26 April 2006; 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8"	PSD (± 95%)		RSD[a] (± 95%)	
Lower	Spotted bass	52	18	(± 10)		
	Largemouth bass	141	42	(± 8)	6	(± 4)
Middle	Spotted bass	32	5	(± 7)		
	Largemouth bass	241	31	(± 6)	3	(± 2)
Upper	Spotted bass	1	13	(± 19)		
	Largemouth bass	125	33	(± 9)	13	(± 4)
Total	Spotted bass	85	13	(± 7)		
	Largemouth bass	507	34	(± 4)	6	(± 2)

[a] Largemouth bass = RSD-15, spotted and smallmouth bass = RSD-14.
nedpsdgl.d06

Table 18. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Grayson Lake during spring sampling from 1999 - 2006.

	Year							
Age	1999	2000	2001	2002	2003	2004	2005	2006
1	167.0	130.8	218.1	127.2	125.2	158.9	44.3	17.3
2	68.5	63.4	36.4	40.5	57.7	50.8	35.1	26.4
3	21.0	9.0	11.8	10.9	14.3	16.0	18.0	16.3
4	16.5	7.5	5.0	4.1	5.4	9.8	15.5	14.7
5	18.5	8.3	7.4	6.5	8.6	12.2	17.4	15.8
6	9.7	6.1	3.6	3.4	3.6	5.7	7.9	10.0
7	0.4	0.8	0.2	0.4	0.4	0.3	0.3	0.5
8	1.2	1.2	0.6	0.3	0.3	0.6	0.6	1.2
9	0.2	0.1	0.1	0.7		0.2	0.1	0.2
10	0.2	0.6	0.1	0.4	0.3	0.2	0.2	0.3
11		0.1	0.1	0.2	0.5	0.1	0.1	0.2
13		0.3	0.1	0.2	0.1	0.2	0.0	0.1

nedpsdgl.d99,00,01,02,03,04,05,06.
nedaaggl.d03.

Table 19. Population assessment for largemouth bass based on spring sampling in 2005 and 2006 at Grayson Lake.

	2005		2006	
Parameter	Actual value	Assessment score	Actual value	Assessment score
Length at age 3	10.7	1	10.7	1
Spring CPUE of Age 1 fish	46.8	3	17.3	1
Spring CPUE 12-14.9-in fish	25.1	3	23.7	2
Spring CPUE ≥ 15.0-in fish	2.9	1	5.3	2
Spring CPUE ≥ 20.0-in fish	0.2	2	0.3	2
Instantaneous mortality (z)	0.311		0.197	
Annual mortality (A)	26.7%		17.9%	
Total score		10		8
Assessment rating		Fair		Fair

nedpsdgl.d05, 06; nedaagl.d03

Table 20. Length frequency and CPUE (fish/hour) of black bass collected in 4.5 hours (1.5 hours in each area) of nocturnal electrofishing (9-30 min runs) in Grayson Lake on September 11-13, 2006.

	Inch class																			Std.
Area/Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	Total	CPUE	error
Lower																				
Smallmouth bass	1	1						1										3	2.0	1.2
Spotted bass	8	81	11	20	27	9	19	14	8	3	2							202	134.7	17.3
Largemouth bass		22	45	16	8	6	5	8	6	14	8	2	2		1		1	144	96.0	40.2
Middle																				
Smallmouth bass	1																	1	0.7	0.7
Spotted bass	5	80	19	25	21	11	15	6	3	1								186	124.0	30.1
Largemouth bass	1	44	51	15	1	8	11	9	13	9	5	6	5	3	1	1		183	122.0	10.1
Upper																				
Spotted bass	4	20	14	1	1	3	1											44	29.3	2.7
Largemouth bass	19	94	62	16	4	12	21	10	14	10	1	3	1	1	2	2		272	181.3	29.0
Total																				
Smallmouth bass	1	1	1					1										4	0.9	0.5
Spotted bass	17	181	44	46	49	23	35	20	11	4	2							432	96.0	19.5
Largemouth bass	20	160	158	47	13	26	37	27	33	33	14	11	8	4	4	3	1	599	133.1	19.3

nedwrsgl.d06

Table 21. Number of fish and mean relative weight (W_r) values for length groups of black bass collected in Grayson Lake sampled by nocturnal electrofishing on 11-13, 2006. Standard errors are in parentheses.

Species	Area	Size range					
		8.0-11.9 in		12.0-14.9 in		≥ 15.0 in	
		No.	W_r	No.	W_r	No.	W_r
Largemouth bass	Lower	33	81.54(1.6)	12	87.41(5.3)	2	83.46(12.3)
	Middle	42	83.57(1.3)	16	82.82(1.5)	5	95.00(2.0)
	Upper	55	85.54(1.2)	5	84.73(3.2)	5	99.61(2.3)
	Total	130	83.89(.8)	33	84.78(2.1)	12	95.00(2.6)
		7.0-10.9 in		11.0-13.9 in			
		No.	W_r	No.	W_r		
Spotted bass	Lower	50	88.81(1.2)	5	87.05(2.7)		
	Middle	35	93.89(2.3)	1	85.51		
	Upper	4	99.85(2.4)				
	Total	89	91.31(1.2)	6	86.80(2.2)		

Table 22. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in September 2006 while nocturnal electofishing 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
2006	Total	4.1	0.04	87.1	17.9	12.0	2.58		
2005	Total	4.0	0.04	72.3	17.01	11.7	2.23	17.3	2.8
2004	Total	4.3	0.08	40.4	5.74	11.3	2.08	46.8	7.8
2003	Total	4.3	0.03	59.1	6.82	10.4	1.72	158.9	21.7

nedwrsgl.d06, 05, 04, 03; nedpsdgl.d06, 05, 04; nedaaggl.d03

Table 23. Length frequency and CPUE for each species of crappie collected at Grayson Lake while electofishing 2.5h (5-30minute runs) on 17 October 2006.

Species	Inch class											Total	CPUE	Std. error
	2	3	4	5	6	7	8	9	10	11	12			
White crappie	8	91	78	113	172	103	58	20	19	5	4	671	268.4	109.6
Black crappie		1	3	1	1	4			1			11	4.4	2.7

nedcwrgl.d06

Table 24. PSD and RSD values for crappie collected while electrofishing Grayson Lake during October 2006; 95% confidence limits are in parentheses.

	No.	PSD	RSD_{10}
White crappie	494	22 (± 4)	6 (± 2)
Black crappie	7	14 (± 21)	14 (± 21)

nedcwrgl.d06

Table 25. Mean back-calculated lengths (in) at each annulus for white crappie collected from Grayson Lake in October 2006, including 95% confidence intervals for each mean length per age class. Average length for age 0 is at capture.

		Age								
Year	No.	0+	1	2	3	4	5	6	7	8
2006	10									
2005	21		3.0							
2004	21		3.2	5.5						
2003	21		3.2	5.6	7.5					
2002	6		3.2	5.7	7.4	8.9				
2001	8		3.3	5.6	7.3	8.7	10.2			
2000	2		3.1	6.2	8.2	9.1	10.0	11.3		
1999	1		3.2	6.4	7.8	8.9	9.5	10.0	11.5	
1998	1		3.3	4.2	5.7	7.1	7.8	8.6	9.6	10.3
Mean		3.0	3.2	5.6	7.4	8.8	9.9	10.3	10.5	10.3
Number	91	10	81	60	39	18	12	4	2	1
Smallest		2.6	2.5	4.2	5.7	7.1	7.8	8.6	9.6	10.3
Largest		3.5	3.9	6.7	9.0	10.0	11.6	11.5	11.5	10.3
Std error		0.3	0.0	0.1	0.1	0.2	0.3	0.6	1.0	
95% CI (±)			0.05	0.15	0.25	0.35	0.50	1.25	1.95	

Otoliths were used for age-determinations; Intercept=0
nedaaggl.d06

Table 26. Age frequencies and CPUE of white crappie collected while electrofishing (5-30 minute runs) at Grayson Lake during October 2006.

Age	Inch class											Total	%	CPUE	Std error
	2	3	4	5	6	7	8	9	10	11	12				
0	8	91										99	15	39.6	27.3
1			78	113	17							208	31	83.3	38.4
2					155	77	19					251	37	100.6	35.8
3						26	39	18	7			89	13	35.6	8.2
4								2	7	1		10	1	4.0	1.2
5									5	3	2	10	1	3.9	1.3
6										1	1	2	0	0.7	0.3
7											1	1	0	0.4	0.2
8										1		1	0	0.3	0.1
Total	8	91	78	113	172	103	58	20	19	5	4	671	100		
%	1	14	12	17	26	15	9	3	3	1	1	100			

CPUE of ≥ 8 in (quality size) crappie = 35.3
CPUE of ≥ 10 in (preferred size) crappie = 9.3
nedcwrgl.d06; nedaaggl.d06

Table 27. Comparison of various white crappie findings based on electrofishing at Grayson Lake during fall sampling*.

	2004	2005	2006
CPUE excluding age- 0	158.3	43.7	268.4
CPUE age 1	64.6	9.9	83.3
CPUE age 0	31.3	1.3	36.3
CPUE ≥ 8.0 in	49.0	16.7	42.4
Mean age-2 length at capture	5.6	5.1	5.6

* Electrofishing data for comparison purposes, assessment values only available for trap net data.

Table 28. Length frequency and CPUE (fish/hour) of black bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) at Lake Carnico (Nicholas Co.) on 11 May 2006.

Species	Inch class																		Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Largemouth bass	1	9	10	9	14	20	9	11	22	12	10	5	6	1	1	4	1	1	146	97.33	18.12

nedpsdlc.d06

Table 29. Population assessment for largemouth bass based on spring sampling at Lake Carnico (Nicholas Co.) from 2003 through 2006.

Parameter	2003		2004		2005		2006	
	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Length at age 3	12.2	4	12.2	4	12.2	4	12.2	4
Spring CPUE Age 1 fish	39.3	2	54.1	3	23.2	2	27.5	2
Spring CPUE 12.0-14.9-in. fish	34.0	2	36.0	3	24.7	2	18.0	1
Spring CPUE ≥ 15.0-in. fish	13.3	2	19.3	3	14.0	2	9.3	2
Spring CPUE ≥ 20.0-in. fish	1.3	2	0.7	1	0.7	1	0.7	1
Total score:		12		14		11		10
Assessment rating:		G		G		F		F

nedaaglc.d03, nedpsdlc.d03, 04, 05, and 06

Table 30. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected in the spring from Lake Carnico (Nicholas Co.) from 1999-2006.

	Year							
Age	1999	2000	2001	2002	2003	2004	2005	2006
1	18.80	27.00	34.20	45.80	39.33	54.13	23.20	27.47
2	62.45	34.50	47.30	41.45	66.00	98.37	53.97	31.53
3	14.25	9.50	11.50	16.25	19.33	24.50	13.17	11.67
4	19.17	12.33	18.67	22.83	25.33	34.33	21.44	16.22
5	3.00	7.00	3.00	4.00	5.33	10.67	5.33	4.67
7	4.33	2.67	5.33	6.67	5.33	7.33	5.56	2.44
8	4.00			2.00	2.67	3.33	4.00	2.67

nedpsdlc.d99, 00, 01, 02, 03, 04, 05, 06
nedaaglc.d03

Table 31. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Lake Carnico (Nicholas C0.) in May. CPUE=fish/hour.

	<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.
2006	28.67	5.10	41.33	8.56	18.00	3.69	9.33	2.86	97.33	18.12
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.d06, 05, 04, 03, 02, 01, 00, 99.

Table 32. PSD and RSD values for Largemouth bass collected while electrofishing Lake Carnico (Nicholas Co.) during May 2006; 95% confidence limits are in parentheses.

Species	No. fish ≥ 8"	PSD (± 95%)	RSD_{15} (± 95%)
Largemouth bass	103	40 (± 10)	14 (± 7)

nedpsdlc.d06

Table 33. Length frequency and CPUE (fish/hour) of sunfish collected in 1.25 hours of electrofishing (10-7.5 minute runs) in Lake Carnico (Nicholas Co.) on 25 May 2006.

	Inch class									Std.
Species	1	2	3	4	5	6	7	Total	CPUE	error
Bluegill	114	561	162	144	172	57	2	1212	969.60	93.57
Redear sunfish		3	4	2		3	8	20	16.00	5.33
Green sunfish	48	170	141	30		1		390	312.00	74.38
Longear sunfish	2	16	16	10	6			50	40.00	9.76
Bluegill hybrids	1		1	1	2			5	4.00	1.79

nedsunlc.d06

Table 34. Spring electrofishing CPUE for each size class of bluegill collected at Lake Carnico 2006. CPUE=fish/hour.

	Inch class						Total	
	<3.0		3.0-5.9		6.0-7.9			
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2006	540.00	73.10	382.40	31.00	47.20	11.22	969.60	93.57

nedsunlc.d06

Table 35. Age frequencies and CPUE of bluegill collected during spring electrofishing in Lake Carnico (Nicholas Co.) on 25 May 2006.

	Inch class										Std.
Age	1	2	3	4	5	6	7	Total	%	CPUE	error
0	114	561	68					743	61	594.00	75.13
1			95	90	34			219	18	175.12	11.12
2				54	69	17		140	12	111.92	15.01
3					69	34	1	104	9	83.20	15.96
4						6	1	7	1	5.36	1.23
Total	114	561	162	144	172	57	2	1212	100		
%	9	46	13	12	14	5	0	100			

nedaaglc.d03; nedsunlc.d06

Table 36. Population assessment for bluegill collected in the spring from Lake Carnico (Nicholas Co.) on 25 May 2006.

Parameter	2006 Actual value	2006 Assessment score
Mean length age-2 at capture	5.3	4
Years to 6 Inches	4	2
CPUE ≥ 6.0 inches	47.2	2
CPUE ≥ 8.0 inches	0.0	1
Instantaneous mortality		-0.37
Annual mortality		31.1%
Total score:		9
Assessment rating:		Fair

nedaaglc.d06, nedsunlc.d06

Table 37. PSD and RSD values obtained for bluegill collected at Lake Carnico (Nicholas Co.) on 25 May 2006; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD (± 95%)	RSD_8 (± 95%)
Bluegill	537	11 (± 2.7)	0

nedsunlc.d06

Table 38. Mean back-calculated lengths (inches) at each annulus for bluegill otoliths collected from Lake Carnico (Nicholas Co.) on 25 May 2006.

Year	No.	Age 1	2	3	4
2005	14	2.6			
2004	10	2.2	3.8		
2003	11	2.2	3.5	4.9	
2002	2	1.7	2.9	4.6	5.8
Mean		2.3	3.6	4.9	5.8
Number	37	23	13	2	1
Smallest		1.6	2.8	4.3	5.4
Largest		3.2	4.8	5.9	6.2
Std Error		0.1	0.1	2	0.4
95% CI (±)		0.2	0.3	0.3	0.7

Otoliths were used for age-growth determinations; intercept = 0
nedaaglc.d06

Table 39. Number of fish and relative weight (W_r) for each length category of largemouth bass collected at Lake Carnico (Nicholas Co.) on 21 September 2006. Standard errors are in parentheses.

Species	Size range					
	8.0-11.9 in		12.0-14.9 in		≥15.0 in	
	No.	W_r	No.	W_r	No.	W_r
Largemouth bass	87	83(0.7)	41	85(0.9)	13	91(2.2)

nedwrslc.d06

Table 40. Length frequency and CPUE (fish/hour) of black bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) at Lake Carnico (Nicholas Co.) on 21 September 2006.

Species	Inch class																	Total	CPUE	Std. error
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
Largemouth bass	3	20	31	4	7	48	47	5	13	22	19	15	7	4	4	4	1	254	169.33	16.29

nedwrslc.d06

Table 41. Length frequency and CPUE (fish/hour) of largemouth bass collected in 0.37 hours of nocturnal electrofishing (3-7.5 minute runs) bass at Clear Creek Lake (Bath Co.) on 10 May 2006.

Species	Inch class														Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	17	19	23			
Largemouth bass	4	15	13	1	18	36	13	12	10	3	1	3	1	1	131	349.33	16.22

nedpsdcc.d06

Table 42. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Clear Creek Lake (Bath Co.) in May. 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.
2006	136.0	20.1	189.3	13.3	10.7	7.1	13.3	7.1	349.3	16.2
2005	168.0	42.3	80.0	28.8	13.3	7.1	5.3	2.7	266.7	65.7
2004	122.7	27.1	109.3	26.3	16.0	8.0	13.3	2.7	261.3	34.7

nedpsdcc.d06, 05, 04

Table 43. PSD and RSD values for Largemouth bass collected while electrofishing Clear Creek Lake (Bath Co.) during May 2006; 95% confidence limits are in parentheses.

Species	No. fish ≥ 8"	PSD (± 95%)	RSD_{15} (± 95%)
Largemouth bass	80	11 (± 7)	6 (± 5)

nedpsdcc.d06

Table 44. Length frequency and CPUE (fish/hour) of sunfish collected in .625 hours of electrofishing (5-7.5 minute runs) at Clear Creek Lake (Bath Co.) on 19 May 2006.

	Inch class										Std.
Species	1	2	3	4	5	6	7	8	Total	CPUE	error
Bluegill	79	114	47	30	24	34	21	2	351	561.60	139.68
Redear sunfish	9	29	27	1	10	13	2	3	94	150.40	23.38

nedsuncc.d06

Table 45. Spring electrofishing CPUE for each size class of sunfish collected at Clear Creek Lake 2006. 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.
Bluegill										
2006	164.0	83.4	268.0	54.6	32.0	18.6	2.7	1.7	561.6	139.7
Redear sunfish										
2006	60.8	18.7	60.8	18.0	24.0	10.4	4.8	2.0	150.4	23.4

nedsuncc.d06

Table 46. Age frequencies and CPUE of bluegill collected during spring electrofishing in Clear Creek Lake (Bath Co.) on 19 May 2006.

	Inch class											Std.
Age	1	2	3	4	5	6	7	8	Total	%	CPUE	error
1	79	114	24	10	5				232	66	370.93	125.52
2			24	20	19	26	6		95	27	151.86	30.72
3						8	13		20	6	32.25	12.91
4							2		2	1	3.36	1.61
6								2	2	1	3.20	1.96
Total	79	114	47	30	24	34	21	2	351	100		
%	23	32	13	9	7	10	6	1	100			

nedaagcc.d02; nedsuncc.d06

Table 47. PSD and RSD values obtained for bluegill collected at Clear Creek Lake (Bath Co.) on 19 May 2006; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD (± 95%)	RSD_8 (± 95%)
Bluegill	158	36 (± 7)	1 (± 1)

nedsuncc.d06

Table 48. Population assessment for spring bluegill collected from Clear Creek Lake (Bath Co.) 19 May 2006.

	2006	
Parameter	Actual value	Assessment score
Mean length age-2 at capture	5.1	4
Years to 6 Inches	3-3+	3
CPUE ≥ 6.0 inches	35.6	2
CPUE ≥ 8.0 inches	1.3	2
Instantaneous mortality		-1.93
Annual mortality		86.0%
Total score:		11
Assessment rating:		G

nedaagcc.d02, nedsuncc.d06

Table 49. Length frequency and CPUE (fish/hour) of largemouth bass collected in .37 hours of nocturnal electrofishing (3-7.5 minute runs) at Clear Creek Lake (Bath Co.) on 4 October 2006.

	Inch class																		Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE	error
Largemouth bass	1	17	20	4	19	44	7	18	12	6	2	1	2	2	1	1	157	418.67	95.14

nedwrscc.d06

Table 50. Number of fish and mean relative weight (W_r) values for length groups of black bass collected in Clear Creek Lake by nocturnal electrofishing in October 2006. Standard error in parentheses.

	Size range					
Species	8.0-11.9 in		12.0-14.9 in		> 15.0 in	
	No.	W_r	No.	W_r	No.	W_r
Largemouth bass	43	81 (0.9)	5	79 (4.1)	4	100 (4.2)

nedwrscc.d06

Table 51. Length frequency and CPUE (fish/hour) of black bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) at Greenbo Lake (Greenup Co.) on 27 April 2006.

	Inch class																						Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	error
Largemouth bass	1	3	5	3	7	23	32	12	22	33	43	30	2	2	3	4	6	2	6	2	3	244	162.67	19.83

nedpsdgb.d06

Table 52. PSD and RSD values for largemouth bass collected while electrofishing Greenbo Lake (Greenup Co.) during April 2006; 95% confidence limits are in parentheses.

Species	No. fish ≥ 8"	PSD (± 95%)	RSD_{15} (± 95%)
Largemouth bass	202	51 (± 7)	14 (± 5)

nedpsdgb.d06

Table 53. Age frequency and CPUE (no./hour) of largemouth bass collected in 1.5 hours of nocturnal electrofishing at Greenbo Lake (Greenup Co.) in April 2006.

	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	3	5	3	7	15	13		7										53	23	35.64	5.45
2					8	19	12	15										54	23	35.69	8.25
3									33	43								76	33	50.67	7.06
4											20	1						21	9	14.22	3.13
5											10	1	2					13	5	8.44	1.49
6															4	6		10	4	6.67	1.33
7														3			2	5	2	3.33	1.91
Total	3	5	3	7	23	32	12	22	33	43	30	2	2	3	4	6	2	232	100		
%	1	2	1	3	10	14	5	9	14	19	13	1	1	1	2	3	1	100			

nedaaggb.d03, nedpsdgb.d06

No aged data available from 2003 for 11 largemouth bass (≥20-inches), therefore these fish are not included.

Table 54. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Greenbo Lake (Greenup Co.) 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.
2006	28.00	5.27	66.00	12.17	50.00	7.78	18.67	4.70	162.67	19.83
2005	42.00	20.34	58.67	9.56	28.00	3.43	13.33	3.53	142.00	22.46
2004	14.00	2.88	116.80	9.87	58.80	7.45	16.80	2.97	206.40	14.09
2003	101.33	20.57	76.00	18.68	45.33	4.34	10.67	3.37	233.33	41.37
2002	No data collected									
2001	79.00	8.06	64.00	3.27	42.00	8.08	5.00	1.00	190.00	4.76
2000	41.00	9.00	90.00	15.71	26.00	2.58	4.00	1.63	161.00	24.84
1999	88.00	14.33	84.00	5.66	26.00	8.08	6.00	3.83	204.00	17.44
1998	77.00	26.65	119.00	16.68	57.00	8.06	7.00	2.52	260.00	27.18

nedpsdgb.d06,05,04,03,02,01,00,99,98.

Table 55. Population assessment for largemouth bass based on spring sampling at Greenbo Lake (Greenup Co.) from 2003 through 2006.

Parameter	2003		2004		2005		2006	
	Actual value	Assessment score	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	11.7	4
Spring CPUE Age 1 fish	105.3	4	33.6	2	46.7	3	35.6	2
Spring CPUE 12.0-14.9-in. fish	45.3	3	58.8	4	28.0	2	50.0	4
Spring CPUE ≥ 15.0-in. fish	10.7	2	16.8	2	13.3	2	18.7	3
Spring CPUE ≥ 20.0-in. fish	2.0	3	4.0	4	3.3	3	7.3	4
Instantaneous mortality (z)		-0.619		-0.557		-0.493		-0.521
Annual mortality (A)		46.2%		42.7%		39.0%		40.7%
Total score:		16		16		14		17
Assessment rating:		Good		Good		Good		Excellent

nedaaggb.d03, 04, 05, and 06

Table 56. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Greenbo Lake (Greenup Co.) from 1999 - 2006.

	Year						
Age	1999	2000	2001	2003	2004	2005	2006
1	103.13	52.87	83.87	105.33	33.63	46.71	35.64
2	61.87	66.13	34.13	31.33	87.17	19.96	35.69
3	16.00	29.00	56.00	71.33	28.80	51.33	50.67
4	11.33	6.00	6.67	9.78	26.67	7.11	14.22
5	6.67	4.00	5.33	7.56	17.73	6.89	8.44
6	1.00	2.00	1.00	3.33	3.20	2.67	6.67
7	1.00	1.00	1.00	2.67	5.20	4.00	3.33

nedpsdgb.d99,00,01,03,04,05,06.
nedaaggb.d03.
Note: Did not sample in 2002 due to lake draw down.

Table 57. Species composition, relative abundance and CPUE (fish/hour) of sunfish collected in 1.25 hours of electrofishing (10-7.5 minute runs) in Greenbo Lake (Greenup Co.) on 30 May 2006.

	Inch class												Std.
Species	1	2	3	4	5	6	7	8	9	10	Total	CPUE	error
Bluegill	23	95	66	72	61	41	17	10	2		387	309.60	61.57
Redear sunfish	3	16	5	3	1		1			1	30	20.00	5.84
Green sunfish	3	7	8	5	3	1	3				30	24.00	4.77
Longear sunfish	3	59	53	13	17	6					151	120.80	15.43

nedsungb.d06

Table 58. Spring electrofishing CPUE for each size class of sunfish collected at Greenbo Lake (Greenup Co.) 2003, 2005, 2006. 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	44.40	59.22	46.40	8.83	3.20	1.77			580.00	89.93
2006	94.40	28.01	159.20	37.27	46.40	5.03	9.60	3.92			309.60	61.57
Redear sunfish												
2003	9.00	5.26	1.00	1.00							10.00	5.77
2005	2.40	1.71	2.40	1.22	1.60	1.07	4.80	3.20			11.20	3.99
2006	15.20	4.04	7.20	2.78	0.80	0.80	0.80	0.08			24.00	5.84

nedsungb.d06,05,03

Table 59. PSD and RSD values obtained for bluegill collected at Greenbo Lake (Greenup Co.) on 30 May 2006; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD (± 95%)	RSD_8 (± 95%)
Bluegill	269	26 (± 5)	5 (± 3)

nedsungb.d06

Table 60. Age frequencies and CPUE of bluegill collected during spring electrofishing in Greenbo Lake (Greenup Co.) on 30 May 2006.

	Inch class												Std.
Age	1	2	3	4	5	6	7	8	9	Total	%	CPUE	error
1	23	95	53	48						219	57	175.04	47.10
2			13	24	61	25				123	32	98.24	16.91
3						16	17	5		38	10	30.72	3.16
4								3	1	4	1	3.31	1.35
5									0	0	0	0.32	0.32
6								2	1	2	1	1.97	0.87
Total	23	95	66	72	61	41	17	10	2	387	100		
%	6	25	17	19	16	11	4	3	1	100			

nedaaggb.d03; nedsungb.d06

Table 61. Population assessment for spring collected bluegill collected from Greenbo Lake 30 on May 2006.

	2003		2005		2006	
Parameter	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Mean length age-2 at capture	5.2	4	5.2	4	5.2	4
Years to 6 Inches	3	3	3	3	3	3
CPUE ≥ 6.0 inches	22.0	1	49.6	2	28.0	2
CPUE ≥ 8.0 inches	11.0	3	3.2	2	4.8	2
Instantaneous mortality	-1.310		-2.720		-1.712	
Annual mortality	73.0%		93.0%		82.0%	
Total score:		11		11		11
Assessment rating:		Good		Good		Good

nedaaggb.d03, nedsungb.d06, 05, 03

Table 62. Length frequency and CPUE (fish/hour) of black bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) at Greenbo Lake (Greenup Co.) on 20 September 2006.

	Inch class																						Std.
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	error
Largemouth bass	2	17	20	25	4	8	17	5	6	19	18	34	14	9	1	3	4	3	1	1	211	140.67	13.00

nedwrsgb.d06

Table 63. Number of fish and mean relative weight (W_r) values for length groups of black bass collected in Greenbo Lake (Greenup Co.) by nocturnal electrofishing in September 2006. Standard error in parentheses.

	Size range					
Species	8.0-11.9 in		12.0-14.9 in		≥ 15.0 in	
	No.	W_r	No.	W_r	No.	W_r
Largemouth bass	48	86 (1.0)	57	90 (0.9)	13	89 (2.5)

nedwrsgb.d06

Table 64. Indices of year class strength at age 0 and age 1, and mean lengths (in) of largemouth bass collected in the fall while nocturnal electrofishing at Greenbo Lake (Greenup Co.).

		Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2006	Total	3.6	0.10	45.3	9.16	2.67	1.69		
2005	Total	3.8	0.12	32.0	7.00	4.00	1.03	35.6	5.45
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.d03,04,05,06; nedpsdgb.d06,05,04; and nedaaggb.d03

Table 65. Length frequency and CPUE (fish/hour) of largemouth bass collected in 1.0 hour of nocturnal electrofishing (4-15 minute runs) at Mill Creek Lake (Powell/Wolfe Co.) on 15 May 2006.

	Inch class																			
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	Total	CPUE	Std. error
Largemouth bass	1	7	6	3	4	24	23	20	30	35	13	5	4	3	1	2	1	182	182.0	28.7

nedpsdmc.d06

Table 66. Spring electrofishing CPUE (f/h) comparison of various size classes of largemouth bass collected from Mill Creek Lake from 2000 to 2006 (15 May).

	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.
2006	45.0	18.5	108.0	10.9	22.0	2.0	7.0	4.4	182.0	28.7
2004	50.4	16.1	52.0	68.0	17.6	2.0	5.6	1.6	141.6	18.0
2001*	36.0	8.5	59.0	10.6	13.0	3.0	7.0	2.5	115.0	17.5
2000*	39.0	11.4	70.0	11.5	12.0	3.3	4.0	0.0	125.0	21.6

*All species sampled.

Table 67. PSD and RSD values for Largemouth bass collected while electrofishing Mill Creek Lake during May 2006; 95% confidence limits are in parentheses.

Species	No. fish ≥ 8"	PSD (± 95%)	RSD_{15} (± 95%)
Largemouth bass	137	21 (± 7)	5 (± 4)

nedpsdmc.d06

Table 68. Population Assessment for largemouth bass collected at Mill Creek Lake during 2001, 2004 and 2006.

	2001		2004		2006	
Parameter	Actual value	Score	Actual value	Score	Actual values	Score
Length at age 3	10.5	2	10.5	2	10.5	2
CPUE Age 1	30.1	2	16.9	2	19.6	2
CPUE 12-14.9	13.1	1	17.6	1	22	1
CPUE ≥ 15 in	7.0	2	5.6	2	7	2
CPUE ≥ 20 in	1.0	1	1.6	2	1.6	2
Instantaneous mortality (z)	-0.230		-0.315		-0.425	
Annual mortality (A)	20.6%		27.1%		34.9%	
Total score:		8		9		9
Assessment rating:		Fair		Fair		Fair

2001 age and growth data set used.

Table 69. Length frequency and CPUE (fish/hour) of sunfish collected in 0.875 hours of electrofishing (7-7.5 minute runs) at Mill Creek Lake (Powell/Wolfe Co.) on 31 May 2006.

	Inch class										Std.
Species	1	2	3	4	5	6	7	8	Total	CPUE	error
Bluegill	34	75	37	18	10	9	20	8	211	241.1	73.9
Longear sunfish		20	21	8	4				53	60.6	20.5
Green sunfish	2	9	2	4	2	1	1		21	24.0	7.2

nedsunmc.d06

Table 70. Comparison of CPUE (f/h) for various size classes of bluegill collected while electrofishing Mill Creek Lake in 2005 and 2006.

	Inch class											
	< 3.0		3.0 - 5.9		6.0 - 7.9		≥ 8.0		≥ 10.0		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2006	123.9	48.9	73.9	16.2	33.0	8.1	9.1	7.9	0.0	0	241.1	73.9
2005	42.0	8.1	98.3	16.2	77.7	12.3	22.9	7.5	0.0	0	241.1	17.6

Yes, CPUE was same both years.

Table 71. PSD and RSD values obtainded for bluegill collected at Mill Creek Lake on 31 May 2006; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD (± 95%)	RSD_8 (± 95%)
Bluegill	102	36 (± 9)	8 (± 5)

nedsunmc.d06

Table 72. Population Assessment comparison for bluegill collected from Mill Creek Lake in 2005 and 2006.

	2005		2006	
	Actual value	Score	Actual value	Score
Mean length age 2 at capture	4.2	2	4.2	2
Years to 6 inches	3	3	3	3
CPUE ≥ 6.0 in	100.0	4	42.0	2
CPUE ≥ 8.0 in	22.7	4	9.1	3
Instantaneous mortality (z)	-0.451		-0.691	
Annual mortality (A)	36.4%		49.9%	
Total Score:		13		10
Assessment rating:		Good		Fair

2001 age and growth data set used.

Table 73. Length frequency and CPUE (fish/hour) of largemouth bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) at Lake Reba on 08 May 2006.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	Total	CPUE	Std. error
Largemouth bass	5	38	91	88	62	8	35	36	27	17	15	7	5	3	1	438	292.0	27.1

nedpsdlr.d06

Table 74. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Lake Reba in May 2006. 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.
2006	189.3	18.9	70.7	13.5	26.0	4.9	6.0	4.9	0.0	0	292.0	27.1
2005	53.3	9.3	57.3	8.1	45.3	4.3	13.3	2.2	0.7	0.7	169.3	16.4
2004	30.0	8.9	125.3	21.5	51.3	9.2	6.7	2.2	0.0	0	213.3	26.0
2003	110.0	17.9	126.0	10.9	52.0	6.1	8.0	2.5	0.7	0.7	296.0	27.3
2002	138.0	33.6	140.0	31.3	31.0	6.6	5.0	1.0	0.0	0	314.0	67.0
2001	196.0	25.0	30.7	15.4	9.3	5.3	4.0	2.3	0.0	0	240.0	33.6
2000	103.7	17.2	34.9	6.6	4.6	0.6	8.0	3.3	0.0	0	151.2	11.0
1999	115.2	34.9	11.2	4.1	8.80	2.3	20.0	5.2	0.0	0	155.2	33.1

nedpsdlr.d06,05,04,03,02,01,00,99.

Table 75. PSD and RSD values for largemouth bass collected while electrofishing Lake Reba during May 2006; 95% confidence limits are in parentheses.

Year	No. fish ≥ 8"	PSD (+ 95%)	RSD_{15} (+ 95%)
2006	154	31(±7)	6 (±4)
2005	174	51 (±15)	12 (±10)
2004	275	32 (±6)	4 (±3)
2003	279	32 (±6)	4 (±3)
2002	176	20 (±6)	3 (± 2)
2001	33	30 (±32)	9 (±19)
2000	43	36 (±17)	22 (±15)

nedpsdlr.d06

Table 76. Mean back-calculated lengths (in) at each annulus for largemouth bass collected from Lake Reba on 08 May 2006, including the range of length of bass at each age and the 95% confidence intervals for each age class.

		Age					
Year	No.	1	2	3	4	5	6
2005	49	5.3					
2004	19	4.6	9.3				
2003	20	4.4	8.4	11.1			
2002	10	4.9	9.0	11.8	14.0		
2001	3	4.0	8.0	10.5	12.3	14.4	
2000	1	4.7	8.1	12.0	15.2	16.8	18.0
Mean		4.9	8.8	11.3	13.7	15.0	18.0
Number		102	53	34	14	4	1
Smallest		2.6	6.6	8.7	10.9	13.0	18.0
Largest		8.5	11.6	14.1	15.9	16.8	18.0
Std error		0.1	0.1	0.2	0.4	0.9	
95% CI (±)		0.3	0.3	0.3	0.7	1.7	

Otoliths were used for age-determinations; Intercept=0
nedaaglr.d06

Table 77. Age frequencies and CPUE of largemouth bass from Lake Reba captured during 1.5 hours of nocturnal electrofishing on May 08, 2006.

	Inch class																		Std.
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	Total	%	CPUE	Error
1	5	38	91	88	62	4										288	66	192.0	19.5
2						4	33	8								45	10	29.7	5.4
3							3	28	27	6	5					68	16	45.4	9.2
4										11	8	5	5			29	7	19.4	4.0
5											3	2		3		7	2	4.8	1.8
6															1	1	0	0.7	0.7
Total	5	38	91	88	62	8	35	36	27	17	15	7	5	3	1	438	100		
%	1	9	21	20	14	2	8	8	6	4	3	2	1	1	0	100			

nedpsdlr.d06, nedaaglr.d06

Table 78. Electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Lake Reba from 2000 through 2006.

	Year						
Age	2000	2001	2002	2003	2004	2005	2006
1	98.5	186.9	105.8	52.1	23.2	41.2	192.0
2	11.3	15.9	86.7	88.2	42.8	26.3	29.7
3	16.5	17.3	74.6	71.4	63.6	30.3	45.4
4	10.8	7.1	16.5	34.2	34.7	20.5	19.4
5	4.7	7.0	22.3	35.3	35.1	31.7	4.8
6	2.3	2.7	3.1	8.1	8.0	9.4	0.7
7	1.6	1.7	1.6	3.6	4.1	7.4	
8	2.9	0.3	3.4	1.4	0.6	1.9	
9	2.7	0.3		0.3	0.2		
10	0.5					0.7	
11		0.7		0.7	0.3		

nedpsdlr.d00,01,02,03,04,05,06.
BBRSCREB.d00,01. nedaaglr.d06

Table 79. Population assessment for largemouth bass based on spring sampling at Lake Reba from 2002 through 2006.

Parameter	2002		2003		2004		2005		2006	
	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Length at age 3	10.1	2	10.1	2	10.1	2	10.1	2	11.2	3
Spring CPUE of age 1 fish	105.8	4	52.1	3	23.2	2	41.2	2	192.0	4
Spring CPUE of 12-14.9-in fish	31.0	2	52.0	4	51.3	4	45.3	3	26.0	2
Spring CPUE of ≥ 15.0-in fish	5.0	2	8.0	2	6.7	2	13.3	3	6.0	2
Spring CPUE of ≥ 20.0-in fish	0.0	0	0.7	1	0.0	0	0.7	1	0.0	0
Instantaneous mortality (z)		-0.48		-0.50		-0.29		-0.25		-0.79
Annual mortality (A)		38.0%		39.0%		25.0%		22.0%		55.0%
Total score:		10		12		10		11		11
Assessment rating:		F		G		F		F		F

BBRSCREB.d01, nedaaglr.d06, nedpsdlr.d02,03,04,05,06

Table 80. Length frequency and CPUE (fish/hour) of sunfish collected in 1.25 hours of electrofishing (10-7.5 minute runs) in Lake Reba on 26 May 2006.

Species	Inch class								Total	CPUE	Std. error
	1	2	3	4	5	6	7	8			
Bluegill	110	944	185	41	60	98	1		1439	1151.2	158.5
Redear sunfish	3	136	113	20	19	112	145	1	549	439.2	51.5
Warmouth	5	19	13	26	49	65	22	2	201	160.8	20.8

nedsunlr.d06; Green sunfish also present but not collected.

Table 81. Spring electrofishing CPUE for each size class of sunfish collected at Lake Reba 2003 through 2006. 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.
Bluegill										
2003	178.4	27.9	356.0	49.7	49.6	20.1			584.0	75.3
2004	191.5	37.9	180.0	25.9	22.3	6.7			393.9	56.0
2005	279.2	37.0	308.0	42.7	97.6	19.4			684.8	74.4
2006	843.2	140.7	228.8	22.9	79.2	20.3			1151.2	158.5
Redear sunfish										
2003	13.6	5.7	119.2	19.8	178.4	68.8			311.2	82.9
2004	16.9	4.4	56.9	17.6	64.6	13.2			138.9	29.2
2005	16.8	5.9	39.2	5.5	196.0	33.4			252.0	30.7
2006	111.2	30.7	121.6	17.2	205.6	44.7	0.8	0.8	439.2	51.5

nedsunlr.d06, 05, 04, 03

Table 82. PSD and RSD values obtained for bluegill collected at Lake Reba on 26 May 2006; 95% confidence intervals are in parentheses; CPUE in brackets.

Year	No. fish ≥ stock size	PSD (± 95%)	RSD_8 (± 95%)
2006	385	26 (±4)	
2005	211	24 (±7)	
2004	263	11 (±11)	
2003	507	12 (±3)	

nedsunlr.d06. Not enough large bluegill collected to determine RSD_8.

Table 83. Electofishing catch rate (fish/hour) for each age bluegill collected in Lake Reba from 2003 through 2006.

	Year			
Age	2003	2004	2005	2006
1	178.4	191.5	279.2	843.2
2	297.4	156.4	290.8	198.5
3	93.3	39.2	84.4	85.2
4	5.0	2.2	9.6	7.8

nedsunlr.d06,05,04,03
nedaaglr.d03

Table 84. Electofishing catch rate (fish/hour) for each age redear sunfish collected in Lake Reba from 2003 through 2006.

	Year			
Age	2003	2004	2005	2006
1	24.0	26.2	40.8	199.2
2	108.8	47.7	15.2	31.2
3	156.1	56.2	153.5	111.1
4	4.2	1.7	14.7	43.5
5	15.3	5.6	18.0	22.0
6	2.8	1.2	9.8	29.0

nedsunlr.d06,05,04,03
nedaaglr.d03

Table 85. Population assessment for spring collected bluegill collected from Lake Reba 2003 through 2006.

Parameter	2003		2004		2005		2006	
	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Mean length age-2 at capture	4.1	2	4.1	2	4.1	2	4.1	2
Years to 6 inches	3-3+	3	3-3+	3	3-3+	3	3-3+	3
CPUE ≥ 6.0 inches	49.6	2	20.0	1	97.6	4	79.2	4
CPUE ≥ 8.0 inches	0.0	1	0.0	1	0.0	1	0.0	1
Instantaneous mortality		-0.322		-0.793		-0.601		-1.149
Annual mortality		27.6%		54.7%		45.1%		68.3%
Total score:		8		7		10		10
Assessment rating:		F		F		F		F

nedaaglr.d03, nedsunlr.d06, 05, 04, 03

Table 86. Population assessment for spring collected redear sunfish collected from Lake Reba 2003 through 2006.

Parameter	2003		2004		2005		2006	
	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Mean length age-3 at capture	6.6	4	6.6	4	6.6	4	6.6	4
Years to 8 Inches	>5+	1	>5+	1	>5+	1	>5+	1
CPUE ≥ 8.0 inches	0.0	1	0.0	1	0.0	1	0.8	1
CPUE ≥ 10.0 inches	0.0	1	0.0	1	0.0	1	0.0	1
Instantaneous mortality		-0.422		-0.659		-0.165		-0.335
Annual mortality		34.4%		48.3%		15.2%		28.5%
Total score:		7		7		7		7
Assessment rating:		F		F		F		F

nedaaglr.d03, nedsunlr.d06, 05, 04, 03

Table 87. Length frequency and CPUE (fish/hour) of largemouth bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) at Lake Reba on 14 September 2006.

Species	Inch class																	Total	CPUE	Std. error
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19			
Largemouth bass	1	82	135	42	11	107	143	43	22	35	40	27	8	10	5	1	2	714	476.0	45.2

nedwrslr.d06

Table 88. Number of fish and mean relative weight (W_r) values for length groups of largemouth bass collected at Lake Reba by nocturnal electrofishing in September 2006. Standard error in parentheses.

Species	Size range					
	8.0-11.9 in		12.0-14.9 in		≥ 15.0 in	
	No.	W_r	No.	W_r	No.	W_r
Largemouth bass	243	91(0.5)	75	93(1.1)	18	101(1.8)

nedwrslr.d06

Table 89. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall while nocturnal electofishing at Lake Reba.

		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
2006	Total	4.3	0.04	175.3	35.9	30.0	8.7		
2005	Total	5.2	0.06	225.0	48.6	133.0	30.2	192.0	19.5
2004	Total	4.2	0.08	76.7	9.6	15.3	1.9	61.0	10.4
2003	Total	3.7	0.15	23.3	4.8	0.67	0.67	47.3	14.0

nedwrslr.d06,05,04,03; nedaaglr.d06
bbrscreb.d01

Table 90. Length frequency and CPUE (fish/hour) of largemouth bass collected in 0.375 hours of nocturnal electrofishing (3-7.5 minute runs) at Rebal Trace (Meniffee Co.) on 10 May 2006.

Species	Inch class												Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14			
Largemouth bass	1	4	14	6	1	10	9	6	8	5	5	2	71	189.33	23.7

nedpsdrt.d06

Table 91. PSD and RSD values for Largemouth bass collected while electrofishing Rebel Trace (Menifee Co.) during May 2006; 95% confidence limits are in parentheses.

Species	No. fish ≥ 8"	PSD (± 95%)	RSD_{15} (± 95%)
Largemouth bass	45	27 (± 13)	0

nedpsdrt.d06

Table 92. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Rebel Trace (Menifee 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.
2006	69.3	13.3	88.0	8.0	32.0	9.2	0.0	0.0	189.3	23.7
2005	61.3	37.6	90.7	25.4	24.0	9.2	2.7	2.7	178.7	62.7
2004	50.7	16.2	50.7	17.5	2.7	2.7	5.3	5.3	109.3	39.3

nedpsdrt.d06, 05, 04

Table 93. Length frequency and CPUE (fish/hour) of sunfish collected in 0.50 hours of electrofishing (4-7.5min runs) at Rebal Trace (Menifee Co.) on 19 May 2006.

	Inch class											Std.
Species	1	2	3	4	5	6	7	8	9	Total	CPUE	error
Bluegill	5	57	62	31	30	9	16			210	420.00	87.67
Redear sunfish	2	84	47	67	27	7	4	8	1	247	494.00	47.82
Warmouth			7	2	1	4	2	4		20	40.00	16.33

nedsunrt.d06

Table 94. Spring electrofishing CPUE for each size class of sunfish collected at Rebal Trace (Menifee Co.) 2006. 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.
Bluegill	124.0	27.0	246.0	72.8	50.0	34.6	0.0	0.0	420.0	87.7
Redear sunfish	172.0	60.3	282.0	53.7	22.0	19.4	18.0	6.8	494.0	47.8

nedsunrt.d06

Table 95. PSD and RSD values obtained for bluegill collected at Rebal Trace (Menifee Co.) on 19 May 2006; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD (± 95%)	RSD_8 (± 95%)
Bluegill	148	17 (± 6)	

nedsunrt.d06

Table 96. Number of fish and mean relative weight (W_r) values for length groups of black bass collected in Rebel Trace (Menifee Co.) by nocturnal electrofishing in October 2006. Standard error in parentheses.

	Size range					
Species	8.0-11.9 in		12.0-14.9 in		≥ 15.0 in	
	No.	W_r	No.	W_r	No.	W_r
Largemouth bass	25	89 (3.4)	3	84 (.5)	2	83 (3.4)

nedwrsrt.d06

Table 97. Length frequency and CPUE (fish/hour) of largemouth bass collected in 0.375 hours of nocturnal electrofishing (3-7.5 minute runs) at Rebal Trace (Menifee Co.) on 04 October 2006.

	Inch class														Std.
Species	2	3	4	7	8	9	10	11	12	13	15	21	Total	CPUE	error
Largemouth bass	1	8	2	2	8	4	4	9	1	2	1	1	43	114.67	7.06

nedwrsrt.d06

Table 98. Length frequency and CPUE (fish/hour) of largemouth bass collected in 1.0 hour of nocturnal electrofishing (4-15 minute runs) at Smoky Valley Lake (Carter Co.) on 09 May 2006.

	Inch class																		Std.
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	Total	CPUE	error
Largemouth bass	1	15	41	24	9	22	81	44	54	77	41	17	4	2	1	1	434	434.0	45.7

nedpsdsv.d06

Table 99. Spring electrofishing CPUE (fish/hour) for each size class of largemouth bass collected at Smoky Valley Lake in May 2006 compared to findings from past years.

	<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.
2006	112.0	12.8	256.0	33.8	62.0	8.7	4.0	1.6	434.0	45.7
2005	54.4	10.2	190.4	22.7	63.2	9.1	0.8	0.8	308.8	30.8
2001	117.3	11.6	180.0	14.1	46.7	12.7	2.7	2.7	346.7	11.6
2000	68.0	13.0	218.0	22.1	69.0	13.7	1.0	1.0	356.0	46.8

nedpsdsv.d06, 05, 01, 00

Table 100. PSD and RSD values for largemouth bass collected while electrofishing Smoky Valley Lake during May 2006; 95% confidence limits are in parentheses.

Year	No. fish ≥ 8"	PSD (± 95%)	RSD_{15} (± 95%)
2006	322 (322 f/h)	21 (± 4)	1 (± 2)
2005	318 (254 f/h)	25 (± 10)	1 (± 1)

nedpsdsv.d06

Table 101. Population assessment for largemouth bass based on spring sampling at Smoky Valley lake in 2001, 2005, and 2006.

	2001		2005		2006	
Parameter	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Length at age 3	11.0	3	11.0	3	11.0	3
Spring CPUE of age 1 fish	23.1	2	19.1	2	70.1	3
Spring CPUE of 12-14.9-in fish	46.7	3	63.2	4	62.0	4
Spring CPUE of ≥ 15.0-in fish	2.7	1	0.8	1	4.0	4
Spring CPUE of ≥ 20.0-in fish	0.0	0	0.0	0	0.0	0
Instantaneous mortality (z)				0.3533		-0.5785
Annual mortality (A)				29.8%		43.9%
Total score:		9		10		14
Assessment rating:		F		F		G

nedpsdsv.d01, 05, 06; nedaagsv.d01

Table 102. Length frequency and CPUE (fish/hour) of sunfish collected duing 1.0 hour of electrofishing (10-7.5 minute runs) in Smoky Valley Lake on 23 May 2006.

	Inch class									Std.
Species	1	2	3	4	5	6	7	Total	CPUE	error
Bluegill	287	177	43	19	26	10	6	568	568.0	114.7
Green sunfish	7	18	9	4	8	5	1	52	52.0	8.9
Longear sunfish	6	13	5	2				26	26.0	8.7

nedsunsv.d06

Table 103. Spring electrofishing CPUE (fish/hour) for various size classes of bluegill collected at Smoky Valley Lake from 2003 through 2006.

	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.
2006	464.0	116.5	88.0	15.2	16.0	4.3			568.0	114.7
									(281 w/o 1 in)	
2005	164.0	41.5	169.0	30.3	38.0	9.2	4.0	3.0	375.0	60.0
									(329 w/o 1 in)	
2004	24.8	6.8	139.3	22.0	25.6	4.6	0.9	0.9	190.6	27.3
2003	200.0	61.1	102.0	30.3	107.0	32.4	4.0	2.1	413.0	99.8
									(213 w/o 1 in)	

nedsunsv.d06, 05, 04, 03

Table 104. PSD and RSD values obtainded for bluegill collected at Smoky Valley Lake on 23 May 2006, compared to 2005; confidence intervals are in parentheses.

Year	No. fish ≥ stock size	PSD (± 95%)	RSD_8 (± 95%)
2006	104 (104.0 f/h)	15 (± 7)	
2005	211 (168.8 f/h)	20 (± 11)	2 (± 4)

nedsunsv.d06

Table 105. Age frequencies and CPUE of bluegill collected during spring electrofishing in Smoky Valley Lake on 23 May 2006.

	Inch class										Std.
Age	1	2	3	4	5	6	7	Total	%	CPUE	error
1	287	74	5					366	64	365.5	91.3
2		103	29	3				135	24	135.1	28.4
3			10	16	26	4		55	10	55.4	9.7
4						2	2	4	1	4.2	1.2
5						4	2	6	1	6.2	1.7
6							1	1	0	1.1	0.5
7							1	1	0	0.6	0.3
Total	287	177	43	19	26	10	6	568	100		
%	51	31	8	3	5	2	1	100			

nedaagsv.d03; nedsunsv.d06

Table 106. Electofishing catch rates (fish/hour) for each age bluegill collected from Smoky Valley Lake 2003 through 2006.

	Year			
Age	2003	2004	2005	2006
1	176.8	16.2	104.4	365.5
2	51.8	59.9	133.3	135.1
3	93.5	94.1	103.3	55.4
4	30.7	6.8	10.6	4.2
5	40.7	9.9	14.6	6.2
6	11.4	2.1	4.3	1.1
7	5.2	0.9	1.6	0.6
8	1.0		1.0	
9	2.0	0.4	2.0	

nedsunsv.d06,05,04,03
nedaagsv.d03

Table 107. Population assessment for spring sampled bluegill from Smoky Valley Lake 2003 through 2006.

Parameter	2003		2004		2005		2006	
	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Mean length age-2 at capture	3.2	1	3.2	1	3.2	1	3.2	1
Years to 6 Inches	4-4+	2	4-4+	2	4-4+	2	4-4+	2
CPUE ≥ 6.0 inches	11.0	4	31.0	2	42.0	2	16.0	1
CPUE ≥ 8.0 inches	4.0	2	1.0	2	4.0	2	0.0	1
Instantaneous mortality		-0.5227		-0.5477		-0.7164		-1.1741
Annual mortality		40.7%		42.2%		51.1%		69.1%
Total score:		9		7		7		5
Assessment rating:		F		F		F		P

nedaagsv.d03, nedsunsv.d06, 05, 04, 03

Table 108. Length frequency and CPUE (fish/hour) for largemouth bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) at Lake Wilgreen on 04 May 2006.

Species	Inch class																		Total	CPUE	Std. error
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Largemouth bass	13	28	27	17	71	74	66	82	126	66	30	11	11	1	2	4	2	2	633	422.0	29.1

nedpsdlw.d06 One 14 in spotted bass collected.

Table 109. Spring electrofishing CPUE (fish/hour) for various size classes of largemouth bass collected at Lake Wilgreen in May 2006.

	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.
2006	56.7	9.9	195.3	8.6	148.0	15.8	22.0	5.8	2.7	0.8	422.0	29.1
2005	86.7	17.9	170.0	12.8	108.7	23.0	6.0	2.7	0	0	371.3	45.3
2004	No data collected											
2003	89.2	11.1	376.8	41.0	48.0	6.3	12.8	2.5	0	0	526.8	50.2
2002	No data collected											
2001	No data collected											
2000	361.0	51.0	274.0	10.9	58.0	12.3	6.0	1.2	0	0	699.0	57.0
1999	156.0	8	234.0	34.0	54.0	14.0	4.0	0	0	0	448.0	40.0

nedpsdlw.d06,05,03,00,99.

Table 110. Largemouth bass PSD and RSD values from past years compared to 2006 at Lake Wilgreen (spring electrofishing); confidence limits are in parentheses.

Year	No. fish ≥ 8"	PSD (± 95%)	RSD_{15} (± 95%)
2006	548	47 (± 4)	6 (± 2)
2005	427	40 (± 5)	2 (± 1)
2003	1,082	14 (± 2)	3 (± 1)
2000	338	18 (± 8)	1 (± 3)

nedpsdlw.d06

Table 111. Length/age frequencies and CPUE of largemouth bass from Lake Wilgreen captured during 1.5 hours of nocturnal electrofishing 04 May 2006.

	Inch class																			Std.
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	21	Total	%	CPUE	Error
1	13	28	27	13	6												87	14	58.1	10.0
2				4	65	52											121	19	80.4	8.3
3						22	33										55	9	36.8	2.2
4							33	70	79								182	29	121.4	9.5
5								12	32	66	20	11					140	22	93.5	9.1
6									16		10		11	1			38	6	25.2	6.0
8															2		2	0	1.3	1.3
10																2	2	0	1.3	0.8
Total	13	28	27	17	71	74	66	82	126	66	30	11	11	1	2	2	627	100		
%	2	4	4	3	11	12	11	13	20	11	5	2	2	0	0	0	100			

nedpsdlw.d06, nedaaglw.d03

Table 112. Electrofishing catch rates (fish/hour) for each age of largemouth bass collected from Lake Wilgreen in 2003, 2005 and 2006.

	Year		
Age	2003	2005	2006
1	91.5	81.2	58.1
2	143.7	29.3	80.4
3	94.8	30.9	36.8
4	142.5	149.7	121.4
5	39.8	59.1	93.5
6	12.1	15.1	25.2
8	1.6		1.3
10	0.4		1.3

nedpsdlw.d06,05,03; nedaaglw.d03

Table 113. Population assessment for largemouth bass based on spring sampling at Lake Wilgreen in 2003, 2005, and 2006.

	2003		2005		2006	
Parameter	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Length at age 3	10.2	2	10.2	2	10.2	2
Spring CPUE of age 1 fish	91.5	4	81.2	4	58.1	3
Spring CPUE of 12-14.9-in fish	48.0	3	108.7	4	148.0	4
Spring CPUE of ≥ 15.0-in fish	12.8	2	6.0	2	22.0	3
Spring CPUE of ≥ 20.0-in fish	0.0	1	0.0	1	2.7	3
Instantaneous mortality (z)		-0.3597		-0.1273		-0.0686
Annual mortality (A)		30.2%		11.9%		6.6%
Total score:		12		13		15
Assessment rating:		G		G		G

nedaaglw.d03, nedpsdlw.d03,05,06

Table 114. Length frequency and CPUE (fish/hour) of sunfish collected in 1.25 hours of electrofishing (10-7.5 minute runs) at Lake Wilgreen on 22 May 2006.

	Inch class												Std.
Species	1	2	3	4	5	6	7	8	9	10	Total	CPUE	error
Bluegill	55	294	348	98	66	51	30	3			945	756.0	79.7
Redear sunfish			4	15	6	4	2	5	5	3	44	35.2	11.0
Green sunfish	4	12	20	23	31	9	2		1		102	81.6	17.6

nedsunlw.d06

Table 115. Spring electrofishing CPUE for various size class sunfish collected at Lake Wilgreen 2002, 2005, and 2006. 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												
2002	354.4	91.6	496.8	99.2	177.6	18.6					1028.8	196.2
2005	211.2	67.0	576.8	73.2	40.8	10.8	0.8	0.8			829.6	122.7
2006	279.2	51.3	409.6	39.5	64.8	20.4	2.4	1.2			756.0	79.7
Redear sunfish												
2002			20.8	9.9	44.0	11.0	4.8	2.4			69.6	19.5
2005			4.0	2.5	7.2	3.7	7.2	3.5			18.4	6.0
2006			20.0	5.1	4.8	2.1	10.4	8.8	24.0	1.7	35.2	11.0

nedsunlw.d06, 05, 02

Table 116. PSD and RSD values obtainded for bluegill collected at Lake Wilgreen on 22 May 2006; 95% confidence intervals are in parentheses.

Year	No. fish ≥ stock size	PSD (± 95%)	RSD_8 (± 95%)
2006	596	14 (± 3)	1(± 1)
2005	773	6 (± 2)	0

nedsunlw.d06

Table 117. Age frequencies and CPUE of bluegill collected during spring electrofishing at Lake Wilgreen on 22 May 2006.

	Inch class									Std.
Age	2	3	4	5	6	7	Total	%	CPUE	error
1	294	348	49				691	78	552.8	62.3
2			49	57	20		126	14	100.8	10.9
3				9	31	20	60	7	48.0	13.1
4						10	10	1	8.0	3.6
Total	294	348	98	66	51	30	887	100		
%	33	39	11	7	6	3	100			

nedaaglw.d02; nedsunlw.d06

Table 118. Electofishing catch rates (fish/hour) for age 1-4 bluegill collected in Lake Wilgreen in 2002, 2005, and 2006.

	Year		
Age	2002	2005	2006
1	582.00	658.40	552.80
2	238.23	122.4	100.78
3	123.77	31.73	48.02
4	15.20	8.27	8.00

nedsunlw.d02,05,06; nedaaglw.d02

Table 119. Population assessment for bluegill from Lake Wilgreen collected during spring 2002, 2005, and 2006.

	2002		2005		2006	
Parameter	Actual value	Assessment score	Actual value	Assessment score	Actual value	Assessment score
Mean length age-2 at capture	5.5	4	5.5	4	5.5	4
Years to 6 Inches	3-3+	3	3-3+	3	3-3+	3
CPUE ≥ 6.0 inches	177.6	4	41.6	2	67.2	3
CPUE ≥ 8.0 inches	0.0	1	0.8	2	2.4	2
Instantaneous mortality		-0.7734		-1.4979		-1.2218
Annual mortality		53.9%		77.6%		70.5%
Total score:		12		11		12
Assessment rating:		G		G		G

nedaaglw.d02, nedsunlw.d06, 05, 02
*Did not sample in 03' and 04'

Table 120. Length frequency and CPUE (fish/hour) of largemouth bass collected in 1.5 hours of nocturnal electrofishing (6-15 minute runs) in Lake Wilgreen on 03 October 2006.

	Inch class																	Std.
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	Total	CPUE	error
Largemouth bass	3	35	87	51	14	18	82	52	46	51	21	14	2	4	2	482	321.3	23.2

nedwrslw.d06

Table 121. Number and mean relative weight (W_r) values for length groups of largemouth bass collected in Lake Wilgreen by nocturnal electrofishing in October 2006 compared to 2005.

	Size range					
	8.0-11.9 in		12.0-14.9 in		≥ 15.0 in	
Year	No.	W_r	No.	W_r	No.	W_r
2006	198	90 (0.6)	86	90 (0.9)	8	96 (3.7)
2005	306	88 (0.4)	116	88 (1.6)	4	98 (4.3)

nedwrslw.d06. Standard error in parentheses.

SOUTHEASTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Lake Cumberland (50,250 acres)

Black Bass Sampling (Spring)

Nocturnal electrofishing studies were conducted at Wolf Creek dam, and in the Harmon Creek, Fishing Creek, and Lily Creek embayments of Lake Cumberland during April and May 2006 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 2002-2006 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 2006.

The catch rates of largemouth bass met two of three management objectives for the size groups (Table 7). The catch rate of 12.0-14.9-in largemouth bass (8.8 f/h) approached the management objective of ≥ 10.0 f/h. The catch rates of largemouth bass ≥ 20.0-in (0.5 f/h) and ≥ 15.0-in (10.2 f/h) met or exceeded the management objectives of ≥ 0.5 and ≥ 8.0 f/h, respectively.

The catch rates of spotted bass were greater than the management objectives for all size groups (Table 8). The catch rates of 11.0-13.9-in (13.8 f/h) and ≥ 14.0-in (8.0 f/h) spotted bass were more than twice the management objectives of ≥ 5.0 f/h and ≥ 1.5 f/h, respectively. The CPUE of ≥ 17.0-in (0.2 f/h) was twice the management objective of ≥ 0.10 f/h.

The catch rates of smallmouth bass for all sizes were below the management objectives (Table 9). The catch rates of 11.0-13.9-in. smallmouth bass (0.3 f/h) and ≥ 14.0-in. (0.3 f/h) were well below the management objectives of ≥ 3.0 f/h and ≥ 2.0 f/h, respectively. The catch rates of smallmouth bass ≥ 17.0-in. (0.2 f/h) failed to exceed the management objective of ≥ 0.5 f/h.

Largemouth bass exhibited excellent size structure, with a PSD value of 75 and an RSD_{15} value of 40 (Table 10). Spotted bass and smallmouth bass had a moderate size structure, with a PSD value of 51 and an RSD_{14} value of 19 for spotted bass (Table 10) and a PSD value of 31 and an RSD_{14} value of 15 for smallmouth bass (Table 10). Table 11 compares the size structure values of black bass populations in Lake Cumberland to other SEFD lakes sampled in 2006.

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in the Fishing Creek embayment during September to index the largemouth bass year class strength (Tables 12 and 13). CPUE of age 0 largemouth bass was greater in Fishing Creek in 2006 than in 2005. Table 14 compares the CPUE of age 0 largemouth bass in Lake Cumberland to other SEFD lakes sampled in fall 2006. Relative weight (Wr) values for largemouth bass and spotted bass collected during September sampling are shown in Table 15. Table 16 compares Wr values for black bass in Lake Cumberland to other SEFD lakes sampled in fall 2006.

White Bass Sampling

Gills nets were used in November 2006 to evaluate the white bass population in Lake Cumberland. A total of five white bass were collected in 27 net nights for a catch rate of 0.19 f/nn. The length-frequency and CPUE for white bass is shown in Table 17. Low sample size prohibited further analysis on the population.

Walleye Sampling

Gill nets were used in November 2006 to evaluate the walleye population in the Jamestown/Bugwood (5 net-nights), Conley Bottom (10 net-nights), and Burnside (12 net-nights) areas of Lake Cumberland. A total of 444 walleye were captured at the three locations in 27 net-nights for a catch rate of 16.4 f/nn. Length frequency and CPUE of walleye is shown in Table 18. Walleye ranged from 9-23 inches with the mode being the 19-in class (107 fish). All of the catch rate management objectives for walleye were exceeded (Table 19). The CPUE of age 1+ and older walleye was 14.8 f/nn, more than twice the objective of 6.0 f/nn. The CPUE of ≥ 20.0 inches was 3.9, over twice the objective of 1.5 f/nn. The CPUE of age 1+ walleye (3.1 f/nn) was slightly greater than the objective of 3.0 f/nn. Age-growth data for male and female walleye are shown in Tables 20 and 21, respectively. The age-growth for both sexes combined is shown in Table 22. Mean length of age 2+ walleye at capture (19.1 inches) surpassed the growth objective of 18.0 inches (Table 19). Eight year-classes were represented in the catch, with the 2004 year class (age 2; 49%) being the most abundant year class (Table 23). The walleye assessment score was 16 (rating=excellent; Table 24). Relative weight (Wr) values for walleye are shown in Table 25.

Striped Bass Sampling

Gill nets were used in December 2006 to evaluate the striped bass population in Lake Cumberland. Twenty net-nights captured 78 striped bass for a catch rate of 3.9-fish/net-night. Length-frequency and CPUE of striped bass are shown in Table 26. Striped bass ranged from 8 to 33 inches with the mode being the 18-in class (8 fish). The CPUE of age 1+ fish (1.3 f/nn) and the CPUE of age 1+ and older fish (3.85 f/nn) were both below the management objectives of 2.0 f/nn and 4.0 f/nn, respectively (Table 27). The catch rate of ≥ 24-inch fish was 1.6 f/nn, which exceeded the management objective of 1.0 f/nn. The age-growth of striped bass collected during 2006, including striped bass collected during walleye sampling, is shown in Table 28. Seven year-classes were represented in the catch (Table 29); however, young-of-year fish were notably scarce. The 2004 (age 2+) year class was the most abundant (35%) year class collected, followed closely by the 2005 (age 1+) year class (33%). Mean length of age 2+ fish at capture (2004 year class) was 22.8 inches, thereby exceeding the growth objective (21.0 inches) for the striped bass fishery (Table 27). The striped bass assessment score was 11 (rating=good; Table 30). Relative weight (Wr) values, which included striped bass captured during walleye sampling, were adequate, but condition values decreased slightly as fish grew larger (Table 31).

Laurel River Lake (6,060 acres)

Black Bass Sampling (Spring)

Nocturnal electrofishing sampling was conducted during May 2006 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 32. The catch-per-hour (by area and size class) of the three black bass species for 2002-2006 is shown in Tables 33-36. Table 6 compares the catch-per-hour by size class of black bass in Laurel River Lake to other SEFD lakes sampled in 2006.

The largemouth bass population met three of the four catch rate objectives (Table 37). CPUE of age 1 fish (18.4 f/h) was almost double the management objective of 10.0 f/h. Low numbers of age-0 largemouth bass collected in fall 2005 prompted the fall stocking of age-0 bass as part of the largemouth bass stocking initiative program. These stocked bass made a significant contribution to the age-1 spring CPUE in 2006, with the stocked bass accounting for over half of the age-1 bass collected. The CPUE of ≥ 15.0-inch bass (19.5 f/h) was nearly twice the management objective of 10.0 f/h, and the CPUE of ≥ 20-inch bass (0.6 f/h) was also greater than the management objective of 0.5 f/h. The 12-14.9-inch CPUE of largemouth bass (17.1 f/h) did not meet the objective of 20.0 f/h.

Spotted bass met three of the four catch rate objectives (Table 38). CPUE of 11-13.9-inch fish (9.1 f/h), exceeded the management objective of 7.0 f/h, and the CPUE of ≥ 14.0-inch spotted bass (2.6 f/h) was well above the objective of 1.0 f/h. Age 1 CPUE (4.3 f/h) surpassed the objective of 3.0 f/h. No ≥ 17.0-inch spotted bass were captured; therefore, the objective of 0.10 f/h was not met.

The smallmouth bass population met the CPUE of ≥ 14.0-inch fish (1.0 f/h) (Table 39). All other smallmouth bass catch rate objectives were not met. CPUE of 11-13.9-inch fish (0.2 f/h) was well below the objective of 1.5 f/h, and the CPUE of ≥ 17.0-inch (0.32 f/h) did not surpass the objective of 0.50 f/h. Only two age 1 smallmouth bass was collected (0.4 f/h); therefore, the CPUE objective (3.0 f/h) for age 1 fish was not met.

Largemouth and smallmouth bass exhibited good size structure, with largemouth having a PSD value of 72 and an RSD_{15} value of 39 and smallmouth bass having a PSD of 70 and an RSD_{14} of 60 (Table 40). Spotted bass also exhibited a good size structure, with a PSD value of 38 and an RSD_{14} value of 8 (Table 40).

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in the Laurel River arm during September 2006 to index largemouth bass year class strength (Tables 41 and 42). CPUE of age 0 largemouth bass in 2006 was consistent with 2004 and 2005 rates; however, the CPUE of age 0 ≥ 5.0 inches was notably lower in 2006 than in previous years (Table 42). For the second consecutive year, the lake received a supplemental stocking of 56,000 5-inch fingerlings in October 2006 to bolster the weak 2006 year class. Relative weight (Wr) values for largemouth bass and spotted bass collected during September sampling are shown in Table 43.

2006 Daytime Creel Survey

A roving daytime creel survey was conducted on Laurel River Lake (6,060 acres) from March 16-October 31 2006. The lake was stratified into two survey areas (upper and lower) and the survey was run 16 days per month in March, April, September, and October. The sampling frequency was reduced to 13 days in May, and 8 days in June, July, and August to incorporate a nighttime creel survey at the lake.

Results of the daytime creel survey are shown in tables 44-51. Anglers took an estimated 15,110 fishing trips and expended an estimated 57,033 hours (9.4 man hours/acre) during the survey period. Black bass anglers accounted for 57% of all trips taken, followed by walleye anglers (16%) and crappie anglers (10%).

2006 Nighttime Creel Survey

An access point nighttime creel survey was conducted on Laurel River Lake (6,060 acres) from May 16-August 30 2006. The survey was conducted 4 nights in May (2 weekday nights and 2 weekend nights), and 8 nights per month in June, July, and August (4 weekday nights and 4 weekend nights). The survey ran from 10:00 pm until 3:00 am at four access sites (probability in parentheses): Flatwoods (0.4), Holly Bay (0.2), Grove (0.2), and Marsh Branch (0.2). Fishing pressure counts were made by counting the number of fishing boat trailers in the parking lot at 10:00 pm and again at 3:00 am, and then the numbers were averaged. During the interview process, the number of anglers per boat was recorded and an average number of anglers per boat was calculated. The final pressure count was calculated by multiplying the average number of boats X average number of anglers per boat.

Results from the nighttime creel survey are shown in tables 52-59. Anglers took an estimated 11,815 fishing trips and expended an estimated 53,155 hours (8.8 man hours/acre) during the survey period. Black bass anglers accounted for 66% of all trips taken, followed by walleye anglers (20%) and trout anglers (8%).

The creel management objectives for largemouth, smallmouth, and spotted bass were all met (Table 60). The catch rate of ≥ 0.75 trout/hour and the success rate objectives were met for the rainbow trout fishery at Laurel River Lake; however, the other two objectives were not attained for the rainbow trout fishery (Table 61). The daytime harvest rate objective of 0.5 crappie/hour was met (0.66 fish/hour), but the annual harvest objective of 5,000 crappie was not achieved (3,702 crappie; Table 62). Two of the three walleye creel objectives were met (Table 63). Although the daytime harvest of 20% of the walleye being ≥ 20-inches was not met, during the nighttime creel survey, almost 22% of the walleye harvested were ≥ 20-inches.

Angler Attitude Survey

An angler attitude survey was conducted in conjunction with the creel survey to gather angler opinions about the various fisheries at Laurel River Lake (Figure 1). A total of 362 anglers were interviewed. Ninety-nine percent of the bass anglers were satisfied with the bass fishery at the lake. Although bass anglers supported the current size regulations on largemouth and smallmouth bass, bass anglers would prefer a 12-inch size limit on spotted bass. Eighty percent of bass anglers would prefer a creel limit of 2 or less smallmouth bass at Laurel River Lake.

Almost three-quarters of the crappie anglers were satisfied with the crappie fishery. Eighty-eight percent of the crappie anglers felt that the crappie fishery had improved during the last three years. Crappie anglers supported the 9-inch size and 15 fish creel limits.

Almost 100% of the walleye anglers were satisfied with the walleye fishery at Laurel River Lake. Walleye anglers supported the current 15-inch and 6 fish creel limits at the lake.

Cedar Creek Lake (784 acres; Lincoln Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 25 April 2006 to assess the largemouth bass population in Cedar Creek Lake. The length-frequency and CPUE of largemouth bass is shown in Table 64. Size structure of largemouth bass was good (PSD=42, RSD_{15}=35; Table 65). The catch-per-hour (by area and size class) of largemouth bass for 2003-2006 is shown in Table 66. In 2006, the catch-per-hour of the 12-14.9-inch group was the lowest of all years sampled. Largemouth bass were also reaching the 20 inch group.

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted on 14 September 2006 to index the largemouth bass year-class strength (Tables 67 and 68). CPUE of age 0 largemouth bass in 2006 was slightly lower than the CPUE of age 0 bass in 2005 (Table 68). Relative weight (Wr) values are found in Table 69 for largemouth bass. Condition improved as fish grew larger.

Bluegill/Redear Sunfish Sampling

Daytime electrofishing was conducted on 12 May 2006 in conjunction with Lake Fisheries research (LFR) investigations to assess the bluegill and redear sunfish populations in Cedar Creek Lake. Results from the sampling, including length-frequency, age-growth, and age-frequency, can be found in the LFR annual performance report.

Nocturnal electrofishing was conducted on 14 September 2006 in conjunction with black bass electrofishing to assess the relative weight of bluegill and redear sunfish. Relative weight values for bluegill and redear sunfish can be found in the LFR annual performance report.

Crappie Sampling

Fall trap netting was conducted in Cedar Creek Lake during the week of 23 October 2006 to assess the crappie population. Length frequency and CPUE for black and white crappie from the lake is in Table 70. Black crappie comprised over 90% of the catch. White crappie exhibited a better size structure than black crappie as shown by the PSD and RSD_{10} values in Table 71. Age-growth data from white and black crappie collected in 2006 are shown in Tables 72 and 73, respectively. Age 3+ white crappie were the only white crappie collected (Table 74). Age 3+ (84%) and age 4+ (15%) black crappie dominated the black crappie catch (Table 75). The crappie population assessments (white, black, and white and black crappie combined) were not completed due to the poor population structure. In addition, the age structure of the population did not allow for the mortality calculation. Relative weight (Wr) values for black and white crappie are shown in Table 76. There have been numerous angler complaints about the crappie population in Cedar Creek Lake, which is currently being regulated by a 9-inch minimum size limit.

After trap netting efforts revealed few fish reached 9-inches (4%) and age-growth analysis showed poor growth in the crappie population, the 9-inch minimum length limit was removed, effective 2008.

Bert T. Combs Lake (36 acres; Clay Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 19 April 2006 at Bert T. Combs Lake to assess the black bass population. Length frequency and CPUE for largemouth bass is shown in Table 77. Catch-per-hour (by size group) for black bass is shown in Table 78. The size structure indicates that the bass population may be in the initial phases of stunting having a PSD value of 27 (RSD_{15}=8; Table 79). Age-growth for largemouth bass collected during 2006 is shown in Table 80. Ten year-classes were represented in the catch, with ages 3-5 comprising 65% of the catch (Table 81). The largemouth bass population assessment score was 10 (rating=fair; Table 82).

Bluegill Sampling (Spring)

Daytime electrofishing was conducted on 17 May 2006 at Bert T. Combs Lake to assess the bluegill population. Length frequency and CPUE for bluegill is shown in Table 83. Catch-per-hour (by size group) for bluegill is shown in Table 84. The size structure for bluegill was good with a PSD value of 63 (RSD_8=18; Table 85). Age-growth for bluegill collected during 2006 is shown in Table 86. Seven year-classes were represented in the catch, with ages 1-4 comprising 95% of the catch (Table 87). The bluegill population assessment score was 8 (rating=fair; Table 88).

Beulah Lake (87 acres; Jackson Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 20 April 2006 at Beulah Lake to assess the black bass population. Length frequency and CPUE for largemouth and smallmouth bass is shown in Table 89. The size structure indicates that the largemouth bass population is overcrowded having a PSD value of 5 (RSD_{15}=2; Table 90). Catch-per-hour (by size group) for largemouth bass is shown in Table 91. Age-growth for largemouth bass collected during 2006 is shown in Table 92. Six year-classes were represented in the catch, with ages 2-4 comprising 94% of the catch (Table 93). The largemouth bass population assessment score was 8 (rating=fair; Table 94).

Bluegill Sampling (Spring)

Daytime electrofishing was conducted on 19 May 2006 at Beulah Lake to assess the bluegill population. Length frequency and CPUE for bluegill and redear sunfish is shown in Table 95. The size structure indicates that the bluegill population is comprised of smaller individuals having a PSD value of 37 (RSD_8=1; Table 96). Catch-per-hour (by size group) for bluegill is shown in Table 97. Age-growth for bluegill collected during 2006 is shown in Table 98. Six year-classes were represented in the catch, with age 1 comprising 92% of the catch (Table 99). The bluegill population assessment score was 9 (rating=fair; Table 100).

Cannon Creek Lake (243 acres; Bell Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 24 April 2006 at Cannon Creek Lake to assess the black bass population. Length frequency and CPUE for black bass is shown in Table 101. The size structure indicates that the black bass population is comprised of smaller individuals, with largemouth bass having a PSD value of 25 (RSD_{15}=12; Table 102), and spotted bass having a PSD value of 17 (RSD_{14}=2; Table 102).

Catch-per-hour (by size group) for largemouth bass is shown in Table 103. Age-growth for largemouth bass collected during 2006 is shown in Table 104. Four year-classes were represented in the catch, with ages 2-3 comprising 67% of the catch (Table 105). The largemouth bass population assessment score was 7 (rating=poor; Table 106).

Chenoa Lake (37 acres; Bell Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 24 April 2006 at Chenoa Lake to assess the black bass population. Length frequency and CPUE for largemouth bass is shown in Table 107. The size structure for the largemouth bass population was good having a PSD value of 66 (RSD_{15}=13; Table 108). Catch-per-hour (by size group) for largemouth bass is shown in Table 109. Age-growth for largemouth bass collected during 2006 is shown in Table 110. Nine year-classes were represented in the catch, with ages 2-5 comprising 71% of the catch (Table 111). The largemouth bass population assessment score was 11 (rating=fair; Table 112).

Lake Linville (358 acres; Rockcastle Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted on 20 April 2006 at Lake Linville to assess the black bass population. Length frequency and CPUE for the black bass populations is shown in Tables 113-115. The size structure for the largemouth bass population is fair, with a PSD value of 40 (RSD_{15}=13; Table 116), while the spotted bass population is comprised of smaller individuals (PSD=22, RSD_{14}=4; Table 116).

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in September 2006 to index the largemouth bass year-class strength (Tables 117 and 118). Table 14 compares the CPUE of age 0 largemouth bass in Lake Linville to other SEFD lakes sampled in 2006. CPUE of age-0 largemouth increased sharply from 2005 catch rates. Relative weight values for largemouth bass and spotted bass are in Table 119.

Bluegill Sampling

Daytime electrofishing was conducted on 31 May 2006 in conjunction with Black Bass research (BBR) investigations to assess the bluegill population in Lake Linville. Results from the sampling can be found in the BBR annual performance report.

Wood Creek Lake (672 acres; Laurel Co.)

Black Bass Sampling (Spring)

Nocturnal electrofishing was conducted in April 2006 in the Dam, Pump Station, and Dock areas of Wood Creek Lake to assess the black bass population. Length frequency and CPUE for black bass are shown in Table 120. The size structure for black bass was good, with largemouth bass having a PSD value of 56 (RSD_{15}=38) and spotted bass having a PSD value of 44 (RSD_{14}=11; Table 121). Catch-per-hour (by size group) for largemouth and spotted bass are shown in tables 122 and 123, respectively.

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted in September 2006 in the Dam, Pump Station, and Dock areas of Wood Creek Lake to index largemouth bass year class strength (Tables 124 and 125). White bass and walleye were also collected during fall electrofishing (Table 124). Table 14 compares the CPUE of age 0 largemouth bass in Wood Creek Lake to other SEFD lakes sampled in 2006. Relative weight values for largemouth and spotted bass are in Table 126.

Figure 1. Angler attitude survey results from Laurel River Lake in 2006.

LAUREL RIVER LAKE ANGLER ATTITUDE SURVEY 2006

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 Laurel River Lake (check all that apply)? **(n=362)**

   89% Bass **14%** Crappie **6%** Trout **32%** Walleye **2%** Bluegill **1%** Catfish

4. Which one species do you fish for most at Laurel River Lake (check only one)?

   78% Bass **4%** Crappie **2%** Trout **16%** Walleye **1%** Bluegill

-Answer the following questions for each species you fish for – (see question 3)

Bass Anglers (n=320)

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

   55% Very satisfied **44%** Somewhat satisfied **0%** Neutral **1%** Somewhat dissatisfied **0%** Very dissatisfied

6. Do you support or oppose the 15-inch size limit on largemouth bass at the lake? **100%** Support

   0% Oppose **0%** No opinion/don't know

6b. What size limit would you prefer on largemouth bass at the lake? **98%** Current (15") **2%** Other (18")

7. Do you support or oppose the 18-inch size limit on smallmouth bass at the lake? **99%** Support

   1% Oppose **0%** No opinion/don't know

7b. What size limit would you prefer on smallmouth bass at the lake? **95%** Current (18") **5%** Other

8. Do you support or oppose the no size limit on spotted bass at the lake? **19%** Support

   77% Oppose **4%** No opinion/don't know

8b. What size limit would you prefer on spotted bass at the lake? **19%** Current (none) **62%** Other (12") **18%** Other

*9. Do you support or oppose the 6 fish creel limit on black bass at the lake? **100%** Support **0%** Oppose **0%** No opinion/don't know

*9b. What creel limit would you prefer? **64%** Current (6) **34%** 5 **1%** 2 **0%** 1 **2%** Other

*10. Would you support or oppose a reduced creel limit for smallmouth bass at the lake? **89%** Support **9%** Oppose **2%** No opinion/don't know

*10b. What creel limit would you prefer on smallmouth bass? **10%** Current (6) **59%** 2 **16%** 1 **5%** Catch and release only **10%** Other

Crappie Anglers (n=49)

11. What level of satisfaction do you have with crappie fishing at Laurel River Lake?

8% Very satisfied **65%** Somewhat satisfied **20%** Neutral **6%** Somewhat dissatisfied **0%** Very dissatisfied

12. During the past three years, do you believe the crappie fishing in Laurel River Lake has?

37% Greatly improved **51%** Slightly improved **12%** Stayed about the same **0%** Slightly declined **0%** Greatly declined

13. Do you support or oppose the 9-inch size limit on crappie at the lake? **100%** Support **0%** Oppose **0%** No opinion/don't know

13b. What size limit would you prefer on crappie at the lake? **61%** Current (9") **39%** Other (10")

14. Do you support or oppose the 15 fish creel limit on crappie at the lake? **100%** Support **0%** Oppose **0%** No opinion/don't know

14b. What creel limit would you prefer on crappie at the lake? **96%** Current (15) **0%** 30 **4%** 10 **0%** Other

Trout Anglers (n=20)

15. What level of satisfaction do you have with trout fishing at Laurel River Lake?

65% Very satisfied **20%** Somewhat satisfied **5%** Neutral **10%** Somewhat dissatisfied **0%** Very dissatisfied

16. Do you support or oppose the 8-fish creel limit on trout at the lake? **100%** Support **0%** Oppose **0%** No opinion/don't know

16b. What creel limit would you prefer on trout at the lake? **90%** Current (8) **5%** 5 **5%** Other (10)

Walleye Anglers (n=115)

17. What level of satisfaction do you have with walleye fishing at Laurel River Lake?

70% Very satisfied **28%** Somewhat satisfied **2%** Neutral **0%** Somewhat dissatisfied **0%** Very dissatisfied

18. Do you support or oppose the current 15-inch size limit on walleye at the lake? **100%** Support **0%** Oppose **0%** No opinion/don't know

18b. What size limit on walleye would you prefer? **83%** Current (15") **16%** Other (18") **1%** Other (20")

19. Do you support or oppose the 6 fish creel limit on walleye at the lake? **100%** Support **0%** Oppose **0%** No opinion/don't know

19b. What creel limit on walleye would you prefer? **86%** Current (6) **7%** 5 **5%** 4 **2%** Other (10)

Channel Catfish Anglers (n=4)

20. What level of satisfaction do you have with channel catfish fishing at Laurel River Lake?

50% Very satisfied **25%** Somewhat satisfied **0%** Neutral **25%** Somewhat dissatisfied **0%** Very dissatisfied

21. Do you support or oppose the no size limit on channel catfish at the lake? **75%** Support **25%** Oppose **0%** No opinion/don't know

21b. What size limit would you prefer on channel catfish at the lake? **75%** Current (none) **25%** Other (12")

22. Do you support or oppose the no creel limit on channel catfish at the lake? **75%** Support **25%** Oppose **0%** No opinion/don't know

22b. What creel limit would you prefer on channel catfish at the lake? **75%** Current (none) **25%** 5 **0%** 6 **0%** Other

* Questions 9-10b were added after the start of the creel. N=333 for these questions.

Table 1. 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 Lake Cumberland during April and May 2006; 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	20	21		
Dam	Largemouth bass											1					1				2	1.33 (1.33)
	Spotted bass		1	2	4	6	10	9	6	4	11	11	8	4	2						78	52.00 (15.00)
	Smallmouth bass			4	3	2	1	2					1								13	8.67 (3.00)
Harmon	Largemouth bass																				0	0.00 (0.00)
Creek	Spotted bass	1	1	13	9	12	12	10	2	6	1	4	2	1							74	49.33 (7.98)
	Smallmouth bass			1	4		2		1			2				1					11	7.33 (1.61)
Fishing	Largemouth bass					3	3	6	9	15	14	13	15	28	7	3	1			1	118	78.67 (13.45)
Creek	Spotted bass					1	4	5	2	2	2	2									18	12.00 (4.38)
	Smallmouth bass																				0	0.00 (0.00)
Lily	Largemouth bass		1			1	1		2	1	5	2	3	2	4	6	4	2	1	1	36	24.00 (8.33)
Creek	Spotted bass				12	10	10	13	16	13	10	17	20	9	1	1					132	88.00 (6.28)
	Smallmouth bass			1					1												2	1.33 (1.33)
Total	Largemouth bass		1			4	4	6	11	16	19	16	18	30	11	9	6	2	1	2	156	26.00 (7.61)
	Spotted bass	1	2	15	25	29	36	37	26	25	24	34	30	14	3	1					302	50.33 (7.09)
	Smallmouth bass			6	7	2	3	2	2			2	1			1					26	4.33 (1.15)

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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 2002-2006.

	Stock					Quality					Preferred				
Species/Area	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006
Largemouth bass															
Dam	6.7	1.3	4.7	2.0	1.3	6.7	1.3	3.3	2.0	1.3	4.0	1.3	2.0	2.0	0.7
Beaver Creek	14.0	24.7	23.3	2.0	*	12.0	11.3	18.7	2.0	*	6.7	7.3	10.0	2.0	*
Harmon Creek	1.3	1.0	0.7	1.3	0.0	0.7	1.0	0.7	0.7	0.0	0.7	1.0	0.0	0.7	0.0
Fishing Creek	45.3	48.7	46.0	66.0	76.7	40.0	42.7	30.0	58.7	54.7	10.0	23.3	14.0	13.3	26.7
Lily Creek	12.0	18.7	18.7	13.3	22.7	10.7	11.3	14.7	13.3	20.0	10.7	6.0	6.7	9.3	13.3
Mean	15.9	20.1	18.7	16.9	25.2	14.0	14.4	13.5	15.3	19.0	6.4	8.3	6.5	5.5	10.2
Spotted bass															
Dam	28.7	48.7	36.7	50.0	47.3	12.7	16.7	12.7	25.3	26.7	3.3	3.3	4.0	7.3	9.3
Beaver Creek	14.0	63.3	26.7	21.3	*	2.7	5.3	6.7	6.0	*	0.0	0.7	0.0	0.0	*
Harmon Creek	20.7	45.0	25.3	27.3	33.3	3.3	8.0	4.0	8.0	9.3	0.0	0.0	0.0	0.7	2.0
Fishing Creek	2.7	16.7	18.7	13.3	12.0	1.3	4.0	6.0	5.3	4.0	0.0	0.7	0.0	0.0	0.0
Lily Creek	27.3	88.0	109.3	32.0	80.0	13.3	24.7	32.7	26.7	47.3	4.0	8.7	5.3	7.3	20.7
Mean	18.7	52.9	43.3	28.8	43.2	6.7	12.0	12.4	14.3	21.8	1.5	2.9	1.9	3.1	8.0
Smallmouth bass															
Dam	21.3	22.7	16.7	14.0	4.0	8.7	11.3	3.3	7.3	0.7	0.7	8.0	0.7	3.3	0.7
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	*
Harmon Creek	18.7	29.0	11.3	18.0	4.0	8.0	16.0	9.3	18.0	2.0	4.0	11.0	6.0	15.3	0.7
Fishing Creek	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	0.0
Lily Creek	0.0	2.7	0.0	0.7	0.7	0.0	1.3	0.0	0.7	0.0	0.0	0.7	0.0	0.7	0.0
Mean	8.0	9.7	5.6	6.5	2.2	3.3	5.0	2.5	5.2	0.7	0.9	3.4	1.3	3.9	0.3

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 3. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of largemouth bass collected at Lake Cumberland during April and May 2006.

	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
2006	0.8	0.4	6.2	2.2	8.8	3.1	10.2	2.6	0.5	0.3	26.0	7.6
2005	0.8	0.5	1.6	0.7	9.9	3.6	5.5	1.3	0.0	0.0	17.7	5.2
2004	0.8	0.3	5.2	1.5	6.9	1.4	6.5	1.6	0.0	0.0	19.5	4.0
2003	2.0	0.8	5.7	1.4	6.1	1.9	8.3	1.9	0.1	0.1	22.1	4.3
2002	0.4	0.2	1.9	0.6	7.7	2.5	6.3	1.0	0.1	0.1	16.3	3.3

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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 April and May 2006.

	Inch class											
	< 8.0		8.0-10.9		11.0-13.9		≥ 14.0		≥ 17.0		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2006	12.0	2.5	16.5	2.3	13.8	3.0	8.0	2.1	0.2	0.2	50.3	7.1
2005	16.3	3.6	9.5	1.4	11.2	2.0	3.1	1.2	0.0	0.0	40.0	6.3
2004	15.6	2.7	25.5	3.9	10.5	2.1	1.9	0.7	0.0	0.0	53.5	7.8
2003	32.6	5.5	31.6	3.8	9.1	1.5	2.9	0.8	0.0	0.0	76.1	8.6
2002	8.1	1.8	10.3	1.7	5.2	1.1	1.5	0.5	0.0	0.0	25.1	3.7

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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 April and May 2006.

	Inch class											
	< 8.0		8.0-10.9		11.0-13.9		≥ 14.0		≥ 17.0		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
2006	2.5	0.9	1.2	0.4	0.3	0.3	0.3	0.2	0.2	0.2	4.3	1.2
2005	2.3	0.9	0.8	0.6	1.3	0.5	3.9	1.5	1.3	0.7	8.3	2.3
2004	2.9	1.8	1.9	0.9	1.2	0.5	1.3	0.7	0.0	0.0	7.3	3.1
2003	2.1	1.0	3.9	1.1	1.6	0.6	3.4	1.1	1.0	0.4	11.0	2.7
2002	2.9	1.1	3.5	1.3	2.4	0.8	0.9	0.5	0.1	0.1	9.7	2.9

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Table 6. Catch-per-hour of black bass captured during spring electrofishing on lakes in the Southeastern Fishery District during 2006.

Species/Lake	Stock*	Quality*	Preferred*
Largemouth bass			
Lake Cumberland	25.2	19.0	10.2
Laurel River Lake	50.6	36.6	19.5
Cedar Creek Lake	96.3	40.0	33.4
Bert T. Combs Lake	137.3	36.7	11.3
Beulah Lake	194.7	9.3	4.7
Cannon Creek Lake	20.4	5.2	2.4
Chenoa Lake	128.8	84.8	16.8
Linville Lake	79.3	32.0	10.0
Wood Creek Lake	55.0	30.7	20.7
Spotted bass			
Lake Cumberland	43.2	21.8	8.0
Laurel River Lake	30.9	11.7	2.6
Cannon Creek Lake	18.8	3.2	0.4
Linville Lake	55.3	12.0	2.0
Wood Creek Lake	31.0	13.7	3.3
Smallmouth bass			
Lake Cumberland	2.2	0.7	0.3
Laurel River Lake	1.6	1.1	1.0
Cannon Creek Lake	7.2	2.8	0.0
Linville Lake	0.7	0.0	0.0
Wood Creek Lake	1.0	0.7	0.3

*Largemouth bass - ≥8" = stock, ≥12" = quality, ≥15" = preferred
*Smallmouth and spotted bass - ≥7" = stock, ≥11" = quality, ≥14" = preferred

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Table 7. Population assessment for largemouth bass based on spring electrofishing at Lake Cumberland from 1990-2006.

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
2006	Value	13.6	1.2	8.8	10.2	0.50		
	Score	4	1	1	2	2	10	F

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Table 8. Population assessment for spotted bass based on spring electrofishing at Lake Cumberland from 1990-2006.

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
2006	Value	11.4	1.8	13.8	8.0	0.17		
	Score	4	2	4	4	2	16	G

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Table 9. Population assessment for smallmouth bass based on spring electrofishing at Lake Cumberland from 1990-2006.

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
2006	Value	12.2	0.0	0.3	0.3	0.17		
	Score	4	0	2	2	2	10	F

Table 10. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Lake Cumberland during April and May 2006; 95% confidence limits are in parentheses.

Area	Species	No. fish > stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Dam	Largemouth bass	2	100 (± 0)	50 (± 98)
	Spotted bass	71	56 (± 12)	20 (± 9)
	Smallmouth bass	6	17 (± 33)	17 (± 33)
Harmon Creek	Largemouth bass	0		
	Spotted bass	50	28 (± 13)	6 (± 7)
	Smallmouth bass	6	50 (± 44)	17 (± 33)
Fishing Creek	Largemouth bass	115	71 (± 8)	35 (± 9)
	Spotted bass	18	33 (± 22)	0
	Smallmouth bass	0		
Lily Creek	Largemouth bass	34	88 (± 11)	59 (± 17)
	Spotted bass	120	59 (± 9)	26 (± 8)
	Smallmouth bass	1		
Total	Largemouth bass	151	75 (± 7)	40 (± 8)
	Spotted bass	259	51 (± 6)	19 (± 5)
	Smallmouth bass	13	31 (± 26)	15 (± 20)

[a]Largemouth bass = RSD-15, spotted and smallmouth bass = RSD-14
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Table 11. 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, Cedar Creek Lake, Bert T. Combs Lake, Beulah Lake, Cannon Creek Lake, Chenoa Lake, Lake Linville, and Wood Creek Lake during 2006; 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	75 (7)	40 (8)	31 (26)	15 (20)	51 (6)	19 (5)				
Laurel River Lake	72 (5)	39 (5)	70 (30)	60 (32)	38 (7)	8 (4)				
Cedar Creek Lake	42 (5)	35 (5)								
Bert T. Combs Lake	27 (6)	8 (4)					63 (15)	18 (12)		
Beulah Lake	5 (2)	2 (2)					37 (11)	1 (3)	100 (-)	100 (-)
Cannon Creek Lake	25 (12)	12 (9)	39 (23)	0 (0)	17 (11)	2 (4)				
Chenoa Lake	66 (7)	13 (5)								
Lake Linville	40 (9)	13 (6)			22 (9)	4 (4)	16 (3)	0 (0)		
Wood Creek Lake	56 (8)	38 (7)	67 (65)	33 (65)	44 (10)	11 (6)				

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Table 12. 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 19 September 2006; standard error is in parentheses.

	Inch class															
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE
Largemouth bass	2	10	12	9	2	3	11	3	3	3	1	4	1	1	65	43.3 (1.91)
Spotted bass	1	1	3	7	13	6	9	7	11	6				1	65	43.3 (4.78)

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Table 13. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall (September and October) in electrofishing samples at Lake Cumberland.

		Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	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	3.3	
2006	Fishing Creek	6.3	0.17	22.0	3.06	20.7	2.40		

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Table 14. Year class strength at age 0 and mean lengths (in) of largemouth bass collected in September 2006 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	6.3	0.17	22.0	3.06	20.7	2.4
Laurel River Lake	Laurel River Arm	3.7	0.14	12.7	4.89	0.7	0.67
Wood Creek Lake		4.4	0.27	3.7	1.74	0.7	0.45
Cedar Creek Lake		4.7	0.05	43.7	11.31	17.7	5.28
Lake Linville		5.1	0.05	84.0	33.51	48.0	19.79

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Table 15. Number of fish and mean relative weight (Wr) for each length class of black bass collected in Fishing Creek of Lake Cumberland during 19 September 2006. 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
	19	86 (2.2)	7	85 (1.5)	6	87 (3.0)
	7.0 - 10.9 in.		11.0 - 13.9 in.		≥ 14.0 in.	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	35	94 (1.1)	24	91 (1.5)	1	98 (-)

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Table 16. 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 2006. Standard error is in parentheses.

		Size range					
Species	Location	No.	Wr	No.	Wr	No.	Wr
Largemouth bass		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in	
	Lake Cumberland (Fishing Creek)	19	86 (2.2)	7	85 (1.5)	6	87 (3.0)
	Laurel River Lake (Laurel River Arm)	27	90 (1.5)	14	96 (3.1)	6	93 (8.1)
	Wood Creek Lake	61	88 (1.0)	14	85 (2.7)	10	89 (3.0)
	Cedar Creek Lake	355	88 (0.5)	39	91 (1.3)	29	105 (2.2)
	Lake Linville	43	88 (1.3)	16	85 (2.1)	6	91 (3.6)
Spotted bass		7.0 - 10.9 in		11.0 - 13.9 in		≥ 14.0 in	
	Lake Cumberland (Fishing Creek)	35	94 (1.1)	24	91 (1.5)	1	98 (-)
	Laurel River Lake (Laurel River Arm)	20	109 (2.4)	4	86 (5.6)		
	Wood Creek Lake	69	97 (1.1)	9	92 (4.1)	2	107 (14.3)
	Lake Linville	45	91 (1.7)	13	87 (1.7)	3	81 (3.9)

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Table 17. Length frequency and CPUE of white bass collected in 27net-nights from Lake Cumberland in November 2006.

Area	8	10	12	13	Total	CPUE	Std. error
Lake Cumberland	1	1	1	2	5	0.19	0.08

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Table 18. Length frequency and CPUE of walleye collected from the Jamestown/Bugwood (5 net-nights), Conley Bottom (10 net-nights), and Burnside (12 net-nights) areas of Lake Cumberland in November 2006.

Area	Inch class															Total	CPUE	Std. error
	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Jamestown/Bugwood		1				1	2	8	11	11	44	41	12	5	2	138	27.60	6.48
Conley Bottom		4	2	1	2	3	10	13	20	22	25	13	4	5	1	125	12.50	2.37
Burnside	2	15	12	8		8	15	13	15	32	38	15	5	3		181	15.08	1.61
Total	2	20	14	9	2	12	27	34	46	65	107	69	21	13	3	444	16.44	1.88

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Table 19. Population assessment for walleye based on fall gill netting at Lake Cumberland from 1991-2006.

Year		Parameters				Total Score	Assessment Rating
		CPUE of ≥ Age 1+	Mean length of age 2+ at capture	CPUE of ≥ 20.0"	CPUE of Age 1+		
1991	Value	5.1	18.5*	0.2	2.7		
	Score	3	4	1	3	11	G
1994	Value	3.5	18.5	0.9	0.7		
	Score	2	4	2	1	9	F
1996	Value	5.3	18.5	0.9	3.6		
	Score	3	4	2	4	13	G
1998	Value	7.9	18.5	2.4	1.9		
	Score	4	4	4	2	14	E
2000	Value	4.3	18.6	1.5	1.6		
	Score	3	4	3	2	12	G
2002	Value	12.1	19.1	2.5	6.4		
	Score	4	4	4	4	16	E
2004	Value	8.9	18.8	1.8	4.6		
	Score	4	4	3	4	15	E
2006	Value	14.8	19.1	3.9	3.1		
	Score	4	4	4	4	16	E

* Data from 1994 used for age-growth

Table 20. Mean back calculated lengths (in) at each annulus for male walleye collected from Lake Cumberland during 2006, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2005	27	11.0						
2004	37	11.0	16.3					
2003	21	10.9	16.2	18.8				
2002	7	11.3	16.7	18.7	20.1			
2001	3	9.8	15.7	18.1	19.5	20.4		
1999	1	11.7	15.0	16.4	17.3	18.1	19.5	20.3
Mean		11.0	16.2	18.7	19.7	19.8	19.5	20.3
Number		96	69	32	11	4	1	1
Smallest		7.0	13.1	16.4	17.3	18.1	19.5	20.3
Largest		13.8	18.4	20.8	20.7	20.9	19.5	20.3
Std error		0.1	0.1	0.2	0.3	0.6		
95% CI ±		0.3	0.3	0.4	0.6	1.2		

Otoliths were used for age-growth determinations; Intercept = 0
sedagcwm.d06

Table 21. Mean back calculated lengths (in) at each annulus for female walleye collected from Lake Cumberland during 2006, including the 95% confidence interval (CI) for each mean length per age group.

		Age					
Year	No.	1	2	3	4	5	6
2004	36	12.1	17.7				
2003	14	11.8	17.7	20.7			
2002	3	13.5	18.1	20.3	21.6		
2001	1	12.3	17.4	20.5	22.1	23.1	
2000	1	11.5	17.3	19.9	21.3	22.5	23.3
Mean		12.1	17.7	20.6	21.7	22.8	23.3
Number		55	55	19	5	2	1
Smallest		8.7	14.9	18.9	21.1	22.5	23.3
Largest		14.8	19.8	21.8	22.2	23.1	23.3
Std error		0.2	0.1	0.2	0.2	0.3	
95% CI ±		0.3	0.2	0.3	0.5	0.6	

Otoliths were used for age-growth determinations; Intercept = 0
sedagcwf.d06

Table 22. Mean back calculated lengths (in) at each annulus for walleye (both sexes) collected from Lake Cumberland during 2006, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2005	48	11.0						
2004	75	11.5	16.9					
2003	35	11.3	16.8	19.6				
2002	10	12.0	17.1	19.2	20.6			
2001	4	10.4	16.1	18.7	20.2	21.1		
2000	1	11.5	17.3	19.9	21.3	22.5	23.3	
1999	1	11.7	15.0	16.4	17.3	18.1	19.5	20.3
Mean		11.3	16.9	19.4	20.3	20.8	21.4	20.3
Number		174	126	51	16	6	2	1
Smallest		6.8	13.1	16.4	17.3	18.1	19.5	20.3
Largest		14.8	19.8	21.8	22.2	23.1	23.3	20.3
Std error		0.1	0.1	0.2	0.3	0.7	1.9	
95% CI ±		0.2	0.3	0.4	0.6	1.4	3.8	

Otoliths were used for age-growth determinations; Intercept = 0
sedagcbw.d06

Table 23. Age-frequency and CPUE of walleye gill netting for 27 net-nights at Lake Cumberland during November 2006. Standard error is in parentheses.

	Inch class																		
Age	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	%	CPUE	
0	2	20	14	9												45	10.2	1.67	(0.40)
1					2	12	27	32	11							84	19.0	3.11	(0.36)
2								2	33	59	79	37	5			215	48.5	7.96	(1.13)
3									2	6	24	25	5	12		74	16.7	2.74	(0.48)
4											4	2	8	1	1	16	3.6	0.59	(0.13)
5												2	3		1	6	1.4	0.22	(0.06)
6															1	1	0.2	0.04	(0.02)
7												2				2	0.5	0.07	(0.02)
Total	2	20	14	9	2	12	27	34	46	65	107	68	21	13	3	443	100.0	16.41	
%	0.5	4.5	3.2	2.0	0.5	2.7	6.1	7.7	10.4	14.7	24.2	15.3	4.7	2.9	0.7				

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Table 24. Walleye population assessment for walleye gill netted at Lake Cumberland in November 2006.

Parameter	Actual value	Assessment score
Population density (CPUE age 1 fish and older)	14.77	4
Growth rate (Mean length of age 2+ fish at capture)	19.1	4
Size structure (CPUE ≥ 20.0 inch fish)	3.93	4
Recruitment (CPUE of age 1 fish)	3.11	4
Total score		16
Assessment rating		E
Instantaneous mortality (Z)	1.230	
Annual mortality (A)	70.8	

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Table 25. Number of fish and mean relative weight (Wr) for each length class of walleye collected in Lake Cumberland during November 2006. 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
57	94 (0.6)	277	92 (0.3)	106	92 (0.6)

sedgnlrw.d06

Table 26. Length frequency and CPUE of striped bass collected at Lake Cumberland in 20 net-nights on 5-6 December 2006.

Species	Inch class																					Total	CPUE	Std. error
	8	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	33			
Striped bass	1	2	1	4	2	1	4	8	3	2	6	6	6	7	3	6	6	4	4	1	1	78	3.9	0.81

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Table 27. Population assessment for striped bass based on fall gill netting at Lake Cumberland from 1994-2006.

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
2006	Value	3.9	22.8	1.6	1.3		
	Score	2	4	3	2	11	G

Table 28. Mean back calculated lengths (in) at each annulus for striped bass collected from Lake Cumberland during 2006, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2005	53	10.0						
2004	28	11.1	19.2					
2003	20	11.8	20.3	24.8				
2002	3	13.4	21.2	24.9	28.5			
2001	2	10.7	19.0	23.1	25.8	27.3		
1999	1	15.0	21.9	25.4	28.5	29.9	31.0	32.7
Mean		10.7	19.7	24.7	27.6	28.2	31.0	32.7
Number		107	54	26	6	3	1	1
Smallest		4.8	16.0	22.4	25.2	26.5	31.0	32.7
Largest		15.0	22.4	26.4	29.2	29.9	31.0	32.7
Std error		0.3	0.2	0.3	0.6	1.0		
95% CI ±		0.6	0.5	0.5	1.2	2.0		

Otoliths were used for age-growth determinations; Intercept = 0
sedagcbs.d06

Table 29. Age-frequency and CPUE of striped bass gill netted for 20 net-nights at Lake Cumberland on 5-6 December 2006. Standard error is in parentheses.

	Inch class																							
Age	8	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	33	Total	%	CPUE	
0+	1																					1	1.3	0.05	(0.05)
1+		2	1	4	2	1	4	8	3	1												26	33.3	1.30	(0.29)
2+										1	6	6	6	7	1							27	34.6	1.35	(0.45)
3+															2	6	5	4	2			19	24.4	0.95	(0.27)
4+																			1	1		2	2.6	0.10	(0.08)
5+																	1		1			2	2.6	0.10	(0.03)
7+																					1	1	1.3	0.05	(0.05)
Total	1	2	1	4	2	1	4	8	3	2	6	6	6	7	3	6	6	4	4	1	1	78	100.0	3.90	
%	1.3	2.6	1.3	5.1	2.6	1.3	5.1	10.3	3.8	2.6	7.7	7.7	7.7	9.0	3.8	7.7	7.7	5.1	5.1	1.3	1.3				

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Table 30. Striped bass population assessment for striped bass gill netted at Lake Cumberland in December 2006.

Parameter	Actual value	Assessment score
Population density (CPUE age 1 fish and older)	3.85	2
Growth rate (Mean length of age 2+ fish at capture)	22.8	4
Size structure (CPUE ≥ 24.0 inch fish)	1.60	3
Recruitment (CPUE of age 1 fish)	1.30	2
Total score		11
Assessment rating		G
Instantaneous mortality (Z)	0.773	
Annual mortality (A)	53.8	

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Table 31. Number of fish and mean relative weight (Wr) for each length class of striped bass collected in Lake Cumberland during November and December 2006. 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
75	92 (0.5)	64	90 (0.7)	4	76 (12.0)

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Table 32. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 6.25 hours of 15-minute nocturnal electrofishing runs for black bass in Laurel River Lake during May 2006; 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	6	8	5	3	6	3	6	3	4	9	3	6	1	4	1	2	72	48.00 (8.07)
	Spotted bass			3	3	8	10	12	4	4	7	6		6	1						64	42.67 (9.50)
	Smallmouth bass			2								1									3	2.00 (1.37)
Spruce Creek	Largemouth bass			3	3		3	2	3	5	3	1	9	6	21	14	8	5	3		89	50.86 (8.40)
	Spotted bass	1			1	1	3	4	7	2		3	4	2	1						29	16.57 (4.57)
	Smallmouth bass					1		2		1					2	2	1	1			10	5.71 (2.88)
Laurel River Arm	Largemouth bass	2	6	5	50	22	12	8	13	13	11	21	20	14	17	16	7		2	1	240	160.00 (17.19)
	Spotted bass	1	16	3	1	7	14	12	10	1	3	3	5	3							79	52.67 (6.65)
	Smallmouth bass																				0	0.00 (0.00)
Upper Craigs Creek	Largemouth bass				1		2	2	4	1	4	5	8	7	3	3	4			1	45	30.00 (6.00)
	Spotted bass				4	9	9	9	14	5	9	8	9	2	1						79	52.67 (7.48)
	Smallmouth bass																				0	0.00 (0.00)
Total	Largemouth bass	2	6	10		30	22	15	26	22	24	30	41	36	44	39	20	9	6	4	386	71.36 (11.44)
	Spotted bass	2	16	6	9	25	36	37	35	12	19	20	18	13	3	2					251	40.16 (4.55)
	Smallmouth bass			2		1		2		1		1			2	2	1	1			13	2.08 (0.96)

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Table 33. Comparison of catch-per-hour of black bass (by area) captured during spring electrofishing on Laurel River Lake during the period of 2002-2006.

Species/Area	Stock					Quality					Preferred				
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006
Largemouth bass															
Dam	49.3	68.0	30.7	49.3	34.0	36.0	48.7	18.7	32.7	22.0	0.7	18.7	12.7	20.7	11.3
Spruce Creek	50.7	58.7	56.0	56.0	45.7	24.7	28.7	48.7	52.0	38.3	6.7	12.0	18.7	31.3	29.1
Laurel River Arm	98.0	151.3	57.3	96.0	95.3	52.0	75.3	43.3	62.0	65.3	8.7	19.3	18.0	28.7	28.7
Craigs Cr. headwaters	24.7	42.7	30.7	22.7	28.0	14.0	20.0	20.0	17.3	20.7	5.3	5.3	7.3	9.3	7.3
Mean	55.7	80.2	43.7	56.0	50.6	31.7	43.2	32.7	41.0	36.6	5.4	13.8	14.2	22.5	19.5
Spotted bass															
Dam	46.7	66.7	48.0	24.7	33.3	13.3	26.7	30.0	17.3	13.3	0.7	2.7	6.0	9.3	4.7
Spruce Creek	6.0	10.0	4.7	6.0	14.9	0.7	2.7	2.7	2.0	5.7	0.0	0.0	0.7	0.0	1.7
Laurel River Arm	24.0	14.0	2.7	8.7	34.0	6.7	5.3	1.3	6.0	9.3	0.7	0.7	0.0	0.7	2.0
Craigs Cr. headwaters	22.0	72.7	50.0	26.0	44.0	2.7	9.3	14.0	20.0	19.3	0.0	0.0	2.0	4.7	2.0
Mean	24.7	40.8	26.3	16.3	30.9	5.9	11.0	12.0	11.3	11.7	0.4	0.8	2.7	3.7	2.6
Smallmouth bass															
Dam	12.0	28.0	6.0	14.0	0.7	7.3	3.3	4.7	10.7	0.7	2.7	2.0	3.3	10.0	0.0
Spruce Creek	20.7	24.0	9.3	15.3	5.1	2.0	12.0	2.7	15.3	3.4	0.0	6.7	1.3	10.7	3.4
Laurel River Arm	2.0	1.3	2.7	2.0	0.0	1.3	0.0	0.0	2.0	0.0	0.0	0.0	0.0	1.3	0.0
Craigs Cr. headwaters	0.7	4.0	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	8.9	14.3	4.5	7.8	1.6	2.8	4.0	1.8	7.0	1.1	0.7	2.2	1.2	5.5	1.0

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 34. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of largemouth bass collected at Laurel River Lake during May 2006.

	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.
2006	20.8	5.7	13.9	2.7	17.1	2.9	19.5	2.8	0.6	0.3	71.4	11.4
2005	6.2	1.2	15.0	2.9	18.5	2.7	22.5	2.9	0.2	0.2	62.2	7.5
2004	3.8	1.5	11.0	1.4	18.5	3.0	14.2	1.9	0.0	0.0	47.5	4.8
2003	9.8	2.9	37.0	5.8	29.3	4.1	13.8	2.0	0.0	0.0	90.0	12.3
2002	21.7	5.0	24.0	3.8	23.3	3.3	8.3	1.4	0.0	0.0	77.3	9.7

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Table 35. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of spotted bass collected at Laurel River Lake during May 2006.

	Inch class											
	< 8.0		8.0-10.9		11-13.9		≥ 14.0		≥ 17.0		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err
2006	15.0	2.4	13.4	1.7	9.1	1.7	2.6	0.7	0.0	0.0	40.2	4.6
2005	4.8	0.8	3.3	0.8	7.7	1.6	3.7	1.1	0.0	0.0	19.5	2.7
2004	3.2	1.0	12.5	2.9	9.8	2.3	2.2	0.7	0.0	0.0	27.7	5.6
2003	23.3	5.3	17.8	3.1	10.2	2.0	0.8	0.5	0.0	0.0	52.2	8.9
2002	13.7	3.2	13.3	1.8	5.5	1.4	0.3	0.2	0.0	0.0	32.8	5.6

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Table 36. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of smallmouth bass collected at Laurel River Lake during May 2006.

	Inch class											
	< 8.0		8.0-10.9		11.0-13.9		≥ 14.0		≥ 17.0		Total	
Year	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err
2006	0.5	0.3	0.5	0.4	0.2	0.2	1.0	0.6	0.3	0.2	2.1	1.0
2005	0.2	0.2	0.8	0.4	1.5	0.6	5.5	1.5	2.8	1.1	8.0	1.8
2004	2.0	0.6	1.2	0.4	0.7	0.4	1.2	0.5	0.0	0.0	5.0	1.1
2003	8.3	2.2	7.5	1.8	1.8	0.8	2.2	0.8	0.2	0.2	19.8	4.3
2002	8.2	2.5	4.5	1.5	2.2	0.6	0.7	0.3	0.2	0.2	15.5	3.8

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Table 37. Population assessment for largemouth bass based on spring electrofishing at Laurel River Lake from 1990-2006.

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
2006	Value	13.7	18.4	17.1	19.5	0.64		
	Score	4	1	2	3	2	12	G

Table 38. Population assessment for spotted bass based on spring electrofishing at Laurel River Lake from 1990-2006.

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
2006	Value	11.5	4.3	9.1	2.6	0.00		
	Score	4	2	4	4	0	14	G

Table 39. Population assessment for smallmouth bass based on spring electrofishing at Laurel River Lake from 1990-2006.

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
2006	Value	13.6	0.4	0.2	1.0	0.32		
	Score	4	2	2	3	3	14	G

Table 40. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Laurel River Lake during May 2006; 95% confidence limits are in parentheses.

Area	Species	No. fish > stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Dam				
	Largemouth bass	51	65 (± 13)	33 (± 13)
	Spotted bass	50	40 (± 14)	14 (± 10)
	Smallmouth bass	1	100 (± 0)	0 (± 0)
Spruce Creek				
	Largemouth bass	80	84 (± 8)	64 (± 11)
	Spotted bass	26	38 (± 19)	12 (± 13)
	Smallmouth bass	9	67 (± 33)	67 (± 33)
Laurel River Arm				
	Largemouth bass	143	69 (± 8)	30 (± 8)
	Spotted bass	51	27 (± 12)	6 (± 7)
	Smallmouth bass	0		
Upper Craigs Creek				
	Largemouth bass	42	74 (± 13)	26 (± 13)
	Spotted bass	66	44 (± 12)	5 (± 5)
	Smallmouth bass	0		
Total				
	Largemouth bass	316	72 (± 5)	39 (± 5)
	Spotted bass	193	38 (± 7)	8 (± 4)
	Smallmouth bass	10	70 (± 30)	60 (± 32)

[a]Largemouth bass = RSD-15, spotted and smallmouth bass = RSD-14
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Table 41. 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 on 7 September 2006; 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		
Laurel River Arm	Largemouth bass	1	12	5	1	6	24	6	11	5	5	4	6	5	1	4	1	97	64.7 (19.0)
	Spotted bass		6	3	3	37	12	3	5		2	1	1					73	48.7 (13.3)

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Table 42. 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.

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
	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 [a]	Laurel River Arm	4.4	0.16	14.0	3.54	3.3	1.61	58.33 [b]	9.2
2006 [a]	Laurel River Arm	3.7	0.14	12.7	4.89	0.7	0.67		

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[a] Age-0 largemouth bass stocked in the fall

[b] Includes bass stocked in the previous fall; CPUE of fin-clipped bass=36.0 f/h

Table 43. Number of fish and mean relative weight (Wr) for each length class of black bass collected at 312 Bridge in Laurel River Lake on 7 September 2006. 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
	27	90 (1.5)	14	96 (3.1)	6	93 (8.1)
	7.0 - 10.9 in.		11.0 - 13.9 in.		≥ 14.0 in.	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	20	109 (2.4)	4	86 (5.6)	0	-

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Table 44. Fishery statistics derived from a daytime creel survey on Laurel River Lake (6,060 acres) from 16 March - 31 October 2006.

Fishing trips	
Number of fishing trips (per acre)	15,110 (2.49)
Average trip length (hours)	3.77
Fishing pressure	
Total man-hours (S.E.)a	57,033 (1,581)
Man hours/acre	9.4
Catch/harvest	
Number of fish caught (S.E.)	50,541 (4,588)
Number of fish harvested (S.E.)	17,192 (1,803)
Pounds of fish harvested	17,097
Harvest rates	
Fish/hour	0.29
Fish/acre	2.84
Pounds/acre	2.82
Catch rates	
Fish/hour	0.90
Fish/acre	8.34
Miscellaneous characteristics (%)	
Male	89
Female	11
Resident	93
Non-resident	7
Method (%)	
Still fishing	19
Casting	62
Trolling	19
Mode (%)	
Boat	98
Bank	2

aS.E. = standard error

Table 45. Fish harvest statistics derived from a daytime creel survey at Laurel River Lake (6,060 acres) from 16 March - 31 October 2006.

	Black bass group	Largemouth bass	Spotted bass	Smallmouth bass	Crappie group	White crappie	Black crappie	Blacknose crappie	Trout Group	Rainbow Trout	Walleye	Catfish group	Channel catfish	Panfish group	Bluegill	Longear sunfish	Redear sunfish	Green sunfish	Common carp	Anything	Illegal bass	Illegal smallmouth bass	Illegal bl. crappie	Illegal walleye
No. caught	28,019	10,251	13,227	4,541	9,343	678	7,031	1,634	4,646	4,646	3,788	384	384	4,042	3,618	155	33	236	80		117	45	28	50
(per acre)	4.62	1.69	2.18	0.75	1.54	0.11	1.16	0.27	0.77	0.77	0.63	0.06	0.06	0.67	0.60	0.03	0.01	0.04	0.01		0.02	0.01	t	0.01
No. harvested	4,138	1,120	2,719	299	3,702	135	3,358	209	3,029	3,029	2,744	300	300	3,040	2,616	155	33	236	0		117	45	28	50
(per acre)	0.68	0.18	0.45	0.05	0.61	0.02	0.55	0.03	0.50	0.50	0.45	0.05	0.05	0.50	0.43	0.03	0.01	0.04	0.00		0.02	0.01	t	0.01
% of total no. harvested	24.1	6.5	15.8	1.7	21.5	0.8	19.5	1.2	17.6	17.6	16.0	1.7	1.7	17.7	15.2	0.9	0.2	1.4	0.0		0.7	0.3	0.2	0.3
Lbs. harvested	6,037	2,695	2,350	992	2,027	46	1,903	78	2,694	2,694	5,180	313	313	650	573	27	8	41	0		159		6	32
(per acre)	1.00	0.44	0.39	0.16	0.33	0.01	0.31	0.01	0.44	0.44	0.85	0.05	0.05	0.11	0.09	0.00	0.00	0.01	0.00		0.03		t	0.01
% of total lbs harvested	35.3	15.8	13.7	5.8	11.9		11.1	0.5	15.8	15.8	30.3	1.8	1.8	3.8	3.4	0.2	t	0.2			0.9	t		0.2
Mean length (in)		16.6	12.4	19.1		9.2	10.3	9.0		13.6	17.7		15.0		7.2	7.3	7.0	6.4			13.8	15.5	8.0	13.0
Mean weight (lb)		2.39	0.83	3.29		0.34	0.58	0.37		1.02	1.80		1.10		0.23	0.21	0.24	0.17			1.32		0.21	0.64
Number of fishing trips for that species	8,624				1,492				915		2,413	49		146						1,470				
Percent of all trips	57.1				9.9				6.1		16.0	0.3		1.0						9.7				
Hours fished for that species	32,553				5,634				3,454		9,109	185		551						5,548				
Hours fished for that species (per acre)	5.37				0.93				0.57		1.50	0.03		0.09						0.92				
Number harvested fishing for that species	3,515				3,427				2,412		2,576	182		1,297										
Lb harvested fishing for that species	5,577				1,918				2,094		4,938	196		239										
No./hr harvested fishing for that species	0.09				0.72				0.70		0.28	0.63		1.68										
Percent success fishing for that species	10.4				46.7				60.9		30.2									22.9				

t < 0.005 fish/hr or < 0.5%

Table 46. Length distribution for each species of fish harvested and released during the day at Laurel River Lake (6,060 acres) during 16 March - 31 October 2006.

	Inch class																			
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	34
Largemouth bass																				
Harvested											224	299	348	124	100	25				
Released					27	27		796	2469	2229	1626	966	712	203	51			25		
Spotted bass																				
Harvested					31	402	93	618	958	340	154	123								
Released		52		387	26	1859	671	4028	2091	1059	232	77	27							
Smallmouth bass																				
Harvested														85	128	43	21	22		
Released						75		75	174	348	821	771	697	617	474	119	70			
Illegal bass																				
Harvested									23	94										
Illegal smallmouth bass																				
Harvested											22	23								
Walleye																				
Harvested											154	647	617	524	493	123		154		32
Released					27			27	214	240	107	161	134	80		27			26	
Illegal walleye																				
Harvested									50											
White crappie																				
Harvested					113	22														
Released		37	243	263																
Black crappie																				
Harvested					1201	1250	294	319	172	74	48									
Released		112	898	2267	110	132		66	22	22	22	22								
Blacknose crappie																				
Harvested					209															
Released			222	1134	69															
Illegal black crappie																				
Harvested				28																
Rainbow Trout																				
Harvested						124	199	819	968	596	149	124	50							
Released						309		595	381	190	95	24	23							
Channel catfish																				
Harvested									109	27	82	27		27	28					
Released									28		28		28							
Bluegill																				
Harvested	32	638	1180	606	128	32														
Released		267	635	67	33															
Longear sunfish																				
Harvested		62	62	31																
Redear sunfish																				
Harvested			33																	
Green sunfish																				
Harvested		101	135																	
Common carp																				
Released														27		53				

Table 47. Black bass catch and harvest statistics derived from a daytime creel survey at Laurel River Lake (6,060 acres) for each species of black bass caught and released by all anglers from 16 March - 31 October 2006.

	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	1,120	5,494	3,583	10,251	2,719	7,178	336	13,227	299	597	3,570	4,541
% of black bass harvested by number	27.1				65.7				7.2			
Total weight of fish (lb)	2,695	6,419	7,510	16,686	2,350	5,343	251	10,173	992	1,018	7,858	9,995
% of black bass harvested by weight	44.6				38.9				16.4			
Mean length (in)	16.6				12.4				19.1			
Mean weight (lb)	2.39				0.83				3.29			
Rate (fish/hour)	0.021			0.283	0.041			0.336	0.006			0.128

Table 48. Monthly black bass angling success at Laurel River Lake (6,060 acres) during the 2006 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
Mar	4,416	260	1,420	5,359	4,348	0.75	225	0.04
Apr	5,820	717	1,489	5,620	5,518	0.81	662	0.10
May	5,087	890	1,513	5,709	5,042	0.77	844	0.13
Jun	3,761	188	1,136	4,290	3,536	0.83	38	0.01
Jul	1,989	398	807	3,046	1,888	0.59	298	0.09
Aug	1,741	817	388	1,464	1,634	0.99	817	0.49
Sep	2,723	571	819	3,090	2,504	0.78	483	0.15
Oct	2,481	297	1,053	3,975	2,162	0.57	148	0.04
Total	28,018	4,138	8,625	32,553	26,632		3,515	
Mean						0.75		0.09

Table 49. Monthly rainbow trout angling success at Laurel River Lake (6,060 acres) during the 2006 daytime creel survey period.

Month	Total no. of rainbow trout caught	Total no. of rainbow trout harvested	Number of trout fishing trips	Hours fished by trout anglers	Rainbow trout caught by trout anglers	Rainbow trout caught/hour by trout anglers	Rainbow trout harvested by trout anglers	Rainbow trout harvested/hour by trout anglers
Mar	1126	606	280	1058	606	0.65	606	0.65
Apr	2,041	1,462	277	1,044	1076	0.94	1076	0.94
May	639	456	110	414	297	0.60	297	0.60
Jun	527	301	85	320	263	0.58	263	0.58
Jul	199	133	94	355	99	0.45	99	0.45
Aug	71	71	16	61	71	1.11	71	1.11
Sep	44	0	0					
Oct	0	0	0					
Total	4,647	3,029	915	3,454	2,412		2,412	
Mean						0.70		0.70

Table 50. Monthly crappie angling success at Laurel River Lake (6,060 acres) during the 2006 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
Mar	3,100	797	175	662	3,030	3.84	797	1.01
Apr	1,352	386	343	1,293	1,159	1.58	276	0.38
May	913	479	197	745	844	1.82	434	0.94
Jun	1,128	639	237	896	1,015	2.16	564	1.20
Jul	133	66	13	51	99	1.07	66	0.71
Aug	36	0	0					
Sep	922	571	164	618	879	1.31	527	0.78
Oct	1,760	763	363	1,369	1,738	1.14	763	0.50
Total	9,344	3,701	1,492	5,634	8,764		3,427	
Mean						1.98		0.72

Table 51. Monthly walleye angling success at Laurel River Lake (6,060 acres) during the 2006 daytime creel survey period.

Month	Total no. of walleye caught	Total no. of walleye harvested	Number of walleye fishing trips	Hours fished by walleye anglers	Walleye caught by walleye anglers	Walleye caught/hour by walleye anglers	Walleye harvested by walleye anglers	Walleye harvested/hour by walleye anglers
Mar	138	0	0					
Apr	414	221	303	1,144	276	0.32	193	0.22
May	616	433	373	1,407	434	0.44	411	0.42
Jun	715	602	458	1,729	602	0.30	564	0.28
Jul	597	497	296	1,117	563	0.57	497	0.50
Aug	355	320	162	610	284	0.53	284	0.53
Sep	571	395	342	1,292	351	0.24	351	0.24
Oct	381	276	445	1,678	339	0.18	276	0.15
Total	3,787	2,744	2,413	9,109	2,849		2,576	
Mean						0.32		0.28

Table 52. Fishery statistics derived from a nighttime creel survey on Laurel River Lake (6,060 acres) from 16 May - 30 August 2006.

Fishing trips	
Number of fishing trips (per acre)	11,815 (1.95)
Average trip length (hours)	4.50
Fishing pressure	
Total man-hours (S.E.)a	53,155 (1,974)
Man hours/acre	8.77
Catch/harvest	
Number of fish caught (S.E.)	31,855 (3,725)
Number of fish harvested (S.E.)	8,293 (1,735)
Pounds of fish harvested	13,062
Harvest rates	
Fish/hour	0.15
Fish/acre	1.37
Pounds/acre	2.16
Catch rates	
Fish/hour	0.59
Fish/acre	5.26
Miscellaneous characteristics (%)	
Male	93
Female	7
Resident	97
Non-resident	3
Method (%)	
Still fishing	5
Casting	68
Trolling	27
Mode (%)	
Boat	100

aS.E. = standard error

Table 53. Fish harvest statistics derived from a nighttime creel survey at Laurel River Lake (6,060 acres) from 16 May - 30 August 2006.

	Black bass group	Largemouth bass	Spotted bass	Smallmouth bass	Crappie group	White crappie	Black crappie	Blacknose crappie	Trout Group	Rainbow Trout	Walleye	Catfish group	Channel catfish	Panfish group	Bluegill	Anything	Illegal bass	Illegal SMB
No. caught	20,027	7,583	8,479	3,966	1,711	47	1,569	95	4,219	4,219	4,781	383	383	688	688		22	24
(per acre)	3.30	1.25	1.40	0.65	0.28	0.01	0.26	0.02	0.70	0.70	0.79	0.06	0.06	0.11	0.11		t	t
No. harvested	507	112	280	115	785	0	738	47	2,872	2,872	3,609	336	336	138	138		22	24
(per acre)	0.08	0.02	0.05	0.02	0.13	0.00	0.12	0.01	0.47	0.47	0.60	0.06	0.06	0.02	0.02		t	t
% of total no. harvested	6.1	1.4	3.4	1.4	9.5	0.0	8.9	0.6	34.6	34.6	43.5	4.1	4.1	1.7	1.7		0.3	0.3
Lbs. harvested	880	287	242	351	431	0	407	25	4,003	4,003	7,045	631	631	41	41		31	
(per acre)	0.15	0.05	0.04	0.06	0.07	0.00	0.07	0.00	0.66	0.66	1.16	0.10	0.10	0.01	0.01		0.01	0.00
% of total lbs harvested	6.7	2.2	1.9	2.7	3.3		3.1	0.2	30.6	30.6	53.9	4.8	4.8	0.3	0.3		0.2	0.2
Mean length (in)		17.0	11.9	18.6			10.2	10.0		15.1	18.2		18.0		8.0		14.0	17.0
Mean weight (lb)		2.56	0.75	3.03			0.57	0.53		1.41	1.96		1.86		0.32		1.39	
Number of fishing trips for that species	7,797				141				880		2,352	187		112		346		
Percent of all trips	66.0				1.2				7.5		19.9	1.6		1.0		2.9		
Hours fished for that species	35,077				635				3,960		10,580	843		505		1,555		
Hours fished for that species (per acre)	5.80				0.10				0.65		1.75	0.14		0.08		0.26		
Number harvested fishing for that species	415				785				2,550		3,351	336						
Lb harvested fishing for that species	779				432				3,610		6,464	630						
No./hr harvested fishing for that species	0.01				1.00				0.72		0.33	0.43						
Percent success fishing for that species	3.3								85.7		52.9	62.5		0.0		58.3		

t < 0.005 fish/hr or < 0.5%

Table 54. Length distribution for each species of fish harvested and released at night at Laurel River Lake (6,060 acres) during 16 May - 30 August 2006.

	Inch class																			
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Largemouth bass																				
Harvested											22	22	22	22	24					
Released				27		27	27	1218	1489	1055	1696	1111	439	175	175	31				
Spotted bass																				
Harvested						51		76	25	76	52									
Released		28		57	57	794	170	3263	2241	936	539	85	29							
Smallmouth bass																				
Harvested														69	23	23				
Released									52	210	393	681	970	729	583	58	87	88		
Illegal bass																				
Harvested										22										
Illegal smallmouth bass																				
Harvested													24							
Walleye																				
Harvested											278	472	722	555	805	389	111	111	139	27
Released									27	160	87	58	203	261	203	29	58	29	29	28
Black crappie																				
Harvested					316	246	35	35	70	36										
White crappie																				
Released				47																
Blacknose crappie																				
Harvested						47														
Released			22		26															
Rainbow Trout																				
Harvested								174	522	348	725	464	319	174	116			30		
Released								437	219		437	182	73							
Channel catfish																				
Harvested										24	48		72	96		48		24	24	
Released													24	23						
Bluegill																				
Harvested			35	69	34															
Released	115	321	69		23	22														

Table 55. Black bass catch and harvest statistics derived from a nighttime creel survey at Laurel River Lake (6,060 acres) for each species of black bass caught and released by all anglers from 16 May - 30 August 2006.

	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	112	3,762	3,627	7,583	280	6,440	653	8,479	115	262	3,588	3,966
% of black bass harvested by number	22.1				55.1				22.8			
Total weight of fish (lb)	287	4,089	7,760	12,223	242	5,318	538	7,012	351	507	8,919	9,777
% of black bass harvested by weight	32.6				27.5				39.9			
Mean length (in)	17.0				11.9				18.6			
Mean weight (lb)	2.56				0.75				3.03			
Rate (fish/hour)	0.003			0.208	0.006			0.227	0.003			0.109

Table 56. Monthly black bass angling success at night at Laurel River Lake (6,060 acres) during the 2006 creel survey period; data does not include black bass < 8.0 inches.

Month	Total no. of bass caught	Total no. of bass harvested	Number of bass fishing trips	Hours fished by bass anglers	Bass caught by bass anglers	Bass caught/hour by bass anglers	Bass harvested by bass anglers	Bass harvested/hour by bass anglers
May	6,489	47	2,650	11,916	6349	0.50		
Jun	5,454	202	1,788	8,044	5364	0.64	156	0.02
Jul	5,476	259	1,822	8,196	5430	0.62	259	0.03
Aug	2,608		1,538	6,921	2557	0.36		
Total	20,027	508	7,798	35,077	19,700		415	
Mean						0.54		0.01

Table 57. Monthly rainbow trout angling success at night at Laurel River Lake (6,060 acres) during the 2006 creel survey period.

Month	Total no. of rainbow trout caught	Total no. of rainbow trout harvested	Number of trout fishing trips	Hours fished by trout anglers	Rainbow trout caught by trout anglers	Rainbow trout caught/hour by trout anglers	Rainbow trout harvested by trout anglers	Rainbow trout harvested/hour by trout anglers
May	2,054	1,074	392	1,765	980	0.73	980	0.73
Jun	853	628	194	872	516	0.68	471	0.62
Jul	776	658	161	726	635	0.76	588	0.70
Aug	537	511	133	597	511	0.88	511	0.88
Total	4,220	2,871	880	3,960	2,642		2,550	
Mean						0.75		0.72

Table 58. Monthly crappie angling success at night at Laurel River Lake (6,060 acres) during the 2006 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
May	1,074	561	98	441	1,028	2.44	561	1.33
Jun	539	224	43	194	470	1.62	224	0.77
Jul	47	0	0					
Aug	51	0	0					
Total	1,711	785	141	635	1,498		785	
Mean						1.96		1.00

Table 59. Monthly walleye angling success at night at Laurel River Lake (6,060 acres) during the 2006 creel survey period.

Month	Total no. of walleye caught	Total no. of walleye harvested	Number of walleye fishing trips	Hours fished by walleye anglers	Walleye caught by walleye anglers	Walleye caught/hour by walleye anglers	Walleye harvested by walleye anglers	Walleye harvested/hour by walleye anglers
May	1,494	1,074	540	2,427	1,074	0.46	1,027	0.44
Jun	1,234	830	646	2,908	853	0.31	741	0.27
Jul	1,081	964	715	3,216	940	0.35	893	0.33
Aug	972	742	451	2,028	716	0.39	690	0.37
Total	4,781	3,610	2,352	10,579	3,583		3,351	
Mean						0.36		0.33

Table 60. Creel management objectives for largemouth, smallmouth, and spotted bass at Laurel River Lake.

	Largemouth bass		Smallmouth bass		Spotted bass	
Year	Annual angler catch of LMB ≥ 15 inches ≥ 2,500	Annual angler catch rate ≥ 0.05 f/h for LMB ≥ 15 inches	Annual angler catch of SMB ≥ 15 inches ≥ 1,000	Annual angler catch rate ≥ 0.03 f/h for SMB ≥ 15 inches	Annual angler catch of SPB ≥ 12 inches ≥ 3,000	Annual angler catch rate ≥ 0.10 f/h for SPB ≥ 12 inches
1993	1,901	0.02	401	0.00	1,243	0.01
1997	3,139	0.13	673	0.03	5,660	0.24
2003*	2,501	0.05	1,291	0.03	1,608	0.03
2006*	4,703	0.14	3,868	0.12	9,707	0.30

* Daytime creel results used

Table 61. Creel management objectives for rainbow trout at Laurel River Lake.

Year	Annual angler catch ≥ 20,000 day and night combined			Rainbow trout catch rate ≥ 0.75 f/hr day or night		Rainbow trout harvest ≥ 2.0 lb/a day and night combined			% Success ≥ 33% day ≥ 50% night	
	Day	Night	Combined	Day	Night	Day	Night	Combined	Day	Night
1993	4,825	38,271	43,096	1.07	0.61	0.36	4.20	4.56	40.7	57.3
1997	1,950	23,507	25,457	0.47	0.91	0.08	2.89	2.97	24.5	75.9
2003	5,900	1,137	7,037	0.95	0.29	0.14	0.05	0.19	29.0	35.9
2006	4,646	4,220	8,866	1.35	1.07	0.44	0.66	1.10	60.9	85.7

Table 62. Creel management objectives for crappie at Laurel River Lake. All values based on daytime creel results.

Year	Crappie harvest ≥ 5,000	Harvest rate ≥ 0.50 f/h
1993	1,974	0.32
1997	1,722	0.47
2003	4,483	0.53
2006	3,702	0.66

Table 63. Creel mangement objectives for walleye from Laurel River Lake. All values based on daytime creel survey results.

Year	20% of harvest ≥ 20 inches	Harvest of 0.35 lb/a	Harvest rate ≥ 0.15 f/h
1993	6.7	0.42	0.09
1997	35.9	0.27	0.07
2003	19.2	0.42	0.22
2006	11.3	0.85	0.30

Table 64. Length frequency and CPUE of largemouth bass collected at Cedar Creek Lake in 3.5 hours (30-min runs) of nocturnal electrofishing on 25 April 2006.

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			
Lower																						
	Largemouth bass	1	5	13	29	18	18	65	58	11	3	4	5	18	17	19	13	7		304	152.0	36.3
Upper																						
	Largemouth bass		1	4	4	9	12	26	7		2	4	5	6	14	14	6	2	1	117	78.0	4.2
Total																						
	Largemouth bass	1	6	17	33	27	30	91	65	11	5	8	10	24	31	33	19	9	1	421	120.3	24.5

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Table 65. PSD and RSD values obtained for largemouth bass taken in spring electrofishing samples in each area of Cedar Creek Lake on 25 April 2006; 95% confidence levels are in parentheses.

Area	No. fish ≥ stock size	PSD	RSD[a]
Lower	238	36 (± 6)	31 (± 6)
Upper	99	55 (± 10)	43 (± 10)
Total	337	42 (± 5)	35 (± 5)

Largemouth bass = RSD_{15}.

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Table 66. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected from each section of Cedar Creek Lake on 25 April 2006. CPUE = fish/hour, number in parentheses are standard errors.

		Inch class					
Year	Area	<8.0	8.0-11.9	12.0-14.9	≥ 15.0	≥ 20.0	Total
2006	Lower	33.0	76.0	6.0	37.0		152.0
		(9.9)	(23.4)	(2.5)	(5.9)		(36.3)
	Upper	12.0	30.0	7.3	28.7	0.7	78.0
		(3.1)	(1.2)	(1.8)	(2.7)	(0.7)	(4.2)
	Total	24.0	56.3	6.6	33.4	0.3	120.3
		(6.9)	(15.6)	(1.5)	(3.7)	(0.3)	(24.5)
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.d06

Table 67. 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 14 September 2006; standard error is in parentheses.

	Inch class																		
Area	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	Total	CPUE
Lower	8	25	16	6	34	66	63	40	33	18	7	3		4	5	1	1	330	165.00 (8.27)
Upper	13	45	41	7	16	60	43	30	22	13	1	1	4	3	5	2		306	204.00 (16.00)
Total	21	70	57	13	50	126	106	70	55	31	8	4	4	7	10	3	1	636	181.71 (10.87)

sedwrccl.d06

Table 68. 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
2006	4.7	0.05	43.7	11.31	17.7	5.28		
2005	4.8	0.06	55.7	9.51	28.0	7.73	23.1	6.69
2004	4.8	0.04	17.4	3.10	12.9		1.7	

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Table 69. Number of fish and mean relative weight (Wr) for each length class of largemouth bass collected in Cedar Creek on 14 September 2006. Standard error is in parentheses.

		Size range					
		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in	
Species	Area	No.	Wr	No.	Wr	No.	Wr
Largemouth bass							
	Lower	200	88 (0.6)	25	92 (2.0)	14	108 (3.1)
	Upper	155	88 (1.0)	14	90 (1.2)	15	103 (3.2)
	Total	355	88 (0.5)	39	91 (1.3)	29	105 (2.2)

sedwrccl.d06

Table 70. Length frequency and CPUE for each species of crappie collected at Cedar Creek Lake in 36 net nights during October 2006.

	Inch class						
Species	6	7	8	9	Total	CPUE	Std. error
White crappie		4	4	2	10	0.28	0.08
Black crappie	27	72	35	4	138	3.83	0.80

sedtnccl.d06

Table 71. PSD and RSD_{10} values calculated for crappie collected in trapnets at Cedar Creek Lake in October 2006; 95% confidence limits are in parentheses.

Species	No. fish > stock size	PSD	RSD_{10}
White crappie	10	60 (± 32)	0
Black crappie	138	28 (± 8)	0

sedtnccl.d06

Table 72. Mean back calculated lengths (in) at each annulus for white crappie collected from Cedar Creek Lake during 2006, including the 95%confidence interval (CI) for each mean length per age group.

		Age		
Year	No.	1	2	3
2003	10	4.8	6.5	7.6
Mean		4.8	6.5	7.6
Number		10	10	10
Smallest		4.0	5.7	6.7
Largest		5.5	7.2	8.7
Std error		0.2	0.2	0.2
95% CI ±		0.3	0.4	0.4

Otoliths were used for age-growth determinations; Intercept = 0
sedagccc.d06

Table 73. Mean back calculated lengths (in) at each annulus for black crappie collected from Cedar Creek Lake during 2006, including the 95%confidence interval (CI) for each mean length per age group.

		Age			
Year	No.	1	2	3	4
2005	1	4.7			
2003	58	4.4	6.0	6.8	
2002	15	3.7	7.1	7.8	8.3
Mean		4.3	6.2	7.0	8.3
Number		74	73	73	15
Smallest		3.0	4.7	5.8	7.9
Largest		5.4	8.1	8.7	9.3
Std error		0.1	0.1	0.1	0.1
95% CI ±		0.2	0.2	0.2	0.2

Otoliths were used for age-growth determinations; Intercept = 0
sedagccc.d06

Table 74. Age-frequency and CPUE of white crappie trap-netted at Cedar Creek Lake in 36 net-nights in October 2006.

	Inch class						Std
Age	7	8	9	Total	%	CPUE	error
3+	4	4	2	10	100.0	0.28	0.08
Total	4	4	2	10	100.0	0.28	
%	40.0	40.0	20.0				

CPUE of > 8 in (quality size) crappie = 0.17
CPUE of > 10 in (preferred size) crappie = 0.0
sedtnccl.d06
sedagccc.d06

Table 75. Age-frequency and CPUE of black crappie trap-netted at Cedar Creek Lake in 36 net-nights in October 2006.

	Inch class							Std
Age	6	7	8	9	Total	%	CPUE	error
1+	1				1	0.7	0.03	0.01
3+	26	72	18	1	117	84.2	3.25	0.68
4+			18	3	21	15.1	0.58	0.14
Total	27	72	36	4	139	100.0	3.86	
%	19.4	51.8	25.9	2.9				

CPUE of > 8 in (quality size) crappie = 1.08
CPUE of > 10 in (preferred size) crappie = 0
sedtnccl.d06
sedagccc.d06

Table 76. Number of fish and mean relative weight (Wr) for each length class of crappie collected in Cedar Creek Lake in October 2006. 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	4	79 (3)	6	81 (2)	0	-
Black Crappie	99	93 (1)	39	93 (1)	0	-

sedtnccl.d06

Table 77. Length frequency and CPUE of largemouth bass collected at Bert T. Combs Lake in 1.5 hours (15-min runs) of nocturnal electrofishing on 19 April 2006.

Species	Inch class																		Total	CPUE	Std. error
	3	4	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22			
Largemouth bass	1	1	1	5	14	31	51	55	29	9	1	2	2	2	3	3	3	1	214	142.7	25.7

sedpsdbc.d06

Table 78. Spring electrofishing catch-per-unit-effort (CPUE) for each size of largemouth bass collected at Bert T. Combs Lake on 19 April 2006. CPUE = fish/hour.

Species	Inch class										Total	
	< 8.0		8.0-11.9		12.0-14.9		≥ 15.0		≥ 20.0			
	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.
Largemouth bass	5.3	1.3	100.7	21.2	25.3	4.3	11.3	2.8	4.7	3.2	142.7	25.7

sedpsdbc.d06

Table 79. PSD and RSD values obtained for largemouth bass taken in spring electrofishing samples in Bert T. Combs Lake on 19 April 2006; 95% confidence levels are in parentheses.

Year	No. fish ≥ stock size	PSD	RSD[a]
2006	206	27 (± 6)	8 (± 4)

Largemouth bass = RSD_{15}.

sedpsdbc.d06

Table 80. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Bert T. Combs Lake during 2006, including the 95% confidence interval (CI) for each mean length per age group.

		Age										
Year	No.	1	2	3	4	5	6	7	8	9	10	11
2004	7	4.8	7.4									
2003	10	4.0	7.2	8.7								
2002	10	4.9	7.7	9.6	10.6							
2001	5	5.1	8.9	10.9	11.8	12.3						
2000	5	4.3	7.6	10.2	11.4	12.1	12.4					
1999	4	4.4	8.3	10.6	11.7	12.5	12.9	13.4				
1998	3	5.0	8.5	10.8	12.1	13.1	13.7	14.3	14.9			
1997	1	4.4	7.2	9.7	11.2	11.9	12.5	13.0	13.2	13.4		
1995	1	4.8	8.6	11.4	12.8	14.3	14.8	15.7	16.0	16.5	17.1	17.4
Mean	46	4.6	7.8	9.9	11.3	12.5	13.0	13.9	14.8	15.0	17.1	17.4
Number		46	46	39	29	19	14	9	5	2	1	1
Smallest		3.0	6.4	7.5	9.8	11.0	11.7	12.0	12.2	13.4	17.1	17.4
Largest		6.9	10.1	12.1	13.3	14.3	14.8	15.8	16.5	16.5	17.1	17.4
Std error		0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.9	1.6		
95% CI ±		0.3	0.3	0.4	0.4	0.5	0.6	1.0	1.7	3.1		

Otoliths were used for age-growth determinations; Intercept = 0
sedagbc.d06

Table 81. Age-frequency and CPUE of largemouth bass collected during 1.5 hours of nocturnal electrofishing at Bert T. Combs Lake in Clay County on the 19 April 2006.

	Inch class																					Std
Age	3	4	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	Total	%	CPUE	error
1	1	1																	2	0.9	1.33	(0.84)
2			1	4	5														10	4.7	6.67	(2.53)
3				1	9	26													36	16.8	24.00	(7.05)
4						5	51	18											74	34.6	49.33	(9.78)
5								28		2									30	14.0	20.00	(3.18)
6								9	15	2									26	12.1	17.33	(3.09)
7									10	2									12	5.6	8.00	(1.45)
8									5		1	2							8	3.7	5.33	(1.54)
9										2									2	0.9	1.33	(0.43)
11													2						2	0.9	1.33	(1.33)
Not aged														2	3	3	3	1	12	5.6	8.00	
	1	1	1	5	14	31	51	55	30	8	1	2	2	2	3	3	3	1	214	100.0	142.67	
%	0.5	0.5	0.5	2.3	6.5	14.5	23.8	25.7	14.0	3.7	0.5	0.9	0.9	0.9	1.4	1.4	1.4	0.5	100.0			

sedpsdbc.d06
sedagbc.d06

Table 82. Population assessment for largemouth bass collected from Bert T. Combs Lake in April 2006.

Parameter	Actual value	Assessment score
Mean age-3 length at capture	8.9	1
Spring CPUE of Age 1 fish	1.3	1
Spring CPUE of 12.0-14.9-in fish	25.3	2
Spring CPUE of ≥ 15.0-in fish	11.3	2
Spring CPUE of ≥ 20.0-in fish	4.7	4
Instantaneous mortality (Z)	0.537	
Annual mortality (A)	41.5	
Total score		10
Assessment rating		F

sedpsdwc.d05

Table 83. Length frequency and CPUE of bluegill collected at Bert T. Combs in 1.0 hours (7.5-min runs) of daytime electrofishing on 17 May 2006.

	Inch class										
Species	1	2	3	4	5	6	7	8	Total	CPUE	Std. error
Bluegill	26	11	4	4	7	13	5	7	77	74.0	23.7

sedbgbc.d06

Table 84. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of bluegill sunfish collected in Bert T. Combs Lake on 17 May 2006. CPUE = fish/hour, number in parentheses are standard errors.

	Inch class				
Species	<3.0	3.0-5.9	6.0-7.9	≥8.0	Total
Bluegill	35.6 (19.2)	14.4 (7.2)	17.3 (6.3)	6.7 (2.3)	74.0 (23.7)

sedbgbc.d06

Table 85. PSD and RSD values obtained for bluegill taken in spring electrofishing samples at Bert T. Combs Lake on 17 May 2006; 95% confidence levels are in parentheses.

Species	No. fish ≥ stock size	PSD	RSD[a]
Bluegill	40	63 (± 15)	18 (± 12)

[a] Bluegill = RSD_8.

sedbgbc.d06

Table 86. Mean back calculated lengths (in) at each annulus for bluegill collected from Bert T. Combs Lake during 2006, 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	8	1.9	3.4						
2003	8	1.7	3.6	5.5					
2002	10	2.3	4.0	5.7	7.3				
2001	1	2.4	4.6	6.0	7.9	8.6			
2000	2	2.2	3.4	5.2	6.9	8.1	8.7		
1998	1	2.6	4.1	5.0	5.8	6.7	7.7	8.2	8.6
Mean		2.1	3.7	5.6	7.2	7.9	8.4	8.2	8.6
Number		30	30	22	14	4	3	1	1
Smallest		1.1	2.6	3.8	5.8	6.7	7.7	8.2	8.6
Largest		3.5	5.3	7.1	8.4	8.6	8.7	8.2	8.6
Std error		0.1	0.1	0.2	0.2	0.4	0.3		
95% CI ±		0.3	0.3	0.4	0.5	0.8	0.7		

Otoliths were used for age-growth determinations; Intercept = 0

sedagbcb.d06

Table 87. Age-frequency and CPUE of bluegill collected during 1.0 hour of electrofishing at Bert T. Combs Lake during May 2006.

	Inch class											Std
Age	1	2	3	4	5	6	7	8	Total	%	CPUE	error
1	26								26	33.3	26.00	
2		11	4	2					17	21.8	17.00	8.56
3				2	7	7			16	20.5	16.00	4.79
4						7	5	3	15	19.2	15.00	4.48
5								1	1	1.3	1.00	0.32
6								2	2	2.6	2.00	0.65
8								1	1	1.3	1.00	0.32
Total	26	11	4	4	7	14	5	7	78	100.0	78.00	
%	33.3	14.1	5.1	5.1	9.0	17.9	6.4	9.0				

sedbgbc.d06
sedagbcb.d06

Table 88. Population assessment for bluegill collected from Bert T. Combs Lake in May 2006.

Parameter	Actual value	Assessment score
Mean length age-2 at capture	3.5	2
Years to 6.0 inches	3-3+	3
Spring CPUE of ≥ 6.0-in fish	24.04	1
Spring CPUE of ≥ 8.0-in fish	6.73	2
Instantaneous mortality (Z)	0.171	
Annual mortality (A)	15.7	
Total score		8
Assessment rating		F

sedbgbc.d06

Table 89. Length frequency and CPUE of largemouth bass collected at Beulah Lake in 1.5 hours (15-min runs) of nocturnal electrofishing on 20 April 2006.

Species	Inch class																Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14	15	19	21	22			
Largemouth bass	1	3	2	16	109	113	15	62	88	5	1	1	1	3	2	1	423	282.0	23.9
Smallmouth bass		1															1	0.7	0.7

sedpsdbl.d06

Table 90. PSD and RSD values obtained for largemouth bass taken in spring electrofishing samples in Beulah Lake on 20 April 2006; 95% confidence levels are in parentheses.

Year	No. fish ≥ stock size	PSD	RSD[a]
2006	292	5 (± 2)	2 (± 2)

[a] Largemouth bass = RSD_{15}.

sedpsdbl.d06

Table 91. Spring electrofishing catch-per-unit-effort (CPUE) for each size of largemouth bass collected at Beulah Lake on 20 April 2006. CPUE = fish/hour.

Year	Inch class											
	< 8.0		8.0-11.9		12.0-14.9		≥ 15.0		≥ 20.0		Total	
	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err
2006	87.3	18.2	185.3	13.3	4.7	1.9	4.7	1.9	2.0	0.9	282.0	23.9

sedpsdbl.d06

Table 92. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Beulah Lake during spring 2006, including the 95 % confidence interval (CI) for each mean length per age group.

		Age					
Year	No.	1	2	3	4	5	6
2004	17	5.8	7.6				
2003	4	5.3	8.5	9.3			
2002	19	5.7	8.3	10.5	11.1		
2001	2	5.9	9.5	10.7	11.4	11.9	
2000	3	5.4	9.3	11.7	13.1	13.8	14.3
Mean	45	5.7	8.2	10.5	11.4	13.1	14.3
Number		45	45	28	24	5	3
Smallest		3.8	6.3	8.9	10.3	11.8	13.1
Largest		7.7	9.8	12.4	13.6	14.5	15.0
Std error		0.1	0.1	0.2	0.2	0.6	0.6
95% CI ±		0.3	0.3	0.3	0.3	1.2	1.2

Otoliths were used for age-growth determinations; Intercept = 0
sedagbl.d06

Table 93. Age-frequency and CPUE of largemouth bass collected during 1.5 hours of nocturnal electrofishing at Beulah Lake in Jackson county on 20 April 2006.

	Inch class																			Std
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	19	21	22	Total	%	CPUE	error
1	1	3	2														6	1.4	4.00	(2.07)
2				16	109	85	6										216	50.9	144.00	(21.76)
3						28	9										37	8.7	24.67	(3.34)
4								62	81	3							146	34.4	97.33	(16.56)
5									7	3							10	2.4	6.67	(1.55)
6											1	1	1				3	0.7	2.00	(1.55)
Not aged														3	2	1	6	1.4	4.00	
Total	1	3	2	16	109	113	15	62	88	6	1	1	1	3	2	1	424	100.0	282.67	
%	0.2	0.7	0.5	3.8	25.7	26.7	3.5	14.6	20.8	1.4	0.2	0.2	0.2	0.7	0.5	0.2	100.0			

sedpsdbl.d06
sedagbl.d06

Table 94. Population assessment for largemouth bass collected from Beulah Lake in April 2006.

Parameter	Actual value	Assessment score
Mean age-3 length at capture	9.4	1
Spring CPUE of Age 1 fish	4.0	1
Spring CPUE of 12.0-14.9-in fish	4.7	1
Spring CPUE of ≥ 15.0-in fish	4.7	2
Spring CPUE of ≥ 20.0-in fish	2.0	3
Instantaneous mortality (Z)	0.785	
Annual mortality (A)	54.4	
Total score		8
Assessment rating		F

sedpsdbl.d06

Table 95. Length frequency and CPUE of bluegill collected at Beulah Lake in 1.25 hours (7.5-min runs) of daytime electrofishing on 19 May 2006.

	Inch class												
Species	0	1	2	3	4	5	6	7	8	9	Total	CPUE	Std. error
Bluegill	171	342	104	28	10	9	6	21	1		692	532.3	130.8
Redear sunfish		2		1						1	4	3.1	1.3

sedbgbl.d06

Table 96. PSD and RSD values obtained for bluegill taken in spring electrofishing samples at Beulah Lake on 19 May 2006; 95% confidence levels are in parentheses.

Area	No. fish ≥ stock size	PSD	RSD[a]
Bluegill	75	37 (± 11)	1 (± 3)

[a] Bluegill = RSD_8.

sedbgbl.d06

Table 97. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of bluegill collected at Beulah Lake on 19 May 2006. CPUE = fish/hour, number in parentheses are standard errors.

	Inch class				
Species	<3.0	3.0-5.9	6.0-7.9	≥8.0	Total
Bluegill	474.6 (123.9)	36.2 (10.5)	20.8 (8.3)	0.8 (0.8)	532.3 (130.8)

sedbgbl.d06

Table 98. Mean back calculated lengths (in) at each annulus for bluegill collected from Beulah Lake during 2006, including the 95% confidence interval (CI) for each mean length per age group.

		Age					
Year	No.	1	2	3	4	5	6
2005	10	2.8					
2004	11	1.4	4.1				
2003	6	2.0	3.9	6.2			
2002	4	2.5	4.3	5.9	7.1		
2001	4	1.8	3.5	5.1	6.7	7.6	
2000	1	1.8	3.5	4.1	4.7	5..9	6.9
Mean		2.1	3.9	5.7	6.7	7.2	6.9
Number		36	26	15	9	5	1
Smallest		0.9	3.0	4.1	4.7	5.9	6.9
Largest		3.3	5.2	6.9	7.4	7.9	6.9
Std error		0.1	0.1	0.2	0.3	0.3	
95% CI ±		0.2	0.3	0.4	0.6	0.7	

Otoliths were used for age-growth determinations; Intercept = 0

sedagblb.d06

Table 99. Age-frequency and CPUE of bluegill collected during 1.25 hours of electrofishing at Beulah Lake during May 2006.

	Inch class											Std
Age	0	1	2	3	4	5	6	7	Total	%	CPUE	error
1	171	342	104	16					633	91.6	506.40	
2				12	10	4			26	3.8	20.80	5.54
3						5	4		9	1.3	7.20	4.26
4							1	9	10	1.4	8.00	2.92
5								12	12	1.7	9.60	3.24
6							1		1	0.1	0.80	0.66
Total	171	342	104	28	10	9	6	21	691	100.0	552.80	
%	24.7	49.5	15.1	4.1	1.4	1.3	0.9	3.0				

sedbgbl.d06
sedagblb.d06

Table 100. Population assessment for bluegill collected from Beulah Lake in May 2006.

Parameter	Actual value	Assessment score
Mean length age-2 at capture	4.5	3
Years to 6.0 inches	3-3+	3
Spring CPUE of ≥ 6.0-in fish	21.54	1
Spring CPUE of ≥ 8.0-in fish	0.77	2
Instantaneous mortality (Z)	0.881	
Annual mortality (A)	58.6	
Total score		9
Assessment rating		F

sedbgbl.d06

Table 101. Length frequency and CPUE of black bass collected at Cannon Creek lake in 2.5 hours (15-min runs) of nocturnal electrofishing on 24 April 2006.

Species	Inch class																	Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	21			
Largemouth bass	1	1	1	1	2	4	5	12	17	5	1	1	1	2	1	1	1	57	22.8	2.6
Spotted bass	3	1	1	2	1	5	13	20	5	1	1	1						54	21.6	4.9
Smallmouth bass		1	1	1		2	4	5	6	1								21	8.4	2.2

sedpsdcc.d06

Table 102. PSD and RSD values obtained for black bass taken in spring electrofishing samples in Cannon Creek Lake on 24 April 2006; 95% confidence levels are in parentheses.

Species	No. fish ≥ stock size	PSD	RSD[a]
Largemouth bass	51	25 (± 12)	12 (± 9)
Spotted bass	47	17 (± 11)	2 (± 4)
Smallmouth bass	18	39 (± 23)	0 (0)

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

sedpsdcc.d06

Table 103. Spring electrofishing catch-per-unit-effort (CPUE) for each size of black bass collected at Cannon Creek Lake on 24 April 2006. CPUE = fish/hour.

	Inch class											
	< 8.0		8.0-11.9		12.0-14.9		≥ 15.0		≥ 20.0		Total	
Species	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err
Largemouth bass	2.4	1.1	15.2	2.1	2.8	0.9	2.4	0.9	0.4	0.4	22.8	2.6

	< 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	3.2	1.4	15.2	3.3	2.8	1.0	0.4	0.4	21.6	4.9

	< 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.
Smallmouth bass	1.2	0.9	4.4	1.3	2.8	1.2	0.0	0.0	8.4	2.2

sedpsdcc.d06

Table 104. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Cannon Creek Lake during spring 2006, including the 95% confidence interval (CI) for each mean length per age group.

		Age			
Year	No.	1	2	3	4
2005	2	6.0			
2004	15	5.3	9.1		
2003	6	5.3	9.9	11.2	
2002	8	6.5	10.7	12.3	13.0
Mean	31	5.7	9.7	11.8	13.0
Number		31	29	14	8
Smallest		4.0	7.1	11.0	11.9
Largest		8.1	11.7	13.5	15.0
Std error		0.2	0.2	0.2	0.4
95% CI ±		0.4	0.4	0.5	0.9

Otoliths were used for age-growth determinations; Intercept = 0
sedagcc.d06

Table 105. Age-frequency and CPUE of largemouth bass collected during 2.5 hours of nocturnal electrofishing at Cannon Creek Lake in Bell County on the 24 April 2006.

	Inch class																			Std
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	21	Total	%	CPUE	error
1	1	1	1	1														4	7.0	1.60	(0.88)
2					2	4	5	12										23	40.4	9.20	(2.39)
3									15									15	26.3	6.00	(1.03)
4									2	5	1	1	1					10	17.5	4.00	(1.18)
Not aged														2	1	1	1	5	8.8	2.00	
Total	1	1	1	1	2	4	5	12	17	5	1	1	1	2	1	1	1	57	100.0	22.80	
%	1.8	1.8	1.8	1.8	3.5	7.0	8.8	21.1	29.8	8.8	1.8	1.8	1.8	3.5	1.8	1.8	1.8	100.0			

sedpsdcc.d06
sedagcc.d06

Table 106. Population assessment for largemouth bass collected from Cannon Creek Lake in April 2006.

Parameter	Actual value	Assessment score
Mean age-3 length at capture	11.2	3
Spring CPUE of Age 1 fish	1.6	1
Spring CPUE of 12.0-14.9-in fish	2.8	1
Spring CPUE of ≥ 15.0-in fish	2.4	1
Spring CPUE of ≥ 20.0-in fish	0.4	1
Instantaneous mortality (Z)	0.416	
Annual mortality (A)	34.1	
Total score		7
Assessment rating		P

sedpsdcc.d06

Table 107. Length frequency and CPUE of largemouth bass collected at Chenoa Lake in 1.25 hours (15-min runs) of nocturnal electrofishing on 24 April 2006.

Species	Inch class																Total	CPUE	Std. error
	6	7	8	9	10	11	12	13	14	15	16	17	18	21	22	23			
Largemouth bass	14	21	8	6	13	28	39	34	12	8	2	4	3	1	2	1	196	156.8	19.8

sedpsdcl.d06

Table 108. PSD and RSD values obtained for largemouth bass taken in spring electrofishing samples in Chenoa Lake on 24 April 2006; 95% confidence levels are in parentheses.

Year	No. fish ≥ stock size	PSD	RSD[a]
2006	161	66 (± 7)	13 (± 5)

Largemouth bass = RSD_{15}.

sedpsdcl.d06

Table 109. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of largemouth bass collected at Chenoa Lake on 24 April 2006. 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
2006	28.0	12.8	44.0	5.7	68.0	9.6	16.8	3.4	3.2	1.5	156.8	19.8

sedpsdcl.d06

Table 110. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Chenoa Lake during spring 2006, including the 95% confidence interval (CI) for each mean length per age group.

		Age									
Year	No.	1	2	3	4	5	6	7	8	9	10
2004	33	3.9	7.3								
2003	9	3.7	8.0	10.0							
2002	13	4.5	7.7	10.3	11.6						
2001	16	3.8	7.6	9.7	11.2	12.2					
2000	8	4.3	8.2	11.0	12.1	13.1	14.0				
1999	6	5.1	9.5	11.7	13.2	14.1	14.8	15.4			
1998	4	3.8	7.9	10.7	12.1	13.1	13.7	14.1	14.6		
1997	2	4.9	8.4	10.8	12.4	13.1	14.3	15.0	15.9	16.4	
1996	1	5.3	7.9	9.8	11.8	13.0	13.7	14.3	14.7	15.3	15.7
Mean	92	4.1	7.8	10.4	11.8	12.9	14.2	14.9	15.0	16.0	15.7
Number		92	92	59	50	37	21	13	7	3	1
Smallest		2.8	6.0	7.6	8.9	9.9	12.1	12.2	12.4	14.8	15.7
Largest		6.8	11.4	13.4	14.2	15.5	16.0	16.9	17.4	18.0	15.7
Std error		0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.7	1.0	
95% CI ±		0.2	0.3	0.3	0.3	0.4	0.5	0.9	1.4	2.0	

Otoliths were used for age-growth determinations; Intercept = 0
sedagcl.d06

Table 111. Age-frequency and CPUE of largemouth bass collected during 1.25 hours of nocturnal electrofishing at Chenoa Lake in Bell county on the 24 April 2006.

	Inch class																			Std
Age	6	7	8	9	10	11	12	13	14	15	16	17	18	21	22	23	Total	%	CPUE	error
2	14	21	8	2													45	22.8	36.00	(14.73)
3				3	7												10	5.1	8.00	(1.65)
4					6	13	13	3									35	17.8	28.00	(3.18)
5				1		15	20	14									50	25.4	40.00	(4.52)
6								11	7	2							20	10.2	16.00	(2.49)
7								3	2	3	2						10	5.1	8.00	(1.95)
8							7	3		2		4					16	8.1	12.80	(2.02)
9									2				3				5	2.5	4.00	(1.69)
10										2							2	1.0	1.60	(0.60)
Not aged														1	2	1	4	2.0	3.20	
Total	14	21	8	6	13	28	40	34	11	9	2	4	3	1	2	1	197	100.0	157.60	
%	7.1	10.7	4.1	3.0	6.6	14.2	20.3	17.3	5.6	4.6	1.0	2.0	1.5	0.5	1.0	0.5	100.0			

sedpsdcl.d06
sedagcl.d06

Table 112. Population assessment for largemouth bass collected from Chenoa Lake in April 2006.

Parameter	Actual value	Assessment score
Mean age-3 length at capture	10.1	2
Spring CPUE of Age 1 fish	0.0	0
Spring CPUE of 12.0-14.9-in fish	68.0	4
Spring CPUE of ≥ 15.0-in fish	16.8	2
Spring CPUE of ≥ 20.0-in fish	3.2	3
Instantaneous mortality (Z)	0.425	
Annual mortality (A)	34.6	
Total score		11
Assessment rating		F

sedpsdcl.d06

Table 113. Length frequency and CPUE of black bass collected at Lake Linville in 1.5 hours (15-min runs) of nocturnal electrofishing on 20 April 2006.

Species	Inch class																	Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20			
Largemouth bass	1	1	3	6	4	21	21	14	15	11	17	5	2	3	1	5	4	134	89.3	11.2
Spotted bass	1		7	16	12	17	20	16	5	5	5	3						107	71.3	14.5
Smallmouth bass						1												1	0.7	0.7

sedpsdll.d06

Table 114. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of largemouth bass collected at Lake Linville on 20 April 2006. CPUE = fish/hour.

Year	Inch class											
	< 8.0		8.0-11.9		12.0-14.9		≥ 15.0		≥ 20.0		Total	
	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err.	CPUE	Std. Err
2006	10.0	2.5	47.3	12.6	22.0	4.0	10.0	2.3	2.7	1.3	89.3	11.2

sedpsdll.d06

Table 115. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of spotted bass collected at Lake Linville on 20 April 2006. CPUE = fish/hour.

	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.
2006	24.0	7.0	35.3	7.1	10.0	2.7	2.0	1.4	71.3	14.5

sedpsdll.d06

Table 116. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Lake Linville on 20 April 2006; 95% confidence limits are in parentheses.

Species	No. fish > stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Largemouth bass	119	40 (± 9)	13 (± 6)
Spotted bass	83	22 (± 9)	4 (± 4)

[a]Largemouth bass = RSD-15, spotted bass = RSD-14
sedpsdll.d06

Table 117. 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 on 19 September 2006; standard error is in parentheses.

	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	52	63	14	27	63	42	18	12	7	7	2	1	1	1	2	1	315	210.0 (54.4)
Spotted bass	19	61	30	40	50	32	37	29	13	5	3	3						322	214.7 (40.5)
Smallmouth bass		4	3	1	1		1											10	6.7 (3.0)

sedyoyll.d06

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) in electrofishing samples at Lake Linville.

	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
2005	4.4	0.16	20.7	9.82	6.0	2.00	6.5	1.4
2006	5.1	0.05	84.0	33.5	48.0	19.8		

sedyoyll.d06

Table 119. Number of fish and mean relative weight (Wr) for each length class of black bass collected in Lake Linville on 19 September 2006. 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
	43	88 (1.3)	16	85 (2.1)	6	91 (3.6)
	7.0 - 10.9 in.		11.0 - 13.9 in.		≥ 14.0 in.	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	45	91 (1.7)	13	87 (1.7)	3	81 (3.9)

sedyoyll.d06

Table 120. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 3.0 hours of 15-minute nocturnal electrofishing runs for black bass in Wood Creek Lake on 26 April 2006; 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	20	21	22		
Dam	Largemouth bass			1	4	8	2	4	1	1		4	3	1		1	1					31	31.00 (7.19)
	Spotted bass	1		6	3	2	4	7	5	4	7	2	2	1								44	44.00 (14.24)
	Smallmouth bass				1																	1	1.00 (1.00)
Pump Station	Largemouth bass		2	1	8	22	5	5	4	6	1		4	9	3	7	3		1			81	81.00 (17.54)
	Spotted bass			6	6	4	8	2	6	5	3	1	1	1								43	43.00 (3.00)
	Smallmouth bass						1					1					1					3	3.00 (1.91)
Dock	Largemouth bass		3	15	15	12	16	9	11	9	4	7	7	8	7	4	6	6	2	1	2	144	144.00 (29.44)
	Spotted bass		1	2	6	4	2	4	4	5	3	1	5									37	37.00 (13.00)
	Smallmouth bass																					0	0.00 (0.00)
Total	Largemouth bass		5	17	27	42	23	18	16	16	5	11	14	18	10	12	10	6	3	1	2	256	85.33 (17.49)
	Spotted bass	1	1	14	15	10	14	13	15	14	13	4	8	2								124	41.33 (5.96)
	Smallmouth bass				1		1					1					1					4	1.33 (0.75)

sedpsdwc.d06

Table 121. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Wood Creek Lake on 26 April 2006; 95% confidence limits are in parentheses.

Area	Species	No. fish > stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Dam				
	Largemouth bass	18	56 (± 24)	17 (± 18)
	Spotted bass	34	47 (± 17)	9 (± 10)
Pump Station				
	Largemouth bass	48	58 (± 14)	48 (± 14)
	Spotted bass	31	35 (± 17)	6 (± 9)
Dock				
	Largemouth bass	99	55 (± 10)	36 (± 10)
	Spotted bass	28	50 (± 19)	18 (± 14)
Total				
	Largemouth bass	165	56 (± 8)	38 (± 7)
	Spotted bass	93	44 (± 10)	11 (± 6)

[a]Largemouth bass = RSD-15, spotted bass = RSD-14
sedpsdwc.d06

Table 122. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of largemouth bass collected at Wood Creek Lake during April 2006. 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
2006	30.3	7.0	24.3	6.2	10.0	2.1	20.7	5.0	2.0	1.0	85.3	17.5
2005	4.0	2.0	14.4	3.6	28.0	4.4	12.8	2.3	0.0	0.0	59.2	9.3

sedpsdwc.d06

Table 123. Spring electrofishing catch-per-unit-effort (CPUE; fish/hour) for each size of spotted bass collected at Wood Creek Lake during April 2006.

	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.
2006	13.7	2.7	14.0	2.8	10.3	2.2	3.3	1.0	41.3	6.0
2005	8.8	2.9	13.6	5.5	15.2	2.8	4.4	1.3	42.0	10.2

sedpsdwc.d05

Table 124. Species composition, relative abundance, and CPUE (no./hr.) of black bass collected during 3.0 hours of 15-minute nocturnal electrofishing runs for black bass in Wood Creek Lake on 11 September 2006; 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		
Dam	Largemouth bass					1	1	1	5	4		3	2		1				18	18.00 (3.46)
	Spotted bass		1	3	2	3	10	11	7	3	2			1					43	43.00 (11.00)
	Smallmouth bass			2	1		1												4	4.00 (2.83)
	Walleye																		0	0
	White Bass																		0	0
Pump Station	Largemouth bass	1	2	2	1	1	3	2	11	4		2			1		2		32	32.00 (7.12)
	Spotted bass	2	10	2	8	7	8	8	7		1	2	1			1			57	57.00 (5.74)
	Smallmouth bass																		0	0
	Walleye								1	1	2	1							5	5.00 (3.00)
	White Bass																		0	0
Dock	Largemouth bass			4	1	1	7	20	21	7	1	3	2	2	1	4		1	75	75.00 (22.29)
	Spotted bass		2	4	4	12	13	5	2	1	2	1							46	46.00 (16.12)
	Smallmouth bass																		0	0
	Walleye					1				2	6								9	9.00 (3.00)
	White Bass							1											1	1.00 (1.00)
Total	Largemouth bass	1	2	6	2	3	11	23	37	15	1	8	4	2	3	4	2	1	125	41.67 (10.22)
	Spotted bass	2	13	9	14	22	31	24	16	4	5	3	1	1		1			146	48.67 (6.40)
	Smallmouth bass			2	1		1												4	1.33 (1.02)
	Walleye					1			1	3	8	1							14	4.67 (1.69)
	White Bass							1											1	0.33 (0.33)

sedyoywc.d06

Table 125. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall (September and October) electrofishing samples at Wood Creek Lake.

	Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
Year Class	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2004	4.2	0.13	17.9	4.78	4.3	1.46	2.4	1.22
2005	4.0	0.09	23.7	11.90	3.3	1.38	11.8	4.37
2006	4.4	0.27	3.7	1.74	0.7	0.45		

sedyoywc.d06

Table 126. Number of fish and mean relative weight (Wr) for each length class of black bass collected at Wood Creek Lake during 11 September 2006. Standard error is in parentheses.

	Size range					
Species	8.0 - 11.9 in.		12.0 - 14.9 in.		≥ 15.0 in.	
	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	61	88 (1.0)	14	85 (2.7)	10	89 (3.0)
	7.0 - 10.9 in.		11.0 - 13.9 in.		≥ 14.0 in.	
	No.	Wr	No.	Wr	No.	Wr
Spotted bass	69	97 (1.1)	9	92 (4.1)	2	107 (14.3)

sedyoywc.d06

EASTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Buckhorn Lake

The muskellunge population was sampled by daytime electrofishing in February 2006. Length frequency, catch-per-unit-effort (CPUE), and population assessment are shown in Tables 1–2. During 2003, a 40 inch length limit, one fish daily limit was implemented for muskellunge at Buckhorn Lake (1,230 acres). Since this time the CPUE of fish $\geq$ 30 inches has quadrupled and the CPUE of fish of fish < 30 in has doubled. The $\log_{10}$ length-weight equation for muskellunge was $-4.30 + 3.48(\log_{10}$ length). Muskellunge also provide a significant fishery in the tailwater area of Buckhorn Lake. During 2007 muskellunge will be sampled in the spring.

The black bass populations were sampled during the spring and fall (Tables 3-9). Largemouth bass comprise the major black bass species in this lake. Spotted bass are present with greatest numbers in the lower lake. Smallmouth bass do occur in the lake, but are rare in samples. Due to low recruitment of age-0 to age-1 fish, largemouth bass (4.0 inch) were supplementally stocked in October of 2005 and 2006. Fish stocked in 2005 received a right pectoral clip and those stocked in 2006 received a left pectoral clip for future identification. The $\log_{10}$ length-weight equation for largemouth bass was $-3.40+ 3.07(\log_{10}$ length). During 2007 black bass will be sampled in the spring and fall.

Trap netting was completed for white crappie in November (Tables 10-14). The majority of fish sampled were ages 1 – 2 (Table 13). The population assessment score of 17 was the highest since 2003 (Table 14). However, the mean length of age-2 fish at capture at 7.1 inches was the lowest value seen since 2003. During 2007, a 9 inch length limit will be implemented for crappie at Buckhorn Lake. To evaluate this regulation's effect on the crappie population, fall trap netting and age and growth information will be collected every year. White crappie are the most popular sport fish with anglers at this lake.

Carr Creek Lake

The black bass population was sampled during April and September at this 710 acre lake. Tables 15-22 provide data from the spring and fall sampling. Total CPUE of largemouth bass $\geq$ 15 inches was at its highest value since 2002 (Table 16), while the total CPUE of age-0 largemouth bass was its lowest since 2003 (Table 22). During the fall of 2005 and 2006 largemouth bass (4.0 inch) were stocked to supplement low recruitment numbers of age-0 to age-1 fish. Fish stocked in 2005 received a right pectoral clip and those stocked in 2006 received a left pectoral clip for future identification. Fertilizer is applied at this lake in the spring to assist with growth and recruitment of age-0 to age-1 fish. The $\log_{10}$ length-weight equation for largemouth bass was $-3.01+2.67(\log_{10}$ length), spotted bass $-3.45+3.09(\log_{10}$ length), and smallmouth bass $-3.76 + 3.42(\log_{10}$ length). Black bass will be sampled again in the spring and fall of 2007.

Walleye sampling was conducted during March with electrofishing. Tables 23–25 list length frequency, CPUE, population assessment, and relative weights for walleye. The CPUE of walleye has gradually increased from 2000 and population assessments have been "Good" to "Excellent" with a "Good" rating in 2006 (Tables 23-24). In 2004 there was a fish kill of up to 100+ adult walleye at Carr Creek Lake and in 2005 a fish kill of large adult alewife. Neither fish kill has impacted the CPUE of larger walleye. Mean relative weights are near 100 for all size groups of walleye examined (Table 25). The $\log_{10}$ length-weight equation for walleye was $-3.85+3.33(\log_{10}$ length). During 2007 walleye will be sampled again in the spring.

Black and white crappie were sampled with trap nets in the fall of 2006 (Tables 26-28). Since crappie were collected in very low numbers, only CPUE, length frequency, and age and growth are presented. Spring electrofishing will be attempted in 2007 to try and improve collection efforts.

A daytime creel survey was conducted at Carr Creek Lake from 6 April to 31 October 2006. Each survey day consisted of 6 hours on the lake. Dates, times (2 periods=morning or afternoon), and order of surveys were randomized. Total angler counts were conducted at the middle of a survey period and the lake was treated as one area. Data obtained is presented in Tables 29–35.

The number of fishing trips and angler hours were lower than the last creel survey in 1997. However, the survey in 1997 (2 March-1 November) was over a slightly longer time period (approximately 1.1 months longer) than the survey in 2006. In addition, the 1997 survey may have included some nighttime survey hours. Nocturnal fishing from mid-May to mid-September is preferred by anglers at this lake. Both time periods of the 2006 survey were run during daytime hours. The 2006, total fishing trips and angler hours were 1,291 and 6,647 in 2006 (Table 29) and 26,665 and 95,093 in 1997, respectively. Angler success rates at Carr Creek Lake during 2006 were 0.8% for black bass, 35.7% for crappie, and 32.4% for walleye (Table 30). During the 1997 survey, angler success rates were 4.1% for black bass, 51.2% for crappie, and 19.4% for walleye. Largemouth bass were the most numerous fish caught during the 2006 survey (Tables 30-31).

An angler attitude survey was conducted at the lake to obtain further information. Anglers were asked to answer a series of questions regarding the fishery at Carr Creek Lake (Appendix A). Anglers were surveyed throughout the creel during 2006 with anglers only being asked the questions once. A total of 183 surveys were completed during the lake creel. Black bass at 61.3% (N=111) were the most popular species fished for on the lake followed by walleye at 16.0% (N=29), crappie at 14.0% (N=27), catfish at 2.8% (N=5), and bluegill at 1.7% (N=3). Angler fishing satisfaction of somewhat satisfied to very satisfied was 95.2% for black bass, 58.8% for crappie, 100.0% for channel catfish, and 93.9% for hybrid striped bass.

Cranks Creek

Bluegill were sampled at Cranks Creek Lake (220 acres) during the spring with age and growth data collected to establish an assessment rating of the fishery (Tables 36-41). This lake is very low in fertility and has had periodic problems with low pH. Collected bluegill exhibited slower growth and a lower CPU than fish sampled in other lakes in the district. However, the assessment rating was "Fair" and is similar to some other bluegill fisheries in the district.

Future sampling will be conducted every other year for bluegill to monitor the fishery. In years when bluegill aren't sampled, the black bass population will be assessed. Additional concerns at this lake are possible aquatic vegetation control and random stockings of various sport fish by local residents. Due to the very clear water, various aquatic plant species can grow to nuisance levels in the lake. Monitoring of the aquatic vegetation will continue. Fisheries and law enforcement staff will continue to provide guidance to public on fish stockings and possible management implications.

Dewey Lake

Black bass were sampled at Dewey Lake (1,100 acres) during the spring and fall of 2006 (Tables 42–48). The largemouth bass assessment score has gradually decreased from 13 in 2003 to 11 in 2006 (Table 46). Large fish CPUE's have remained good, but the CPUE's of age-0 and 12-14.9 inch fish have decreased somewhat. Bass tournaments continue to be numerous at the lake and anglers are satisfied with the fishery, but are concerned about the number of tournaments and future implications. The $\log_{10}$ length-weight equation for largemouth bass was – 3.60+ 3.27($\log_{10}$ length) and for spotted bass was – 4.13+3.80($\log_{10}$ length). A revised lake management plan will be written and future data can be compared to the management goals.

Fall trap netting was conducted for black and white crappie for CPUE, length frequency, and PSD data (Tables 49-50). The black and white crappie populations have always consisted of high numbers of fish < 8 inches since the lake was impounded in 1950. Data collected in 2006 exhibited the same high numbers of fish < 8 inches as in past sampling. No age and growth was taken from black or white crappie. Assessment ratings are typically "Poor" for black crappie and "Fair" to "Good" for white crappie.

White bass were sampled by electrofishing in March and by gillnets in November. 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. White bass (1.5 inch) are currently being stocked in June of each year in the lake.

Fishpond

Fishpond Lake (32 acres) was sample in May 2006 for largemouth bass. The largemouth bass fishery continues to do well and provides a popular night-time fishery for anglers. Data collected can be found in Tables 51-53. The total CPUE of largemouth bass continues to remain at a high level (Table 52) and the PSD value of 60 (Table 53) is in the recommended range of 45-65 for management of a bluegill/bass fishery. Additional management at Fishpond entails fertilization of the lake during the spring to provide increased zooplankton density for young-of-year fishes. A total of 5,000 rainbow trout (8 inch) are stocked annually during January, April, May, and October. Channel catfish (9 inch) are stocked every other year. Scheduled sampling for 2007 will include CPUE of bluegill and warmouth and age and growth of bluegill.

Fishtrap Lake

At Fishtrap Lake (1,143 acres), black bass were sampled in the spring and fall. Both largemouth and smallmouth bass are doing well and provide quality fish for anglers. However, with the large changes in pool elevation due to the lake's primary purpose of flood control, anglers often have poor success for black bass. Data from sampling is shown in Tables 54–60. The population assessment rating for largemouth bass continues to remain "Good" (Table 57). Numbers of largemouth bass > 15 inches is down some, but numbers < 15 inches appear good (Table 55). In 2007 age and growth data will be taken for smallmouth bass to allow for assessment of their population. The $\log_{10}$ length-weight equation for largemouth bass was $-3.27+2.90(\log_{10}$ length), smallmouth bass $-3.65+3.27$, and spotted bass $-3.85+3.51(\log_{10}$ length).

A daytime (8 April-28 October) creel survey was conducted at Fishtrap Lake from 8 April to 28 October 2006. Each survey day consisted of 6 hours on the lake. Dates, times (2 periods=morning or afternoon), and order of surveys were randomized. Total angler counts were conducted at the middle of a survey period and the lake was treated as one area. Data obtained is presented in Tables 61–67.

The number of fishing trips and angler hours in 2006 were lower than the last creel survey in 1995. However, the survey in 1995 (26 February-4 November) was over a slightly longer time period (approximately 1.5 months longer) than the survey in 2006. Total fishing trips and angler hours were 4,602 and 23,700 in 2006 (Table 61) and 20,801 and 81,248 in 1995, respectively. Angler success rates at Fishtrap Lake during 2006 were 5.3% for black bass, 51.5% for white crappie, and 22.2% for hybrid striped bass (Table 62). During the 1995 survey, angler success rates were 6.3% for black bass, 56.9% for white crappie, and 14.2% for hybrid striped bass. White crappie were the most numerous fish caught during the 2006 survey (Tables 62-63).

An angler attitude survey was conducted at the lake to obtain further information. Anglers were asked to answer a series of questions regarding the fishery at Fishtrap Lake (Appendix B). Anglers were surveyed throughout the creel during 2006 with anglers only being asked the questions once. A total of 543 surveys were completed during the lake creel. Black bass at 40.7% (N=215) were the most popular species fished for on the lake followed by white crappie at 30.7% (N=162), catfish at 10.0% (N=53), bluegill at 9.5% (N=50), and hybrid striped bass at 5.7% (N=30). Level of fishing satisfaction was asked for several fish groups or species and all categories exceeded 50.0% being somewhat satisfied to very satisfied. Angler fishing satisfaction of somewhat satisfied to very satisfied was 60.6% for black bass, 79.4% for white crappie, 73.2% for channel catfish, 69.2% for flathead catfish, and 54.8% for hybrid striped bass.

A lake management plan has been written for Fishtrap Lake and contains management objectives for largemouth and smallmouth bass, white crappie, and hybrid striped bass. During 2006, largemouth bass exceeded one objective (Objective 2, spring CPUE assessment score "3" at "4"), met two objectives (Objective 1, mean age-3 length at capture assessment score "4"; and Objective 3, spring CPUE 12-14.9 in assessment score "3"), and failed to meet four objectives (Objective 4, spring CPUE $\geq$ 15 in assessment score "2" at "1"; Objective 5, spring CPUE $\geq$ 20 in assessment score "2" at "1"; Objective 6, total angler catch $\geq$ 3,303 fish $\geq$ 12 in at 2,447 fish; and Objective 7, annual angler catch $\geq$ 716 fish $\geq$ 15 in at 374 fish).

Smallmouth bass exceeded three objectives (Objective 5, spring CPUE ≥ 17 in assessment score "3" at "4"; Objective 6, total annual angler catch ≥ 185 fish ≥ 12 in at 263 fish; and Objective 7, total annual angler catch ≥ 43 fish ≥ 15 in at 57 fish), met two objectives (Objective 3, spring CPUE 11-13.9 in assessment score "3"; Objective 4, spring CPUE ≥ 14.0 in assessment score "3") and could not be evaluated on two objectives (Objectives 1-2, no age and growth data). White crappie exceeded one objective (Objective 7, harvest rate of ≥ 1.0 fish/hour by crappie anglers at 1.1 fish/hour), failed to meet one objective (Objective 6, annual harvest rate ≥ 4.0 lb/acre by crappie anglers at 2.2 lb/acre), and could not be evaluated on 5 objectives (Objectives 1-5, no fall trap net data). Hybrid striped bass failed to meet two objectives (Objective 5, annual angler total catch ≥ 800 fish ≥ 15 in at 573 fish; and Objective 6, angler yield ≥ 1.0 lb/acre at 0.71 lb/acre) and could not be evaluated on four objectives (Objectives 1-4, no fall gill net data).

Martin County Lake (Milo Lake)

In April, largemouth bass were sampled at this 3 acre lake. Tables 68-70 contain data collected from daytime electrofishing. Numbers of fish through 13 inches was good. The length limit for largemouth bass at this lake is 12 inches and is a primary factor in the lower numbers of large fish. A PSD of 67.2 (Table 70) was observed and is approximately in the desired range of 45-65 for bass in a bluegill/bass fishery. This lake is fertilized during the spring to assist with the management of the lake. During 2007 bluegill and redear sunfish will be sampled and age and growth will be sampled.

Martin County Reservoir

During the fall of 2000 this 23 acre reservoir was impacted greatly by the Martin County Coal Company slurry spill. The reservoir was forced to be sole source of water supply for Martin County and within 3 weeks was pumped nearly dry. Most all fish were lost and the lake had to rebuild fish numbers. The lake is finally producing some harvestable sizes of bluegill, crappie, largemouth bass, and channel catfish. In 2005 rainbow trout were stocked into the reservoir as a put-take fishery. This management continues with a total of 4,500 rainbow trout stocked annually during April, May, and October. Other regular stockings are channel catfish on an every other year rotation.

Sampling at this lake is conducted for bluegill and largemouth bass. On 3 May 2006 the largemouth bass were sampled via daytime electrofishing. Length frequency and CPUE is presented in Table 71. The length frequency is representative of bass populations in small lakes in the eastern district. Distribution and numbers are good up to the 12 inch length limit. Total CPUE during 2006 was comparable to 2004 and some fish up to sixteen inches were available in 2006 (Table 72). A PSD value of 48.9 was observed for the largemouth bass, which fits in the recommended range of 45-65 for a balanced bass and bluegill fishery. With reestablishment of sport fish populations, future sampling will look at age and growth of bass and bluegill in this lake.

Martins Fork Lake

Martins Fork Lake (330 acres) was sampled for black bass in the spring and fall and for walleye in the spring. Walleye numbers continue to decrease with the elimination of their annual stocking. The largemouth bass population remains stable with assessment scores similar to recent years. In 2006, largemouth bass ≥ 15 inches were at their highest level since 2003. The smaller coosa bass (redeye bass) continues to maintain a viable population in the lake. However, the black bass fishery is dominated in numbers by largemouth bass and spotted bass. Tables 74-80 contain further information on black bass and walleye sampling at Martins Fork Lake. No relative weights are presented for the fall sampling of black bass as weights were not taken.

The trout fishery in Martins Fork tailwater remains popular with anglers. Occasionally, walleye are also caught in this area. A new lake management plan will be finalized in the future. Objectives from this plan will be referenced with sampling data to see if management goals are being met.

Paintsville Lake

During 2006, black bass were sampled in both the spring and fall (Tables 81 – 89). In 2002, a 12-15 inch protective slot length limit was implemented on largemouth and smallmouth bass. In 2006, smallmouth bass were removed from this regulation and placed under an 18 inch minimum length limit. During the last couple of seasons, anglers have begun to harvest bass less than 12 inches at a high enough rate to make the regulation work at its management objective. Age-1 largemouth bass CPUE during 2006 was at its lowest level since 2000 (Table 85). Water quality parameters have prevented the smallmouth bass population from developing a good fishery in the 1,150 acre lake. The $\log_{10}$ length-weight equation for largemouth bass was – 3.56+ 3.17($\log_{10}$ length) and for spotted bass was – 3.74+3.40($\log_{10}$ length).

During 2006, the method of summer-time water discharges were changed to prevent the loss of the cool water habitat preferred by smallmouth bass, trout, and walleye. This sustained the cool water habitat during 2006 and is expected to provide similar results in future years. This will also aid in regenerating the good trout and walleye fisheries once present in the late 1980's to early 1990's. The lake receives an annual stocking of approximately 18,000 rainbow trout (8 inch) in January and approximately 30,000 walleye fry (1.5 inch) in May. Additional popular fisheries are the brown and rainbow trout fisheries found in the tailwater area below the dam.

No other species were sampled during 2006. Black bass will be sampled via electrofishing during the spring and fall of 2007. Consideration will be given to removal of largemouth bass from the protective slot length limit with review of additional data. A revised lake management plan will be written and future data can be compared to the management goals.

Pan Bowl Lake

Bluegill and redear sunfish were sampled in May for CPUE, length frequencies, and age and growth data (Tables 90–98). Bluegill and redear sunfish continue to be collected in equal numbers. Although numbers are good at this lake, the growth (Tables 92-93) and assessment ratings (Tables 97-98) of bluegill and redear sunfish are poor. A PSD value of 20-40 for bluegill is desirable in managing a largemouth bass/bluegill fishery and the bluegill at 27.2 (Table 96) do fall within this range. The redear sunfish with a PSD value of 3.8 (Table 90) is too low. Redear sunfish growth is greater than bluegill through age-3, but after age-3 the redear sunfish grow at a very slow rate. This may be due to a poor forage base for age-3+ redear sunfish. The lake continues to be popular with anglers due to the numbers of bluegill and redear sunfish.

Management at this 99 acre lake also includes an every other year stocking of channel catfish (9 inch) and spring electrofishing sampling of largemouth bass. Largemouth bass will be sampled in spring of 2007. During this sampling, age and growth data for bass will be taken.

Pikeville City Lake

Pikeville City Lake (20 acres) has primary fisheries of largemouth bass, bluegill, crappie, carp, and catfish. This lake has high fertility, which is not common in most lakes of the eastern district. During the summer, oxygen is added to the lake by 1 to 4 aerators as needed to prevent fish kills. The largemouth bass fishery has been very good here for many years. On 1 March 2006 a regulation of catch-and-release-only for largemouth bass went into effect on this lake. Sampling conducted during 2006 was on 20 April and will not show any significant positive or negative changes in the largemouth bass population in this short of time. Tables 99-101 contain information from the April daytime electrofishing samples for bass. Total CPUE of largemouth bass has gradually increased since 2004, but various size groups have been cyclic (Table 100). During 2007, sampling will be conducted again in the spring for largemouth bass.

Yatesville Lake

Black bass (largemouth and spotted bass) were sampled during the spring and fall (Tables 102-110). Smallmouth bass are present in the lake as verified by angler catches, but none were collected in the spring or fall samples. The largemouth bass population at Yatesville Lake (2,350 acres) receives a great deal of fishing pressure (resident and nonresident) and many bass tournaments are held on the lake. Even so, largemouth bass continue to do very well and sampling data shows no dramatic declines in the CPUE of various size groups (Table 103). In the fall of 2006, fingerling largemouth bass were stocked at several locations in Yatesville Lake. This was in response to a small decrease in age-0 numbers (Table 110). The fish stocked in 2006 received a left pectoral fin clip for future identification. Table 108 shows a large difference in largemouth bass CPUE by area. Two electrofishing boats were used; however no mechanical differences could be diagnosed between boats to explain the differences. During 2006, sampling of largemouth bass included testing for largemouth bass virus (LMBV) and other diseases and health issues. Results of this testing have not been received. This information will be included in the next annual report as well as results from 2007 black bass sampling. The $\log_{10}$ length-weight equation for largemouth bass was – 3.47+ 3.11($\log_{10}$ length) and for spotted bass was – 3.53+3.17($\log_{10}$ length).

White crappie were sampled in the fall of 2006 (Tables 111-115). The size distribution of white crappie included fish collected up through 16 inches (Table 111). Samples collected prior to 2000 would produce crappie up to a maximum length of approximately 10 inches. During 2000, gizzard shad were introduced to the lake and this may be a factor in differences in the growth of white crappie. White crappie age 1-2 are now growing slower than in pre-gizzard shad years, while age-3 crappie growth is similar to pre-shad years. Age 4+ crappie are now growing at an increased rate since the introduction of gizzard shad (Table 113). An assessment score of 14 is the highest total obtained since 2002 (Table 115). White crappie will be sampled again in 2008. Also, during 2007 the lake management plan will be revised and in future reports the data collected can be compared to management goals for white crappie and largemouth bass.

Table 1. Length frequency and electrofishing CPUE (no./hour) of muskellunge collected during spring sampling on Buckhorn Lake (1,230 acres) from 1998-2006; numbers in parentheses are standard errors. Results from 2002 are from fall electrofishing.

Year	Inch class																																						
	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
1998	1	1	2	7	4	1	1				1	4	3	1	1	1						1		1	1			1	1									33	6.6 (2.9)
1999		1	1	2	3	3	1			1	3	6	6	11	4	4	3				3	2	1		2	1		1										59	10.9 (4.4)
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)
2006			1	8	10	6								1	2	3						1	1		1	3	2	1	1	1	1	1	1					45	14.2(2.2)

EFDBLMSS.D98-EFDBLMSS.D06

Table 2. Population assessment for muskellunge from Buckhorn Lake (1,230 acres) captured during spring electrofishing from 1998-2006. Assessment scores for 2002 were derived from fall electrofishing data. Actual values are in parentheses.

Parameter	Assessment Scores								
	1998	1999	2000	2001	2002	2003	2004	2005	2006
CPUE Age 1 muskellunge	2	2	2	1	1	2	3	2	3
	(3.5)	(2.0)	(2.7)	(1.5)	(0.5)	(3.3)	(5.9)	(2.5)	(7.9)
CPUE ≥ 20.0 inch muskellunge	2	3	3	1	3	2	4	2	3
	(3.2)	(8.5)	(5.4)	(1.7)	(5.5)	(3.9)	(11.1)	(3.7)	(6.3)
CPUE ≥ 30.0 inch muskellunge	1	2	3	1	4	3	4	3	4
	(0.9)	(1.8)	(3.8)	(1.2)	(4.0)	(2.0)	(6.3)	(2.6)	(4.4)
CPUE ≥ 36.0 inch muskellunge	1	1	3	2	4	4	4	4	4
	(0.3)	(0.2)	(1.0)	(0.5)	(1.5)	(0.7)	(2.8)	(2.1)	(2.5)
CPUE ≥ 40.0 inch muskellunge	1	1	2	3	3	3	3	4	4
			(0.2)	(0.3)	(0.5)	(0.3)	(0.3)	(1.1)	(1.0)
Total Score	7	9	13	8	15	14	18	15	18
Assessment Rating	Fair	Fair	Good	Fair	Good	Good	Excellent	Good	Excellent

EFDBLMSS.D98 - EFDBLMSS.D06

Table 3. Length frequency and CPUE (no./hour) of black bass collected in approximately 3 hours of 15-min nocturnal electrofishing runs at Buckhorn Lake (1,230 acres) on 3 May 2006; numbers in parentheses are standard errors.

Area/		Inch class																				CPUE	
	species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total		
Upper																							
	SMB																				0	0	0
	LMB		1	2	5	4	4	2	16	10	14	18	18	8	5	2	2	1	1	1	114	76.0	(9.8)
	SB																				0	0.0	0.0
Lower																							
	SMB						1														1	0.7	(0.7)
	LMB		1	6	5	7	8	17	20	11	17	22	32	25	15	11	6	2			205	134.3	(9.7)
	SB				1	1	1	1	1	1											6	4.0	(3.3)
Total																							
	SMB						1														1	0.3	(0.3)
	LMB		2	8	10	11	12	19	36	21	31	40	50	33	20	13	8	3	1	1	319	105.1	(11.0)
	SB				1	1	1	1	1	1											6	2.0	(1.7)

SMB = smallmouth bass
LMB = largemouth bass
SB = spotted bass
EFDBLLSS.D06

Table 4. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Buckhorn Lake (1,230 acres). 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
2006	14.2	2.2	35.2	4.6	40.5	5.1	15.2	3.4

EFDBLLSS.D03-D06

Table 5. PSD and RSD values for largemouth bass taken in spring electrofishing samples in each area of Buckhorn Lake (1,230 acres) on 3 May 2006; 95% confidence intervals are in parentheses.

Area	Species	No. fish ≥ 8"	PSD (+/- 95%)	RSD_{15} (+/- 95%)
Upper	Largemouth bass	136	57.1 (47.3 - 67.0)	19.1 (13.3 - 24.9)
Lower	Largemouth bass	139	63.5 (56.4 - 70.6)	12.2 (5.7 - 18.8)
Total	Largemouth bass	275	61.2 (55.5 - 67.0)	16.7 (12.3 - 21.1)

EFDBLLSS.D06

Table 6. Population assessments for largemouth bass collected during spring at Buckhorn Lake (1,230 acres). Actual values are in parentheses.

	Year			
Parameter	2003	2004	2005	2006
Mean length at age 3 capture	4 (12.6)	4 (12.6)	4 (12.6)	4 (12.6)
Spring CPUE of age 1 fish	1 (19.2)	2 (35.5)	1 (16.3)	1 (11.2)
Spring CPUE 12-14.9 in. fish	3 (28.3)	3 (29.3)	4 (38.3)	4 (40.5)
Spring CPUE ≥ 15.0 in. fish	2 (6.3)	2 (4.3)	2 (8.3)	3 (15.2)
Spring CPUE ≥ 20.0 in. fish	1	1	2 (0.3)	2 (0.3)
Total score	11	12	13	14
Assessment rating	Fair	Good	Good	Good
Instantaneous mortality (z)	0.61	0.85	0.67	0.48
Annual mortality (A)	45.6	57.2	48.7	38.0

EFDBLLSS.D03-D06
EFDBLLAS.D04

Table 7. Length frequency and electrofishing CPUE (no./hour) of black bass collected in approximately 3.0 hours of 15-min nocturnal electrofishing runs at Buckhorn Lake (1,230 acres) on 11 September 2006; 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	Total	CPUE	
Upper																		
SMB																		
LMB	2	8	11	13	1	3	7	16	6	15	8	5	5	1	3	104	69.3	(10.8)
SB			1			1										2	1.3	(1.3)
Lower																		
SMB								2								2	1.3	(0.8)
LMB	9	3	4	1	1	7	7	5	4	7	10	1				59	39.3	(5.4)
SB		1	2			2			1							6	4.0	(1.5)
Total																		
SMB								2								2	0.7	(0.5)
LMB	11	11	15	14	2	10	14	21	10	22	18	6	5	1	3	163	54.3	(7.3)
SB		1	3			3			1							8	2.7	(1.0)

SMB = smallmouth bass
LMB = largemouth bass
SB= spotted bass
EFDBLLSF.D06

Table 8. Number of fish and relative weight (Wr) for each length class of black bass collected at Buckhorn Lake (1,230 acres) on 11 September 2006. Standard errors are in parentheses.

		Size range					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Species	Area	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Upper	44	95.2 (1.3)	18	93.9 (2.5)	4	103.0 (2.4)
	Lower	23	91.9 (2.4)	11	90.2 (1.9)		
	Total	67	94.1 (1.2)	29	92.5 (1.7)	4	103.0 (2.4)
Smallmouth bass		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
	Upper						
	Lower	2	86.1 (2.1)				
	Total	2	86.1 (2.1)				
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
Spotted bass	Upper	1	119.6				
	Lower	3	63.5 (20.7)				
	Total	4	77.5 (20.3)				

EFDBLLSF.D06

Table 9. Indices of year class strength at age-0 and age-1 and mean lengths (in) of age-0 largemouth bass at Buckhorn Lake (1,230 acres) from electrofishing. CPUE=fish/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
2002	4.5	0.1	99.3	7.4	38.7	2.6	19.2	3.3
2003	4.7	0.5	106.0	13.8	39.7	4.6	35.5	5.4
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	11.2	2.1
2006	4.2	0.2	17.6	4.1	5.3	1.9		

EFDBLLSF.D01-D06
EFDBLLAS.D04
EFDBLLSS.D03-D06

Table 10. Length frequency and CPUE (fish/net-night) of white crappie collected by trap net at Buckhorn Lake (1,230 acres) in 18 net-nights from 15-16 November 2006. Standard errors are in parentheses.

Inch class													
2	3	4	5	6	7	8	9	10	11	12	Total	CPUE	
4	378	309	1022	1484	465	148	84	56	21	11	3,982	221.22	(38.48)

EFDBLCTF.D06

Table 11. PSD and RSD values calculated for white crappie collected in trap nets at Buckhorn Lake (1,230 acres) during November 2006; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD	RSD_{10}
White crappie	3,291	9.7 (8.7-10.7)	2.7 (2.1-3.2)

EFDBLCTF.D06

Table 12. Mean back-calculated length (in) at each annulus for white crappie collected from Buckhorn Lake (1,230 acres) in November 2006, including 95% confidence intervals.

Year		Age					
Class	No.	1	2	3	4	5	6
2005	13	4.0					
2004	36	4.3	6.1				
2003	27	4.8	6.5	8.1			
2002	30	5.0	6.9	8.3	9.6		
2001	8	4.8	6.3	7.8	9.3	10.6	
2000	4	4.4	6.4	8.1	9.1	10.2	11.2
Mean		4.6	6.5	8.2	9.5	10.4	11.2
Smallest		3.2	4.4	5.7	6.9	7.8	9.9
Largest		6.5	8.0	9.8	11.5	12.0	12.1
STD error		0.1	0.1	0.1	0.2	0.4	0.5
95% CI LO		4.5	6.3	8.0	9.2	9.7	10.3
95% CI HI		4.7	6.6	8.3	9.8	11.1	12.0

Intercept = 0
EFDBLCAF.D06

Table 13. Age frequency and CPUE (fish/net-night) of white crappie collected by trap netting for 18 net-nights at Buckhorn Lake (1,230 acres)in November 2006; numbers in parentheses are standard errors.

	Inch class													
Age	2	3	4	5	6	7	8	9	10	11	12	Total	Age%	CPUE
0	4	378	155									537	13	29.81 (8.45)
1			155	818	82							1055	26	58.59 (13.86)
2				204	1319	429	49	6				2007	50	111.54 (19.01)
3					82	36	69	56	28	1		272	7	15.13 (1.88)
4							20	22	28	15	3	88	2	4.94 (0.58)
5							10			3	4	17	0	0.98 (0.09)
6										1	3	4	0	0.24 (0.05)
Total	4	378	310	1022	1483	465	148	84	56	20	10	3982		
%	0	9	8	26	37	12	4	2	1	1	0			

CPUE of ≥8 in (quality size) = 17.78
CPUE of ≥10 in (preferred size) = 4.89
EFDBLCAF.D06
EFDBLCTF.D06

Table 14. Population assessments for white crappie collected from Buckhorn Lake (1,230 acres).

	2003		2004		2005		2006	
Parameter	Assessment value	Assessment score	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	191.4	4
CPUE of age 1 crappie	17.4	4	0.7	1	7.4	3	58.6	4
CPUE of age 0 crappie	28.2	4	0.8	1	0.4	1	29.8	4
CPUE of crappie ≥ 8 in.	4.2	2	2.2	2	4.1	2	17.8	4
Mean age 2 length @ capture	8.2	1	8.1	1	8.3	1	7.1	1
Instantaneous mortality (z)	1.316		1.373		1.301		1.515	
Annual Mortality (A)	73.2		74.7		72.8		78.0	
Total score		15		7		10		17
Assessment rating		Good		Poor		Fair		Good

EFDBLCTF.D03-D06
EFDBLCAF.D03-D06

Table 15. Species composition, relative abundance and CPUE (fish/hour) of black bass collected in approximately 3.0 hours of 15-minute electrofishing samples at Carr Creek Lake (710 acres) on 27 April 2006; numbers in parentheses are standard errors.

Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	
Lower	Smallmouth bass				1	1							1								3	2.0	(0.9)
	Spotted bass		3	4	4	7	8	11	1	8	5	1	5								57	37.9	(10.7)
	Largemouth bass		4	7	1	6	6	9	18	3	8	10	22	22	17	8	4	1	1	1	148	98.3	(4.2)
Upper	Smallmouth bass										1										1	0.7	(0.7)
	Spotted bass		4		12	7	7	8	4		2	1	2		1						48	31.9	(9.4)
	Largemouth bass	1	11	23	9	5	12	20	16	9	10	18	16	17	7	8	3	1			186	123.7	(19.4)
Total	Smallmouth bass				1	1					1		1								4	1.3	(0.6)
	Spotted bass		7	4	16	14	15	19	5	8	7	2	7		1						105	34.9	(6.8)
	Largemouth bass	1	15	30	10	11	18	29	34	12	18	28	38	39	24	16	7	2	1	1	334	111.0	(10.2)

EFDCLLSS.D06

Table 16. Spring electrofishing CPUE for each size class of largemouth bass collected at Carr Creek Lake (710 acres). 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
2006	22.3	7.0	30.9	4.8	27.9	3.3	29.9	3.1	111.0	10.2

BBRPSCFL.D02-D05
EFDCLLSS.D06

Table 17. PSD and RSD values for each species of black bass in each area of Carr Creek Lake (710 acres) on 27 April 2006. 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_{15}	No.	PSD	RSD_{14}	No.	PSD	RSD_{14}
Lower	130	72.3 (64.6-80.0)	41.5 (33.0-50.0)	2	50.0 (-48.0-148.0)	50.0 (-48.0-148.0)	46	41.3 (26.9-55.7)	10.9 (1.8-20.0)
Upper	137	58.4 (50.1-66.7)	22.1 (12.1-32.0)	1	100.0	0.0	32	18.8 (5.0-32.5)	9.4 (-0.9-19.6)
Total	267	65.2 (59.4-70.9)	33.7 (28.0-39.4)	3	66.7 (1.3-132.0)	33.3 (-32.0-98.7)	78	32.1 (21.6-42.5)	10.3 (3.5-17.0)

EFDCLLSS.D06

Table 18. Spring electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Carr Creek Lake (710 acres) from 1999-2006.

Age	1999	2000	2001	2002	2003	2004	2005	2006
1	129.6	66.9	160.4	114.4	66.2	133.7	18.8	21.1
2	31.8	21.2	16.1	17.3	17.1	25.2	20.8	31.7
3	17.0	17.3	13.4	11.9	6.9	5.4	14.3	14.2
4	16.1	18.3	20.1	7.2	6.9	5.7	13.2	21.3
5	12.0	10.6	8.2	1.3	3.2	2.5	4.4	8.9
6	2.7	4.0	2.7	0.4	0.0	0.0	0.0	0.0
7	0.6	0.3	0.7		2.1	1.8	2.7	5.3
8	0.4				2.0	2.0	3.7	6.5
9	0.3				0.1	0.0	0.0	0.3
10					0.8	0.6	0.6	0.4

BBRPSCFL.D99-D05
EFDCLLSS.D06

Table 19. Population assessments for largemouth bass collected from Carr Creek Lake (710 acres). Actual values are in parentheses.

	Year				
Parameter	2002	2003	2004	2005	2006
Length at age 3	4 (13.2)	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)	2 (21.3)
Spring CPUE 12-14.9 in. fish	1 (12.0)	1 (11.1)	1 (8.4)	2 (24.8)	2 (27.9)
Spring CPUE ≥ 15.0 in. fish	2 (7.1)	2 (10.7)	2 (9.0)	2 (14.0)	3 (29.9)
Spring CPUE ≥ 20.0 in. fish	1	1 (0.4)	1 (0.2)	1 (0.3)	1 (0.7)
Total score	12	11	12	11	12
Assessment rating	Good	Fair	Good	Fair	Good
Instantaneous mortality (z)		0.52	0.54	0.47	0.43
Annual mortality (A)		40.3	42.0	37.5	35.1

BBRPSCFL.D02-D05
BBRSCCFL.D03
EFDCLLSS.D06

Table 20. Length frequency and electrofishing CPUE (no./hour) of black bass collected in approximately 3.0 hours of 15-minute nocturnal electrofishing samples at Carr Creek Lake (710 acres) on 21 September 2006; numbers in parentheses are standard errors.

		Inch class																						
Area	Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	
Lower	Smallmouth bass					4	1	2														7	4.6	(1.9)
	Spotted bass				3	12	13	16	16	7	5	2	3	3		1						81	53.6	(4.5)
	Largemouth bass	1			1	3		5	11	9	4	2	2	1	5	1	2	2	1			50	33.1	(6.1)
Upper	Smallmouth bass					1				1												2	1.3	(0.8)
	Spotted bass		1	5	2	2	6	7	6	17	7	1	1	1								56	37.3	(4.0)
	Largemouth bass		4	8	10	5	2	3	7	19	8	9	3	1	9	2	2		1		1	94	62.7	(12.0)
Total	Smallmouth bass					5	1	2		1												9	3.0	(1.1)
	Spotted bass		1	5	5	14	19	23	22	24	12	3	4	4		1						137	45.5	(3.7)
	Largemouth bass	1	4	8	11	8	2	8	18	28	12	11	5	2	14	3	4	2	2		1	144	47.9	(7.8)

EFDCLLSN.D06

Table 21. Number of fish and relative weight (Wr) for each length class of black bass collected at Carr Creek Lake (710 acres) on 21 September 2006. Standard errors are in parentheses.

		Size range					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Species	Area	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Upper	43	89.4 (1.4)	13	95.9 (1.7)	6	104.6 (3.5)
	Lower	26	89.1 (1.3)	8	103.5 (6.0)	6	106.5 (2.8)
	Total	69	89.3 (1.0)	21	98.8 (2.5)	12	105.6 (2.2)
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
Smallmouth bass	Upper	1	89.9				
	Lower	2	82.6 (3.1)				
	Total	3	85.0 (3.0)				
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
Spotted bass	Upper	37	93.5 (1.2)	3	95.2 (1.8)		
	Lower	44	93.3 (1.6)	8	91.5 (12.7)	1	97.9
	Total	81	93.2 (1.0)	11	92.5 (9.1)	1	97.9

EFDCLLSN.D06

Table 22. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected by electrofishing at Carr Creek Lake (710 acres). CPUE=fish/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
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	1.7	21.3	6.7
2006	4.2	0.2	11.0	4.1	3.0	1.0		

BBRWRCFL.D03-D05
BBRSCCFL.D03
EFDCLLSN.D06

Table 23. Length frequency and CPUE (fish/hour) of walleye collected at Carr Creek Lake (710 acres) during daytime spring electrofishing.

	Inch Class																					
Year	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total	CPUE	SE
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)
2006										1	4	6	7	9	9	8	3	4	2	2	55	31.3	(5.4)

EFDCLWSS.D00-D06

Table 24. Electrofishing population assessments for the walleye population at Carr Creek Lake. Actual values are in parentheses.

	Year			
Parameter	2003	2004	2005	2006
Population Density	4	4	4	4
(CPUE all fish)	(26.7)	(27.1)	(28.2)	(31.3)
Growth rate	4	4	4	4
(mean length of age 3 fish at capture)	(20.6)	(20.6)	(20.6)	(20.6)
Size structure	4	4	4	4
(CPUE of fish ≥ 20 in.)	(10.5)	(19.5)	(18.4)	(24.8)
Recruitment	4	1	1	1
(CPUE of fish < 13 in.)	(3.8)	0.0	0.0	0.0
Total Score	16	13	13	13
Assessment Rating	Excellent	Good	Good	Good
Instantaneous mortality (z)	0.72	1.12	0.26	0.20
Annual mortality (A)	51.4	67.3	22.5	22.5

EFDCLWSS.D03-D06
EFDCLWAS.D03

Table 25. Number of fish and relative weight (Wr) for each length category of walleye collected at Carr Creek Lake (710 acres) on 9 March 2006. 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
		11	99.1	44	99.4
			(1.1)		(1.2)

EFDCLWSS.D06

Table 26. Length frequency and CPUE (fish/net-night) of crappie collected by trap net at Carr Creek Lake (710 acres) in 16 net-nights from 19-20 December 2006. Standard errors are in parentheses.

	4	5	6	7	Total	CPUE	
WC		5	22	4	31	1.94	(1.01)
BC	1	1	6	4	12	0.75	(0.39)

EFDCLCTF.D06
WC=white crappie
BC=black crappie

Table 27. Mean back-calculated length (in) at each annulus for white crappie collected from Carr Creek Lake (710 acres)in December 2006, including 95% confidence intervals.

Year Class	No.	Age 1	2	3	4
2005	2	4.0			
2004	21	3.9	5.4		
2003	1	3.8	5.1	6.4	
2002	1	3.6	5.1	5.6	6.1
Mean		3.9	5.3	6.0	6.1
Smallest		3.5	4.9	5.6	6.1
Largest		4.5	6.0	6.4	6.1
STD error		0.1	0.1	0.4	
95% CI LO		3.8	5.2	5.2	
95% CI HI		4.0	5.5	6.8	

Intercept = 0
EFDCLCAF.D06

Table 28. Mean back-calculated length (in) at each annulus for black crappie collected from Carr Creek Lake (710 acres) in December 2006, including 95% confidence intervals.

Year		Age					
Class	No.	1	2	3	4	5	6
2005	1	3.4					
2003	3	3.5	5.0	5.6			
2002	3	3.6	4.9	5.6	6.1		
2001	3	3.8	5.3	6.0	6.5	6.9	
2000	1	3.7	4.9	5.7	6.3	7.0	7.5
Mean		3.6	5.1	5.8	6.3	6.9	7.5
Smallest		3.1	4.6	5.2	5.7	6.7	7.5
Largest		4.0	5.6	6.2	6.6	7.0	7.5
STD error		0.1	0.1	0.1	0.1	0.1	
95% CI LO		3.5	4.9	5.5	6.1	6.7	
95% CI HI		3.8	5.2	6.0	6.5	7.0	

Intercept = 0
EFDCLCAF.D06

Table 29. Fish harvest statistics derived from a daytime creel survey at Carr Creek Lake (710 acres) from 6 April through 31 October 2006. Standard errors are in parentheses.

Fishing trips	
No. of fishing trips	1,291
No. of fishing trips per acre	1.82
Fishing pressure	
Total angler hours	6,647 (378.72)
Man-hours/acre	9.36
Catch/harvest	
No. of fish caught	5,123 (837.90)
No. of fish harvested	1,302 (323.48)
Lb of fish harvested	1,153
Harvest rates	
Fish/hour	0.22
Fish/acre	1.83
Lb/acre	1.62
Catch rate	
Fish/hour	0.81
Fish/acre	7.22
Miscellaneous characteristics (%)	
Male	91.1
Female	8.9
Resident	99.6
Non-resident	0.4
Method (%)	
Still fishing	27.0
Casting	58.7
Trolling	14.4
Mode (%)	
Boat	89.9
Bank	8.9
Dock	1.3

Table 30. Fish harvest statistics derived from a creel survey at Carr Creek Lake (710 acres) from 6 April through 31 October 2006.

	Channel catfish	Flathead catfish	Rock bass	Warmouth	Green sunfish	Bluegill	Smallmouth bass	Spotted bass	Largemouth bass	White crappie	Walleye
No. caught	211	57	88	195	122	1,073	57	346	1,710	786	419
(per acre)	(0.298)	(0.081)	(0.124)	(0.274)	(0.172)	(1.511)	(0.080)	(0.488)	(2.409)	(1.106)	(0.590)
No. harvested	74	15	50	38	0	502	0	38	10	308	208
(per acre)	(0.105)	(0.022)	(0.071)	(0.054)		(0.707)		(0.054)	(0.014)	(0.433)	(0.293)
% of total no. harvested	5.95	1.21	4.02	3.06		40.39		3.06	0.80	24.78	16.73
Lb harvested	133.8	89.2	21.7	4.7		82.5		27.0	42.4	144.9	540.2
(per acre)	(0.188)	(0.126)	(0.031)	(0.007)		(0.116)		(0.038)	(0.060)	(0.204)	(0.761)
% of total lb harvested	12.32	8.21	2.00	0.43		7.59		2.49	3.90	13.34	49.72
Mean length (in)	17.7	24.5	8.8	5.8		6.5		11.5	20.0	10.0	20.9
Mean weight (lb)	1.76	5.82	0.45	0.13		0.18		0.67	4.25	0.48	3.39

	Catfish group	Panfish group	Black bass group	Crappie group	Walleye group	Anything
No. of fishing trips for that species	23	86	705	174	181	121
% of all trips	1.78	6.67	54.65	13.47	14.05	9.38
Hours fished for that species	118.22	443.34	3632.38	895.66	934.00	623.28
(per acre)	(0.17)	(0.62)	(5.11)	(1.26)	(1.32)	(0.88)
No. harvested fishing for that species	53	369	10	182	186	
Lb harvested fishing for that species	167.0	67.7	42.5	74.7	468.0	
No./hour harvested fishing for that species	0.412	0.840	0.004	0.180	0.170	
% success fishing for that species	40.00	64.71	0.78	35.71	32.35	60.00

Table 31. Species composition and length distribution of each species of fish harvested (H) and released (R) from a creel survey on Carr Creek Lake (710 acres) from 6 April to 31 October 2006.

Species		Inch class																																
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Walleye	H												12	23	46	35		12	12	23		12	23		10									
	R					10	10		10	60	30	60	15	16																				
Channel catfish	H											19		19	9	9			9							9								
	R				21	32	11	32		11	21				9																			
Flathead catfish	H																	8									7							
	R					11						11	11													9								
Bluegill	H		146	136	209	11																												
	R	124	211	149	25																													
Warmouth	H		13	25																														
	R	100	56																															
Green sunfish	H																																	
	R	91	16																															
Rock bass	H					13	37																											
	R		13	13		12																												
Spotted bass	H								26		12																							
	R			46	23		11	68	23	91	34	12																						
Largemouth bass	H																	10																
	R			119	119		47	47	24	391	273	272	161	136	49	37		12	13															
Smallmouth bass	H																																	
	R					28			15								14																	
White crappie	H						178	47	36	24	12	11																						
	R			270	130	50	28																											
Illegal bass	H										17	33																						
	R																																	
Illegal white crappie	H					8																												
	R																																	

Table 32. Monthly black bass angling success at Carr Creek Lake (710 acres) during the 2006 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	434	33	161.18	830.06	383	0.45	33	0.04
May	608	28	146.37	753.81	509	0.82	0	0.02
Jun	346	0	165.00	849.75	345	0.44	0	0.00
Jul	200	10	80.97	417.00	190	0.51	0	0.00
Aug	253	0	54.00	278.10	100	0.53	0	0.00
Sep	170	10	57.00	293.53	170	0.47	10	0.03
Oct	103	0	40.80	210.13	88	1.00	0	0.00
Total	2,144	48	705.32	3,632.38	1,785		43	
Mean						0.60		0.01

Table 33. Monthly white crappie angling success at Carr Creek Lake (710 acres) during the 2006 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	White crappie caught by crappie anglers	White crappie caught/hour by crappie anglers	White crappie harvested by crappie anglers	White crappie harvested/hour by crappie anglers
Apr	300	167	71.63	368.91	233	0.74	100	0.32
May	156	42	30.28	155.96	42	0.20	0	0.00
Jun	0		0.00	0.00				
Jul	0		0.00	0.00				
Aug	23	8	6.75	34.76	23	0.30	8	0.10
Sep	20	10	0.00	0.00				
Oct	287	81	40.80	210.13	280	0.82	74	0.24
Total	786	308	149.46	769.76	578		182	
Mean						0.52		0.17

Table 34. Monthly walleye angling success at Carr Creek Lake (710 acres) during the 2006 creel survey period.

	Total no. of walleye caught	Total no. of walleye harvested	No. of walleye fishing trips	Hours fished by walleye anglers	Walleye caught by walleye anglers	Walleye caught/hour by walleye anglers	Walleye harvested by walleye anglers	Walleye harvested/hour by walleye anglers
Apr	50	33	8.95	46.11	50	0.50	33	0.33
May	71	14	20.19	103.97	42	0.33	14	0.11
Jun	130	101	85.56	440.61	116	0.22	87	0.17
Jul	30	0	21.59	111.20	10	0.07	0	0.00
Aug	23	15	16.87	86.90	23	0.38	15	0.25
Sep	20	0	10.06	51.80	20	0.80	0	0.00
Oct	96	44	18.13	93.39	88	0.65	37	0.27
Total	420	207	181.35	933.98	349		186	
Mean						0.42		0.16

Table 35. Catch and harvest statistics derived from a creel survey at Carr Creek Lake (710 acres) for largemouth bass, white crappie, and walleye caught and released by all anglers from 6 April to 31 October 2006.

	Largemouth bass				White crappie				Walleye			
		Catch & release				Catch & release				Catch & release		
	Harvest	12-14.9	≥15.0	Total	Harvest	<8.9	≥9.0	Total	Harvest	<14.9	≥15.0	Total
Total number	10	936	408	1,710	308	449	28	786	208	180	31	419
Total weight (lb)	42.4	828.4	1,209.0	2,079.8	144.9	75.6	11.1	231.6	540.2	97.6	35.2	673.0
Mean length (in)	20.0				10.0				20.9			
Mean weight (lb)	4.25				0.48				3.39			
Rate (fish/hour)	0.002				0.048				0.033			

Table 36. Length frequency and CPUE (no./hour) of bluegill and warmouth collected in approximately 1.27 hours of daytime electrofishing in Cranks Creek Lake (220 acres) on 9 May 2006. SE = standard error.

	Inch class										
Species	1	2	3	4	5	6	7	8	Total	CPUE	SE
BG	1	10	41	43	34	19	5	1	154	120.99	39.39
WM		2	3	9	17	7	1	1	40	31.40	13.71

BG = bluegill
WM = warmouth
EFDCCBSS.D06

Table 37. Length group frequency and CPUE (fish/hour) of bluegill collected in spring electrofishing samples at Cranks Creek Lake (220 acres). 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
2006	8.59	6.17	92.68	33.05	18.93	2.41	0.79	0.79	0.00	0.00	120.99	39.39

EFDCCBSS.D06

Table 38. Mean back-calculated length (in) at each annulus for bluegill collected from Cranks Creek Lake (220 acres) on 9 May 2006, including 95% confidence intervals.

Year		Age				
Class	No.	1	2	3	4	5
2005	10	2.9				
2004	14	2.8	3.9			
2003	7	2.8	4.6	5.9		
2002	11	2.4	3.8	4.9	6.1	
2001	3	2.6	4.0	5.4	6.3	7.1
Mean		2.7	4.0	5.3	6.1	7.1
Smallest		1.8	2.7	3.7	4.4	6.8
Largest		3.8	5.6	6.6	8.1	7.4
STD error		0.1	0.1	0.2	0.3	0.2
95% CI LO		2.5	3.8	5.0	5.6	6.8
95% CI HI		2.8	4.3	5.6	6.7	7.5

Intercept = 0
EFDCCBAS.D06

Table 39. Electrofishing catch rate (fish/hour) for each age of bluegill collected from Cranks Creek Lake (220 acres).

	Year
Age	2006
1	20.66
2	52.38
3	17.52
4	27.47
5	2.96

EFDCCBSS.D06
EFDCCBAS.D06

Table 40. PSD and RSD values obtained for bluegill collected at Cranks Creek Lake (220 acres) on 9 May 2006; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD	RSD_8
Bluegill	143	17.5 (11.2-23.7)	0.7 (-0.7-2.1)

EFDCCBSS.D06

Table 41. Population assessment for bluegill collected from Cranks Creek Lake (220 acres). Actual values are in parentheses.

Parameter	Year 2006
Mean length age-2 at capture	2 (4.0)
Years to 6 inches	2 (4-4+)
CPUE ≥ 6.0 inches	1 (19.7)
CPUE ≥ 8.0 inches	2 (0.8)
Total score	7
Assessment rating	Fair
Instantaneous mortality (Z)	0.80
Annual mortality (A)	55.0

EFDMLLSS.D03

Table 42. Species composition, relative abundance and CPUE (fish/hour) of black bass collected in approximately 3.0 hours of 15-minute electrofishing samples by area at Dewey Lake (1,100 acres) on 26 April 2006.

		Inch class																				Total	CPUE	
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Lower	Spotted bass	1			4	8	8	8	7	6	2	2										46	30.4	(9.5)
	Largemouth bass			6	12	5	6	25	43	19	23	12	10	27	17	9	14	3	3			234	154.9	(16.7)
Upper	Spotted Bass				1	1	2	2	1	1												8	5.3	(4.0)
	Largemouth bass		1	23	18	22	4	29	20	18	23	9	6	9	4	7	9	6	1	1	1	211	140.7	(12.0)
Total	Spotted bass	1			5	9	10	10	8	7	2	2										54	17.9	(6.2)
	Largemouth bass		1	29	30	27	10	54	63	37	46	21	16	36	21	16	23	9	4	1	1	445	147.8	(10.0)

EFDDLLSS.D06

Table 43. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Dewey Lake (1,100 acres). 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
2006	32.3	5.7	66.4	8.6	24.2	3.6	24.9	3.6	147.8	10.0

EFDDLLSS.D87-D02
BBRPSDEW.D03
BBRPSDEW.D04
BBRPSDEW.D05
EFDDLLSS.D06

Table 44. PSD and RSD values for each species of black bass in each area of Dewey Lake (1,100 acres) during spring 2006. Numbers in parentheses are 95% confidence intervals.

	Largemouth bass			Spotted bass	
Area	No.≥8 in.	PSD	RSD_{15}	No.≥7 in.	PSD
Lower	205	46.3 (39.5 - 53.2)	22.4 (16.7 - 28.2)	33	12.1 (0.8 - 23.4)
Upper	143	37.1 (29.1 - 45.0)	20.3 (13.7 - 26.9)	6	
Total	348	42.5 (37.3 - 47.7)	21.6 (17.2 - 25.9)	39	10.3 (0.6 - 19.9)

EFDDLLSS.D06

Table 45. Spring electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Dewey Lake (1,100 acres) from 1999-2006.

Age	1999	2000	2001	2002[a]	2003	2004	2005	2006
1	75.1	55.3	125.7		61.2	79.7	24.8	27.9
2	18.3	35.6	47.1		36.6	30.1	37.6	30.2
3	26.7	11.3	34.9		17.2	12.8	20.9	21.1
4	28.4	18.8	14.3		22.1	17.8	28.2	28.4
5	12.7	9.7	16.7		11.4	9.4	15.5	13.2
6	7.3	3.7	6.5		2.1	1.9	3.1	1.7
7	2.6	3.3	2.3		7.4	5.6	7.6	8.9
8	2.8	0.4	1.8		4.4	3.2	4.8	5.7
9	0.4	1.7	1.8		8.4	6.5	10.7	9.6
10		0.4	1.0		0.3	1.0	0.4	0.3
11					0.3			
12					0.3			
13						0.3	0.4	0.4
14								0.3

[a]No spring sample
EFDDLLSS.D06
BBRPSDEW.D99-D05
BBRSCDEW.D03

Table 46. Population assessments for largemouth bass collected from Dewey Lake (1,100 acres). Actual values are in parentheses.

Parameter	Year			
	2003	2004	2005	2006
Mean length at age 3 capture	1 (10.5)	1 (10.5)	1 (10.5)	1 (10.5)
Spring CPUE of age 1 fish	4 (61.2)	4 (79.7)	2 (24.8)	2 (27.9)
Spring CPUE 12-14.9 in. fish	2 (23.1)	2 (20.0)	3 (31.0)	2 (24.2)
Spring CPUE ≥ 15.0 in. fish	4 (22.0)	3 (17.5)	4 (24.5)	4 (24.9)
Spring CPUE ≥ 20.0 in. fish	2 (0.7)	2 (1.0)	2 (0.3)	2 (0.7)
Total score	13	12	12	11
Assessment rating	Good	Good	Good	Fair
Instantaneous mortality (z)	0.41	0.40	0.42	0.41
Annual mortality (A)	33.6	32.6	34.3	33.5

BBRPSDEW.D03
BBRPSDEW.D04
BBRPSDEW.D05
EFDDLLSS.D06
BBRSCDEW.D03

Table 47. Length-frequency distribution of each black bass species captured during 3.0 hours of 15-minute electrofishing runs at Dewey Lake (1,100 acres) on 12 September 2006. Standard errors are in parentheses.

Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	
Lower	Spotted bass		2	3	1	2	7	1	1	2	1							20	13.3	(4.3)
	Largemouth bass		9	7	3	4	12	6	2	6	1	1		3	3		1	58	38.4	(7.5)
Upper	Spotted Bass		3	1	3	2	1	3	3									16	10.7	(5.0)
	Largemouth bass	12	32	42	12	39	81	30	14	11	6	8	3	2	3		1	296	197.3	(23.3)
Total	Spotted bass		5	4	4	4	8	4	4	2	1							36	12.0	(3.2)
	Largemouth bass	12	41	49	15	43	93	36	16	17	7	9	3	5	6	0	2	354	117.9	(26.6)

EFDDLLSF.D06

Table 48. Number of fish and the relative weight (Wr) for each length class of bass collected at Dewey Lake (1,100 acres) in September 2006. Standard errors are in parentheses.

		Size range					
Species	Area	No.	Wr	No.	Wr	No.	Wr
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Largemouth bass	Upper	32	83.5 (1.5)	16	93.0 (1.9)	6	93.0 (2.9)
	Lower	25	88.4 (1.4)	2	105.6 (4.9)	7	97.8 (3.0)
	Total	57	85.7 (1.1)	18	94.4 (2.0)	13	95.6 (2.1)
		7.0-10.9		11-13.9		≥14.0	
Spotted bass	Upper	7	95.0 (3.8)				
	Lower	10	90.5 (2.7)	3	94.6 (3.1)		
	Total	17	92.4 (2.2)	3	94.6 (3.1)		

EFDDLLSF.D06

Table 49. Length frequency and CPUE (fish/net-night) of crappie collected by trap net at Dewey Lake (1,100 acres) in 20 net-nights from 5-6 December 2006. Standard errors are in parentheses.

	Inch class														
	2	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	
WC	2	17	5	74	398	489	271	94	20	10	3	3	1386	69.30	(15.12)
BC	1		18	27	310	221	21	3					601	30.05	(11.12)

EFDDLCTF.D06
WC=white crappie
BC=black crappie

Table 50. PSD and RSD values calculated for crappie collected in trap nets at Dewey Lake (1,100 acres) during December 2006; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD	RSD_{10}
White crappie	1,362	29.4 (27.0-31.9)	2.6 (1.8-3.5)
Black crappie	582	4.1 (2.5-5.7)	

EFDDLCTF.D06

Table 51. Length frequency and electrofishing CPUE (no./hour) of black bass collected in approximately 0.76 hours of 7.5-min. nocturnal electrofishing samples in Fishpond Lake (32 acres) on 9 May 2006; numbers in parentheses are standard errors.

Species	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	
LMB	10	14	33	47	24	23	5	3	3	1	4	4	3	5	4	1	1	185	245.0	(12.5)

LMB = largemouth bass
EFDFPLSS.D06

Table 52. Spring nocturnal electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Fishpond Lake (32 acres). 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	78.9	12.2	76.0	7.9	45.2	5.9	39.4	6.7	239.5	14.9
2006	31.9	5.5	168.1	9.9	14.7	3.8	30.4	2.4	245.0	12.5

EFDFPLSS.D04
EFDFPLSS.D06

Table 53. PSD and RSD values obtained for largemouth bass taken in spring nocturnal electrofishing samples in Fishpond Lake (32 acres) on 9 May 2006; 95% confidence intervals are in parentheses.

No. fish ≥ 8"	PSD (+/- 95%)	RSD_{15} (+/- 95%)
68	60.3 (48.6-72.0)	55.9 (44.0-67.8)

EFDFPLSS.D06

Table 54. Length frequency and CPUE (no./hour) of black bass collected in approximately 3.0 hours of 15-minute nocturnal electrofishing samples on Fishtrap Lake (1,143 acres) 4 May 2006; 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																							
	LMB			22	52	15	9	3	21	20	16	30	22	7	1	2	3	1	1			225	147.5 (18.8)
	SMB				2	1	1		3	1	2	1			1		1					13	8.5 (5.4)
	SB			5	7	1		1			1											15	9.8 (2.7)
Lower																							
	LMB			7	23	16	15	6	14	22	12	21	16	4	1	2			1			160	106.7 (8.7)
	SMB		2	7	8	3	1	4	2	5	3	2	1	1						1		40	26.7 (10.3)
	SB			2	5	1		2	4	5	4			1								24	16.0 (6.7)
Total																							
	LMB			29	75	31	24	9	35	42	28	51	38	11	2	4	3	1	2			385	127.1 (11.6)
	SMB		2	7	10	4	2	4	5	6	5	3	1	1	1		1			1		53	17.6 (6.2)
	SB			5	4		1	10	8	8	2	1										39	12.9 (3.6)

LMB = largemouth bass
SB = spotted bass
SMB = smallmouth bass
EFDFLLSS.D06

Table 55. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth and smallmouth bass at Fishtrap Lake (1,143 acres). CPUE = fish/hour.

	Largemouth bass 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
2006	52.5	8.8	37.6	1.9	33.0	3.4	4.0	0.7	127.1	11.6

	Smallmouth bass inch class									
	<8.0		8.0-10.9		11.0-13.9		>14.0		Total	
	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2000	4.7	1.6	3.3	1.8	1.7	0.6	0.0		9.7	3.3
2001	4.7	2.0	7.7	2.4	4.3	1.4	0.7	0.5	17.3	4.9
2002	no data									
2003	1.0	1.0	4.0	2.8	2.0	2.0	1.0	1.0	8.0	4.9
2004	5.1	2.2	9.5	3.0	4.4	1.4	2.9	1.6	21.8	6.6
2005	4.4	1.7	4.7	2.2	4.4	2.0	1.8	0.8	15.3	5.3
2006	8.3	4.3	5.0	1.9	3.0	1.1	1.3	0.7	17.8	6.2

EFDFLLSS.D00-D06

Table 56. PSD and RSD values obtained for black bass collected in spring electrofishing samples in each area of Fishtrap Lake on 4 May 2006; 95% confidence intervals are in parentheses; largemouth bass stock size ≥ 8.0 in and smallmouth and spotted bass stock size ≥ 7.0 inches .

Area	Species	No. stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Upper	largemouth bass	127	52.8	6.3
			(44.0-61.5)	(2.1-10.5)
	smallmouth bass	10	50.0	20.0
			(17.3-82.7)	(-6.1-46.1)
	spotted bass	2	50.0	
			(-48.0-148.0)	
Lower	largemouth bass	99	45.5	4.0
			(35.6-55.3)	(0.1-7.9)
	smallmouth bass	20	40.0	10.0
			(18.0-62.0)	(-3.5-23.5)
	spotted bass	16	31.3	6.3
			(7.8-54.7)	(-6.0-18.5)
Total	largemouth bass	226	49.6	5.3
			(43.0-56.1)	(2.4-8.2)
	smallmouth bass	30	43.3	13.3
			(25.3-61.4)	(1.0-25.7)
	spotted bass	18	33.3	5.6
			(10.9-55.7)	(-5.3-16.4)

EFDFLLSS.D06

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

Table 57. Population assessments for largemouth bass collected from Fishtrap Lake (1,143 acres). Actual values are in parentheses.

	Year			
Parameter	2003	2004	2005	2006
Length at age 3	4 (13.6)	4 (13.6)	4 (13.6)	4 (13.6)
Spring CPUE of age 1 fish	3 (42.0)	2 (35.4)	4 (61.5)	4 (52.5)
Spring CPUE 12-14.9 in. fish	2 (16.0)	2 (19.3)	4 (38.9)	3 (33.0)
Spring CPUE ≥ 15.0 in. fish	2 (11.0)	3 (13.1)	3 (14.9)	1 (4.0)
Spring CPUE ≥ 20.0 in. fish	3 (2.0)	2 (1.5)	1 (0.0)	1 (0.0)
Total score	14	13	16	13
Assessment rating	Good	Good	Good	Good
Instantaneous mortality (z)	0.52	0.56	0.65	0.83
Annual mortality (A)	40.4	42.7	48.0	56.5

EFDFLLSS.D03-D06
EFDFLLAS.D04

Table 58. Length frequency and CPUE (no./hour) of black bass collected in approximately 3.0 hours of 15-minute nocturnal electrofishing samples at Fishtrap Lake (1,143 acres) on 14 September 2006; 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	20	21	Total	CPUE	
Upper																								
SMB				2	1				1		1	2		1			2					10	6.6	(2.5)
SB				12	7	1	3	8	1	1												33	21.8	(10.3)
LMB	1		4	50	47	10	2	12	47	14	12	11	4	9	1	1	1	1	2			229	151.2	(9.6)
Lower																								
SMB			2	13	15	1	9	23	10	5	5	6	2	2	2		2		1			98	65.3	(15.5)
SB			21	76	8	13	26	14	16	1	7	4										186	124.0	(48.6)
LMB			5	49	45	8	2	10	43	32	13	9	5	1	1		2	1	1	2	1	230	153.3	(33.6)
Total																								
SMB			2	15	16	1	9	23	11	5	6	8	2	3	2		4		1			108	36.0	(11.6)
SB			21	88	15	14	29	22	17	2	7	4										219	72.9	(28.3)
LMB	1		9	99	92	18	4	22	90	46	25	20	9	10	2	1	3	2	3	2	1	459	152.3	(16.7)

LMB = largemouth bass
SMB = smallmouth bass
SB= spotted bass
EFDFLLSF.D06

Table 59. Number of fish and relative weight (Wr) for each length class of black bass collected at Fishtrap Lake (1,143 acres) on 14 September 2006. Standard errors are in parentheses.

		Size range					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Species	Area	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Upper	66	89.8 (1.1)	21	91.9 (1.4)	6	104.7 (2.9)
	Lower	19	85.3 (1.6)	11	84.8 (1.2)	8	95.8 (3.8)
	Total	85	88.8 (1.0)	32	89.5 (1.2)	14	99.6 (2.7)
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
Spotted bass	Upper	11	98.8 (2.3)				
	Lower	10	93.1 (1.6)	6	90.9 (1.3)		
	Total	21	96.1 (1.6)	6	90.9 (1.3)		
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
Smallmouth bass	Upper			2	93.7 (8.3)	3	84.5 (5.6)
	Lower	16	84.5 (1.6)	11	81.0 (1.6)	7	79.9 (2.2)
	Total	16	84.5 (1.6)	13	82.9 (2.1)	10	81.3 (2.2)

EFDFLLSF.D06

Table 60. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected at Fishtrap Lake (1,143 acres).

	Age 0		Age 0		Age 0 ≥ 5.0		Age 1	
Year class	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	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	52.5	8.8
2006	5.0	0.05	72.7	14.1	36.5	8.0		

EFDFLLSF.D03-D06
EFDFLLSS.D04-D06
EFDFLLAS.04

Table 61. Fish harvest statistics derived from a daytime creel survey at Fishtrap Lake (1,143 acres) from 8 April through 28 October 2006. Standard errors are in parentheses.

Fishing trips	
No. of fishing trips	4,602
No. of fishing trips per acre	4.03
Fishing pressure	
Total angler hours	23,700 (1,058.39)
Man-hours/acre	20.73
Catch/harvest	
No. of fish caught	31,543 (4,035.09)
No. of fish harvested	12,233 (2,315.49)
Lb of fish harvested	4,662
Harvest rates	
Fish/hour	0.50
Fish/acre	10.70
Lb/acre	4.08
Catch rate	
Fish/hour	1.31
Fish/acre	27.60
Miscellaneous characteristics (%)	
Male	88.9
Female	11.1
Resident	93.8
Non-resident	6.2
Method (%)	
Still fishing	4.1
Casting	94.2
Fly fishing	0.1
Trolling	1.6
Mode (%)	
Boat	90.9
Bank	8.3
Dock	0.7

Table 62. Fish harvest statistics derived from a creel survey at Fishtrap Lake (1,143 acres) from 8 April through 28 October 2006.

	Common carp	Channel catfish	Flathead catfish	Green sunfish	Bluegill	Smallmouth bass	Spotted bass	Largemouth bass	White crappie	Hybrid striped bass
No. caught	15	748	63	44	5,260	598	390	6,081	17,439	904
(per acre)	(0.013)	(0.655)	(0.055)	(0.039)	(4.602)	(0.523)	(0.341)	(5.320)	(15.257)	(0.791)
No. harvested		472	44	11	1,875		47	31	9,410	343
(per acre)		(0.413)	(0.039)	(0.010)	(1.640)		(0.041)	(0.027)	(8.232)	(0.300)
% of total no. harvested	0.00	3.86	0.36	0.09	15.33	0.00	0.38	0.25	76.92	2.80
Lb harvested		425.8	164.7	1.0	323.4		32.4	65.5	2,843.5	805.4
(per acre)		(0.373)	(0.144)	(0.001)	(0.283)		(0.028)	(0.057)	(2.488)	(0.705)
% of total lb harvested	0.00	9.13	3.53	0.02	6.94	0.00	0.70	1.41	61.00	17.28
Mean length (in)		14.1	21.6	5.0	6.8		11.8	16.0	8.8	15.3
Mean weight (lb)		0.95	4.91	0.08	0.20		0.71	2.12	0.30	2.02

	Catfish group	Panfish group	Black bass group	Crappie group	Hybrid striped bass	Anything
No. of fishing trips for that species	297	1,278.00	1,788	1,437	223	611
% of all trips	6.45	5.39	38.82	31.22	4.84	13.28
Hours fished for that species	1,529.08	1,277.84	9,200.63	7,398.47	1,146.22	3,147.57
(per acre)	(1.34)	(1.12)	(8.05)	(6.47)	(1.00)	(2.75)
No. harvested fishing for that species	313	481	57	8,423.00	230	
Lb harvested fishing for that species	268.3	88.4	80.9	2,473.0	644.2	
No./hour harvested fishing for that species	0.264	0.562	0.007	1.117	0.230	
% success fishing for that species	30.77	34.04	1.30	51.53	22.22	27.05

Table 63. Species composition and length distribution of each species of fish harvested (H) and released (R) from a creel survey on Fishtrap Lake (1,143 acres) from 8 April to 28 October 2006.

Species		Inch class																						
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Common carp	H																							
	R																			15				
Channel catfish	H				11	43	11	54	11	64	43	64	32	11	54	32	11			11		11	9	
	R			11	32	32		53	11		11	42	21	21	11	11	11			9				
Flathead catfish	H									18		9												17
	R											10						9						
Bluegill	H	116	411	327	590	348	42	11	19															
	R	772	871	474	287	452	243	33		55														
Green sunfish	H		11																					
	R	22	10																					
Spotted bass	H							12		23	12													
	R			11	23	11	11	92		126	57	13												
Largemouth bass	H												8	15	8									
	R			470	547	711	514	973	404	1,104	514	470	144	55	44	55	11	11	11			12		
Smallmouth bass	H																							
	R			12	84	84	72	60	24	120	60	26			11	11	23	12						
White crappie	H	48		535	1,390	2,055	1,853	2,376	772	214	107	60												
	R	506	1,766	2,137	1,856	900	472	202	34		22		11											
Hybrid striped bass	H			21							32	11	43	43	75	54		21		21	11	11		
	R			37	12	61	12	24	61	12	24	24	122	12	61	12	61			26				

Table 64. Monthly black bass angling success at Fishtrap Lake (1,143 acres) during the 2006 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	2,653	0	599.20	3,085.88	1,940	0.53	0	0.00
May	1,684	31	300.43	1,547.23	967	0.55	31	0.02
Jun	944	0	262.82	1,353.54	792	0.39	0	0.00
Jul	551	0	238.45	1,228.00	377	0.26	0	0.00
Aug	262	0	124.73	642.35	253	0.45	0	0.00
Sep	467	20	134.65	683.12	304	0.51	0	0.00
Oct	514	26	128.25	660.51	461	0.56	26	0.03
Total	4,422	77	1,786.53	9,200.63	5,094		57	
Mean						0.46		0.01

Table 65. Monthly white crappie angling success at Fishtrap Lake (1,143 acres) during the 2006 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	White crappie caught by crappie anglers	White crappie caught/hour by crappie anglers	White crappie harvested by crappie anglers	White crappie harvested/hour by crappie anglers
Apr	7,669	4,683	672.27	3,462.20	6,624	1.84	4,229	1.18
May	3,449	1,531	285.16	1,468.56	3,187	2.56	1,323	1.06
Jun	933	553	74.38	383.08	586	1.25	412	0.88
Jul	195	126	19.54	100.66	138	1.50	92	1.00
Aug	785	496	46.77	240.88	786	2.12	497	1.34
Sep	1,320	660	108.96	561.14	1,157	1.77	538	0.82
Oct	3,085	1,358	229.51	1,181.96	3,033	3.02	1,332	1.33
Total	17,438	9,409	1,436.60	7,398.47	15,511		8,423	
Mean						2.01		1.09

Table 66. Monthly hybrid striped bass angling success at Fishtrap Lake (1,143 acres) during the 2006 creel survey period.

	Total no. 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	152	61	58.64	301.06	30	0.06	30	0.06
May	39	8	35.64	183.57	8	0.29	0	0.00
Jun	130	87	34.71	178.77	109	0.93	76	0.65
Jul	161	69	54.73	281.84	68	0.29	34	0.15
Aug	108	108	20.79	107.06	90	0.83	90	0.83
Sep	51	10	4.74	24.40	41	0.44	0	0.00
Oct	264	0	13.50	69.53	251	3.17	0	0.00
Total	905	343	222.57	1,146.22	597		230	
Mean						0.86		0.24

Table 67. Catch and harvest statistics derived from a creel survey at Fishtrap Lake (1,143 acres) for largemouth bass, white crappie, and hybrid striped bass caught and released by all anglers from 8 April to 28 October 2006.

	Largemouth bass				White crappie				Hybrid striped bass			
		Catch & release				Catch & release				Catch & release		
	Harvest	12-14.9	≥15.0	Total	Harvest	<8.9	≥9.0	Total	Harvest	<14.9	≥15.0	Total
Total number	31	2,088	343	6,081	9,410	7,288	741	17,439	343	267	294	904
Total weight (lb)	65.5	1,066.9	1,713.4	3,845.8	2,843.5	797.0	182.9	3,723.4	805.4	374.0	410.7	1,590.1
Mean length (in)	16.0				8.8				15.3			
Mean weight (lb)	2.12				0.30				2.02			
Rate (fish/hour)	0.002				0.370				0.015			

Table 68. Length frequency and electrofishing CPUE (no./hour) of black bass collected in approximately 0.37 hours of 7.5-min. electrofishing runs in Martin County Lake (3 acres) on 24 April 2006; numbers in parentheses are standard errors.

Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE
LMB	1		5	3	7	3	3	2	14	18	17	7	1	1	1	83	223.0 (34.2)

LMB = largemouth bass
EFDMCLSS.D06

Table 69. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Martin County Lake (3 acres). 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	43.3	9.3	98.4	5.9	23.7	4.5	0.0		165.4	13.5
2006	41.7	20.9	60.7	10.9	112.9	21.3	7.7	4.5	223.0	34.2

EFDMCLSS.D04
EFDMCLSS.D06

Table 70. PSD and RSD values obtained for largemouth bass taken in spring electrofishing samples in Martin County Lake (3 acres) on 24 April 2006; 95% confidence intervals are in parentheses.

No. fish ≥ 8"	PSD (+/- 95%)	RSD_{15} (+/- 95%)
67	67.2 (55.8-78.5)	4.5 (-0.5-9.5)

EFDMCLSS.D06

Table 71. Length frequency and electrofishing CPUE (no./hour) of black bass collected in approximately 0.63 hours of 7.5-min. electrofishing runs in Martin County Reservoir (23 acres) on 3 May 2006; 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
LMB		4	16	16	5	13	11	4	1	7	16	4	1		1							99	157.2 14.89)

LMB = largemouth bass
EFDMRLSS.D06

Table 72. Spring electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Martin County Reservoir (23 acres). 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	26.4	8.0	128.6	16.7	17.6	4.0	0.0		172.5	25.4
2006	85.7	13.0	36.6	6.0	33.3	6.3	1.6	1.6	157.2	14.9

EFDMRLSS.D04
EFDMRLSS.D06

Table 73. PSD and RSD values obtained for largemouth bass taken in spring electrofishing samples in Martin County Reservoir (23 acres) on 3 May 2006; 95% confidence intervals are in parentheses.

No. fish ≥ 8"	PSD (+/- 95%)	RSD_{15} (+/- 95%)
45	48.9 (34.1-63.7)	2.2 (-2.1-6.6)

EFDMRLSS.D06

Table 74. Length frequency and CPUE (no./hour) of black bass and walleye collected in 1.6 hours of 15-min nocturnal electrofishing runs in Martins Fork Lake (330 acres) on 9 May 2006; numbers in parentheses are standard errors.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
LMB		1	7	5	1	3	10	9	8	8	5	7	6	3	2	2		1	78	51.7 (10.7)
RB			1		2		1												4	2.7 (0.8)
SB	2	8	6	10	8	11	3	7	5	1	1								62	41.2 (8.4)
WE									2										2	1.3 (0.8)

LMB =largemouth bass
RB = redeye bass (coosa bass)
SB = spotted bass
WE = walleye
EFDMLLSS.D06

Table 75. Spring nocturnal electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Martins Fork Lake (330 acres). 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
2006	9.3	2.0	19.9	6.0	13.3	3.0	9.3	2.7	51.7	10.7

EFDMLLSS.D03
EFDMLLSS.D04
EFDMLLSS.D05
EFDMLLSS.D06

Table 76. PSD and RSD values obtained for each black bass species taken in spring nocturnal electrofishing samples in Martins Fork Lake (330 acres) in May 2006; 95% confidence intervals are in parentheses; largemouth bass stock size > 8.0 in and spotted bass stock size > 7.0 inches.

Species	No. stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
spotted bass	36	19.4 (6.3-32.6)	3.1 (3.1-9.3)
largemouth bass	64	53.1 (40.8-65.4)	21.9 (11.7-32.1)

EFDMLLSS.D06

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

Table 77. Spring electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Martins Fork Lake (330 acres) from 2003-2006.

	Year			
Age	2003	2004	2005	2006
1	15.3	10.9	5.4	10.0
2	19.4	78.3	20.8	17.7
3	3.3	6.9	15.5	9.5
4	2.7	1.3	2.4	6.6
5	0.7			1.3

EFDMLLSS.D03
EFDMLLAS.D03
EFDMLLSS.D04
EFDMLLSS.D05
EFDMLLSS.D06

Table 78. Spring electrofishing population assessments for largemouth bass collected from Martins Fork Lake (330 acres). Actual values are in parentheses.

	Year			
Parameter	2003	2004	2005	2006
Mean age-3 length at capture	4 (14.3)	4 (14.3)	4 (14.3)	4 (14.3)
Spring CPUE of age 1 fish	2 (32.2)	1 (10.9)	1 (5.4)	1 (10.0)
Spring CPUE 12-14.9 in. fish	1 (3.3)	1 (4.0)	2 (17.6)	1 (13.3)
Spring CPUE ≥ 15.0 in. fish	2 (5.3)	2 (5.3)	2 (4.8)	2 (9.3)
Spring CPUE ≥ 20.0 in. fish	1	1	1	1 (0.7)
Total score	10	9	10	9
Assessment rating	Fair	Fair	Fair	Fair
Instantaneous mortality (z)	1.03	2.04	1.08	0.81
Annual mortality (A)	64.4	87.0	66.0	55.7

EFDMLLSS.D03
EFDMLLSS.D04
EFDMLLSS.D05
EFDMLLSS.D06

Table 79. Length frequency and CPUE (no./hour) of black bass collected at Martins Fork Lake (330 acres) during 1.25 hours of 15 minute nocturnal electrofishing samples on 7 September 2006; numbers in parentheses are standard errors.

	Inch class																
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE	
LMB		2	12	20	10	4	9	12	4	2	1		1		77	61.6	(16.4)
RB			12	1	2	2	4	1							22	17.6	(6.5)
SB		4	14	3	8	19	10	3	2	2			1	2	68	54.4	(11.8)

LMB = largemouth bass
RB = redeye bass (coosa bass)
SB = spotted bass
EFDMLLSF.D06

Table 80. Electrofishing indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected during 2002 - 2006 at Martins Fork Lake (330 acres); 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	no fall sample						77.5	18.5
2004	no fall sample						24.6	5.9
2005	4.4	0.17	32.0	4.3	10.0	2.6	10.0	2.3
2006	4.5	0.13	38.4	14.5	11.2	3.2		

EFDMLLSF.D02
EFDMLLSF.D05
EFDMLLSF.D06
EFDMLLSS.D03
EFDMLLAS.D03
EFDMLLSS.D04
EFDMLLSS.D05
EFDMLLSS.D06

Table 81. Length frequency and CPUE (no./hour) of black bass collected in 3.01 hours of 15-minute nocturnal electrofishing samples in Paintsville Lake (1,150 acres) on 1 May 2006; 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																							
	LMB			3	7	4	22	34	15	14	8	9	10	6	5			1			138	91.2	(14.9)
	SMB																				0	0.0	
	SB				2	2	4	5	1	3	1	2	2								22	14.6	(4.6)
Lower																							
	LMB		1	4	4	1	46	83	20	15	7	9	4	3	1	1					199	132.7	(22.4)
	SMB																				0	0.0	
	SB				1	5	2	1	1	3	2	3	2	2							22	14.6	(8.2)
Total																							
	LMB		1	7	11	5	68	117	35	29	15	18	14	9	6	1		1			337	111.9	(14.3)
	SMB																				0	0.0	
	SB				3	7	6	6	2	6	3	5	4	2							44	14.6	(4.5)

LMB = largemouth bass
SMB = smallmouth bass
SB= spotted bass
EFDPLLSS.D06

Table 82. Spring nocturnal electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Paintsville Lake (1,150 acres). 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.
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
2006	30.6	4.4	65.1	12.6	13.6	1.9	2.6	1.1	111.9	14.3

EFDPLLSS.D02
EFDPLLSS.D03
EFDPLLSS.D04
EFDPLLSS.D05
EFDPLLSS.D06

Table 83. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples in each area of Paintsville Lake (1,150 acres) on 1 May 2006; 95% confidence intervals are in parentheses; largemouth bass stock size > 8.0 in and smallmouth and spotted bass stock size > 7.0 inches.

Area	Species	No. stock size	PSD (+/- 95%)	RSD[a](+/- 95%)
Upper	smallmouth bass			
	spotted bass	18	27.8 (6.5-49.1)	
	largemouth bass	102	30.4 (21.4-39.4)	5.9 (1.3-10.5)
Lower	smallmouth bass			
	spotted bass	16	56.3 (31.4-81.4)	12.5 (-4.2-29.2)
	largemouth bass	143	12.5 (7.1-18.0)	1.3 (-0.5-3.3)
Total	smallmouth bass			
	spotted bass	34	41.8 (24.4-58.0)	5.9 (-2.1-13.9)
	largemouth bass	245	20.0 (15.0-25.0)	3.3 (1.0-5.5)

EFDPLLSS.D06

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

Table 84. Mean back-calculated length (in) at each annulus for largemouth bass collected from Paintsville Lake (1,150 acres) 1 May 2006, including 95% confidence intervals.

Year		Age					
Class	No.	1	2	3	4	5	6
2005	20	5.0					
2004	29	5.9	8.6				
2003	27	6.2	9.6	11.6			
2002	8	6.2	9.4	11.9	13.2		
2001	6	6.7	10.0	11.6	12.7	14.0	
2000	4	6.2	10.1	11.8	13.3	14.2	15.0
Mean		5.9	9.2	11.7	13.1	14.1	15.0
Smallest		3.9	7.3	10.1	11.3	12.6	13.3
Largest		8.5	11.7	15.5	14.3	15.1	15.9
STD error		0.1	0.1	0.2	0.2	0.3	0.6
95% CI LO		5.7	9.0	11.3	12.6	13.6	13.8
95% CI HI		6.1	9.5	12.0	13.5	14.6	16.2

Intercept = 0
EFDPLLAS.D06

Table 85. Spring nocturnal electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Paintsville Lake (1,150 acres).

	Year						
Age	2000	2001	2002	2003	2004	2005	2006
1	11.8	41.0	41.2	68.3	54.6	75.6	12.3
2	68.8	29.7	50.3	21.4	81.8	104.1	70.4
3	42.6	65.7	42.8	11.2	22.4	55.6	18.9
4	7.1	9.6	8.7	4.5	9.6	8.7	4.5
5	2.9	3.9	3.9	1.3	2.6	4.1	2.9
6	1.7	2.8	2.5	0.3	1.1	1.9	2.8
7						0.4	

EFDPLLSS.D00-D06
EFDPLLAS.D03
EFDPLLAS.D06

Table 86. Spring nocturnal electrofishing population assessments for largemouth bass collected in Paintsville Lake (1,150 acres). Actual values are in parentheses.

	Year				
Parameter	2002	2003	2004	2005	2006
Mean length at age-3 capture	2 (11.6)	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)	1 (12.3)
Spring CPUE 12-14.9 in. fish	4 (36.0)	2 (19.7)	2 (17.0)	4 (35.1)	1 (13.6)
Spring CPUE ≥ 15.0 in. fish	1 (2.2)	1 (3.0)	1 (2.0)	2 (6.2)	1 (2.6)
Spring CPUE ≥ 20.0 in. fish	1	2 (0.3)	1	2 (0.4)	1
Total score	11	11	10	14	6
Assessment rating	Fair	Fair	Fair	Good	Poor
Instantaneous mortality (z)	0.83	0.95	1.15	1.10	0.84
Annual mortality (A)	56.5	61.3	68.2	66.6	56.8

EFDPLLSS.D03-D06
EFDPLLAS.D03
EFDPLLAS.D06

Table 87. Length frequency and CPUE (no./hour) of black bass collected in 2.5 hours of 15-minute nocturnal electrofishing samples in Paintsville Lake (1,150 acres) on 18 September 2006; numbers in parentheses are standard errors.

Area/ Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE	
Upper																		
LMB	15	34	41	13	3	21	23	18	3	2	2		1		1	177	141.6	(16.3)
SMB	1	1														2	1.6	(1.6)
SB	5	18	6	1	1	2	4		3							40	32.0	(15.7)
Lower																		
LMB	9	39	31	1	4	26	19	16	6	1	3	1	3			159	127.2	(28.3)
SMB																0	0.0	
SB	1	2		1	2	1	1	2								10	8.0	(5.1)
Total																		
LMB	24	73	72	14	7	47	42	34	9	3	5	1	4		1	336	134.4	(15.6)
SMB	1	1														2	0.8	(0.8)
SB	6	20	6	2	3	3	5	2	3							50	20.0	(8.7)

LMB = largemouth bass
SMB = smallmouth bass
SB= spotted bass
EFDPLLSF.D06

Table 88. Number of fish and relative weight (Wr) for each length class of black bass collected at Paintsville Lake (1,150 acres) on 18 September 2006. Standard errors are in parentheses.

		Size range					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Species	Area	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Upper	65	93.0 (11.1)	4	75.0 (7.8)	2	91.8 (1.3)
	Lower	51	78.1 (1.4)	5	75.5 (2.5)	3	90.1 (6.7)
	Total	116	86.4 (6.3)	9	75.4 (3.4)	5	90.8 (3.7)
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
Smallmouth bass	Upper						
	Lower						
	Total						
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
Spotted bass	Upper	7	93.1 (1.8)	3	94.3 (3.6)		
	Lower	6	93.5 (1.4)				
	Total	13	91.9 (1.2)	3	94.3 (3.6)		

EFDPLLSF.D06

Table 89. Nocturnal electrofishing indices of year class strength at age-0 and age-1 and mean lengths (in) of largemouth bass collected at Paintsville Lake (1,150 acres); CPUE = fish/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	12.3	2.4
2006	4.9	0.06	72.4	12.0	33.6	5.1		

EFDPLLSF.D03-D06
EFDPLLSS.D04-D06
EFDPLLAS.D03
EFDPLLAS.D06

Table 90. Length frequency and CPUE (no./hour) of bluegill and redear sunfish collected in 1.25 hours of daytime electrofishing in Pan Bowl Lake (99 acres) on 24 May 2006. SE = standard error.

	Inch class									
Species	1	2	3	4	5	6	7	Total	CPUE	SE
BG	2	16	31	25	62	34	10	180	144.00	19.85
RE		3	4	9	13	156	7	192	153.60	19.48
WM		1	2	2	5	1	1	12	9.60	2.61

BG = bluegill
RE = redear sunfish
WM = warmouth
EFDPBBSS.D06

Table 91. Length frequency and CPUE (fish/hour) of bluegill and redear sunfish collected in spring electrofishing samples at Pan Bowl Lake (99 acres). 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	35.4	8.6	163.1	18.2	20.0	4.9					218.5	22.7
2004	8.5	3.7	178.5	38.6	21.5	6.4	0.8	0.8			209.2	42.8
2006	14.4	3.9	94.4	16.9	35.2	6.3					144.0	19.9
Redear sunfish												
2002			106.2	16.9	86.2	34.8	0.8	0.8			193.1	48.2
2004			100.0	17.2	73.9	21.3					173.7	34.5
2006	2.4	1.2	20.8	4.2	130.4	18.9					153.6	19.5

EFDPBBSS.D02
EFDPBBSS.D04
EFDPBBSS.D06

Table 92. Mean back-calculated length (in) at each annulus for bluegill collected from Pan Bowl Lake (99 acres) on 11 May 2006, including 95% confidence intervals.

Year		Age					
Class	No.	1	2	3	4	5	6
2005	8	2.5					
2004	16	2.2	3.6				
2003	13	2.2	3.6	4.7			
2002	12	2.2	3.3	4.7	5.8		
2001	8	2.3	3.5	4.7	5.8	6.7	
2000	4	2.4	3.8	4.8	5.4	6.1	6.7
Mean		2.3	3.5	4.7	5.7	6.5	6.7
Smallest		1.4	2.5	3.6	4.8	5.5	5.9
Largest		3.4	5.1	6.5	7.4	7.2	7.1
STD error		0.1	0.1	0.1	0.1	0.2	0.3
95% CI LO		2.1	3.4	4.5	5.5	6.2	6.2
95% CI HI		2.4	3.7	4.9	5.9	6.8	7.2

Intercept = 0
EFDPBBAS.D06

Table 93. Mean back-calculated length (in) at each annulus for redear sunfish collected from Pan Bowl Lake (99 acres) on 11 May 2006, including 95% confidence intervals.

Year		Age					
Class	No.	1	2	3	4	5	6
2005	9	2.5					
2004	8	2.7	4.5				
2003	11	2.9	4.4	5.5			
2002	6	2.7	4.3	5.4	6.2		
2001	3	3.3	4.8	5.6	6.2	6.6	
2000	1	3.3	4.9	5.8	6.0	6.2	6.7
Mean		2.8	4.5	5.5	6.2	6.5	6.7
Smallest		1.6	3.0	4.8	5.6	6.1	6.7
Largest		3.7	5.5	6.2	6.8	7.0	6.7
STD error		0.1	0.1	0.1	0.1	0.2	
95% CI LO		2.6	4.3	5.4	5.9	6.1	
95% CI HI		2.9	4.7	5.7	6.4	6.9	

Intercept = 0
EFDPBRAS.D06

Table 94. Electrofishing catch rate (fish/hour) for each age of bluegill collected from Pan Bowl Lake (99 acres).

Age	2002	2004	2006
1	82.3	11.2	14.5
2	52.8	59.2	34.4
3	49.3	53.6	35.1
4	25.5	44.8	36.8
5	2.5	48.8	14.6
6			8.5
7			
8			

EFDPBBSS.D02
EFDPBBAS.D02
EFDPBBSS.D04
EFDPBBSS.D06
EFDPBBAS.D06

Table 95. Electrofishing catch rate (fish/hour) for each age of redear sunfish collected from Pan Bowl Lake (99 acres).

Age	2002	2004	2006
1	42.2	23.2	8.7
2	64.8	43.2	8.3
3	43.2	53.6	59.1
4	42.8	38.4	44.5
5			22.7
6			10.4
7			
8			

EFDPBBSS.D02
EFDPBRAS.D02
EFDPBBSS.D04
EFDPBBSS.D06
EFDPBRAS.D06

Table 96. PSD and RSD values obtained for bluegill and redear sunfish collected at Pan Bowl Lake (99 acres) on 11 May 2006; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD	RSD_8
Bluegill	162	27.2 (20.3-34.0)	0.0
Redear sunfish	185	3.8 (1.0-6.5)	

EFDPBBSS.D06

Table 97. Population assessment for bluegill collected from Pan Bowl Lake. Actual values are in parentheses.

	Year		
Parameter	2002	2004	2006
mean length age-2 at capture	2 (4.2)	2 (4.2)	2 (3.8)
years to 6 inches	1 (>4+)	1 (>4+)	1 (>4+)
CPUE ≥ 6.0 inches	1 (20.0)	1 (22.3)	2 (35.2)
CPUE ≥ 8.0 inches	1 0.0	2 (0.8)	1 0.0
Total score	5	6	6
Assessment rating	Poor	Poor	Poor
Instantaneous mortality (Z)	0.79		0.59
Annual mortality (A)	54.6		44.6

EFDPBBSS.D02
EFDPBBAS.D02
EFDPBBSS.D04
EFDPBBSS.D06
EFDPBBAS.D06

Table 98. Population assessment for redear sunfish collected from Pan Bowl Lake. Actual values are in parentheses.

Parameter	Year 2002	2004	2006
mean length age-3 at capture	4 (6.9)	4 (6.9)	3 (6.1)
years to 8 inches	1 (5+)	1 (5+)	1 (5+)
CPUE ≥ 8.0 inches	1 (0.8)	1 0.0	1 0.0
CPUE ≥ 10.0 inches	1 0.0	1 0.0	1 0.0
Total score	7	7	6
Assessment rating	Fair	Fair	Poor
Instantaneous mortality (Z)	0.20		0.72
Annual mortality (A)	18.4		51.1

EFDPBBSS.D02
EFDPBRAS.D02
EFDPBBSS.D04
EFDPBBSS.D06
EFDPBRAS.D06

Table 99. Length frequency and electrofishing CPUE (no./hour) of black bass collected in approximately 0.77 hours of 7.5-min. electrofishing runs in Pikeville City Lake (20 acres) on 20 April 2006; numbers in parentheses are standard errors.

Species	Inch class 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	
LMB	1			2	1		6	10	7	4	1	1	1	7	6	10	7	7			1	72	92.9	(9.1)

LMB = largemouth bass
EFDHALSS.D06

Table 100. Spring electro fishing catch-per-unit-effort (CPUE) for each size class of largemouth bass collected at Pikeville City Lake (20 acres). 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
2006	5.1	2.5	34.8	4.1	4.0	2.7	49.0	6.2	92.9	9.1

EFDHALSS.D04
EFDHALSS.D05
EFDHALSS.D06

Table 101. PSD and RSD values obtained for largemouth bass species taken in spring electrofishing samples in Pikeville City Lake (20 acres) on 20 April 2006; 95% confidence intervals are in parentheses.

No. fish ≥ 8"	PSD (+/- 95%)	RSD_{15} (+/- 95%)
68	60.3 (48.6-72.0)	55.9 (44.0-67.8)

EFDHALSS.D06

Table 102. Length frequency and nocturnal electrofishing CPUE (no./hour) of black bass collected at Yatesville Lake (2,350 aces) during 3.0 hours of 15 minute samples on 24 April 2006; numbers in parentheses are standard errors.

Area/		Inch class																				
	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Upper																						
	LMB	3	22	32	25	8	18	35	22	17	13	5	9	10	3	3	2			1	228	152.0 (20.3)
	SB			1																	1	0.7 (0.7)
Lower																						
	LMB		8	17	16	11	27	42	24	19	13	11	10	12	11	4	1		1		227	151.3 (30.7)
	SB	5	5	3	7	6	11	4	5	5	1		1								53	35.3 (9.6)
Total																						
	LMB	3	30	49	41	19	45	77	46	36	26	16	19	22	14	7	3		1	1	455	151.7 (17.5)
	SB	5	5	4	7	6	11	4	5	5	1		1								54	18.0 (7.0)

LMB = largemouth bass
SB= spotted bass
EFDYLLSS.D06

Table 103. Spring nocturnal electrofishing catch-per-unit-effort (CPUE) for each size class of largemouth bass at Yatesville Lake (2,350 acres). 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
2006	47.3	7.4	68.0	10.3	20.3	2.2	16.0	4.0	151.7	17.5

EFDYLLSS.D93 - D06

Table 104. PSD and RSD values for largemouth bass taken in spring nocturnal electrofishing samples in each area of Yatesville Lake (2,350 acres) on 24 April 2006; 95% confidence intervals are in parentheses; largemouth bass stock size > 8.0 in and spotted

Area	Species	No. stock size	PSD (+/- 95%)	RSD[a] (+/- 95%)
Upper	Largemouth bass	138	33.3 (25.4-41.2)	13.8 (8.0-19.5)
	Spotted bass			
Lower	Largemouth bass	175	36.0 (28.9-43.1)	16.6 (11.0-22.1)
	Spotted bass	33	21.2 (7.0-35.4)	3.0 (-2.9-9.0)
Total	Largemouth bass	313	34.8 (29.5-40.1)	15.3 (11.3-19.3)
	Spotted bass	33	21.2 (7.0-35.4)	3.0 (-2.9-9.0)

EFDYLLSS.D06

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

Table 105. Mean back-calculated length (in) at each annulus for largemouth bass collected from Yatesville Lake (2,350 acres) 24 April 2006, including 95% confidence intervals.

Year		Age					
Class	No.	1	2	3	4	5	6
2005	36	5.7					
2004	43	6.2	9.9				
2003	23	6.7	11.1	13.5			
2002	23	6.7	10.7	13.3	15.4		
2001	7	7.3	11.3	13.5	15.4	17.0	
2000	1	5.3	9.3	13.1	17.2	19.0	21.0
Mean		6.3	10.4	13.4	15.5	17.2	21.0
Smallest		3.0	6.2	9.9	12.1	14.9	21.0
Largest		9.5	16.0	16.7	18.0	19.0	21.0
STD error		0.1	0.1	0.2	0.2	0.4	
95% CI LO		6.1	10.2	13.1	15.0	16.4	
95% CI HI		6.5	10.7	13.8	15.9	18.1	

Intercept = 0
EFDYLLAS.D06

Table 106. Spring nocturnal electrofishing population assessments for largemouth bass collected at Yatesville Lake (2,350 acres). Actual values are in parentheses.

	Year			
Parameter	2002	2004	2005	2006
Mean age-3 length at capture	4 (13.2)	4 (13.2)	4 (13.2)	4 (13.5)
Spring CPUE of age 1 fish	4 (52.1)	1 (13.0)	3 (42.3)	3 (45.9)
Spring CPUE 12-14.9 in. fish	2 (19.3)	2 (23.7)	4 (42.0)	2 (20.3)
Spring CPUE ≥ 15.0 in. fish	3 (16.7)	2 (9.0)	4 (21.7)	3 (16.0)
Spring CPUE ≥ 20.0 in. fish	1	1	2 (0.3)	2 (0.7)
Total score	14	10	17	14
Assessment rating	Good	Fair	Excellent	Good
Instantaneous mortality (z)	0.86	1.07	0.91	1.23
Annual mortality (A)	57.8	65.8	59.8	70.8

EFDYLLSS.D02 - D06
EFDYLLAS.D05
EFDYLLAS.D06

Table 107. Spring electrofishing catch rate (fish/hour) for each age of largemouth bass collected from Yatesville Lake (2,350 acres).

Age	2000	2001	2002	2003	2004	2005	2006
1	59.7	32.2	52.1		13.0	42.3	45.9
2	56.0	54.9	46.6		35.7	54.9	69.2
3	11.3	23.4	22.7		23.6	43.0	16.8
4	5.7	8.5	16.4		11.9	23.2	15.7
5	1.1	1.2	1.0		0.6	1.9	3.4
6	1.6	1.8	1.2		0.9	2.8	0.3
7							
8		0.3					

EFDYLLSS.D00-D02
EFDYLLSS.D04-D06
EFDYLLAS.D05
EFDYLLAS.D06

Table 108. Length frequency and CPUE (no./hour) of black bass collected in approximately 2.75 hours of 15-minute nocturnal electrofishing samples in Yatesville Lake (2,350 acres) on 19 September 2006; numbers in parentheses are standard errors.

Area/ Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	
Upper																						
LMB		8	23	22	5	6	27	25	7	8	8	3	1	1						144	115.2	(12.2)
SB			1	1																2	1.6	(1.6)
Lower																						
LMB	1	1	10	9	4	6	8	18	16	4	4	6	1			1	1	1	1	92	61.2	(9.6)
SB		13	22	1	5	5	2	5	1	7	3		1							65	43.3	(11.2)
Total																						
LMB	1	9	33	31	9	12	35	43	23	12	12	9	2	1	1	1	1	1	1	236	85.7	(11.2)
SB		13	23	2	5	5	2	5	1	7	3		1							67	24.4	(8.8)

LMB = largemouth bass
SB= spotted bass
EFDYLLSF.D06

Table 109. Number of fish and relative weight (Wr) for each length class of black bass collected at Yatesville Lake (2,350 acres) on 19 September 2006. Standard errors are in parentheses.

		Size range					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Species	Area	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Upper	35	83.1 (2.8)	11	83.3 (1.8)	1	97.7
	Lower	46	85.0 (1.1)	11	94.6 (2.2)	4	101.7 (2.7)
	Total	81	84.2 (1.4)	22	89.0 (1.9)	5	100.9 (2.2)
		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
		No.	Wr	No.	Wr	No.	Wr
Spotted bass	Upper						
	Lower	13	91.5 (2.3)	10	90.0 (1.6)	1	80.6
	Total	13	91.5 (2.3)	10	90.0 (1.6)	1	80.6

EFDYLLSF.D06

Table 110. Electrofishing indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected during 2003 - 2006 at Yatesville Lake (2,350 acres); 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	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	45.9	7.2
2006	4.9	0.08	29.5	7.8	13.8	3.8		

EFDYLLSF.D03-D06
EFDYLLAS.D05
EFDYLLAS.D06

Table 111. Length frequency and CPUE (fish/net-night) of white crappie collected by trap net at Yatesville Lake (2,350 acres) in 26 net-nights from 28-30 November 2006. Standard errors are in parentheses.

Inch class																	
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total	CPUE	
	100	158	602	295	204	127	81	98	45	18	10	2		1	1741	62.18	(14.52)

EFDYLCTF.D06

Table 112. PSD and RSD values calculated for white crappie collected in trap nets at Yatesville Lake (2,350 acres) during November 2006; 95% confidence intervals are in parentheses.

Species	No. fish ≥ stock size	PSD	RSD_{10}
White crappie	1,483	25.8 (23.5-28.0)	11.7 (10.1-13.4)

EFDYLCTF.D06

Table 113. Mean back-calculated length (in) at each annulus for white crappie collected from Yatesville Lake (2,350 acres) in November 2006, including 95% confidence intervals.

Year		Age								
Class	No.	1	2	3	4	5	6	7	8	9
2005	19	3.7								
2004	12	3.7	5.1							
2003	25	3.8	5.3	6.4						
2002	27	4.5	5.7	6.9	8.0					
2001	23	4.4	5.6	6.5	7.7	8.9				
2000	28	4.6	5.8	6.6	7.4	8.7	10.1			
1999	15	4.8	5.8	6.4	7.2	8.1	9.3	11.0		
1998	1	4.4	5.8	6.3	6.5	6.7	6.9	7.1	8.1	
1997	2	4.8	6.1	7.5	8.7	9.9	11.3	12.8	14.2	14.9
Mean		4.3	5.6	6.6	7.6	8.6	9.8	11.0	12.2	14.9
Smallest		2.7	3.5	4.3	4.9	5.4	5.5	7.1	8.1	14.3
Largest		5.9	7.5	9.3	11.3	11.6	12.7	13.8	15.0	15.5
STD error		0.1	0.1	0.1	0.1	0.2	0.2	0.4	2.1	0.6
95% CI LO		4.0	5.5	6.4	7.4	8.3	9.3	10.2	8.0	13.7
95% CI HI		4.4	5.7	6.8	7.8	8.9	10.3	11.8	16.3	16.1

Intercept = 0
EFDYLCAF.D06

Table 114. Age frequency and CPUE (fish/net-night) of white crappie collected by trap netting for 26 net-nights at Yatesville Lake (2,350 acres) in November 2006; numbers in parentheses are standard errors.

	Inch class																		
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total	Age%	CPUE	
0		100														100	6	3.57	(0.87)
1			149	100												249	14	8.91	(2.04)
2			9	251	105	13										378	22	13.49	(3.35)
3				251	42	115	64	6	5							483	28	17.25	(4.31)
4					84	38	36	31	44	5	1					239	14	8.56	(2.44)
5					21	26	27	12	33	16	3					138	8	4.92	(1.35)
6					42	13		12	16	16	9	6				114	7	4.08	(1.13)
7								12		8	6	4	2			32	2	1.14	(0.33)
8								6								6	0	0.22	(0.07)
9															1	1	0	0.04	(0.04)
Total		100	158	602	294	205	127	79	98	45	19	10	2	0	1	1740			
%		6	9	35	17	12	7	5	6	3	1	1	0	0	0				

CPUE of ≥8 in (quality size) = 13.64

CPUE of ≥10 in (preferred size) = 6.21

EFDYLCAF.D06

EFDYLCTF.D06

Table 115. Population assessments for white crappie collected from Yatesville Lake (2,350 acres).

	2002		2004		2006	
Parameter	Assessment value	Assessment score	Assessment value	Assessment score	Assessment value	Assessment score
CPUE of crappie (excluding age 0)	19.5	3	28.2	4	58.6	4
CPUE of age 1 crappie	3.9	2	3.7	2	8.9	3
CPUE of age 0 crappie	1.5	1	23.9	4	3.6	2
CPUE of crappie ≥ 8 in.	3.0	2	4.8	2	13.6	4
Mean age 2 length @ capture	6.1	1	5.6	1	6.0	1
Instantaneous mortality (z)	1.078		0.59		0.98	
Annual Mortality (A)	66.0		45.0		62.4	
Total score		9		13		14
Assessment rating		Fair		Good		Good

EFDYLCTF.D02
EFDYLCAF.D02
EFDYLCTF.D04
EFDYLCAF.D04
EFDYLCTF.D06
EFDYLCAF.D06

Appendix A. Carr Creek Lake (N = 183)

Frequency Tables

3. Which species do you fish for at Carr Creek Lake? (check all that apply)

	Frequency	Percent
Bass	122	66.67%
Crappie	50	27.32%
Catfish	13	7.10%
Walleye	33	18.03%
Bluegill	12	6.56%
anything	1	0.55%

4. Which one species do you fish for most at Carr Creek Lake? (check only one)

	Frequency	Percent
Bass	111	61.33%
Crappie	27	14.92%
Catfish	5	2.76%
Walleye	29	16.02%
Bluegill	3	1.66%
Other (unspecified)	6	3.31%
Total	181	
No Answer	2	

5. What level of satisfaction do you have with bass fishing at Carr Creek Lake?

	Frequency	Percent
Very Satisfied	110	88.71%
Somewhat Satisfied	8	6.45%
Neutral	1	0.81%
Somewhat Dissatisfied	3	2.42%
Very Dissatisfied	2	1.61%
No Opinion	0	0.00%
Total	124	
No Answer	59	

6. Do you support or oppose the current 15-inch size limit on largemouth bass at the lake?

	Frequency	Percent
Support	122	100.00%
Oppose	0	0.00%
No Opinion	0	0.00%
Total	122	
No Answer	61	

6b. What size limit would you prefer on largemouth bass at the lake?

	Frequency	Percent
Current(15-in)	121	100.00%
Other	0	0.00%
Total	121	
No Answer	62	

7. Do you support or oppose the current 15-inch size limit on smallmouth bass at the lake?

	Frequency	Percent
Support	122	100.00%
Oppose	0	0.00%
No Opinion	0	0.00%
Total	122	
No Answer	61	

7b. What size limit would you prefer on smallmouth bass at the lake?

	Frequency	Percent
Current(15-in)	122	100.00%
Other	0	0.00%
No Opinion	0	0.00%
Total	122	
No Answer	61	

8. Do you support or oppose the current "no size limit" on spotted bass at the lake?

	Frequency	Percent
Support	115	95.83%
Oppose	5	4.17%
No Opinion	0	0.00%
Total	120	
No Answer	63	

8b. What size limit would you prefer on spotted bass at the lake?

	Frequency	Percent
Current(None)	115	95.04%
Other (12")	6	4.96%
Total	121	
No Answer	62	

9. What level of satisfaction do you have with crappie fishing at Carr Creek Lake?

	Frequency	Percent
Very Satisfied	26	50.98%
Somewhat Satisfied	4	7.84%
Neutral	6	11.76%
Somewhat Dissatisfied	15	29.41%
Very Dissatisfied	0	0.00%
No Opinion	0	0.00%
Total	51	
No Answer	132	

10. Do you support or oppose the current 9-inch size limit on crappie at the lake?

	Frequency	Percent
Support	51	100.00%
Oppose	0	0.00%
No Opinion	0	0.00%
Total	51	
No Answer	132	

10b. What size limit would you prefer?

	Frequency	Percent
Current(9-in)	51	100.00%
Other	0	0.00%
Total	51	
No Answer	132	

11. Do you support or oppose the 30 fish creel limit on crappie at the lake?

	Frequency	Percent
Support	48	96.00%
Oppose	2	4.00%
No Opinion	0	0.00%
Total	50	
No Answer	133	

11b. What creel limit would you prefer?

	Frequency	Percent
Current(30)	50	98.04%
Other (15)	1	1.96%
Total	51	
No Answer	132	

12. What level of satisfaction do you have with the channel catfish fishing at Carr Creek Lake?

	Frequency	Percent
Very Satisfied	8	66.67%
Somewhat Satisfied	4	33.33%
Neutral	0	0.00%
Somewhat Dissatisfied	0	0.00%
Very Dissatisfied	0	0.00%
No Opinion	0	0.00%
Total	12	
No Answer	171	

13. Do you support or oppose the no size limit regulation on channel catfish at the lake?

	Frequency	Percent
Support	12	100.00%
Oppose	0	0.00%
No Opinion	0	0.00%
Total	12	
No Answer	171	

13b. What size limit would you prefer on channel catfish at the lake?

	Frequency	Percent
Current(None)	12	100.00%
Other	0	0.00%
Total	12	
No Answer	171	

Appendix A. Carr Creek Lake (cont'd)

14. Do you support or oppose the no creel limit regulation on channel catfish at the lake?

	Frequency	Percent
Support	11	91.67%
Oppose	0	0.00%
No Opinion	1	8.33%
Total	12	
No Answer	171	

14b. What creel limit would you prefer on channel catfish at the lake?

	Frequency	Percent
Current(None)	11	91.67%
5	1	8.33%
Other	0	0.00%
Total	12	
No Answer	171	

15. What level of satisfaction do you have with the walleye fishing at Carr Creek Lake?

	Frequency	Percent
Very Satisfied	29	87.88%
Somewhat Satisfied	2	6.06%
Neutral	0	0.00%
Somewhat Dissatisfied	2	6.06%
Very Dissatisfied	0	0.00%
No Opinion	0	0.00%
Total	33	
No Answer	150	

16. Do you support or oppose the 15" size limit regulation on walleye at the lake?

	Frequency	Percent
Support	33	100.00%
Oppose	0	0.00%
No Opinion	0	0.00%
Total	33	
No Answer	150	

16b. What size limit would you prefer on walleye at the lake?

	Frequency	Percent
Current(15-in)	33	100.00%
Other	0	0.00%
No Answer	150	

17. Do you support or oppose the 6 fish creel limit regulation on walleye at the lake?

	Frequency	Percent
Support	33	100.00%
Oppose	0	0.00%
No Opinion	0	0.00%
Total	33	
No Answer	150	

17b. What creel limit would you prefer on walleye at the lake?

	Frequency	Percent
Current(6)	33	100.00%
Other	0	0.00%
No Answer	150	

Appendix B. Fishtrap Lake (N = 543)

Frequency Table

4. Which species do you fish for at Fishtrap Lake? (check all that apply)

	Frequency	Percent
Bass	246	45.30%
Crappie	198	36.46%
Catfish	54	9.94%
Hybrid Striped Bass	43	7.92%
Bluegill	93	17.13%
anything	26	4.79%
trout	2	0.37%

4. Which one species do you fish for most at Fishtrap Lake? (check only one)

	Frequency	Percent
Bass	215	40.72%
Crappie	162	30.68%
Catfish	53	10.04%
Hybrid Striped Bass	30	5.68%
Bluegill	50	9.47%
Anything	16	3.03%
trout	2	0.38%
Total	528	
No Answer	15	

5. What level of satisfaction do you have with bass fishing at Fishtrap Lake?

	Frequency	Percent
Very Satisfied	76	30.52%
Somewhat Satisfied	75	30.12%
Neutral	37	14.86%
Somewhat Dissatisfied	23	9.24%
Very Dissatisfied	24	9.64%
No Opinion	14	5.62%
Total	249	
No Answer	294	

6. Do you support or oppose the 15-inch size limit on largemouth bass at the lake?

	Frequency	Percent
Support	224	90.69%
Oppose	23	9.31%
No Opinion	0	0.00%
Total	247	
No Answer	296	

6a. What size limit would you prefer on largemouth bass at the lake?

	Frequency	Percent
Current(15-in)	225	91.09%
Other	22	8.91%
Total	247	
No Answer	296	

Other Size Limit

	Frequency	Percent
9"	1	5.26%
12"	7	36.84%
13"	1	5.26%
18"	2	10.53%
catch and release	3	15.79%
slot limit	3	15.79%
slot limit 12"-15"	2	10.53%
Total	19	

7. Do you support or oppose the 15-inch size limit on smallmouth bass at the lake?

	Frequency	Percent
Support	223	90.28%
Oppose	19	7.69%
No Opinion	5	2.02%
Total	247	
No Answer	296	

7b. What size limit would you prefer on smallmouth bass at the lake?

	Frequency	Percent
Current(15-in)	220	91.29%
Other	21	8.71%
Total	241	
No Answer	302	

Appendix B. Fishtrap Lake (cont'd)

Other Size Limit

	Frequency	Percent
9"	1	6.67%
10-12"	1	6.67%
12"	5	33.33%
18"	3	20.00%
catch and release	2	13.33%
slot limit	2	13.33%
slot limit 12"-15"	1	6.67%
Total	15	

8. Do you support or oppose the current "no size limit" on spotted bass at the lake?

	Frequency	Percent
Support	193	79.10%
Oppose	41	16.80%
No Opinion	10	4.10%
Total	244	
No Answer	299	

8b. What size limit would you prefer on spotted bass at the lake?

	Frequency	Percent
Current(None)	190	79.50%
Other	49	20.50%
Total	239	
No Answer	304	

Other Size Limit

	Frequency	Percent
8"	1	2.17%
10"-12"	1	2.17%
10"	2	4.35%
12"-15"	1	2.17%
12"	20	43.48%
13"	1	2.17%
15"	13	28.26%
21"	1	2.17%
catch and release	1	2.17%
no opinion	5	10.87%
Total	46	

Appendix B. Fishtrap Lake (cont'd)

9. What level of satisfaction do you have with crappie fishing at Fishtrap Lake?

	Frequency	Percent
Very Satisfied	81	42.86%
Somewhat Satisfied	69	36.51%
Neutral	18	9.52%
Somewhat Dissatisfied	5	2.65%
Very Dissatisfied	7	3.70%
No Opinion	9	4.76%
Total	189	
No Answer	354	

10. Do you support or oppose the current "no size limit" on crappie at the lake?

	Frequency	Percent
Support	117	62.23%
Oppose	66	35.11%
No Opinion	5	2.66%
Total	188	
No Answer	355	

10b. What size limit would you prefer on crappie at the lake?

	Frequency	Percent
Current(None)	120	63.83%
Other	68	36.17%
Total	188	100.00%
No Answer	355	

Other Size Limit

	Frequency	Percent
6"	2	2.99%
7"	1	1.49%
8"	8	11.94%
8-9"	2	2.99%
8-10"	4	5.97%
9"	14	20.90%
9-10"	3	4.48%
10"	27	40.30%
10" or above	2	2.99%
no opinion	3	4.48%
rather see a size limit	1	1.49%
Total	67	

Appendix B. Fishtrap Lake (cont'd)

11. Do you support or oppose the 30 fish creel limit on crappie at the lake?

	Frequency	Percent
Support	178	95.70%
Oppose	8	4.30%
No Opinion	0	0.00%
Total	186	
No Answer	357	

11b. What creel limit would you prefer on crappie at the lake?

	Frequency	Percent
Current(30)	173	92.02%
15	11	5.85%
10	2	1.06%
20	1	0.53%
rather see a size limit	1	0.53%
Total	188	
No Answer	355	

12. What level of satisfaction do you have with the channel catfish fishing at Fishtrap Lake?

	Frequency	Percent
Very Satisfied	32	57.14%
Somewhat Satisfied	9	16.07%
Neutral	7	12.50%
Somewhat Dissatisfied	2	3.57%
Very Dissatisfied	4	7.14%
No Opinion	2	3.57%
Total	56	
No Answer	487	

13. Do you support or oppose the no size limit regulation on channel catfish at the lake?

	Frequency	Percent
Support	46	80.70%
Oppose	8	14.04%
No Opinion	3	5.26%
Total	57	
No Answer	486	

Appendix B. Fishtrap Lake (cont'd)

13b. What size limit would you prefer on channel catfish at the lake?

	Frequency	Percent
Current(None)	46	85.19%
Other	8	14.81%
Total	54	
No Answer	489	

Other Size Limit

	Frequency	Percent
7-9"	1	12.50%
12"	3	37.50%
14"	1	12.50%
15-16"	1	12.50%
15"	1	12.50%
16"-18"	1	12.50%
Total	8	

14. Do you support or oppose the no creel limit regulation on channel catfish at the lake?

	Frequency	Percent
Support	44	77.19%
Oppose	9	15.79%
No Opinion	4	7.02%
Total	57	
No Answer	486	

14b. What creel limit would you prefer on channel catfish at the lake?

	Frequency	Percent
Current(None)	43	79.63%
5	2	3.70%
6	5	9.26%
Other	4	7.41%
Total	54	
No Answer	489	

Appendix B. Fishtrap Lake (cont'd)

Other Creel Limit

	Frequency	Percent
3	2	50.00%
7	1	25.00%
10	1	25.00%
Total	4	

15. What level of satisfaction do you have with the flathead catfish fishing at Fishtrap Lake?

	Frequency	Percent
Very Satisfied	30	57.69%
Somewhat Satisfied	6	11.54%
Neutral	3	5.77%
Somewhat Dissatisfied	2	3.85%
Very Dissatisfied	2	3.85%
No Opinion	9	17.31%
Total	52	
No Answer	491	

16. Do you support or oppose the no size limit regulation on flathead catfish at the lake?

	Frequency	Percent
Support	40	76.92%
Oppose	9	17.31%
No Opinion	3	5.77%
Total	52	
No Answer	491	

16b. What size limit would you prefer on flathead catfish at the lake?

	Frequency	Percent
Current(None)	39	81.25%
Other	9	18.75%
Total	48	
No Answer	495	

Other Size Limit

	Frequency	Percent
12"	3	33.33%
12"-15"	1	11.11%
14"	1	11.11%
15"	1	11.11%
15-16"	1	11.11%
16"-18"	1	11.11%
4-3lbs	1	11.11%
Total	9	

17. Do you support or oppose the no creel limit regulation on flathead catfish at the lake?

	Frequency	Percent
Support	38	74.51%
Oppose	10	19.61%
No Opinion	3	5.88%
Total	51	
No Answer	492	

17b. What creel limit would you prefer on flathead catfish at the lake?

	Frequency	Percent
Current(None)	40	80.00%
5	2	4.00%
6	3	6.00%
Other	5	10.00%
Total	50	
No Answer	493	

Other Creel Limit

	Frequency	Percent
3	1	20.00%
3-4	1	20.00%
7	1	20.00%
10	2	40.00%
Total	5	

18. What level of satisfaction do you have with the hybrid striped bass fishing at Fishtrap Lake?

	Frequency	Percent
Very Satisfied	14	45.16%
Somewhat Satisfied	3	9.68%
Neutral	3	9.68%
Somewhat Dissatisfied	2	6.45%
Very Dissatisfied	5	16.13%
No Opinion	4	12.90%
Total	31	
No Answer	512	