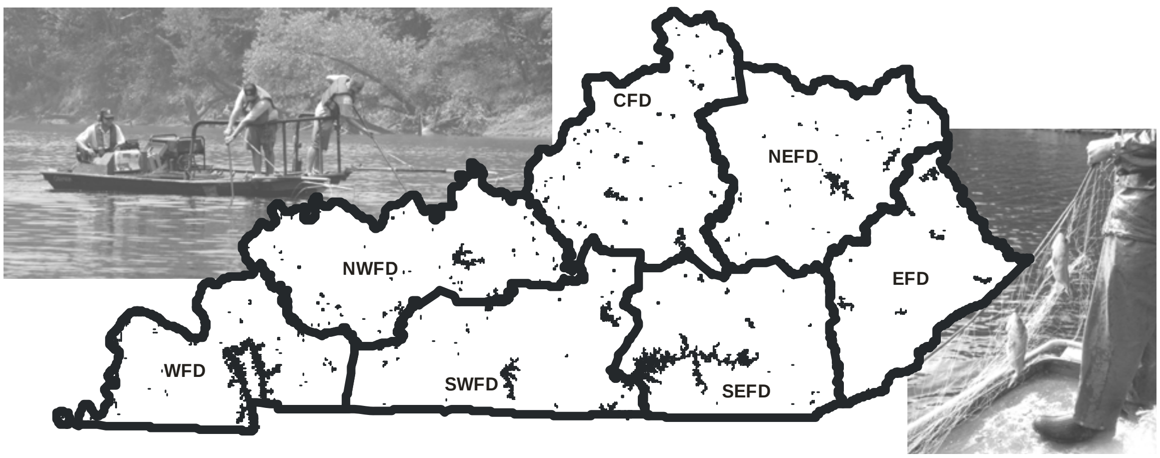
Commonwealth of Kentucky Date: June 30, 2015

Sport Fish Restoration Grant F-50, Segment 37 Period: 01 April 2014
through
31 March 2015

ANNUAL PERFORMANCE REPORT

District Fisheries Management

Projects A - D



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Department of Fish and Wildlife Resources
Fisheries Division

TABLE OF CONTENTS

Project A - District Fisheries Management, Lake and Tailwater Sampling

Project B – Private and Public Pond/Lake Technical Guidance

Project C – Fish Propagation and Transportation

STATE: Kentucky

GRANT NO.: F-50-37

FBMS NO.: F14AF00278

GRANT TITLE: District Fisheries Management

PERIOD COVERED: April 1, 2014 – March 31, 2015

PROJECT: Project A – Lake and Tailwater Sampling

Project Objective: To annually manage and conserve and sport fisheries and habitats throughout 221,680 acres of freshwater lakes, tailwaters, and small impoundments within the Commonwealth of Kentucky in order to provide recreational fishing opportunities to the public.

A. ACTIVITY

Sport fish species were sampled throughout Kentucky using electrofishing, gill netting, trap netting, and other gear to gather biological data in order to best manage the sport fish resources of the Commonwealth. In total, over 65 lakes/reservoirs (encompassing approximately 217,498 acres), in addition to eight major tailwaters were sampled and managed. Otoliths were removed to calculate age/growth from various sport fish species of interest. Other measures were monitored including catch rates, mortality, recruitment, length/weight, water temperature, dissolved oxygen, and other physical limnological data. Creel surveys were conducted on four fisheries of interest and included: (1) Cave Run Lake; (2) Green River Lake; (3) Kentucky Lake and (4) Buckhorn Lake and focused heavily on musky anglers in association with a musky research project. Data from creel surveys was used to compare with standardized sampling data and obtain measurements concerning the public's catch rates, harvest rates, species of interest, and size of catch. Field staff also attended public meetings, as well as organized fishing group meetings to display catch and abundance data. Results of data obtained during the grant period were analyzed and summarized into the Fisheries Division 2014 Annual Reports. This information is available to the public at their request.

Kentucky Department of Fish and Wildlife Resources' fisheries biologists and technicians utilized a variety of methods to manage public water bodies including fertilizing 7 lakes, enhancing 2 lakes with aquatic plants and adding a variety of fish habitat attracting structures throughout the state. These structures include:

273 new stake beds
193 stake beds maintained/improved
110 new shallow water brush piles
122 shallow water brush piles maintained
1493 deep water brush piles
246 deep water brush piles maintained
1 rock pile formation

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date: March 31, 2015
Work accomplished: March 31, 2015

C. SIGNIFICANT DEVIATIONS

None.

D. REMARKS

None.

E. RECOMMENDATIONS

Close this segment of F-50 and continue project into new segment (#38) of F-50.

F. COST

$1,179,003.17

PROJECT: Project B – Private and Public Pond/Lake Technical Guidance

<u>Project Objective</u>: To provide technical guidance and planning assistance to individuals, groups, corporations, and government agencies for the development and improvement of sport fish populations and their habitats on lands they own or control.

A. ACTIVITY

Kentucky Department of Fish and Wildlife Resources' biologists and technicians provided 128 on-site technical guidance visits during the grant period. On-site technical guidance problems were varied, but mostly focused around poor sport fish populations, aquatic vegetation, nuisance species (i.e. turtles), fish kills, and sport fish stocking questions. Department staff provided verbal and written recommendations to pond owners such as stocking recommendations, ideal species, aquatic vegetation identification and treatment, liming, pH monitoring, fish kill prevention, aeration, and special fish management permits that allow pond owners the ability to harvest fish outside of statewide fisheries regulations. Additionally, staff also conducted on-site visits to landowners developing new ponds.

An additional 839 technical guidance requests were handled by staff over the phone, through email, letters, and from walk-ins at department regional offices/fish hatcheries. As demand for technical guidance increases, the Department has begun providing more information for private pond owners on the website including adding 60+ webpages that guide landowners through common pond problems.

Program income was generated as a result of application fees for pond owners enrolling in the farm pond stocking program. The stocking program provides largemouth bass, bluegill, and channel catfish fingerlings to new or recently renovated ponds. The fee structure for this program is $75 (0-1.4 acre ponds); $200 (1.5-3.0 acre ponds); or $200 plus $150 per additional acre (for ponds exceeding 3.0 acres in size). As approved in the grant, this program income is added onto the grant via the "Additive Method" - 2 CFR 200 307(2).

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date: March 31, 2015
Work accomplished: March 31, 2015

C. SIGNIFICANT DEVIATIONS

None.

D. REMARKS

None.

E. RECOMMENDATIONS

Close this segment of F-50 and continue project into new segment (#38) of F-50.

F. COST

$47,189.13

PROJECT: Project C – Fish Propagation and Transportation

Project Objective: To produce, rear, and stock various sport fish throughout the Commonwealth of Kentucky in order to establish, improve, or maintain recreational fishing opportunities in lakes, rivers, and reservoirs.

A. ACTIVITY

A total of 15 different sport fish species were produced and reared at both of the Pfeiffer and Minor Clark Fish Hatcheries during the grant period. An additional three sport fish species (rainbow, brown, and brook trout) were also raised at Wolf Creek National Fish Hatchery and stocked by the Kentucky Department of Fish and Wildlife Resources. In total, 5,099,273 fingerling or larger sport fish (17,830,839 fish if you include all fry stockings) were produced and most were stocked throughout the waters of Kentucky during the grant period. These fish ranged in size from fry to 20+ inches. Below is a list of the species and numbers stocked during the grant period. See attached spreadsheet for a detailed description of total production and species information.

Blue Catfish – 15,578 (4-8” fish); 30,199 (6-9” fish); 17,304 (8-14” fish)
Bluegill Sunfish – 9,000(2-3” fish); 490 (7-9” fish)
Brook Trout – 11,847 (8-11” fish)
Brown Trout – 92,549 (3-9” fish)
Channel Catfish – 33,485 (2” fish); 165,036 (6-12” fish)
Hybrid Bluegill Sunfish – 63,319 (3-8” fish)
Hybrid Channel Catfish – 17,900 (7-15” fish)
Hybrid Striped Bass – 1,026,712 (1.5” fish); 1587 (5” fish)
Largemouth Bass –274,314 (2” fish); 91,650 (5” fish)
Muskellunge – 7,765 (8-9” fish); 13,434 (12-14” fish)
Rainbow Trout – 579,526 (8-12” fish)
Redear Sunfish – 26,920 (2” fish); 15,360 (3” fish)
Sauger – 77,734 (fry); 104 (10-16” fish)
Saugeye – 53,576 (2” fish)
Striped Bass – 285,576 (1.5” fish)
Triploid Rainbow Trout – 38,375 (8-15” fish)
Walleye – 1,632,527 (fry); 77 (12-24” fish)
Walleye (native strain) – 121,906 (1.5” fish)
White Bass – 134,310 (1.5” fish)

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date: March 31, 2015
Work accomplished: March 31, 2015

C. SIGNIFICANT DEVIATIONS

Some deviations occurred from the planned production compared to the actual numbers/location of sport fish stocked during the grant. These minor deviations occur annually and are the result of changes that benefit the anglers and the resource. For example, trout may be redirected from one trout stream to another, particularly during the summer if some streams become too warm to stock trout. Additionally, if target numbers of fish are not met, the Division may adjust numbers to best meet the stocking needs of individual water bodies. See the attached fish production report for a comparison of target stockings vs actual stockings.

D. REMARKS

None.

E. RECOMMENDATIONS

Close this segment of F-50 and continue project into new segment (#38) of F-50.

F. COST

$1,877,139.89

PROJECT: Project D – Operation and Maintenance of District Fisheries Office and Hatcheries

Project Objective: To operate and maintain seven district fisheries offices and associated facilities in order to provide for optimal and diverse fish populations for the benefit of the public.

A. ACTIVITY

A total of seven district fisheries offices and two fish hatcheries were operated and maintained during the grant period. Additional associated facilities were also maintained within each fisheries district area (i.e. public restroom facilities at boat ramps and bank fishing areas; maintenance/replacement of fishing access signs). Additional facilities include 65 bank fishing areas and piers.

B. TARGET DATES FOR ACHIEVEMENT AND ACCOMPLISHMENT

Planned work achievement date: March 31, 2015
Work accomplished: March 31, 2015

C. SIGNIFICANT DEVIATIONS

None.

D. REMARKS

None.

E. RECOMMENDATIONS

Close this segment of F-50 and continue project into new segment (#38) of F-50.

F. COST
$257,188.93

Total Grant Cost for F-50-37 (F14AF00278**)**	**$4,484,617.09**	
Federal Share -	**$3,360,521.12**	**75%**
State Share -	**$1,124,095.97**	**25%**

WESTERN FISHERY DISTRICT

Project A: Lake and Tailwater Fishery Surveys

FINDINGS

Sampling conditions for each survey event are listed in Table 1.

Kentucky Lake

During the spring, 1,038 black bass were collected by diurnal electrofishing (120 PPS, DC current). During this sampling period, 976 largemouth bass (78.1 fish/hr) were collected (Table 2). The catch rates for largemouth bass between embayments varied from 47.7 to 112.3 fish/hr. This variation could be due to the fluctuating water levels and changing weather conditions during the sampling period. The catch rate of largemouth bass (≤8.0 in) from Sugar Bay (LBL) was 66.0 fish/hr, as compared to 8.3 fish/hr at Blood River. The average catch rate for these small bass in the four embayments (excluding Sugar Bay) was 19.3 fish/hr. The samples from all five embayments had similar catch rates for largemouth bass ≥ 15.0 in. Tennessee Valley Authority (TVA) biologist also sampled Kentucky Lake during the same period. The length frequency for their total catch was similar to our data, but their total catch rate (50.4 fish/hr) was lower. This is likely due to the fact that TVA only utilizes one dipper.

The spring bass data were used to complete the lake specific assessment (Table 3). The lake specific assessment suggests that the largemouth bass population rates as "fair". The growth rate parameter was calculated from the 2012 age data, which rated "excellent". The catch of harvestable size (≥ 15.0 in) bass continues to rate as "fair". However, angler satisfaction with the fishery is still very good, and bass tournaments are reporting record winning weights in excess of 20 pounds, on a five fish stringer.

The spring data were used to assess the fishery in regards to the Kentucky Lake Fish Management Plan (KLFMP). The catch rate of largemouth bass was average for small (≤8.0 in) bass as compared to historical catch rates. However the catch of age 1 fish was above the KLFMP recommendation (Table 4). Additionally, Table 5 lists the catch rates of older bass collected during the spring sample.

The catch rates of largemouth bass in other length groups listed in the KLFMP were slightly below the recommended levels. The catch of bass in the range of 12.0-14.0 in should exceed 21.0 fish/hr. The catch of bass 15.0 in and larger should exceed 18.0 fish/hr, while the trophy size (≥20.0 in) catch rate should be at least 2.0 fish/hr (Table 4). The PSD values were calculated from the bass collected, and reported in Table 6. The PSD value calculated for all sizes of largemouth bass was 59, which falls inside the targeted range (PSD of 55-75). The calculated RSD_{15} was 30, which falls within the targeted range (RSD_{15} of 20-40). The PSD value suggests a population with almost equal densities of stock and quality size largemouth bass.

During October, 505 black bass were collected by diurnal electrofishing (120 PPS, DC current) at two locations; Blood River and Jonathan Creek. Largemouth bass comprised 90% (91.0 fish/hr) of this sample (Table 7). The length frequency of the catch for each embayment was similar for largemouth bass larger than 8.0 in. However for the smaller bass (≤ 8.0 in), Jonathan Creek (33.6 fish/hr) had a much higher catch rate than did Blood River (10.4 fish/hr).

Length and weight data were recorded from all bass collected in the fall to calculate relative weight values. The mean relative weight value for harvestable size largemouth bass was 91 (Table 8), with the historical average being 97. Overall the condition of black bass was fair. Typically the condition of the bass should be in the range of 94 to 104. For the last few years this condition value has been below the preferred range. This is one parameter that is being watched in perspective to the increasing population of Asian carp in the lake. However, Chlorophyll A in the lake has not shown any downward trend in comparison to the declining trend in bass conditions. Chlorophyll A is measured in the lake by Murray State University out of the Hancock Biological Station. Length-weight equations for black bass species at Kentucky Lake are:

Largemouth bass $\quad \text{Log}_{10}(\text{weight}) = -3.52499 + 3.17983 \times \text{Log}_{10}(\text{length})$

Smallmouth bass	Log_{10} (weight) = -3.48861 + 3.13484 x Log_{10} (length)
Spotted bass	Log_{10} (weight) = -3.58703 + 3.25153 x Log_{10} (length)

Otoliths were collected from largemouth bass $\leq$ 10.0 in during fall sampling. Otoliths were used to age these smaller bass so that age-0 CPUE and growth could be evaluated. The CPUE of age-0 largemouth bass during the fall sample was 20.2 fish/hr (Table 9). The growth of the age-0 largemouth bass this year was considered to only be fair, reaching a mean of 4.1 in. Ideally, bass which reach 5.0 inches by the fall will have a better chance of survival during their first winter.

Trap nets were fished for crappie in Blood River and Jonathan Creek embayments for 80 net-nights (nn) during October and November. This sampling effort yielded 1,068 crappie (13.4 fish/nn), of which 5.4 fish/nn (41%) were white crappie and 7.9 fish/nn (59%) were black crappie (Table 10). The Blood River and Jonathan Creek data is listed as "sub-total" on this table. Additionally this year, Sugar Bay on the LBL side of the lake was fished for crappie using trap nets. The catch rate was much lower in Sugar Bay. This is probably related to the steep shoreline and clear water, which are not ideal conditions to sample with trap nets.

One of the management objectives in the KLFMP is to maintain a catch rate of crappie (excluding age 0) of 20.0 fish/nn. Using only the Blood River and Jonathan Creek data, this year's sample yielded 10.3 fish/nn (Table 11). This is up slightly from last year's sample (9.9 fish/nn), but still below the ten year average (16.2 fish/nn). The overall decline in adult fish, is likely due to the poor 2012 year class (age-2 crappie), and declining numbers of older fish due to fishing mortality. Trap netting data had suggested good year classes in 2009 (age-5) and 2010 (age-4).

The number of crappie ≥8.0 in collected in trap nets was 3.9 fish/nn (Table 11). This value is well below the historical average. The KLFMP objective for crappie is to maintain a catch rate of at least 14.0 fish/nn for crappie ≥8.0 in, and 5.0 fish/nn for crappie ≥10.0 in. Neither objective was met. Regulation changes, such as an 11.0 in length limit or a more restrictive creel limit have been considered. After running simulation models in FAST, it does not appear that an 11.0 in size limit would benefit the population, other than reducing harvest. Creel survey data suggest, in order to effectively reduce harvest, that a creel limit of 10 fish or less might be required. This option would probably not be feasible to anglers. The consensus is that over-harvest is not the issue. The issue is poor recruitment, which is a reflection of spring time water conditions.

The fall trap netting data was used to calculate stock densities and length-weight equations for crappie. PSD and RSD_{10} values are reported in Table 12. Length-weight equations for white and black crappie are listed below.

White crappie	Log_{10} (weight) = -3.57287 + 3.20722 x Log_{10} (length)
Black crappie	Log_{10} (weight) = -3.51580 + 3.20056 x Log_{10} (length)

Crappie at Kentucky Lake continue to have good growth rates. The growth management objective in the KLFMP is for age-2 crappie collected in the fall to reach 9.5 inches in length (Table 11). There is about a half inch difference between white and black crappie, but both have growth rates that exceed this recommendation. Tables 13 and 14 illustrate the back-calculated lengths at age for white and black crappie, respectively. The age frequencies for white and black crappie collected are listed in Tables 15 and 16, respectively. Age-1 white crappie made up 44% of the sample as compared to 10% last year. This would suggest that 2012 was a poor year class, while 2013 was better. The lake level never reached summer pool during 2012, possibly causing the poor year class.

One of the management objectives in the KLFMP is to maintain a catch of age-1 crappie of at least 11.0 fish/nn (Table 11). This value has been below the management objective for the past few years due to a number of poor year classes. This parameter is also used as part of the calculation for ranking the crappie fishery at Kentucky Lake. Overall, the crappie population at Kentucky Lake rated "poor" this year (Table 17). Poor catch rates for both juvenile and adult fish are causing this poor rating for the second year in a row.

The catfish population was sampled at Kentucky Lake during June by using low pulse (15 PPS) electrofishing along the main lake river channel. A chase boat was utilized to help collect catfish around the electrofishing boat. One dipper was used in each boat. A total of 149 catfish were collected during the 40 electrofishing runs made (Table 18). Each run lasted 300 seconds, for a total sample time of 3.3 hours over a three day period. Of the sample, blue catfish had the highest catch rate at 38.8 fish/hr, and made up 83% of the catfish collected. Relative weight values are listed in Table 19.

Otoliths were collected from each size range of catfish for age and growth analysis. Age data is presented for each species in Tables 20, 21 and 22. Growth for blue catfish appeared to be slower in 2014 than during a similar study conducted in 2009. In 2009, age-2 blue catfish were around 12.6 inches in length. In the more recent study, the age-2 blue catfish were around 9.6 inches in length. However, in the 2009 study, only 13 fish were aged, while 73 were aged in 2014. The oldest aged blue catfish was 17. This fish was 35 inches long, weighing 23 pounds. Age frequency data for all catfish is presented in Tables 23, 24 and 25 for blue catfish, channel catfish and flathead catfish, respectively. Of the blue catfish, almost half of the sample consisted of four year old fish (2010 year class). Analysis of water data; lake levels and discharge through the lake, did not appear to be any different in 2010 than other years data.

Lake Barkley

Black bass were collected by diurnal electrofishing (120 PPS, DC current) during the spring at standardized sampling sites on Lake Barkley. A total of 788 black bass were collected at a rate of 82.9 fish/hr (Table 26). Spotted and smallmouth bass accounted for about 2% of the total black bass sampled. The largemouth bass catch rate was 81.2 fish/hr. Of the sample sites, the smaller embayments (Donaldson and Nickell) had lower catch rates than the other two larger embayments (Little River and Eddy Creek). The catch of small ($\leq$ 8.0 in) and larger ($\geq$ 15.0 in) largemouth bass was better this year, as compared to the past few years, but still below the overall average catch rates (Table 27).

The overall PSD and RSD values for largemouth bass at Lake Barkley, along with values for individual embayments are listed in Table 28. The PSD value (77) is above the objective goal (PSD of 55-75) established in the Barkley Lake Fish Management Plan (BLFMP). This higher value indicates a bass fishery slightly skewed toward larger fish. The RSD_{15} (39) met the objective goal of 20-40, but only barely. Again, the higher the value the more the population is skewed toward larger fish, and less stock size.

The lake specific assessment score for Lake Barkley was “fair” (Table 29). The score was “good” for several years prior to 2010. Flood conditions in 2010, 2011, and 2013 as well as drought conditions in 2012 have influenced sampling likely resulting in lower ratings these years.

Age and growth data collected in 2012 was coupled with 2014 data to yield an estimate of the age distribution for largemouth bass. The age-1 and age-3 bass dominated the sample. These two year classes made up almost half of the age distribution (Table 30).

Largemouth bass were sampled in October to collect length-weight data, and determine the strength of the 2014 year-class. A total of 483 bass were collected, with 94% being largemouth bass (Table 31). Largemouth bass had a catch rate of 90.6 fish/hr. The relative weights were determined for all bass, but very few spotted and smallmouth bass were collected (Table 32). The relative weight for harvestable size ($\geq$ 15.0 in) largemouth bass was 98. The length-weight equation for largemouth bass at Lake Barkley is:

$$\mathrm{Log}_{10}\,(\mathrm{weight}) = -3.60160 + 3.27051 \times \mathrm{Log}_{10}\,(\mathrm{length})$$

Mean length of the age-0 cohort of largemouth bass was 4.8 in (Table 33). Ideally, the age-0 bass should average at least 5.0 in by the fall. It has been suggested that bass which reach 5.0 in by the fall will have a better chance of survival during their first winter. Previous years have shown consistently strong numbers of age-0 largemouth bass. This year’s value (24.8 fish/hr) is well below average, with fewer of these bass greater than 5.0 inches in length. Since year-class strength tends to be related to the relative size of age-0 fish during the fall of their first year, the 2013 year-class contributed well to the population of age-1 largemouth bass this spring.

Trap nets were fished for crappie in Little River and Donaldson Creek embayments for 80 net-nights (nn) during October and November. A total of 1,015 crappie were collected at a rate of 12.7 fish/nn (Table 34). Additionally this year Crooked Creek (LBL) and Eddy Creek were sampled for another 81 net nights. The Crooked Creek sample yielded good numbers of crappie, while Eddy Creek did not. For this report, only data from the traditional sites (Donaldson and Little River) were used.

White crappie accounted for 80% of the total catch, and were collected at a rate of 9.1 fish/nn. Black crappie were collected at a rate of 3.6 fish/nn. The CPUE of harvestable-size (>10.0 in) crappie was below the ten year average at 0.8 fish/nn (Table 35). This is one of the lower values observed during the 30 years of crappie sampling at Lake Barkley. This is likely due to poor year classes and high harvest. The CPUE of quality-size (>8.0 in) crappie was 1.9 fish/nn, which is below the management objective (4.0 fish/nn) set in the BLFMP. Although the numbers of adult fish are down, recruitment from the 2013 and 2014 spawns looks promising, and should add to the fishery in the next few years.

Crappie collected in trap nets were used to determine stock densities. The PSD (72) and RSD_{10} (36) of white crappie were in the upper range of values when compared to the last twenty years (Table 36). The 30-year average PSD and RSD_{10} values of white crappie are 59 and 29, respectively. The PSD (28) and RSD_{10} (5) values of black crappie are very low compared to recent years. This suggests a population skewed toward smaller fish, hence recent good recruitment.

The length-weight equations of white and black crappie from Lake Barkley are:

White crappie	Log_{10} (weight) = -3.81159 + 3.50411 x Log_{10} (length)
Black crappie	Log_{10} (weight) = -3.80185 + 3.57803 x Log_{10} (length)

Otoliths from crappie were used for age and growth analysis. Ages ranged from 0-9 years for white crappie and 0-5 years for black crappie (Tables 37 and 38). Growth continues to be good as crappie reached 10.0 in between age 2 and 3. The average length of age-2+ white crappie was 11.8 in (Table 35), while black crappie was 9.6 in. Age frequencies were estimated combining catch data with age data. The catch of white crappie was dominated by age-0 and age-1 fish (Table 39). Similar results were seen with black crappie (Table 40).

Assessment of the crappie population yielded a rating of “fair” at Lake Barkley in 2014 (Table 41). The catch of age-0 and age-1 crappie along with growth rates ranked well. The catch of adult fish was poor. A decline in the number of larger size crappie could be a result of the below average year classes produced in 2011 and 2012.

The catfish population was sampled at Lake Barkley during June by using low pulse (15 PPS) electrofishing along the main lake river channel. A chase boat was utilized to help collect catfish around the electrofishing boat. A total of 285 catfish were collected during the 40 electrofishing runs made (Table 42). Each run lasted 300 seconds, for a total sample time of 3.3 hours over a three day period. Of the sample, blue catfish had the highest catch rate at 77.2 fish/hr, and made up 87% of the catfish collected. Relative weight values are listed in Table 43.

Otoliths were also collected from each size range of catfish for age and growth analysis. Age data is presented for each species in Tables 44, 45 and 46. Growth for blue catfish appeared to be slower in 2014 than in a similar study conducted in 2004. In 2004, age-2 blue catfish were around 10.5 inches in length. In the more recent study, the age-2 blue catfish averaged 8.7 inches in length. The oldest aged flathead catfish was 24 years old. This fish was 46.0 in long, weighing 48 pounds. Age frequency data is presented in Tables 47, 48 and 49 for blue catfish, channel catfish and flathead catfish, respectively. Of the blue catfish, almost half of the sample consisted of three year old fish. Almost 75% of the sample was comprised of age-2 and 3 year old fish.

Lake Beshear

Largemouth bass were collected by diurnal electrofishing (120 PPS, DC current) during April at Lake Beshear. Two hundred and nine largemouth bass were collected at a rate of 83.6 fish/hr (Table 50). Despite the high catch rate of bass less than 8.0 inches in the 2013 sample, the 2014 sample yielded the lowest values recorded since 1992 (Table 51). The catch rate of harvestable-size (≥12.0 in) largemouth bass was 61.6 fish/hr. One objective in the Lake Beshear Fish Management Plan (LBFMP) is to maintain a catch rate of 40.0 fish/hr for harvestable-size largemouth bass. Other objectives are to maintain a high catch rates of bass >15.0 and >20.0 in. Ideally, these catch rates should be greater than 30.0 and 4.0 fish/hr, respectively. The catch rates for these size bass were above the management objective minimum at 43.6 and 4.4 f/hr, respectively. Lake Beshear continues to have a quality bass fishery with high numbers of bass ≥ 15.0 in. The fishery rated "good" following an "excellent" rating last year (Table 52). The decline in the rating was due to the low catch rate of age-1 bass. This low catch rate of age-1 bass may cause declines in adult bass numbers in the near future.

Largemouth bass were collected by diurnal electrofishing (120 PPS, DC current) in October (Table 50). The catch rate (90.6 fish/hr) was higher than the 2013 fall catch rate (69.0 fish/hr). Relative weight data suggests that the larger bass (≥15.0 in) are healthy with regard to their length-weight ratio. The average relative weight value was 96 for these larger bass and 89 for all sizes of bass. The length-weight equation for largemouth bass at Lake Beshear is:

$$\mathrm{Log}_{10}\,(\mathrm{weight}) = -3.56821 + 3.21462 \times \mathrm{Log}_{10}\,(\mathrm{length})$$

Otoliths were removed from a subsample of largemouth bass ≤ 10.0 in to determine the mean fall length of the age-0 cohort, and determine their catch rate. The catch rate for age-0 largemouth bass was 24.8 fish/hr (Table 53). The average length of the age-0 bass was 4.8 in.

Lake Pennyrile

Electrofishing for all species of sportfish in Lake Pennyrile was conducted on 30 May 2014. This sample date was later than the normal sample time. Sixty-one largemouth bass were captured at a rate of 61.0 fish/hr (Table 54). This catch rate is about half of the number collected in 2013. This value is also well below the long term average, but closer to the value that is preferred in the management objectives. The majority of largemouth bass are still below 15.0 in. Only one fish over 16.0 in was captured in this year's sample. The catch rate of fish ≥ 15.0 in (1.0 fish/hr) is below the ten year average, but better than most previous years of sampling (Table 55).

No bluegill were captured above 8.0 inches in length, a likely result of the later sampling date. Catch rates for the 6.0-7.9 in length group of bluegill is below the long-term average, suggesting a poorly timed sample as well (Table 56). The catch rate of smaller bluegill was below average, but this value often has a high variability due to changing sampling conditions. A drawdown in 2012 may have given the predators in the lake an advantage by pulling the smaller fish from their shallow water hiding places making them vulnerable to predation. Only 33 redear sunfish were captured, but a forth of those fish were larger than 8.0 in (Table 54). The catch rate for the medium size (6.0-8.0 inch) redear was good. However, the catch rates for larger and small size groups of redear sunfish were well below average.

PSD and RSD_{15} values for largemouth bass, bluegill and redear sunfish are listed in Table 57. The PSD value for largemouth bass suggests a population skewed toward small bass. The fishery is likely stunted. It will be recommended in 2015 to remove the slot limit. PSD's and RSD's are above average for bluegill and redear.

A lake specific assessment for Lake Pennyrile has not been possible in recent years without good age and growth estimates. In 2011, a small sample of bass were aged and the largemouth bass population was rated as "fair" (Table 58). In more recent years, assessments have been completed using the age data from 2011. However, due to low sample numbers and a small age data set, these assessment values likely do not represent the fishery. Age data collected and a better timed sample will be attempted in 2015.

Table 1. 2014 yearly summary of sampling conditions by waterbody, species sampled, and date.

Water body	Location	Species	Date	Time (hr)	Gear	Weather	Water temp. °F	Water level	Secchi (in)	Water Conditions	Pertinent sampling comments
Barkley	Donaldson	black bass	5/14/2014	2.5	electrofisher	sunny/w indy	72.0	359.0		rough	fair sample
Barkley	Little River	black bass	5/9/2014	2.0	electrofisher	sunny	63.7	363.7		calm	muddy, high w ater, terrible sample, discharge 100,000 CFS
Barkley	Nickel	black bass	5/16/2014	2.0	electrofisher	overcast/calm	67.0	359.8		calm	post cold front, w ater temp drop 10 degree tw o days earlier, poor sample
Barkley	Eddy Creek	black bass	5/19/2014	3.0	electrofisher	sunny/calm	68.0	359.4		calm/stable	good sample
Barkley	Little River	black bass	10/6/2014	2.5	electrofisher	sunny	66.0	355.0	12	calm/breezy	good sample
Barkley	Eddy Creek	black bass	10/14/2014	2.5	electrofisher	overcast/w indy	66.0	355.7	20	rough	good sample
Barkley		catfish			low pulse						
Barkley		catfish			low pulse						
Barkley		catfish			low pulse						
Barkley	Crooked Creek	crappie	10/21/2014	40 nn	trapnet	sunny/calm	66.0	355.4	20	normal	first time to sample this area, fair sample
Barkley	Donaldson	crappie	10/29/2014	40 nn	trapnet	overcast/calm	63.0	354.5	18	calm/stable	approaching front, rain one day, fair sample
Barkley	Eddy Creek	crappie	10/21/2014	41 nn	trapnet	sunny/calm	63.0	355.4		normal	SWFD fished this bay, fair sample
Barkley	Little River	crappie	11/5/2014	40 nn	trapnet	overcast cool	57.0	354.8	30	calm/stable	good sample
Beshear		black bass	5/2/2014	2.5	electrofisher	sunny/breezy	63.5	above	54	choppy	fair sample
Beshear		black bass	10/16/2014	2.5	electrofisher	overcast/breezy	65.0	normal	37	calm	fair sample
Kentucky	Blood River	black bass	5/6/2014	3.0	electrofisher	sunny/w indy	66.0	358.6	21	rough	fair sample
Kentucky	Jonathan	black bass	5/7/2014	3.0	electrofisher	sunny/w indy	70.0	359.0	30	rough	fair sample
Kentucky	Big Bear	black bass	5/8/2014	2.0	electrofisher	sunny/w indy	70.0	359.2		rough	fair sample
Kentucky	Fenton	black bass	5/21/2014	1.5	electrofisher	sunny/w indy	70.5	359.1	36	rough	fair sample
Kentucky	Sugar Bay	black bass	5/15/2014	3.0	electrofisher	overcast/w indy	65.0	359.2		rough	fair sample
Kentucky	Jonathan	black bass	10/8/2014	2.5	electrofisher	sunny/calm	66.0	354.9	36	calm/stable	good sample
Kentucky	Blood River	black bass	10/13/2014	2.5	electrofisher	overcast/w indy	67.0	355.3	36	rough/rising	fair sample
Kentucky	Jonathan	crappie	10/28/2014	40 nn	trapnet	coldfront/cold	65.8	354.7	26	choppy/stable	most of the w eek w indy, one day of rain, most days rough w ater, fair sample
Kentucky	Sugar Bay	crappie	10/21/2014	40 nn	trapnet	sunny/calm	67.0	354.6	40	calm/stable	poor sample due to steep slope shoreline and clear w ater
Kentucky	Blood River	crappie	11/4/2014	40nn	trapnet	overcast/cool	55.6	354.8	24	rough/stabled	one day of heavy rain, most days w indy, air temp cold, poor sample
Kentucky		catfish			low pulse						
Kentucky		catfish			low pulse						
Kentucky		catfish			low pulse						
Pennyrile		sportfish	5/30/2014	1.0	electrofisher	sunny	81.2	normal		calm	late sample, fair

Table 2. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 12.5 hours (25 - 30-minute runs) of diurnal electrofishing at Kentucky Lake during May 2014.

	Inch class																					
Area	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std err
Blood River																						
Smallmouth bass						1	2				1									4	1.3	0.8
Spotted bass			2							1	1									4	1.3	1.0
Largemouth bass		2	9	9	3	2	8	20	11	12	11	11	10	10	10	6	7	1	1	143	47.7	7.4
Jonathan Creek																						
Spotted bass			1																	1	0.3	0.3
Largemouth bass		7	10	8	4	3	9	15	20	17	11	15	21	14	20	10	4	4	2	194	64.7	9.5
Big Bear																						
Smallmouth bass		1	1	2			1	1												6	3.0	3.0
Spotted bass													1							1	0.5	0.5
Largemouth bass		2	10	20	15	7	13	27	23	14	10	11	8	10	10	2	2	2		186	93.0	12.4
Sugar Bay																						
Smallmouth bass		2	5	1	1		1	1	2				1							14	4.7	1.8
Largemouth bass		13	78	61	34	12	17	18	22	28	18	8	11	7	4	4	1	1		337	112.3	17.2
Fenton Area																						
Smallmouth bass	1	2	13	11	2	1	1		1											32	21.3	7.0
Largemouth bass			12	18	15	2	3	18	12	8	10	4	2	4	2	2	4			116	77.3	7.0
TOTAL																						
Smallmouth bass	1	5	19	14	3	2	5	2	3		1		1							56	4.5	1.6
Spotted bass			3							1	1		1							6	0.5	0.3
Largemouth bass		24	119	116	71	26	50	98	88	79	60	49	52	45	46	24	18	8	3	976	78.1	7.1

w fdpsdky.d14

Table 3. Lake specific assessment for largemouth bass collected at Kentucky Lake from 2005 - 2014. This table includes the parameter estimates and the individual scores as well as the total score and assessment rating. The final two columns list the instantaneous mortality (Z) and % annual mortality (A).

Year	Mean length age-3 at capture	CPUE age-1	Length group 12.0 - 14.9 in CPUE	Length group >15.0 in CPUE	Length group >20.0 in CPUE	Total score	Assessment rating	Z	A
2014*	13.9	32.6	15.0	15.7	0.9			0.452	36.3
Score	4	2	1	2	1	10	F		
2013*	13.9[A]	40.2	9.6	15.8	0.8			0.446	35.9
Score	4	2	1	2	1	10	F		
2012*	13.9	35.6	26.9	17.5	0.8			0.588	44.5
Score	4	2	2	2	1	11	F		
2011*	12.9	7.4	34.0	8.6	0.9				
Score	3	1	2	1	1	8	F		
2010*	13.8	34.4	42.9	12.4	1.3				
Score	4	2	3	1	1	11	F		
2009	13.8[A]	27.9	24.3	13.5	1.4			0.429	34.9
Score	4	2	2	1	1	10	F		
2008	13.8[A]	73.1	19.1	24.2	1.9			0.575	43.7
Score	4	4	2	3	2	15	G		
2007	13.8[A]	22.2	28.8	26.1	1.3			0.560	32.2
Score	4	1	2	4	1	12	G		
2006	13.8[A]	31.8	23.6	20.9	0.6			0.666	48.6
Score	4	2	2	3	1	12	G		
2005	13.8	28.7	46.5	23.6	0.8			0.639	47.2
Score	4	2	3	3	1	13	G		
Average	13.7	33.4	27.1	17.8	1.1	11.2		0.544	40.4

Data from 1985 to 2004 is listed in previous annual reports.

[A] age and grow th data w as not collected. Previous year data used for age estimates.

2010*, 2011* and 2013* samples w ere hampered by high w ater levels during flooding, sample w as later than normal; overall a poor sample and not all embayments w ere sampled.

2012* sample w as hampered by low w ater levels during drought.

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

(Kentucky Bass Database.xls)

Table 4. Spring diurnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Kentucky Lake during May 2005 - 2014.

	Mean length			Length group													
	age-3 at	Age-1		<8.0 in		12.0 - 14.9 in		≥15.0 in		≥18.0 in		≥20.0 in		Total			
Year	capture	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	PSD	RSD_{15}
2014	13.9	32.6	6.2	26.4	5.5	15.0	1.4	15.7	1.7	4.2	0.6	0.9	0.3	78.1	7.1	59	30
2013	13.9	40.2	7.0	30.5	6.4	9.6	1.3	15.8	1.6	3.3	0.5	0.8	0.3	78.2	7.1	53	33
2012	13.9	35.6	5.3	25.6	4.0	26.9	3.5	17.5	2.2	2.7	0.6	0.8	0.3	86.2	6.7	73	29
2011	12.4	7.4	1.6	5.1	1.1	34.0	5.4	8.6	2.0	3.7	1.0	0.9	0.6	61.1	7.7	76	15
2010	13.8	34.4	5.9	29.7	5.5	42.9	3.6	12.4	1.6	3.7	1.0	1.3	0.4	121.6	11.0	60	14
2009	13.8	27.9	5.0	29.5	5.3	24.3	2.2	13.5	1.2	4.2	0.6	1.4	0.3	112.6	10.3	46	16
2008	13.8	73.1	8.6	51.7	7.2	19.1	2.3	24.2	3.1	6.0	1.0	1.9	0.4	134.8	11.1	52	29
2007	13.8	22.2	4.0	18.0	3.3	28.8	2.8	26.1	1.7	5.4	0.7	1.3	0.4	93.3	7.1	73	35
2006	13.8	31.8	7.0	28.3	6.3	23.6	2.4	20.9	2.3	3.3	0.6	0.6	0.2	85.4	5.5	78	37
2005	13.8	28.7	3.0	24.5	2.5	46.5	4.4	23.6	2.2	3.7	0.7	0.8	0.4	107.4	7.6	85	28
Average	13.7	33.4		26.9		27.1		17.8		4.0		1.1		95.9		65.4	26.6

(Kentucky Bass Database.xls)

Data for 1985 - 2004 is listed in previous annual reports.

Table 5. Age frequency and CPUE (fish/hr) of largemouth bass collected during diurnal electrofishing at Kentucky Lake in May 2014. 2012 age and growth data file used for calculations of age-frequency.

	Inch class																					
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	%	CPUE	Std err
1	24	119	116	71	26	39	12												407	42	32.6	6.2
2						11	86	88	65	7									257	26	20.6	2.1
3									7	8	20								35	4	2.8	0.3
4										45	15	16	6						82	8	6.6	0.6
5									7		15	36	32	33	8				131	13	10.5	1.1
6													6	13	8	3			30	3	2.4	0.3
7															8	9	3		20	2	1.6	0.2
8																3	3		6	1	0.5	0.1
9																3	2	3	8	1	0.6	0.2
Total	24	119	116	71	26	50	98	88	79	60	50	52	44	46	24	18	8	3	976			
%	2	12	12	7	3	5	10	9	8	6	5	5	5	5	2	2	1	0				

wfdpsdky.d14, wfdlbkag.d12

Table 6. PSD and RSD values calculated for black bass species collected during diurnal electrofishing at Kentucky Lake during May 2014; 95% confidence limits are shown in parentheses.

Area	Species	No. fish ≥8.0 in	PSD	RSD[a]
Blood River	Largemouth bass	120	65 (+/-9)	38 (+/-9)
Jonathan Creek	Largemouth bass	165	72 (+/-7)	45 (+/-8)
Big Bear	Largemouth bass	139	50 (+/-8)	24 (+/-7)
Sugar Bay	Largemouth bass	139	54 (+/-8)	19 (+/-6)
Fenton Area	Largemouth bass	71	51 (+/-12)	20 (+/-9)
Total	Largemouth bass	646	59 (+/-4)	30 (+/-4)

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

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Table 7. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 5.0 hours (10- 30-minute runs) of diurnal electrofishing at Kentucky Lake during October 2014.

	Inch class																						
Area / Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std err
Blood River																							
Smallmouth bass			2	1	2	1	1	7	3	3	2	1				1	1				25	10.0	5.1
Spotted bass		1	1			1	1		1												5	2.0	1.6
Largemouth bass		4	8	9	1	4	18	21	20	26	19	30	11	9	4	1	4	3	3	1	196	78.4	14.1
Jonathan Creek																							
Smallmouth bass			3	1			1	1	1					2		1					10	4.0	2.5
Spotted bass		1	4		1		2		1					1							10	4.0	3.0
Largemouth bass	1	56	13	5	4	5	16	33	22	30	18	18	16	8	4	5	1	3	1		259	103.6	21.0
TOTAL																							
Smallmouth bass			5	2	2	1	2	8	4	3	2	1		2		2	1				35	7.0	2.9
Spotted bass		2	5		1	1	3		2					1							15	3.0	1.6
Largemouth bass	1	60	21	14	5	9	34	54	42	56	37	48	27	17	8	6	5	6	4	1	455	91.0	12.6

w fdw rky.d14

Table 8. Number of bass and relative weight (Wr) for each length group of black bass collected at Kentucky Lake during October 2014. Standard errors are shown in parentheses.

		Length group								
		8.0-11.9 in			12.0-14.9 in			≥15.0 in		
Species	Area	No.	Wr	Std err	No.	Wr	Std err	No.	Wr	Std err
Largemouth bass	Blood River	84	93	(1)	60	88	(1)	25	92	(2)
	Jonathan Creek	101	91	(1)	52	88	(1)	22	89	(3)
	Total	185	92	(1)	112	88	(1)	47	91	(2)

		Length group								
		7.0-10.9 in			11.0-13.9 in			≥14.0 in		
Species	Area	No.	Wr	Std err	No.	Wr	Std err	No.	Wr	Std err
Spotted bass	Total	6	101	(5)				1	82	
Smallmouth bass	Total	15	90	(3)	6	85	(2)	5	80	(4)

w fdw rky.d14

Table 9. Age-0 CPUE (fish/hr) 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.

	Age 0[A]		Age 0[A]		Age 0 ≥5.0 in[A]		Age 1[B]	
Year class	Mean length	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err
2014	4.1	0.1	20.2	7.9	3.8	1.0		
2013	5.7	0.1	31.3	5.2	21.5	4.1	32.6	6.2
2012	6.4	0.1	63.0	13.9	55.9	12.5	40.2*	7.0
2011	5.7	0.1	75.9	8.3	54.1	6.4	35.6*	5.3
2010	5.7	0.1	24.3	4.9	17.4	2.6	7.4*	1.6
2009	5.0	0.1	30.9	5.4	16.7	2.8	34.4*	5.9
2008	5.8	0.1	33.8	6.9	27.2	4.8	27.9	5.0
2007	7.1	0.1	122.2	26.5	106.4	24.6	73.1	8.6
2006	4.8	0.1	19.0	3.8	8.8	1.7	22.2	4.0
2005	5.0	0.1	17.8	4.1	10.0	1.7	31.8	6.7
Average	5.5		43.8		32.2		37.5	

[A] Data collected by fall (October) diurnal electrofishing. Mean lengths w ere determined by analysis of otoliths removed from a subsample of LMB <8.0 in and extrapolated to the entire catch of the fall sample. Since 2010, bass up to 10.0 in have been collected for analysis.

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

*2010, 2011 and 2013 spring data w as poor due to high w ater levels.
*2012 spring data w as poor due to low w ater levels.

Data from 1990 to 2004 is listed in previous year reports.

w fdw rky.dxx, w fdw ragk.dxx, w fdpsdky.dxx

Table 10. Species composition, relative abundance, and CPUE (fish/nn) of crappie collected by trap nets fished during 40 net-nights at three embayments of Kentucky Lake during October - November 2014. The Sub-Total is used for historical comparison and excludes those data for embayments which historically had not been sampled.

		Inch class														
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std err
Blood River	White crappie	9	22	1	1	15	13	3	2	5	3	2	1	77	1.9	0.4
	Black crappie	32	27	3	29	28	10	11	23	20	23	17		223	5.6	1.0
Jonathan Cr.	White crappie	23	76	3	7	78	51	24	14	34	35	12		357	8.9	1.2
	Black crappie	20	12	7	132	135	19	21	37	16	10	2		411	10.3	2.4
Sub-Total	White crappie	32	98	4	8	93	64	27	16	39	38	14	1	434	5.4	0.6
	Black crappie	52	39	10	161	163	29	32	60	36	33	19		634	7.9	1.4
Sugar Bay	White crappie		2	1		2			3	1				9	0.2	0.8
	Black crappie	3	26			6	14	14	2	4	4	4	2	79	2.0	1.7
TOTAL	White crappie	32	100	5	8	95	64	27	19	40	38	14	1	443	3.7	0.7
	Black crappie	55	65	10	161	169	43	46	62	40	37	23	2	713	5.9	1.3

w fdtpntk.d14

Table 11. Crappie population parameters used to manage the population at Kentucky Lake, with values determined from fall trap netting at Blood River and Jonathan Creek.

	Total CPUE (fish/nn) excluding age-0			CPUE (f/nn) age-0			Mean length (in) age-2 at capture			CPUE (fish/nn) >8.0 in			CPUE (fish/nn) age-1			CPUE (fish/nn) >10.0 in		
Year	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie
2014	3.6	6.7	10.3	1.7	1.2	2.9	10.3	8.8	9.7	1.7	2.3	3.9	2.4	4.3	6.7	1.2	1.1	2.3
2013	2.5	7.4	9.9	2.5	3.1	5.5	10.4	8.8	9.4	2.4	6.3	8.7	0.5	1.8	2.3	1.7	2.9	4.6
2012[A]	4.2	8.7	12.9	0.0	0.2	0.2	10.5	9.6	10.0	3.4	7.0	10.4	2.8	2.5	5.3	1.4	3.1	4.5
2011	3.2	15.6	18.8	2.3	1.1	3.4	10.5	9.6	10.0	2.0	10.3	12.3	2.3	6.7	9.0	0.9	2.5	3.4
2010[A]	5.2	13.5	18.7	9.1	3.7	12.8	11.5	10.4	10.6	2.7	5.7	8.4	4.1	9.0	13.0	1.9	3.3	5.2
2009	2.0	14.2	16.2	1.4	2.0	3.4	11.5	10.4	10.6	1.6	12.0	13.6	1.8	3.0	4.9	0.3	10.1	10.4
2008[A]	0.4	14.9	15.3	0.4	1.4	1.8	11.2	10.2	10.7	0.4	13.0	13.3	0.2	6.2	6.3	0.2	8.3	8.5
2007	1.5	13.6	15.1	0.5	1.9	2.4	11.2	10.2	10.7	1.5	11.7	13.2	0.9	7.2	8.1	0.7	5.5	6.2
2006[A]	2.6	16.1	18.7	1.2	1.2	2.4	10.8	9.2	9.7	1.6	11.9	13.5	1.7	6.6	8.3	1.1	2.8	3.9
2005[A]	3.9	22.7	26.7	2.3	1.9	4.2	10.8	9.2	9.7	2.5	13.8	16.2	2.6	10.3	12.9	1.1	3.4	4.5
Averag	2.9	13.3	16.2	2.1	1.8	3.9	10.9	9.6	10.1	2.0	9.4	11.4	1.9	5.7	7.7	1.1	4.3	5.3

[A] Indicates year w here age and grow th data w as not collected. Age and grow th data from the previous year w as used to calculate the appropriate value.

Data from 1985 to 2004 is listed in previous annual reports.

Kentucky Lake Crappie Database

Table 12. Proportional stock density (PSD) and relative stock density (RSD_{10}) of white and black crappie collected with trap nets (40 net-nights each site) at Kentucky Lake (Blood River, Jonathan Creek and Sugar Bay) during October and November 2014. 95% confidence interval is shown in parentheses.

Location	Species	N	PSD	RSD_{10}
Blood River	White crappie	45	36 (± 14)	24 (± 13)
	Black crappie	161	58 (± 8)	37 (± 8)
Jonathan Creek	White crappie	255	47 (± 6)	32 (± 6)
	Black crappie	326	82 (± 4)	23 (± 5)
Sub Total	White crappie	300	45 (± 6)	31 (± 5)
	Black crappie	533	34 (± 4)	17 (± 3)
Sugar Bay	White crappie	6	67 (± 41)	16 (± 33)
	Black crappie	50	60 (± 14)	28 (± 13)
Total	White crappie	306	45 (± 6)	30 (± 5)
	Black crappie	583	36 (± 4)	17 (± 3)

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Table 13. Mean back-calculated length (in) at each annulus of white crappie including the range in length at each age and the 95% confidence interval of each age group. Otoliths were collected from Kentucky Lake (Blood River and Jonathan Creek) in fall 2014.

		Age				
Year class	N	1	2	3	4	5
2013	39	4.1				
2012	21	4.3	7.8			
2011	5	3.6	7.4	9.7		
2010	33	3.8	6.5	8.7	10.3	
2009	1	3.2	6.5	8.1	9.2	10.0
Mean		4.0	7.0	8.9	10.2	10.0
Smallest		2.5	5.1	6.9	8.3	10.0
Largest		7.8	10.3	10.8	11.3	10.0
Std err		0.1	0.1	0.1	0.1	
Low 95% CI		3.8	6.7	8.6	9.9	
High 95% CI		4.2	7.3	9.1	10.5	

* Intercept = 0.

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Table 14. Mean back-calculated length (in) at each annulus of black crappie including the range in length at each age and the 95% confidence interval of each age group. Otoliths were collected from Kentucky Lake (Blood River and Jonathan Creek) in fall 2014.

		Age						
Year class	N	1	2	3	4	5	6	7
2013	43	3.9						
2012	16	4.2	6.9					
2011	27	3.5	6.8	8.9				
2010	18	4.0	6.7	8.9	10.3			
2009	15	3.5	6.4	8.4	9.8	10.8		
2007	1	4.1	7.5	9.2	10.3	11.1	11.8	12.3
Mean		3.8	6.7	8.8	10.1	10.8	11.8	12.3
Smallest		2.5	5.1	6.9	8.1	9.3	11.8	12.3
Largest		6.4	9.0	10.7	11.8	12.2	11.8	12.3
Std err		0.1	0.1	0.1	0.1	0.2		
Low 95% CI		3.7	6.5	8.6	9.8	10.4		
High 95% CI		3.9	6.9	9.0	10.4	11.3		

* Intercept = 0.

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Table 15. Age frequency and CPUE (fish/nn) of white crappie collected in trap nets fished for 80 net-nights in Kentucky Lake (Blood River and Jonathan Creek) during October and November 2014.

	Inch class																
Age	2	3	4	5	6	7	8	9	10	11	12	13		Total	%	CPUE	Std err
0	32	98	4											134	31	1.7	0.3
1				8	93	64	14	3	10		1			193	44	2.4	0.4
2							14	7	8	13		1		43	10	0.5	0.1
3									6	2	1			9	2	0.1	0.0
4								6	12	23	12			53	12	0.7	0.1
5									2					2	0	0.0	0.0
Total	32	98	4	8	93	64	28	16	38	38	14	1	0	434		5.4	
%	7	23	1	2	21	15	6	4	9	9	3	0	0				

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Table 16. Age frequency and CPUE (fish/nn) of black crappie collected in trap nets fished for 80 net-nights in Kentucky Lake (Blood River and Jonathan Creek) during October and November 2014.

	Inch class														
Age	2	3	4	5	6	7	8	9	10	11	12	Total	%	CPUE	Std err
0	52	39	7									98	15	1.2	0.3
1			3	161	136	24	12	9				345	54	4.3	1.0
2					27	5	12	16	3	2		65	10	0.8	0.1
3							6	28	19	8		61	10	0.8	0.1
4							3	3	7	14	8	35	6	0.4	0.1
5								3	7	9	9	28	4	0.4	0.1
7											2	2	0	0.0	0.0
Total	52	39	10	161	163	29	33	59	36	33	19	634		7.9	
%	8	6	2	25	26	5	5	9	6	5	3				

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Table 17. Lake specific assessment for crappie collected at Kentucky Lake (Blood River and Jonathan Creek) from 2005-2014. This table includes the individual scores for each parameter, as well as the total scores and assessment ratings. The final columns list the instantaneous mortality (Z) and annual mortality (A).

Year	CPUE age-1 and older	CPUE age 1	CPUE age 0	CPUE ≥8.0 in	Mean length age-2 at capture	Total score	Assessment rating	Z	A
2014	10.5	6.7	2.9	3.9	9.7			0.910	59.7
Score	1	1	1	1	3	7	P		
2013	9.9	2.3	5.5	8.7	9.4			0.657	48.2
Score	1	1	1	2	2	7	P		
2012	13.0	5.3	0.5	10.4	10.0			1.028	64.2
Score	1	1	1	3	3	9	F		
2011	18.8	9.0	3.4	12.3	10.0			0.916	60.0
Score	2	2	1	3	3	11	F		
2010	18.7	13.0	12.8	8.4	10.6			0.556	42.6
Score	2	2	1	2	4	11	F		
2009	16.2	4.9	3.4	13.6	10.6			0.758	53.1
Score	2	1	1	4	4	12	F		
2008	15.3	6.3	1.8	13.3	10.7			0.440	35.6
Score	2	1	1	4	4	12	F		
2007	15.1	8.1	2.4	13.2	10.7			0.872	58.2
Score	2	1	1	3	4	11	F		
2006	18.7	8.3	2.4	13.5	9.7			0.729	51.7
Score	2	1	1	4	3	11	F		
2005	26.7	12.9	4.2	16.2	9.7			0.788	54.5
Score	3	2	1	4	3	13	G		
Average	16.3	7.7	3.9	11.4	10.1	10.4		0.765	52.78

Rating

1 - 7 = Poor (P)
8 - 12 = Fair (F)
13 - 17 = Good (G)
18 - 20 = Excellent (E)

Kentucky Lake Crappie Database

Table 18. Length frequency and CPUE (fish/hr) of channel, blue, and flathead catfish collected from Kentucky Lake in June 2014 from low pulse (15 PPS) electrofishing along the main river channel. A chase boat was used. A total of 3.3 hours of sampling consisting of 40- 300-second runs.

	Inch groups																															
Species	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	32	33	36	39	41	Total	CPUE	Std Err
Blue catfish	2	1	1		6	11	2	9	15	14	17	9	7	4	6	4	4	3	1	1	1			1	1	1	2		1	124	38.8	7.7
Channel catfish		2		1			1		1			1					1													7	2.2	0.9
Flathead catfish				1	1	1				1		1		1	1			2			1	3	1	1				2	1	18	5.6	1.6

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Table 19. Relative weight (W_r) of each length group of blue, channel, and flathead catfish collected from Kentucky Lake during June 2014. Fish were collected using low pulse (15 PPS) electrofishing.

Species	Length group											
Blue catfish	12.0 - 19.9 in			20.0 - 29.9 in			≥30.0 in			Total		
	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err
	77	106	1	21	101	2	5	116	4	103	106	1
	Length group											
Channel catfish	11.0 - 15.9 in			16.0 -23.9 in			≥24.0 in			Total		
	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err
	2	94	12	2	96	17				4	95	9
	Length group											
Flathead catfish	12.0 - 19.9 in			20.0 - 29.9 in			≥30.0 in			Total		
	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err
	3	90	4	9	94	2	3	106	2	15	96	2

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Table 20. Mean back-calculated length (in) at each annulus on otoliths from blue catfish collected from low pulse (15 PPS) electrofishing at Kentucky Lake in June 2014, including the range in length of blue catfish at each age and the 95% confidence interval.

		Age											
Year-class	N	1	2	3	4	5	6	7	8	9	10	11	12
2013	2	5.4											
2012	11	4.8	9.7										
2011	8	5.5	9.6	12.4									
2010	24	5.5	9.3	12.5	15.2								
2009	8	5.7	10.2	13.1	16.8	19.1							
2008	12	5.5	9.0	12.7	15.6	18.1	20.3						
2007	3	5.5	9.9	13.0	16.2	18.9	21.7	24.1					
2006	1	4.6	13.1	12.6	16.0	19.0	21.5	23.2	25.3				
2004	3	5.8	11.5	13.5	16.7	19.1	22.0	24.4	26.6	28.7	31.3		
2002	1	5.8	9.6	13.4	16.1	18.8	21.5	23.4	25.0	26.9	28.4	30.7	32.2
Mean		5.4	9.6	12.7	15.7	18.6	20.9	24.0	26.0	28.3	30.6	30.7	32.2
Smallest		3.4	7.7	9.6	12.1	15.3	18.0	20.0	21.9	23.9	25.9	30.7	32.2
Largest		7.8	16.3	15.8	20.0	22.1	25.0	28.0	30.5	32.6	35.7	30.7	32.2
Std Err		0.1	0.2	0.2	0.2	0.3	0.4	1.0	1.4	1.9	2.1		
Low 95% CI		5.2	9.3	12.4	15.3	18.0	20.0	22.0	23.2	24.6	26.3		
High 95% CI		5.6	9.9	13.0	16.1	19.3	21.7	26.0	28.8	31.9	34.8		

* Intercept = 0
w fdkcag.d14

Table 21. Mean back-calculated length (in) at each annulus on otoliths from channel catfish collected from low pulse (15 PPS) electrofishing at Kentucky Lake in June 2014, including the range in length of channel catfish at each age and the 95% confidence interval.

		Age				
Year-class	N	1	2	3	4	5
2013	3	4.6				
2012	1	4.4	8.1			
2010	2	5.3	8.3	10.9		
2008	1	5.8	10.9	13.6	18.3	21.4
Mean		5.0	8.9	11.8	18.3	21.4
Smallest		4.4	6.6	8.9	18.3	21.4
Largest		6.1	10.9	13.6	18.3	21.4
Std Err		0.0	1.0	1.5		
Low 95% CI		4.5	7.0	8.9		
High 95% CI		5.5	10.8	14.8		

* Intercept = 0
wfdkcag.d14

Table 22. Mean back-calculated length (in) at each annulus on otoliths from flathead catfish collected from low pulse (15 PPS) electrofishing at Kentucky Lake in June 2014, including the range in length of flathead catfish at each age and the 95% confidence interval.

		Age													
Year-class	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2012	1	4.8	7.8												
2011	2	4.8	8.1	10.4											
2010	1	8.5	14.2	19.9	22.7										
2009	4	5.1	9.1	12.6	15.7	18.0									
2008	3	7.3	10.8	15.5	19.1	22.6	25.7								
2007	1	5.1	8.4	11.2	13.9	15.5	17.6	18.6							
2003	1	4.3	8.2	11.7	13.7	16.4	19.1	21.1	23.4	25.4	27.3	28.9			
2000	1	3.7	5.8	8.0	9.5	11.0	12.9	14.1	16.9	18.4	20.2	21.8	23.6	25.1	27.0
Mean		5.6	9.2	13.0	16.3	18.3	21.1	17.9	20.2	21.9	23.8	25.3	23.6	25.1	27.0
Smallest		3.7	5.8	8.0	9.5	11.0	12.9	14.1	16.9	18.4	20.2	21.8	23.6	25.1	27.0
Largest		8.5	14.2	19.9	22.7	23.8	26.2	21.1	23.4	25.4	27.3	28.9	23.6	25.1	27.0
Std Err		0.4	0.6	0.9	1.2	1.3	2.2	2.0	3.3	3.5	3.6	3.6			
Low 95% CI		4.8	8.1	11.1	14.0	15.7	16.8	13.9	13.7	15	16.8	18.3			
High 95% CI		6.4	10.3	14.9	18.6	20.9	25.4	21.9	26.7	28.8	30.8	32.3			

* Intercept = 0

w fdkcag.d14

Table 23. Age frequency and CPUE (fish/hr) of blue catfish collected from low pulse (15 PPS) electrofishing at Kentucky Lake in June 2014.

	Inch class																								
Age	7	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	29	33	36	Total	%	CPUE	Std err
1	1																					1	1	0.3	0.3
2		6	11																			17	14	5.3	1.7
3				2	7	3	3															15	13	4.7	1.3
4					2	12	11	17	9	7												58	48	18.1	4.2
5											2	2	2		1							7	6	2.3	0.8
6											2	4	2		2							10	8	3.1	1.1
7														4		1			1			6	5	1.9	0.8
8																	1					1	1	0.3	0.3
10																		1		1	2	4	3	1.1	0.6
12																				1		1	1	0.2	0.2
Total	1	6	11	2	9	15	14	17	9	7	4	6	4	4	3	1	1	1	1	2	2	120			
%	1	5	9	2	8	13	12	14	8	6	3	5	3	3	3	1	1	1	1	2	2				

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Table 24. Age frequency and CPUE (fish/hr) of channel catfish collected from low pulse (15 PPS) electrofishing at Kentucky Lake in June 2014.

	Inch class							
Age	6	8	12	22	Total	%	CPUE	Std err
1	2				2	40	0.6	0.4
2		1			1	20	0.3	0.3
3								
4			1		1	20	0.3	0.3
6				1	1	20	0.3	0.3
Total	2	1	1	1	5			
%	40	20	20	20				

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Table 25. Age frequency and CPUE (fish/hr) of flathead catfish collected from low pulse (15 PPS) electrofishing at Kentucky Lake in June 2014.

	Inch class														
Age	8	10	11	15	17	19	20	23	26	27	29	Total	%	CPUE	Std err
1															
2	1											1	7	0.3	0.3
3		1	1									2	14	0.6	0.4
4								1				1	7	0.3	0.2
5				1	1		1	1				4	29	1.3	0.6
6									1	2		3	21	0.9	0.5
7						1						1	7	0.3	0.3
11											1	1	7	0.3	0.3
14										1		1	7	0.3	0.2
Total	1	1	1	1	1	1	1	2	1	3	1	14			
%	7	7	7	7	7	7	7	14	7	21	7				

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Table 26. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 9.5 hours (19- 30-minute runs) of diurnal electrofishing at Lake Barkley from 9 May to 19 May 2014.

		Inch class																					Std
Area	Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	err
Lower																							
Donaldson Cr.	Spotted bass								1												1	0.4	0.4
	Largemouth bass	2	7	8	6	3	2	4	8	8	136	32	17	11	9	1	2	2	2		137	54.8	9.7
Middle																							
Little River	Smallmouth bass						1	1	1	1		1	1								6	3.0	1.3
	Spotted bass			1																	1	0.5	0.5
	Largemouth bass	5	11	11	9		1	8	20	9	10	21	25	13	19	17	9	1	2		191	95.5	24.8
Eddy Cr.	Smallmouth bass							1	1												2	0.7	0.4
	Spotted bass							1			1										2	0.7	0.4
	Largemouth bass	4	28	36	11	2	3	22	29	24	28	38	23	15	13	8	3	3	1	1	292	97.3	9.4
Upper																							
Nickell Cr.	Smallmouth bass	1	1							1	1										5	2.5	1.5
	Largemouth bass	4	30	23	8	3	5	11	7	13	12	9	11	7	5		2	1			151	75.5	10.1
Total	Smallmouth bass	1	1				1	2	2	2	1	1	1	1							13	1.4	0.5
	Spotted bass			1				1	1			1									4	0.4	0.2
	Largemouth bass	15	76	78	34	8	11	45	64	54	63	100	76	46	46	26	16	7	5	1	771	81.2	7.5

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Table 27. Spring diurnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Lake Barkley during late April/early May since 2005.

Year	Mean length age-3 at capture	Age-1 CPUE	Age-1 Std err	<8.0 in CPUE	<8.0 in Std err	8.0 - 11.9 in CPUE	8.0 - 11.9 in Std err	12.0 - 14.9 in CPUE	12.0 - 14.9 in Std err	≥15.0 in CPUE	≥15.0 in Std err	≥20.0 in CPUE	≥20.0 in Std err	Total CPUE	Total Std err
2014		22.2	3.7	21.4	3.6	13.5	1.7	22.8	2.5	23.5	4.1	1.4	0.3	81.2	7.5
2013		18.2	2.7	14.6	2.3	16.2	2.4	22.9	3.2	19.3	2.1	0.7	0.3	73.0	7.9
2012	13.0	10.0	1.7	8.7	1.8	13.1	2.0	32.4	5.4	24.1	5.0	1.5	0.5	78.4	10.6
2011						Did not sample due to flooding									
2010	12.7	17.1	1.8	15.5	1.5	34.3	3.4	28.4	2.4	18.9	1.9	2.2	0.5	97.1	5.4
2009	12.7	69.2	7.4	63.9	7.5	42.5	3.5	38.8	2.7	34.0	3.4	2.4	0.4	179.3	10.2
2008	12.7	28.8	3.0	24.1	3.5	25.8	3.9	32.6	3.9	41.2	4.5	3.0	0.5	123.7	6.3
2007	12.7	6.7	0.7	4.8	0.9	21.4	2.6	66.5	4.7	47.6	4.5	1.8	0.5	140.3	9.7
2006	13.4	18.4	2.4	15.6	2.2	26.7	2.2	51.8	3.9	30.8	2.4	2.1	0.6	124.2	7.4
2005		42.5	5.4	36.6	4.9	19.3	1.9	59.4	4.8	37.5	3.3	2.0	0.6	152.7	10.3
Average	12.9	25.9		22.8		23.6		39.5		30.8		1.9		116.6	

(Barkley_LMB_Database.xls)

Data is available since 1985 in previous annual reports

Table 28. PSD and RSD_{15} values calculated for largemouth bass collected during 9.5 hours (19- 30-minutes runs) of spring diurnal electrofishing at each area of Lake Barkley from 9 May to 19 May 2014. 95% confidence intervals are shown in parentheses.

Area	No. fish ≥8.0 in	PSD	RSD_{15}
Donaldson	114	85 (+/-7)	39 (+/-9)
Little River	155	81 (+/-6)	55 (+/-8)
Eddy Creek	213	73 (+/-6)	31 (+/-6)
Nickell	86	70 (+/-10)	30 (+/-10)
Total	568	77 (+/-3)	39 (+/-4)

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Table 29. Lake specific assessment for largemouth bass collected at Lake Barkley from 2005 - 2014. This table includes the parameter estimates and the individual score as well as the total score and assessment rating. The final two columns list the instantaneous mortality rate (Z) and the annual mortality (A).

			Length group						
	Mean length age-3 at	CPUE	12.0 - 14.9 in	>15.0 in	>20.0 in	Total	Assessment		
Year	capture	age-1	CPUE	CPUE	CPUE	score	rating	Z	A
2014	13.0	22.2	22.8	23.5	1.4			0.649	48
Score	3	2	1	2	1	9	F		
2013	13.0	18.2	22.9	19.3	0.7			0.282	25
Score	3	1	1	1	1	7	P		
2012	13.0	10.0	32.4	24.1	1.5			0.431	35
Score	3	1	2	2	1	9	F		
2011	*	*	*	*	*				
2010[A]	12.7	17.1	28.4	18.9	2.2			0.400	33
Score	2	1	1	1	2	7	P		
2009[A]	12.7	69.2	38.8	34.0	2.4			0.422	34
Score	2	4	2	3	3	14	G		
2008[A]	12.7	28.8	32.6	41.2	3.0			0.339	29
Score	2	3	2	4	3	14	G		
2007[A]	12.7	6.7	66.5	47.6	1.8			0.317	27
Score	2	1	4	4	1	12	G		
2006	13.4	18.4	51.8	30.8	2.0			0.431	40
Score	4	1	3	3	2	13	G		
2005[A]	12.9	42.5	59.4	37.5	2.0			0.674	49
Score	3	3	4	4	2	16	G		
Average	12.9	25.9	39.5	30.8	1.9	11.2		0.438	35.5

Older data is listed in previous annual reports.

(Barkley LMB Database.xls) * Data not available

[A] age and grow th data w as not collected. Previous year data used for age estimates.

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

Table 30. Age frequency and CPUE (fish/hr) of largemouth bass collected during diurnal electrofishing at Lake Barkley in May 2014. 2012 age and growth data file used for calculations of age-frequency.

	Inch class																				
Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%	CPUE	Std err
1	15	76	78	34	7	1												211	29	22.2	3.7
2					1	10	45	37										93	13	9.8	1.4
3								27	54	52	63	8						203	28	21.4	2.2
4										11	38	30	9	15				104	14	10.9	1.4
5												38	18	31				87	12	9.2	1.5
6													18				2	21	3	2.2	0.4
8																	5	5	1	0.5	0.2
Total	15	76	78	34	8	11	45	64	54	63	101	76	46	46			7	724	100		
%	2	11	11	5	1	2	6	9	7	9	14	11	6	6			1	100			

wfdpsdb.d14, wfdlbagb.d12

Table 31. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 5.0 hours of diurnal electrofishing (10 30-minute runs) for black bass in each area of Lake Barkley on 6 and 14 October 2014.

	Inch class																						
Area / Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std err
Little River																							
Smallmouth bass											1	2	1								4	1.6	0.8
Spotted bass												1									1	0.4	0.4
Largemouth bass		8	6	12	19	5	3	10	20	21	20	18	15	15	13	10	3	3	1		202	80.8	8.3
Eddy Creek																							
Smallmouth bass			5		1		2	2	1		1	3	4		1	2		1			23	9.2	5.7
Spotted bass										2											2	0.8	0.8
Largemouth bass	2	38	15	10	9	1	4	21	17	12	24	36	25	20	6	7	1		1	2	251	100.4	16.9
TOTAL																							
Smallmouth bass			5		1		2	2	1		2	5	5		1	2		1			27	5.4	3.0
Spotted bass										2		1									3	0.6	0.4
Largemouth bass	2	46	21	22	28	6	7	31	37	33	44	54	40	35	19	17	4	3	2	2	453	90.6	9.5

wfdwrb.d14

Table 32. Number of fish and the relative weight (W_r) values for each length group of largemouth collected at Lake Barkley during 5.0 hours (10- 30-minute runs) of diurnal electrofishing on 6 and 14 October 2014. Standard error is shown in parentheses

		Length group								
		8.0-11.9 in			12.0-14.9 in			≥15.0 in		
Species	Area	No.	Wr	Std err	No.	Wr	Std err	No.	Wr	Std err
Largemouth bass	Eddy Creek	53	94	(1)	85	92	(1)	37	96	(2)
	Little River	54	95	(1)	53	94	(1)	45	100	(2)
	Total	107	95	(1)	138	93	(1)	82	98	(1)

		Length group								
		7.0-10.9 in			11.0-13.9 in			≥14.0 in		
Species	Area	No.	Wr	Std err	No.	Wr	Std err	No.	Wr	Std err
Spotted bass	Eddy Creek				2	98	(5)			
	Little River				1	108				
	Total	3	109	(2)	2	85	(7)	1	99	
Smallmouth bass	Eddy Creek	5	98	(5)	4	88	(3)	7	95	(4)
	Little River				3	87	(2)	1	85	
	Total				3	89	(4)			

wfdwrb.d14

Table 33. Age-0 CPUE (fish/hr) and mean length (in) of largemouth bass collected in the fall and CPUE of age-1 largemouth bass collected the following spring during diurnal electrofishing at Lake Barkley.

	Age 0[A]		Age 0[A]		Age 0 ≥5.0 in[A]		Age 1[B]	
Year class	Mean length	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err
2014	4.8	0.1	24.8	4.4	11.0	1.9		
2013	5.8	0.1	55.0	8.7	43.3	6.0	22.2	3.7
2012	6.1	0.1	40.6	6.9	35.7	5.7	18.2	2.7
2011	5.5	0.1	18.6	2.7	13.4	2.4	10.0	1.7
2010	6.5	0.1	46.0	7.8	42.0	6.9	*	
2009	5.6	0.1	37.6	4.8	29.2	3.4	17.1	1.8
2008	6.2	0.1	55.6	6.7	50.2	6.3	69.2	7.4
2007	6.8	0.1	68.7	11.8	59.4	10.7	28.8	3.0
2006	4.8	0.2	9.3	1.7	4.0	1.3	6.7	0.7
2005	5.4	0.1	5.4	1.2	4.8	1.2	18.4	2.4
Average	5.8		36.2		29.3		23.8	

[A] Data collected by fall (October) diurnal electrofishing. Mean lengths were determined by analysis of otoliths, removed from a subsample of LMB <10.0 in.

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

[*] Data not collected in spring of 2011 due to flood conditions.

wfdwrb.dxx, wfdpsdb.dxx

Table 34. Length frequency and CPUE (fish/nn) of each inch class of white and black crappie collected by trap nets (161 net-nights) at Lake Barkley from 20 October-3 November 2014. Sub-Total is shown for comparisons with historical data which included only Little River and

		Inch class															
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE	Std err
Little River	White crappie	66	278	85	30	2		12	22	12	11	12	6	2	538	13.5	2.3
	Black crappie	6	28	4	3	8	4	13	6	1	4				77	1.9	0.5
Donaldson Creek	White crappie	73	68	11	2	3	5	14	6	5	3		2		192	4.8	1.0
	Black crappie	12	62	8	18	59	26	10	9		1	2	1		208	5.2	0.9
Sub-Total	White crappie	139	346	96	32	5	5	26	28	17	14	12	8	2	730	9.1	1.4
	Black crappie	18	90	12	21	67	30	23	15	1	5	2	1		285	3.6	0.5
Crook Creek	White crappie	236	463	51	3	1	1	4	7	5	4			1	776	19.4	3.7
	Black crappie	17	59	8	2	10	11	18	13	2	2	1			143	3.6	0.8
Eddy Creek	White crappie	21	103	65	4		1	10	5	20	8	4	1	2	244	6.0	1.1
	Black crappie	3	29	3		10	16	18	11	2		1			93	2.3	0.5
TOTAL	White crappie	396	912	212	39	6	7	40	40	42	26	16	9	5	1,750	10.9	1.2
	Black crappie	38	178	23	23	87	57	59	39	5	7	4	1		521	3.2	0.4

w fdtpntb.d14

Table 35. Crappie population parameters used to manage the population at Lake Barkley for 2005-2014, with values determined from fall trap netting. To allow for historical comparisons, only data from Little River and Donaldson Creeks are presented here.

	Total CPUE (fish/nn) excluding age-0			CPUE (fish/nn) age-0			Mean length (in) age-2 at capture			CPUE (fish/nn) ≥8.0 in			CPUE (fish/nn) age-1			CPUE (fish/nn) ≥10.0 in		
Year	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie	WC	BC	Crappie
2014	1.5	2.1	3.5	7.7	1.5	9.2	11.8	9.6	11.4	1.3	0.6	1.9	1.1	1.9	3.0	0.7	0.1	0.8
2013	2.2	0.8	3.0	1.0	1.7	2.8	11.1	10.6	10.9	2.2	0.8	3.0	0.3	0.0	3.0	1.9	0.6	2.5
2012	4.1	2.6	6.7	1.2	0.1	1.3	10.9	10.0	10.5	4.0	2.2	6.3	1.1	0.9	2.0	2.8	0.9	3.7
2011[A]	4.6	2.8	7.4	9.0	1.0	10.0	11.6	10.5	11.1	3.0	0.7	3.6	4.2	2.6	6.8	0.8	0.2	1.0
2010	4.1	3.1	7.2	19.2	4.2	23.5	11.6	10.5	11.0	3.1	2.1	5.2	3.5	2.5	6.1	1.3	0.5	1.8
2009[A]	1.3	1.0	2.3	3.8	1.5	5.3	11.3	11.3	11.3	1.7	0.9	2.6	1.1	0.7	1.7	0.7	0.3	1.0
2008	1.1	1.7	2.8	4.0	0.9	4.9	11.3	11.3	11.3	1.7	1.1	2.7	0.6	1.4	2.0	0.7	0.4	1.0
2007[A]	2.3	1.5	3.8	1.6	0.4	2.0	10.7	10.5	10.6	1.8	1.4	3.3	0.9	0.7	1.6	1.4	0.5	1.8
2006	2.7	4.9	7.6	0.1	0.1	0.2	10.7	10.5	10.6	2.7	1.0	3.6	3.8	2.2	6.0	1.0	0.4	1.3
2005	4.3	2.2	6.6	7.4	1.2	8.5	11.3	10.8	11.1	3.8	1.4	5.2	1.7	1.4	3.1	2.8	0.6	3.4
Average	2.8	2.3	5.1	5.5	1.3	6.8	11.2	10.6	11.0	2.5	1.2	3.7	1.8	1.4	3.5	1.4	0.4	1.8

[A] Indicates year w here age and grow th data w as not collected. Age and grow th data from the previous year w as used to calculate the appropriate value.

Data from 1985 to 2004 is listed in previous annual reports.

Lake Barkley Crappie Database

Table 36. Proportional stock density (PSD) and relative stock density (RSD_{10}) of white and black crappie collected by trap-nets (161 net-nights) at Lake Barkley during weeks of 22 October and 3 November 2014. Sub-Total uses only data collected from Little River and Donaldson Creek. Numbers in parentheses represent 95% confidence intervals.

Location	Species	N	PSD	RSD_{10}
Little River	White crappie	109	71 (+/-9)	39 (+/-9)
	Black crappie	39	62 (+/-15)	13 (+/-11)
Donaldson	White crappie	40	75 (+/-14)	25 (+/-14)
	Black crappie	126	18 (+/-7)	3 (+/-3)
Sub-Total	White crappie	149	72 (+/-7)	36 (+/-8)
	Black crappie	165	28 (+/-7)	5 (+/-3)
Crook Creek	White crappie	26	81 (+/-15)	38 (+/-19)
	Black crappie	59	61 (+/-13)	8 (+/-7)
Eddy Creek	White crappie	55	91 (+/-8)	64 (+/-13)
	Black crappie	58	55 (+/-13)	5 (+/-6)
Total	White crappie	230	77 (+/-5)	43 (+/-6)
	Black crappie	282	41 (+/-6)	6 (+/-3)

w fdtpntb.d14

Table 37. Mean back-calculated length (in) at each annulus of white crappie including the range in length at each age and the 95% confidence interval of each age group. Otoliths were collected from Lake Barkley (Little River and Donaldson Creek) during weeks of 22 October and 3 November 2014.

		Age								
Year class	N	1	2	3	4	5	6	7	8	9
2013	49	4.8								
2012	4	5.5	10.0							
2011	4	4.2	8.6	11.0						
2010	8	4.7	8.0	11.0	12.3					
2008	2	5.3	9.1	11.0	12.0	12.9	13.6			
2005	1	3.2	6.5	9.0	10.3	11.2	11.9	12.7	13.3	13.7
Mean		4.8	8.6	10.9	12.1	12.3	13			
Smallest		3.0	6.2	9.0	10.3	11.2	11.9			
Largest		8.1	11.0	12.1	13.0	13.0	13.6			
Std err		0.1	0.3	0.2	0.2	0.6	0.6			
Low 95% CI		4.5	7.9	10.4	11.6	11.2	11.9			
High 95% CI		5.0	9.2	11.3	12.5	13.4	14.1			

* Intercept = 0

wfdtnagb.d14

Table 38. Mean back-calculated length (in) at each annulus of black crappie including the range in length at each age and the 95% confidence interval of each age group. Otoliths were collected from Lake Barkley (Little River and Donaldson Creek) during weeks of 22 October and 3 November 2014.

		Age				
Year class	N	1	2	3	4	5
2013	49	4.4				
2012	1	4.4	6.5			
2011	4	4.1	7.4	10.2		
2010	1	3.8	6.9	8.2	9.8	
2009	1	3.8	8.3	9.8	11.5	12.4
Mean		4.3	7.3	9.8	10.6	12.4
Smallest		2.9	6.4	8.2	9.8	
Largest		7	9.0	10.4	11.5	
Std err		0.1	0.4	0.3	0.8	
Low 95% CI		4.1	6.6	9.2	9.0	
High 95% CI		4.6	8.0	10.5	12.3	

* Intercept = 0
wfdtnagb.d14

Table 39. Age frequency and CPUE (fish/nn) of white crappie collected during 80 net-nights at Lake Barkley (Little River and Donaldson Creek) during weeks of 22 October and 3 November 2014.

	Inch class																
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	%	CPUE	Std err
0	139	346	96	32	1									614	84	7.7	1.3
1					4	5	26	28	17	5				85	12	1.1	0.2
2										6	4			10	1	0.1	0.0
3										3	4	1		8	1	0.1	0.0
4											4	6	1	11	2	0.1	0.0
5												1	1	2	0	0.0	0.0
Total	139	346	96	32	5	5	26	28	17	14	12	8	2	730		9.1	
%	19	47	13	4	1	1	4	4	2	2	2	1	0				

wfdtpntb.d14 and wfdtnagb.d14

Table 40. Age frequency and CPUE (fish/nn) of black crappie collected during 80 net-nights at Lake Barkley (Little River and Donaldson Creek) during weeks of 22 October and 3 November 2014.

	Inch class															
Age	2	3	4	5	6	7	8	9	10	11	12	13	Total	%	CPUE	Std err
0	18	90	12										120	42	1.5	1.3
1				21	67	30	23	13					154	54	1.9	0.2
2								2					2	1	0.0	0.0
3										5			5	2	0.1	0.0
4									1				1	0	0.0	0.0
5											2	1	3	1	0.0	0.0
Total	18	90	12	21	67	30	23	15	1	5	2	1	285		3.6	
%	6	32	4	7	24	11	8	5	1	2	1	1				

wfdtpntb.d14 and wfdtnagb.d14

Table 41. Lake specific assessment for crappie collected at Lake Barkley (Little River and Donaldson Creek) from 2005 - 2014. This table includes the parameter estimates and the individual scores as well as the total scores and assessment ratings. The final columns list the instantaneous mortality (Z) and annual mortality (A).

Year	CPUE age-1 and older	CPUE age-1	CPUE age-0	CPUE ≥8.0 in	Mean length age-2 at capture	Total score	Assessment rating	Z	A
2014	3.5	3.0	9.2	1.9	11.2			0.418	34.2
Score	1	2	4	1	4	12	F		
2013	3.0	0.4	2.8	3.0	10.9			0.788	54.5
Score	1	1	2	2	4	10	F		
2012	6.7	2.0	0.4	6.3	10.5			0.857	57.6
Score	2	2	1	4	3	12	F		
2011	7.4	6.8	10.0	3.6	10.9			1.188	69.5
Score	3	4	4	2	4	17	G		
2010	7.2	6.3	23.3	5.2	10.9			1.209	70.1
Score	3	4	4	3	4	18	E		
2009	2.3	1.7	5.3	2.6	11.3			1.330	73.5
Score	1	1	3	2	4	11	F		
2008	2.8	2.0	4.9	2.7	11.3			0.960	61.7
Score	1	2	3	2	4	12	F		
2007	3.8	1.8	2.0	3.2	10.6			1.047	64.9
Score	1	2	2	2	3	10	F		
2006	7.6	6.0	0.2	3.6	10.6			1.357	74.3
Score	3	3	1	2	3	12	F		
2005	6.5	3.1	8.6	5.2	10.7			1.551	78.8
Score	2	3	4	4	3	16	G		
Average	5.1	3.3	6.7	3.7	10.9	13.0		1.070	63.9

Rating
1 - 7 = Poor (P)
8 - 12 = Fair (F)
13 - 17 = Good (G)
18 - 20 = Excellent (E)

(Barkley_Crappie_Database.xls)

Table 42. Length frequency and CPUE (fish/hr) of channel, blue, and flathead catfish collected from Lake Barkley in June 2014 from low pulse (15 PPS) electrofishing along the main lake river channel. A chase boat was used. A total of 3.3 hours of sampling consisting of 40- 300-second runs.

	Inch class																								
Species	2	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	23	24	25	26	46	Total	CPUE	Std err
Channel catfish		1		1	4		4	6	5	5				1										27	8.4	2.7
Blue catfish	1				3	6	17	38	38	39	49	21	15	7	3	6	3	1						247	77.2	14.9
Flathead catfish			1		1		1		1						1				2	1	1	1	1	11	3.4	1.3

w fdbcat.d14

Table 43. Relative weight (W_r) of each length group of blue, channel, and flathead catfish collected from Lake Barkley during June 2014. Fish were collected using low pulse (15 PPS) electrofishing.

Species	Length group											
Blue catfish	12.0 - 19.9 in			20.0 - 29.9 in			>30.0 in			Total		
	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err
	143	99	1	1	111					144	99	1

	Length group											
Channel catfish	11.0 - 15.9 in			16.0 -23.9 in			>24.0 in			Total		
	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err
	10	101	2	1	100					11	101	2

	Length group											
Flathead catfish	12.0 - 19.9 in			20.0 - 29.9 in			>30.0 in			Total		
	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err	N	Wr	Std err
	1	87		5	99	5	1	93		7	96	4

w fdbcat.d14

Table 44. Mean back-calculated length (in) at each annulus on otoliths from blue catfish collected from low pulse (15 PPS) electrofishing at Lake Barkley in June 2014, including the range in length of blue catfish at each age and the 95% confidence interval.

		Age								
Year-class	N	1	2	3	4	5	6	7	8	9
2013	5	5.9								
2012	15	5.5	8.8							
2011	12	4.9	8.8	11.8						
2010	7	5.1	8.6	12.0	14.3					
2009	4	5.3	9.5	12.3	14.8	16.9				
2008	9	5.1	8.3	11.3	13.4	15.7	17.5			
2007	2	4.6	8.1	10.3	12.9	15.2	17.0	19.4		
2005	1	3.4	6.9	9.6	12.0	13.7	15.4	17.5	19.2	20.6
Mean		5.2	8.7	11.6	13.8	15.8	17.3	18.7	19.2	20.6
Smallest		3.4	6.8	9.6	12.0	13.7	15.4	17.5	19.2	20.6
Largest		7.1	10.7	13.2	16.4	18.0	19.3	19.6	19.2	20.6
Std Err		0.1	0.1	0.2	0.2	0.3	0.3	0.6		
Low 95% CI		5.0	8.5	11.3	13.4	15.2	16.7	17.5		
High 95% CI		5.4	8.9	11.9	14.2	16.4	17.9	20.0		

* Intercept = 0
wfdbcag.d14

Table 45. Mean back-calculated length (in) at each annulus on otoliths from channel catfish collected from low pulse (15 PPS) electrofishing at Lake Barkley in June 2014, including the range in length of channel catfish at each age and the 95% confidence interval.

		Age							
Year-class	N	1	2	3	4	5	6	7	8
2013	5	5.7							
2012	6	5.7	9.8						
2011	10	4.4	7.8	10.7					
2010	2	4.5	8.0	10.4	12.1				
2006	1	3.7	7.3	8.8	10.3	11.4	13.2	14.7	16.5
Mean		5.0	8.4	10.5	11.5	11.4	13.2	14.7	16.5
Smallest		3.4	7.0	8.8	10.3	11.4	13.2	14.7	16.5
Largest		7.0	11.2	12.3	12.3	11.4	13.2	14.7	16.5
Std Err		0.2	0.3	0.2	0.6				
Low 95% CI		4.6	7.9	10.1	10.3				
High 95% CI		5.3	9.0	10.9	12.7				

* Intercept = 0
wfdbcag.d14

Table 46. Mean back-calculated length (in) at each annulus on otoliths from flathead catfish collected from low pulse (15 PPS) electrofishing at Lake Barkley in June 2014, including the range in length of flathead catfish at each age and the 95% confidence interval.

		Age					
Year-class	N	1	2	3	4	5	6
2013	1	4.9					
2012	1	3.5	6.3				
2011	2	3.8	7.3	9.6			
2010	2	7.1	11.5	15.6	18.7		
2009	3	7.6	13.1	17.5	21.8	24.5	
2008	1	7.2	10.8	13.5	16.2	20.3	22.5
Mean		6.0	10.4	14.5	19.9	23.5	22.5
Smallest		3.2	6.3	9.1	13.3	16.1	15.4
Largest		8.2	13.7	18.6	22.4	24.5	19.3
Std Err		0.1	1.0	1.3	1.3	0.3	0.3
Low 95% CI		4.8	8.5	12.0	17.4	15.2	16.7
High 95% CI		7.2	12.4	17.1	22.3	16.4	17.9

* Intercept = 0

wfdbcag.d14

Table 47. Age frequency and CPUE (fish/hr) of blue catfish collected from low pulse (15 PPS) electrofishing at Lake Barkley in June 2014.

	Inch class																	
Age	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	%	CPUE	Std err
1	3	2													5	2	1.6	0.6
2		4	17	38	29										88	36	27.3	6.5
3					10	39	49								98	40	30.5	7.2
4								21	15						36	15	11.3	3.2
5										5		2			7	3	2.0	0.8
6										2	3	4	1		10	4	3.3	1.0
7													2		2	1	0.6	0.4
9														1	1	0	0.3	0.3
Total	3	6	17	38	39	39	49	21	15	7	3	6	3	1	247			
%	1	2	7	15	16	16	20	9	6	3	1	2	1	0				

w fdbcat.d14 and w fdbcag.d14

Table 48. Age frequency and CPUE (fish/hr) of blue catfish collected from low pulse (15 PPS) electrofishing at Lake Barkley in June 2014.

	Inch class										
Age	6	7	9	10	11	12	16	Total	%	CPUE	Std err
1	1	4						5	19	1.6	0.8
2			4	3	1	1		9	35	2.8	1.1
3				3	4	3		10	38	3.0	1.0
4						1		1	4	0.4	0.2
8							1	1	4	0.3	0.3
Total	1	4	4	6	5	5	1	26			
%	4	15	15	23	19	19	4				

wfdbcat.d14 and wfdbcag.d14

Table 49. Age frequency and CPUE (fish/hr) of flathead catfish collected from low pulse (15 PPS) electrofishing at Lake Barkley in June 2014. Age data was obtained using otoliths.

	Inch class												
Age	5	7	9	11	23	24	25	26	46	Total	%	CPUE	Std err
1	1									1	10	0.3	0.3
2		1								1	10	0.3	0.3
3			1	1						2	20	0.6	0.4
4					1					1	10	0.3	0.2
5						1	1	1		3	30	0.9	0.5
6						1				1	10	0.3	0.2
24									1	1	10	0.3	0.2
Total	1	1	1	1	1	2	1	1	1	10			
%	10	10	10	10	10	20	10	10	10				

wfdbcat.d14 and wfdbcag.d14

Table 50. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected during diurnal electrofishing at Lake Beshear during 2014.

	Inch class																						
Season	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std err
Spring		2	3	1		2	10	8	22	7	10	15	20	19	20	19	20	20	8	3	209	83.6	6.8
Fall	15	60	25	11	1	5	9	3	3	14	13	10	8	4	11	10	5	3			210	90.6	9.5

w fdpsdlb.d14 and w fdw rlb.d14

Table 51. Spring diurnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Lake Beshear during April or May of 2005 - 2014.

Year	Mean length age-3 at capture	Age-1		Length group <8.0 in		≥12.0 in		12.0 - 14.9 in		≥15.0 in		≥18.0 in		≥20.0 in		Total		PSD	RSD_{15}
		CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err		
2014	13.3	1.9	0.9	3.2	1.4	61.6	5.6	18.0	2.3	43.6	6.1	20.4	2.3	4.4	1.2	83.6	6.8	77	54
2013	13.3	33.8	9.6	37.5	10.3	63.0	11.8	18.0	5.5	45.0	7.2	23.5	5.6	6.0	1.4	127.0	18.4	70	50
2012	13.3	27.6	5.5	34.4	4.9	46.8	3.6	8.8	2.2	38.0	4.6	18.4	1.8	4.4	1.0	114.8	7.0	58	47
2011	13.3	11.7	2.2	13.5	1.7	65.0	9.2	17.5	4.8	47.5	5.9	23.5	3.0	5.5	1.7	92.5	10.3	82	60
2010	13.8	22.3	4.9	9.0	1.7	51.0	6.9	11.3	1.3	39.7	6.1	14.0	3.8	3.7	1.9	82.7	15.7	69	54
2009	13.8	5.2	1.6	3.6	1.7	35.6	3.0	6.0	0.6	29.6	2.9	13.6	1.7	4.4	1.6	47.2	4.6	82	68
2008	13.8	10.4	3.7	8.4	3.9	32.0	4.6	11.2	3.8	20.8	3.4	10.0	2.7	3.6	1.7	51.6	6.8	74	48
2007	13.8	25.0	4.2	15.0	3.3	50.3	8.6	15.0	4.2	35.3	5.2	16.0	2.6	4.7	1.0	83.0	12.8	74	52
2006	13.8	24.8	7.8	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	73	60
2005	13.8	38.8	1.8	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	81	69
Average	13.6	20.2		18.3		49.8		12.0		37.8		17.7		4.5		86.1		74.0	56.2

(Lake Beshear Bass Database.xls)

Data for 1985 - 2004 is listed in previous years report.

Table 52 Lake specific assessment for largemouth bass collected at Lake Beshear from 2005 - 2014. This table includes the parameter estimates and the individual score as well as the total score and assessment rating. The final two columns list the instantaneous mortality (Z) and annual mortality (A).

Year	Mean length age-3 at capture	CPUE age-1	Length group 12.0 - 14.9 in CPUE	≥15.0 in CPUE	≥20.0 in CPUE	Total score	Assessment rating	Z	A
2014[A]	13.3	1.9	18.0	43.6	4.4			0.145	13.5
Score	3	1	3	4	3	14	G		
2013[A]	13.3	33.8	18.0	45.0	6.0			0.355	29.9
Score	3	4	3	4	3	17	E		
2012[A]	13.3	27.6	8.8	38.0	4.4			0.291	25.2
Score	3	4	1	3	3	14	G		
2011	13.3	11.7	17.5	47.5	5.5			0.194	17.6
Score	3	2	3	4	3	15	G		
2010[A]	13.8	22.3	11.3	39.7	3.7			0.297	25.7
Score	4	3	2	3	2	14	G		
2009[A]	13.8	5.2	6.0	29.6	4.4			0.142	13.2
Score	4	1	1	3	3	12	G		
2008[A]	13.8	10.4	11.2	20.8	3.6			0.316	27.1
Score	4	2	2	2	2	12	G		
2007[A]	13.8	25.0	15.0	35.3	4.7			0.344	29.1
Score	4	3	2	3	3	15	G		
2006	13.8	24.8	7.2	34.0	4.8			0.262	23.0
Score	4	3	1	3	3	14	G		
2005	13.8	38.8	7.2	44.4	3.6			0.430	34.9
Score	4	4	1	4	2	15	G		
Average	13.6	20.2	12.0	37.8	4.5	14.2		0.277	24.0

Data from 1985 to 2004 is listed in previous year reports.

[A] age and grow th data w as not collected. Previous year data used for age estimates.

Rating
1-7 = Poor (P)
8-11 = Fair (F)
12-16 = Good (G)
17-20 = Excellent (E)

Lake Beshear Bass Data Base

Table 53. Age-0 CPUE (fish/hr) and mean length (in) of largemouth bass collected in the fall, and CPUE of age-1 largemouth bass collected the following spring during diurnal electrofishing at Lake Beshear.

	Age 0[A]		Age 0[A]		Age 0 $\geq$5.0 in[A]		Age 1[B]	
Year class	Mean length	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err
2014	4.8	0.1	24.8	4.4	11.0	1.9		
2013	4.1	0.1	25.0	7.0	4.5	2.6	1.9	0.9
2012	6.3	0.1	34.0	8.8	33.2	7.4	33.8	9.6
2011	5.0	0.1	41.6	14.8	23.6	7.6	27.6	5.5
2010	4.9	0.1	54.0	4.6	22.0	4.5	11.7	2.2
2009	3.6	0.1	24.8	5.3	2.0	0.6	22.3	4.9
2008	4.3	0.1	12.4	1.2	2.0	0.9	4.8	1.6
2007	4.8	0.1	21.6	3.5	9.6	2.3	10.0	1.4
2006	4.2	0.1	23.0	7.5	3.0	1.9	25.0	4.2
2005	4.4	0.1	21.0	7.7	0.0		37.0	9.5
Average	4.6		28.2		11.1		19.3	

[A] Data collected by fall (October) diurnal electrofishing. Mean lengths w ere determined by analysis of otoliths, removed from a subsample of LMB <10.0 in, w hich w ere extrapolated to the entire catch of the fall sample, and length frequencies.

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

WFDWRLB.Dxx, WFDWRAGB.Dxx, WFDPSDLB.Dxx

Table 54. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass, bluegill and redear sunfish collected during 1.0 hour (4- 900-sec runs) of diurnal electrofishing at Lake Pennyrile on 30 May, 2014.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	20	21	Total	CPUE	Std err
Largemouth bass		12	3		2	13	8	7	8	7				1				61	61.0	8.23
Bluegill	3	5	4	5	10													27	27.0	7.90
Redear sunfish			8	8	9	8												33	33.0	12.48
White crappie						2	1		1									4	4.0	2.31
Channel catfish																1	1	2	2.0	1.15

w fdpsdp.d14

Table 55. Spring, diurnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Pennyrile Lake from 2005-2014.

	Length group										Total	
	< 8.0 in		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in		≥ 20.0 in			
Year	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err
2014	17.0	3.0	36.0	5.2	7.0	3.0	1.0	1.0			61.0	8.2
2013	63.0	11.8	48.0	4.9	11.0	3.0	2.0	1.2	1.0	1.0	124.0	12.3
2012*												
2011	32.0	10.4	68.0	7.7	12.0	2.5	1.6	1.0	0.8	0.8	113.6	18.3
2010	46.4	9.3	64.3	10.7	12.5	3.3	7.1	1.6	4.5	1.8	130.4	17.0
2009*												
2008	38.9	5.1	63.0	12.0	13.3	2.8	2.0	1.2	0.0	0.0	117.1	14.5
2007	41.3	2.5	66.0	4.0	14.0	2.3	2.7	1.3	0.7	0.7	124.0	5.2
2006	81.0	21.6	105.0	11.8	26.0	5.0	6.0	2.6	1.0	1.0	218.0	30.3
2005	101.1	11.6	127.5	21.0	25.3	5.8	6.6	2.6	3.3	1.6	260.4	22.9
Mean	52.6		72.2		15.1		3.6		1.6		143.6	

wfdpsdp.dxx

Data from 1990 to 2004 is listed in previous year reports.

*Did not sample

Table 56. Spring electrofishing CPUE (fish/hr) for each length group of bluegill and redear sunfish collected at Lake Pennyrile during May from 2005-2014.

		Length group									
		< 3.0 in		3.0 - 5.9 in		6.0 - 7.9 in		≥ 8.0 in		Total	
Species	Year	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err	CPUE	Std err
Bluegill											
	2014			12.0	4.3	15.0	6.6			27.0	7.9
	2013*	1.0	1.0	18.0	5.8	21.0	6.2			40.0	12.1
	2012	Did Not Sample									
	2011	1.6	1.0	36.8	20.2	41.6	14.2	5.6	1.6	85.6	35.7
	2010	3.6	1.9	81.3	17.2	40.2	6.2	6.3	2.7	131.3	17.0
	2009	Did Not Sample									
	2008	38.1	19.9	136.2	43.0	93.2	42.7	11.3	4.7	278.8	85.4
	2007	4.0	1.8	35.3	8.6	23.3	7.6	1.3	0.8	64.0	15.9
	2005	51.7	20.0	262.6	64.0	45.1	13.4	1.1	1.1	360.4	72.3
	Mean	16.7		83.2		39.9		5.1		141.0	
Redear sunfish											
	2014			8.0	5.4	17.0	5.7	8.0	3.7	33.0	12.5
	2013*			4.0	2.3	9.0	5.5	12.0	2.8	25.0	6.6
	2012	Did Not Sample									
	2011			9.6	4.5	17.6	8.1	28.0	11.9	55.2	21.4
	2010			3.6	1.9	8.9	2.3	17.9	5.0	30.4	5.4
	2009	Did Not Sample									
	2008	2.7	1.8	21.0	9.2	12.8	6.3	41.0	25.1	77.4	40.4
	2007	2.0	1.4	21.3	7.9	16.7	8.1	10.7	1.7	50.7	16.4
	2005	1.1	1.1	37.4	12.8	27.5	10.7	23.1	5.3	89.0	28.7
	Mean	1.9		15.0		15.6		20.1		51.5	

w fdpsdp.dxx

*2013 sample collected in June due to w ater conditions at normal sample time in May

Table 57. PSD and RSD values obtained for largemouth bass, bluegill and redear sunfish collected during 1.0 hour of diurnal electrofishing (4- 900-sec runs) at Lake Pennyrile on 30 May 2014. 95% confidence intervals are in parentheses.

Species	N	PSD	RSD*
Largemouth bass	44	18 (+/-12)	2 (+/-4)
Bluegill	27	56 (+/-19)	
Redear sunfish	33	52 (+/-17)	

* Largemouth = RSD_{15}, Bluegill = RSD_8, Redear sunfish = RSD_9.

wfdpsdp.d14

Table 58. Lake specific assessment for largemouth bass collected at Pennyrile Lake from 2005 - 2014. This table includes the parameter estimates and the individual scores as well as the total scores and assessment ratings. The final columns list the instantaneous mortality (Z) and annual mortality (A) in years when age and growth was collected.

Year	Age-1 CPUE	CPUE 12.0-14.9 in	CPUE ≥15.0 in	CPUE ≥20.0 in	Mean length age-3 at capture	Total score	Assessment rating	Z	A
2014	19.8	7.0	1.0		11.70				
Score	1	1	1		4	7	P		
2013	10.6	11.0	2.0	1.0	11.7				
Score	1	2	2	4	4	13	G		
2012	Did not sample								
Score									
2011	31.0	12.0	1.6	0.8	11.7			0.488	38.6
Score	1	2	1	4	4	12	F		
2010	36.1	12.3	7.1	4.5					
Score	2	2	4	4	1	13	G		
2009	Did not sample								
Score									
2008	27.9	13.3	2.0						
Score	1	2	2		1	6	P		
2007	33.1	14.0	2.7	0.7					
Score	2	1	1	1	1	6	P		
2006	68.3	26.0	6.0						
Score	3	2	2		1	8	F		
2005	85.7	25.3	6.6	3.3	10.0				
Score	4	2	2	3	1	12	F		
Average	39.1	15.1	3.6	1.3	11.3				

Rating
1 - 7 = Poor (P)
8 - 12 = Fair (F)
13 - 17 = Good (G)
18 - 20 = Excellent (E)

NORTHWESTERN FISHERY DISTRICT

Project A: Lake and Tailwater Fishery Surveys

FINDINGS

Table 1 presents a summary of conditions encountered while sampling at state-owned or managed lakes and ACOE reservoirs during the 2014 field season.

Nolin River Lake

Black Bass Sampling

Spring electrofishing to monitor the black bass population at Nolin River Lake was conducted during April 2014 (Tables 2-5). Catch rates over the last several years have indicated an increasing number of fish greater than 12.0 in and that increase continued in 2014. The increase is greatest for fish 12.0 – 14.9 in, but catch rates for fish > 15.0 and > 20.0 in have increased as well. The Nolin Lake Strategic Management Plan (SMP) objectives for largemouth bass state: a mean length at age 3 of ≥12.5 in, a CPUE of ≥30.0 fish/hr for age 1 fish, a CPUE of ≥25.5 fish/hr for 12.0-14.9 in fish, a CPUE of ≥12.5 fish/hr for ≥15.0 in fish, and a CPUE of ≥1.0 fish/hr for ≥20.0 in fish. The only objective not met in 2014 was the CPUE of age 1 fish.

Crappie Sampling

Trap netting was conducted in November to assess Nolin River Lake's crappie population (Tables 6-10). A total of 1,535 crappie (4.2 % black) were collected in 95 net-nights of effort. With the exception of age 0 fish, catch rates were significantly higher than they have been for the last several years. Growth continues to be good with crappie averaging 10.2 in at age 2 + at capture. The length-weight equation is log W = -3.61 + 3.29 (log L). The only crappie management plan objective not met in 2014 is the catch rate of age 0 fish.

Dissolved Oxygen – Termperature Profiles

Dissolved oxygen and temperature profiles were conducted in August 2014 (Table 11). Profiles were completed at three sites (lower, middle, and upper) along the main channel of the lake. In August dissolved oxygen dropped below 3.0 mg/L at 22 feet in the lower lake, 16 feet mid lake, and 12 feet in the upper lake sample.

Rough River Lake

Hybrid Striped Bass Sampling

Gill netting to monitor the hybrid striped bass population was conducted the second week of November (Tables 12-16). While somewhat higher, 2014 catch rates are similar to previous collections. Growth rate, age distribution and length distributions are also similar to prior surveys. This is a very stable population with good growth rates. The log 10 length weight equation is log W = -3.28 + 2.94 (log L). Rough River Lake SMP management objectives state: a mean length at capture of ≥ 16.5 in 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 in fish, and a CPUE of ≥ 8.0 fish/nn for age 1 fish. All hybrid striped bass management objectives were met in 2014.

Gill netting to assess the channel catfish population was conducted concurrently with hybrid striped bass sampling. A total of 42 channel catfish were collected (Tables 17-18). Condition is similar to prior collections.

Dissoved Oxygen – Temperature Profiles

Dissolved oxygen and temperature profiles were conducted monthly from May through August 2014 (Tables 19-22). Profiles were documented at three sites (lower, middle, and upper) along the main channel of the south fork of the lake on each sample date. The profiles were conducted as part of a project to compare survival and growth of original and reciprocal hybrid striped bass crosses stocked at Rough River Lake. During May when the lake was destratified, dissolved oxygen levels were above 3.0 mg/L down to 24 feet in the lower lake, 26 feet mid lake, and 28 feet in the upper lake sample. However, during August, when water quality is poor, dissolved oxygen dropped below 3.0 mg/L at 16 feet in the lower lake, and 12 feet in both mid and upper lake samples.

Lake Malone

Largemouth Bass Sampling

Electrofishing to assess the largemouth bass population at Malone was conducted the end of April and beginning of May (Tables 23-26). Catch rates for almost all size classes were lower than previous years (exception ≥ 20.0 in fish). Overall, CPUE was the lowest recorded since diurnal sampling started in 2003. The lake level was one foot above pool during one day of sampling and vegetation growth was minimal at the times of sampling. This likely contributed to lower catch rates as fish were scattered and not closely associated with aquatic vegetation, while also on the bank amongst terrestrial vegetation.

None of the SMP objectives for management of largemouth bass were met in 2014. In 2015 largemouth bass will be sampled in April and October. Length distributions, catch rates, relative weight, and age/growth data will be collected.

Mauzy Lake

Largemouth Bass Sampling

Electrofishing to assess the largemouth bass population at Mauzy was conducted in April (Tables 25, 27-29). Length distribution and catch rates for largemouth bass at Mauzy have been erratic the last few years following the drawdowns, but are beginning to stabilize. The catch rate for bass less than 12.0 in remained similar to previous samples. Numbers of 12.0-14.9 and ≥ 15.0 in bass remained in line with prior samples. The catch rate for bass ≥ 20.0 in was the third highest on record since 1999.

SMP objectives for management of largemouth bass ≥ 15.0 (CPUE ≥ 20.0 fish/hr) and ≥ 20.0 (CPUE ≥ 3.0 fish/hr) in fish were met in 2014. In 2015 largemouth bass will be sampled in April to document length distribution and catch rates.

Submerged aquatic vegetation growth became a concern in 2014. Approximately three acres of Eurasian watermilfoil were treated in May with granular 2,4-D. Additionally, the lake was drawn down approximately 5-6 feet from October through March, 2015 for repairs. These efforts will hopefully reduce the amount of milfoil in 2015. Furthermore, a winter draw down will concentrate fish and result in improved bass foraging, a reduction of the 2014 year class of bass, and a decrease in the amount of small bluegill, crappie, etc.

Bluegill Redear Sunfish Sampling

Electrofishing to assess the bluegill and redear sunfish populations was conducted in May (Tables 30-34). Bluegill catch rates have been highly variable the last few years. Catch rates for bluegill < 6.0 in decreased significantly in 2014 and look to be directly related to an increase in bass < 14.0 in. Subsequently, we documented an increase in the catch rate of bluegill > 6.0 in. This result is to be expected given the reduction in density of smaller fish, reducing competition for resources. The fall/winter lake draw down should positively impact the bluegill population as well. The SMP objective for management of bluegill ≥ 6.0 in was the only objective met in 2014.

Redear sunfish were stocked in Lake Mauzy in 2004 and 2005. Few redear sunfish were collected prior to 2010. Redear sunfish catch rates continued to improve in 2014 with the highest overall CPUE to date. In fact, total CPUE of redear sunfish and bluegill were nearly identical. SMP objectives for redear sunfish have yet to be developed.

In 2015, bluegill and redear sunfish will be sampled in May to document length distributions and catch rates. SMP objectives will also be developed for Mauzy Lake redear sunfish.

Carpenter Lake

Largemouth Bass

Largemouth bass were sampled at Carpenter Lake in April (Tables 25, 35-37). The catch rate for 8.0-11.9 in bass is similar to previous samples. The catch rate for bass ≥ 15.0 in increased and was the highest documented since 2003. Catch rate for bass ≥ 20.0 in bass increased again in 2014 and is the highest documented since 2001.

SMP objectives for largemouth bass 12.0-14.9 in, ≥ 15.0 in, and ≥ 20.0 in were met in 2014. In 2015, largemouth bass will be sampled in April and October. Length distributions, catch rates, relative weight, and age/growth data will be collected.

Bluegill Redear Sunfish Sampling

Electrofishing to assess the bluegill/redear sunfish populations was conducted in May (Tables 32, 38-40). Catch rates in 2014 for bluegill < 6.0 in more than doubled from 2013 and was the second highest documented since 1999. The catch rate for bluegill ≥ 6.0 in increased again in 2014, with the majority of fish still in the 6.0-in group. Only one 8.0-in bluegill was captured and it was the first since 2007. Abundance of white water lily was significantly lower during 2014 sampling which allowed more efficient sampling of some areas of shoreline and contributed to higher catch rates. The SMP bluegill management objective for bluegill ≥ 6.0 in was met in 2014.

A total of 62 redear sunfish were collected, with all fish being ≥ 7.0 in. CPUE was the highest recorded since 2010 with the majority of fish being ≥ 8.0 in. If collections continue to increase SMP objectives will be developed for redear sunfish.

In 2015, bluegill and redear sunfish will be sampled in May and October to collect length distributions, catch rates, and age/growth data.

Other

A shad eradication project was completed in March 2015. The aeration system at Carpenter Lake will be replaced summer 2015 and water lily will be chemically controlled/reduced around shoreline access points.

Old and New Kingfisher Lakes

Old and New Kingfisher have been drawn down since December 2012. The Engineering Division completed placement of a water control structure in New Kingfisher Lake and installation of a six foot diameter culvert connecting Old and New Kingfisher Lakes. The lakes were allowed to drain and on many occasions water was pumped out of both lakes to aid the drying process. Once sufficiently drained equipment was brought on site in September, 2014. The lakes were deepened and contoured as much as site conditions would allow. Bank access was dramatically increased with the addition of ten new fishing jetties, and several hundred feet of roadside walkway. The main parking area at Old Kingfisher was expanded and new boat ramps were constructed at both lakes. Remaining water in both lakes was treated with rotenone to eradicate any remaining fish. The lakes will be restocked as fish are available in 2015-2016. Some fish habitat was completed in October, more is scheduled in 2015 as time allows. Annual sampling to monitor fish populations will be suspended for the next few years.

Washburn Lake

Largemouth Bass

Largemouth bass were sampled at Washburn Lake in April (Tables 25, 41-43). The population continues to be dominated by 8.0-10.0 in fish. CPUE of fish ≥ 15.0 in and ≥ 20.0 in is based on the capture of only 4 fish. In 2015 largemouth bass will be sampled in April and October. Length distributions, catch rates, relative weight, and age/growth data will be collected.

Bluegill Redear Sunfish Sampling

Sampling to assess Washburn Lake's bluegill and redear sunfish populations was conducted in May (Tables 32, 44-46). Bluegill catch rates in 2014 were again within the range of what is typically collected. The catch rate for bluegill > 8.0 in bounced back in 2014 but is based on the capture of only 3 fish. CPUE of fish ≥ 6.0 in was the greatest since 2008 and the second highest since 2003. The 2009 creel survey indicated that 87% of bluegill caught were also harvested with the average size of fish harvested being 6.6 in. Numbers of 6.0-8.0 in fish are back similar to 2008 and 2009 estimates. Anecdotally, harvest seems to have lessened as the number of quality fish in the population has declined in recent years. If harvest remains low in 2015 and the fertility issue is resolved, we should see a substantial increase in bluegill ≥ 8.0 inches in the coming years.

Total CPUE of redear sunfish increased slightly in 2014. CPUE of fish < 6.0 in decreased, while CPUE of 6.0-7.9 in fish remained constant and CPUE of fish ≥ 8.0 in increased dramatically. If fertility can be augmented and stabilized, the redear sunfish will continue to grow well and reach quality sizes.

The most recent age data indicated slow growing populations, likely due the insufficient fertility. In 2015, bluegill and redear sunfish will be sampled in May and October to document length distributions, catch rates and age/growth data.

Fertilization

Maintaining adequate productivity is an ongoing battle at Washburn Lake. Liming and fertilization, as necessary, have been ongoing since 2004. Some years phytoplankton blooms cannot be achieved while other years, or weeks within years, excessive blooms for several days reduce transparency to less than 12.0 in. In April 2014, a nutrient loading project was initiated. Nitrogen was added in 1 mg increments to 1 gallon cubitainers filled with water from Washburn Lake. The cubitainers were allowed to free float near the water's surface for one week and then removed. A 100 milliliter sample was taken from each cubitainer, filtered, and frozen in a dark film canister. The canisters were mailed overnight to a DOW laboratory in Frankfort. Samples were tested for Chlorophyll-a content. Results can be found in Table 47. Our results indicate that the addition of 3 mg/L of nitrogen will produce a sufficient amount of chlorophyll-a to achieve a secchi of 3 feet or less. The first year determined that Washburn Lake is likely nitrogen (N) limited, indicating that standard 9-18-9 liquid fertilizer, used previously, will not provide the necessary N to promote an adequate phytoplankton bloom. The project is being repeated, with modifications, in 2015 to determine the exact formulation of fertilizer required to achieve an adequate phytoplankton bloom. This will hopefully resolve the Washburn Lake fertility issue and increase fish growth rates.

Hoop Net Surveys

In June 2015, a study was conducted evaluating two bait types used in channel catfish hoop net surveys (cheese log vs Zote© soap). Channel catfish CPUE and mean total length, and bycatch of fishes and aquatic turtles was recorded in 7 NWFD lakes and 8 lakes sampled by Urban Fisheries (Tables 48-54). Tandem net sets (three nets in a set) were fished for two nights with cheese or soap bait, retrieved, processed, re-baited, and fished for another two nights with the opposite bait type. No difference was found in channel catfish catch rates between bait types. However, mean sizes of fish caught using Zote© were approximately one inch longer compared to those caught with cheese bait. Fish bycatch was similar among baits but tandem nets baited with Zote© caught up to 61% fewer turtles that experienced up to 12% lower mortalities than those baited with cheese. Zote© soap appears to be an effective bait choice for capturing channel catfish in tandem hoop nets while also reducing aquatic turtle by-catch and mortality. Soap is more readily available, easier to store and handle, and less expensive than cheese logs. Additionally, depending on number of animals captured in a net, the soap can be re-used at a later date. Individual lake reports can be found below.

Loch Marie

Channel catfish were sampled at Loch Marie Lake June 9-13, 2014. Six tandem hoop net sets were fished for four nights and captured a total of 500 channel catfish (Table 48). Zote© soap caught nearly twice as many catfish as cheese logs. Average size of channel catfish sampled combining bait types was 15.5 in. It was discovered that Loch Marie is enrolled in a private paddlefish production program, therefore, channel catfish stocking will be suspended indefinitely.

Madisonville City Park North and South Lakes

Channel catfish were sampled at Madisonville City Park North Lake June 9-11 and June 9-13, 2014 at the South Lake. In Madisonville North, four tandem hoop net sets were fished for two nights. Mid-week, several nets were so full of catfish they could not be pulled into the boat. 1008 catfish were captured, 727 in nets baited with cheese logs and the remaining 281 in nets baited with Zote© (Table 49). The mean length of fish caught combining bait types was 13.1 in. Nets were not re-baited and re-set due to the large number of fish captured and the stress they experienced. MCP North is a FINs lake and receives several catfish stockings per year. The large number of fish encountered suggests angler harvest is fairly low and this information was utilized by the Urban Fisheries Program to guide future stocking protocol.

In Madisonville City Park South Lake, four tandem hoop net sets were fished for four nights. Very few catfish were captured (10 total; Table 50) despite the lake having been stocked several times with channel catfish. Fishing access is limited and fishing pressure is low. Large numbers of aquatic turtles were captured in this lake and several nets were floating due to excessive turtle mortality. This likely affected catfish capture rates. However, due to Madisonville North being enrolled in the FINs Program, stockings have been discontinued indefinitely at Madisonville South due to limited access, pressure, and sampling results.

Upper and Lower Douglas (Ft Knox)

Channel catfish were sampled at Upper and Lower Douglas Lakes June 16-20, 2014. In Upper Douglas, four tandem hoop net sets were fished for four nights and captured a total of 161 channel catfish (Table 51). The catch was distributed almost equally between the two bait types with Zote© capturing a few more fish than cheese logs. Average size of channel catfish sampled combining bait types was 15.9 in.

In Lower Douglas six tandem hoop net sets were fished for four nights and captured a total of 92 channel catfish (Table 52). Catch was again distributed almost equally between bait types with Zote© capturing a few additional fish once more. Average size of channel catfish sampled combining bait types was 15.5 in. It was discovered that Ft Knox natural resources staff have been stocking additional channel catfish annually in several lakes. We will work closely with Ft Knox staff in 2015 to establish future management and stocking objectives.

Vastwood Park Lake

Channel catfish were sampled at Vastwood Park Lake June 2-6, 2014. Four tandem hoop net sets were initially set in the lake. When the crew returned on the second day to process and re-bait nets, one tandem sets could not be found. Several hours of searching did not produce the net set and it was assumed stolen. The remaining three sets (fished for four nights) captured a total of 19 channel catfish (Table 53). Average length of catfish captured was 13.2 in when combining bait types. Despite low numbers of catfish sampled, anglers report catching catfish regularly. Vastwood Lake is extremely clear and home to excessive aquatic plant growth. Dense aquatic plant growth is believed to significantly hinder hoop net capture efficiency. We plan to work with Vastwood Park officials to control plant growth and will sample again when conditions are more favorable.

Fordsville City Park Lake

Channel catfish were sampled at Fordsville City Lake June 2-6, 2014. Four tandem hoop net sets were fished for four nights. A total of 269 catfish were captured with an average length of 12.3 in (Table 54). Cheese bait caught significantly more catfish than Zote© soap. Some of the discrepancy may be attributed to the mid week release location. Due to lake shape it was difficult to find a release location 100 meters from the site of capture that was also 100 meters or more from another net set. Ultimately fish were released at the dam. On Friday net sets closest to the dam (baited with cheese) caught most of the fish. This is likely due to the fact that these sets were the first encountered as fish tried to re-disperse throughout the lake.

Otoliths were collected from a subsample of fish on the final day. Sacrificed fish ranged from 8.8 to 17.2 in. Growth rates at Fordsville Lake are slower than at most other district lakes and are similar to those collected from strip mine lakes (Table 55). Fish age ranged from 2 to 6 years. Angler access is limited and pressure appears to be low. The catfish stocking rate has been reduced from 50 to 25 fish/acre in odd years. The population will be reevaluated in 2016 or 2017. Water was extremely turbid during the week of sampling. Excessive sediment was entering the lake from construction activities in the upper watershed. We will continue to monitor this issue until it is resolved.

Peabody WMA

In 2012 several lakes were sampled in the "walk-in" area of the Ken Unit in Ohio county. Lakes were selected based on their potential for trophy bluegill and redear sunfish management. Redear sunfish stocking, fertilization, and habitat improvement projects were initiated. Eventually two lakes were deemed satisfactory for further development and monitoring (Honeycone Lake and Little Gill Lake).

Largemouth bass, bluegill and redear sunfish were sampled at Honeycone Lake in May 2014 (Table 56-57). The bass population remains stunted with 96% of the population ≤ 13.0 in. This is the desired trend so that small bluegill numbers are kept low and the remaining fish grow quickly to trophy size. Bluegill captured ranged in size from 1.0-9.0 in. The bluegill population remains similar to the 2012 sample. Nine hundred redear sunfish were stocked in Honeycone in September of 2012. No redear were collected in the 2014 sample. An additional 1000 redear were stocked in September 2014. Fertilization and sampling efforts will continue Spring 2015 and spawning structures will be added.

Largemouth bass, bluegill and redear sunfish were sampled at Little Gill Lake in May 2014 (Table 57-58). The largemouth bass population continues to be comprised of fish mostly < 12.0 in (PSD = 22) which is where it should be. No redear sunfish were collected in the June 2012 sample. In September 2012 redear (1,500) were initially stocked into Little Gill Lake. In the 2014 sample, 23 redear were captured. Those captured were 7.0-8.0 inches in length and appeared to be growing well. During September 2014, an additional 2,000 redear were stocked. Fertilization and fish sampling will be conducted in Spring 2015.

Catfish sampling at Ken Lake was conducted during June 2014. Low pulse electrofishing (15pps) was conducted in 300s samples. Two boats were utilized with one doing the shocking and netting of nearby fish while a second "chase" boat handled most of the fish capture. This technique is utilized mostly for blue catfish and success is highly variable depending on water body. Conductivity at Ken Lake is 2472µs and makes sampling via electrofishing difficult. Previous age and growth data collected from blue catfish revealed a stunted population with most fish 16.0-20.0 in, skinny, and 13 years old. The age corresponds to initial stockings of surplus blue catfish in 1998. NWFD staff used electrofishing, trot lines, and hoop nets to sample the catfish population. In an attempt to release some of the blue cats from stunting, several fish were relocated to other PWMA lakes, Christmas trees were added for juvenile fish habitat (protection), and both juvenile and adult gizzard shad, bluegill, redear sunfish, black and white crappie, and green sunfish were stocked to increase available forage. The fish stocked in Ken Lake were removed from Kingfisher Lakes during the draw down for renovation. Blue, channel and flathead catfish were captured in 2014 (Table 59). Blues ranged from 17.0-36.0 inches in total length, however most fish remain in the 17.0-21.0 in range. Although weights were not measured, anecdotal observations indicate condition is much improved. Sampling to collect catfish length distributions, catch rates, and age/growth data will be conducted in 2015.

Table 1. Annual summary of sampling conditions by waterbody, species sampled and date for Northwestern Fishery District lakes during 2014.

Water body	Species	Date	Time (24hr)	Gear	Weather	Water temp. F	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Nolin River Lake	LMB	4/24, 5/6, 5/7	900	Shock	Sunny, breezy, 60-75°	65-70	515-516	49-60	Good	
Nolin River Lake	WB/WE	8/12	1000	Temp/DO	Partly cloudy, w indy, 80°	82.5	515		Fair	
Nolin River Lake	Crappie	11/3 - 11/7		Trap Net	Sunny, cloudy, rainyy, w ind 5-25	52-58	506.2-504.3	30-42	Good	
Rough River Lake	HSB	5/20	1000	Temp/DO	Sunny, w indy, 75°	72		22-54	Fair	
Rough River Lake	HSB	6/19	1000	Temp/DO	Sunny, hot, 90°	85	495	37	Good	
Rough River Lake	HSB	7/29	1000	Temp/DO	Sunny, cool, 75°, w indy (15-20)		495		Fair	
Rough River Lake	HSB	8/29	1000	Temp/DO	Sunny, hot, breezy, 80-90°	85-86	495	54-84	Good	
Rough River Lake	HSB	11/12 - 11/14		Gill Net	Sunny, cloudy, Cold, light w ind	52-54	483-482.2	18-26	Good	
Lake Malone	LMB	4/23, 5/1	900	Shock	Sunny, breezy, 55-60°	65	Pool & P+1'	32-60	Good	
Mauzy	LMB	4/22	900	Shock	Partly sunny, w indy, 70°	67	Pool + 2 in	23	Fair	Water muddy and choppy, deep fish hard to see
Mauzy	BG	5/12	900	Shock	Sunny, humid, 80°	77	Pool	40	Good	
Carpenter Lake	LMB	4/21	1100	Shock	Sunny, 70°	67	Pool + 2 in	44	Good	Lots big BG/RE observed, LMB on w ood 3-5'
Carpenter Lake	BG	5/8	900	Shock	Sunny, cloudy, w indy, 80°	73	Pool	40	Good	
Washburn	LMB	4/21	900	Shock	Cloudy, upper 60°s	65	Pool	35	Good	Lots BG/RE observed, LMB on w ood
Washburn	BG	5/8	1100	Shock	Sunny, cloudy, 85°	76	Pool	58	Good	
Flycatcher (PWMA)	ALL	4/11	1000	Shock	Mostly cloudy, 62°	61	Pool		Good	Observed w armouth and trout, conductivity 358
Honeycone (PWMA)	ALL	5/13	1000	Shock	Sunny then cloudy, 80°	78	Pool	84	Good	Conductivity 153, big BG deep hard to net
Little Gill (PWMA)	ALL	5/13	1200	Shock	Sun and clouds, 80°	78	Pool - 1.5'	84	Good	Conductivity 190
Ken Lake (PWMA)	ALL	5/13	1300	Shock	Mostly cloudy, 80°	78	Pool + 1'	40	Fair	Conductivity 2472
Ken Lake (PWMA)	BCF	6/23	1000	Shock	Sunny, hot, 90°+	87	Pool	30	Good	5 min samples, 15 pps, motor did not run w ell
Fordsville City Park	ALL	5/19	1000	Shock	Sunny, mild, 75°	69	Pool + 1'	12	Poor	Water muddy, low conductivity, alk 75 ppm
Fordsville City Park	CCF	6/2-6/6		Hoop Net	light breeze to w indy, low 80s	77-79	Pool + 6"	15-22	Fair	Water muddy
Vastw ood Park	CCF	6/2-6/6		Hoop Net	light breeze to w indy, low 80s	80-82	Pool	72	Fair/Good	Set #2 stolen/missing
Madisonville City Park North	CCF	6/9-6/11		Hoop Net	Cloudy, light rain, 70s	75-79	Pool	54	Good	Pulled nets after tw o nights, caught too many fisl
Madisonville City Park South	CCF	6/9-6/13		Hoop Net	Cloudy, light rain, to sunny, breezy 70s	75-79	Pool	38-48	Good	Tons of turtles, few CCF
Low er Douglas (Ft Knox)	CCF	6/16-6/20		Hoop Net	Sunny, hot, light breeze, 85-90°	82-86	Pool	46-66	Good	
Upper Douglas (Ft Knox)	CCF	6/16-6/20		Hoop Net	Sunny, hot, light breeze, 85-90°	86	Pool	84-180	Good	
Loch Marie	CCF	6/9-6/13		Hoop Net	Cloudy, light rain, to sunny, breezy 70s	79-80	Pool	24-30	Good	

Table 2. Species composition, length frequency, and CPUE (fish/hr) of black bass collected during 5.0 hours of 30-minute diurnal electrofishing at Nolin River Lake in April 2014.

		Inch class																						
Area	Species	1	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std. error
Upper	Largemouth bass	1	1	9	13	28	21	6	22	36	22	57	67	34	23	7	2	1	6	1		357	119.0	7.0
	Spotted bass						3	7	8	3	6	3		1								31	10.3	3.2
Lower	Largemouth bass		4	1	7	11	11	1	18	9	32	60	73	29	10	7	7	4	1	4	2	291	145.5	9.6
	Spotted bass			1		1	12	10	7	3	5	2	1									42	21.0	4.4
Total	Largemouth bass	1	5	10	20	39	32	7	40	45	54	117	140	63	33	14	9	5	7	5	2	648	129.6	6.9
	Spotted bass			1		1	15	17	15	6	11	5	1	1								73	14.6	3.0

nwd1psd.d14

Table 3. PSD and RSD[a] values obtained for each black bass species taken in spring electrofishing samples in each area of Nolin River Lake during April 2014; 95% confidence intervals are in parentheses.

Area	Species	No. ≥ stock size	PSD (± 95%)	RSD[a] (± 95%)
Upper	Largemouth bass	284	70 (+/-5)	14 (+/- 4)
	Spotted bass	31	32 (+/-17)	3 (+/-6)
Lower	Largemouth bass	257	77 (+/-5)	14 (+/-4)
	Spotted bass	40	20 (+/-13)	0
Total	Largemouth bass	541	73 (+/-4)	14 (+/-3)
	Spotted bass	71	25 (+/-10)	1 (+/-3)

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

nwd1psd.d14

Table 4. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Nolin River Lake during spring electrofishing 1999-2014.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	21.4	2.3	29.2	2.5	64.0	5.4	15.0	1.7	1.4	0.6	129.6	6.9
2013												
2012	76.9	9.6	52.7	6.4	53.8	4.7	16.0	2.1	0.2	0.2	199.3	14.8
2011[a]												
2010[a]												
2009	30.0	5.7	25.1	4.3	36.0	3.6	5.3	1.1	0.7	0.3	96.4	7.1
2008	50.4	7.9	45.8	5.4	34.2	4.3	11.3	1.6	3.6	1.0	141.8	11.2
2007	53.3	10.0	17.3	2.2	27.6	4.9	8.2	1.3	0.7	0.5	106.4	14.2
2006	17.8	2.8	15.8	1.5	23.6	2.7	7.6	1.5	0.4	0.4	64.7	5.7
2005	27.1	5.0	27.1	4.1	25.3	3.9	14.2	2.3	0.4	0.3	93.8	10.1
2004	23.7	1.6	16.4	3.7	16.2	2.4	8.9	2.6	0.4	0.3	65.3	6.8
2003	12.9	3.7	10.2	2.3	8.9	2.2	7.6	2.0	0.0		39.6	9.2
2002	4.0	1.3	9.8	2.6	8.0	3.1	8.0	1.6	0.0		29.8	5.4
2001	5.5	1.7	27.0	7.4	18.0	3.3	9.0	2.8	0.0		59.5	11.7
2000	9.5	3.1	35.0	6.3	41.5	5.1	14.0	4.3	0.5	0.5	100.0	13.1
1999	n/d		61.3	16.8	56.9	9.2	8.0	1.8	0.4	0.4	126.2	26.0

[a] Unable to sample due to high water

nwd1psd.d14

Table 5. Population assessment for largemouth bass based on spring electrofishing at Nolin River Lake from 2000-2014 (scoring based on statewide assessment).

Year	Mean length age 3 at capture	CPUE age 1 fish	CPUE 12.0-14.9 in	CPUE ≥ 15.0 in	CPUE ≥ 20.0 in	Instantaneous mortality (z)	Annual mortality (A)%	Total score	Assessment rating
2014		22.2 (2)	64.0 (4)	15.0 (3)	1.4 (2)			≥ 12	Good
2013									
2012	13.4 (4)	82.9 (4)	53.8 (4)	16.0 (3)	0.2 (2)	0.582	44.1	17	Excellent
2011[a]									
2010[a]									
2009	12.6 (4)	29.2 (2)	36.0 (3)	5.3 (2)	0.7 (2)			13	Good
2008	12.6 (4)	49.7 (3)	34.2 (3)	11.3 (2)	3.6 (4)	0.553	42.5	16	Good
2007	12.6 (4)	51.6 (4)	27.6 (3)	8.2 (2)	0.7 (2)	0.609	45.0	15	Good
2006	12.6 (4)	17.0 (1)	23.6 (2)	7.6 (2)	0.4 (2)	0.447	36.0	11	Fair
2005	13.1 (4)	26.2 (2)	25.3 (3)	14.2 (3)	0.2 (2)	0.617	46.0	14	Good
2004	13.1 (4)	22.9 (2)	16.2 (2)	8.9 (2)	0.4 (2)	0.684	49.5	12	Good
2003	13.1 (4)	11.3 (1)	8.9 (1)	7.6 (2)	0.0 (0)	0.534	41.4	8	Fair
2002	13.1 (4)	3.8 (1)	8.0 (1)	8.0 (2)	0.0 (0)			8	Fair
2001	13.1 (4)	5.0 (1)	18.0 (2)	9.0 (2)	0.0 (0)			9	Fair
2000	13.1 (4)	9.0 (1)	41.4 (4)	14.0 (3)	0.5 (2)			14	Good

[a] Unable to sample due to high water

Table 6. Length frequency and CPUE (fish/nn) for each species of crappie collected in 95 net-nights of sampling at Nolin River Lake during November 2014.

	Inch class														
Species	2	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	Std. error
White crappie		38	99	5	143	194	452	253	201	75	10	1	1471	15.5	2.2
Black crappie	1	19		2	14	5	7	8	5	3			64	0.7	0.2

nwd1tn.d14

Table 7. PSD and RSD_{10} values calculated for crappie collected in trap nets from Nolin River Lake during November 2014; 95% confidence limits are in parentheses.

Lake/Species	No.	PSD	RSD_{10}
Nolin River Lake			
White crappie	1334	74 (+\- 2)	22 (+\- 2)
Black crappie	44	52 (+\- 15)	18 (+\- 12)

nwd1tn.d14

Table 8. Mean back calculated lengths (in) at each annulus for white crappie collected at Nolin River Lake in November 2014.

Year		Age				
class	No.	1	2	3	4	5
2013	47	4.6				
2012	17	5.0	8.4			
2011	13	5.0	8.4	10.4		
2010	2	5.4	8.6	10.7	11.9	
2009	4	4.0	7.9	10.0	11.0	11.6
Mean		4.7	8.4	10.3	11.3	11.6
No.		83	36	19	6	4
Smallest		3.5	6.7	8.6	9.6	10.2
Largest		7.3	9.8	11.5	12.3	12.9
Std error		0.1	0.1	0.2	0.4	0.6
95% CI (±)		0.1	0.2	0.4	0.7	1.1

nwd1wca.d14

Table 9. Age-frequency and CPUE (fish/nn) per inch class of white crappie trap netted for 95 net-nights at Nolin River Lake in November 2014.

	Inch class														
Age	3	4	5	6	7	8	9	10	11	12	13	Total	Age %	CPUE	Std. error
0	38	99	5									142	9.6	1.5	
1				143	194	452	115					904	61.4	9.5	1.4
2							138	141	30			309	21.0	3.3	0.6
3								60	30	7		97	6.6	1.0	0.2
4										2		2	< 0.1	0.0	0.0
5									15	1	1	17	<0.1	0.2	0.0
Total	38	99	5	143	194	452	253	201	75	10	1	1471			
(%)	2.6	6.7	0.3	9.7	13.2	30.7	17.2	13.7	5.1	0.7	< 0.1				

nwd1tn.d14, nwd1wca.d14

Table 10. Population assessment for white crappie based on fall trapnetting at Nolin River Lake from 2001-2014 (scoring based on statewide assessment).

Year	CPUE (excluding age 0)	CPUE age 1	CPUE age 0	CPUE ≥8.0 in	Mean length age 2+ at capture	Instantaneous Mortality (z)	Annual Mortality (A)%	Total score	Assessment Rating
2014	14.0 (3)	9.5 (3)	1.5 (1)	10.4 (3)	10.2 (4)	1.14	0.682	14	Good
2013									
2012	6.7 (2)	4.5 (2)	1.1 (1)	3.2 (2)	10.1 (4)	1.112	67.1	11	Fair
2011	5.7 (2)	4.4 (2)	1.6 (1)	3.5 (2)	10.9 (4)	1.274	72.3	11	Fair
2010	6.7 (2)			6.0 (3)					
2009	14.1 (3)	11.7 (3)	1.2 (1)	8.9 (3)	10.4 (4)	1.638	80.6	14	Good
2008	6.0 (2)	3.5 (2)	2.4 (1)	4.8 (2)	10.4 (4)	0.976	62.3	11	Fair
2007	7.4 (2)	3.7 (2)	0.4 (1)	6.1 (3)	10.4 (4)	0.882	58.6	12	Fair
2006	5.9 (2)	3.2 (2)	2.0 (1)	4.4 (2)	9.7 (4)	0.876	58.3	11	Fair
2005	8.8 (2)	3.6 (2)	1.4 (1)	7.4 (3)	9.7 (4)	0.749	52.7	12	Fair
2004	8.6 (2)	4.2 (2)	5.1 (2)	6.9 (3)	9.7 (4)	0.630	46.7	13	Good
2003	13.2 (3)	8.0 (3)	2.0 (1)	8.7 (3)	9.8 (4)	1.107	66.9	14	Good
2002	12.0 (2)	10.0 (3)	4.3 (2)	8.8 (3)	9.5 (3)	1.571	79.2	13	Good
2001	10.2 (2)	4.8 (2)	2.6 (1)	3.9 (2)	9.1 (3)	0.910	59.7	10	Fair

Table 11. Dissolved oxygen (ppm) and temperature profile conducted at three sites on Nolin River Lake on 12 August 2014.

	Site location					
	Lower		Middle		Upper	
Depth (ft.)	Temp	DO	Temp	DO	Temp	DO
Surface	28.0	8.5	28.0	9.0	28.5	9.1
2	28.0	8.3	28.0	9.1	28.2	8.5
4	28.1	8.2	28.0	8.9	28.1	8.8
6	28.1	8.2	27.9	9.0	27.9	8.3
8	28.1	8.4	27.8	8.8	27.9	8.0
10	28.0	8.0	27.8	8.7	27.6	6.3
12	28.0	8.4	27.7	8.1	27.1	2.7
14	28.0	8.5	27.1	5.1	26.6	2.2
16	27.1	7.2	26.6	2.7	25.9	2.2
18	26.7	6.2	26.0	0.7	25.5	2.2
20	26.2	4.2	25.8	0.2	25.5	2.1
22	24.7	1.2			24.9	1.9
24	24.4	0.6			24.2	1.4
26	23.6	0.4	24.1	0.2	24.0	1.2
28	22.6	0.3			23.9	1.0
30					23.8	0.8
32						
34						
36						
38						
40						
45						
50	35-70' deep		50' deep		30' deep	

NRL_TEMP_DO

Table 12. Length frequency and CPUE (fish/nn) for hybrid striped bass collected in 8 net-nights of sampling at Rough River Lake during November 2014.

	Inch class																				
Species	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Total	CPUE	Std. error
Hybrid striped bass	32	54	11	3		1	11	77	37	52	53	36	30	18	15	14	4	1	1	450	56.3	14.6

nw d2gn.d14

Table 13. Number of fish and the relative weight (Wr) for each length group of hybrid striped bass collected at Rough River Lake during November 2014; 95% confidence limits are in parentheses.

Length group					
8.0-11.9 in		12.0-14.9 in		$\geq$ 15.0 in	
No.	Wr	No.	Wr	No.	Wr
56	95 (1)	51	88 (1)	142	82 (1)

nw d2gn.d14

Table 14. Mean back calculated lengths (in) at each annulus for hybrid striped bass collected at Rough River Lake in November 2014.

Year class	No.	Age 1	2	3	4	5	6	7	8
2013	48	9.6							
2012	46	8.5	14.2						
2011	19	9.2	14.6	16.9					
2010	10	8.2	14.5	16.5	17.9				
2009	11	8.7	15.0	17.4	19.1	20.2			
2008	8	9.2	14.5	16.6	17.8	18.8	19.4		
2007	2	10.4	16.3	19.3	20.1	21.3	22.4	23.0	
2006	2	8.5	13.4	15.7	17.4	18.4	19.3	20.3	21.1
Mean		9.0	14.5	16.9	18.4	19.6	19.9	21.6	21.1
No.		146	98	52	33	23	12	4	2
Smallest		5.9	12.2	14.2	16.0	17.2	17.8	19.2	20.2
Largest		11.5	16.9	19.5	21.4	23.0	22.8	23.6	22.1
Std error		0.1	0.1	0.1	0.2	0.3	0.5	0.9	1.0
95% CI (±)		0.2	0.1	0.3	0.5	0.6	1.1	1.8	1.9

nw d2hsba.d14

Table 15. Age-frequency and CPUE (fish/nn) per inch class of hybrid stiped bass collected in 8 net-nights of sampling at Rough River Lake during November 2014.

	Inch class																			
Age	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	No.	CPUE	Std. Error	Age (%)
0	32	54	11	3														100	12.5		22.3
1						1	11	77	25									114	14.2	4.2	25.4
2									12	50	23	7						92	11.6	4.0	20.5
3										2	23	16	5					46	5.9	2.2	10.2
4											4	7	14	3				28	3.4	1.2	6.2
5											2		5	5	15	6	2	35	4.4	1.8	7.8
6												7	5	8		3		23	2.8	1.0	5.1
7																3	2	5	0.6	0.3	1.1
8														3		3		6	0.7	0.2	1.3
Total	32	54	11	3		1	11	77	37	52	52	37	29	19	15	15	4	449			
(%)	7.1	12.0	2.4	0.7		0.2	2.4	17.1	8.2	11.6	11.6	8.2	6.4	4.2	3.3	3.3	0.9				

nw d2gn.d14, nw d2hsba.d14

Table 16. Population assessment for hybrid striped bass based on fall gill net sampling at Rough River Lake from 1999-2014 (scoring based on statewide assessment).

Year	CPUE (excluding age 0)	Mean length age 2+ at capture	CPUE $\geq$ 15.0 in	CPUE age 1	Instantaneous mortality (z)	Annual mortality (A)%	Total score	Assessment rating
2014	43.8 (4)	16.8 (2)	32.6 (4)	14.2 (4)	0.457	36.7	14	Excellent
2012	35.1 (4)	16.7 (2)	25.1 (4)	11.6 (4)	0.717	51.2	14	Excellent
2010	60.2 (4)	16.8 (2)	34.5 (4)	28.9 (4)	0.525	40.8	14	Excellent
2008	25.1 (4)	16.3 (2)	19.3 (4)	6.3 (3)	0.544	42.0	13	Good
2006	23.7 (4)	16.9 (2)	14.5 (4)	8.9 (3)	0.447	36.1	13	Good
2003	33.9 (4)	16.5 (2)	30.9 (4)	3.1 (2)	0.680	49.8	12	Good
2001	29.9 (4)	15.9 (1)	16.8 (4)	13.1 (4)			13	Good
1999	26.4 (4)	16.5 (2)	18.5 (4)	8.1 (3)			13	Good

Table 17. Length frequency and CPUE (fish/nn) for channel catfish collected in 8 net-nights of sampling at Rough River Lake during November 2014.

	Inch class																			
Species	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	28	Total	CPUE	Std. error
Channel catfish	2	1	2		2	2	1	1	2	6	4	9	4	3	1	1	1	42	5.3	2.2

nw d2gn.d14

Table 18. Number of fish and the relative weight (Wr) for each length group of channel catfish collected at Rough River Lake during November 2014. Standard errors are in parentheses.

Length group					
11.0-15.9 in		16.0-23.9 in		>24.0 in	
No.	Wr	No.	Wr	No.	Wr
4	79 (1)	12	91 (3)	3	75 (3)

nwd2gn.d14

Table 19. Dissolved oxygen (ppm) and temperature profile conducted at three sites on Rough River Lake on 20 May 2014.

	Site location					
	Lower		Middle		Upper	
Depth (ft.)	Temp	DO	Temp	DO	Temp	DO
Surface	21.7	10.2	23.2	10.4	21.9	12.6
2	21.6	10.4	22.6	10.3	21.2	11.8
4	21.6	10.3	21.2	8.6	19.6	10.4
6	21.5	10.2	21.0	8.0	19.0	8.1
8	21.5	10.3	20.8	8.0	17.4	6.8
10	21.4	10.4	20.6	7.5	15.9	6.1
12	21.4	10.2	20.0	6.3	15.6	6.1
14	21.3	10.2	19.5	5.2	15.5	6.1
16	20.0	8.4	19.0	4.5	15.3	6.2
18	19.6	7.9	18.6	3.8	15.1	6.2
20	19.1	5.9	18.1	3.4	15.1	6.2
22	18.8	4.1	17.9	3.2	15.1	6.2
24	18.0	2.5	17.8	3.1	15.1	6.2
26	17.2	2.3	17.6	2.5	15.0	6.3
28	17.1	2.1	16.7	0.7		
30	16.5	1.7				
32	15.7	1.4	15.4	0.3		
35	15.7	1.1				
40	14.7	1.0				
	56' deep		32' deep		28' deep	

RRL_Temp_DO

Table 20. Dissolved oxygen (ppm) and temperature profile conducted at three sites on Rough River Lake on 19 June 2014.

	Site location					
	Lower		Middle		Upper	
Depth (ft.)	Temp	DO	Temp	DO	Temp	DO
Surface	29.3	8.6	30.1	8.7	30.4	10.1
2	29.2	8.3	29.9	8.3	29.8	10.2
4	29.1	8.3	29.2	8.4	29.4	10.6
6	29.0	8.4	28.6	8.7	28.9	9.8
8	28.6	8.2	27.4	9.5	27.8	9.3
10	27.6	7.8	26.3	6.5	25.9	5.4
12	25.7	5.8	24.4	4.0	24.8	3.5
14	23.8	3.1	23.4	1.6	22.5	1.7
16	22.2	1.6	22.3	0.5	21.6	0.8
18	20.5	0.4	20.8	0.3	19.7	0.2
25	17.9	0.3				
	52' deep		30' deep		23' deep	

RRL_Temp_DO

Table 21. Dissolved oxygen (ppm) and temperature profile conducted at three sites on Rough River Lake on 29 July 2014.

	Site location					
	Lower		Middle		Upper	
Depth (ft.)	Temp	DO	Temp	DO	Temp	DO
Surface	26.4	6.6	27.1	6.2	27.5	6.8
2	26.3	6.6	27.1	6.0	27.3	6.7
4	26.3	6.6	27.1	6.1	27.1	6.3
6	26.2	6.6	27.0	5.7	27.0	6.0
8	26.2	6.5	27.0	5.7	26.8	5.2
10	26.1	6.2	27.0	6.0	26.7	5.2
12	26.1	6.3	27.0	5.6	26.7	4.8
14	26.1	6.2	27.0	5.7	26.4	3.9
16	25.2	2.8	26.8	5.4	25.8	1.6
18	23.4	0.3	25.6	0.4	25.0	0.7
20	22.8	0.2	24.8	0.2		
25	19.4	0.2	20.2	0.2		
30	17.4	0.2	18.9	0.2		
	48' deep		30' deep		22' deep	

RRL_Temp_DO

Table 22. Dissolved oxygen (ppm) and temperature profile conducted at three sites on Rough River Lake on 29 August 2014.

	Site location					
	Lower		Middle		Upper	
Depth (ft.)	Temp	DO	Temp	DO	Temp	DO
Surface	29.7	7.5	30.0	9.4	30.3	9.0
2	29.8	7.6	30.0	9.3	29.8	9.2
4	29.8	7.7	29.9	9.0	29.6	8.0
6	29.7	7.7	29.7	7.6	29.2	6.5
8	29.3	7.7	29.0	4.8	28.7	4.5
10	28.2	6.5	28.5	2.8	28.0	3.3
12	27.5	5.0	28.2	0.6	26.9	1.9
14	26.8	3.1	26.9	0.4	25.3	1.5
16	26.2	1.2			24.2	0.7
18	25.5	0.5			23.3	0.4
20	24.8	0.4	24.6	0.4	23.1	0.4
	45' deep		29' deep		24' deep	

RRL_Temp_DO

Table 23. Length frequency and CPUE (fish/hr) of largemouth bass collected during 2.5 hours of 30-minute diurnal electrofishing at Lake Malone in April/May 2014.

	Inch class																						
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std. error
Largemouth bass	8	12	11	8	9	46	53	61	62	53	40	23	34	26	32	16	16	18	6	1	535	107.0	16.7

nw d3psd.d14

Table 24. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Lake Malone 1999-2014.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err	CPUE	Std. err.
2014	9.6	1.3	44.4	9.6	23.2	4.6	29.8	3.3	5.0	0.6	107.0	16.7
2012	46.4	18.4	123.6	18.1	48.8	10.9	48.8	10.3	2.8	1.0	267.6	44.5
2011	45.6	10.3	56.0	7.3	35.2	7.7	34.4	6.8	4.0	1.1	171.2	26.8
2010	37.2	8.8	49.6	5.0	49.6	5.4	62.0	7.1	3.6	1.6	198.4	16.3
2009	10.0	1.4	29.6	4.4	51.2	7.6	37.2	3.6	5.6	0.4	128.0	11.7
2008	18.8	6.5	78.8	6.6	77.2	5.0	43.6	8.1	6.4	1.5	218.4	12.4
2007	29.2	4.0	80.4	10.4	30.8	2.0	37.6	10.3	3.6	1.3	178.0	17.8
2006	31.6	3.7	81.6	14.3	22.4	2.1	28.0	5.9	5.2	1.6	163.6	19.8
2005	32.4	4.8	69.2	14.3	32.0	8.7	53.6	5.7	8.4	1.2	187.2	30.1
2004	28.4	3.9	53.6	5.7	26.4	4.2	53.2	3.9	6.0	1.6	161.6	12.8
2003	57.0	3.3	76.5	6.8	35.0	5.0	57.5	4.9	9.5	2.8	226.0	12.1
2002[a]	8.6	3.3	43.4	5.0	43.4	8.5	41.7	7.6	8.0	3.0	137.1	17.5
2001[a]	18.0	8.1	66.0	12.0	50.0	8.0	31.3	6.3	0.7	0.7	165.3	15.6
2000[a]	13.3	3.4	46.0	4.2	51.3	7.8	24.0	4.0	2.0	0.9	134.7	14.5
1999[a]	n/d		48.7	9.8	61.3	7.0	23.3	4.9	2.7	1.3	133.3	12.7

[a] Nocturnal sample

nw d3psd.d14

Table 25. PSD and RSD_{15} values obtained for largemouth bass taken in spring electrofishing samples at Lake Malone, Carpenter Lake, Kingfisher Lake, Mauzy Lake and Washburn Lake during April 2014; 95% confidence intervals are in parentheses.

Lake	Species	No. >8.0 in	PSD (+/- 95%)	RSD_{15} (+/- 95%)
Malone	Largemouth	487	54 (+\- 4)	31 (+\- 4)
Mauzy	Largemouth	166	34 (+\- 7)	21 (+\- 6)
Carpenter	Largemouth	131	37 (+/- 8)	15 (+\- 6)
New Kingfisher	Largemouth	n\d		
Washburn	Largemouth	132	5 (+\-4)	3 (+\- 2)

nw d3psd.d14
nw d4psd.d14
nw d5psd.d14
nw d8psd.d14

Table 26. Population assessment for largemouth bass based on spring electrofishing at Lake Malone from 2001-2014 (scoring based on statewide assessment).

Year	Mean length age 3 at capture	CPUE age 1	CPUE 12.0-14.9 in	CPUE ≥ 15.0 in	CPUE ≥ 20.0 in	Instantaneous Mortality (z)	Annual Mortality (A)%	Total score	Assessment Rating
2014		7.8 (1)	23.2 (2)	29.8 (3)	5.0 (4)			≥10	
2012		31.2 (2)	48.8 (3)	48.8 (4)	2.8 (3)			≥12	
2011		41.2 (2)	35.2 (3)	34.4 (4)	4.0 (4)			≥13	
2010	10.4 (2)	15.1 (1)	49.6 (3)	62.0 (4)	3.6 (3)	0.397	32.7	13	Good
2009	10.3 (2)	8.8 (1)	51.2 (4)	37.2 (4)	5.6 (4)	0.293	25.4	15	Good
2008	10.3 (2)	16.4 (2)	77.2 (4)	43.6 (4)	6.4 (4)	0.357	30.0	16	Good
2007	10.3 (2)	29.2 (2)	30.8 (2)	37.6 (4)	3.6 (3)	0.330	28.1	13	Good
2006	11.5 (4)	20.20(2)	22.4 (2)	28.0 (3)	5.2 (4)	0.526	40.9	15	Good
2005	11.5 (4)	19.0 (2)	32.0 (2)	53.6 (4)	8.4 (4)	0.387	32.0	16	Good
2004	11.5 (4)	19.0 (2)	26.4 (2)	53.2 (4)	6.0 (4)	0.365	31.1	16	Good
2003	11.5 (4)	35.0 (2)	35.0 (3)	48.0 (4)	8.5 (4)	0.416	34.1	17	Excellent
2002	11.5 (4)	6.0 (1)	43.4 (3)	41.7 (4)	8.0 (4)			16	Good
2001	12.9 (4)	14.0 (1)	50.0 (4)	31.3 (4)	0.7 (1)			14	Good

Table 27. Length frequency and CPUE (fish/hr) of largemouth bass collected during 1.0 hour of diurnal electrofishing at Mauzy Lake in April 2014.

	Inch class																				
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std. error
Largemouth bass	18	16	4	27	45	17	27	21	12	4	5	5	2	7	5	3	9	4	231	231.0	8.4

nw d4psd.d14

Table 28. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Mauzy Lake during spring 1999-2014.

	Length group										Total	
	<8.0 in		8.0-11.9 in		12.0-14.9 in		>15.0 in		> 20.0 in			
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	65.0	7.2	110.0	3.5	21.0	3.4	35.0	5.7	13.0	6.8	231.0	8.4
2013	80.0	24.3	98.7	19.6	13.3	4.8	34.7	4.8	4.0	2.3	226.7	25.3
2012	96.0	16.5	42.0	2.6	20.0	4.9	40.0	9.1	15.0	3.4	198.0	12.8
2011	48.0	11.6	21.3	3.5	58.7	2.7	40.0	4.6	10.7	3.5	168.0	8.0
2010	26.7	3.5	78.7	13.1	21.3	2.7	44.0	10.1	17.3	8.1	170.7	26.7
2009[a]												
2008	104.0	31.4	147.0	16.3	21.0	5.0	83.0	9.3	7.0	1.9	355.0	48.2
2007	46.0	5.3	49.0	12.3	40.0	2.8	64.0	17.5	0.0		199.0	31.0
2006	68.0	14.1	40.0	4.0	24.0	4.0	60.0	4.6	0.0		192.0	21.2
2005	52.0	8.6	25.0	6.6	147.0	11.5	21.0	7.9	4.0	1.6	245.0	22.3
2004	20.0	9.2	132.0	2.3	5.3	1.3	6.7	1.3	0.0		164.0	10.6
2003[b]	98.6	18.7	163.2	31.9	73.6	6.1	20.8	6.4	2.8	2.8	356.3	58.7
2002[c]	36.0	14.1	169.3	40.6	9.3	1.3	6.7	2.7	1.3	1.3	221.3	45.4
2001[c]	12.0	2.3	246.7	53.5	26.7	10.7	4.0	2.3	0.0		289.3	64.2
2000[c]	37.3	5.8	224.0	20.5	2.7	1.3	5.3	3.5	0.0		269.3	25.3
1999[c]	n/d		165.3	8.7	17.3	5.4	4.0	2.3	1.3	1.3	186.7	14.1

[a] Lake drawn down for repairs in 2009

[b] Lake renovated in 2003

[c] Nocturnal sample

nw d4psd.d14

Table 29. Population assessment for largemouth bass based on spring electrofishing at Mauzy Lake from 2001-2014 (scoring based on statewide assessment).

Year	Mean length age 3 at capture	CPUE age 1	CPUE 12.0-14.9 in	CPUE ≥ 15.0 in	CPUE ≥ 20.0 in	Instantaneous mortality (z)	Annual mortality (A)%	Total score	Assessment rating
2014		40.0 (2)	21.0 (2)	35.0 (4)	13.0 (4)			≥12	
2013		63.1 (3)	13.3 (1)	34.7 (4)	4.0 (4)			≥12	
2012	13.6 (4)[a]	74.0 (3)	20.0 (2)	40.0 (4)	15.0 (4)	0.965	61.9	17	Excellent
2011		61.3 (3)	56.7 (4)	40.0 (4)	10.7 (4)			≥15	
2010			21.3 (2)	44.0 (4)	17.3 (4)			≥10	
2009[b]									
2008	12.2 (4)	99.0 (4)	21.0 (2)	83.0 (4)	7.0 (4)	0.466	37.3	18	Excellent
2007	12.2 (4)	21.0 (2)	40.0 (3)	64.0 (4)	0.0 (0)	0.374	31.2	13	Good
2006	10.3 (2)	24.0 (2)	24.0 (2)	60.0 (4)	0.0 (0)	0.755	53.0	10	Fair
2005	10.3 (2)	34.0 (2)	147.0 (4)	21.0 (3)	4.0 (4)			15	Good
2004	10.3 (2)	2.7 (1)	5.3 (1)	6.7 (2)	0.0 (0)	0.884	58.7	6	Poor
2003[c]	10.3 (2)	86.8 (4)	73.6 (4)	20.8 (3)	2.8 (3)			16	Good
2002	10.3 (2)	25.3 (2)	9.3 (1)	6.7 (2)	1.3 (2)			9	Fair
2001	10.3 (2)	5.3 (1)	26.7 (2)	4.0 (2)	0.0 (0)			7	Poor

[a] Only one age 3 fish
[b] Lake drawn down for repairs in 2009
[c] Lake renovated in 2003

Table 30. Length frequency and CPUE (fish/hr) for bluegill and redear sunfish collected during 0.875 hour of electrofishing at Mauzy Lake in May 2014.

Species	Inch class 1	2	3	4	5	6	7	8	9	Total	CPUE	Std. error
Bluegill	1	8	44	84	94	85	6	0	0	322	368.0	69.1
Redear sunfish	1	0	3	49	46	87	95	22	2	305	348.6	33.1

nwd4bg.d14

Table 31. Spring electrofishing CPUE (fish/hr) for each length group of bluegill (2000-2014) and redear sunfish (2007-2014) collected at Mauzy Lake during spring samples.

Bluegill	Length group											
	< 3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	10.3	2.3	253.7	55.6	104.0	21.0	0.0		0.0		368.0	69.1
2013	91.2	21.1	417.6	54.0	73.6	11.1	0.0		0.0		582.4	60.9
2012	23.0	7.8	553.0	108.5	55.0	14.3	0.0		0.0		631.0	126.7
2011	182.4	72.9	726.4	144.1	216.0	51.4	121.6	43.3	0.0		1246.4	195.0
2010	238.4	76.5	280.0	41.0	97.6	34.0	0.0		0.0		616.0	74.4
2009[a]												
2008[a]												
2007	101.3	11.1	621.3	39.6	38.7	8.9	0.0		0.0		761.3	44.5
2006	96.0	27.9	614.0	137.7	10.0	7.6	0.0		0.0		720.0	163.4
2005	289.7	45.5	596.2	101.3	14.1	5.8	0.0		0.0		900.0	86.6
2004	101.1	18.0	84.6	17.5	64.8	12.0	1.1	1.1	0.0		251.7	36.1
2003[b]												
2002	9.3	3.5	94.7	19.6	125.3	29.2	1.3	1.3	0.0		230.7	48.0
2001	5.3	3.5	65.3	16.2	137.3	27.9	1.3	1.3	0.0		209.3	40.7
2000	1.3	1.3	52.0	4.0	73.3	5.3	4.0	2.3	0.0		130.7	10.9

nw d4bg.d13

Redear	Length group											
	< 3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	1.1	1.1	112.0	19.7	208.0	26.1	27.4	6.0	0.0		348.6	33.1
2013	0.0		72.0	11.0	161.6	26.0	65.6	15.5	0.0		299.2	40.8
2012	0.0		107.0	13.7	39.0	7.6	33.0	8.6	0.0		179.0	21.9
2011	3.2	2.0	8.0	6.2	32.0	32.0	35.2	26.4	0.0		78.4	65.3
2010	0.0		16.0	10.1	240.0	48.3		7.3	0.0		270.4	61.0
2009[a]												
2008[a]												
2007	2.7	1.7	41.3	13.1	14.7	3.8	6.7	5.2	0.0		65.3	12.6

[a] Lake drawn down for repairs in 2008-2009

[b] Lake renovated in 2003

nw d4bg.d14

Table 32. PSD and RSD[a] values obtained for bluegill and redear sunfish collected in spring electrofishing samples at NWFD state-owned lakes during May 2014; 95% confidence intervals are in parentheses.

Lake	Species	No.	PSD (+/- 95%)	RSD[a] (+/- 95%)
Mauzy	Bluegill	313	29 (+/- 5)	0
	Redear sunfish	301	40 (+/- 6)	1 (+/- 1)
Carpenter	Bluegill	514	49 (+/- 4)	0
	Redear sunfish	62	100 (+/-)	37 (+/- 12)
Washburn	Bluegill	121	44 (+/- 9)	2 (+/- 3)
	Redear sunfish	70	89 (+/- 8)	1 (+/- 3)

[a] Bluegill = RSD_8, redear = RSD_9

nw d4bg.d14

nw d5bg.d14

nw d8bg.d14

Table 33. Population assessment for bluegill based on spring electrofishing at Mauzy Lake from 2001-2014 (scoring based on statewide assessment).

Year	Mean length age 2 at capture	Years to 6.0 in	CPUE ≥ 6.0 in	CPUE ≥ 8.0 in	Instantaneous mortality (z)	Annual mortality (A)%	Total score	Assessment rating
2014			104.0 (4)	0.0 (0)			≥4	
2013			73.6 (3)	0.0 (0)			≥3	
2012	4.0 (2)	4-4+ (2)	55.0 (3)	0.0 (0)	0.884	58.7	7	Fair
2011			337.6 (4)	121.6 (4)			≥8	
2010			97.6 (4)	0.0 (0)			≥4	
2009[a]								
2008[a]								
2007	3.3 (1)	4-4+ (2)	38.7 (2)	0.0 (0)	0.642	35.8	5	Poor
2006	3.7 (2)	4-4+ (2)	10.0 (1)	0.0 (0)	0.755	53.0	5	Poor
2005	4.3 (2)	2-2+ (4)	14.1 (1)	0.0 (0)			7	Fair
2004	4.3 (2)	2-2+ (4)	65.9 (3)	1.1 (2)			11	Good
2003[b]								
2002	4.3 (2)	2-2+ (4)	126.7 (4)	1.3 (2)			12	Good
2001	4.3 (2)	2-2+ (4)	138.7 (4)	1.3 (2)			12	Good

[a] Lake drawn down for repairs in 2009

[b] Lake renovated in 2003

Table 34. Population assessment for redear sunfish based on spring electrofishing at Mauzy Lake from 2007-2014 (scoring based on statewide assessment).

Year	Mean length age 3 at capture	Years to 8.0 in	CPUE ≥ 8.0 in	CPUE ≥ 10.0 in	Instantaneous mortality (z)	Annual mortality (A)%	Total score	Assessment rating
2014			27.4 (4)	0.0 (0)			≥4	
2013			65.6 (4)	0.0 (0)			≥4	
2012	7.6 (4)	4-4+ (3)	33.0 (4)	0.0 (0)			11	Good
2011			35.2 (4)	0.0 (0)			≥4	
2010			14.4 (3)	0.0 (0)			≥3	
2009[a]								
2008[a]								
2007	8.2 (4)	3-3+ (4)	6.7 (2)	0.00 (0)	0.790	54.6	10	Fair

[a] Lake drawn down for repairs in 2008-2009.

Table 35. Length frequency and CPUE (fish/hr) of largemouth bass collected during 0.625 hour of 7.5-minute diurnal electrofishing at Carpenter Lake in April 2014.

	Inch class																				
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std. error
Largemouth bass	3	6	1	0	5	13	27	37	17	6	7	2	1	2	5	1	4	3	1	141	225.6	37.0

nwd5psd.d14

Table 36. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Carpenter Lake 1999-2014.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥ 20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	16.0	6.7	131.2	17.6	48.0	13.2	30.4	5.9	12.8	5.4	225.6	37.0
2013	80.0	26.2	138.7	9.6	20.0	4.0	22.7	1.3	5.3	1.3	261.3	38.5
2012	40.0	16.7	74.7	15.0	46.7	7.4	22.7	12.7	1.3	1.3	184.0	46.7
2011	182.7	15.4	166.7	9.6	73.3	13.1	9.3	3.5	4.0	4.0	432.0	30.2
2010	73.3	19.4	198.7	39.6	10.7	5.8	12.0	4.6	2.7		294.7	34.7
2009	102.7	18.7	166.7	26.3	18.7	4.8	8.0	2.3	0.0		296.0	27.2
2008	136.0	17.7	229.0	28.8	9.0	2.5	11.0	4.1	1.0	1.0	385.0	50.3
2007	45.3	7.4	128.0	24.3	12.0	2.3	10.7	3.5	1.3		196.0	31.8
2006	97.3	12.0	134.7	8.7	24.0	1.3	9.3	2.3	0.0		265.3	55.4
2005	157.3	3.5	165.3	48.6	30.7	3.5	2.7	1.3	0.0		356.0	54.6
2004	80.0	16.7	128.0	28.0	22.7	3.5	21.3	8.7	2.7		252.0	47.7
2003	181.3	49.3	97.3	11.4	18.7	4.8	36.0	12.2	1.3		333.3	63.4
2002[a]	12.0	4.6	52.0	4.6	12.0	0.0	21.3	3.5	0.0		97.3	4.8
2001[a]	14.7	8.7	29.3	5.3	90.7	9.3	66.7	2.7	1.3		201.3	17.6
2000[a]	2.7	1.3	45.3	7.1	48.0	2.3	0.0				96.0	8.3
1999[a]	1.3	1.3	142.7	18.5	29.3	13.5	1.3	1.3			174.7	31.0

[a] Nocturnal sample

nw d5psd.d14

Table 37. Population assessment for largemouth bass based on spring electrofishing at Carpenter Lake from 2001-2014 (scoring based on statewide assessment).

Year	Mean length age 3 at capture	CPUE age 1	CPUE 12.0-14.9 in	CPUE ≥ 15.0 in	CPUE ≥ 20.0 in	Instantaneous mortality (z)	Annual mortality (A)%	Total score	Assessment rating
2014		16.0 (2)	48.0 (3)	30.4 (4)	12.8 (4)			≥13	
2013		69.3 (3)	20.0 (2)	22.7 (3)	5.3 (4)			≥12	
2012		12.0 (1)	46.7 (3)	22.7 (3)	1.3 (2)			≥9	
2011		182.7 (4)	73.3 (4)	9.3 (2)	4.0 (4)			≥14	
2010	10.1 (2)	72.0 (4)	10.7 (1)	12.0 (2)	2.7 (3)	0.438	35.5	12	Good
2009	10.3 (2)	97.9 (4)	18.7 (1)	8.0 (2)	0.0 (0)			9	Fair
2008	10.3 (2)	120.3 (4)	9.0 (1)	11.0 (2)	1.0 (2)	0.561	42.9	11	Good
2007	10.3 (2)	39.9 (2)	12.0 (1)	10.7 (2)	1.3 (2)	0.560	42.9	9	Fair
2006	11.6 (4)	78.7 (4)	24.0 (2)	9.3 (2)	0.0 (0)	1.160	68.7	12	Good
2005	11.6 (4)	132.0 (4)	30.7 (2)	2.7 (1)	0.0 (0)			11	Fair
2004	11.6 (4)	56.0 (4)	22.7 (2)	21.3 (3)	2.7 (3)	1.155	68.5	16	Good
2003	11.6 (4)	162.7 (4)	54.7 (4)	36.0 (4)	1.3 (2)	0.943	61.1	18	Excellent
2002	11.6 (4)	12.0 (1)	12.0 (1)	21.3 (3)	0.0 (0)			9	Fair
2001	11.6 (4)	8.0 (1)	90.7 (4)	66.7 (4)	1.3 (2)			15	Good

Table 38. Length frequency and CPUE (fish/hr) of bluegill and redear sunfish collected during 0.75 hour of electrofishing at Carpenter Lake in May 2014.

	Inch class										
Species	2	3	4	5	6	7	8	9	Total	CPUE	Std. error
Bluegill	4	55	137	72	161	88	1	0	518	690.7	49.7
Redear sunfish	0	0	0	0	0	8	31	23	62	82.7	11.4

nw d5bg.d14

Table 39. Spring electrofishing CPUE (fish/hr) for each length group of bluegill (1999-2014) and redear sunfish (2010-2014) collected at Carpenter Lake during spring samples.

Bluegill	Length group											
	< 3.0 in		3.0-5.9 in		6.0-7.9 in		>8.0 in		>10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	5.3	4.0	352.0	34.6	332.0	34.1	1.3		0.0		690.7	49.7
2013	20.0	9.2	138.7	27.1	312.0	42.5	0.0		0.0		470.7	70.8
2012	1.6	1.6	144.0	31.9	147.2	22.3	0.0		0.0		292.8	49.7
2011	16.0	10.4	400.0	157.5	180.8	50.5	0.0		0.0		596.8	214.4
2010	10.7	6.4	100.0	18.6	101.3	19.0	0.0		0.0		212.0	30.8
2009	17.3	9.6	124.0	24.4	140.0	17.9	0.0		0.0		281.3	42.9
2008	0.0		88.0	18.8	150.0	50.7	0.0		0.0		238.0	68.5
2007	2.7	2.7	61.3	17.7	168.0	38.5	1.3	1.3	0.0		233.3	9.1
2006	1.3	1.3	57.3	10.0	102.7	12.1	0.0		0.0		161.3	21.3
2005	12.1	9.8	190.1	17.1	98.9	6.8	18.7	9.0	0.0		319.8	23.1
2004	12.3	4.6	26.2	7.1	46.2	11.4	1.5	1.5	0.0		86.2	20.4
2003	7.7	2.8	102.6	23.0	47.4	13.2	3.9	1.7	0.0		161.5	34.1
2002	2.3		8.1		17.2		1.2		0.0		28.7	0.0
2001			198.7	74.7	152.0	22.7	41.3	12.7	0.0		392.0	108.9
2000			4.0	2.3	10.7	4.8	12.0	6.1	0.0		26.7	9.6
1999			10.7	2.6	82.7	10.9	12.0	8.0	0.0		105.3	18.0

nw d5bg.d14

Redear	Length group											
	< 3.0 in		3.0-5.9 in		6.0-7.9 in		>8.0 in		>10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	0.0		0.0		10.7	4.0	72.0	11.7	0.0		82.7	11.4
2013	0.0		1.3	1.3	9.3	2.5	12.0	2.7	0.0		22.7	2.5
2012	0.0		8.0	3.6	41.6	20.3	6.4	3.0	0.0		56.0	25.2
2011	0.0		32.0	24.4	28.8	17.6	16.0	5.7	0.0		76.8	43.1
2010	0.0		2.7	2.7	16.0	4.6	9.3	2.5	0.0		28.0	6.5

nw d5bg.d14

Table 40. Population assessment for bluegill based on spring electrofishing at Carpenter Lake from 2001-2014 (scoring based on statewide assessment).

Year	Mean length age 2+ at capture	Years to 6.0 in	CPUE ≥ 6.0 in	CPUE ≥ 8.0 in	Instantaneous mortality (z)	Annual mortality (A)%	Total score	Assessment rating
2014			333.3 (4)	1.3 (2)			≥6	
2013			312.0 (4)	0.0 (0)			≥4	
2012			147.2 (4)	0.0 (0)			≥4	
2011			180.8 (4)	0.0 (0)			≥4	
2010	4.9 (3)	3-3+ (3)	101.3 (4)	0.0 (0)	0.615	45.9	10	Fair
2009	4.6 (3)	3-3+ (3)	140.0 (4)	0.0 (0)			10	Fair
2008	4.6 (3)	3-3+ (3)	150.0 (4)	0.0 (0)	0.571	43.9	10	Fair
2007	4.6 (3)	3-3+ (3)	169.3 (4)	1.3 (2)	0.386	32.0	12	Good
2006	5.6 (4)	2-2+ (4)	84.6 (4)	0.0 (0)	1.657	80.9	12	Good
2005	5.6 (4)	2-2+ (4)	117.6 (4)	18.7 (4)			16	Excellent
2004	5.6 (4)	2-2+ (4)	47.7 (2)	1.5 (2)			12	Good
2003	5.6 (4)	2-2+ (4)	53.3 (3)	4.0 (2)	1.427	76.0	13	Good
2002	5.6 (4)	2-2+ (4)	18.4 (1)	1.2 (1)			10	Fair
2001			145.7 (4)	41.3 (4)			≥8	

Table 41. Length frequency and CPUE (fish/hr) of largemouth bass collected during 0.375 hour of 7.5-minute diurnal electrofishing at Washburn Lake in April 2014.

	Inch class																				
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std. error
Largemouth bass	4	18	12	0	35	35	37	18	3	0	0	0	0	0	2	0	0	2	166	442.7	23.3

nw d8psd.d14

Table 42. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Washburn Lake* during spring samples 2001-2014.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	90.7	7.1	333.3	30.8	8.0	4.6	10.7	2.7	5.3	2.7	442.7	23.3
2012	213.3	39.8	218.7	46.3	16.0	0.0	8.0	0.0	5.3	2.7	456.0	77.7
2011	205.3	44.9	133.3	35.3	2.7	2.7	5.3	2.7	0.0		346.7	78.6
2010	96.0	28.1	80.0	16.7	5.3	5.3	2.7	2.7	2.7	2.7	184.0	45.5
2009	104.0	60.0	82.7	39.8	0.0		10.7	5.3	0.0		197.3	104.3
2008	170.7	42.9	61.3	21.8	16.0	0.0	13.3	9.6	0.0		261.3	59.6
2007	133.3	35.3	80.0	4.6	16.0	4.6	21.3	9.6	0.0		250.7	30.8
2006	96.0	9.2	98.7	39.3	64.0	0.0	18.7	5.3	2.7	2.7	277.3	25.4
2005	43.6	11.2	146.2	16.0	28.2	5.1	2.6	2.6	2.6	2.6	220.5	25.3
2004	46.2	4.4	353.9	49.5	0.0		0.0		0.0		400.0	51.2
2003	123.1	33.5	438.5	49.5	0.0		0.0		0.0		561.5	52.4
2002	50.0		321.4		0.0		0.0		0.0		371.4	0.0
2001	260.0		8.0		0.0		0.0		0.0		268.0	0.0

* Washburn Lake renovated summer 1999 and restocked spring 2000

nw d8psd.d14

Table 43. Population assessment for largemouth bass based on spring electrofishing at Washburn Lake 2003-2014 (scoring based on statewide assessment).

Year	Mean length age 3 at capture	CPUE age 1	CPUE 12.0-14.9 in	CPUE ≥ 15.0 in	CPUE ≥ 20.0 in	Instantaneous Mortality (z)	Annual Mortality (A)%	Total score	Assessment Rating
2014		90.7 (4)	8.0 (1)	10.7 (2)	5.3 (4)			≥11	
2012			16.0 (1)	8.0 (2)	5.3 (4)			≥7	
2011			2.7 (1)	5.3 (2)	0.0 (0)			≥3	
2010	10.7 (2)	96.0 (4)	5.3 (1)	0.0 (0)	0.0 (0)	0.819	55.9	7	Poor
2009	13.1 (4)	99.7 (4)	0.0 (0)	10.7 (2)	0.0 (0)			10	Fair
2008	13.1 (4)	165.9 (4)	16.0 (1)	13.3 (2)	0.0 (0)	1.117	67.3	11	Fair
2007	13.1 (4)	131.2 (4)	16.0 (1)	21.3 (3)	0.0 (0)	0.944	61.1	12	Good
2006	11.2 (3)	94.7 (4)	64.0 (4)	18.7 (3)	2.7 (3)	0.669	48.8	17	Excellent
2005	11.2 (3)	41.0 (3)	28.2 (2)	2.6 (1)	2.6 (3)			12	Good
2004	11.2 (3)	48.3 (3)	0.0 (0)	0.0 (0)	0.0 (0)			6	Poor
2003	11.2 (3)	131.6 (4)	0.0 (0)	0.0 (0)	0.0 (0)			7	Poor

Table 44. Length frequency and CPUE (fish/hr) for bluegill and redear sunfish collected in 0.375 hour of electrofishing at Washburn Lake in May 2014.

Species	3	4	5	6	7	8	9	Total	CPUE	Std. error
Bluegill	19	30	19	35	15	3	0	121	322.7	55.9
Redear	1	0	1	7	25	36	1	71	189.3	39.8

nw d8bg.d14

Table 45. Spring electrofishing CPUE (fish/hr) for each length group of bluegill (2001-2014) and redear sunfish (2012-2014) collected at Washburn Lake* during spring samples.

Bluegill	Length group											
	< 3.0 in		3.0-5.9 in		6.0-7.9 in		≥ 8.0 in		≥ 10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	0.0		181.3	64.1	133.3	9.6	8.0	4.6	0.0		322.7	55.9
2013	10.7	7.1	101.3	16.2	109.3	58.5	2.7	2.7	0.0		224.0	46.2
2012	30.0	11.9	158.0	27.6	64.0	23.3	22.0	6.8	0.0		274.0	49.1
2011	24.0	10.7	93.3	16.5	33.3	10.4	5.3	2.7	0.0		156.0	19.6
2010	53.3	16.2	152.0	57.9	32.0	0.0	0.0		0.0		237.3	41.7
2009	60.0	15.1	80.0	19.0	138.0	10.0	0.0		0.0		278.0	20.8
2008	2.7	2.7	152.0	37.8	168.0	48.7	0.0		0.0		322.7	69.5
2007	58.7	14.1	245.3	37.1	40.0	12.2	0.0		0.0		344.0	54.5
2006	58.7	50.7	138.7	39.3	32.0	16.0	0.0		0.0		229.3	81.6
2005	161.5	31.9	155.8	18.9	9.6	3.7	0.0		0.0		326.9	39.3
2004	80.8	7.4	48.1	3.7	11.5	5.0	21.2	10.6	0.0		161.5	13.0
2003	7.7	3.1	71.2	12.7	113.5	39.9	0.0		0.0		192.3	39.9
2002			46.5		102.3		0.0		0.0		148.8	0.0
2001			28.0		64.0		4.0		0.0		96.0	0.0

* Washburn Lake renovated summer 1999 and restocked spring 2000

nw d8bg.d14

Redear	Length group											
	< 3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	0.0		5.3	2.7	85.3	14.9	98.7	30.8	0.0		189.3	39.8
2013	0.0		96.0	20.1	85.3	2.7	0.0		0.0		181.3	22.8
2012	0.0		28.0	12.4	2.0	2.0	0.0		0.0		30.0	11.0

Table 46. Population assessment for bluegill based on spring electrofishing at Washburn Lake 2003-2014 (scoring based on statewide assessment).

Year	Mean length age 2+ at capture	Years to 6.0 in	CPUE ≥ 6.0 in	CPUE ≥ 8.0 in	Instantaneous mortality (z)	Annual mortality (A)%	Total score	Assessment rating
2014			141.3 (4)	8.0 (2)			≥6	
2013			112.0 (4)	2.7 (1)			≥5	
2012			86.0 (4)	22.0 (4)			≥8	
2011			38.7 (2)	5.3 (2)			≥4	
2010			32.0 (2)	0.0 (0)			≥2	
2009	4.7 (3)	3-3+ (3)	138.0 (4)	0.0 (0)	0.599	45.1	10	Fair
2008	5.3 (4)	2-2+ (4)	168.0 (4)	0.0 (0)	2.046	87.1	12	Good
2007	5.3 (4)	2-2+ (4)	40.0 (2)	0.0 (0)	1.050	65.0	10	Good
2006	5.3 (4)	2-2+ (4)	32.0 (2)	0.0 (0)			10	Good
2005	5.4 (4)	2-2+ (4)	9.6 (1)	0.0 (0)			9	Fair
2004	5.4 (4)	2-2+ (4)	32.7 (2)	22.0 (4)			14	Excellent
2003	5.4 (4)	2-2+ (4)	118.0 (4)	0.0 (0)			12	Good

Table 47. Chlorophyll-a results from nutrient loading experiment at Washburn Lake during April 2014. Chlorophyll-a levels near 30 ppm will achieve a secchi of approximately 1m.

Replicate	Control	1mg N	2 mg N	3 mg N	4 mg N	5 mg N
1	2.87	22.12	36.16	41.71	40.97	32.49
2	1.47	28.64	30.05	43.57	42.49	48.40
3	2.28	26.57	33.95	48.00	40.17	48.04
Average	2.21	25.78	33.88	44.43	41.21	42.98

Table 48. Length frequency and CPUE (fish/set) of channel catfish collected during 4 nights of tandem (6 sets with 3 nets each) hoop net sampling at Loch Marie Lake during June 2014. Nets were fished for two nights with cheese bait and two nights with Zote® soap bait.

	Inch class																	
Species	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	CPUE
Channel catfish																		
Cheese	1	7	8	14	3	7	6	42	43	19	9	4	3	2			168	28.0
Zote® Soap	1	5	11	17	19	8	16	83	70	58	30	9	3	1		1	332	53.3
Total	2	12	19	31	22	15	24	125	113	77	39	13	6	3	0	1	500	41.7

nwdhn2014

Table 49. Length frequency and CPUE (fish/set) of channel catfish collected during 2 nights of tandem (4 sets with 3 nets each) hoop net sampling at Madisonville City Park Lake North during June 2014. Two sets fished for two nights with cheese bait and two sets for two nights with Zote® soap bait.

	Inch class																
Species	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE
Channel catfish																	
Cheese	6	9	75	132	129	134	86	69	31	25	19	7	2		3	727	363.5
Zote® Soap	5	6	36	47	59	55	29	22	7	8	2	4	1			281	140.5
Total	11	15	111	179	188	189	115	91	38	33	21	11	3	0	3	1008	504.0

nwdhn2014

Table 50. Length frequency and CPUE (fish/set) of channel catfish collected during 4 nights of tandem (4 sets with 3 nets each) hoop net sampling at Madisonville City Park Lake South during June 2014. Nets were fished for two nights with cheese bait and two nights with Zote®

	Inch class													
Species	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Channel catfish														
Cheese				1			2					1	4	1.0
Zote® Soap	3					1	1			1			6	1.5
Total	3			1		1	3			1		1	10	1.3

nwdhn2014

Table 51. Length frequency and CPUE (fish/set) of channel catfish collected during 4 nights of tandem (4 sets with 3 nets each) hoop net sampling at Upper Douglas Lake during June 2014. Nets were fished for two nights with cheese bait and two nights with Zote® soap bait.

	Inch class																	
Species	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	CPUE
Channel catfish																		
Cheese	1	5	10	7	1		7	12	16	8	3	3	2	1			76	19.0
Zote® Soap	2	5	4	2	1	1	1	12	18	18	10	5	4	1		1	85	21.3
Total	3	10	14	9	2	1	8	24	34	26	13	8	6	2	0	1	161	20.1

nw dhn2014

Table 52. Length frequency and CPUE (fish/set) of channel catfish collected during 4 nights of tandem (6 sets with 3 nets each) hoop net sampling at Lower Douglas Lake during June 2014. Nets were fished for two nights with cheese bait and two nights with Zote® soap bait.

	Inch class															
Species	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE
Channel catfish																
Cheese			1		3	14	9	4	6	1	2				40	6.7
Zote® Soap	1	2	1	1	2	8	12	8	4	4	4	2	2	1	52	8.7
Total	1	2	2	1	5	22	21	12	10	5	6	2	2	1	92	7.7

nw dhn2014

Table 53. Length frequency and CPUE (fish/set) of channel catfish collected during 4 nights of tandem (3 sets with 3 nets each*) hoop net sampling at Vastwood Park Lake during June 2014. Nets were fished for two nights with cheese bait and two nights with Zote® soap bait.

	Inch class								
Species	11	12	13	14	15	16	17	Total	CPUE
Channel catfish									
Cheese	2	4	1					7	2.3
Zote® Soap	1	4	2	3		1	1	12	4.0
Total	3	8	3	3	0	1	1	19	3.2

nw dhn2014

*One set could not be found (stolen?)

Table 54. Length frequency and CPUE (fish/set) of channel catfish collected during 4 nights of tandem (4 sets with 3 nets each) hoop net sampling at Fordsville City Park Lake during June 2014. Nets were fished for two nights with cheese bait and two nights with Zote® soap bait.

	Inch class															
Species	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Channel catfish																
Cheese	16	40	36	14	16	52	24	10	5	5	3		1	1	223	55.75
Zote® Soap	2	3	10	3	5	11	6		2	3	2				47	11.75
Total	18	43	46	17	21	63	30	10	7	8	5	0	1	1	270	33.75

nw dhn2014

Table 55. Mean length (in) at capture for each age of channel catfish collected from Fordsville City Park Lake in June 2014.

	Age			
	2	3	4	6
Mean length	10.4	12.2	13.8	17.2
No.	18	3	13	1
Smallest	8.8	11.5	12.5	17.2
Largest	12.4	13.1	15.5	17.2

nw dhn2014

Table 56. Length frequency and CPUE (fish/hr) of largemouth bass and bluegill collected during 0.365 hrs of diurnal electrofishing at Honeycone Lake (PWMA) during May 2014.

	Inch class																	
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	CPUE
Largemouth bass			1	1	2	7	4	1	1	2	21	27	2				1	70	191.8
Bluegill	1	13	16	8	6	8	3	4	10									69	189.0

nw d17all.d14

Table 57. PSD and RSD[a] values obtained for largemouth bass, bluegill, and redear sunfish collected in spring electrofishing samples at NWFD managed lakes on PWMA during May 2014; 95% confidence intervals are in parentheses.

Lake	Species	No.	PSD (+/- 95%)	RSD[a] (+/- 95%)
Honeycone	Largemouth bass	55	55 (+/- 13)	2 (+/- 4)
	Bluegill	55	45 (+/- 13)	25 (+/- 12)
Little Gill	Largemouth bass	31	22 (+/- 15)	0
	Bluegill	53	36 (+/- 13)	17 (+/- 10)
	Redear sunfish	23	100	

[a] Largemouth Bass = RSD_{15}, Bluegill = RSD_{8}, Redear = RSD_{9}

nw d17all.d14

nw d18all.d14

Table 58. Length frequency and CPUE (fish/hr) of largemouth bass, bluegill, and redear sunfish collected during 0.2775 hrs of diurnal electrofishing at Little Gill Lake (PWMA) during May 2014.

	Inch class														
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE
Largemouth bass		1	28	16	11	10	4	6	6	8	5	1	1	97	349.6
Bluegill	21	28	4	2	1	9	9							74	266.7
Redear sunfish						14	9							23	82.9

nw d18all.d14

Table 59. Length frequency and CPUE (fish/hr) of catfish collected during 1.0 hr of diurnal low-pulse electrofishing (5.0 minute samples) at Ken Lake (PWMA) during June 2014.

	Inch class																							
Species	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	Total	CPUE
Blue catfish			2	4	7	3	5		1	1				1	1	1		2		1		1	30	30.0
Flathead catfish																					1		1	1.0
Channel catfish	1																						1	1.0

nw d15cat.d14

SOUTHWESTERN FISHERY DISTRICT

Project A: Lake and Tailwater Fishery Surveys

FINDINGS

Lake sampling conditions are summarized in Table 1.

Barren River Lake (10,000 acres)

Black Bass

Black bass were collected with diurnal electrofishing in late-April from both lake arms (Tables 2 and 3). Spotted bass catch rates remain low (11.8 fish/hr) as distribution remains tied to the lower 1/3 of the reservoir. Overall catch rate for largemouth (165.3 fish/hr) remained elevated compared to most years (Table 2), bolstered by higher than average numbers of all length groups (Table 3). Age-1 CPUE of largemouth bass (44.5 fish/hr) confirmed a strong 2013 year class. The largemouth bass population assessment remains “Excellent” (Table 4).

Largemouth bass size structure indices (PSD=67 RSD_{15}=32; Table 5) were similar to previous year averages . Spotted bass size structure remains high quality as well (PSD=48 RSD_{14}=23). The smallmouth bass population remain poorly represented in samples with all fish coming from the lower end of the reservoir; however, quality smallmouth are present (Table 2).

Fall young of year diurnal sampling (Tables 6 and 7) suggested a low/moderate 2014 year class for largemouth bass. Overall age-0 largemouth CPUE (108.5 fish/hr) was low compared to most years, as was age-0 CPUE $\geq$ 5.0 in (33.0 fish/hr). Despite a lower density of age-0 largemouth bass; mean size for age-0 bass (4.4 in) was only average compared to previous years. Good year classes of 2009, 2010, 2011 and 2013 give the largemouth bass population an excellent foundation to continue as an exceptional fishery.

Largemouth bass relative weights were similar across most areas and most length groups (mean Wr = 90; Table 8). Relative weight values for the larger size group ($\geq$15.0 in) were lowest in the upper lake areas; however, both of these areas had the fewest of this size group represented in samples collected.

Otoliths were collected from bass during fall diurnal electrofishing (Table 9). Largemouth bass, on average, reached 15.0 inches in length during their 4^{th} year. Annual mortality was 44.2 %; similar to previous years where age data was collected (Table 4). Good year classes of 2009, 2010, 2011 and 2013 were evident in the age-frequency constructed from fall data.

Briggs Lake (18 acres)

Sunfish

The sunfish population was sampled by diurnal electrofishing on 22 May (Table 10). Overall CPUE of smaller length groups was again markedly down for all species; however, catch rates of larger redear and bluegill were again well above average (Tables 11 and 12). Redear CPUE $\geq$8.0 in (67.2 fish/hr) was the highest noted in the last 10 years (Table 12). Size structure indices for bluegill (PSD = 83) and redear (PSD = 70) also reflected high quality fisheries (Table 13). The bluegill population assessment dipped from previous years to “Good”, due to reduced numbers of 8.0-in plus fish (Table 14). The redear population assessment was “Excellent”; similar to previous years (Table 15).

Marion County Lake (25 acres)

Sunfish

Bluegill and redear sunfish were sampled by diurnal electrofishing on May 13 (Table 16). Catch rate of bluegill $\geq$6.0 in (113.0 fish/hr) was well above normal, while CPUE of bluegill <3.0 inches (49.0 fish/hr) fell well below average (Table 17). Redear CPUE was similar across length groups except for the smallest (<3.0 in) and largest ($\geq$10.0 in) fish. Similar to other redear populations, catch rate of smaller redear is not a reliable predictor of year class strength. Bluegill and redear size structure indices are reported in Table 19. The bluegill population assessment was “Good” (Table 20) due higher numbers of larger fish (6.0-in plus). The redear population assessment was “Excellent” (Table 21).

Spurlington Lake (25 acres)

Sunfish

The sunfish population was sampled by diurnal electrofishing on May 13 (Table 22). Larger bluegill length groups (6.0-in plus) were well above average and reflective of the exceptional 2011 year class (Table 23). Redear catch rates for all length groups remain dampened and not up to years bolstered by redear stockings during 2007-2009 (Table 24). Bluegill and redear size structure indices are reported in Table 25. The bluegill population assessment was “Excellent” due to an upswing in larger fish catch rates (Table 26). A redear population assessment is not available due to the lack suitable age data.

Green River Lake (8,210 Acres)

Muskie

Diurnal muskellunge sampling continues to be problematic as multiple attempts were made with mixed results that were not reflective of the current population or previous years’ sampling norms. As a result, no data is presented for this year.

Black Bass

Bass sampling during the spring was negated by early and prolonged high water levels. Representative fall bass samples were not able to be collected from the upper lake sites in each lake arm due to stained water and falling water temperatures. Therefore, no bass data is presented for this year.

Crappie

Trap netting for crappie was done during late-November to mid-December (Table 1). All length groups of white crappie were well represented except for small fish (2014 year class; Table 27). Black crappie were noted at their highest level ever (n=17; Table 27). Increased black crappie numbers coupled with their presence in the creel survey data for the first time suggests this may be a growing population. The white crappie size structure index is reported in Table 28. The moderate/strong year classes of 2008, 2010, 2011, 2012 and 2013 have yielded a stable, but slower growing fishery (Table 29). Age-2+ white crappie mean length (8.1 in) has remained constant since 2008 (Table 30) which coincides with the population explosion that followed the white bass die off in the spring of 2008. Age-2+ crappie lengths in years prior to this population expansion were typically 9.0-in plus. The white crappie population assessment remained “Fair” due to poor growth rates and suspect use of age-0 as a population assessment objective (Table 30). The length-weight equation for white crappie in 2014 was:

$$\mathrm{Log}_{10}\,(\mathrm{weight}) = -3.82468 + 3.54573 \times \mathrm{Log}\,(\mathrm{length})$$

Walleye/White bass

Experimental gill net sampling for white bass and walleye was conducted during mid-December (Table 1). White bass CPUE (2.4 fish/nn) increased sigficantly from the previous year low of 0.7 fish/nn and was dominated by age-0 fish (Tables 31 and 32). Unlike white crappie, age-0 white bass CPUE in gillnets has historically been a reliable indicator of year class strength in Green River Lake; however, historic age-0 catch rates of strong year classes were nearly an order of magnitude higher than the latest age-0 CPUE (2.3 fish/nn).

The overall walleye CPUE (1.1 fish/nn) was lower than last year (3.2 fish/nn). The walleye population had multiple year classes represented, but few individuals per inch class (Table 33). Growth rate (20.1 in by age-2+; Table 34) and condition (Wr = 97-105; Table 35) remain excellent. The walleye population assessment fell to "Fair".

Green River Lake Creel (8,210 acres)

Creel survey: A roving, daytime creel survey was conducted from March 1- October 3; results are presented in Tables 36-44. Anglers made an estimated 28,374 trips and fished for 152,198 hours with the average trip approximating 5.36 hours. Both total trips and man-hours dropped considerably from 2009 despite the survey being one month longer in 2014 (March vs April start). Trip length, however, increased by 1.1 hours (Table 36). Overall catch and harvest rates were up 26% and 33%, respectively from 2009.

Crappie continued to eclipse bass as the most sought after fish species accounting for 53% of angler effort followed by bass (37%), catfish (4 %), muskie (3%) and walleye (2%). Crappie angler success jumped from 59% in 2009 to 78% in 2014 (Table 37). Crappie harvest rate (1.61 crappe/hr) increased from 1.05 fish/hr in 2009 and doubled the average harvest rate from previous creels (0.75 crappie/hr). Crappie angler hours (80,249) were well above previous creels, but trips (14,961) were similar when adjusted for the extra month (March).

Bass angler trips (10,485) were seemingly similar to the previous survey in 2009 (10,543), but as noted earlier, this survey was a month longer; accounting for 1,255 trips and 6,730 hours. Though trips were down slightly, hours fished (56,243) still increased (11%) when March data was removed. Overall catch rate (0.44 fish/hr; 0.47 fish/hr for w/o March data) was slightly lower than 2009 (0.53 fish/hour).

Catfish angler hours (5,543) and trips (1,033) dipped considerably from 2009 (15,639 hours; 3,698 trips) as no catfish activity was documented in March. These drops are not reflective of the fishery quality as catch (0.63 fish/hr) and harvest (0.55 fish/hr) rates remained similar to previous years.

Muskie angler hours (4,234) decreased from 2009 (5,198) and remained well below previous years' values (11,671; 20,980) in spite of the extra survey month. Muskie anglers were responsible for 43% of the total muskies caught, similar to previous surveys (35%), but markedly lower directed effort at other species which ranged from 70 to 98%. A comparison of muskie angler hours required to catch a keeper muskie and muskie angler catch rates was not possible due to dropping sublegal status from the catch designation.

Walleye angler trips (422) and hours (2,265) dropped significantly from 2009 (1,585 trips; 6,701 hours); falling back to 2006 creel levels. The 2009 creel survey marked the highest angler use of walleye since the creation of the fishery in the late 1990's. However, walleye angler catch (0.18 fish/hr) and harvest rates (0.16 fish/hr) were the highest documented for walleye since the fishery began.

Angler attitude survey: Results from the angler attitude survey are presented in Figure 1. Similar to the 2006 and the 2009 attitude surveys, anglers identified crappie (52%) and bass (38%) as species they fished for most. The ratio of anglers fishing for crappie compared to bass increased in 2014. Catfish (5.6%) and muskie (4.2%) remained distant runner ups as the next most popular species. Angler satisfaction with catfish, crappie and muskie fisheries was overwhelmingly good with 100% (catfish), 95% (crappie) and 73% (muskie) of responses falling in the "very satisfied to somewhat satisfied" categories. Not enough surveys were collected to assess satisfaction with other fisheries. Bass anglers were not asked about their satisfaction with the fishery as population sampling had indicated it remained in excellent shape.

Crappie angler satisfaction with the fishery was equally divided between "size of fish" (49.8%) and "number of fish' (46.8%).

Muskie angler satisfaction with the fishery was primarily expressed as "size of fish" (53%) followed by "number of fish" (29%). Muskie anglers were split on whether catch of sub-36.0-in muskie "stayed the same" (34.8%) or "declined" (39.1%) during past 3 years. Thirty-five percent of muskie anglers thought their catch rate of 36.0-in plus muskies had increased; 61% thought it had stayed the same. The majority (75%) of muskie anglers did not fish muskie tournaments.

Catfish angler satisfaction with the fishery was expressed as "size of fish" (56%) followed by "number of fish" (37%). Similar to the previous survey in 2009, the most common method used by catfish anglers was hook & line (62%) followed by jugs (39%). Interestingly, 81% of catfish anglers in the 2009 survey claimed to use jugs to pursue catfish. Catfish angler sample size (n=31) of this survey versus the 2009 survey (n=189) may help explain this discrepancy. Jug fisherman fished, on average, 13 days annually with a range spanning 5 to 40 days. Nineteen percent of catfish anglers identified themselves as noodlers/hand grabbers and hand fished an average of 14 days annually..

The overwhelming response of all anglers to the 36.0-in size limit was indifference or no opinion (93%). However, there was overwhelming support (63% support, 24% no opinion) for a crappie creel reduction to 20 fish per day. Support for one catfish per day greater than 34.0 in was similarly supported (63% support, 28% no opinion). Few anglers expressed dissatisfaction with current regulations. The only noteworthy areas were 13% of all anglers favored a higher bass size limit and 8% of all anglers favored a higher crappie size limit.

Seemingly contrary to the previous survey in 2009 (15%), angler use of the fish attractor map rebounded to 63% in 2014. A possible cause for this discrepancy was with wording of the 2009 question which asked if you used the "printed map" versus the latest survey which asked if you used the "fish attractor map produced by KDFWR". Whether this reflects angler use of the online version of the fish attractor map is not clear, but seems logical. Anglers in 2009 suggested that they used GPS instead.

Most anglers (78.7%) fished Green River Lake with regularity and fell within the monthly fishing frequency of 1-4 or 5-10 days and were equally divided between them. Sixteen percent of anglers indicated they fished the lake ten or more times per month. The majority of Kentucky anglers that fished Green River Lake (53%) traveled 30 miles or more, 47% traveled less than 30 miles. Five states were represented by out-of-state anglers (n=12) with the majority coming from IN (33%), OH (25%) and TN (25%).

Metcalfe County Lake (22 acres)

Black Bass

Largemouth bass were sampled by diurnal electrofishing on April 22 (Tables 45-47). Bass CPUE (198.0 fish/hr) was slightly less than 2013 (234.0 fish/hr) despite the addition of 258 largemouth bass (6.0-12.0 in) in early July of 2013. A possible confounding factor was stocking on top of an already higher than average 8.0-11.9 in length group of fish (Table 46). The size structure remains diverse (PSD = 38, RSD = 28; Table 47) and similar to previous years. CPUE of 20.0-in plus fish was extraordinary (26.0 fish/hr), surpassing the previous high in 2013 (14.0 fish/hr) and by far the highest catch rate for this length group in the Southwest District. This lake consistently averages 6.0-8.0 fish/hr for this length group, which is well above any lake in the Southwest District.

Visible condition of all bass appears excellent and is similar to historic values (2000 -2002; Wr = 105). The lake is highly productive and supports a substantial and varied forage base.

Bluegill

Results of the diurnal bluegill sampling on May 14 are presented in Tables 48 - 51. Decreases in size structure and length group CPUE were noted for small (<3.0-in) and intermediate (3.0-5.9 in) length groups when compared to historic data (Table 49). The size structure index (PSD =47) for bluegill rebounded from a low in 2011 (PSD = 18) to slightly better than historic values (PSD = 39 in 2007, PSD = 32 in 2005; Table 50). Higher than normal numbers of intermediate-size bass (8.0-11.9 in) seem to be the driving factor for this change. The bluegill population assessment remained “Fair” (Table 51).

Channel Catfish

Channel catfish were sampled with tandem set hoop nets in mid-September with moderate success (12.5 fish/set-night; one net stolen/MIA). All size ranges were represented up to 18.0 inches in length (Table 52). Condition (Wr = 95) of channel catfish was good for intermediate sizes (11.0–15.9 in), but condition was poor (Wr = 75) for the two 18.0-in fish that were sampled (Table 53).

Mill Creek Lake (109 acres)

Black Bass

Bass were sampled by nocturnal electrofishing on April 22 (Tables 54-56). It appears the 2012 and 2013 year classes for both largemouth and spotted bass were sub-par. Largemouth bass size structure (PSD = 74; RSD = 33) remains very good. No age data has been collected from this population, though bass appear slower growing.

This lake borders on moderately productive to infertile (summer secchi depth ranges from 40 – 60 in) and historically had a good smallmouth bass fishery according to conservation officer and bass club information.

Spa Lake (240 acres)

Channel Catfish

Channel catfish were sampled with tandem set hoop nets on September 08-11 with moderate success (16.7 fish/set-night) with fish ranging in size from 8.0-19.0 in (Table 57). Condition of channel catfish was adequate but declined with increasing fish size (Table 58).

Table 1. Lake sampling conditions in the Southwestern Fisheries District in 2014.

Lake	Date	Species	Weather	Water temp. surface (F)	Conductivity (umhos)	Secchi (in.)	Comments
Barren River	4/24	Bass	clear	64-66	170	39	
	4/29	Bass	clear	65-68	180	20	
	4/30	Bass	clear	66-68	160	50	
	5/6	Bass	clear	64-69	150	18	3-ft above summer pool & falling 0.5 ft/day
	6/17	Blue catfish		82	25		
	10/27	Bass		63-66		33	
	10/30	Bass		62-64			
	11/10	Bass		55-57		22	12-ft below summer pool & falling
	12-Nov	Bass		56-57		22	13.5-ft below summer pool & falling
Green River	11/20&21	crappie		38-45		12-36	summer pool, but falling 1-ft/day @ 5000 CFS
	12/9&10	crappie/w ye & w b		40-43		22-36	10.5-ft below summer pool @ 5000 CFS
	12/11&12	w ye & w hite bass		41-45		25-40	11-ft below summer pool
Briggs	5/22	Bluegill & redear	clear	75-78	220	78	plenty of small bluegill up in vegetation
Marion Co.	5/13	BG/RE	Partly cloudy	75-78		18	Normal
Spurlington	5/13	BG/RE	Partly cloudy	74		44	Normal
Mill Creek	4/22	Bass	clear	63-67	200	30	Normal
	8/28	Blue catfish	clear/hot	82		50	Normal
Metcalfe Co.	4/22	Bass	clear	62-68	240	27	Normal
	5/14	Bluegill		71-75	210	16	Normal
	9/15	Channel Catfish		79			Thermocline @ 6-7'
Spa	7/22	Blue catfish		83	180	25	Normal
	9/11	Channel Catfish	partly cloudy	80			Thermocline @ 7-8'

Table 2. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 4.50 hours (9- 0.50-hour runs) of diurnal electrofishing at Barren River Lake from late-April 2014.

		Inch class																				
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	Std err
Peninsula	Smallmouth bass				1													1	1	3	2.0	1.2
	Spotted bass					4	3	10	3	2	1	4	3	1						31	20.7	5.8
	Largemouth bass			1	6	14	26	16	20	11	18	29	36	26	20	11	10		1	245	163.3	18.8
Beaver Creek	Smallmouth bass																			0		
	Spotted bass					1														1	0.7	367.0
	Largemouth bass				4	8	27	9	1	14	20	19	31	29	12	6	11	5	4	200	133.3	41.0
Peter Creek	Smallmouth bass																			0		
	Spotted bass	1					2	2	2	2	2	2	2	3	3					21	14.0	4.2
	Largemouth bass		1	7	26	54	44	5	14	19	13	16	37	25	15	15	2	2	4	299	199.3	31.5
Walnut Creek	Smallmouth bass																					
	Spotted bass																					
	Largemouth bass			data omitted due to poor representation																		
TOTAL	Smallmouth bass				1													1	1	3	0.7	0.7
	Spotted bass	1				5	5	12	5	4	3	6	5	4	3					53	11.8	3.6
	Largemouth bass		1	8	36	76	97	30	35	44	51	64	104	80	47	32	23	7	9	744	165.3	18.5

sw dbrlbb.D14

Table 3. Spring diurnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Barren River Lake during April, May and late-March since 1997.

	Length group										Total	
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in			
Year	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
1997	6.7	1.4	31.1	5.2	48.4	6.4	49.3	6.5	3.3	0.7	135.6	11.6
1998	17.2	4.2	11.4	2.7	23.2	3.1	32.2	2.7	1.2	0.4	83.8	8.3
1999	10.7	2.4	31.3	5.6	41.7	6.9	36.3	4.7	2.3	0.6	120.8	11.2
2000	8.3	1.7	24.1	3.5	33.0	3.2	27.3	2.4	1.4	0.5	92.7	7.3
2001	11.8	1.6	42.3	4.0	49.3	6.3	61.9	4.1	1.1	0.4	165.3	9.6
2002	12.6	2.2	22.4	2.9	30.4	4.0	37.6	4.2	1.3	0.4	102.9	9.5
2003	21.7	3.4	22.5	3.5	20.5	2.9	39.5	4.7	0.3	0.2	104.2	10.6
2004	47.7	14.0	37.7	6.3	16.7	4.0	18.4	3.3	0.7	0.5	120.2	22.2
2005	17.7	2.9	66.0	7.7	31.5	4.7	36.8	3.4	2.0	0.7	152.0	8.6
2006	22.8	4.7	46.2	6.9	57.2	9.8	44.0	6.0	1.3	0.4	170.2	21.8
2007	12.7	3.1	44.2	10.9	37.7	5.0	37.2	5.8	1.0	0.6	131.7	17.0
2008	38.2	7.8	30.3	4.6	30.3	3.1	38.3	3.8	1.5	0.6	137.2	11.5
2009	14.7	4.1	25.7	2.4	18.8	2.3	23.2	3.9	1.3	0.6	82.3	9.8
2010	29.0	4.2	40.3	6.3	36.7	4.4	28.8	2.3	0.7	0.3	134.8	12.8
2011						no data due to flooding					1733.7	
2012	31.3	9.0	52.7	7.3	65.2	7.0	54.7	5.6	2.7	0.6	203.8	15.8
2013						no data due to flooding						
2014	26.9	10.0	45.8	6.1	48.7	5.5	44.0	7.2	2.0	0.8	165.3	18.5

sw dbrlbb.D97-D14

Table 4. Population assessment of largemouth bass based on spring sampling at Barren River Lake from 2004-2014 (scoring based on statewide assessment).

	2004		2005		2006		2007		2008		2009		2010		2012		2014*	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	14.1	4	14.1	4	14.1	4	14.1	4	14.4	4	14.4	4	14.4	4	14.4	4	14.6	4
Spring CPUE age-1	44.9	3	11.2	1	17.5	1	18.0	1	13.8	1	18.9	2	35.7	3	43.8	3	44.5	3
Spring CPUE 12.0-14.9 in	16.7	2	31.5	3	57.2	4	37.7	4	30.3	3	18.8	2	36.7	4	65.2	4	48.7	4
Spring CPUE $\geq$15.0 in	18.4	3	36.8	4	44.0	4	37.2	4	38.3	4	23.2	4	28.8	4	54.7	4	44.0	4
Spring CPUE $\geq$20.0 in	0.7	2	2.0	2	1.3	2	1.0	2	1.5	2	1.3	2	0.7	2	2.7	3	2.0	2
Instantaneous Mortality (z)									-0.62								-0.5584	
Annual Mortality (A)%									46.2								44.2	
Total Score		14		14		15		15		14		14		17		18		17
Assessment Rating	Good		Good		Good		Good		Good		Good		Excellent		Excellent		Excellent	

sw dbrlbb.D02-D14

* - age data collected in fall

Table 5. PSD and RSD values obtained for each black bass species collected during 4.5 hours (9- 0.50-hour runs) of spring diurnal electrofishing at each area of Barren River Lake in late-April 2014. 95% confidence intervals are in parentheses.

Area	Species	No. $\geq$stock size	PSD	RSD[A]
Peninsula	Largemouth bass	224	67(6)	30(6)
	Spotted bass	31	35(17)	13(12)
Beaver Creek	Largemouth bass	188	73(6)	36(7)
	Spotted bass	NA	*	*
Peter Creek	Largemouth bass	211	61(7)	30(6)
	Spotted bass	20	70(21)	40(22)
Walnut Creek			data collected not comparable	
Total	Largemouth bass	623	67(4)	32(4)
	Spotted bass	52	48(14)	23(12)

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

* No fish of sufficient size w ere collected during sampling.

sw dbrlbb.d14

Table 6. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 6.0 hours (12- 0.50-hour runs) of diurnal electrofishing at Barren River Lake from late-October to mid-November 2014.

		Inch class																						
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std err
Peninsula	Smallmouth bass		1				1					1		1				1	1	1		7	4.7	2.7
	Spotted bass	2	5				1			1	5	5	4	3	1	1	1					29	19.3	1.8
	Largemouth bass	5	9		1	3	1	7	12	19	19	19	27	32	34	29	12	7	5	5	1	247	164.7	12.7
Beaver Creek	Smallmouth bass																			1		1	0.7	0.7
	Spotted bass		4	1								1										6	4.0	2.0
	Largemouth bass	122	144	17	3	16	31	17	10	36	64	22	27	13	8	3	5	4	1			543	363.3	34.6
Peter Creek	Smallmouth bass																						0.0	
	Spotted bass	2	4	1				3	2	2	1	4	1	1		2						23	15.3	1.8
	Largemouth bass	9	19	6	2	13	26	8	1	55	74	46	51	39	28	23	13	9	6	2	1	431	294.0	39.3
Walnut Creek	Smallmouth bass				1		1						1									3	2.0	2.0
	Spotted bass		2			2		2	2	2	7		1	5	3	1	1					28	18.7	16.7
	Largemouth bass	45	47	10	18	23	47	13	13	37	26	11	21	14	6	1	3	4				339	226.7	53.5
TOTAL	Smallmouth bass		1		1		2					1	1	1					1	1	2	11	1.8	0.9
	Spotted bass	4	15	2		2	1	5	4	5	13	10	6	9	4	4	2					86	14.3	4.1
	Largemouth bass	181	219	33	24	55	105	45	36	147	183	98	126	98	76	56	33	24	12	7	2	1560	262.2	27.6

sw dbrlyy.D14

Table 7. Indices of year-class strength at age 0 and age 1 and mean length (in) of largemouth bass collected during diurnal fall electrofishing at Barren River Lake.

	Age 0[A]		Age 0[A]		Age 0 ≥5.0 in[A]		Age 1[B]	
Year-class	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2002	4.0	0.05	171.7	25.8	34.2	4.1	26.9	3.7
2003	4.4	0.04	198.0	30.8	84.0	18.7	44.9	13.3
2004	3.7	0.04	108.4	22.2	20.8	3.9	11.2	2.5
2005	3.7	0.04	160.7	25.6	25.3	4.2	17.5	3.6
2006	3.4	0.02	299.7	87.2	21.8	5.6	18.0	4.8
2007	4.2	0.06	61.5	12.8	14.0	2.5	13.8	1.5
2008	3.8	0.03	307.5	46.9	59.7	10.5	18.9	4.4
2009	3.2	0.02	401.3	76.1	36.8	8.6	35.7	5.2
2010	5.7	0.05	166.6	19.1	105.0	18.7	ND	
2011	4.5	0.05	175.5	33.7	65.7	10.8	43.8	9.4
2012	5.1	0.08	70.0	16.7	32.7	11.0	ND	
2013	3.9	0.03	369.3	92.2	61.5	10.0	44.5	13.1
2014	4.4	0.08	108.5	27.5	33.0	6.3		

[A] Data collected by fall (September-November) diurnal electrofishing. Mean lengths w ere determined by analysis of otolith, removed from a subsample of LMB <10.0 in, and extrapolated to the entire catch of the fall sample.

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

sw dbrlbb.D02 - D14

sw dbrlag. D02 - D14

sw dbrlyy. D02 - D14

Table 8. Relative weight (Wr) for each length group of black bass collected by diurnal electrofishing from each area sampled at Barren River Lake on 27, 30 of October and 10,12 November 2014. Standard errors are in parentheses.

Species	Area	N	Length group		
			8.0-11.9 in	12.0-14.9 in	≥15.0 in
Largemouth bass	Beaver Creek	207	92 (1)	93 (1)	91 (2)
	Walnut Creek	122	89 (1)	85 (1)	91 (2)
	Peter Creek	301	89 (1)	92 (1)	97 (1)
	Pennisula	228	88 (1)	89 (1)	98 (1)
	Total	858	90 (1)	90 (1)	97 (1)

swdbrlyy.D14

Table 9. Age frequency and CPUE (fish/nn) of largemouth bass collected during fall diurnal electrofishing at Barren River Lake during late-October and mid-November 2014.

Age	Inch class																		Total	Percent	CPUE	Std. error
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19				
0	181	219	33	24	55	97	39	3											651	42.0	108.4	27.5
1						8	6	43	126	155	17								355	23.0	56.3	8.2
2									21	28	40	68	23						180	12.0	30.0	4.2
3											23	58	53	28	15		2		179	11.0	29.7	4.5
4											12		15	41	22	8	9		107	7.0	17.9	3.3
5											6				7	17	2	3	35	2.0	5.7	1.1
6														7	7		9	3	26	2.0	4.3	0.9
7															4	4	3	3	14	1.0	2.4	0.5
8													8			4			12	1.0	1.9	0.3
9																			0	0.0	0.0	0.0
10																		3	3	0.0	0.5	0.2
Total	181	219	33	24	55	105	45	46	147	183	98	126	98	76	56	33	24	12	1561			
%	12	14	2	2	4	7	3	3	9	12	6	8	6	5	4	2	2	1	100			

swdbrlyy.d14; swdbrlag.d14

Table 10. Length frequency and CPUE (fish/hr) of bluegill, redear sunfish and warmouth collected by 0.625 hours (5- 450-sec runs) of diurnal electrofishing at Briggs Lake on 22 May 2014.

	Inch class											Std.
Species	2	3	4	5	6	7	8	9	10	Total	CPUE	error
Bluegill	2	4	2	11	22	58	6			105	168.0	32.4
Redear sunfish	1		2	3	27	33	17	20	5	108	172.8	24.0
Warmouth		1		5	4	3				13	20.8	5.4

swdbrgbg.D14

Table 11. Spring electrofishing CPUE (fish/hr) for each length group of bluegill collected at Briggs Lake from early-mid May 2005-2014. Standard errors are in parentheses.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	Total
2005	14.0	80.0	84.0	18.0	196.0
	(14.0)	(16.3)	(14.8)	(8.3)	(12.4)
2006	4.0	86.0	100.0	52.0	242.0
	(2.3)	(33.5)	(42.9)	(14.0)	(72.1)
2007	8.0	83.2	84.8	25.6	201.6
	(4.4)	(9.9)	(26.1)	(9.9)	(33.7)
2008	288.0	106.0	70.0	16.0	384.0
	(175.0)	(31.2)	(18.9)	(5.7)	(96.2)
2009	19.2	137.6	17.6	19.2	193.6
	(10.3)	(19.5)	(6.9)	(6.5)	(21.5)
2010	20.8	94.4	153.6	52.8	321.6
	(14.2)	(38.0)	(81.0)	(41.9)	(159.3)
2011	66.0	94.0	60.0	24.0	244.0
	(15.1)	(39.2)	(19.7)	(3.3)	(60.7)
2012	56.0	158.0	62.0	16.0	292.0
	(32.2)	(32.7)	(21.3)	(7.3)	(53.7)
2013	4.8	40.0	81.6	19.2	145.6
	(2.0)	(13.6)	(26.5)	(4.1)	(43.1)
2014	3.2	27.2	128.0	9.6	168.0
	(2.0)	(10.3)	(25.7)	(4.7)	(32.4)

sw dbrgbg.D05 - D14

Table 12. Spring electrofishing CPUE (fish/hr) for each length group of redear sunfish collected at Briggs Lake during early-mid May 2005-2014. Standard errors are in parentheses.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
2005	*	14.0	2.0	4.0	*	20.0
		(8.9)	(2.0)	(4.0)		(6.9)
2006	4.0	2.0	70.0	22.0	2.0	98.0
	(2.3)	(2.0)	(8.3)	(6.0)	(2.0)	(10.5)
2007	*	8.0	62.4	12.8	1.6	83.2
		(3.6)	(13.0)	(6.5)	(1.6)	(16.9)
2008	1.6	3.2	*	4.0	*	8.0
	(1.6)	(2.0)		(2.3)		(3.6)
2009	1.6	8.0	54.4	17.6	4.8	81.6
	(1.6)	(6.2)	(14.8)	(12.0)	(3.2)	(25.1)
2010	*	9.6	16.0	17.6	1.6	43.2
		(3.9)	(7.2)	(9.6)	(1.6)	(19.9)
2011	*	4.0	14.0	28.0	12.0	46.0
		(4.0)	(2.0)	(10.6)	(4.0)	(14.4)
2012	4.0	58.0	94.0	6.0	2.0	162.0
	(2.3)	(19.2)	(33.1)	(3.8)	(2.0)	(49.9)
2013	1.6	41.6	48.0	56.0	6.4	147.2
	(1.6)	(16.7)	(18.8)	(11.9)	(3.9)	(37.6)
2014	1.6	8.0	96.0	67.2	8.0	178.2
	(1.6)	(3.6)	(12.9)	(13.1)	(4.4)	(24.0)

sw dbrgbg.D05 - D14

Table 13. Proportional stock density (PSD) and relative stock density (RSD) of bluegill and redear sunfish collected by diurnal electrofishing at Briggs lake on 22 May 2014. Numbers in parentheses represent 95% confidence intervals.

Species	N	PSD	RSD[a]
Bluegill	103	83(6)	6(5)
Redear sunfish	107	70(9)	23(8)

[a] Bluegill=RSD_8; redear sunfish=RSD_9

swdbrgbg.D14

Table 14. Bluegill population assessment for Briggs Lake 2006 - 2014 (scoring based on statewide assessment).

	Year																	
	2006		2007		2008		2009		2010		2011		2012		2013		2014	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Growth Mean length age-2 at capture	4.9*	3	4.9	3	4.9*	3	4.9*	3	4.9*	3	4.9*	3	4.9*	3	4.9*	3	4.9*	3
Growth Years to 6.0 in	2.6*	4	2.6	4	2.6*	4	2.6*	4	2.6*	4	2.6*	4	2.6*	4	2.6*	4	2.6*	4
Size structure CPUE $\geq$6.0 in	152.0	4	110.4	4	86.0	4	36.8	2	206.4	4	84.0	4	78.0	4	100.8	4	137.6	4
Size structure CPUE $\geq$8.0 in	52.0	4	25.6	4	16.0	4	19.2	4	52.8	4	24.0	4	16.0	4	19.2	4	9.6	2
Instantaneous mortality (z)			-0.53															
Annual mortality (A)%			41.1															
Total score:		15		15		15		13		15		15		15		15		13
Assessment rating:		Excellent		Excellent		Excellent		Good		Excellent		Excellent		Excellent		Excellent		Good

*No age data collected, values carried over from 2007

swdbrgbg.D06 - D14

Table 15. Redear population assessment for Briggs Lake 2006 - 2014 (scoring based on statewide assessment).

	Year															
	2006		2007		2008		2009		2010		2011		2012		2013	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Growth Mean length age-3 at capture	8.6*	4	8.6	4	8.6*	4	8.6*	4	8.6*	4	8.6*	4	8.6*	4	8.6*	4
Growth Years to 8.0 in	2.7*	4	2.7	4	2.7*	4	2.7*	4	2.7*	4	2.7*	4	2.7*	4	2.7*	4
Size structure CPUE ≥8.0 in	22.0	4	12.8	3	4.0	1	17.6	4	17.6	4	28.0	4	6.0	2	62.4	4
Size structure CPUE ≥10.0 in	2.0	2	1.6	2	0.0	1	4.8	3	1.6	2	12.0	4	2.0	2	6.4	4
Instantaneous mortality (z)			NA													
Annual mortality (A)%																
Total score:		14		13		10		15		14		16		12		16
Assessment rating:		Excellent		Good		Fair		Excellent		Excellent		Excellent		Good		Excellen

*No age data collected, values carried over from 2007
NA (age data not amenable to calculations)
swdbrgbg.D06 - D14

Table 16. Length frequency and CPUE (fish/hr) of each inch class of bluegill and redear sunfish collected by 1.0 hour of diurnal electrofishing (8- 450-second runs) at Marion Co. Lake on 13 May 2014.

	Inch class												Std.
Species	1	2	3	4	5	6	7	8	9	10	Total	CPUE	error
Bluegill	1	48	68	123	76	50	62	1			429	429.0	101.8
Redear sunfish		1	2	7	29	14	6	10	10	5	84	84.0	21.7

swdmclbg.D14

Table 17. Spring electrofishing CPUE (fish/hr) for each length group of bluegill collected at Marion Co. Lake during early-May from 2002 - 2014. Standard errors are in parentheses.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	>8.0 in	Total
2002	57.1	152.0	78.9	16.0	304.0
	(30.3)	(40.5)	(6.4)	(3.5)	(67.2)
2003	164.0	212.0	118.7	5.3	500.0
	(33.9)	(34.1)	(23.9)	(4.0)	(60.4)
2004	303.0	255.0	35.0	1.0	594.0
	(59.0)	(38.7)	(10.0)	(1.0)	(85.9)
2005	102.0	210.0	63.0	3.0	378.0
	(18.6)	(31.9)	(16.7)	(2.1)	(53.1)
2006	77.3	501.3	25.3	4.0	608.0
	(15.1)	(25.5)	(7.6)	(2.7)	(34.1)
2007	73.0	291.0	39.0	3.0	406.0
	(22.8)	(39.5)	(7.5)	(1.5)	(50.1)
2008	60.0	73.0	130.0	11.0	274.0
	(31.6)	(13.6)	(14.6)	(4.0)	(45.1)
2009	48.0	109.7	58.3	1.1	217.1
	(22.2)	(20.9)	(10.6)	(1.1)	(35.4)
2010	55.0	72.0	25.0	5.0	157.0
	(27.7)	(10.5)	(9.1)	(2.1)	(25.8)
2011	499.4	107.4	73.1	14.9	694.9
	(112.4)	(16.3)	(10.7)	(2.7)	(126.5)
2012	270.0	213.0	32.0	7.0	522.0
	(86.0)	(45.5)	(4.3)	(3.8)	(95.5)
2014	49.0	267.0	112.0	1.0	429.0
	(19.0)	(72.6)	(28.9)	(1.0)	(101.8)

sw dmclbg.D02 - D14

Table 18. Spring electrofishing CPUE (fish/hr) for each length group of redear sunfish collected at Marion Co. Lake during early-May from 2002 - 2014. Standard errors are in parentheses.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
2002	1.1	51.4	11.4	57.1	0.0	121.1
	(1.1)	(11.3)	(4.2)	(13.0)		(19.2)
2003	5.3	46.7	9.3	28.0	2.7	89.3
	(2.7)	(9.3)	(4.8)	(10.7)	(2.7)	(15.4)
2004	2.0	40.0	18.0	7.0	1.0	67.0
	(2.0)	(15.1)	(7.1)	(3.8)	(1.0)	(16.3)
2005	0.0	34.0	30.0	25.0	3.0	89.0
		(5.8)	(9.8)	(7.3)	(1.5)	(16.5)
2006	0.0	17.3	17.3	24.0	2.7	58.7
		(6.7)	(7.0)	(6.2)	(1.7)	(12.8)
2007	0.0	21.0	7.0	11.0	1.0	39.0
		(6.2)	(2.4)	(6.6)	(1.0)	(11.9)
2008	1.0	37.0	9.0	28.0	6.0	75.0
	(1.0)	(15.6)	(3.2)	(9.1)	(3.3)	(16.1)
2009	0.0	52.6	34.3	17.1	2.3	104.0
		(10.2)	(6.9)	(5.4)	(2.3)	(14.8)
2010	7.0	20.0	20.0	15.0	0.0	62.0
	(7.0)	(6.1)	(6.9)	(2.8)		(12.5)
2011	1.1	14.9	45.7	74.3	4.6	136.0
	(1.1)	(5.9)	(10.7)	(23.4)	(4.6)	(39.5)
2012	1.0	3.0	5.0	48.0	0.0	57.0
	(1.0)	(2.1)	(2.1)	(18.1)		(18.0)
2014	1.0	38.0	20.0	25.0	5.0	84.0
	(1.0)	(12.4)	(6.6)	(5.9)	(2.1)	(21.7)

sw dmclbg.D02 - D14

Table 19. Proportional stock density (PSD) and relative stock density (RSD) of bluegill and redear sunfish collected by diurnal electrofishing at Marion Co. Lake on 13 May 2014. Numbers in parentheses represent 95% confidence intervals

Species	N	PSD	RSD[A]
Bluegill	380	30(5)	0
Redear sunfish	81	38(9)	19(9)

[A] Bluegill=RSD_8; redear sunfish=RSD_9

swdmclbg.D14

Table 20. Bluegill population assessments from 2004 - 2014 at Marion County Lake (scoring based on statewide assessment).

Parameter	2005 Value	2005 Score	2006 Value	2006 Score	2007 Value	2007 Score	2008 Value	2008 Score	2009 Value	2009 Score	2010 Value	2010 Score	2011 Value	2011 Score	2012 Value	2012 Score	2014 Value	2014 Score
Mean length age-2 at capture	4.7*	3	4.7*	3	3.7	2	3.7*	2	3.7*	2	3.7*	2	3.7*	2	4.3	2	4.3*	2
Years to 6.0 in	2.9*	4	2.9*	4	3.7	3	3.7*	3	3.7*	3	3.7*	3	3.7*	3	2.8	4	2.8	4
CPUE ≥6.0 in	67.0	3	29.3	2	42.0	2	141.0	4	59.4	3	30.0	2	88.0	4	39.0	2	113.0	4
CPUE ≥8.0 in	3.0	2	4.0	2	3.0	2	11.0	3	1.1	2	5.0	2	14.9	3	7.0	2	1.0	2
Instantaneous mortality (z)					-1.02706										-0.7458			
Annual mortality (A)					64.2										52.6			
Total Score:		12		11		9		12		10		9		12		10		12
Assessment rating	Good		Good		Fair		Good		Fair		Fair		Good		Fair		Good	

*No age data, values carried over from years with age data
swdmclag.D02, swdmclag.D07, swdmclag.D12
swdmclbg.D02 - D14

Table 21. Redear sunfish population assessments from 2004 - 2014 at Marion County Lake (scoring based on statewide assessment).

	2005		2006		2007		2008		2009		2010		2011		2012		2014	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-3 at capture	8.3*	4	8.3*	4	8.3*	4	8.3*	4	8.3*	4	8.3*	4	8.3*	4	8.3	4	8.3*	4
Years to 8.0 in	2.8*	4	2.8*	4	2.8*	4	2.8*	4	2.8*	4	2.8*	4	2.8*	4	2.8	4	2.8	4
CPUE ≥8.0 in	25.0	4	24.0	4	11.0	3	28.0	4	17.1	4	15.0	4	74.3	4	48.0	4	25.0	4
CPUE ≥10.0 in	3.0	2	2.7	2	1.0	1	6.0	4	2.3	2	0.0	0	4.6	3	0.0	0	5.0	4
Instantaneous mortality (z)					NA										NA			
Annual mortality (A)					NA										NA			
Total Score:		14		14		12		16		14		12		15		12		16
Assessment rating	Excellent		Excellent		Good		Excellent		Excellent		Good		Excellent		Good		Excellent	

*No age data or too little for calculation, values carried over from years with age data
NA (data not amenable to calculations)
swdmclag.D02, swdmclag.D07, swdmclag.D12
swdmclbg.D02 - D14

Table 22. Length frequency and CPUE (fish/hr) of bluegill collected by diurnal electrofishing (4- 0.125-hour runs) at Spurlington Lake on 13 May 2014.

	Inch class													Std.
Species	1	2	3	4	5	6	7	8	9	10	11	Total	CPUE	error
Bluegill	33	32	111	140	40	74	54	11	3			498	796.8	131.8
Redear			1	1	3	9	10	4	1	1	1	31	49.6	22.5
Warmouth			4	1	2	4	1	1				13	20.8	8.6

swdsplbg.d14

Table 23. Diurnal spring electrofishing CPUE (fish/hr) for each length group of bluegill collected at Spurlington Lake from 2005-2014. Standard errors are in parentheses.

Year	Length group <3.0 in	3.0-5.9 in	6.0-7.9 in	>8.0 in	Total
2005	66.0	216.0	50.0	16.0	348.0
	(14.4)	(45.7)	(15.8)	(8.6)	(68.9)
2006	138.0	302.0	46.0	14.0	482.0
	(47.7)	(54.7)	(8.9)	(2.0)	(100.2)
2007	496.0	606.0	50.0	4.0	1156.0
	(85.2)	(73.5)	(18.3)	(4.0)	(137.4)
2008	198.0	550.0	120.0	14.0	882.0
	(38.4)	(145.6)	(43.2)	(14.0)	(236.3)
2009	246.4	571.2	156.8	14.4	988.8
	(37.6)	(82.8)	(30.2)	(7.8)	(119.6)
2010	310.0	468.0	100.0	2.0	880.0
	(134.0)	(75.7)	(42.1)	(2.0)	(195.7)
2011	713.6	1057.6	156.8	8.0	1936.0
	(111.1)	(187.3)	(54.4)	(3.6)	(256.1)
2012	150.0	788.0	60.0	14.0	1012.0
	(42.4)	(178.0)	(7.7)	(5.0)	(227.6)
2014	104.0	465.0	204.8	22.4	796.8
	(37.4)	(76.5)	(40.5)	(6.9)	(131.8)

sw dsplbg.D05 - D14

Table 24. Spring electrofishing CPUE (fish/hr) for each length group of redear sunfish collected at Spurlington Lake durng early-mid May 2009-2014. Standard errors are in parentheses.

Year	Length group <3.0 in	3.0-5.9 in	6.0-7.9 in	>8.0 in	>10.0 in	Total
2009	1.6	6.4	28.8	24.0	*	60.8
	(1.6)	(3.0)	(12.6)	(11.0)		(22.4)
2010	24.0	18.0	10.0	12.0	*	64.0
	(12.7)	(10.5)	(5.0)	(5.2)		(27.1)
2011	3.2	40.0	59.2	11.2	1.6	113.6
	(3.2)	(10.1)	(22.6)	(9.3)	(1.6)	(34.3)
2012	*	8.0	18.0	8.0	*	34.0
		(5.7)	(6.8)	(0.0)		(3.8)
2014	*	8.0	30.4	11.2	*	49.6
		(2.6)	(17.8)	(6.0)		(22.4)

swdsplbg.D09-14

Table 25. Proportional stock density (PSD) and relative stock density (RSD) of bluegill and redear sunfish collected by diurnal electrofishing at Spurlington Lake on 13 May 2014. Numbers in parentheses represent 95% confidence intervals.

Species	N	PSD	RSD[A]
Bluegill	433	33(4)	3(2)
Redear	30	56(18)	10(10)

[A] Bluegill=RSD_8; redear sunfish=RSD_9

* No fish of sufficient size were collected during sampling.

swdsplbg.d14

Table 26. Bluegill population assessments from 2004 - 2014 at Spurlington Lake (scoring based on statewide assessment).

	2005		2006		2007		2008		2009		2010		2011		2012		2014	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-2 at capture	3.8*	2	3.8*	2	3.8*	2	3.8	2	3.8*	2	3.8*	2	3.8*	2	3.8*	3	3.8*	3
Years to 6.0 in	3.2*	3	3.2*	3	3.2*	3	3.2	3	3.2*	3	3.2*	3	3.2*	3	3.2*	3	3.2*	3
CPUE $\geq$6.0 in	66.0	3	60.0	3	54.0	3	134.0	4	171.2	4	102.0	4	164.8	4	74.0	3	227.2	4
CPUE $\geq$8.0 in	16.0	4	14.0	3	4.0	2	14.0	3	14.4	3	2.0	2	8.0	3	14.0	3	22.4	4
Instantaneous mortality (z)	ND		ND		ND		-1.091		ND		ND		ND		ND		ND	
Annual mortality (A)							66.4											
Total Score:		12		11		10		12		12		11		12		12		14
Assessment rating	Good		Good		Fair		Good		Good		Good		Good		Good		Excellent	

ND - no age data collected

*No age data, values carried over from 2008 age data

sw dsplag.d08

sw dsplbg.D03 - D14

Table 27. Length frequency and CPUE (fish/nn) for each inch class of crappie collected by trap nets (59 net-nights) at Green River Lake from November 20-21 and December 9-10, 2014 .

	Inch class													Std.
Species	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	error
White crappie	78	75	109	347	233	246	240	120	43	1	1	1493	25.7	5.0
Black crappie	1			9		1	6					17	0.3	0.1

swdgrltn.d14

Table 28. Proportional stock density (PSD) and relative stock density (RSD_{10}) of white crappie collected by trap nets (59 net-nights) at Green River Lake from late-November to early-December 2014. Numbers in parentheses represent 95% confidence intervals.

Species	N	PSD	RSD_{10}
White crappie	1340	49(3)	12(2)

swdgrltn.D14

Table 29. Age frequency and CPUE (fish/nn) of white crappie collected during 60 net-nights at Green River Lake during late-November and early-December 2014.

	Inch class														Std.
Age	3	4	5	6	7	8	9	10	11	12	13	Total	Percent	CPUE	error
0	78	75										153	10.0	2.6	0.8
1			109	292	74	34						509	34.0	8.8	2.1
2				37	61	78	50	6	2			234	16.0	4.0	0.8
3				18	37	56	120	42	7			280	19.0	4.8	0.8
4					61	45	50	54	14			224	15.0	3.9	0.7
5						22		6	7			35	2.0	0.6	0.1
6						11		12	4	1	1	29	2.0	0.5	0.1
7												0			
8							10		4			14	1.0	0.2	0.0
9							10		5			15	1.0	0.3	0.1
Total	78	75	109	347	233	246	240	120	43	1	1	1493			
%	5	5	7	23	16	16	16	8	3			100			

* 2014 age file includes fish taken from white bass gill nets in 2014

swdgrltn.d14; swdgrlag.d14

Table 30. White crappie assessment from trap net samples at Green River Lake from 1988 - 2014 (scoring based on statewide assessment).

	White crappie													
	CPUE excluding age 0		CPUE age 1		CPUE age 0		CPUE >8.0 in		Mean length age-2 at capture		Mortality			
Year	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Instantaneous (z)	Annual (A)	Assessment	Rating
1988	15.9	3	8.9	3	18.6	4	4.5	2	8.0	1	-0.854265	57.4	13	G
1989	26.3	4	20.2	4	1.3	1	6.4	3	9.6	4	-1.022316	64	16	G
1990	12.6	2	5.9	2	0.4	1	7.6	3	9.2	3	-0.924447	60.3	11	F
1991	8.7	2	2.9	2	6.9	2	6.2	3	9.3	3	-0.565581	43.2	12	F
1992	28.3	4	24.5	4	1.8	1	8.5	3	10.0	4	-0.9219538	70.4	16	G
1993	24.8	4	7.0	3	1.2	1	15.5	4	9.0	2	-0.949191	61.3	14	G
1994	8.7	2	2.5	1	11.8	3	6.1	3	9.3	3	-0.767229	53.6	12	F
1995	16.2	3	11.1	3	13.2	3	10.7	3	10.0	4	-1.055474	65.2	16	G
1996	13.4	3	6.5	2	3.2	2	6.0	2	9.2	3	-0.895818	59.2	12	F
1997	14.1	3	3.9	2	1.9	1	8.1	3	8.7	2	-1.121453	67.4	11	F
1998	9.2	2	2.5	1	3.8	2	8.0	3	9.3	3	-0.850455	57.3	11	F
1999	7.4	2	5.2	2	1.0	1	2.9	1	9.9	4	NA		10	F
2000	6.3	2	1.5	1	0.0	1	5.2	2	9.7	4	-0.824828	56.2	10	F
2001	4.3	1	0.2	1	10.8	3	4.2	2	9.5	3	-1.09953	66.7	10	F
2002	10.9	2	9.7	3	0.5	1	4.1	2	9.8	4	-0.759078	53.2	12	F
2003	13.0	3	5.1	2	3.3	2	6.8	3	9.1	3	-1.075599	65.9	13	G
2004	17.7	3	9.6	3	3.8	2	7.9	3	8.4	1	-1.53876	78.5	12	F
2005*	13.8	3	3.0	2	1.7	1	8.0	3	8.4	1	ND		10	F
2006	16.4	3	10.2	3	1.4	1	6.5	3	9.7	4	-1.090892	66.4	14	G
2007*	15.9	3	10.5	3	4.4	2	6.7	3	9.1	3	ND		14	G
2008	9.0	2	0.7	1	0.9	1	4.7	2	7.8	1	-0.728739	51.7	7	P
2009	20.1	3	4.1	2	0.9	1	9.7	3	7.9	1	ND		10	F
2010	17.8	3	0.7	1	1.3	1	11.1	4	7.8	1	-1.10117	66.8	10	F
2011	22.9	4	8.3	3	2.6	1	10.0	3	7.9	1	NA		12	F
2012	18.2	3	3.8	2	0.1	1	8.8	3	8.1	1	NA		10	F
2013							no data							
2014	23.1	4	8.8	3	2.6	1	11.2	4	8.1	1	-0.58989	44.6	13	G

* Age assessment data extrapolated from previous years age data

NA - catch data not amenable to mortality estimates

sw dgltn.D86 - D14

sw dgrlag.d86-14

Table 31. Length frequency and CPUE (f/nn) for white bass and walleye collected by experimental gillnets (15 net-nights) on December 9-12 at Green River Lake, KY 2014.

	Inch class																				Std.
Species	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	CPUE	error
White bass	1	9	18	6	1			1											36	2.4	0.9
Walleye					1	1					2			3	2	3	2	3	17	1.1	0.4

swdgrlgn.d14

Table 32. Age frequency and CPUE (fish/nn) of white bass collected from experimental gillnets during mid-December at Green River Lake in 2014.

	Inch class											Std.
Age	6	7	8	9	10	11	12	13	Total	Percent	CPUE	error
0	1	9	18	6	1				35	97	2.3	0.9
1									0	0		
2								1	1	3	0.1	0.1
3												
Total	1	9	18	6	1	0	0	1	36	100		
%	3	25	50	17	3			3	100			

swdgrlgn.D14, swdgrlag.D14

Table 33. Age frequency and CPUE (fish/nn) of walleye collected from experimental gillnets during mid-December at Green River Lake in 2014.

	Inch class																	
Age	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	Percent	CPUE	Std. error
0	1	1													2	12	0.1	0.1
1							2								2	12	0.1	0.1
2										2	2	1			5	29	0.3	0.1
3										1		1		1	3	18	0.2	0.1
4												1	1		2	12	0.1	0.1
5													1	1	2	12	0.1	0.1
6														1	1	6	0.1	0.1
Total	1	3	1	1	2	3	3	7	6	7	7	4		2	17	100.0		
%	2	6	2	2	6	6	15	13	15	15	8	4			100			

sw dgrlgn.D14, sw dgrlag.D14

Table 34. Walleye population assessment from experimental gillnetting at Green River Lake 1996-2014 (scoring based on statewide assessment).

	CPUE excluding age-0		Mean length age-2+ at capture		CPUE >20.0 in		CPUE age 1		Mortality			
Year		Assessment	Value	Assessment	Value	Assessment	Value	Assessment	Instantaneous mortality (z)	Annual mortality (A)	Assessment	Rating
1996	1.8	1	18.5	4	0.1	1	1.4	2	NA		8	F
1997	0.8	1	17.3	3	0.2	1	0.4	1	NA		6	F
1998	0.5	1	17.6	3	0.1	1	0.3	1	NA		6	F
1999	3.2	2	17.3	3	0.1	1	1.7	2	NA		8	F
2000	5.0	3	18.1	4	0.2	1	4.1	4	-0.684	49.6	12	G
2001	5.8	3	17.8	3	0.0	1	5.0	4	NA		11	G
2002	2.6	2	17.8	3	0.4	1	0.7	1	-0.778	54.1	7	F
2003	2.1	2	18.3	4	0.5	2	1.6	2	NA		10	G
2004	1.1	1	16.4	2	0.0	1	0.8	1	NA		5	P
2005	0.6	1	17.8	3	0.1	1	0.5	1	NA		6	F
2006	2.3	2	17.9	3	0.1	1	1.6	2	-0.489	38.7	8	F
2007	6.8	4	18.6	4	0.8	2	3.9	4	-0.689	49.8	14	E
2008	3.7	2	19.6	4	0.9	2	1.1	2	-0.357	30.0	10	G
2009	4.1	3	19.6	4	1.1	3	2.3	3	-0.657	48.2	13	G
2010	3.6	2	18.8	4	1.0	3	1.7	3	-0.566	43.2	12	G
2011	1.8	1	19.3	4	0.8	2	0.4	1	-0.409	33.5	8	F
2012	3.1	2	19.2	4	0.9	2	1.3	2	-0.479	38.1	10	G
2013	2.8	2	19.2	4	0.9	2	1.1	2	NA		10	G
2014	1.0	1	20.1	4	0.7	2	0.1	1	NA		8	F

NA - catch data not amenable to mortality estimates

sw dgrlgn.d96-14

sw dgrlag.d96-14

Table 35. Relative weight (Wr) for each length group of walleye collected by gill nets (15 net-nights) at Green River Lake from December 9-12, 2013. Standard errors are in parentheses.

	Length group		
	10.0-14.9 in	15.0-19.9 in	>20.0 in
Wr	100(5)	99(4)	100(2)
N	2	5	10

swdgrlgn.D14

Table 36. Fish harvest statistics derived from a creel survey at Green River Lake (8210 acres) from 1 March through 31 October 2014.

Fishing trips			
	Number of fishing trips (per acre)	28,374	(3.46)
	Average trip length	5.36	
Fishing pressure			
	Total man-hours (S.E.)	152,198	(3316.0)
	Man-hours/acre	19	
Catch/harvest			
	Number of fish caught (S.E.)	413,120	(40635.0)
	Number of fish harvested (S.E.)	156,775	(16454.0)
	Pounds of fish harvested	78,527	
Harvest rates			
	Fish/hour	0.99	
	Pounds/hour	1.55	
	Fish/acre	19.10	
	Pounds/acre	9.56	
Catch rates			
	Fish/hour	2.61	
	Fish/acre	50.32	
Miscellaneous characteristics (%)			
	Male	93.7	
	Female	6.3	
	Resident	98.4	
	Non-resident	1.56	
Method (%)			
	Still fishing	13.5	
	Casting	71.8	
	Jugging	2.1	
	Trolling	14.8	
Mode (%)			
	Boat	97.8	
	Bank	2.1	
	Dock	0.1	

Table 37. Fish harvest statistics derived from a creel survey at Green River Lake from 1 March to 31 October 2014.

	Muskellunge	Channel catfish	Flathead catfish	White bass	Bluegill	Smallmouth bass	Spotted bass	Largemouth bass	White crappie	Walleye	Drum
No. caught	734	5,113	32	61	15,005	669	4,060	22,221	363,149	392	822
(per acre)	(0.09)	(0.62)	(0.00)	(0.01)	(1.83)	(0.08)	(0.49)	(2.71)	(44.23)	(0.05)	(0.10)
No. Harvested	63	4,239	0	37	8,742	132	970	6,046	135,041	344	505
(per acre)	(0.01)	(0.52)		(0.00)	(1.06)	(0.02)	(0.12)	(0.74)	(16.45)	(0.04)	(0.06)
% total harvest	0.04	2.7	0	0.02	5.6	0.08	0.6	3.9	86.1	0.2	0.3
Lb harvested	867.4	4864	0	32.3	1576.9	260	809.5	10743.6	57244.5	1026.8	581.4
(per acre)	(0.11)	(0.59)		(0.00)	(0.19)	(0.00)	(0.10)	(1.31)	(6.97)	(0.13)	(0.07)
% of total lb harvested	1.1	6.2	0	0.04	2	0.33	1	13.7	72.9	1.3	0.74
Mean length (in)	38.5	15.2	0	13	7	15.5	12.8	15	9.7	20.8	13.7
Mean w eight (lb)	14.7	1.13	0	0.91	0.24	1.81	0.89	1.76	0.41	3.13	1.14

	Muskie	Catfish group	W. bass	Panfish group	Black bass group	Crappie group	Walleye	Anything
No. of fishing trips for that species	789	1,080	0	517	10,485	14,961	422	66
% of all trips	2.8	3.8		1.8	37	52.7	1.5	0
Hours fishing for that species	4,234	5,795		2,773	56,243	80,249	2,264	357
No. harvested fishing for that species	63	3,107		7,942	6,934	134,589	314	108
Lb harvested fishing for that species	870.1	3,591.2		1,346.5	11,537.6	57,054.3	950.7	10.3
No./hour harvested for that species	0.01	0.56		3.07	0.13	1.61	0.16	0.56
% success fishing for that species	5.5	51.4		72.9	23.1	78.4	39.5	42.9

Table 38. Length distribution and species composition (released fish lengths w ere estimates) for each species of fish harvested at Green River Lake from 1 March to 31 October 2014.

		Inch class																																						
Species	Status	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	27	28	30	32	33	34	35	36	37	38	39	40	43	45	49	53
Muskellunge	Harvest																															16	16	16		14				
	Released													18	18		18		35				35		18	53	88	18	18		18	53	18	88	18	71	18	35	18	14
Channel catfish	Harvest					17				51	652	154	1321	172	944	34	395		189	69	120		120																	
	Released						69		189		257		137		51		120				51																			
Flathead catfish	Harvest																																							
	Released								16										16																					
White bass	Harvest										18		18																											
	Released								23																															
Bluegill	Harvest	286	515	324	4314	1317	1718	248	20																															
	Released	99	3132	1236	1681		115																																	
Redear	Harvest																																							
	Released								10																															
Smallmouth bass	Harvest												76				56																							
	Released						74		148	18	74		37		92		93																							
Spotted bass	Harvest								37	75	560	75	187		19		17																							
	Released				328	19	850	77	985	39	444	39	251		19	19				20																				
Largemouth bass	Harvest										1340	471	1521	471	887	145	525	54	235	163	127	36	54	16																
	Released						1592	157	3950	472	3950	452	2024	570	1101	79	943		354	236	236	20	20	19																
White crappie	Harvest							64459	48853	11675	7941	1205	790	59	59																									
	Released		1033	643	10774	2202	206540	6332	507	19			19	38																										
Walleye	Harvest														16	16	33	33	115	33	16	33	33			16														
	Released													32			15																							
Drum	Harvest								35		209		157	17	17		35		17				18																	
	Released						19		93		149				19			19					18																	

Table 39. Monthly crappie angling success at Green River Lake during the 2014 daytime creel survey period (March 1 - October 31)

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	38,283	15,351	1,447	7,761	38,284	5	15,351	2
April	140,354	56,094	4,635	24,862	140,354	5.76	56,094	2.3
May	64,742	24,822	2,979	15,981	63,982	3.81	24,656	1.47
June	22,428	8,215	1,166	6,254	21,922	4.09	8,016	1.5
July	23,060	6,405	1,018	5,461	23,030	3.95	6,390	1.1
August	19,940	5,606	749	4,019	19,528	3.97	5,469	1.11
September	33,410	10,759	1,484	7,962	33,289	3.85	10,738	1.24
October	21,051	7,908	1,482	7,949	20,968	2.62	7,875	0.98
Total	363,268	135,160	14,960	80,249	361,357	4.37	134,589	1.61

Table 40. Monthly black bass angling success at Green River Lake during the 2014 daytime creel survey period (March 1 - October 31).

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	1,540	779	1,255	6,730	1,507	0.21	779	0.11
April	5,214	1,017	1,936	10,383	4,717	0.43	888	0.08
May	8,250	1,474	1,813	9,724	7,442	0.81	1,403	0.15
June	4,008	1,851	1,545	8,290	3,733	0.4	1,851	0.2
July	1,681	106	945	5,068	1,620	0.41	106	0.03
August	1,869	326	851	4,567	1,715	0.52	326	0.1
September	1,945	507	1,066	5,719	1,925	0.36	507	0.1
October	2,444	1,090	1,074	5,762	2,329	0.41	1,074	0.19
Total	26,951	7,150	10,485	56,243	24,988	0.44	6,934	0.13

Table 41. Monthly catfish angling success at Green River Lake during the 2014 daytime creel survey period (March 1 - October 31).

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	0	0	0		0	0	0	0
April	368	346	53	286	303	1.65	303	1.65
May	856	642	126	676	190	0.47	166	0.41
June	1,270	933	307	1,648	933	0.63	719	0.49
July	1,681	1,423	301	1,616	1,469	0.77	1,287	0.67
August	514	480	162	868	429	0.43	429	0.43
September	405	365	84	449	203	0.51	203	0.51
October	83	50	0	0	0	0	0	0
Total	5,177	4,239	1,033	5,543	3,527	0.63	3,107	0.55

Table 42. Monthly muskie angling success at Green River Lake during the 2014 daytime creel survey period March 1 - October 31).

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	85	17	68	364	51	0.16	17	0.05
April	130	0	213	1,143	22	0.02	0	0
May	95	0	32	169	24	0.25	0	0
June	229	46	172	921	153	0.14	46	0.04
July	121	0	106	568	30	0.02	0	0
August	0	0	0	0	0	0	0	0
September	41	0	125	673	20	0.04	0	0
October	33	0	31	168	17	0.11	0	0
Total	734	63	747	4,006	317	0.07	63	0.02

Table 43. Monthly walleye angling success at Green River Lake during the 2014 daytime creel survey period (March 1 - October 31).

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
March	0		0					
April	0		0					
May	48	48	47	254	48	0.19	48	0.2
June	168	168	163	873	153	0.18	153	0.22
July	121	91	114	612	106	0.17	76	0.12
August	34	17	51	274	34	0.17	17	0.09
September	20	20	31	168	20	0.22	20	0.22
October	0	0	16	84	0	0	0	0
Total	391	344	422	2,265	361	0.18	314	0.16

Table 44. Black bass catch and harvest statistics for all anglers derived from 2014 (March 1 - October 31) a daytime creel survey at Green River Lake (8,210 acres) for each species.

	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	≥15.0	Total	12.0-14.9	≥15.0	Total	12.0-14.9	≥15.0	Total	12.0-14.9	≥ 15.0	Total	12.0-14.9	≥15.0	Total
Total number of bass	3332	2713	6,045	6426	3578	10004	822	36	858	737	58	795	76	56	132	111	185	296
% of black bass harvested by number			84.6						13.6						1.9			
Total weight of fish (lb)			10,744	6875	3578	28046			810	336	27	2225			260	126	212	669
% of bass harvested by weight			90.9						6.85						2.2			
Mean length (in)			15.0						12.8						15.5			
Mean weight (lb)			1.76						0.89						1.81			
Rate (fish/hour)			0.04						0.01						0.001			

Table 45. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 0.50 hours (4-0.125-hour runs) of diurnal electrofishing at Metcalfe Co. Lake on 22 April 2014.

	Inch class																				
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	Std err
Largemouth bass	1	1		8	17	14	13	11	2	5	2		3	2	2	5	8	5	99	198.0	44.7

sw dmetbb.d14

Table 46. Spring nocturnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Metcalfe Co. Lake during late-April or early May since 2001.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2001	50.0	NA	98.0	NA	28.0	NA	28.0	NA	6.0	NA	204.0	NA
2002	80.5	NA	84.5	NA	6.0	NA	54.6	NA	6.0	NA	144.0	NA
2004	24.0	NA	64.0	NA	24.0	NA	32.0	NA	8.0	NA	144.0	NA
2006	10.0	2.0	76.0	12.0	26.0	5.0	30.0	6.0	6.0	3.8	142.0	12.4
2010	32.0	3.3	100.0	9.5	18.0	8.3	36.0	5.2	6.0	3.8	186.0	13.6
2013	24.0	16.3	142.0	28.4	12.0	5.2	56.0	10.3	14.0	6.8	234.0	29.5
2014	20.0	9.5	110.0	30.5	18.0	8.9	50.0	11.9	26.0	13.2	198.0	44.7

sw dmetbb.D01 - D14

NA - SE not applicable as run times w ere not same as 2006 - 2014.

Table 47. PSD and RSD_{15} values obtained for largemouth bass collected during 0.5 hours (4 - 0.125-hour runs) of spring diurnal electrofishing at Metcalfe Co. Lake on 22 April 2014. 95% confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	89	38(10)	28(9)

sw dmetbb.D14

Table 48. Length frequency and CPUE (fish/hr) of bluegill collected by diurnal electrofishing (0.625 hours; 5- 450-second runs) at Metcalfe County Lake on 14 May 2014 .

Species	Inch class							Total	CPUE	Std. error
	1	2	3	4	5	6	7			
Bluegill	5	9	56	72	76	149	31	398	636.8	107.7

sw dmetbg.D14

Table 49. Spring electrofishing CPUE (fish/hr) for each length group of bluegill collected at Metcalfe County Lake during early-mid May from 2005-2014 . Standard errors are in parentheses.

Year	Length group				Total
	<3.0 in	3.0-5.9 in	6.0-7.9 in	>8.0 in	
2005	66.8	807.7	366.2	0.0	1240.7
	(9.4)	(113.5)	(61.8)		(165.1)
2007	108.0	886.0	568.0	0.0	1562.0
	(33.1)	(171.7)	(132.8)		(270.1)
2011	102.0	1032.0	194.0	0.0	1328.0
	(25.6)	(156.7)	(39.1)		(196.9)
2014	22.4	326.4	288.0	0.0	636.8
	(9.3)	(53.2)	(50.0)		(107.7)

sw dmetbg.D05, D07, D11, D14

Table 50. PSD and RSD_{15} values obtained for bluegill collected during 0.5 hours (4- 0.125-hour runs) of spring diurnal electrofishing at Metcalfe Co. Lake on 14 May 2014. 95% confidence intervals are in parentheses.

Species	No. $\geq$3.0 in	PSD ($\pm$ 95% CI)	RSD_8 ($\pm$ 95% CI)
Bluegill	384	47(5)	*

sw dmetbg.D14

*No fish greater than 8.0 in collected

Table 51. Bluegill population assessments from 2005 - 2014 at Metcalfe County Lake (scoring based on statewide assessment).

	2005		2007		2011		2014	
Parameter	Value	Score	Value	Score	Value	Score	Value	Score
Mean length age-2 at capture	4.4*	2	4.4	2	4.4*	2	4.4*	2
Years to 6.0 in	3.6*	3	3.6	3	3.6*	3	3.6*	3
CPUE $\geq$6.0 in	366.2	4	568.0	4	194.0	4	288.0	4
CPUE $\geq$8.0 in	0.0	0	0.0	0	0.0	0	0.0	0
Instantaneous mortality (z)			1.07					
Annual mortality (A)			66.0					
Total Score:		9		9		9		9
Assessment rating	Fair		Fair		Fair		Fair	

*No age data, values carried over from years with age data
swdmetag.D07
swdmetbg.D05 - D14

Table 52. Species composition, relative abundance, and CPUE (fish/set-night) of channel catfish collected in baited, tandem set hoopnets (2 set-nights; 3 nets per set w/3-day soak time) at Metcalfe County Lake from 12-15 September 2014.

	Inch class												
Species	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	Std err
Channel catfish	3	3	3	5	3		2	3	1		2	25	12.5	1.5

swdmetcc.d14

Table 53. Relative weight (Wr) for each length group of channel catfish collected by tandem set hoopnets (2 set-nights) at Metcalfe County Lake from 12-15 September 2014. Standard errors are in parentheses.

	Length group		
	11.0-15.9 in	16.0-23.9 in	≥24.0 in
Wr	95(3)	75(1)	
N	13	2	0

swdmetcc.D14

Table 54. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected during 1.5 hours (6- 0.25-hour runs) of nocturnal electrofishing at Mill Creek Lake on 22 April 2014.

	Inch class																					
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std err
Spotted bass	1	1		11	22	23	19	9	4	4	1										95	63.3	10.3
Largemouth bass				2	1	2	4	17	32	28	33	24	18	17	8	8	9	6	2	1	212	141.3	11.5

swdmilbb.D14

Table 55. Spring nocturnal electrofishing CPUE (fish/hr) of each length group of largemouth bass collected at Mill Creek Lake during mid-late April to mid-May, 2006-2014.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		>15.0 in		>20.0 in			
Year	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error	Total CPUE	Std. error
2006	42.7	6.8	124.0	6.8	36.7	3.8	29.3	8.4	6.0	2.7	232.7	16.5
2007	ND											
2008	ND											
2009	ND											
2010	ND											
2011	42.0	9.3	49.3	4.3	32.7	3.8	64.0	9.6	4.7	1.2	188.0	9.6
2014	2.0	1.4	36.7	6.7	56.7	5.4	46.0	6.1	6.0	2.7	141.3	11.5

sw dmilbb.D06, D11, D14

ND = no data collected

Table 56. PSD and RSD_{15} values from spring nocturnal electrofishing (1.5 hours; 6-0.25-hour runs) for largemouth bass at Mill Creek Lake on 22 April 2014. 95% confidence intervals are in parentheses.

Species	No. >8.0 in	PSD (+ 95% CI)	RSD_{15} (+ 95% CI)
Spotted bass	82	11(7)	*
Largemouth bass	209	74(6)	33(6)

swdmilbb.D14

* - no fish of size were collected

Table 57. Species composition, relative abundance, and CPUE (fish/set-night) of channel catfish collected in baited, tandem set hoopnets (3 set-nights; 3 nets per set w/3-day soak time) at Spa Lake from 08-11 September 2014.

	Inch class														
Species	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	Std err
Channel catfish	5	1	2	10	7	7	3	4	3	1	3	4	50	16.7	6.5

sw dspacc.d14

Table 58. Relative weight (Wr) for each length group of channel catfish collected by tandem set hoopnets (3 set-nights) at Spa Lake from 08-11 September 2014. Standard errors are in parentheses.

	Length group		
	11.0-15.9 in	16.0-23.9 in	$\geq$24.0 in
Wr	93(3)	86(3)	
N	30	10	0

swdspacc.D14

Figure 1.

GREEN RIVER LAKE ANGLER ATTITUDE SURVEY 2014 (n=508)

No choices are given for "part a or b" questions. The clerk is to take the respondent's answer and categorize by circling or writing in the appropriate answer.

1. Have you been surveyed this year? YES - stop survey NO – continue

2. Name & Zip code: < 30 miles (n=223; 46%) >30 miles (n=251; 52%) out of state (n=12; 2.5%)

3. Which species of fish do you fish for at Green River Lake (***circle ALL that apply***)?

Bass	Crappie	Muskie	Catfish	Walleye	White Bass	Bluegill	Other = Drum
43.7%	56.5%	3.7%	9.1%	1%	0.2%	3.5%	0.4%

4. Which one species do you fish for most often at Green River Lake (***circle only ONE***)?

Bass	Crappie	Muskie	Catfish	Walleye	White Bass	Bluegill	Other ____________________
37.7%	51.5%	4.2%	5.6%	1%	0%	0%	

-Ask the following questions for each species the anglers fish for– (see question 3)

Crappie Anglers (n=282)

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

Very satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Very dissatisfied	No opinion
5.7%	89.7%	1.1%	3.5%	0	0

5a. ***If response is somewhat or very satisfied:*** What is the single most important reason for your satisfaction?

Number of fish	Size of fish	Size limit	Creel limit	Low angler pressure	Other (catch limit anytime)
46.8%	49.8%	1.1%	1.1%	0.7%	0.4%

5b. ***If response is somewhat or very dissatisfied:*** What is the single most important reason for your dissatisfaction?

Number of fish	Size of fish	Size limit	Creel limit	Too many anglers	Other (no fish)
15.4%	30.8%		7.7%	0%	15.4%

Muskie Anglers (n=22)

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

Very satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Very dissatisfied	No opinion
36.4%	36.4%	4.5%	13.6%	9.1%	

6a. ***If response is somewhat or very satisfied:*** What is the single most important reason for your satisfaction?

Number of fish	Size of fish	Size limit	Creel limit	Low angler pressure	Other ______________________
29.4%	52.9%	10.8%	0%	5.9%	

6b. ***If response is somewhat or very dissatisfied:*** What is the single most important reason for your dissatisfaction?

Number of fish	Size of fish	Size limit	Creel limit	Too many anglers	Other______________________
42.9%	14.3%	28.6%	0%	14.3%	

7. Over the last 3 years, has your catch rate of MUSKIE that are less than 36 inches at Green River Lake:

Increased	Stayed the same	Declined	Don't Know
17.4%	34.8%	39.1%	8.7%

8. Over the last 3 years, has your catch rate of MUSKIE that are greater than 36 inches at Green River Lake:
Increased – 34.8% Stayed the same – 60.9% Declined – 0% Don't Know – 4.3%

9. About what percentage of legal muskie did you keep in the last 3 years at Green River Lake?

All or almost all	about 25%	about 50%	about 75%	Didn't not keep any or very few
33.3%	0%	0%	0%	66.7%

10. Do you fish muskie tournaments on Green River Lake? Yes (25%) No (75%)

10a.***If "Yes" in Question 10***: How many muskie tournaments did you fish on Green River Lake in the last 12 months?
1 – 2 (100%) 3 – 4 4 – 5 6 or more

Catfish anglers (n=31)

11. What level of satisfaction do you have with CATFISH fishing at Green River Lake?
    Very satisfied – 29% Somewhat satisfied – 71% Neutral Somewhat dissatisfied Very dissatisfied No opinion

11a. ***If response is somewhat or very satisfied**:* What is the single most important reason for your satisfaction?

Number of fish	Size of fish	Size limit	Creel limit	Low angler pressure	Other (Close by)
37.5%	56.3%			3.1%	3.1%

11b. ***If response is somewhat or very dissatisfied:*** What is the single most important reason for your dissatisfaction?
Number of fish Size of fish Size limit Creel limit Too many anglers Other______________________

12. What methods do you use fishing for catfish at Green River Lake?
    Jugging – 27.9% Trotline – 14% Hook & Line – 44.2% Hand grabbing/noodling - 14%

12a. How many days per year do you use each method?

Jugging	5 (25%)	6 (25%)	8 (8.3%)	12 (8.3%)	20 (25%)	40 (8.3%)
Trotline	3 (20%)	6 (40%)	15 (40%)			
Hook & Line	0 (5.3%)	8(15.8%)	10 (10.5%)	12 (31.6%)	16 (21.1%)	20+ (15.8%)
Hand grabbing/Noodling	12 (50%)	15 (16.7%)	16 (33.3%)			

White Bass Anglers (n=1)

13. What level of satisfaction do you have with WHITE BASS fishing at Green River Lake?
    Very satisfied Somewhat satisfied Neutral Somewhat dissatisfied Very dissatisfied No opinion

13a. ***If response is somewhat or very satisfied**:* What is the single most important reason for your satisfaction?
Number of fish Size of fish Size limit Creel limit Low angler pressure Other______________________

13b. ***If response is somewhat or very dissatisfied:*** What is the single most important reason for your dissatisfaction?
Number of fish Size of fish Size limit Creel limit Too many anglers Other______________________

Walleye Anglers (n=4)

14. What level of satisfaction do you have with WALLEYE fishing at Green River Lake?

Very satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Very dissatisfied	No opinion
	100%				

14a. ***If response is somewhat or very satisfied**:* What is the single most important reason for your satisfaction?

Number of fish	Size of fish	Size limit	Creel limit	Low angler pressure	Other______________________
25%	75%				

14b. ***If response is somewhat or very dissatisfied:*** What is the single most important reason for your dissatisfaction?
Number of fish Size of fish Size limit Creel limit Too many anglers Other______________________

15. Do you ever fish below the Green River Lake dam for walleye? Yes - 20% No - 80%

15a. ***If no***, why not? Didn't know about – 75% Other (like the lake) – 25%

15b***. If yes***, What level of satisfaction do you have with the walleye fishing at Green River Lake Tailwater?
Very satisfied Somewhat satisfied Neutral Somewhat dissatisfied Very dissatisfied No opinion

All Anglers (n=507)

16. On average, how many times do you fish Green River Lake each month?
    Less than 1 1 – 4 5 – 10 More than 10

5.3%	38.1%	40.6%	16%

17. Do you support or oppose the current 36 inch minimum size limit on muskie at Green River Lake?
Support 5% Oppose 2.4% No Opinion 92.7%

18. What muskie size limit would you prefer at Green River Lake?

Keep as is (36-inch minimum)	30 inch	40 inch	45 inch	50 inch	Catch & Release	No size limit
15.3%	68.2%	4.7%	7.1%	1.2%	2.4%	1.2%

19. Are you aware that KDFWR produces a fish attractor map for Green River Lake? Yes - 95% No - 5%

19a. ***If yes***: Do you ever use this map? Yes - 62.6% No - 37.4%

CENTRAL FISHERIES DISTRICT

Project A: Lake and Tailwater Fishery Surveys

FINDINGS

Lake sampling conditions for 2014 are summarized in Table 1.

Taylorsville Lake (3,050 acres)

Spring diurnal electrofishing was completed in April 2014 to assess the black bass population. Three sections (Big Beech Creek, Ashes/Jacks Creek, and Van Buren areas) of Taylorsville Lake were sampled for 7.5 hours (2.5 hours per section – 30 minute runs). Length distribution and CPUE for largemouth bass are presented in Tables 2 and 3. The number of bass collected in 2014 (114.0 fish/hr) was slightly higher than the lake's historic average of 111.3 fish/hr. Catch rate for keeper bass (≥15.0 in) was 21.3 fish/hr, higher than the lake average (16.4 fish/hr) for these harvestable-size fish. Ashes Creek was the area with the highest catch rate for largemouth bass. Stocked fish (marked by fin-clips) made up only 0.1% of the largemouth bass collected at Taylorsville Lake. The PSD for largemouth bass was 58 which was above the lake's average of 55 (Table 4). Additionally, the RSD_{15} value was 22; equal to the lake's average of 22. The largemouth bass population assessment score, based on spring electrofishing data, was 16 ("Good"), which is consistent with the average rating of "Good" at Taylorsville Lake (Table 5).

Length frequency, relative weights, age and growth, and index for year class strength at age 0 and age 1 of largemouth bass based on September electrofishing are presented in Tables 6–9. The growth rates of largemouth bass at Taylorsville Lake are very good. Largemouth bass growth rates indicated bass are reaching harvestable size (15.0 in) in four growing seasons (Table 7). Average body condition for largemouth bass in 2014 (W_r =91) was slightly lower than last year (2013), and lower than the lake's historical average (W_r =97) (Table 8). Catch rate of age 0 largemouth bass in the fall of 2014 (21.1 fish/hr) was much lower than the lake historic average of 43.3 fish/hr. The year class strength model indicated below average recruitment for young-of-the-year largemouth bass in 2014. Fingerling (4.5-5.3 in) largemouth bass were stocked in September at a rate of 10.0 fish/acre, totaling 30,500 (no clip). Largemouth bass fingerlings have been stocked almost annually since 2000 at rates ranging from 5 fish/acre to 10 fish/acre and from 1985 to 1992 at various rates. The need for stocking and the numbers stocked in reservoirs are based (since 2004) on results of the age 0 year class strength sampled in early September and the predicted age 1 year class strength the following spring.

Trap netting effort for crappie (Table 10) resulted in the collection of 157 white crappie and 344 black crappie. Crappie were sampled with trap nets during 48 net-nights. PSD and RSD_{10} values are shown in Table 11. Age and growth determinations along with age frequency for black and white crappie completed using otoliths are shown in Tables 12 through 16. Age studies indicated that the majority of white crappie reached 9.0 in between age 1 and 2 and black crappie reached 9.0 inches in 2 to 3 years. The crappie population assessment scores (Tables 15 and 18) rated "Fair" for both white and black crappie. The crappie population is very cyclic at Taylorsville Lake with peaks occurring every 7 to 9 years. In an effort to help recruitment on the lake, 30,710 (10.1 fish/acre) white crappie (2.7 in) were stocked in 2009, 35,985 (11.7 fish/acre) white crappie (2.5-4.7 in) were stocked in 2010, 20,892 (6.8 fish/acre) white crappie (3.0 in) were stocked in 2011, 70,473 (23.1 fish/acre) white crappie were stocked in 2012, and 78,112 (25.6 fish/acre) were stocked in 2013 into Taylorsville Lake. These stocked crappie made up 11.7% of the age 1 and older white crappie sampled in the fall of 2014, a decrease in the percentage of marked fish from the fall of 2013. This reduction in percentage of marked fish is due to a good spawn that occurred in the spring of 2013. This was the first significant spawn since 1996. Body condition of white and black crappie in the fall of 2014 was acceptable, but lower than expected for Taylorsville Lake (Table 18).

Fall gill netting for hybrid striped bass and white bass was conducted in October 2014 (Tables 19–27). A total of 90 hybrid striped bass were collected in 2014 compared to 132 in 2013, 47 in 2012, 94 in 2011 and 51in 2010. Hybrid striped bass were captured in 8 net-nights (4 nets for 2 nights) for a CPUE of 11.3 (± 4.0) fish/nn. The hybrid striped bass population has exhibited notable fluctuations since 1990. The density of hybrid striped bass in Taylorsville Lake appeared to be negatively related to the amount of tailwater discharge (due to rainfall) and fishing pressure. It is theorized that above-normal discharge leads to escapement of hybrid striped bass but has little effect on the white bass density in the lake. Additionally, a late fall water quality issue with low oxygen in the lower portion of Taylorsville Lake may be causing additional stress on the hybrid striped bass. Age and growth studies were completed for hybrid striped bass using otoliths (Tables 20 and 21). Studies indicate hybrid striped bass growth has slowed slightly, as it took between two to three years to reach harvestable size (15.0 in). This growth is slower than what is typical growth for hybrid striped bass at Taylorsville Lake. The relative weight (W_r) index for hybrid striped bass (83) shows below average body condition for hybrid striped bass at Taylorsville Lake. The average W_r for Taylorsville Lake is 86. The population assessment for hybrid striped bass was rated at "Good", an increase from the "Fair" rating in 2013. Annual stocking rates for hybrid striped bass have been 20 fish/acre (1.4 to 2.0 in) for the last 15 years. Taylorsville Lake was stocked with 60,139 (19.7 fish/acre; 1.3 in) hybrid striped bass in June 2014. The hybrid striped bass stocked in 2014 were all reciprocal cross hybrids (no OTC mark). Data for white bass collected during fall 2014 gillnetting studies are presented in Tables 19 and 24-27. White bass comprised about 47% of the *Morones* sampled, compared to 29% in 2013, 59% in 2012, 72% in 2011, 80% in 2010, 34% in 2009 and 69% in 2008. Similar to 2013, white bass age and growth in 2014 showed only age-0+ and age-1+ fish. Relative weight values revealed acceptable body condition for all sizes of white bass (Table 26). The white bass population assessment rated "Fair"; an increase from the rating of "Poor: over the past two years (Table 27).

See the Stream Fisheries Investigation (F-40) Annual Performance Report for blue catfish sampling data. A total of 23,499 (7.7 fish/acre) blue catfish (6.0 – 12.0 in) were stocked in Taylorsville Lake in 2014.

Dissolved oxygen and temperature profiles were completed from April through November at Taylorsville Lake. Three sites were sampled at Taylorsville Lake during 2014, including Big Beech Creek near Settlers Marina (no wake buoy line (Table 28)), the mouth of Ashes and Jack's Creek (no ski buoy line (Table 29)), and VanBuren / Chowning Lane Area (no ski buoy line (Table 30)). The thermocline appeared in May and became well established during the months of June, July, and August at Taylorsville Lake. Dissolved oxygen levels suitable for fish (≥ 4 mg/l) could generally be found from 0-14 ft deep during the summer months. There was a decline in oxygen throughout the lower portions of Taylorsville Lake during October; however, it was not as severe of a decline as it was in October 2013. These late season declines in oxygen may be a result of decomposition from significant blooms of bluegreen algae that occurred during the summer months at Taylorsville Lake. Lake temperatures peaked during the month of August in the lower 80's.

Herrington Lake (2,410 acres)

Diurnal electrofishing studies were completed in April 2014 to monitor the crappie population. Upper, middle, and lower lake sections were sampled for a total of 5.5 hours. This year, a total of 117 crappie were collected, compared to 380 in 2012, 409 in 2011, 225 in 2010, 99 in 2009, 108 in 2008, 81 in 2007, and 84 in 2006 (Table 31). Catch was dominated by black crappie in the lower section of the lake, while white crappie dominated the mid and upper sections of the lake. However, the overall catch was dominated by white crappie, which made up 77% of the crappie sampled at Herrington Lake in 2014. Age and growth studies of white crappie indicated they reach 9.0 in between age 2 and age 3, and 11.0 in between age 3 and age 4 (Table 33). Age frequency of white crappie showed that their populations were dominated by age-3 fish, the 2011 year class (Table 34). A population assessment was developed for spring electrofishing of white and black crappie at Herrington Lake. The population assessment for white crappie indicated a "Fair" population for 2014, a decline from past years' assessments (Table 35). Age and growth studies also showed that black crappie reached 9.0 in. around age 2 (Table 36). Like white crappie, age-3 was the dominate age for black crappie in 2014 (Table 37). The population assessment for black crappie indicated a "Fair" population for 2014 (Table 38), similar to past years.

Diurnal electrofishing studies were completed in April 2014 to monitor the black bass population. Upper, middle, and lower sections were sampled for a total of 7.5 hours (2.5 hours per section). Species composition, relative abundance, and CPUE of black bass collected in the spring are presented in Table 39. Largemouth bass dominated the black bass fishery, with spotted bass comprising 6.6% of the bass sampled. No smallmouth bass were collected in 2014. Numbers of bass collected in 2014 (97.2 fish/hr) were lower than the lakes historic average of 115.2 fish/h. Changes to the overall catch rates over the past couple of years seem to be related to lake level during sampling. The higher the lake level the lower the catch rate of bass at Herrington Lake. The level during the 2014 spring electrofishing sample was slightly lower than last year, which may have led to a slight increase in the catch rate for largemouth bass. Catch rate for keeper bass (≥12.0 in) was 46.5 fish/hr, equal to the lake's average (46.4 fish/hr) for catch rates of harvestable-size fish. The middle and upper sections of Herrington Lake (King's Mill and

Gwinn Island areas) continue to have the highest catch rates for largemouth bass in Herrington Lake. The PSD for largemouth bass was 69 which was much higher than the lake's average of 56 (Table 41). Additionally, the RSD_{15} value was 27 which was higher than the lake average of 23. The largemouth bass population assessment score, based on spring electrofishing data, was 14 ("Good"), which is an average rating for Herrington Lake (Table 42). Fall electrofishing evaluated largemouth bass relative weight and index of year class strength (Tables 43-45). Body weights for largemouth bass in 2014 (W_r =91) were almost equal to the lake's historical average (W_r =92) (Table 44). The year class strength model for Herrington Lake indicated an average recruitment year for young-of-year largemouth bass in 2014. Age-0 CPUE (36.9 fish/hr) was almost equal to the lake average (35.7 fish/hr); however, largemouth bass were stocked into Herrington Lake in 2014. Fingerling (4.6-5.0 in) largemouth bass were stocked in October at a rate of 5.0 fish/acre, totaling 12,057 (no clip).

Gill netting for hybrid striped bass and white bass was completed in October 2014. During the 12 net-night sampling period, 34 hybrid striped bass and 25 white bass were collected (Table 46). Otoliths were taken from both species for age and growth determinations. Results of these studies indicated excellent growth rates for both hybrids (Tables 47-48) and white bass (Tables 51-52). Hybrid striped bass continue to reach 15.0 in between age 1 and 2 (Table 47), as they have historically. Of the hybrid striped bass sampled, 97% were age 1+ or older (Table 48). The population assessment for hybrid striped bass indicated a "Fair" population, similar to the average rating of "Fair" (Table 50). White bass age and growth determinations showed they reached 9.0 in at age 1 this year and 12.0 in between age 1 and age 2 (Table 51). Of the white bass sampled, 44% were age 1+ and older (Table 52). The major die-off of white bass in June of 2013 appears to have substantially reduced the population of white bass at Herrington Lake. The white bass population assessment indicated a "Fair" population, the same as last year (Table 54). Condition of hybrid striped bass and white bass are shown in Tables 49 and 53, respectively. Herrington Lake was stocked with 50,131 (20.8 fish/acre; 1.3-1.4 in) hybrid striped bass in June 2014. Only the reciprocal cross was stocked into Herrington Lake in 2014 (no OTC mark).

Dissolved oxygen and temperature profiles were completed from April through November at Herrington Lake. Three sites were sampled at Herrington Lake during 2014, including the mouth of Cane Run (no wake buoy line (Table 55)), near Gwynn Island Marina (no wake buoy line (Table 56)), and near King's Mill Marina (no wake buoy line (Table 57)). The thermocline appeared in May and became established during the months of June, July and August at Herrington Lake. However, near the dam at the Cane Run sample site a layer of dissolved oxygen > 4.0 ppm was observed below a layer of insufficient oxygen (<4 ppm). The thermocline was very well established from June through October. Dissolved oxygen levels suitable for fish (≥ 4 mg/l) could generally be found from 0-12 ft deep during the summer months. Lake temperatures peaked during the month of July in the lower 80's.

Guist Creek Lake (317 acres)

Spring diurnal electrofishing studies were completed for length frequency, CPUE and population assessment for largemouth bass in April 2014 (Table 58). Total largemouth bass catch rate (138.7 fish/hr) was lower than the lake average of 160.4 fish/hr (Table 59). The PSD for largemouth bass was 65 compared to the lake average of 67 (Table 60). The RSD_{15} was 39 compared to the lake average of 41. The population assessment gave a rating of "Good", the average rating observed at Guist Creek Lake (Table 61). Fall largemouth bass sampling was conducted for relative weights, age and growth, and index for year class strength at age 0 and age 1 (Tables 62-64). Relative weights indicated good body condition for bass, especially for bass over 15.0 in (Table 63). Mean length of age-0 largemouth bass (4.0 in) was the same as last year; however the catch rate of young of the year continued to decline (46.0 fish/hr in 2012, 38.7 fish/hr in 2013, and 27.3 in 2014). The year class strength model indicated below average recruitment (avg. = 44.7 fish/hr) for young-of-year largemouth bass in 2014 (Table 64). Therefore, fingerling (4.4-4.5 in) largemouth bass were stocked in October at a rate of 10.0 fish/acre, totaling 3,188 (no clip).

Guist Creek Lake was stocked with 26,000 (82.0 fish/acre; 1.5-1.9 in) saugeye in 2014. This was the second year of stocking of saugeye into Guist Creek Lake. The lake was sampled for saugeye on September 27, 2014 with a boat mounted electrofishing unit for a total of 3.0 hours (Table 65). Sampling yielded 37 saugeye (12.3 fish/hr) ranging in size from 7.5 in to 15.0 in. and averaging 10.6 inches.

Diurnal electrofishing studies were completed to evaluate the age and growth of the crappie population at Guist Creek Lake in September 2014. The literature has shown that saugeye predation can reduce crappie over-crowding, improving the growth of crappie. Therefore, this was an initial sample of the growth of crappie at Guist

Creek Lake. Age and growth studies of white crappie indicated they reach 9.0 in between age 2 and age 3 (Table 66). Additionally, age and growth studies showed black crappie growth to be slow, it took between age 3 and age 4 for a black crappie to grow to 9 inches (Table 67). The crappie population at Guist Creek Lake exhibited good growth, especially for a small impoundment.

Gill netting was completed in October for hybrid striped bass (Table 68). Four nets were fished for two nights (8 net-nights) in similar sites as in past years. A total of 31 hybrid striped bass were captured compared to 51 in 2011, 32 in 2010 and 26 in 2009. Age and growth studies were completed using otoliths. Calculations indicated hybrid striped bass continued to reach 15.0 in between age 2 and age 3, and 20.0 in between age 3 and age 4 (Tables 69-70). Relative weights of these hybrid striped bass continue to be below average (W_r = 80) for their size (Table 71). The population assessment indicated a rating of "Fair", an average population rating for Guist Creek Lake (Table 72). Guist Creek Lake was stocked with 19,029 (60.0 fish/acre; 1.8 in) hybrid striped bass in June 2014.

Channel catfish were sampled in October using 5 sets of 3 tandem hoop nets at Guist Creek Lake in 2014. Length frequency results for channel catfish showed a size distribution between 8.8 and 28.1 in (Table 73). The PSD and RSD_{24} for channel catfish were 35 and 6, respectively (Table 74). Age and growth studies showed channel catfish reached 12.0 in between age 1 and 2, and 20.0 in between 4 and 5 years (Table 75). Relative weights indicated slightly below average condition for channel catfish (Table 76). Guist Creek Lake was stocked with 1,584 (5.0 fish/acre; 6.0-8.0 in) channel catfish in March 2014.

A.J. Jolly Lake (175 acres)

Spring diurnal electrofishing was completed in April 2014 to assess the black bass population (Table 78). Results indicated largemouth bass catch rates (74.8 fish/hr) were lower than the lake's historical average (81.9 fish/hr) (Table 79). The PSD for largemouth bass was 65 and the RSD_{15} was 39 (Table 80). The population assessment indicated a "Fair" bass population (Table 81). Fall diurnal electrofishing was conducted for relative weights and the index of age 0 year class strength of largemouth bass in September (Tables 82-84). Relative weights indicated acceptable body condition (W_r = 91) (Table 83). Fall sampling indicated slightly below average age 0 bass numbers, (19.5 fish/hr; average= 21.3 fish/hr) and the fall average size of age 0 bass in 2014 was equal to the lake's average of 4.5 in. (Table 84). Therefore, no largemouth bass were stocked into A.J. Jolly Lake in 2014.

Diurnal electrofishing was completed in July 2014 for length frequency and relative weights of blue catfish at A.J. Jolly Lake. Length frequency results for blue catfish showed a size distribution between 6.1and 22.4 in (Table 85). Relative weights indicated acceptable body condition for blue catfish (W_r = 90) (Table 86). A.J. Jolly Lake was stocked with 1,750 (10.0 fish/acre; 4.0 – 8.0 in) blue catfish in April 2014.

A.J. Jolly Lake was stocked with 15,199 (86.9 fish/acre; 1.5-1.9 in) saugeye in 2014. This was the second year of stocking of saugeye into A.J. Jolly Lake. The lake was sampled for saugeye on October 8, 2014 with a boat mounted electrofishing unit for a total of 2.0 hours (Table 87). Sampling yielded 29 saugeye (14.5 fish/hr) ranging in size from 6.5 in to 13.8 in. and averaging 9.7 inches.

Diurnal electrofishing studies were completed to evaluate the age and growth of the crappie population at A.J. Jolly Lake in October 2014. The literature has shown that saugeye predation can reduce crappie over-crowding, improving the overall growth of crappie. Therefore, this was an initial sample of the growth of crappie at A.J. Jolly Lake.

A total of 182 crappie were collected in 1.0 hr of electrofishing (182.0 fish/hr) in 2014 (Table 88). Age and growth studies of white and black crappie showed crowding around 6.0 to 7.0 in (Tables 89-90). The crappie population at A.J. Jolly Lake exhibited poor growth, therefore, the saugeye may have a positive effect of this population in a few years.

Channel catfish were sampled in October using tandem hoop nets at A.J Jolly Lake in 2014. Length frequency results for channel catfish showed a size distribution between 7.3 and 18.1 in (Table 91). The PSD and RSD_{24} for channel catfish were 18 and 0, respectively (Table 92). Relative weights of channel catfish were acceptable (W_r = 91) (Table 93). A.J. Jolly Lake was stocked with 875 (5.0 fish/acre; 6.0 – 8.0 in) channel catfish in April 2014.

Beaver Lake (158 acres)

A spring diurnal electrofishing sample was completed in May 2014 to assess the black bass population (Table 95). The CPUE for all sizes was 225.0 fish/hr, lower than the lake average of 240.3 fish/hr (Table 96). Largemouth bass sampling continues to show the bass removal conducted in the spring of 2011 was beneficial for sustaining increases to the catch rates of ≥ 15.0 in bass. The PSD and RSD_{15} for largemouth bass respectively, were 23 and 9, compared to the current lake average of 29 and 4 (Table 97). The population assessment score indicated a "Good" bass population (Table 98), which is the most common assessment rating for Beaver Lake largemouth bass. Fall diurnal electrofishing was conducted for age and growth, relative weights, and the index of age 0 year class strength of largemouth bass at Beaver Lake (Tables 99 - 102). Largemouth bass growth rates at Beaver Lake indicated bass are reaching harvestable size (12.0 in) between age 3 and age 4 (Table 100). Additionally, the age and growth study showed largemouth bass were reaching 15.0 in between age 5 and age 6. The relative weight index continues to reflect below-average weights for most length groups of largemouth bass at Beaver Lake in 2014 (W_r = 84), likewise, it is slightly lower than the lake average of 85 (Table 101). Fall sampling indicated below average numbers of age 0 bass, (94.7 fish/hr; average = 104.7 fish/hr) and the average size of largemouth bass (4.1 in; lake average = 4.1 in) in the fall of 2014 at Beaver Lake was equal to the lakes average of 4.1 in (Table 102).

An abbreviated (0.625 hr) spring diurnal electrofishing sample was completed in May 2014 to assess the panfish populations (Tables 103-108). Length frequency results showed the majority of bluegill were in the 4.0 in and 6.0-7.0 in range, with most redear sunfish around the 7.0 - 10.0 in size (Table 103). The PSD for bluegill was 50 compared to the lake average of 25. The RSD_8 was 0 which is below the lake average of 1. Redear sunfish PSD and RSD_9 were 78 and 42, respectively (Table 104). CPUE for all length groups of bluegill were equal or higher than last year, except for bluegill in the ≥ 8.0 in group (Table 105). The total CPUE of bluegill in 2014 (507.2 fish/hr) was more than double the lake average of 229.8 fish/hr. The population assessment for bluegill indicated a "Good" population rating, which is the same rating as 2013 (Table 106). The catch rate of redear sunfish ≥8.0 in was 12.8 fish/hr compared to 12.0 fish/hr in 2013 and lower than the lake average of 21.9 fish/hr (Table 107). Overall, catch rates for all sizes were similar to the catch rates of last year. The population assessment indicated an "Excellent" redear sunfish fishery (Table 108). Relative weights for bluegill and redear sunfish were collected during the fall diurnal electrofishing sample. Relative weight data for redear sunfish was very good for all length groups. Additionally, body condition of bluegill at Beaver Lake in 2014 was similar to previous years (Table 109).

Channel catfish were not sampled at Beaver Lake in 2014. Beaver Lake was stocked with 1,850 (11.7 fish/acre; 6.0 – 8.0 in) channel catfish in March 2014.

No applications of aquatic herbicides were completed at Beaver Lake in 2014. No liquid fertilizer applications have been made since 2001. Finally, no shad were observed at Beaver Lake in 2014.

Benjy Kinman Lake (88 acres)

The Boone Tract of the Kentucky River WMA, including Benjy Kinman Lake, was acquired by the Department on June 2, 2014. The largest waterbody (88-acre lake) was named after Benjy Kinman, who served as a fisheries biologist, Fisheries Division director, and Department deputy commissioner. The lake was dedicated and opened to the public on August 5, 2014. After the acquisition, initial assessments of the fish populations were made on three of the water bodies on the property, including Benjy Kinman Lake. (Tables 110-112). During this sampling on Benjy Kinman Lake, a large number of rough fish were observed. On July 7, 2014, a total of 428 bigmouth buffalo, smallmouth buffalo, common carp, yellow bullhead, longnose gar, river carpsucker, and drum were removed from Benjy Kinman Lake. The average weight of removed rough fish was 5.5 lbs. Therefore, it was estimated that 2,338 lbs of rough fish were removed from Benjy Kinman Lake in 2014.

Fall largemouth bass sampling was conducted for the first time for relative weights, age and growth, and index for year class strength at age 0 and age 1 in September 2014 (Tables 113-116). The growth rates of largemouth bass at Benjy Kinman Lake were a little slow, however, similar largemouth bass growth occurs at many of the panfish managed lakes in the district. Largemouth bass growth rates indicated bass are reaching 12.0 in between age 3 and age 4 and reaching 15.0 in between age 5 and age 6 (Table 114). Currently, there is a no harvest regulation on largemouth bass at Benjy Kinman Lake. This regulation will be reevaluated in a few years after additional data can be collected on the largemouth bass population at the lake. Relative weights indicated below average body condition for bass (W_r = 84) with larger fish exhibiting better condition compared to smaller length groups (Table 115). The better condition of larger fish is due to the gizzard shad forage base. CPUE for both age-0 and age-0 ≥5.0 in were collected for the first time at Benjy Kinman Lake (Table 116).

Diurnal electrofishing studies to evaluate the crappie population were completed for the first time at Benjy Kinman Lake in October 2014. A total of 58 crappie were collected in 2.5 hrs of electrofishing (23.2 fish/hr; Table 117). Age and growth studies of white crappie indicated they reach 9.0 in around age 5 (Table 118). Additionally, age and growth studies showed black crappie growth to be slow (Table 119). Since its public opening, Benjy Kinman Lake has had a good reputation for crappie fishing, making it a very popular fishery. Due to the concern of crappie overharvest in a small lake, a daily limit of 15 fish was recommended for Benjy Kinman Lake. However, a size limit was not recommended due to the slow growth indicated by the age and growth studies.

Boltz Lake (92 acres)

Spring nocturnal electrofishing was completed in April 2014 to assess the black bass population (Table 120). Results indicated largemouth bass catch rates (176.0 fish/hr) were lower than the lake's historical average (191.8 fish/hr; Table 121). The PSD for largemouth bass was 32 compared to the lake average of 44 (Table 122). The RSD_{15} was 14 compared to the lake average of 17. The population assessment indicated a "Fair" bass population, the same as eight out of the past ten years (Table 123). Fall diurnal electrofishing was conducted for relative weights and the index of age 0 year class strength of largemouth bass in September (Tables 124-126). Relative weights indicated acceptable body condition (W_r = 90), equal to the lake's average relative weight of 90 (Table 125). Fall sampling indicated above average numbers of age 0 bass, (38.7 fish/hr; average= 52.2 fish/hr) and the average size (4.0 in.) was smaller than the lake's average size of 4.2 in (Table 126). Boltz Lake was stocked with 2,424 (26.3 fish/acre; 5.6 in) largemouth bass in March 2014. Currently, Boltz Lake does not have a population of gizzard shad.

Spring diurnal electrofishing for bluegill was conducted in May 2014 (Tables 127). The overall catch rates for bluegill were lower in 2014 (320.0 fish/hr) than the lake average (498.2 fish/hr; Table 128). The PSD for bluegill was 53 compared to the lake average of 24 (Table 129). The RSD_8 was 0 compared to the lake average of 1. The population assessment for bluegill indicated a "Fair" population, a decrease from the last four years of "Good" ratings (Table 130). Age and growth studies on bluegill showed that bluegill reached 6.0 in between age 3 and 4 (Table 131). The relative weight index reflected below-average condition for bluegill at Boltz Lake in 2014, because relative weight (W_r = 83) was significantly below the lake average (W_r = 90) (Table 132).

Channel catfish were sampled in October using tandem hoop nets at Boltz Lake in 2014. Length frequency results for channel catfish showed a size distribution between 10.1 and 15.2 in (Table 133). The PSD and RSD_{24} for channel catfish were 0 and 0, respectively (Table 134). Relative weights indicated acceptable body condition for channel catfish (W_r = 93), which was slightly higher than the average for the lake (W_r = 92) (Table 135). Boltz Lake was stocked with 863 (9.4 fish/acre; 6.0 – 8.0 in) channel catfish in April 2014. Blue catfish were not sampled at Boltz Lake in 2014. Boltz Lake was not stocked with blue catfish in 2014.

Bullock Pen Lake (134 acres)

Spring nocturnal electrofishing was completed in April 2014 to assess the black bass population (Table 137). The catch rate for largemouth bass decreased for all length groups except 12.0-14.9 in and ≥ 20.0 in, which increased (Table 138). The total catch rate of largemouth bass in 2014 (189.5 fish/hr) was much higher than the lake's average catch rate of 137.2 fish/hr. The PSD for largemouth bass was 65, slightly lower than the lake average of 69 (Table 139). The RSD_{15} for largemouth bass was 32, lower than the lake average of 40. The population assessment for largemouth bass was rated "Good"; the same as the last rating in 2012 (Table 140). Fall electrofishing was conducted diurnally in September to determine the relative weights and YOY year class strength for largemouth bass (Tables 141-143). Relative weights indicated acceptable body condition for bass (W_r = 92), but were lower than the lake's average (W_r = 94). Larger fish exhibited better condition compared to smaller length groups, which is a function of the shad forage base (Table 142). CPUE for both age-0 and age-0 ≥5.0 in bass increased from last year (Table 143). Age-0 CPUE (16.0 fish/hr) was lower than the lake average (20.4 fish/hr);

therefore, largemouth bass were stocked into Bullock Pen Lake in 2014. Fingerling (4.4 in) largemouth bass were stocked in October at a rate of 15.0 fish/acre, totaling 2,014 fish.

Bullock Pen Lake was stocked with 12,377 (92.4 fish/acre; 2.0 in) saugeye in May 2014. This was the second year of stocking of saugeye into Bullock Pen Lake. The lake was sampled for saugeye on September 30, 2014 with a boat mounted electrofishing unit for a total of 2.0 hours (Table 144). Sampling yielded 31 saugeye (15.5 fish/hr) ranging in size from 6.5 in to 14.1 in and averaging 10.4 in.

Diurnal electrofishing studies were completed to evaluate the age and growth of the crappie population at Bullock Pen Lake in September 2014. The literature has shown saugeye predation can reduce crappie over-crowding, improving the overall growth of crappie. Therefore, this was an initial sample of the growth of crappie at Bullock Pen Lake. Age and growth studies of white and black crappie showed crowding around 7.0 to 8.0 in (Tables 145-146). The crappie population at Bullock Pen Lake exhibited poor growth, therefore, the saugeye may have a positive effect of this population in a few years.

Channel catfish were sampled in October using tandem hoop nets at Bullock Pen Lake in October 2014. Length frequency results for channel catfish showed a size distribution between 8.1 – 22.8 in (Table 147). The PSD and RSD_{24} for channel catfish were 12 and 0, respectively (Table 148). Relative weights of channel catfish were acceptable (W_r = 90) (Table 149). Bullock Pen Lake was stocked with 1,464 (10.9 fish/acre; 6 – 8 in) channel catfish in April 2014. Blue catfish were not sampling at Bullock Pen Lake in 2014. Bullock Pen Lake was stocked with 732 (5.5 fish/acre; 4.0 – 8.0 in) blue catfish in April 2014.

<u>Corinth Lake (96 acres)</u>

Spring nocturnal electrofishing was completed in May 2014 to assess the black bass population (Table 151). The catch rate for largemouth bass decreased for all length groups except < 8.0 in bass (Table 152). The total catch rate of largemouth bass in 2014 (189.5 fish/hr) was slower than the lake's average catch rate of 232.7 fish/hr. The PSD for largemouth bass was 17, lower than last years' value (23) but higher than the lake average of 21 (Table 153). The RSD_{15} for largemouth bass was 8, slightly higher than the lake average of 7. The population assessment for largemouth bass was rated "Fair"; a decline from last year's rating of "Good" (Table 154). Fall diurnal electrofishing for largemouth bass was conducted to determine year class strength and relative weight (Tables 155-157). Relative weights of largemouth bass continue to be below average, except for largemouth bass ≥ 15.0 in (Table 156). The overall relative weight in 2014 (W_r = 83) was almost equal to the average relative weight observed at Corinth Lake (W_r = 84). Largemouth bass mean length at age 0 and catch rates of age-0 and age-0 ≥ 5.0 in decreased from last year (Table 157). Additionally, age-0 CPUE (56.7 fish/hr) was lower than the lake average (98.2 fish/hr); however, largemouth bass were not stocked into Corinth Lake in 2014.

Spring diurnal electrofishing for bluegill and redear sunfish was completed in May 2014 to obtain length frequency, CPUE and population assessment data (Table 158). Bluegill PSD (43) was significantly higher than the lake average of 27 (Table 159). Bluegill catch rates (163.2 fish/hr) decreased in 2014 and were lower than the lake average (240.6 fish/hr) (Table 160). The population assessment indicated a "Good" population, an increase from the past ten years for "Fair" ratings (Table 161). The redear sunfish catch rate (44.8 fish/hr) decreased slightly in 2013 and was lower than the lake's average (64.7 fish/hr). Redear sunfish PSD was 96, much higher than the lake average of 55. Catch rate for redear sunfish ≥8.0 in increased from 29.6 fish/hr in 2013 to 33.6 fish/hr in 2014 (Table 162). The population assessment for redear sunfish continued to be rated "Good" (Table 163). Relative weights and age and growth for bluegill and redear sunfish were collected during the fall diurnal electrofishing survey. Age and growth studies on bluegill showed that they reached 6.0 in around age 3 (Table 164). Age and growth studies indicated good growth rates with redear sunfish reaching 8.0 in between age 3 and age 4 (Table 165). Relative weights indicated good body condition for bluegill and redear sunfish (Table 166).

Channel catfish were not sampled at Corinth Lake in 2014. Corinth Lake was stocked with 972 (10.1 fish/acre; 6.0 – 8.0 in) channel catfish in April 2014.

Elmer Davis Lake (149 acres)

Spring nocturnal electrofishing studies were conducted in May 2014 for PSD, length frequency and CPUE for largemouth bass (Table 167). Total catch rate in 2014 (239.5 fish/hr) was lower than the lake average of 309.1 fish/hr (Table 168). Largemouth bass PSD and RSD_{15} were 46 (average = 25) and 11 (average = 7), respectively in 2014 (Table 169). The population assessment indicated an "Good" bass population, the average rating for the last ten years at Elmer Davis Lake (Table 170).

Diurnal spring electrofishing for length frequency, CPUE, and population assessment was conducted for bluegill and redear sunfish in May 2014. The total bluegill catch rate in 2014 (168.8 fish/hr) was lower than the lake average 270.2 fish/hr (Table 173). The PSD value for bluegill was 22 and continues to be lower than the lake average of 33 (Table 172). Likewise, the RSD_8 (0) remains lower than the lake average of 3. The population assessment for bluegill was found to be "Fair", a decrease from the lake average rating of "Good" (Table 174). The total catch rate of redear sunfish in 2014 (231.2 fish/hr) remained four times higher than the lake average of 71.8 fish/hr (Table 175), the second highest recorded catch rate since redear were stocked in 1983. The PSD for redear sunfish was 28 compared to the lake average of 52. The RSD_9 was 3 compared to the lake average of 18 (Table 172). The redear sunfish population assessment indicated a "Good" population, which is equal to the lake average rating of "Good" (Table 176). Gizzard shad removal efforts were conducted in 1994 and 1997 with success. However, a source for gizzard 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. Gizzard shad enter Elmer Davis from weather events that cause water overflow from Lower Thomas Lake. This gizzard shad reestablishment has had a negative influence on the panfish populations at Elmer Davis Lake. In an effort to control the gizzard shad invasions, a gizzard shad removal was conducted at Upper and Lower Thomas in December 2014. A concentration of 0.2 ppm of 5% emulsified liquid rotenone was used to eradicate the gizzard shad on these lakes. The gizzard shad removal will be evaluated during 2015 spring sampling.

Channel catfish were not sampled at Elmer Davis in 2014. Elmer Davis Lake was stocked with 1,645 (11.0 fish/acre; 6.0 – 8.0 in) channel catfish in March 2014.

Kincaid Lake (183 acres)

No spring electrofishing was conducted on Kincaid Lake in 2014 to assess the black bass population. Diurnal fall electrofishing for relative weights and index of year class strength at age 0 was conducted in September (Tables 177-179). Relative weights of largemouth bass length groups were average for Kincaid Lake in 2014 (2014 W_r = 92; lake average = 92) (Table 178). Age-0 CPUE (24.7 fish/hr) was below the lake average (38.0 fish/hr) (Table 179); however, largemouth bass were not stocked into Kincaid Lake in 2014. Kincaid Lake has hosted a population of gizzard shad for decades.

Channel catfish were not sampled at Kincaid Lake in 2014. Kincaid Lake was stocked with 1,213 (6.6 fish/acre; 6.0 – 8.0 in) channel catfish in April 2014.

McNeely Lake (51 acres)

Spring nocturnal electrofishing studies were conducted in May 2014 for PSD, length frequency and CPUE for largemouth bass (Table 180). Total catch rate in 2014 (232.0 fish/hr) was higher than the lake average of 215.1 fish/hr (Table 181). Largemouth bass PSD and RSD_{15} were 18 (average = 35) and 10 (average = 11), respectively in 2014 (Table 182). The population assessment indicated a "Fair" bass population, lower than lake average of "Good" (Table 183).

Channel catfish were not sampled at McNeely Lake in 2014. McNeely Lake was stocked with 1,275 (25.0 fish/acre; 5.0 -12.0 in) channel catfish in July 2014.

One application of an aquatic herbicide (Aquathol Super K, Dipostassium salt of Endothall) was made to sections of the shoreline of McNeely Lake on April 11th to control curly-leafed pondweed (*Potomogeton crispus*). One application of an aquatic herbicide (Reward, Diquat Dibromide) was made to sections of the shoreline of McNeely Lake on July 22nd to control areas of American waterwillow.

Lincoln Homestead Park Lake

Length frequency, relative abundance, and CPUE of fish collected by electrofishing at Lincoln Homestead Park Lake in May 2014 are shown in Table 184. Studies show largemouth bass from 3.7 to 16.8 inches in fair numbers. Bluegill up to 8.2 in were collected as well as redear sunfish up to 9.2 in.

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

Water body	Species	Date	Time (24hr)	Gear	Weather	Water temp. F	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Herrington	crappie	4/8	1045	shock	party-mostly cloudy/ light breeze	55	741.9	38 L	good	good sample
		4/9	1000	shock	clear/ sunny/ cool breeze on water	57	741.0	8 M	murky	fair sample
		4/10	1030	shock	windy		739.9	13 U	low numbers	fair sample
Herrington	LMB/crappie	4/21	1000	shock	high clouds/ pleasant	65-67	735.2	25 U	good	good sample
	LMB/crappie	4/22	1030	shock	partly cloudy/ breezy	63	735.2	25 M	good	good sample
	LMB	4/23	1030	shock	sunny/ clear/ cool	60	735.3	55 L	good	good sample
Bullock Pen	LMB	4/21	2100	shock	cloudy/ very light rain	63	normal	20	good	good sample
Boltz	LMB	4/22	2045	shock	clear/ cool	62	normal	48	good	good sample
Taylorsville	LMB	4/29	1000	shock			552.6		good B/A	good samples
		4/30	1100	shock			554.5		good B/V	V = Van Buren Area; B = Big Beech and A = Ashes Creeks
Guist Creek	LMB	4/30	2040	shock	post-frontal cool	65-67	high	23	fair	fair sample-lake high, hard to shock bank due to overhanging trees
Beaver	LMB/BG/RESF	5/5		shock	sunny / party sunny/ breezy	63-67	normal	48	good	good sample
McNeely	LMB	5/6	1000	shock	clear / sunny	70	normal		good	good sample
Corinth	LMB	5/6	2045	shock	clear/ pleasant	70	normal	84	good	good samples
Elmer Davis	LMB/BG/RESF	5/7	1000	shock	partly sunny/ high clouds/ breezy	67-70	normal	48	good	good sample
Boltz	BG	5/12	1145	shock			normal		good	good sample
Corinth	BG/RESF	5/13	1000	shock			normal		good	good sample
Lincoln Homestead	LMB/BG/RESF	5/14	1100	shock	cloudy/ prefrontal/ light breeze/ warm	77	normal	14	good	good sample
Boltz	LMB/BG	9/8	1045	shock	sunny/80s/low humidity	78	full/normal	24	good	good sample, many lmb with sores (bacterial infection)
Benjy Kinman	LMB	9/9	2000	shock	clear/cool	81	full/normal	42	good	first fall sample
Guist Creek	LMB	9/10	1030	shock	cloudy/windy/ prefrontal conditions	78	3' low	26	good	good sample/fish jumping
Corinth	LMB/BG/RESF	9/11	1030	shock	overcast/drizzle/light rain/cold front	77	full/normal	78	good	good sample, excessive vegetation in some areas
Taylorsville	LMB	9/15	1030	shock	mostly sunny	76 A	547.2	34	good	good sample
		9/16	1000	shock	overcast / light rain	73 V	547.2	24	good	V = Van Buren Area; B = Big Beech and A = Ashes Creeks
		9/17	1015	shock	sunny / cool	76 B	547.1	34	good	
Kincaid	LMB	9/18	1030	shock	mostly sunny/ breezy/ cool	70	normal	34	good	good sample
Bullock Pen	LMB	9/19	1000	shock	sunny / cool / light breeze	70	normal	36	good	good sample
Herrington	LMB	9/22	1030	shock	sunny / cool / breeze	73	737.7	72	good	good samples
		9/23	1000	shock	sunny / NW light breeze	74	737.6	72		9/22 – lower section; 9/23 – mid section; 9/24 – upper section
		9/24	1015	shock	sunny / cool	73	737.5	31		
Beaver	LMB/BG/RESF	9/25	1000	shock	sunny / clear / cool		normal		good	good sample
Guist Creek	crappie / saugeye	9/29	1000	shock	sunny / clear	75	normal		good	good sample
Bullock Pen	crappie / saugeye	9/30	1000	shock	Mostly sunny / light breeze	72	normal	46	good	good sample
Benjy Kinman	crappie	10/3	1300	shock	cloudy / breezy	68	normal	24	good	good sample
		10/7	1000	shock	cloudy / breezy					
AJ Jolly	crappie / saugeye	10/8	1000	shock	clear / sunny / breezy / cool	62	normal	24	good	good sample

Table 1 (cont).

Water body	Species	Date	Time (24hr)	Gear	Weather	Water temp. F	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Boltz	channel catfish	10/9	1300	hoop net	cloudy	61	normal	36	good	good sample
Bullock Pen	channel catfish	10/9	1000	hoop net	cloudy	62	normal	30	good	good sample
Guist Creek	Morones / channel catfish	10/14 10/15 10/16	1000 1000 1000	gillnet / hoop net	rain – major front cloudy cloudy	63 63 63	2-3 feet low	28	good	good sample
Herrington	Morones	10/21 10/22 10/23 10/24	1000 1000 1000 1000	gillnet	cloudy partly sunny mostly sunny mostly sunny	64 63 63 63	731.7 730.7 729.7 728.8		good	good sample
Taylorsville	Morones/ crappie	10/28 10/29 10/30 10/31	1000 1000 1000 1000	gillnet trapnet	cloudy mostly sunny mostly sunny cloudy	63 62 62 60	546.6 546.6 546.6 546.6		good	good sample

Table 2. Length distribution and CPUE (fish/hr) of largemouth bass collected in 7.5 hours of 30-minute electrofishing runs for black bass in Taylorsville Lake in April 2014; 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
Van Buren																				
Largemouth bass		5	7	7	7	4	5	18	16	24	32	28	16	8	8	1			186	74.4 (11.5)
Ashes Creek																				
Largemouth bass	3	2	7	28	25	3	27	84	45	43	30	28	25	19	2	6	3	2	382	152.8 (28.8)
Big Beech Creek																				
Largemouth bass	1	5	6	10	15	13	12	44	33	29	28	21	35	16	12	3	2	2	287	114.8 (12.6)
Natural	4	12	20	45	47	20	44	145	94	96	90	77	76	43	22	10	5	4	854	113.9 (13.4)
2010 stocked								1											1	2.0 (0.0)
Total																				
Largemouth bass	4	12	20	45	47	20	44	146	94	96	90	77	76	43	22	10	5	4	855	114.0 (13.4)

Dataset = cfdpstvl.d14

Table 3. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Taylorsville Lake from 1984-2014; numbers in parentheses are standard errors.

	Length group					
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	≥20.0 in	Total
1984	50.4 (1.8)	88.0 (6.0)	6.0 (2.2)	0.0 (0.0)	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)	0.0 (0.0)	122.2 (14.4)
1986	1.8 (0.2)	11.2 (1.4)	21.0 (1.8)	24.4 (3.0)	0.0 (0.0)	59.0 (5.4)
1987	3.6 (0.6)	5.4 (0.6)	9.2 (1.0)	29.2 (2.6)	0.3 (0.1)	48.0 (3.8)
1988	3.2 (0.8)	8.4 (1.2)	6.0 (1.0)	19.6 (3.0)	0.2 (0.1)	37.2 (4.8)
1989	58.6 (15.6)	33.4 (5.8)	22.2 (3.4)	13.8 (3.0)	0.0 (0.0)	128.2 (24.0)
1990	57.0 (8.4)	54.2 (6.8)	22.8 (2.6)	21.8 (3.4)	0.5 (0.2)	154.4 (15.0)
1991	26.0 (2.8)	37.2 (2.8)	22.8 (2.1)	11.8 (1.4)	0.1 (0.1)	98.6 (5.2)
1992	58.5 (5.5)	42.6 (2.5)	36.9 (2.9)	17.6 (1.6)	0.1 (0.1)	155.6 (7.3)
1993	21.0 (3.6)	53.2 (4.8)	36.4 (13.8)	14.8 (1.9)	0.1 (0.1)	128.3 (8.6)
1994	25.1 (3.0)	39.9 (3.6)	40.7 (5.1)	15.0 (1.5)	0.1 (0.1)	122.3 (9.8)
1995	28.2 (3.5)	69.6 (3.9)	20.3 (1.3)	11.6 (1.4)	0.0 (0.0)	129.6 (6.8)
1996	16.2 (2.4)	41.0 (3.9)	49.8 (3.2)	16.0 (3.2)	0.1 (0.1)	122.6 (9.8)
1997	33.2 (6.3)	43.4 (4.0)	46.4 (1.8)	15.2 (1.8)	0.1 (0.1)	138.3 (7.7)
1998	20.0 (3.0)	26.4 (2.7)	30.5 (2.6)	21.7 (2.6)	0.4 (0.2)	98.7 (7.2)
1999	19.1 (2.8)	38.7 (3.2)	20.9 (3.0)	22.7 (2.6)	0.4 (0.39)	101.3 (7.1)
2000	17.7 (3.3)	33.1 (3.9)	16.1 (2.6)	10.5 (1.5)	0.5 (0.2)	77.5 (6.1)
2001	32.4 (4.1)	44.1 (3.7)	27.6 (3.6)	15.5 (2.7)	0.3 (0.2)	119.6 (8.3)
2002	33.7 (4.4)	22.3 (2.2)	12.8 (2.2)	9.6 (1.8)	0.5 (0.2)	78.4 (7.0)
2003	19.5 (2.9)	58.5 (4.8)	24.9 (2.2)	15.2 (2.1)	0.8 (0.4)	118.1 (9.2)
2004	14.1 (2.5)	26.7 (2.7)	42.9 (3.4)	13.2 (1.6)	0.3 (0.3)	96.9 (5.2)
2005	35.5 (5.9)	35.7 (4.9)	40.3 (4.3)	34.3 (3.4)	0.5 (0.4)	145.7 (12.7)
2006	20.3 (4.0)	39.6 (3.7)	20.3 (3.7)	16.5 (2.7)	0.3 (0.2)	96.7 (11.0)
2007	13.5 (2.5)	35.5 (4.1)	33.7 (3.6)	14.4 (2.4)	0.3 (0.2)	97.1 (9.1)
2008	13.9 (2.9)	30.1 (2.8)	33.6 (3.1)	22.5 (3.2)	0.0 (0.0)	100.1 (8.9)
2009	15.9 (3.5)	32.9 (3.6)	22.3 (2.5)	13.6 (2.1)	0.1 (0.1)	84.7 (6.9)
2010	45.7 (8.3)	36.3 (2.7)	49.7 (5.1)	16.4 (1.8)	0.3 (0.2)	148.1 (12.4)
2011	Sampling was not conducted due to extreme weather and lake conditions.					
2012	27.9 (4.0)	59.1 (6.0)	36.9 (3.0)	14.5 (1.2)	0.3 (0.2)	138.4 (8.6)
2013	19.6 (2.1)	49.9 (4.6)	42.0 (4.5)	22.1 (2.9)	0.4 (0.2)	133.6 (10.5)
2014	17.1 (2.8)	40.5 (7.6)	35.1 (4.1)	21.3 (2.3)	0.5 (0.3)	114.0 (13.4)

Dataset = cfdpstvl.d14– .d84

Table 4. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in each area of Taylorsville Lake in 2014; confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD	RSD_{15}
Big Beech	Largemouth bass	250	59 (± 6)	28 (± 6)
Ashes Creek	Largemouth bass	317	50 (± 5)	18 (± 4)
Van Buren	Largemouth bass	160	73 (± 7)	20 (± 6)
Total	Largemouth bass	727	58 (± 4)	22 (± 3)

Dataset = cfdpstvl.d14

Table 5. Population assessment for largemouth bass collected during spring electrofishing at Taylorsville Lake from 2000-2014 (scoring based on statewide assessments).

Year		Mean length age-3 at capture	CPUE age-1	CPUE 12.0-14.9 in	CPUE >15.0 in	CPUE >20.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	12.9	23.6	35.1	21.3	0.5				
	Score	4	2	4	4	2			16	Good
2013	Value	13.1*	17.2	42.0	22.1	0.4				
	Score	4	1	4	4	2			15	Good
2012	Value	13.1*	28.1	39.9	14.5	0.3				
	Score	4	2	4	3	2			15	Good
2011	Value	Sampling was not conducted due to extreme weather and lake conditions.								
	Score									
2010	Value	13.1	49.5	49.7	16.4	0.3	0.574	43.7		
	Score	4	3	4	3	2			16	Good
2009	Value	12.9*	14.6	22.3	13.6	0.1				
	Score	4	1	2	3	1			11	Fair
2008	Value	12.9*	12.2	33.6	22.5	0.0				
	Score	4	1	3	4	0			12	Good
2007	Value	12.9*	10.3	33.7	14.4	0.3				
	Score	4	1	3	3	2			13	Good
2006	Value	12.9	17.5	20.3	16.5	0.3	0.824	56.1		
	Score	4	1	2	3	2			12	Good
2005	Value	12.6*	38.3	40.3	34.3	0.5				
	Score	4	3	4	4	2			17	Excellent
2004	Value	12.6*	14.9	42.9	13.2	0.3				
	Score	4	1	4	3	2			14	Good
2003	Value	12.6*	21.2	24.9	15.2	0.8				
	Score	4	2	2	3	2			13	Good
2002	Value	12.6	34.8	12.8	9.6	0.5	0.495	39.0		
	Score	4	2	1	2	2			11	Fair
2001	Value	10.8	20.5	27.6	15.5	0.3	0.539	41.7		
	Score	4	2	3	3	2			11	Fair
2000	Value	10.1	14.1	16.1	10.5	0.5	0.455	36.6		
	Score	4	1	2	2	2			8	Fair

* Age data not collected

^Calculations based on age data gathered in previous years

-Instantaneous and annual mortality not calculated in years where age and growth data are not collected

Table 6. Length distribution and CPUE (fish/hr) of largemouth bass collected in 4.5 hours of 15-minute electrofishing runs for black bass in Taylorsville Lake in September 2014; numbers in parentheses are standard errors.

	Inch class																		
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE
Van Buren																			
Largemouth bass		2	6	20	6	3	14	16	7	14	1	4	1		1			94	53.7 (10.3)
Ashes Creek																			
Largemouth bass		3	6		2	19	24	17	3	6	9	6	3	3	2			103	68.7 (11.2)
Big Beech Creek																			
Largemouth bass	5	17	26	6	10	26	16	6	8	10	8	3		1		2	2	146	97.3 (14.8)
Total																			
Largemouth bass	5	22	38	26	18	48	54	39	18	30	18	13	3	4	3	2	2	343	72.3 (7.8)

Dataset = cfdwrtvl.d14

Table 7. Mean back calculated lengths (in) at each annulus for otoliths from largemouth bass collected in the fall from Taylorsville Lake in 2014.

Year	No.	Age 1	2	3	4	5	6	7	8
2013	35	6.5							
2012	22	7.3	11.1						
2011	15	7.1	10.8	12.9					
2010	8	7.7	11.3	13.2	14.7				
2009	6	7.0	11.1	13.2	14.8	15.8			
2008	2	9.6	13.4	15.5	16.3	17.1	17.5		
2007	1	7.5	12.8	14.6	16.0	16.6	16.9	17.2	
2006	1	9.6	12.1	14.1	15.7	17.2	18.0	18.7	19.2
Mean	90	7.0	11.2	13.3	15.0	16.3	17.5	17.9	19.2
Smallest		3.6	9.0	11.1	12.0	12.4	16.2	17.2	19.2
Largest		10.5	14.3	15.6	17.1	18.3	18.9	18.7	19.2
Std Error		0.2	0.2	0.2	0.3	0.6	0.6	0.7	
95% ConLo		6.7	10.9	12.9	14.3	15.1	16.3	16.5	
95% ConHi		7.3	11.5	13.7	15.7	17.4	18.6	19.4	

Intercept value = 0.00
Dataset = cfdagtvl.d14

Table 8. Numbers of fish and the relative weight (Wr) for each length group of largemouth bass collected at Taylorsville Lake on 15, 16, and 17 September 2014; standard errors are in parentheses.

Species	Area	Length group 8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Van Buren	40	92 (1)	19	92 (2)	1	105 (0)	60	92 (1)
	Ashes	62	91 (1)	21	88 (3)	8	93 (5)	91	90 (1)
	Big Beech	56	88 (1)	21	93 (2)	5	99 (3)	82	90 (1)
	Total	158	90 (1)	61	91 (1)	14	96 (3)	233	91 (1)

Dataset = cfdwrtvl.d14

Table 9. Indices of year class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall in electrofishing samples at Taylorsville Lake. Age 1 CPUE and standard error could not be calculated in 2010 due to prolonged flood conditions in spring.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1 (Natural)	
Year class	Area	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	10.3	2.0
2007	Total	4.4	0.1	22.4	3.2	6.7	1.8	12.2	2.6
2008	Total	5.5	0.1	20.9	3.9	16.7	3.5	14.6	3.1
2009	Total	4.9	0.1	90.2	14.5	39.8	6.5	49.5	8.7
2010	Total	5.2	0.1	45.2	4.9	27.7	3.3	*	*
2011	Total	4.8	0.1	40.4	2.8	17.8	1.6	27.5	3.8
2012	Total	5.1	0.1	54.4	5.3	27.8	3.3	17.2	2.2
2013	Total	4.9	0.1	50.0	6.0	23.8	4.3	23.6	3.7
2014	Total	5.5	0.1	21.1	4.3	15.4	3.0		

Dataset = cfdwrtvl.d14

Table 10. Length distribution and CPUE (fish/nn) of each species of crappie collected at Taylorsville Lake in 48 net-nights during October 2014.

	Inch class												
Species	2	3	4	5	6	7	8	9	10	11	Total	CPUE	Std. error
White crappie													
natural		6	9	5	1	24	34	31	23	8	141	2.9	0.5
2013					1	5	4	1			11	0.2	0.1
2012								1		4	5	0.1	0.1
Total		6	9	5	2	29	38	33	23	12	157	3.3	0.6
Black crappie	1	26	12	4	35	150	49	43	22	2	344	7.2	1.6

Dataset = cfdtntvl.d14

Table 11. PSD and RSD_{10} values calculated for crappie collected at Taylorsville Lake in 48 net-nights during October 2014.

Species	No. ≥5.0 in	PSD	RSD_{10}
White crappie	142	75 (± 8)	25 (± 6)
Black crappie	305	38 (± 5)	8 (± 3)

Dataset = cfdtntvl.d14

Table 12. Mean back calculated lengths (in) at each annulus for otoliths from white crappie trap netted and gill netted at Taylorsville Lake in 2014.

		Age		
Year class	No.	1	2	3
2014	1	4.7		
2013	123	5.3		
2012	12	5.4	9.5	
2011	3	4.8	7.8	9.9
Mean	139	5.3	9.2	9.9
Smallest		1.7	5.8	8.7
Largest		7.4	10.8	10.7
Std Error		0.1	0.3	0.6
95% ConLo		5.1	8.6	8.7
95% ConHi		5.4	9.8	11.1

Intercept value = 0.00
Dataset = cfdagtvl.d14

Table 13. Age frequency and CPUE (fish/nn) per inch class of white crappie trap netted for 48 net-nights at Taylorsville Lake in 2014.

	Inch class												Std
Age	3	4	5	6	7	8	9	10	11	Total	%	CPUE	err
0+	6	9	4	1						20	13	0.4	0.1
1+			1	1	29	38	30	22	1	122	78	2.5	0.5
2+							3		9	12	8	0.3	0.1
3+								1	2	3	2	0.1	0.0
Total	6	9	5	2	29	38	33	23	12	157	100	3.3	0.6
(%)	4	6	3	1	18	24	21	15	8	100			

Dataset = cfdtntvl.d14 and cfdagtvl.d14
CPUE of ≥8.0 in white crappie = 2.2 ± 0.4 fish/nn; ≥10.0 in = 0.7 ± 0.2 fish/nn

Table 14. Population assessment for white crappie collected during fall trap netting at Taylorsville Lake from 2000-2014 (scoring based on statewide assessment).

Year		CPUE age-1 and older	Mean length age-2+ at capture	CPUE ≥ 8.0 in	CPUE age-1+	CPUE age-0+	Total score	Assessment rating
2014	Value	2.9	10.9	2.2	2.5	0.4		
	Score	1	4	2	1	1	9	Fair
2013	Value	1.7	10.2	1.4	1.3	6.7		
	Score	1	4	1	1	1	8	Fair
2012	Value	0.7	10.1	0.6	0.5	1.1		
	Score	1	4	1	1	1	8	Fair
2011	Value	0.7	11.0	0.6	0.6	1.0		
	Score	1	4	1	1	1	8	Fair
2010	Value	0.4	9.5	0.3	0.4	1.0		
	Score	1	3	1	1	1	7	Poor
2009	Value	0.02	9.6*	0.02	0.02	0.2		
	Score	1	4	1	1	1	8	Fair
2008	Value	0.1	9.6*	0.1	0.1	0.1		
	Score	1	4	1	1	1	8	Fair
2007	Value	0.3	9.6*	0.3	0.0	0.04		
	Score	1	4	1	0	1	7	Poor
2006	Value	0.9	9.6	0.9	0.0	0.04		
	Score	1	4	1	0	1	7	Poor
2005	Value	3.2	9.6	1.5	2.7	0.0		
	Score	1	4	1	1	0	7	Poor
2004	Value	1.7	10.3	1.0	1.4	1.4		
	Score	1	4	1	1	1	8	Fair
2003	Value	1.8	10.1*	1.7	1.	0.5		
	Score	1	4	1	1	1	8	Fair
2002	Value	1.6	10.1	1.5	0.6	0.7		
	Score	1	4	1	1	1	8	Fair
2001	Value	4.5	9.4	4.3	2.6	0.1		
	Score	1	3	2	1	1	8	Fair
2000	Value	6.5	8.6	6.3	0.5	0.5		
	Score	2	2	3	1	1	9	Fair

* Age data not collected

Table 15. Mean back calculated lengths (in) at each annulus for otoliths from black crappie trap netted at Taylorsville Lake in 2014.

		Age			
Year class	No.	1	2	3	4
2013	89	4.5			
2012	4	4.9	8.2		
2011	28	4.5	7.6	9.1	
2010	1	4.5	7.5	8.0	8.6
Mean	122	4.5	7.7	9.0	8.6
Smallest		3.1	6.0	7.3	8.6
Largest		7.0	8.7	10.2	8.6
Std Error		0.1	0.1	0.1	
95% ConLo		4.4	7.5	8.8	
95% ConHi		4.6	7.9	9.3	

Intercept value = 0.00
Dataset = cfdagtvl.d14

Table 16. Age frequency and CPUE (fish/nn) per inch class of black crappie trap netted for 48 net-nights at Taylorsville Lake in 2014.

	Inch class													Std
Age	2	3	4	5	6	7	8	9	10	11	Total	%	CPUE	Err
0+	1	26	12	2							41	12	0.9	0.2
1+				2	35	146	47	12	7	1	249	72	5.2	1.4
2+								8			8	2	0.2	0.0
3+						4	2	20	15	1	44	13	0.9	0.2
4+								2			2	1	0.0	0.0
Total	1	26	12	4	35	150	49	43	22	2	344	100	7.2	1.61
%	0	8	3	1	10	44	14	12	6	1	100			

Dataset = cfdtntvl.d14 and cfdagtvl.d14
CPUE of ≥8.0 in black crappie = 2.4 ± 0.4 fish/nn; ≥10.0 in = 0.5 ± 0.1 fish/nn

Table 17. Population assessment for black crappie collected during fall trap netting at Taylorsville Lake from 2000-2014 (scoring based on statewide assessment).

Year		CPUE age-1 and older	Mean length age-2 at capture	CPUE ≥8.0 in	CPUE age-1+	CPUE age-0+	Total score	Assessment rating
2014	Value	6.3	9.3	2.4	5.2	0.9		
	Score	2	3	2	2	1	10	Fair
2013	Value	4.5	9.1	4.1	0.9	2.2		
	Score	1	3	2	1	1	8	Fair
2012	Value	9.8	9.6	1.7	9.3	0..9		
	Score	2	4	1	3	1	11	Fair
2011	Value	0.8	9.8	0.5	0.5	2.5		
	Score	1	4	1	1	1	8	Fair
2010	Value	3.2	8.4	1.3	3.1	0.5		
	Score	1	1	1	2	1	6	Poor
2009	Value	0.2	9.8*	0.1	0.2	0.4		
	Score	1	4	1	1	1	8	Fair
2008	Value	0.6	9.8	0.5	0.2	0.4		
	Score	1	4	1	1	1	8	Fair
2007	Value	1.7	9.2	1.0	1.4	0.02		
	Score	1	3	1	1	1	7	Poor
2006	Value	3.3	9.5	3.3	0.1	0.5		
	Score	1	3	2	1	1	8	Fair
2005	Value	5.8	9.0	4.5	1.3	0.04		
	Score	2	2	2	1	1	8	Fair
2004	Value	12.0	9.3	1.2	11.7	1.2		
	Score	2	3	1	3	1	10	Fair
2003	Value	1.3	10.3	1.1	1.0	1.3		
	Score	1	4	1	1	1	8	Fair
2002	Value	2.2	10.2	1.6	1.8	0.1		
	Score	1	4	1	1	1	8	Fair
2001	Value	1.8	10.1	1.5	1.5	0.1		
	Score	1	4	1	1	1	8	Fair
2000	Value	0.8	9.6	0.7	0.5	0.2		
	Score	1	4	1	1	1	8	Fair

* Age data not collected

Table 18. Number of fish and the relative weight (Wr) for each length group of crappie at Taylorsville Lake in October 2014.

Species	Area	Length group 5.0–7.9 in		8.0–9.9 in		≥10.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
White crappie	Total	36	86 (2)	71	96 (2)	35	100 (1)	142	94 (1)
Black crappie	Total	60	89 (1)	44	90 (1)	22	93 (2)	126	90 (1)

Dataset = cfdtntvl.d14

Table 19. Length distribution and CPUE (fish/nn) of white bass and hybrid striped bass collected during 8 net-nights of gill netting in Taylorsville Lake in October 2014: 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	Total	CPUE
White bass	3	38	2		14	18	4												79	9.9 (2.7)
Hybrid striped bass	1	2	1		3	2	8	21	28	5	3	6	4	2	3			1	90	11.3 (4.0)

Dataset = cfdgntvl.d14

Table 20. Mean back calculated lengths (in) at each annulus for otoliths from hybrid striped bass gill netted at Taylorsville Lake in 2014.

		Age				
Year class	No.	1	2	3	4	5
2013	63	10.3				
2012	13	8.8	15.2			
2011	5	7.9	13.9	18.1		
2009	1	7.6	14.2	19.2	21.5	23.1
Mean	82	9.9	14.8	18.3	21.5	23.1
Smallest		6.3	13.0	16.5	21.5	23.1
Largest		11.9	16.7	19.2	21.5	23.1
Std Error		0.2	0.2	0.4		
95% ConLo		9.5	14.4	17.5		
95% ConHi		10.2	15.3	19.1		

Intercept Value = 0.00
Dataset = cfdagtvl.d14

Table 21. Age frequency and CPUE (fish/nn) per inch class of hybrid striped bass gill netted for 8 net-nights at Taylorsville Lake in 2014.

	Inch class																				Std
Age	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	%	CPUE	Err
0+	2	1																3	3	0.4	0.2
1+				3	2	8	21	28	5									67	75	8.4	2.3
2+										3	6	3	1					13	15	1.6	1.2
3+												1	1	3				5	6	0.6	0.5
5+																	1	1	1	0.1	0.1
Total	2	1		3	2	8	21	28	5	3	6	4	2	3			1	89	100	11.3	4.0
%	2	1		3	2	9	24	31	6	3	7	4	2	3			1	100			

Dataset = cfdagtvl.d14 and cfdgntvl.d14

Table 22. Number of fish and the relative weight (Wr) for each length group of hybrid striped bass collected at Taylorsville Lake in October 2014.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Hybrid striped bass	Total	6	89 (2)	57	82 (1)	24	84 (2)	87	83 (1)

Dataset = cfdgntvl.d14

Table 23. Population assessment for hybrid striped bass collected during fall gill netting at Taylorsville Lake from 2000-2014 (scoring based on statewide assessment).

Year		CPUE (excluding age 0)	Mean length age-2+ at capture	CPUE ≥15.0 in	CPUE age 1+	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	10.9	17.5	3.0	8.4				
	Score	3	3	2	3			11	Good
2013	Value	3.5	18.3	1.5	2.0	-	-		
	Score	1	4	1	1			7	Fair
2012	Value	2.2	17.0	0.8	1.3	-	-		
	Score	1	3	1	1			6	Fair
2011	Value	11.5	16.4	3.1	7.9	-	-		
	Score	3	2	2	3			10	Good
2010	Value	3.8	16.7	1.0	2.9	-	-		
	Score	1	2	1	2			6	Fair
2009	Value	11.4	15.7	0.9	10.4	1.104	66.9%		
	Score	3	1	1	4			9	Fair
2008	Value	0.6	17.1	0.4	0.2	0.370	30.9%		
	Score	1	3	1	1			6	Fair
2007	Value	16.8	16.2	10.8	6.0	0.798	55.0%		
	Score	3	2	4	3			12	Good
2006	Value	8.5	16.8	0.8	8.0	1.262	71.7%		
	Score	2	2	1	3			8	Fair
2005	Value	1.1	15.2	0.4	0.6	0.437	35.4%		
	Score	1	1	1	1			4	Poor
2004	Value	4.6	16.0	1.0	3.6	0.964	61.9%		
	Score	1	2	1	2			6	Fair
2003	Value	9.4	16.6	6.6	2.6	1.522	78.2%		
	Score	2	2	3	2			9	Fair
2002	Value	22.8	15.8	10.1	12.4	0.658	48.2%		
	Score	4	1	4	4			13	Good
2001	Value	13.3	16.0	2.0	11.1	1.437	76.2%		
	Score	3	2	1	4			10	Good
2000	Value	9.9	15.9	5.9	3.1	1.263	71.1%		
	Score	2	1	3	2			8	Fair

Table 24. Mean back calculated lengths (in) at each annulus for otoliths from white bass gill netted at Taylorsville Lake in 2014.

		Age
Year class	No.	1
2013	38	8.2
Mean	38	8.2
Smallest		5.4
Largest		9.8
Std Error		0.1
95% ConLo		7.9
95% ConHi		8.5

Intercept Value = 0.00
Dataset = cfdagtvl.d14

Table 25. Age frequency and CPUE (fish/nn) per inch class of white bass gill netted for 8 net-nights at Taylorsville Lake in 2014.

	Inch class										Std
Age	6	7	8	9	10	11	12	Total	%	CPUE	Err
0+	3	38	2					43	54	5.4	1.1
1+					14	18	4	36	46	4.5	1.9
Total	3	38	2		14	18	4	79	100	9.9	2.7
%	4	48	3		18	23	5	100			

Dataset = cfdagtvl.d14 and cfdgntvl.d14

Table 26. Number of fish and the relative weight (Wr) for each length group of white bass collected at Taylorsville Lake in October 2014.

		Length group							
Species	Area	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	43	96 (1)	32	94 (2)	4	99 (2)	79	96 (1)

Dataset = cfdgntvl.d14

Table 27. Population assessment for white bass collected during fall gill netting at Taylorsville Lake from 2000-2014 (scoring based on statewide assessment).

Year		CPUE (excluding age 0)	Mean length age-2+ at capture	CPUE ≥12.0 in	CPUE age 1+	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	4.5	11.3*	0.5	4.5				
	Score	1	2	1	2			6	Fair
2013	Value	1.4	11.3*	0.0	1.4	-	-		
	Score	1	2	0	1			4	Poor
2012	Value	3.3	11.3	0.5	2.2	1.037	64.5		
	Score	1	2	1	1			5	Poor
2011	Value	18.4	11.9	5.0	8.9	1.506	77.8		
	Score	3	2	3	3			11	Good
2010	Value	11.0	12.1	1.8	7.8	1.920	85.3		
	Score	3	3	1	3			10	Good
2009	Value	1.3	NS	0.1	1.1	1.030	64.3		
	Score	1	0	1	1			3	Poor
2008	Value	2.0	12.1	0.3	1.6	1.157	68.6		
	Score	1	3	1	1			6	Fair
2007	Value	6.4	11.7	0.8	4.6	1.102	66.8		
	Score	2	2	1	2			7	Fair
2006	Value	4.3	11.7	0.8	3.0	1.040	64.6		
	Score	1	2	1	2			6	Fair
2005	Value	5.0	11.6	1.2	1.8	1.054	65.2		
	Score	2	2	1	1			6	Fair
2004	Value	8.6	11.4	0.1	7.3	2.030	86.9		
	Score	2	2	1	3			8	Fair
2003	Value	6.9	11.7	2.0	3.5	0.944	61.1		
	Score	2	2	1	2			7	Fair
2002	Value	5.9	11.8	1.3	2.6	1.113	67.1		
	Score	2	2	1	2			7	Fair
2001	Value	23.5	12.1	6.8	14.9	0.971	62.1		
	Score	4	3	3	4			14	Excellent
2000	Value	20.8	12.2	8.1	7.4	0.766	53.5		
	Score	4	3	3	3			13	Good

* Age data not collected because no fish were captured at this age

Table 28. Dissolved oxygen and temperatures collected from Big Beech Creek, near Settler's Marina, at Taylorsville Lake during 2014.

	May 1		May 20		June 12		July 16		August 14		September 17		October 30		November 25	
Depth	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp
Surface	11.02	64.8	14.87	72.1	9.80	79.0	8.11	81.7	9.21	82.2	7.67	76.1	3.63	62.9	6.90	50.9
2	10.94	64.6	15.64	71.2	9.86	78.8	8.25	81.7	9.28	82.1	7.63	75.8	3.59	62.7	6.90	50.0
4	10.49	64.4	14.87	70.4	10.14	78.5	8.25	81.8	9.06	80.1	7.16	75.2	3.50	62.7	6.91	50.0
6	10.35	64.0	13.71	70.2	8.03	77.0	8.22	81.6	8.01	79.6	6.76	74.8	3.41	62.6	6.87	50.0
8	10.30	63.9	10.82	69.3	7.22	76.7	7.91	81.4	7.14	79.4	6.15	74.6	3.36	62.6	6.81	49.9
10	10.21	63.8	9.44	68.6	6.86	76.6	7.02	80.7	6.78	79.2	6.03	74.6	3.35	62.6	6.75	49.9
12	10.10	63.8	8.94	68.3	7.13	76.4	6.25	80.4	5.62	79.1	5.97	74.6	3.35	62.6	6.72	49.9
14	10.07	63.8	7.07	67.7	4.41	76.0	3.58	79.9	5.03	79.1	5.95	74.5	3.35	62.6	6.72	49.9
16	10.06	63.8	6.52	66.8	2.23	75.0	0.35	78.2	1.61	78.6	5.90	74.5	3.36	62.6	6.70	49.9
18	7.65	62.3	6.95	66.6	0.36	70.9	0.30	76.8	0.33	77.8	5.85	74.5	3.37	62.6	6.68	49.9
20	7.90	61.3	6.00	66.1	0.27	68.8	0.27	74.5	0.26	77.2	5.71	74.5	3.39	62.6	6.68	49.9
22	7.87	61.1	5.86	65.4	0.23	67.4	0.23	72.0	0.23	76.4	5.51	74.5	3.40	62.6	6.68	49.9
24	7.58	60.4	4.71	64.4	0.21	66.4	0.22	69.1	0.21	74.6	5.07	74.4	3.41	62.6	6.68	49.9
26	7.13	59.5	3.57	63.8	0.20	65.5	0.20	67.9	0.20	71.8	0.55	72.8	3.43	62.6	6.67	49.9
28	6.90	58.1	3.33	63.4	0.20	65.2	0.19	66.4	0.19	68.5	0.37	71.8	3.45	62.6	6.68	49.9
30	6.25	56.9	2.69	63.1	0.19	64.6	0.18	64.4	0.17	66.6	0.29	70.4	3.45	62.6	6.67	49.8
35	6.15	55.3	1.89	62.2	0.17	63.0	0.17	62.9	0.16	63.5	0.24	65.1	3.48	62.5	6.65	49.8
40	5.82	54.1	1.34	61.5	0.16	62.5	0.17	61.3	0.15	61.9	0.22	62.2	1.26	62.2	6.47	49.8
45	5.25	52.8	0.40	60.3			0.16	60.1	0.14	59.9					6.32	49.6
50							0.15	60.0								
55							0.15	60.0								
60							0.14	59.9								

Table 29. Dissolved oxygen and temperatures collected from the mouth of Ashes and Jack's Creek at Taylorsville Lake during 2014.

	May 1		May 20		June 12		July 16		August 14		September 17		October 30		November 25	
Depth	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp
Surface	13.05	64.6	11.02	69.0	10.13	77.6	8.07	81.6	8.68	82.1	6.55	76.4	3.18	62.2	6.10	49.7
2	13.17	64.5	10.52	68.9	10.15	77.5	8.11	81.8	8.74	82.1	6.68	76.3	3.21	62.3	6.04	49.8
4	13.19	64.5	10.51	68.8	10.06	77.3	8.08	81.7	8.86	81.6	6.48	75.6	3.20	62.3	6.00	49.8
6	13.17	64.4	9.74	68.4	9.58	77.0	8.04	81.7	9.03	80.6	6.12	75.2	3.07	62.3	5.95	49.8
8	12.17	64.1	7.73	67.8	8.10	76.5	7.98	81.6	8.12	79.9	5.90	75.1	3.06	62.3	5.90	49.8
10	10.35	63.1	6.43	67.3	5.68	76.0	7.90	81.5	7.84	79.7	5.84	75.1	3.08	62.4	5.80	49.8
12	10.22	62.9	6.23	67.0	5.65	75.6	7.68	81.4	7.29	79.6	5.79	75.0	3.10	62.4	5.74	49.8
14	9.87	62.5	6.08	66.9	1.69	75.1	6.70	80.7	6.69	79.2	5.74	75.0	3.05	62.4	5.71	49.8
16	9.40	62.0	5.75	66.6	1.15	74.6	3.99	80.2	3.09	78.2	5.73	75.0	2.99	62.4	5.69	49.8
18	8.84	61.7	6.32	66.3	0.61	73.5	0.34	77.6	1.20	77.7	5.70	75.0	3.02	62.4	5.66	49.8
20	8.43	60.9	5.29	65.3	0.31	70.2	0.27	74.4	0.33	77.0	5.63	74.9	3.10	62.4	5.64	49.8
22	8.04	60.5	5.05	64.8	0.22	67.2	0.24	72.3	0.25	75.2	5.62	74.8	3.15	62.4	5.62	49.8
24	7.65	60.0	3.89	64.3	0.21	66.4	0.23	70.4	0.23	73.4	5.60	74.8	3.19	62.4	5.61	49.8
26	7.25	59.0	3.52	64.0	0.20	65.6	0.21	68.6	0.20	71.3	4.41	74.6	3.20	62.4	5.61	49.8
28	6.69	58.0	3.38	63.8	0.19	65.2	0.19	66.4	0.19	69.7	0.40	72.0	3.20	62.4	5.62	49.8
30	6.51	57.1	3.25	63.5	0.18	64.3	0.19	65.6	0.16	68.1	0.24	69.4	3.19	62.4	5.63	49.8
35	6.48	55.5	4.22	62.5	0.17	63.0	0.18	63.4	0.17	64.0	0.19	64.7	1.30	62.0	5.65	49.8
40	6.40	54.1	3.04	61.4	0.16	61.5	0.17	61.9	0.16	62.0	0.16	62.5	0.25	60.4	5.66	49.7
45	6.18	52.7	1.98	60.1	0.15	60.2	0.17	60.3	0.15	60.2	0.15	61.0	0.17	59.1	5.20	49.7
50	6.15	51.4	1.42	58.8	0.14	58.8	0.16	59.1	0.14	58.6	0.14	59.5	0.14	58.4	5.03	49.5
55	4.72	50.0	1.22	55.8			0.14	58.0	0.13	57.7			0.13	58.0	4.73	49.4
60	4.07	48.9	0.16	54.9												
65			0.14	54.9												
70			0.12	54.8												

Table 30. Dissolved oxygen and temperatures collected from the VanBuren/Chowning Lane Area at Taylorsville Lake during 2014.

	May 1		May 20		June 12		July 16		August 14		September 16		October 27		November 25	
Depth	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp
Surface	7.11	63.5	14.10	70.0	12.22	78.5	9.76	83.4	11.00	83.1	6.33	74.8	10.30	63.0	10.49	46.9
2	7.07	63.5	13.94	69.5	12.31	78.2	9.94	83.4	11.20	82.1	6.40	74.8	10.64	62.7	10.49	46.6
4	7.06	63.5	13.62	68.8	10.95	77.3	9.35	83.1	8.79	80.6	6.16	74.8	10.73	62.6	10.44	46.5
6	6.97	63.3	11.93	68.3	7.78	76.6	7.30	82.6	8.01	80.0	6.15	74.8	10.50	62.5	10.43	46.4
8	6.92	63.2	10.11	67.4	7.53	76.1	6.65	82.6	6.37	79.8	5.97	74.7	10.47	62.4	10.43	46.3
10	6.91	63.1	9.86	66.9	7.51	76.0	6.11	82.4	5.23	79.7	5.97	74.7	10.35	62.3	10.55	45.9
12	6.92	63.1	10.26	66.3	4.65	75.6	5.60	82.4	4.97	79.7	6.15	74.7	9.76	62.2	10.73	45.6
14	6.89	63.1	8.93	64.8	4.42	75.1	5.25	82.3	5.43	79.6	6.16	74.7	9.26	62.0	11.68	44.1
16	6.78	63.0	8.66	63.5	3.75	74.3	4.89	82.2	0.94	79.4	5.55	74.1	9.44	61.5	12.12	43.3
18	6.61	62.9	8.04	62.4	3.60	73.5	4.12	82.0	0.51	79.3	3.70	72.5	10.22	61.1	12.18	43.0
20	6.28	62.4	7.58	62.0	1.73	71.4					3.45	71.8	9.94	60.7	12.18	43.0
22	6.25	62.2	7.25	61.7									7.92	60.5	12.22	42.9
24	6.25	62.0													12.25	42.7
26	6.21	61.5														
28	5.55	60.9														
30																
35																
40																
45																

Table 31. Species composition, relative abundance, and CPUE (fish/hr) of crappie collected in 5.5 hours of 15-minute electrofishing runs in Herrington Lake, April 2014; numbers in parentheses are standard errors.

Location/Species	Inch class														Total	CPUE
	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Upper																
White crappie	1		1			1		1	6	16	6	4			36	18.0 (5.6)
Black crappie									2		2	2			6	3.0 (2.1)
Middle																
White crappie								5	15	19	11	3		1	54	27.0 (4.5)
Black crappie										3			1		4	2.0 (0.8)
Lower																
White crappie									1	1					2	1.3 (0.8)
Black crappie							1	4		4	4	2			15	10.0 (3.1)
Total																
White crappie	1		1			1		6	22	36	17	7		1	92	16.7 (3.3)
Black crappie							1	4	2	7	6	4	1		25	4.6 (1.3)

Dataset = cfdpsher.d14

Table 32. PSD and RSD_{10} values calculated for crappie electrofished from Herrington Lake during April 2014.

Species	No. ≥5.0 in	PSD	RSD_{10}
White crappie	90	99 (± 2)	92 (± 6)
Black crappie	25	98 (± 3)	80 (± 11)

Dataset = cfdpsher.d14

Table 33. Mean back calculated lengths (in.) at each annulus for otoliths from white crappie electrofished at Herrington Lake in 2014.

		Age				
Year class	No.	1	2	3	4	5
2013	2	3.5				
2012	3	4.9	8.8			
2011	19	4.3	8.4	10.9		
2010	2	4.5	8.5	10.4	11.2	
2009	10	4.5	8.4	10.3	11.6	13.0
Mean	36	4.4	8.4	10.7	11.5	13.0
Smallest		2.5	7.2	9.0	10.2	12.0
Largest		6.4	10.3	12.1	13.1	15.5
Std Error		0.1	0.2	0.1	0.3	0.3
95% ConLo		4.1	8.1	10.4	11.0	12.4
95% ConHi		4.6	8.7	10.9	12.0	13.6

Intercept value = 0.00
Dataset = cfdagher.d14

Table 34. Age frequency and CPUE (fish/hr) per inch class of white crappie electrofished at Herrington Lake in 2014.

	Inch class																	Std
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	%	CPUE	err
1	1		1												2	2	0.4	0.4
2						1		4							5	5	0.9	0.3
3								2	20	32	2				56	61	10.3	2.3
4									2	4					6	7	1.1	0.3
5											15	7		1	23	25	4.1	1.0
6																		
Total	1		1			1		6	22	36	17	7		1	92	100	72.0	15.5
(%)	1		1			1		7	24	39	18	8		1	100			

Dataset = cfdpsher.d14 and cfdagher.d14
CPUE of ≥8.0 in white crappie = 16.2 ± 3.3 fish/hr; ≥10.0 in = 15.1 ± 3.1 fish/hr

Table 35. Population assessment for white crappie collected during spring electrofishing at Herrington Lake from 2003-2014 (scoring based on lake-specific assessment).

Year		Total CPUE	Mean length age-2 at capture	Spring CPUE ≥8.0 in	Spring CPUE ≥10.0 in	CPUE age-2	Total score	Assessment rating
2014	Value	16.7	8.8	16.2	15.1	0.9		
	Score	1	3	1	2	1	8	Fair
2013	Value				No sample			
	Score							
2012	Value	72.0	8.0	69.6	48.9	12.1		
	Score	4	1	4	4	1	14	Good
2011	Value	78.4	8.3	68.2	7.3	72.8		
	Score	4	2	4	1	4	15	Good
2010	Value	27.1	9.1	14.9	8.0	8.4		
	Score	2	4	1	1	1	9	Fair
2009	Value	17.0	9.1	17.0	9.5	7.6		
	Score	1	4	2	1	1	9	Fair
2008	Value	15.8	9.3	15.6	5.3	12.5		
	Score	1	4	1	1	1	8	Fair
2007	Value	6.9	9.2	6.2	3.1	3.8		
	Score	1	4	1	1	1	8	Fair
2006	Value	11.6	8.9	11.3	10.2	0.7		
	Score	1	3	1	2	1	8	Fair
2005	Value	34.2	8.9	29.6	7.8	28.4		
	Score	2	3	2	1	2	10	Fair
2004	Value	27.6	8.4	21.1	5.8	23.1		
	Score	2	2	2	1	2	9	Fair
2003	Value	10.2	8.7	7.7	5.0	4.0		
	Score	1	3	1	1	1	7	Poor

Table 36. Mean back calculated lengths (in.) at each annulus for otoliths from black crappie electrofished at Herrington Lake in 2014.

		Age					
Year class	No.	1	2	3	4	5	6
2012	2	5.1	8.9				
2011	5	4.8	9.2	11.5			
2008	1	3.7	8.0	10.5	12.0	12.8	13.6
Mean	8	4.7	9.0	11.3	12.0	12.8	13.6
Smallest		3.7	8.0	10.5	12.0	12.8	13.6
Largest		5.5	9.7	12.0	12.0	12.8	13.6
Std Error		0.2	0.2	0.2			
95% ConLo		4.3	8.6	10.9			
95% ConHi		5.1	9.3	11.7			

Intercept value = 0.00
Dataset = cfdagher.d14

Table 37. Age frequency and CPUE (fish/hr) per inch class of black crappie collected during 5.5 hours of electrofishing at Herrington Lake in 2014.

	Inch class																	Std
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	%	CPUE	err
1	1														1	1	0.1	0.1
2	1	2	7	3											12	22	2.8	0.9
3				7	27				2						36	65	8.1	2.6
4									5					1	6	10	1.3	0.6
5															0			
6			1												1	2	0.2	0.1
Total	1	2	8	10	27				7					1	56	100	12.4	3.6
%	2	4	14	18	48				13					2	100			

Dataset = cfdpsher.d14 and cfdagher.d14
CPUE of ≥8.0 in black crappie = 4.6 ± 1.3 fish/hr; ≥10.0 in = 3.6 ± 1.0 fish/hr

Table 38. Population assessment for black crappie collected during spring electrofishing at Herrington Lake from 2003-2014 (scoring based on lake-specific assessment).

Year		Total CPUE	Mean length age-2 at capture	Spring CPUE >8.0 in	Spring CPUE >10.0 in	CPUE age-2	Total score	Assessment rating
2014	Value	4.6	8.9	4.6	3.6	2.8		
	Score	1	3	1	1	1	7	Fair
2013	Value				No Sample			
	Score							
2012	Value	12.4	9.3	12.2	10.0	2.8		
	Score	2	4	2	3	1	12	Fair
2011	Value	12.4	8.8	11.3	8.0	6.1		
	Score	2	3	2	3	1	11	Fair
2010	Value	22.9	8.1	13.1	3.6	19.7		
	Score	2	1	2	1	2	8	Fair
2009	Value	7.8	9.1	7.5	4.5	3.1		
	Score	1	3	1	2	1	8	Fair
2008	Value	8.2	9.5	8.2	4.0	5.0		
	Score	1	4	1	2	1	9	Fair
2007	Value	11.1	9.4	10.2	4.4	8.7		
	Score	2	4	2	2	2	12	Good
2006	Value	7.1	9.2	6.7	5.8	1.0		
	Score	1	3	1	2	1	8	Fair
2005	Value	47.3	8.9	39.3	13.8	45.0		
	Score	4	3	4	4	4	19	Excellent
2004	Value	6.7	9.0	6.1	5.2	1.3		
	Score	1	3	1	2	1	8	Fair
2003	Value	3.0	8.0	2.2	1.7	1.0		
	Score	1	1	1	1	1	5	Poor

Table 39. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected in 7.5 hours of 15-minute electrofishing runs in Herrington Lake, April 2014; numbers in parentheses are standard errors.

	Inch class																					
Location/Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Upper																						
Largemouth bass		6	4	6	10	19	6	8	22	28	23	22	17	9	2	8	3	1			194	77.6 (7.6)
Spotted bass									1												1	0.4 (0.4)
Middle																						
Largemouth bass	1	5	5	13	36	35	16	9	15	12	38	27	18	16	6	8	5	2	2	1	270	108.0 (10.4)
Spotted bass	1					5	7	3	4	1	1	3									25	10.0 (2.8)
Lower																						
Largemouth bass		5	19	20	27	15	6	2	8	22	15	25	29	26	15	17	3	4	4	3	265	106.0 (12.7)
Spotted bass			1			4	6	2	1	2	6	3	1								26	10.4 (2.5)
Total																						
Largemouth bass	1	16	28	39	73	69	28	19	45	62	76	74	64	51	23	33	11	7	6	4	729	97.2 (6.4)
Spotted bass	1		1			9	13	5	6	3	7	6	1								52	6.9 (1.5)

Dataset = cfdpsher.d14

Table 40. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Herrington Lake from 1994-2014; numbers in parentheses are standard errors.

	Length group					
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	≥20.0 in	Total
1994	4.9 (0.9)	30.1 (4.4)	21.5 (2.6)	17.9 (1.8)	2.1 (0.5)	74.4 (5.4)
1995	8.8 (2.3)	20.0 (4.4)	25.6 (4.0)	20.4 (1.4)	3.2 (0.7)	74.8 (9.6)
1996	9.5 (2.4)	24.4 (3.9)	20.3 (2.8)	26.5 (2.6)	3.1 (0.7)	80.9 (6.7)
1997	15.6 (2.3)	19.9 (3.4)	27.3 (2.6)	22.0 (1.7)	2.9 (0.6)	84.8 (6.1)
1998	37.2 (3.8)	45.3 (4.1)	30.9 (2.5)	21.3 (2.2)	1.9 (0.6)	134.8 (7.2)
1999	43.2 (5.2)	69.1 (6.6)	40.4 (3.9)	21.6 (2.4)	1.1 (0.3)	174.3 (14.3)
2000	15.6 (3.9)	53.5 (6.6)	26.9 (2.2)	12.3 (1.4)	0.3 (0.2)	108.3 (10.8)
2001	37.1 (6.7)	40.1 (6.3)	34.1 (4.5)	12.5 (1.5)	0.5 (0.3)	123.9 (15.3)
2002	19.5 (2.6)	32.1 (4.7)	25.5 (3.5)	24.0 (2.2)	1.6 (0.5)	101.1 (9.7)
2003	20.8 (4.4)	23.9 (2.4)	30.1 (2.8)	17.9 (1.7)	1.2 (0.4)	92.7 (4.2)
2004	29.6 (5.5)	64.8 (12.2)	38.7 (5.7)	29.7 (3.4)	1.5 (0.4)	162.8 (23.9)
2005	70.9 (9.7)	59.6 (7.1)	23.5 (3.0)	22.3 (3.4)	0.8 (0.4)	176.3 (15.4)
2006	24.7 (4.8)	36.7 (4.8)	38.4 (3.8)	19.3 (1.8)	0.4 (0.2)	119.1 (9.2)
2007	78.1 (10.4)	68.8 (7.3)	20.0 (2.5)	17.3 (2.3)	0.5 (0.3)	184.3 (17.1)
2008	31.3 (2.9)	39.7 (4.6)	29.5 (3.0)	22.1 (3.1)	1.5 (0.5)	122.7 (8.6)
2009	5.3 (1.2)	9.4 (1.1)	15.3 (2.2)	10.8 (1.4)	0.4 (0.2)	40.6 (4.4)
2010	41.5 (4.4)	34.0 (4.4)	28.7 (3.2)	25.1 (2.3)	0.9 (0.3)	129.2 (10.2)
2011	24.5 (3.7)	22.7 (2.0)	10.9 (1.3)	10.8 (1.5)	0.3 (0.2)	68.9 (1.4)
2012	69.6 (10.1)	70.7 (10.9)	40.9 (4.6)	14.8 (2.1)	1.1 (0.5)	196.0 (23.7)
2013	11.7 (2.2)	29.6 (4.0)	18.5 (2.7)	12.9 (1.9)	1.5 (0.6)	72.8 (7.0)
2014	30.1 (4.1)	20.5 (2.0)	28.5 (2.7)	18.0 (2.4)	1.3 (0.4)	97.2 (6.4)

Dataset = cfdpsher.d14 - .d94

Table 41. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in each area of Herrington Lake in 2014; confidence intervals are in parentheses.

Area	Species	No. ≥8.0 in	PSD	RSD_{15}
Lower	Largemouth bass	179	78 (± 6)	40 (± 7)
Middle	Largemouth bass	175	70 (± 7)	22 (± 7)
Upper	Largemouth bass	149	57 (± 8)	15 (± 6)
Total	Largemouth bass	503	69 (± 4)	27 (± 3)

Dataset = cfdpsher.d14

Table 42. Population assessment for largemouth bass collected during spring electrofishing at Herrington Lake from 2000-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age-1	CPUE 12.0-14.9 in	CPUE ≥15.0 in	CPUE ≥20.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	13.8*	33.9	28.5	18.0	1.3				
	Score	4	2	3	3	2			14	Good
2013	Value	13.8*	15.1	18.5	12.9	1.5				
	Score	4	1	2	3	2			12	Good
2012	Value	13.8*	111.7	40.9	14.8	1.1				
	Score	4	4	4	3	2			17	Excellent
2011	Value	13.8	18.7	10.9	10.8	0.3	0.539	41.7%		
	Score	4	1	1	2	2			10	Fair
2010	Value	13.7*	49.6^	28.7	25.1	0.9				
	Score	4	3	3	4	2			16	Good
2009	Value	13.7*	6.2^	15.3	10.8	0.4				
	Score	4	1	2	2	2			11	Fair
2008	Value	13.7*	34.6^	29.5	22.1	1.5				
	Score	4	2	3	4	2			15	Good
2007	Value	13.7	96.5	20.0	17.3	0.5	0.485	38.4%		
	Score	4	4	2	3	2			15	Good
2006	Value	13.7*	25.1^	38.4	19.3	0.4				
	Score	4	2	4	3	2			15	Good
2005	Value	13.7*	72.1^	23.5	22.3	0.8				
	Score	4	4	2	4	2			16	Good
2004	Value	13.7*	33.5^	38.7	29.7	1.5				
	Score	4	2	4	4	2			16	Good
2003	Value	13.7	20.9	30.1	17.9	1.2	0.498	39.2%		
	Score	4	2	3	3	2			14	Good
2002	Value	11.7*	16.7^	25.5	24.0	1.6				
	Score	3	1	3	4	3			14	Good
2001	Value	11.7	28.2	34.1	12.5	0.5	0.455	36.6%		
	Score	3	2	3	3	2			13	Good
2000	Value	11.0	13.1	26.9	12.3	0.3	0.620	46.2%		
	Score	1	1	3	3	2			10	Fair

* Age data not collected

^Calculations based on age data gathered in previous years

-Instantaneous and annual mortality not calculated in years where age and growth data are not collected

Table 43. Length distribution and CPUE (fish/hr) of black bass collected in 4.5 hours of 15-minute electrofishing runs in Herrington Lake in September 2014; numbers in parentheses are standard errors.

	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Lower																					
Largemouth bass			2	1	2	4	3	7		2	1	2	4	1		1			1	31	20.7 (3.6)
Spotted bass										1										1	0.7 (0.7)
Middle																					
Largemouth bass	20	3	3	16	14	11	4	5	5	4	5	5	2	4	1	1	1	1		105	70.0 (11.2)
Spotted bass	2						1	1		1			2							7	4.7 (1.6)
Upper																					
Largemouth bass	37	9	2	21	16	5	1	2	6	3	8	9	2	2						123	82.0 (5.3)
Spotted bass							1													1	0.7 (0.7)
Total																					
Largemouth bass	57	12	7	38	32	20	8	14	11	9	14	16	8	7	1	2	1	1	1	259	57.6 (7.6)
Spotted bass	2						2	1		2			2							9	2.0 (0.7)

Dataset = cfdwrher.d14

Table 44. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Herrington Lake on 22, 23 and 24 September 2014. Standard errors are in parentheses.

Species	Area	Length group 8.0–11.9 in No.	8.0–11.9 in Wr	12.0–14.9 in No.	12.0–14.9 in Wr	≥15.0 in No.	≥15.0 in Wr	Total No.	Total Wr
Largemouth bass	Lower	12	85 (2)	7	91 (3)	3	94 (4)	22	88 (2)
	Middle	18	95 (10)	12	88 (2)	8	99 (2)	38	93 (5)
	Upper	12	87 (3)	19	89 (2)	2	95 (6)	33	89 (2)
	Total	42	90 (4)	38	89 (1)	13	97 (2)	93	91 (2)

Dataset = cfdwrher.d14

Table 45. Indices of year class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall in electrofishing samples at Herrington Lake.

Year class	Area	Age 0 Mean length	Age 0 Std. error	Age 0 CPUE	Age 0 Std. error	Age 0 ≥5.0 in CPUE	Age 0 ≥5.0 in Std. error	Age 1 (Natural) CPUE	Age 1 (Natural) 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	96.5	11.6
2007	Total	5.1	0.1	8.0	2.5	5.3	1.9	34.6	3.0
2008	Total	5.1	0.1	25.8	4.9	13.8	3.7	6.2	1.2
2009	Total	4.7	0.1	109.8	16.2	55.1	15.5	49.6	5.4
2010	Total	5.8	0.1	22.0	3.4	17.6	3.3	26.6	3.6
2011	Total	5.8	0.1	54.5	7.8	43.8	6.7	111.7	17.7
2012	Total	5.4	0.1	33.6	6.2	21.8	4.9	11.3	2.1
2013	Total	4.5	0.1	49.1	4.9	19.3	3.1	33.9	4.3
2014	Total	4.7	0.1	36.9	6.0	20.0	3.5		

Table 46. Length distribution and CPUE (fish/nn) of white bass and hybrid striped bass collected during 12 net-nights of gill netting in Herrington Lake in October 2014; 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	Total	CPUE
White bass	1	11	3				1	4	2	1	2									25	2.1 (0.8)
Hybrid striped bass		1								1	6	7	5		5	6	3	3	2	34	2.8 (1.0)

Dataset = cfdgnher.d14

Table 47. Mean back calculated lengths (in) at each annulus for otoliths from hybrid striped bass gill netted at Herrington Lake in 2014.

		Age				
Year class	No.	1	2	3	4	5
2013	19	12.2				
2012	9	12.6	18.8			
2011	2	14.1	17.2	20.1		
2010	2	13.5	17.9	20.2	21.9	
2009	1	13.6	18.6	20.8	22.2	23.4
Mean	33	12.5	18.4	20.3	22.0	23.4
Smallest		9.5	16.6	20.0	21.8	23.4
Largest		14.8	20.2	20.8	22.2	23.4
Std Error		0.2	0.2	0.1	0.1	
95% ConLo		12.1	17.9	20.0	21.8	
95% ConHi		13.0	18.9	20.6	22.2	

Intercept Value = 0.00
Dataset = cfdagher.d14

Table 48. Age frequency and CPUE (fish/nn) per inch class of hybrid striped bass gill netted for 12 net-nights at Herrington Lake in 2014.

	Inch class																					Std
Age	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	%	CPUE	err
0+	1																		1	3	0.1	0.1
1+									1	6	7	5							19	56	1.6	0.7
2+														4	4	1			9	26	0.8	0.3
3+															1	1			2	6	0.2	0.1
4+																	2		2	6	0.2	0.1
5+																		1	1	3	0.1	0.1
Total	1								1	6	7	5		4	5	2	2	1	34	100	2.8	1.0
%	3								3	18	21	15		12	15	6	6	3	100			

Dataset = cfdagher.d14 and cfdgnher.d14

Table 49. Number of fish and the relative weight (Wr) for each length group of hybrid striped bass collected at Herrington Lake in October 2014.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Hybrid striped bass	Total	0		0		33	89 (1)	33	89 (1)

Dataset = cfdgnher.d14

Table 50. Population assessment for hybrid striped bass collected during fall gill netting at Herrington Lake from 2000-2014 (scoring based on statewide assessments).

Year		CPUE (excluding age 0)	Mean length age-2+ at capture	CPUE ≥15.0 in	CPUE age 1+	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	2.8	20.9	2.8	1.6				
	Score	1	4	2	1			8	Fair
2013	Value	1.8	20.6	1.8	0.8	-	-		
	Score	1	4	1	1			7	Fair
2012	Value	1.1	19.6	1.0	0.8	-	-		
	Score	1	4	1	1			7	Fair
2011	Value	5.3	19.7	5.3	3.7	-	-		
	Score	2	4	3	2			11	Good
2010	Value	5.3	20.0	4.7	4.9	1.211	70.2		
	Score	2	4	2	2			10	Good
2009	Value	2.7	19.3	2.7	2.1	1.109	66.3		
	Score	1	4	2	1			8	Fair
2008	Value	6.0	20.2	6.0	3.6	0.912	59.8		
	Score	2	4	3	2			11	Good
2007	Value	6.2	20.6	4.9	5.6	1.122	67.4		
	Score	2	4	2	3			11	Good
2006	Value	1.3	21.4	1.3	4.0	0.633	46.9		
	Score	1	4	1	2			8	Fair
2005	Value	0.4	19.5	0.4	0.3	NA	NA		
	Score	1	4	1	1			7	Fair
2004	Value	2.5	20.8	2.2	0.1	NA	NA		
	Score	1	4	1	1			7	Fair
2003	Value	3.1	19.8	2.9	1.1	0.601	45.2		
	Score	1	4	2	1			8	Fair
2002	Value	8.2	20.8	7.0	3.6	0.770	53.7		
	Score	2	4	3	2			11	Good
2001	Value	4.7	20.1	4.7	0.8	NA	NA		
	Score	1	4	2	1			8	Fair
2000	Value	8.9	18.9	8.9	5.5	1.282	72.3		
	Score	2	4	3	3			12	Good

Table 51. Mean back calculated lengths (in.) at each annulus for otoliths from white bass gill netted at Herrington Lake in 2014.

		Age		
Year class	No.	1	2	3
2013	3	7.9		
2012	5	9.0	13.0	
2011	3	9.8	12.7	14.6
Mean	11	8.9	12.9	14.6
Smallest		4.7	12.4	14.0
Largest		10.1	13.7	15.1
Std Error		0.4	0.1	0.3
95% ConLo		8.0	12.6	14.0
95% ConHi		9.8	13.2	15.3

Intercept Value = 0.00
Dataset = cfdagher.d14

Table 52. Age frequency and CPUE (fish/nn) per inch class of white bass gill netted for 12 net-nights at Herrington Lake in 2014.

	Inch class														
Age	6	7	8	9	10	11	12	13	14	15	16	Total	%	CPUE	Std err
0+	1	10	3									14	56	1.2	0.5
1+		1					1	1				3	12	0.3	0.1
2+								3	2			5	20	0.4	0.2
3+										1	2	3	12	0.3	0.2
Total	1	11	3				1	4	2	1	2	25	100	2.1	0.8
%	4	44	12				4	16	8	4	8	100			

Dataset = cfdagher.d14 and cfdgnher.d14

Table 53. Number of fish and the relative weight (Wr) for each length group of white bass collected at Herrington Lake in October 2014.

		Length group							
Species	Area	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	15	91 (1)	10	92 (1)	0		25	91 (1)

Dataset = cfdgnher.d14

Table 54. Population assessment for white bass collected during fall gill netting at Herrington Lake from 2000-2014 (scoring based on statewide assessment).

Year		CPUE (excluding age 0)	Mean length age-2+ at capture	CPUE ≥12.0 in	CPUE age 1+	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	0.9	14.0	0.8	0.3				
	Score	1	4	1	1			7	Fair
2013	Value	2.2	14.1	2.2	0.3	-	-		
	Score	1	4	1	1			7	Fair
2012	Value	9.8	13.7	5.9	5.4	0.975	62.3		
	Score	2	4	3	3			12	Good
2011	Value	10.8	13.7	9.2	4.4	0.877	58.4		
	Score	3	4	3	2			12	Good
2010	Value	7.9	13.6	4.0	6.2	1.351	74.1		
	Score	2	4	2	3			11	Good
2009	Value	3.4	13.1	2.3	2.7	0.900	59.3		
	Score	1	4	1	2			8	Fair
2008	Value	6.7	13.3	5.8	2.1	0.717	51.2		
	Score	2	4	3	1			10	Good
2007	Value	5.6	13.6	3.8	2.9	0.722	51.4		
	Score	2	4	2	2			10	Good
2006	Value	1.9	13.9	1.3	0.9	*	*		
	Score	1	4	1	1			7	Fair
2005	Value	2.1	13.5	2.0	0.2	0.371	31.0		
	Score	1	4	1	1			7	Fair
2004	Value	10.1	13.9	6.7	9.2	0.726	51.6		
	Score	3	4	3	3			13	Good
2003	Value	2.5	14.1	1.9	0.6	0.381	31.7		
	Score	1	4	1	1			7	Fair
2002	Value	2.9	14.1	2.4	2.0	0.841	56.9		
	Score	1	4	1	1			7	Fair
2001	Value	1.9	14.0	1.8	1.1	0.418	34.2		
	Score	1	4	1	1			7	Fair
2000	Value	3.5	13.9	2.8	2.0	0.741	52.4		
	Score	1	4	2	1			8	Fair

Table 55. Dissolved oxygen and temperatures collected at the mouth of Cane Run at Herrington Lake during 2014.

	April 8		May 21		June 12		July 16		August 14		September 23		October 20		November 24	
Depth	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp
Surface	15.18	55.9	12.15	71.8	10.76	77.6	8.93	81.5	9.32	80.1	8.39	75.0	7.39	65.9	5.42	56.2
2	15.27	55.8	12.19	71.8	10.81	77.6	8.97	81.5	9.40	80.0	8.40	75.0	7.50	66.0	5.40	56.1
4	15.26	55.5	12.20	71.7	10.84	77.5	9.04	81.4	9.48	79.7	8.43	74.8	7.56	66.0	5.39	56.0
6	15.05	54.9	12.14	71.6	10.61	77.1	9.11	81.3	9.48	79.5	8.49	74.6	7.63	66.1	5.38	55.9
8	13.38	53.7	12.10	71.4	10.17	76.9	9.09	81.2	9.27	79.4	8.50	74.4	7.51	66.1	5.30	55.9
10	13.21	53.6	11.75	71.2	10.07	76.8	9.01	81.2	9.13	79.3	8.38	74.3	7.61	66.1	5.23	55.9
12	13.15	53.4	10.77	70.7	9.90	76.7	8.64	81.0	9.13	79.2	8.32	74.2	7.62	66.1	5.21	55.8
14	13.11	53.3	8.85	69.6	8.37	76.3	6.11	80.0	9.13	79.1	8.25	74.2	7.66	66.1	5.18	55.8
16	13.07	53.2	7.01	68.6	2.84	73.9	3.84	78.0	7.25	78.9	8.19	74.1	7.67	66.1	5.15	55.8
18	13.02	53.1	6.14	67.4	0.66	71.0	2.00	76.3	5.14	78.1	8.17	74.1	7.68	66.2	5.28	55.8
20	13.00	53.1	5.51	66.5	0.33	68.4	0.46	74.2	2.67	77.2	8.16	74.1	7.66	66.2	5.28	55.8
22	12.89	53.1	5.40	65.5	0.27	66.7	0.32	70.7	0.71	76.1	7.49	74.0	7.66	66.2	5.26	55.8
24	12.82	53.1	5.02	63.4	0.25	65.3	0.27	67.9	0.36	74.0	7.53	73.9	7.64	66.2	5.21	55.8
26	12.77	53.0	4.57	62.4	0.24	64.2	0.24	65.7	0.26	71.2	7.21	73.8	7.65	66.2	5.24	55.8
28	12.76	52.9	4.36	61.8	0.31	63.2	0.22	64.6	0.22	68.6	6.35	73.5	7.65	66.2	5.26	55.8
30	12.68	52.9	3.82	61.0	0.51	62.4	0.21	63.6	0.19	66.0	2.93	71.7	7.64	66.2	5.20	55.7
35	12.47	51.8	3.58	60.2	1.17	61.1	0.20	61.7	0.17	62.5	0.61	65.2	7.62	66.2	5.16	55.7
40	12.31	51.6	3.42	59.5	1.52	59.9	0.19	60.6	0.15	60.9	0.31	61.9	7.56	66.2	5.14	55.7
45	12.08	51.0	3.69	58.7	1.94	59.0	0.18	59.8	0.15	59.9	0.27	60.7	5.93	65.8	5.12	55.7
50	11.68	49.4	4.06	58.0	2.34	58.3	0.18	58.9	0.14	59.1	0.25	59.6	1.83	64.1	5.08	55.7
55	11.34	48.0	4.86	57.1	3.08	57.3	0.49	57.7	0.14	58.4	0.23	58.6	0.37	62.6	5.07	55.7
60	10.90	46.6	6.25	55.6	4.04	56.3	1.73	56.8	0.13	57.4	0.21	57.8	0.21	61.7	5.04	55.7
65	10.72	46.0	7.22	54.3	4.99	55.2	2.59	55.4	0.20	56.5	0.20	57.3	0.17	60.7	5.04	55.7
70	10.58	45.5	7.70	53.5	5.85	54.2	4.29	54.4	1.52	55.6	0.19	56.4	0.16	59.7	5.07	55.7
75	10.51	45.3	8.19	52.6	6.67	53.3	4.98	53.5	3.21	54.4	0.18	56.2	0.15	59.1	5.13	55.7
80	10.47	45.1	8.50	51.7	7.38	52.6	6.73	52.4	4.36	53.1	1.09	54.0	0.14	58.3	5.16	55.7
85	10.41	44.9	8.79	51.7	7.94	51.3	7.05	51.0	5.71	52.1	3.34	52.6	0.13	57.7		
90	10.38	44.8	9.00	49.6	8.18	50.3	7.30	50.0	6.00	51.0	4.77	51.5	0.13	57.0	5.24	55.8
95	10.21	44.4	8.93	48.8	8.09	49.2	7.44	49.2	6.27	49.8	5.05	50.2	0.12	56.4		
100	9.91	43.8	8.89	47.7	8.12	47.8	7.59	48.2	6.37	48.8	5.42	49.0	0.11	55.7	4.77	55.6
110	9.80	43.3	8.70	46.3	7.95	46.6	7.66	46.7	6.47	47.2	5.28	47.5	0.11	53.8	4.68	55.0
120	9.65	42.2	0.75	45.9	7.84	45.8	7.73	45.9	6.42	46.3	5.07	46.4	0.97	52.3	3.84	54.3
130	9.51	41.5	0.57	45.8	7.76	45.1	7.68	45.0	6.41	45.3	5.17	45.6	1.06	50.9	0.52	52.8
140	9.38	40.8	0.46	45.8	7.49	44.3	7.27	44.2	6.40	44.8	4.92	44.8	2.64	48.5	0.32	51.3
150	9.05	40.4	0.40	45.7	6.83	43.3	6.39	43.4	5.25	43.9	3.90	44.2	3.47	46.9	0.27	49.8
160	8.48	39.9	0.38	45.7	5.75	42.6	5.38	42.8	3.21	43.3	2.57	43.5	1.95	45.6	0.23	48.0
165											1.83	43.1	0.97	45.6		

Table 56. Dissolved oxygen and temperatures collected near Gwinn Island Marina at Herrington Lake during 2014.

	April 8		May 21		June 12		July 16		August 14		September 23		October 22		November 24	
Depth	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp
Surface	7.77	60.5	9.93	71.0	10.34	77.3	7.24	80.5	7.14	79.6	6.18	74.9	4.85	64.2	5.60	55.2
2	7.77	59.3	9.97	70.9	10.38	77.3	7.23	80.6	7.30	79.5	6.15	74.9	4.85	64.3	5.56	55.2
4	7.73	58.1	9.99	70.8	10.37	77.1	7.25	80.7	7.43	79.5	6.11	74.8	4.85	64.4	5.51	55.1
6	7.70	56.5	9.72	69.9	10.17	77.0	7.21	80.7	7.53	79.4	6.10	74.7	4.85	64.4	5.51	55.1
8	7.65	56.2	9.24	69.5	9.99	76.9	7.15	80.7	7.51	79.3	6.08	74.5	4.85	64.5	5.47	55.1
10	7.63	56.0	7.60	68.8	8.75	76.5	6.97	80.7	7.35	79.3	5.89	74.5	4.83	64.5	5.45	55.1
12	7.59	55.9	6.10	67.8	2.32	74.3	7.08	80.7	6.90	79.3	5.74	74.4	4.84	64.5	5.43	55.0
14	7.56	55.8	4.27	66.7	0.43	72.4	6.94	80.6	7.03	79.2	5.59	74.3	4.83	64.5	5.41	55.0
16	7.53	55.8	3.04	65.4	0.25	69.8	1.33	78.9	6.68	79.1	5.49	74.3	4.83	64.6	5.40	55.0
18	7.51	55.7	2.91	64.6	0.21	68.2	0.45	77.7	0.44	78.0	5.50	74.3	4.84	64.6	5.39	55.0
20	7.52	55.5	2.85	63.8	0.19	67.3	0.33	76.1	0.25	76.9	5.60	74.3	4.85	64.6	5.38	55.0
22	7.52	55.4	2.93	62.9	0.17	66.3	0.26	72.8	0.22	75.7	5.70	74.2	4.83	64.6	5.38	54.9
24	7.54	55.2	3.03	62.4	0.17	65.9	0.23	69.7	0.20	73.6	5.89	74.2	4.82	64.6	5.32	54.8
26	7.57	55.0	3.59	61.4	0.16	63.9	0.20	97.7	0.17	70.6	2.39	73.8	4.80	64.6	5.30	54.8
28	7.60	54.9	3.75	61.1	0.14	62.9	0.18	65.8	0.16	68.7	0.37	73.5	4.80	64.6	5.24	54.7
30	7.61	54.9	4.35	60.3	0.16	62.0	0.18	64.5	0.15	66.5	0.24	70.4	4.81	64.6	5.17	54.6
35	7.80	53.9	4.69	59.6	1.28	60.9	0.17	61.7	0.13	63.6	0.21	65.4	4.83	64.6	5.18	54.5
40	8.41	51.5	4.90	58.9	2.18	59.5	0.15	60.5	0.13	61.6	0.18	62.2	4.76	64.5	5.25	54.4
45	8.63	50.1	5.02	58.6	2.45	58.9	0.15	59.6	0.13	60.5	0.17	60.6	3.86	63.9	5.31	54.3
50	8.79	49.3	4.06	57.7	2.76	58.1	0.15	58.8	0.12	59.4	0.16	59.6	3.59	63.4	5.35	54.2
55	9.25	47.5	3.88	56.4	2.70	57.1	0.44	57.8	0.12	58.3	0.15	58.7	3.11	62.8	5.43	54.0
60	9.38	46.6	4.04	55.3	2.68	56.4	0.74	56.6	0.11	57.7	0.15	57.8	3.08	62.6	5.53	53.8
65	9.45	46.1	4.42	54.2	2.80	55.2	0.95	55.7	0.11	56.7	0.14	56.8			5.61	53.7
70	9.51	45.3	4.59	53.3	2.86	54.5	0.57	54.8	0.10	55.3	0.13	56.1			5.60	53.6
75	9.47	44.9	4.66	52.2	2.79	53.7	0.34	54.4	0.09	54.3						
80	9.31	44.7	4.22	51.4	0.42	53.3	0.34	54.4	0.09	54.1						
85	9.23	44.8	0.33	51.3	0.19	53.3	0.34	54.4	0.09	54.2						
90	9.22	44.7	0.23	51.3	0.14	53.3	0.34	54.3	0.09	54.2						
95	9.22	44.7	0.14	51.2	0.11	53.3	0.33	54.3	0.14	55.0						
100	9.21	44.7	0.14	51.2	0.10	53.3	0.32	54.2	0.14	54.9						
110	9.23	44.7	0.10	51.2	0.09	53.3	0.31	54.2	0.13	54.8						
120	9.23	44.6	0.09	51.2	0.09	53.3	0.31	54.2	0.13	54.7						
130	9.23	44.6	0.08	51.1	0.08	53.3	0.30	54.2	0.13	54.7						
140	9.22	44.6	0.08	51.1	0.07	53.3	0.30	54.2	0.12	54.7						
150	9.22	44.6	0.07	51.1	0.07	53.0	0.29	54.2	0.12	54.7						
160	9.22	44.5	0.07	51.1	0.07	53.3	0.28	54.2	0.12	54.7						
165																

Table 57. Dissolved oxygen and temperatures collected near Kings Mill Marina at Herrington Lake during 2014.

	April 8		May 21		June 12		July 16		August 14		September 24		October 20		November 24*	
Depth	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp	DO	Temp
Surface	10.14	60.0	12.65	72.2	10.25	77.5	8.09	81.8	7.44	80.3	5.31	75.5	5.54	63.7		
2	10.17	59.8	12.66	72.1	10.35	77.4	80.5	82.0	7.55	80.1	5.32	75.2	5.54	63.7		
4	10.11	59.5	13.04	71.9	10.48	77.0	7.83	81.9	7.78	79.8	4.90	74.0	5.37	63.7		
6	9.98	58.6	12.50	71.3	10.25	76.8	7.26	81.8	7.35	79.6	4.57	73.7	5.28	63.7		
8	9.65	57.8	11.90	70.9	9.15	76.6	6.82	81.9	6.69	79.5	4.28	73.5	5.18	63.7		
10	9.53	56.2	11.42	70.8	7.74	76.3	6.21	81.9	6.55	79.5	4.23	73.5	5.10	63.7		
12	9.43	55.7	10.43	70.2	3.66	75.2	2.20	81.3	6.70	79.4	4.13	73.4	5.10	63.6		
14	9.37	55.5	4.62	67.2	0.39	72.9	0.88	80.3	6.49	79.4	4.12	73.4	5.21	63.5		
16	9.35	55.2	3.85	65.1	0.30	70.6	0.40	78.0	3.23	79.2	4.15	73.3	5.37	63.4		
18	9.27	54.9	4.27	64.7	0.24	68.4	0.29	75.0	1.04	78.3	4.14	73.3	5.45	63.1		
20	9.18	54.6	4.54	64.3	0.22	66.7	0.25	70.8	0.39	77.3	4.04	73.3	5.73	62.6		
22	9.10	54.3	4.71	63.6	0.21	65.6	0.23	68.8	0.24	75.5	3.99	73.3	6.45	60.5		
24	9.02	54.2	4.26	62.7	0.20	64.7	0.20	67.2	0.21	74.5	3.93	73.3	6.83	60.1		
26	8.96	54.1	4.03	62.2	0.19	64.1	0.18	66.0	0.20	72.9	3.77	73.2	6.89	59.8		
28	8.94	54.0	3.45	61.6	0.18	63.3	0.17	64.9	0.19	70.5	3.60	73.2				
30	8.90	54.0	3.54	61.3	0.17	62.9	0.17	63.8	0.17	68.8	3.60	73.1				
35	8.72	53.8	2.89	61.1	0.16	61.7	0.17	63.2								
40	8.45	53.6														
45																
50																

*No November reading was taken because buoys were removed at marina

Table 58. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected in 3.0 hours of 15-minute nocturnal electrofishing runs in Guist Creek Lake, May 2014; numbers in parentheses are standard errors.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass																					
Natural	2	4	5	1	28	56	17	26	31	21	31	43	40	43	29	12	11	10	3	413	137.7 (15.7)
2010										1	1	1								3	6.0 (2.0)
Total																					
Largemouth bass	2	4	5	1	28	56	17	26	31	22	32	44	40	43	29	12	11	10	3	416	138.7 (15.8)

Dataset = cfdpsgcl.d14

Table 59. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Guist Creek Lake from 1992-2014; numbers in parentheses are standard errors.

	Length group					
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	$\geq$15.0 in	$\geq$20.0 in	Total
1992	12.0 (2.1)	16.8 (2.7)	38.4 (5.2)	41.2 (4.7)	3.2 (1.0)	108.4 (7.2)
1993	22.7 (2.6)	25.5 (2.7)	23.8 (2.7)	51.6 (5.0)	5.5 (1.1)	123.6 (9.1)
1994	19.2 (2.7)	29.8 (3.7)	19.6 (2.6)	40.2 (3.9)	2.0 (0.5)	108.8 (8.6)
1995	18.2 (3.0)	40.6 (3.8)	23.2 (2.4)	47.2 (5.5)	5.0 (1.3)	129.2 (9.2)
1996	32.6 (5.5)	28.8 (3.6)	44.8 (2.8)	58.2 (5.2)	5.8 (1.1)	164.4 (10.6)
1997				NS		
1998	20.3 (3.1)	45.3 (4.9)	18.7 (3.5)	72.7 (12.3)	5.0 (1.3)	157.0 (14.5)
1999	53.5 (6.9)	56.8 (10.2)	41.7 (6.3)	51.3 (3.4)	8.0 (1.3)	203.3 (19.4)
2000	26.7 (6.1)	19.3 (2.4)	23.0 (2.9)	41.3 (5.4)	3.0 (1.0)	110.3 (7.6)
2001	39.0 (5.3)	42.0 (3.6)	17.3 (2.7)	46.3 (5.2)	1.7 (0.6)	144.7 (10.1)
2002	43.3 (9.9)	32.3 (7.7)	23.3 (3.1)	41.3 (7.8)	2.0 (1.4)	134.3 (18.6)
2003	27.7 (6.7)	96.7 (9.9)	31.0 (4.6)	49.7 (4.0)	2.7 (0.9)	205.0 (19.7)
2004	30.7 (6.0)	62.7 (6.5)	58.0 (7.0)	54.3 (5.9)	3.7 (1.0)	205.7 (17.0)
2005	84.3 (12.2)	67.0 (6.3)	63.0 (5.6)	70.3 (7.5)	4.7 (1.4)	284.7 (25.6)
2006	30.0 (6.6)	69.3 (8.2)	30.3 (3.3)	68.7 (6.4)	3.3 (1.5)	198.3 (19.0)
2007	23.3 (3.0)	59.3 (6.3)	42.0 (4.3)	58.0 (5.5)	3.7 (1.2)	182.7 (11.6)
2008	24.0 (3.6)	19.7 (2.3)	41.3 (5.6)	73.0 (10.3)	4.7 (1.5)	158.0 (12.9)
2009	12.0 (2.7)	23.3 (4.7)	19.3 (3.7)	35.7 (6.0)	4.3 (1.0)	90.3 (11.3)
2010	46.8 (4.1)	25.3 (2.6)	26.3 (2.9)	47.3 (4.6)	3.0 (0.8)	145.8 (8.4)
2011	34.3 (2.6)	67.7 (7.0)	35.0 (3.9)	50.3 (4.7)	5.3 (1.6)	187.3 (9.7)
2012	19.7 (5.2)	81.7 (7.5)	30.0 (4.1)	36.7 (3.8)	4.7 (1.2)	168.0 (7.2)
2013	21.3 (7.0)	44.0 (5.1)	51.0 (5.4)	63.0 (7.4)	5.7 (2.0)	179.3 (11.6)
2014	13.3 (2.4)	43.3 (5.4)	32.7 (4.6)	49.3 (6.8)	4.3 (1.3)	138.7 (15.8)

Dataset = cfdpsgcl.d14– d92

Table 60. PSD and RSD_{15} values obtained for largemouth bass from spring nocturnal electrofishing samples in Guist Creek Lake in 2014; confidence intervals are in parentheses.

Species	No. $\geq$8.0 in	PSD	RSD_{15}
Largemouth bass	376	65 ($\pm$ 5)	39 ($\pm$ 5)

Dataset = cfdpsgcl.d14

Table 61. Population assessment for largemouth bass collected during spring electrofishing at Guist Creek Lake from 2000-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age-1	CPUE 12.0-14.9 in	CPUE ≥15.0 in	CPUE ≥20.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	12.2*	3.7	32.7	49.3	4.3				
	Score	4	1	2	4	4			15	Good
2013	Value	12.2	17.0	51.0	63.0	5.7				
	Score	4	2	4	4	4			18	Excellent
2012	Value	11.0*	13.3	30.0	36.7	4.7				
	Score	3	1	2	4	4			14	Good
2011	Value	11.0*	16.4	34.7	50.7	5.7				
	Score	3	2	2	4	4			15	Good
2010	Value	11.0*	31.5^	26.3	47.3	3.0				
	Score	3	2	2	4	3			14	Good
2009	Value	11.0	6.7	19.3	35.7	4.3	0.341	28.9		
	Score	3	1	1	4	4			13	Good
2008	Value	11.5*	8.1^	41.3	73.0	4.7				
	Score	4	1	3	4	4			16	Good
2007	Value	11.5*	15.5^	42.0	58.0	3.7				
	Score	4	1	3	4	3			15	Good
2006	Value	11.5*	15.2^	30.3	68.7	3.3				
	Score	4	1	2	4	3			14	Good
2005	Value	11.5	21.4	63.0	70.3	4.7	0.510	40.0		
	Score	4	2	4	4	4			18	Excellent
2004	Value	10.2*	22.1^	58.0	54.3	3.7				
	Score	2	2	4	4	3			15	Good
2003	Value	10.2*	16.3^	31.0	49.7	2.7				
	Score	2	2	2	4	3			13	Good
2002	Value	10.2*	23.8^	23.3	41.3	2.0				
	Score	2	2	2	4	3			13	Good
2001	Value	10.2	25.7	17.3	46.3	1.7	0.289	25.1		
	Score	2	2	1	4	2			11	Fair
2000	Value	10.0	16.8	23.0	41.3	3.0	0.161	14.9		
	Score	1	2	2	4	3			10	Good

* Age data not collected

^Calculations based on age data gathered in previous years

-Instantaneous and annual mortality not calculated in years where age and growth data are not collected

Table 62. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Guist Creek Lake in September 2014; numbers in parentheses are standard errors.

	Inch class																					
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	3	18	15	5	10	28	16	10	13	14	8	13	10	10	10	7	8	5		1	204	136.0 (9.9)

Dataset = cfdwrgcl.d14

Table 63. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Guist Creek Lake on 10 September 2014. Standard errors are in parentheses.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	52	91 (1)	31	94 (2)	40	100 (1)	123	94 (1)

Dataset = cfdwrgcl.d14

Table 64. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Guist Creek Lake.

Year class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2000	Total	3.6	0.1	19.5	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	15.5	2.2
2007	Total	3.8	0.2	12.7	4.2	2.7	1.7	8.1	2.0
2008	Total	3.2	0.1	139.3	23.6	0.7	0.7	6.7	2.4
2009	Total	3.7	0.1	51.3	9.8	0.7	0.7	31.5	3.1
2010	Total	4.9	0.1	41.3	4.2	18.7	2.0	16.4	1.6
2011	Total	4.4	0.1	34.7	13.2	7.3	3.9	13.3	4.2
2012	Total	4.1	0.1	46.0	7.9	7.3	3.2	21.3	7.0
2013	Total	4.0	0.1	38.7	7.0	6.7	2.7	3.7	1.0
2014	Total	4.0	0.1	27.3	5.2	3.3	0.7		

Table 65. Length distribution and CPUE (fish/hr) of saugeye collected in 3.0 hours of 15-minute electrofishing runs in Guist Creek Lake in September 2014; numbers in parentheses are standard errors.

	Inch class										
Species	7	8	9	10	11	12	13	14	15	Total	CPUE
Saugeye	2	12	4	2	4	9	1	2	1	37	12.3 (4.3)

Dataset = cfdwrgcl.d14

Table 66. Mean back calculated lengths (in) at each annulus for otoliths from white crappie collected in the fall from Guist Creek Lake in 2014.

		Age							
Year	No.	1	2	3	4	5	6	7	8
2013	20	4.5							
2012	20	4.9	8.0						
2011	8	4.8	7.7	9.3					
2010	2	4.9	7.4	8.8	9.4				
2009	2	5.4	8.3	10.0	11.3	12.0			
2006	1	3.8	6.6	7.9	8.8	9.2	9.4	9.7	9.8
Mean	53	4.7	7.8	9.2	10.0	11.0	9.4	9.7	9.8
Smallest		3.8	6.0	7.3	8.3	9.2	9.4	9.7	9.8
Largest		5.6	9.2	11.2	11.6	12.3	9.4	9.7	9.8
Std Error		0.1	0.1	0.3	0.7	1.0			
95% ConLo		4.6	7.6	8.6	8.8	9.1			
95% ConHi		4.8	8.1	9.8	11.3	12.9			

Intercept value = 0.00
Dataset = cfdaggcl.d14

Table 67. Mean back calculated lengths (in) at each annulus for otoliths from black crappie collected in the fall from Guist Creek Lake in 2014.

		Age					
Year	No.	1	2	3	4	5	6
2013	11	4.2					
2012	10	4.9	7.5				
2011	5	5.3	7.4	8.9			
2010	3	4.7	7.2	8.5	9.4		
2009	1	6.0	8.8	9.7	10.6	11.3	
2008	3	4.2	6.5	7.4	8.0	8.9	9.6
Mean	33	4.7	7.4	8.5	9.0	9.5	9.6
Smallest		3.7	6.0	7.2	7.8	8.4	9.0
Largest		6.2	8.8	10.1	10.6	11.3	10.0
Std Error		0.1	0.1	0.3	0.4	0.6	0.3
95% ConLo		4.4	7.1	7.9	8.1	8.2	9.0
95% ConHi		4.9	7.7	9.0	9.8	10.7	10.2

Intercept value = 0.00
Dataset = cfdaggcl.d14

Table 68. Length distribution and CPUE (fish/nn) of hybrid striped bass collected during 8 net-nights of gill netting in Guist Creek Lake in October 2014: numbers in parentheses are standard errors.

	Inch class																					
Species	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total	CPUE
Hybrid striped bass	2			1	3	1		1	3	4			2	7	2	1		2	1	1	31	3.9 (0.8)

Dataset = cfdgngcl.d14

Table 69. Mean back calculated lengths (in) at each annulus for otoliths from hybrid striped bass gill netted at Guist Creek Lake in 2014.

		Age														
Year class	No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2013	5	6.9														
2012	9	8.1	13.5													
2011	11	8.5	14.4	19.5												
2010	1	10.2	17.2	22.3	24.0											
2009	1	9.2	13.4	18.0	23.0	24.9										
2005	1	11.0	17.6	19.6	22.3	23.1	24.0	24.9	25.8	26.7						
1999	1	9.4	15.1	16.5	18.8	19.5	20.2	20.8	21.5	22.2	22.9	23.5	24.2	24.9	25.6	26.2
Mean	29	8.3	14.3	19.4	22.0	22.5	22.1	22.9	23.7	24.5	22.9	23.5	24.2	24.9	25.6	26.2
Smallest		5.5	9.2	16.5	18.8	19.5	20.2	20.8	21.5	22.2	22.9	23.5	24.2	24.9	25.6	26.2
Largest		11.6	17.6	22.3	24.0	24.9	24.0	24.9	25.8	26.7	22.9	23.5	24.2	24.9	25.6	26.2
Std Error		0.3	0.4	0.4	1.1	1.6	1.9	2.0	2.1	2.3						
95% ConLo		7.8	13.5	18.6	19.8	19.4	18.3	18.9	19.5	20.0						
95% ConHi		8.9	15.0	20.2	24.2	25.6	25.9	26.9	27.9	28.9						

Intercept Value = 0.00
Dataset = cfdaggcl.d14

Table 70. Age frequency and CPUE (fish/nn) per inch class of hybrid striped bass gill netted for 8 net-nights at Guist Creek Lake in 2014.

	Inch class																							Std
Age	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total	%	CPUE	Err
0+	2																				2	6	0.3	0.2
1+				1	3	1															5	16	0.6	0.3
2+								1	3	4			1								9	29	1.1	0.4
3+													1	7	2	1					11	35	1.4	0.6
4+																		1			1	3	0.1	0.1
5+																		1			1	3	0.1	0.1
9+																				1	1	3	0.1	0.1
15+																			1		1	3	0.1	0.1
Total	2			1	3	1		1	3	4			2	7	2	1		2	1	1	31	100	3.9	0.8
%	6			3	10	3		3	10	13			6	23	6	3		6	3	3	100			

Dataset = cfdaggcl.d14 and cfdgngcl.d14

Table 71. Number of fish and the relative weight (Wr) for each length group of hybrid striped bass collected at Guist Creek Lake in October 2014.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Hybrid striped bass	Total	3	88 (2)	4	87 (3)	24	78 (2)	31	80 (1)

Dataset = cfdgngcl.d14

Table 72. Population assessment for hybrid striped bass collected during fall gill netting at Guist Creek Lake from 2000-2014 (scoring based on statewide assessment).

Year		CPUE (excluding age 0)	Mean length age-2+ at capture	CPUE ≥15.0 in	CPUE age 1+	Total score	Assessment rating
2014	Value	3.6	17.3	3.0	0.6		
	Score	1	3	2	1	7	Fair
2013	Value				No Sample		
	Score						
2012	Value				No Sample		
	Score						
2011	Value	6.3	17.6	5.9	0.3		
	Score	2	3	3	1	9	Fair
2010	Value	4.0	13.2	1.0	2.9		
	Score	1	1	1	2	5	Poor
2009	Value	2.0	18.5	2.0	1.3		
	Score	1	4	1	1	7	Fair
2008	Value	0.9	16.8	0.8	0.1		
	Score	1	2	1	1	5	Poor
2007	Value	8.8	18.4	8.3	0.5		
	Score	2	4	3	1	10	Good
2006	Value	3.4	17.1	3.1	0.3		
	Score	1	3	2	1	7	Fair
2005	Value	3.3	14.9	2.9	0.3		
	Score	1	1	2	1	5	Poor
2004	Value	3.6	17.4	2.5	0.9		
	Score	1	3	2	1	7	Fair
2003	Value	3.5	18.0	3.3	0.3		
	Score	1	4	2	1	8	Fair
2002	Value	4.3	17.2	3.5	0.8		
	Score	1	3	2	1	7	Fair
2001	Value	2.3	17.1	1.5	0.8		
	Score	1	3	1	1	6	Fair
2000	Value	15.6	17.2	9.0	6.4		
	Score	3	3	3	3	12	Good

Table 73. Length composition, relative abundance, and CPUE (fish/set) of channel catfish at Guist Creek Lake. Channel catfish were collected using baited, tandem hoop nets (72 hours soak time) that were set on 6 October 2014. Nets were pulled three days after setting them and 5 sets of tandem nets were used for the sampling event.

	Inch class																						
Species	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total	Average per set
Channel catfish	2	38	62	58	58	29	27	21	17	11	9	11	12	4	12	10	5	8	2	2	1	399	79.8 (20.6)

Dataset = cfdhngcl.d14

Table 74. PSD and RSD_{24} values obtained for channel catfish from tandem hoop net samples in Guist Creek Lake in 2014; confidence intervals are in parentheses.

Species	No. $\geq$stock size	PSD	RSD_{24}
Channel catfish	297	35 ($\pm$ 5)	6 ($\pm$ 3)

Dataset = cfdhngcl.d14

Table 75. Mean length at capture of channel catfish sampled from Guist Creek Lake in 2014.

	Age													
	1+	2+	3+	4+	5+	6+	7+	8+	9+	10+	11+	12+	13+	14+
Number of fish	11	12	6	17	12	12	2	2	2	0	1	1	0	1
Mean length (in.)	10.8	13.1	15.1	17.7	21.3	22.4	22.5	25.7	23.1		22.6	24.8		24.1
Std error	(0.5)	(0.4)	(0.5)	(0.6)	(0.9)	(0.8)	(1.7)	(2.6)	(3.1)		(-)	(-)		(-)
Smallest (in.)	8.8	10.8	14.0	13.6	14.8	17.8	20.8	23.1	20.0		22.6	24.8		24.1
Largest (in.)	15.6	15.8	16.8	23.7	26.6	27.4	24.1	28.2	26.1		22.6	24.8		24.1

Dataset = cfdaggcl.d14

Table 76. Number of fish and the relative weight (Wr) for each length group of channel catfish collected at Guist Creek Lake in October 2014; standard errors are in parentheses.

		Length group							
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	96	88 (1)	83	98 (2)	18	109 (4)	197	94 (1)

Dataset = cfdhngcl.d14

Table 77. CPUE (fish/set) for each length group of channel catfish collected by hoop net from Guist Creek Lake from 2006-2014; numbers in parentheses are standard errors.

	Length group			
Year	$\geq$12.0 in	$\geq$15.0 in	$\geq$20.0 in	Total
2006	43.8 (12.5)	6.0 (2.1)	1.8 (0.8)	274.2 (95.6)
2007	208.2 (106.1)	60.0 (32.6)	13.0 (7.6)	382.0 (184.4)
2008	87.4 (24.4)	26.6 (10.4)	7.4 (2.9)	107.2 (29.2)
2009	45.4 (11.9)	22.2 (5.8)	4.4 (1.6)	73.0 (16.0)
2010	42.0 (10.3)	18.8 (4.4)	4.6 (1.6)	78.6 (19.9)
2011	13.2 (3.2)	4.6 (1.7)	0.2 (0.2)	31.6 (7.3)
2012	21.8 (12.0)	8.2 (5.5)	2.4 (1.6)	50.2 (26.4)
2013		No Sample		
2014	47.8 (14.0)	25.0 (9.5)	11.2 (3.3)	79.8 (20.6)

Dataset = cfdhngcl.d14 - .d06

Table 78. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.50 hours of 15-minute electrofishing runs in A.J. Jolly Lake, April 2014; numbers in parentheses are standard errors.

	Inch class																					
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE
Largemouth bass	1	10	8	2	13	20	11	12	10	22	10	8	19	16	9	8	3	3	1	1	187	74.8 (9.1)

Dataset = cfdpsajj.d14

Table 79. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from A.J. Jolly Lake from 1996-2014; numbers in parentheses are standard errors.

Year	Length group <8.0 in	8.0-11.9 in	12.0-14.9 in	>15.0 in	>20.0 in	Total
1996	18.5 (2.8)	13.5 (1.7)	24.0 (5.7)	9.5 (2.5)	0.0	65.5 (7.4)
1997	11.6 (1.9)	37.2 (3.8)	19.6 (2.1)	20.4 (2.6)	0.8 (0.5)	88.8 (4.7)
1998	11.5 (1.9)	42.5 (8.0)	24.5 (2.4)	25.5 (3.5)	2.0 (1.1)	104.0 (11.6)
1999	5.0 (2.4)	21.0 (6.1)	32.0 (6.5)	26.0 (4.5)	4.0 (1.3)	84.0 (13.7)
2000	27.0 (5.4)	25.0 (4.3)	9.5 (1.5)	20.0 (3.3)	1.5 (0.7)	81.5 (7.9)
2001	35.5 (5.9)	48.5 (5.7)	12.0 (2.4)	26.0 (5.2)	2.0 (1.1)	122.0 (13.5)
2002	10.0 (2.1)	44.5 (8.2)	9.5 (1.5)	18.0 (3.1)	0.5 (0.5)	82.0 (10.5)
2003	14.5 (4.3)	40.5 (4.2)	19.0 (4.3)	7.5 (2.2)	0.0	81.5 (7.7)
2004*						
2005	55.5 (10.4)	19.5 (4.0)	12.5 (1.8)	7.0 (2.0)	0.0	94.5 (14.9)
2006	28.0 (6.9)	23.5 (3.5)	5.5 (2.0)	2.5 (1.1)	0.0	59.5 (7.6)
2007	31.6 (4.4)	36.8 (5.9)	15.2 (2.3)	14.0 (2.8)	0.0	97.6 (11.2)
2008	7.2 (1.4)	14.8 (4.1)	14.8 (2.7)	8.0 (3.1)	0.0	44.8 (6.2)
2009	15.6 (2.4)	19.6 (2.6)	12.8 (2.9)	12.8 (2.7)	2.0 (0.9)	60.8 (7.7)
2010	12.4 (2.6)	22.8 (4.0)	20.8 (3.8)	21.2 (3.7)	1.6 (0.9)	77.2 (8.9)
2011	26.8 (5.0)	12.8 (3.3)	12.4 (2.9)	20.4 (3.4)	0.8 (0.8)	72.4 (10.1)
2012	35.6 (6.0)	32.4 (6.9)	19.6 (2.4)	20.0 (4.8)	0.4 (0.4)	107.6 (14.5)
2013	11.6 (2.6)	23.2 (3.7)	24.0 (5.1)	17.2 (2.9)	1.6 (0.9)	76.0 (9.9)
2014	13.6 (2.8)	21.2 (2.9)	16.0 (3.2)	24.0 (5.1)	2.0 (0.9)	74.8 (9.1)

Dataset = cfdpsajj.d96 – d014
*No spring sample was done in 2004

Table 80. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in A.J. Jolly Lake in 2014; confidence intervals are in parentheses.

Species	No. >8.0 in	PSD	RSD_{15}
Largemouth bass	153	65 (± 8)	39 (± 8)

Dataset = cfdpsajj.d14

Table 81. Population assessment for largemouth bass collected during spring electrofishing at A.J. Jolly Lake in 2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age-1	CPUE 12.0-14.9 in	CPUE >15.0 in	CPUE >20.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	11.9*	8.0	16.0	24.0	2.0				
	Score	4	1	1	3	3			12	Good
2013	Value	11.9*	10.4	24.0	17.2	1.6				
	Score	4	1	2	3	2			12	Good
2012	Value	11.9*	27.2	19.6	20.0	0.4				
	Score	4	2	1	3	1			11	Fair
2011	Value	11.9	26.0	12.4	20.4	0.8				
	Score	4	2	1	3	1			11	Fair
2010	Value	11.8*	4.0	20.8	21.2	1.6				
	Score	4	1	2	3	2			12	Good

* Age data not collected

Table 82. Length distribution and CPUE (fish/hr) of largemouth bass collected in 2.0 hours of 15-minute electrofishing runs for black bass in A.J. Jolly Lake in October 2014; numbers in parentheses are standard errors.

	Inch class																		
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Largemouth bass	2	12	9	13	9	4	30	13	3	11	11	6	10	6	5	6	2	152	76.0 (8.6)

Dataset = cfdwrajj.d14

Table 83. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at A.J. Jolly Lake on 13 October 2014; standard errors are in parentheses.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	57	85 (2)	27	97 (7)	19	100 (2)	103	91 (2)

Dataset = cfdwrajj.d14

Table 84. Indices of year class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall in electrofishing samples at A.J. Jolly Lake.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2004	Total	3.5	0.1	36.7	5.2	2.0	0.9	49.8	9.2
2005	Total	4.3	0.1	16.0	3.7	2.7	1.3	23.7	5.7
2006	Total	4.1	0.2	8.7	2.8	0.7	0.7	28.5	4.5
2007	Total	4.4	0.3	5.6	1.8	2.0	0.9	3.6	1.1
2008	Total	4.6	0.1	29.7	4.4	7.4	2.2	12.0	2.0
2009	Total	4.2	0.2	8.4	2.5	1.3	0.7	4.0	1.9
2010	Total	5.2	0.1	42.4	5.2	26.8	4.1	26.0	4.6
2011	Total	4.9	0.1	22.0	3.6	13.5	4.2	27.2	4.8
2012	Total	4.9	0.1	22.0	3.6	12.0	2.9	10.4	2.2
2013	Total	4.5	0.1	23.0	3.4	6.0	2.3	8.0	2.0
2014	Total	4.5	0.2	19.5	5.9	8.0	2.8		

Table 85. Length distribution and CPUE (fish/hr) of blue catfish collected in 1.78 hours in A.J. Jolly Lake in October 2014; 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	Total	CPUE
Blue catfish	2	7	11	21	43	41	16	6	3	1	2	3		1			1	158	89.7 (16.5)

Dataset = cfdbcajj.d14

Table 86. Number of fish and the relative weight (Wr) for each length group of blue catfish collected at A.J. Jolly Lake on 3 July 2014; standard errors are in parentheses.

		Length group					
Species	Area	12.0–19.9 in		20.0–29.9 in		Total	
		No.	Wr	No.	Wr	No.	Wr
Blue catfish	Total	32	90 (2)	1	87	33	90 (2)

Dataset = cfdwrajj.d14

Table 87. Length distribution and CPUE (fish/hr) of saugeye collected in 2.0 hours of 15-minute electrofishing runs in A.J. Jolly Lake in October 2014; numbers in parentheses are standard errors.

	Inch class									
Species	6	7	8	9	10	11	12	13	Total	CPUE
Saugeye	4	4	4	6	2	3	2	4	29	14.5 (4.3)

Dataset = cfdwrajj.d14

Table 88. Length distribution and CPUE (fish/hr) of white and black crappie collected in 1.0 hour of 15-minute electrofishing runs for crappie in A.J. Jolly Lake in October 2014; numbers in parentheses are standard errors.

	Inch class												
Species	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE
White crappie		1	8	86	4	6	1		1	1	1	109	109.0 (42.7)
Black crappie	1		13	55	3						1	73	73.0 (36.8)

Dataset = cfdwrajj.d14

Table 89. Mean back calculated lengths (in) at each annulus for otoliths from white crappie sampled at A.J. Jolly Lake in fall 2014.

		Age							
Year class	No.	1	2	3	4	5	6	7	8
2013	8	3.9							
2012	7	4.8	6.4						
2011	23	4.7	6.1	7.4					
2010	1	6.1	8.7	10.9	12.3				
2009	5	4.1	5.7	6.7	7.5	8.1			
2008	8	3.8	5.1	5.7	6.2	6.7	7.4		
2007	3	3.3	4.7	5.3	5.8	6.1	6.4	6.8	
2006	2	4.9	6.7	7.4	7.9	8.6	9.5	10.6	11.3
Mean	57	4.4	6.0	6.9	7.0	7.2	7.5	8.3	11.3
Smallest		2.4	3.9	4.5	5.0	5.3	5.7	6.1	7.7
Largest		6.5	8.7	11.0	12.6	13.3	12.0	13.9	14.9
Std Error		0.1	0.2	0.3	0.5	0.5	0.6	1.4	3.6
95% ConLo		4.1	5.6	6.4	6.0	6.2	6.4	5.5	4.3
95% ConHi		4.7	6.3	7.5	8.0	8.1	8.6	11.1	18.4

Intercept Value = 0.00
Dataset = cfdagajj.d14

Table 90. Mean back calculated lengths (in) at each annulus for otoliths from black crappie sampled at A.J. Jolly Lake in fall 2014.

		Age							
Year class	No.	1	2	3	4	5	6	7	8
2013	6	4.3							
2012	21	4.0	5.6						
2011	2	4.0	5.3	6.1					
2010	4	4.2	5.6	6.3	6.9				
2009	3	3.9	5.3	6.0	6.7	7.4			
2008	1	3.8	4.8	5.5	5.8	6.1	6.4		
2007	2	3.5	4.7	5.2	5.6	5.9	6.1	6.3	
2006	1	3.6	4.9	5.3	5.6	6.0	6.2	6.3	6.5
Mean	40	4.0	5.5	5.9	6.4	6.6	6.2	6.3	6.5
Smallest		3.0	4.6	5.1	5.5	5.8	6.0	6.2	6.5
Largest		5.2	7.1	8.1	9.3	10.1	6.4	6.4	6.5
Std Error		0.1	0.1	0.2	0.4	0.6	0.1	0.1	
95% ConLo		3.9	5.3	5.4	5.6	5.4	6.1	6.2	
95% ConHi		4.2	5.7	6.4	7.2	7.7	6.3	6.4	

Intercept Value = 0.00
Dataset = cfdagajj.d14

Table 91. Length composition, relative abundance, and CPUE (fish/set) of channel catfish at A.J. Jolly Lake. Channel catfish were collected using baited, tandem hoop nets (72 hours soak time) that were set on 6 October 2014. Nets were pulled three days after setting them, and 3 sets of tandem nets were used for the sampling event.

	Inch class													
Species	7	8	9	10	11	12	13	14	15	16	17	18	Total	Average per set
Channel catfish	2	16	20	23	34	25	10	14	14	5	14	2	179	35.8 (10.9)

Dataset = cfdhnajj.d14

Table 92. PSD and RSD_{24} values obtained for channel catfish from tandem hoop net samples in A.J. Jolly Lake in 2014; confidence intervals are in parentheses.

Species	No. ≥stock size	PSD	RSD_{24}
Channel catfish	5	18 (± 7)	0 (± 0)

Dataset = cfdhnajj.d14

Table 93. Number of fish and the relative weight (Wr) for each length group of channel catfish collected at A.J. Jolly Lake in October 2014; standard errors are in parentheses.

		Length group							
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	96	91 (1)	21	92 (4)			117	91 (1)

Dataset = cfdhnajj.d14

Table 94. CPUE (fish/set) for each length group of channel catfish collected by hoop net from A.J. Jolly Lake from 2007-2014; numbers in parentheses are standard errors.

	Length group			
Year	≥12.0 in	≥15.0 in	≥20.0 in	Total
2007	3.4 (1.4)	0.6 (0.4)	0.0	68.0 (18.7)
2008	9.4 (2.8)	1.6 (0.6)	0.2 (0.2)	75.0 (7.7)
2009				
2010	5.6 (2.5)	1.6 (0.9)	0.0	18.0 (3.9)
2011	18.2 (6.1)	3.2 (1.7)	0.2 (0.2)	41.6 (10.0)
2012	2.8 (1.2)	0.2 (0.2)	0.0	8.6 (5.3)
2013	12.4 (3.6)	2.8 (1.0)	0.2 (0.2)	34.2 (13.9)
2014	16.8 (3.7)	7.0 (1.8)	0.0	35.8 (10.9)

Dataset = cfdhnajj.d14

Table 95. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 1.50 hours of 15-minute electrofishing runs in Beaver Lake, May 2014; numbers in parentheses are standard errors.

	Inch class																					
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	1	11	40	38	7	50	75	66	53	38	18	14	10	8	2	5	8	2	3	1	450	225.0 (21.2)

Dataset = cfdpsbvr.d14

Table 96. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Beaver Lake from 1992-2014; numbers in parentheses are standard errors.

	Length group					
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	≥20.0 in	Total
1992	7.1 (2.1)	105.3 (8.6)	4.9 (1.1)	19.1 (4.8)	9.3 (3.3)	136.4 (5.6)
1993	22.5 (3.9)	59.5 (5.3)	76.0 (7.9)	13.0 (4.3)	8.5 (2.8)	171.0 (12.2)
1994	22.5 (2.8)	5.5 (2.5)	41.5 (3.3)	28.5 (4.5)	6.5 (2.8)	96.5 (6.9)
1995	73.0 (8.4)	37.5 (5.9)	10.0 (3.8)	34.0 (7.0)	6.0 (2.3)	154.5 (9.9)
1996	81.0 (11.6)	47.0 (6.3)	8.0 (2.0)	37.5 (2.9)	3.0 (0.7)	173.5 (17.8)
1997	84.5 (12.2)	99.5 (16.7)	8.5 (2.1)	42.5 (9.6)	6.0 (3.2)	235.0 (34.1)
1998	36.0 (4.2)	206.5 (17.6)	14.5 (4.8)	30.5 (6.6)	5.5 (1.7)	287.5 (22.8)
1999	42.0 (11.0)	71.5 (7.3)	17.0 (2.6)	22.0 (3.5)	7.5 (1.6)	152.5 (18.1)
2000	56.0 (7.7)	26.5 (5.6)	28.5 (2.2)	24.5 (2.9)	3.0 (1.3)	137.0 (9.8)
2001	142.5 (8.6)	66.5 (8.6)	25.5 (1.5)	39.0 (6.1)	4.0 (1.5)	273.5 (17.1)
2002	55.5 (10.8)	97.0 (13.6)	16.0 (2.1)	32.0 (4.9)	2.5 (1.1)	200.5 (26.8)
2003	142.5 (9.1)	131.5 (12.9)	20.0 (3.0)	18.0 (2.4)	2.0 (0.8)	312.0 (20.4)
2004	154.5 (5.5)	198.0 (15.1)	48.0 (7.5)	17.0 (3.7)	2.0 (0.8)	417.5 (20.3)
2005	68.5 (11.4)	298.0 (22.7)	42.0 (7.7)	15.0 (3.5)	4.5 (1.4)	423.5 (21.6)
2006	115.0 (11.3)	217.5 (36.5)	40.0 (3.7)	10.0 (2.3)	2.5 (1.1)	382.5 (34.9)
2007	30.5 (4.8)	176.5 (31.1)	42.5 (9.6)	10.0 (2.7)	3.0 (1.0)	259.5 (40.4)
2008	44.5 (6.6)	203.5 (22.4)	61.0 (6.0)	8.5 (1.8)	2.0 (0.8)	317.5 (29.4)
2009	14.5 (2.8)	146.5 (28.5)	84.5 (15.6)	3.5 (2.1)	0.5 (0.5)	249.0 (45.3)
2010	76.7 (6.8)	99.8 (8.5)	58.9 (4.5)	2.9 (0.7)	0.2 (0.2)	238.2 (14.3)
2011	23.5 (5.8)	56.0 (8.2)	70.5 (5.9)	6.5 (1.5)	0.0 (0.0)	156.5 (13.7)
2012	97.0 (11.6)	81.5 (6.4)	73.5 (6.8)	14.0 (2.9)	2.5 (1.1)	266.0 (12.5)
2013	60.0 (8.8)	137.3 (12.3)	48.7 (9.3)	16.7 (2.4)	1.3 (0.8)	262.7 (16.4)
2014	73.5 (10.7)	116.0 (12.5)	21.0 (3.3)	14.5 (2.7)	2.0 (1.1)	225.0 (21.2)

Dataset = cfdpsbvr.d14 - .d92

Table 97. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Beaver Lake in 2014; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	303	23 (± 5)	9 (± 3)

Dataset = cfdpsbvr.d14

Table 98. Population assessment for largemouth bass collected during spring electrofishing at Beaver Lake from 2000-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age-1	CPUE 12.0-14.9 in	CPUE ≥15.0 in	CPUE ≥20.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	10.8	47.3	21.0	14.5	2.0				
	Score	3	3	2	2	3			13	Good
2013	Value	10.7*	50.0	48.7	16.7	1.3				
	Score	2	3	3	2	2			12	Good
2012	Value	10.7*	94.5	73.5	14.0	2.5				
	Score	2	4	4	2	3			15	Good
2011	Value	10.7*	23.4	70.5	6.5	0.0				
	Score	2	2	4	2	0			10	Fair
2010	Value	10.7	76.7	58.9	2.9	0.2	0.293	25.4		
	Score	2	4	4	1	1			12	Good
2009	Value	10.3*	3.0^	84.5	3.5	0.5				
	Score	2	1	4	1	1			9	Fair
2008	Value	10.3*	23.0^	61.0	8.5	2.0				
	Score	2	2	4	2	3			13	Good
2007	Value	10.3	2.0	42.5	10.0	3.0	0.622	46.3		
	Score	2	1	3	2	3			11	Fair
2006	Value	10.7*	108.3^	40.0	10.0	2.5				
	Score	2	4	3	2	3			14	Good
2005	Value	10.7*	38.7^	42.0	15.0	4.5				
	Score	2	2	3	2	4			13	Good
2004	Value	10.7*	97.6^	48.0	17.0	2.0				
	Score	2	4	3	3	3			15	Good
2003	Value	10.7	133.2	20.0	18.0	2.0	0.540	41.7		
	Score	2	4	2	3	3			14	Good
2002	Value	11.7*	35.4^	16.0	32.0	2.5				
	Score	4	2	1	4	3			14	Good
2001	Value	11.7	47.8	25.5	39.0	4.0				
	Score	4	3	2	4	4			17	Excellent
2000	Value	10.7*	31.5^	30.0	24.5	3.0				
	Score	2	2	2	3	3			12	Good

* Age data not collected

^Calculations based on age data gathered in previous years

-Instantaneous and annual mortality not calculated in years where age and growth data are not collected

Table 99. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Beaver Lake in September 2014; numbers in parentheses are standard errors.

	Inch class																			
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Largemouth bass	5	65	51	20	1	25	20	27	53	35	12	8	1	2		1	1	4	2	333	222.0 (24.1)

Dataset = cfdwrbvr.d14

Table 100. Mean back calculated lengths (in.) at each annulus for otoliths from largemouth bass collected in the fall from Beaver Lake in 2014.

		Age											
Year	No.	1	2	3	4	5	6	7	8	9	10	11	12
2013	22	5.2											
2012	18	5.7	8.7										
2011	25	5.7	9.4	10.8									
2010	4	5.5	9.7	11.5	12.5								
2009	3	6.4	10.2	11.9	12.8	13.6							
2007	4	7.5	11.3	13.3	14.8	16.0	17.3	18.2					
2005	1	6.3	9.5	11.7	12.9	14.1	15.7	16.8	18.3	19.2			
2004	1	5.9	11.1	12.7	13.3	13.8	14.2	14.7	15.1	15.7	16.3	16.9	
2002	1	5.3	8.7	11.2	12.0	12.6	13.2	13.8	14.5	15.1	15.7	16.3	16.9
Mean	79	5.7	9.4	11.3	13.3	14.5	16.0	16.8	15.9	16.6	15.8	16.3	16.9
Smallest		3.8	6.2	8.3	12.0	12.6	13.2	13.8	14.5	15.1	15.7	16.3	16.9
Largest		8.7	12.5	15.3	17.4	18.6	19.8	20.4	18.3	19.2	15.9	16.3	16.9
Std Error		0.1	0.2	0.2	0.4	0.6	0.9	1.0	1.2	1.3	0.1		
95% ConLo		5.5	9.1	10.9	12.5	13.3	14.3	15.0	13.6	14.1	15.6		
95% ConHi		5.9	9.7	11.7	14.1	15.7	17.8	18.7	18.3	19.1	15.9		

Intercept value = 0.00
Dataset = cfdagbvr.d14

Table 101. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Beaver Lake on 25 September 2014; standard errors are in parentheses.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	99	83 (1)	21	84 (2)	10	95 (3)	130	84 (1)

Dataset = cfdwrbvr.d14

Table 102. Indices of year class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall in electrofishing samples at Beaver Lake.

Year class	Area	Age 0 Mean length	Age 0 Std. error	Age 0 CPUE	Age 0 Std. error	Age 0 ≥5.0 in CPUE	Age 0 ≥5.0 in Std. error	Age 1 CPUE	Age 1 Std. error
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		2.0	1.1
2007	Total	4.6	0.1	175.3	31.2	46.7	4.6	23.5	4.4
2008	Total	3.4	0.1	21.3	11.9	0.0		4.5	1.4
2009	Total	5.0	0.1	112.7	21.9	56.7	10.7	76.7	6.8
2010	Total	4.0	0.1	38.7	14.1	4.7	2.2	23.4	5.4
2011	Total	4.2	0.05	142.0	23.9	18.0	4.1	94.5	11.1
2012	Total	4.3	0.04	124.6	24.6	17.7	4.0	50.0	7.1
2013	Total	3.8	0.06	78.7	6.2	3.3	2.2	47.3	7.4
2014	Total	4.1	0.06	94.7	15.0	14.0	3.5		

Table 103. Species composition, relative abundance, and CPUE (fish/hr) of bluegill and redear sunfish collected in 0.625 hours of 7.5-minute electrofishing runs in Beaver Lake, May 2014; numbers in parentheses are standard errors.

Species	Inch class 2	3	4	5	6	7	8	9	10	Total	CPUE
Bluegill	1	19	90	49	83	75				317	507.2 (37.4)
Redear sunfish			1	1	1	3	2	3	3	14	22.4 (3.0)

Dataset = cfdpsbvr.d14

Table 104. PSD and RSD values calculated for sunfish collected during 0.625 hours of electrofishing at Beaver Lake during May 2014. Fish were collected in 7.5-minute runs.

Species	No. ≥stock size	PSD	RSD[a]
Bluegill	316	50 (± 5)	0 (± 0)
Redear sunfish	14	78 (±22)	42 (± 27)

[a]Bluegill = RSD_8; Redear = RSD_9
Dataset = cfdpsbvr.d14

Table 105. Electrofishing CPUE (fish/hr) for each length group of bluegill collected from Beaver Lake from 1992-2014; numbers in parentheses are standard errors.

Year	Length group				Total
	<3.0 in	3.0–5.9 in	6.0-7.9 in	≥8.0 in	
1992	1.3 (0.9)	54.2 (10.2)	80.9 (15.1)	0.0	136.4 (24.0)
1993	2.5 (1.1)	47.0 (6.2)	79.5 (10.0)	0.0	129.0 (12.6)
1994	2.5 (1.1)	130.0 (21.0)	20.0 (4.0)	0.0	152.5 (24.2)
1995	2.0 (1.1)	174.0 (18.4)	16.5 (4.7)	0.0	192.5 (17.3)
1996	0.5 (0.5)	184.5 (27.3)	65.5 (11.5)	0.0	250.5 (34.5)
1997	2.5 (1.1)	58.0 (12.6)	86.5 (14.4)	0.5 (0.5)	147.5 (27.4)
1998	0.5 (0.5)	28.0 (4.3)	88.0 (15.0)	0.5 (0.5)	117.0 (19.0)
1999	14.0 (4.5)	13.0 (5.5)	10.5 (3.0)	0.0	37.5 (8.3)
2000	50.0 (12.7)	322.0 (23.1)	32.0 (13.6)	7.5 (3.8)	411.5 (41.2)
2001	19.0 (5.1)	211.5 (16.0)	122.0 (15.2)	0.0	352.5 (20.2)
2002	5.6 (1.7)	175.2 (22.9)	152.8 (27.7)	0.0	333.6 (44.7)
2003	33.6 (6.4)	141.6 (17.5)	128.8 (21.9)	0.0	304.0 (30.1)
2004	36.0 (16.0)	118.4 (32.4)	143.2 (29.3)	0.0	297.6 (56.4)
2005	21.6 (4.5)	109.6 (14.6)	97.6 (19.3)	4.0 (2.2)	232.8 (19.7)
2006	20.1 (4.9)	60.9 (8.6)	55.7 (13.5)	8.3 (2.9)	145.1 (24.7)
2007	12.0 (2.6)	34.4 (4.6)	53.6 (9.5)	2.4 (1.7)	102.4 (10.4)
2008	69.6 (11.1)	112.4 (13.3)	38.0 (6.3)	4.0 (1.4)	224.0 (24.6)
2009	17.2 (5.1)	60.4 (10.0)	40.4 (5.9)	1.6 (0.9)	119.6 (15.3)
2010	35.6 (8.2)	134.8 (10.6)	24.4 (5.9)	4.4 (1.5)	199.2 (17.5)
2011	68.4 (20.3)	299.2 (47.8)	51.6 (8.1)	5.2 (1.9)	424.4 (70.4)
2012	5.6 (2.1)	131.2 (26.1)	59.2 (15.1)	0.0	196.0 (32.1)
2013	1.6 (1.1)	192.8 (16.5)	77.6 (9.8)	1.6 (1.6)	273.6 (23.4)
2014	1.6 (1.6)	252.8 (33.4)	252.8 (56.6)	0.0	507.2 (37.4)

Dataset = cfdpsbvr.d14 - .d92

Table 106. Population assessment for bluegill collected during spring electrofishing at Beaver Lake from 2001-2014 (scoring based on statewide assessments).

Year		Mean length age-2 at capture	Years to 6.0 in	CPUE ≥6.0 in	CPUE ≥8.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	4.7*	2-2+	252.8	0.0	-	-		
	Score	3	4	4	0			11	Good
2013	Value	4.7	2-2+	79.2	1.6	-	-		
	Score	3	4	4	1			12	Good
2012	Value	4.8	2-2+	59.2	0.0	-	-		
	Score	3	4	3	0			10	Fair
2011	Value	4.7	2-2+	56.8	5.2	0.834	55.6		
	Score	3	4	3	2			12	Good
2010	Value	4.5	3-3+	28.8	4.4	0.594	44.8		
	Score	3	3	2	1			9	Fair
2009	Value	4.8	3-3+	42.0	1.6	0.723	51.5		
	Score	3	3	2	1			9	Fair
2008	Value	4.2	3-3+	42.0	4.0	0.497	39.2		
	Score	2	3	2	1			8	Fair
2007	Value	3.7	3-3+	56.0	2.4	0.666	48.6		
	Score	2	3	3	1			9	Fair
2006	Value	3.4	3-3+	64.1	8.3	*	*		
	Score	1	3	3	2			9	Fair
2005	Value	4.0	3-3+	101.6	4.0	0.340	28.8		
	Score	2	3	4	1			10	Fair
2004	Value	3.9	3-3+	143.2	0.0	*	*		
	Score	2	3	4	0			9	Fair
2003	Value	3.9	3-3+	128.8	0.0	*	*		
	Score	2	3	4	0			9	Fair
2002	Value	3.9	2-2+	152.8	0.0	*	*		
	Score	2	4	4	0			10	Fair
2001	Value	4.5	2-2+	122.0	0.0	*	*		
	Score	3	4	4	0			11	Good

* Age data not collected

Table 107. Electrofishing CPUE (fish/hr) for each length group of redear sunfish collected from Beaver Lake from 1992-2014; numbers in parentheses are standard errors.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
1992	0.4 (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)
2007	0.0	25.2 (6.1)	74.0 (13.5)	32.4 (6.6)	0.0	125.3 (23.2)
2008	10.0 (2.7)	15.2 (2.5)	58.4 (12.2)	90.4 (16.5)	0.0	174.0 (26.8)
2009	0.8 (0.6)	23.6 (4.8)	26.8 (4.8)	29.6 (5.8)	0.0	80.8 (11.5)
2010	0.4 (0.4)	21.6 (3.9)	27.6 (4.4)	33.6 (7.0)	1.2 (0.9)	83.2 (10.5)
2011	0.0	13.6 (3.4)	11.2 (2.0)	23.2 (4.9)	0.0	48.0 (6.3)
2012	0.0	5.6 (1.7)	28.8 (4.3)	68.0 (12.9)	9.6 (2.6)	102.4 (14.1)
2013	0.0	6.4 (2.6)	3.2 (1.3)	12.0 (4.7)	2.4 (1.7)	21.6 (5.2)
2014	0.0	3.2 (2.0)	6.4 (1.6)	12.8 (5.4)	4.8 (3.2)	22.4 (3.0)

Dataset = cfdpsbvr.d14 – .d92

Table 108. Population assessment for redear sunfish collected during spring electrofishing at Beaver Lake from 2001-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Years to 8.0 in	CPUE ≥8.0 in	CPUE ≥10.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	8.8*	2-2+	12.8	4.8				
	Score	4	4	3	3			14	Excellent
2013	Value	8.8	2-2+	12.0	2.4				
	Score	4	4	3	2			13	Good
2012	Value	7.5	3-3+	68.0	9.6	0.342	29.0		
	Score	4	4	4	4			16	Excellent
2011	Value	7.6	3-3+	23.2	1.6	0.398	32.8		
	Score	4	4	4	1			13	Good
2010	Value	7.5	4-4+	33.6	1.2	0.435	35.3		
	Score	4	3	4	1			12	Good
2009	Value	6.7	4-4+	29.6	0.0	0.413	33.9		
	Score	4	3	4	0			11	Good
2008	Value	6.3	4-4+	90.4	0.0	0.243	21.6		
	Score	3	3	4	0			10	Fair
2007	Value	6.4	4-4+	32.4	0.0	0.898	59.3		
	Score	3	3	4	0			10	Fair
2006	Value	5.7	4-4+	35.7	0.0	0.410	33.6		
	Score	2	3	4	0			9	Fair
2005	Value	6.4	4-4+	62.4	0.0	0.373	31.1		
	Score	3	3	4	0			10	Fair
2004	Value	6.6*	4-4+*	26.4	0.0				
	Score	4	3	4	0			11	Good
2003	Value	6.6	4-4+	7.2	0.0				
	Score	4	3	2	0			9	Fair
2002	Value	6.4*	3-3+*	7.2	0.8				
	Score	3	4	2	1			10	Fair
2001	Value	6.4	3-3+	8.5	0.5				
	Score	3	4	2	1			10	Fair

* Age data not collected

Table 109. Number of fish and the relative weight (Wr) for each length group of bluegill and redear sunfish collected at Beaver Lake on 25 September 2014; standard errors are in parentheses.

Species	Length group									
	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0–5.9 in		6.0–7.9 in		≥8.0 in				Total	
Bluegill	77	94 (2)	50	83 (1)	0				127	90 (1)
	1.0–3.9 in		4.0–6.9 in		7.0–9.0 in		≥9.0 in		Total	
Redear sunfish	0		5	100 (3)	3	103 (3)	7	90 (1)	15	96 (2)

Dataset = cfdwrbvr.d14

Table 110. Length distribution and CPUE (fish/hr) of fish species collected in 0.75 hours of electrofishing in Benjy Kinman Lake on June 5, 2014.

	Inch class																					
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass			3	3	4	2	12	15	14	13	10	2	3	1			2	2		1	87	116.0
Bluegill	1	4	7	23	40	4															79	105.3
Redear sunfish				1		4															5	6.7

Table 111. Length distribution and CPUE (fish/hr) of fish species collected in 0.50 hours of electrofishing in the 15-acre pond on the Kentucky River WMA (Boone Tract) on June 5, 2014.

	Inch class															
Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	CPUE
Largemouth bass				6	8	2	4	1	7	7	18	21	8	1	1	84	168.0
Bluegill	2	4	8	10	10	10	17	20								81	162.0

Table 112. Length distribution and CPUE (fish/hr) of fish species collected in 0.34 hours of electrofishing in the 6-acre pond on the Kentucky River WMA (Boone Tract) on June 5, 2014.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Largemouth bass		2	1			5	5	16	2	4	1					1	37	108.8
Bluegill	1	5	12	9	23	8											58	170.6

Table 113. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.75 hours of 15-minute electrofishing runs for black bass in Benjy Kinman Lake in September 2014; numbers in parentheses are standard errors.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	13	14	5		7	20	20	32	29	7	2	3	4	3	4	1	4	2	1	171	85.5 (15.5)

Dataset = cfdwrbkl.d14

Table 114. Mean back calculated lengths (in.) at each annulus for otoliths from largemouth bass collected in the fall from Benjy Kinman Lake in 2014.

		Age										
Year	No.	1	2	3	4	5	6	7	8	9	10	11
2013	18	5.4										
2012	15	6.1	9.0									
2011	6	5.8	8.8	10.1								
2010	24	6.4	9.4	11.0	12.1							
2009	7	6.8	11.0	12.9	14.2	15.3						
2008	4	6.5	9.6	11.5	12.9	14.1	15.0					
2007	1	6.9	9.8	11.7	13.7	14.9	15.7	17.0				
2006	3	5.9	10.8	12.6	13.9	14.9	16.0	16.9	17.6			
2005	2	6.2	8.9	11.1	13.0	14.0	14.8	15.6	16.5	17.1		
2004	1	4.1	8.8	11.6	13.8	15.7	16.3	17.0	17.6	18.2	19.1	
2003	1	5.4	9.1	10.9	11.4	12.0	12.6	13.1	13.7	14.3	14.9	15.1
Mean	82	6.0	9.5	11.4	12.7	14.7	15.2	16.1	16.7	16.7	17.0	15.1
Smallest		4.1	6.6	9.1	10.5	11.1	11.6	12.2	12.7	13.3	14.9	15.1
Largest		9.0	12.8	15.2	17.7	19.0	18.3	19.1	20.3	21.0	19.1	15.1
Std Error		0.1	0.2	0.2	0.3	0.5	0.6	0.8	1.0	1.8	2.1	
95% ConLo		5.8	9.2	10.9	12.2	13.8	14.0	14.5	14.7	13.2	12.8	
95% ConHi		6.3	9.8	11.8	13.3	15.6	16.4	17.8	18.7	20.2	21.1	

Intercept value = 0.00
Dataset = cfdagbkl.d14

Table 115. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Benjy Kinman Lake on 9 September 2014. Standard errors are in parentheses.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	101	83 (1)	12	86 (1)	19	92 (2)	132	84 (1)

Dataset = cfdwrbkl.d14

Table 116. 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 Benjy Kinman Lake.

Year class	Area	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2014	Total	4.2	0.1	16.0	5.4	2.5	1.3		

Table 117. Length distribution and CPUE (fish/hr) of white and black crappie collected in 2.50 hours of 15-minute electrofishing runs for crappie in Benjy Kinman Lake in October 2014; numbers in parentheses are standard errors.

	Inch class						
Species	8	9	10	11	12	Total	CPUE
White crappie	5	28	2	2	1	38	15.2 (6.0)
Black crappie	12	5	2	1		20	8.0 (3.7)

Dataset = cfdwrbkl.d14

Table 118. Mean back calculated lengths (in.) at each annulus for otoliths from white crappie collected in the fall from Benjy Kinman Lake in 2014.

		Age									
Year	No.	1	2	3	4	5	6	7	8	9	10
2012	3	4.6	7.1								
2011	1	5.3	8.0	9.5							
2010	2	3.9	6.0	7.5	8.3						
2009	5	4.8	6.7	8.1	9.3	10.2					
2008	6	4.0	6.0	7.2	8.0	8.7	9.3				
2007	1	4.5	6.6	7.1	7.5	8.0	8.4	9.0			
2006	1	4.0	5.9	6.5	7.1	8.0	8.5	9.0	9.4		
2004	1	3.8	5.9	6.7	7.1	7.5	7.8	8.2	8.6	9.0	9.3
Mean	20	4.4	6.5	7.6	8.3	9.0	8.9	8.7	9.0	9.0	9.3
Smallest		3.3	5.1	6.2	7.1	7.5	7.8	8.2	8.6	9.0	9.3
Largest		5.5	8.0	9.6	10.4	11.1	11.6	9.0	9.4	9.0	9.3
Std Error		0.1	0.2	0.2	0.3	0.3	0.4	0.3	0.4		
95% ConLo		4.1	6.1	7.1	7.8	8.4	8.2	8.2	8.2		
95% ConHi		4.6	6.8	8.0	8.8	9.7	9.6	9.3	9.8		

Intercept value = 0.00
Dataset = cfdagbkl.d14

Table 119. Mean back calculated lengths (in.) at each annulus for otoliths from black crappie collected in the fall from Benjy Kinman Lake in 2014.

		Age												
Year	No.	1	2	3	4	5	6	7	8	9	10	11	12	13
2012	1	4.3	7.0											
2011	1	4.7	8.0	8.9										
2010	4	4.6	6.7	8.1	8.6									
2009	2	4.0	6.4	7.7	8.6	9.1								
2008	3	3.7	6.2	7.2	8.0	8.6	9.0							
2007	1	3.3	5.2	6.3	7.0	7.5	7.9	8.4						
2003	4	3.3	4.7	5.6	6.1	6.6	7.1	7.4	7.8	8.1	8.3	8.5		
2001	1	2.8	4.3	4.8	5.6	6.	6.2	6.7	7.0	7.2	7.5	7.7	8.0	8.2
Mean	17	3.9	6.0	7.0	7.5	7.6	7.7	7.5	7.6	7.9	8.2	8.4	8.0	8.2
Smallest		2.8	4.1	4.8	5.6	6.0	6.2	6.7	7.0	7.2	7.5	7.7	8.0	8.2
Largest		5.1	8.0	8.9	9.3	9.9	10.0	8.4	8.2	8.5	8.7	8.8	8.0	8.2
Std Error		0.2	0.3	0.3	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2		
95% ConLo		3.6	5.5	6.4	6.9	6.9	7.0	7.0	7.2	7.5	7.8	8.0		
95% ConHi		4.2	6.5	7.6	8.2	8.4	8.5	7.9	8.0	8.3	8.6	8.7		

Intercept value = 0.00
Dataset = cfdagbkl.d14

Table 120. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.0 hours of 15-minute nocturnal electrofishing runs in Boltz Lake, April 2014; numbers in parentheses are standard errors.

	Inch class																			
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE
Largemouth bass																					
Natural	1	6	1	21	40	26	19	24	19	7	11	10	8	5	3		3	1	1	206	103.0 (11.5)
2013		99	7																	106	53.0 (8.5)
2012				2	14	19	4													39	19.5 (2.1)
2008															1					1	4.0 (0.0)
Total																					
Largemouth bass	1	105	8	23	54	45	23	24	19	7	11	10	8	5	4	0	3	1	1	352	176.0 (17.2)

Dataset = cfdpsbol.d14

Table 121. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Boltz Lake from 1991-2014; numbers in parentheses are standard errors.

Year	Length group <8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	≥20.0 in	Total
1991		43.6 (4.9)	10.8 (2.0)	6.5 (1.2)	0.0 (0.0)	60.8 (6.6)
1993	25.2 (6.4)	70.0 (4.8)	12.0 (2.3)	7.3 (2.2)	0.7 (0.7)	114.8 (8.9)
1994	48.4 (9.5)	45.0 (5.7)	32.4 (6.5)	3.6 (1.4)	1.0 (0.7)	129.6 (9.6)
1995	155.2 (10.8)	50.0 (3.3)	31.5 (3.9)	6.0 (1.7)	1.5 (1.1)	242.4 (10.4)
1997	34.8 (8.6)	183.6 (29.4)	36.8 (4.6)	14.4 (2.2)	1.8 (1.0)	268.8 (38.6)
1998	43.2 (6.0)	172.0 (18.8)	22.4 (3.3)	9.6 (2.2)	2.5 (0.7)	247.2 (24.8)
1999	87.2 (16.6)	369.6 (42.4)	90.4 (16.0)	12.8 (6.8)	4.8 (2.3)	560.0 (31.2)
2000	92.0 (30.4)	148.0 (7.7)	226.4 (18.4)	8.8 (2.9)	0.8 (0.8)	475.2 (16.8)
2001	24.0 (5.2)	212.8 (15.8)	133.6 (13.0)	9.6 (3.5)	0.0 (0.0)	380.0 (26.3)
2002	5.6 (2.7)	101.6 (20.1)	67.2 (11.4)	45.6 (9.2)	0.8 (0.8)	220.0 (27.3)
2003	10.7 (2.9)	39.3 (10.4)	61.3 (12.9)	40.0 (5.0)	0.0 (0.0)	151.3 (25.1)
2004	64.0 (12.9)	38.5 (4.9)	19.5 (4.4)	25.5 (5.9)	2.0 (0.8)	147.5 (22.9)
2005	69.0 (10.1)	39.5 (4.0)	21.0 (2.4)	20.0 (6.2)	0.0 (0.0)	149.5 (8.4)
2006	11.5 (1.4)	48.0 (4.7)	17.0 (3.7)	18.0 (2.9)	1.0 (0.7)	94.5 (9.9)
2007	28.5 (3.8)	37.0 (2.4)	17.0 (3.9)	20.0 (3.9)	1.0 (0.7)	102.5 (11.8)
2008	19.0 (2.2)	43.5 (7.3)	18.5 (2.1)	17.5 (3.0)	4.0 (1.5)	98.5 (7.1)
2009	10.0 (2.5)	39.5 (3.2)	22.0 (3.9)	29.5 (5.1)	4.0 (1.5)	101.0 (8.1)
2010	50.5 (5.6)	51.0 (4.9)	32.5 (4.4)	24.5 (2.4)	4.0 (1.3)	148.5 (10.7)
2011	13.0 (3.8)	55.5 (4.6)	33.0 (5.7)	19.0 (4.2)	3.5 (1.2)	120.5 (7.4)
2012	4.5 (1.2)	35.0 (4.0)	15.5 (2.8)	11.0 (2.5)	2.5 (1.5)	66.0 (4.9)
2013	66.5 (14.6)	67.5 (6.7)	17.5 (2.0)	13.5 (2.6)	2.5 (1.1)	165.0 (13.6)
2014	68.5 (10.5)	73.0 (6.5)	18.5 (3.5)	16.0 (3.6)	2.5 (0.7)	176.0 (17.2)

Dataset = cfdpsbol.d14 - .d91

Table 122. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Boltz Lake in 2014; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	215	32 (± 6)	14 (± 5)

Dataset = cfdpsbol.d14

Table 123. Population assessment for largemouth bass collected during spring electrofishing at Boltz Lake from 2000-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age-1	CPUE 12.0-14.9 in	CPUE >15.0 in	CPUE >20.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	10.7*	57.0	18.5	16.0	2.5				
	Score	2	3	1	2	3			11	Fair
2013	Value	10.7*	21.5	17.5	13.5	2.5				
	Score	2	2	1	2	3			10	Fair
2012	Value	10.7*	3.5	15.5	11.0	2.5				
	Score	2	1	1	2	3			9	Fair
2011	Value	10.7	8.6	33.0	19.0	3.5	0.378	31.5		
	Score	2	1	2	3	3			11	Fair
2010	Value	10.3	16.7	32.5	24.5	4.0	0.290	25.2		
	Score	2	2	2	3	4			13	Good
2009	Value	10.3*	3.5^	22.0	29.5	4.0				
	Score	2	1	2	3	4			12	Good
2008	Value	10.3*	4.0^	18.5	17.5	4.0				
	Score	2	1	1	3	4			11	Fair
2007	Value	10.3*	20.5^	17.0	20.0	1.0				
	Score	2	2	1	3	2			10	Fair
2006	Value	10.3	7.0	17.0	18.0	1.0	0.358	30.1		
	Score	2	1	1	3	2			9	Fair
2005	Value	10.6*	15.5^	21.0	20.0	0.0				
	Score	2	1	2	3	0			8	Fair
2004	Value	10.6*	51.0^	19.5	25.5	2.0				
	Score	2	3	1	3	3			12	Good
2003	Value	10.6	0.0	61.3	40.0	0.0	0.377	31.4		
	Score	2	0	4	4	0			10	Fair
2002	Value	10.7	0.8	67.2	45.6	0.8	0.334	28.4		
	Score	2	1	4	4	1			12	Good
2001	Value	9.0	0.8	133.6	9.6	0.0	0.349	29.5		
	Score	1	1	4	2	0			8	Fair
2000	Value	10.4	55.0	226.4	8.8	0.8	0.550	42.3		
	Score	2	3	4	2	1			12	Good

* Age data not collected

^Calculations based on age data gathered in previous years

-Instantaneous and annual mortality not calculated in years where age and growth data are not collected

Table 124. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Boltz Lake in September 2014; numbers in parentheses are standard errors.

	Inch class																					
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	6	19	27	6	2	25	15	11	11	6	5	8	4	5	2	2	1			1	156	104.0 (18.1)

Dataset = cfdwrbol.d14

Table 125. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Boltz Lake on 8 September 2014. Standard errors are in parentheses.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	43	88 (1)	17	87 (2)	11	99 (2)	71	90 (1)

Dataset = cfdwrbol.d14

Table 126. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall in electrofishing samples at Boltz Lake.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	No. of fish	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
1997	145	4.2	0.04	96.7	11.3	6.7	1.7	25.9	4.4
1998	147	5.0	0.05	98.0	12.0	48.0	5.8	77.7	31.0
1999	170	5.2	0.07	113.3	16.2	68.7	13.0	55.0	24.7
2000	19	3.0	0.27	12.7	6.7	1.3	1.	0.8	0.8
2001	46	3.2	0.09	30.7	6.9	0.7	0.7	0.8	0.8
2002	50	3.7	0.10	28.6	7.4	1.7	1.2	0.0	0.0
2003*	27	3.7	0.15	18.0	4.5	1.3	0.8	7.0	2.2
2004*	80	4.1	0.07	53.3	7.1	6.7	2.7	15.0	3.4
2005*	34	3.9	0.11	22.7	5.0	1.3	0.8	4.0	1.1
2006	90	4.6	0.06	60.0	7.5	18.7	3.7	20.5	3.6
2007	17	4.2	0.21	11.3	2.6	2.0	0.9	4.0	3.6
2008	108	3.6	0.07	72.0	11.9	5.3	1.7	3.5	1.6
2009	51	4.6	0.13	34.0	8.9	13.3	2.0	16.7	3.6
2010	54	4.9	0.11	36.0	5.8	18.0	5.2	8.6	2.7
2011	91	4.7	0.08	60.7	6.7	23.3	4.2	3.5	1.2
2012	127	4.4	0.07	84.7	12.2	18.7	5.6	21.5	4.3
2013*	102	4.4	0.09	68.0	16.2	20.0	6.7	4.0	0.8
2014	58	4.0	0.10	38.7	10.9	4.0	3.3		

*Only includes wild largemouth bass CPUE for age-1 year class, stocked largemouth bass were marked by fin clip and removed from dataset.

Table 127. Species composition, relative abundance, and CPUE (fish/hr) of bluegill collected in 1.25 hour of 7.5-minute electrofishing runs in Boltz Lake, May 2014; numbers in parentheses are standard errors.

	Inch class							
Species	2	3	4	5	6	7	Total	CPUE
Bluegill	14	53	107	21	96	109	400	320.0 (37.6)

Dataset = cfdpsbol.d14

Table 128. Electrofishing CPUE (fish/hr) for each length group of bluegill collected from Boltz Lake from 1992-2014; numbers in parentheses are standard errors.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	Total
1991	0.5 (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)
2007	208.8 (29.9)	135.2 (23.1)	30.4 (8.2)		374.4 (44.3)
2008	202.4 (28.5)	263.2 (33.7)	41.6 (5.8)		507.2 (54.2)
2009	5.6 (1.7)	165.6 (29.4)	44.8 (12.6)		216.0 (34.5)
2010	73.6 (18.7)	84.8 (15.4)	100.8 (23.6)		259.2 (32.2)
2011	331.2 (46.3)	237.6 (34.0)	164.0 (42.4)		732.8 (78.4)
2012	63.2 (21.8)	401.6 (54.5)	119.2 (21.1)		584.0 (62.2)
2013	36.8 (11.5)	162.4 (20.0)	117.6 (19.7)		316.8 (33.8)
2014	11.2 (3.0)	144.8 (21.1)	164.0 (28.2)		320.0 (37.6)

Dataset = cfdpsbol.d14

Table 129. PSD and RSD$_8$ values calculated for bluegill collected during 1.25 hours of electrofishing at Boltz Lake during May 2014. Fish were collected in 7.5-minute runs.

Species	No. ≥3.0 in	PSD	RSD$_8$
Bluegill	386	53 (± 5)	0 (± 0)

Dataset = cfdpsbol.d14

Table 130. Population assessment for bluegill collected during spring electrofishing at Boltz Lake from 2000-2014 (scoring based on statewide assessments).

Year		Mean length age-2 at capture	Years to 6.0 in	CPUE ≥6.0 in	CPUE ≥8.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	4.6	3-3+	164.0	0.0	-	-		
	Score	3	3	4	0			10	Fair
2013	Value	4.5*	2-2+*	117.6	0.0	-	-		
	Score	3	4	4	0			11	Good
2012	Value	4.5	2-2+	119.2	0.0	-	-		
	Score	3	4	4	0			11	Good
2011	Value	4.7	2-2+	164.0	0.0	0.522	40.7		
	Score	3	4	4	0			11	Good
2010	Value	4.5	2-2+	100.8	0.0	*	*		
	Score	3	4	4	0			11	Good
2009	Value	4.2	3-3+	44.8	0.0	0.904	59.5		
	Score	2	3	2	0			7	Fair
2008	Value	4.0	3-3+	41.6	0.0	1.095	66.6		
	Score	2	3	2	0			7	Fair
2007	Value	4.8	2-2+	30.4	0.0	NA	NA		
	Score	3	4	2	0			9	Fair
2006	Value	4.7	3-3+	39.0	0.0	0.830	56.4		
	Score	3	3	2	0			8	Fair
2005	Value	4.3	4-4+	16.0	0.0	1.097	66.6		
	Score	2	2	1	0			5	Poor
2004	Value	4.1	4-4+	18.3	0.0	1.012	63.7		
	Score	2	2	1	0			5	Poor
2003	Value	4.1	3-3+	53.6	0.0	0.379	31.5		
	Score	2	3	3	0			8	Fair
2002	Value	3.5	3-3+	11.3	0.0	1.640	80.6		
	Score	2	3	1	0			6	Poor
2001	Value	3.8	3-3+	12.8	0.8	1.794	83.4		
	Score	2	3	1	1			7	Fair
2000	Value	4.8	2-2+	10.9	0.7	1.593	79.7		
	Score	3	4	1	1			9	Fair

* Age data not collected

Table 131. Mean back calculated lengths (in.) at each annulus for otoliths from bluegill collected in the fall from Boltz Lake in 2014.

		Age							
Year	No.	1	2	3	4	5	6	7	8
2013	20	2.7							
2012	13	2.8	4.6						
2011	9	3.1	4.9	6.1					
2010	10	3.0	4.8	5.9	6.5				
2006	2	2.3	3.8	5.0	5.6	5.9	6.2	6.5	6.7
Mean	54	2.8	4.7	5.9	6.4	5.9	6.2	6.5	6.7
Smallest		1.7	3.7	4.9	5.5	5.9	6.2	6.4	6.6
Largest		4.4	5.8	6.9	7.0	6.0	6.2	6.6	6.8
Std Error		0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1
95% ConLo		2.7	4.5	5.7	6.0	5.8	6.2	6.3	6.4
95% ConHi		3.0	4.9	6.1	6.7	6.0	6.3	6.7	7.0

Intercept value = 0.00
Dataset = cfdagbol.d14

Table 132. Number of fish and the relative weight (Wr) for each length group of bluegill collected at Boltz Lake on 8 September 2014; standard errors are in parentheses.

	Length group									
Species	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0–5.9 in		6.0–7.9 in		≥8.0 in				Total	
Bluegill	62	88 (2)	39	75 (1)	0				101	83 (1)

Dataset = cfdwrbol.d14

Table 133. Length composition, relative abundance, and CPUE (fish/set) of channel catfish at Boltz Lake. Channel catfish were collected using baited, tandem hoop nets (72 hours soak time) that were set on 6 October 2014. Nets were pulled three days after setting them, and 3 sets of tandem nets were used for the sampling event.

	Inch class						Total	Average per set
Species	10	11	12	13	14	15		
Channel catfish	2	1	3			1	7	2.3 (2.3)

Dataset = cfdhnbol.d14

Table 134. PSD and RSD_{24} values obtained for channel catfish from tandem hoop net samples in Boltz Lake in 2014; confidence intervals are in parentheses.

Species	No. ≥stock size	PSD	RSD_{24}
Channel catfish	5	0 (± 0)	0 (± 0)

Dataset = cfdhnbol.d14

Table 135. Number of fish and the relative weight (Wr) for each length group of channel catfish collected at Boltz Lake in October 2014; standard errors are in parentheses.

		Length group							
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	5	93 (5)					5	93 (5)

Dataset = cfdhnbol.d14

Table 136. CPUE (fish/set) for each length group of channel catfish collected by hoop net from Boltz Lake from 2009-2014; numbers in parentheses are standard errors.

	Length group			
Year	≥12.0 in	≥15.0 in	≥20.0 in	Total
2006	43.8 (12.5)	6.0 (2.1)	1.8 (0.8)	274.2 (95.6)
2007	31.2 (3.3)	6.4 (1.0)	0.8 (0.4)	76.8 (12.7)
2008	9.6 (3.1)	1.6 (0.8)	0.2 (0.2)	27.4 (7.2)
2009	29.8 (14.0)	4.0 (1.6)	0.2 (0.2)	57.8 (27.7)
2010	15.6 (3.8)	3.6 (1.3)	0.4 (0.4)	32.6 (9.0)
2011	No Sample			
2012	1.7 (4.7)	1.0 (1.0)	0.3 (0.3)	2.3 (1.2)
2013	No Sample			
2014	1.3 (1.3)	0.3 (0.3)	0.0	2.3 (2.3)

Dataset = cfdhnbol.d14 - .d06

Table 137. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.0 hours of 15-minute nocturnal electrofishing runs in Bullock Pen Lake, April 2014; numbers in parentheses are standard errors.

	Inch class																			
Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	1	4	1	20	28	31	26	38	54	32	28	24	24	18	24	17	6	3	379	189.5 (14.0)

Dataset = cfdpsbpl.d14

Table 138. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Bullock Lake from 1991-2014; numbers in parentheses are standard errors.

Year	Length group					Total
	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	≥20.0 in	
1991		36.6	22.8	16.4	1.7 (0.7)	75.2
1994	10.0 (2.3)	17.5 (2.8)	37.6 (3.6)	40.0 (9.9)	2.5 (1.1)	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)	2.0 (0.9)	158.4 (17.3)
1998	18.0 (4.4)	43.6 (4.8)	39.6 (9.2)	33.2 (7.2)	3.5 (1.6)	139.2 (19.2)
1999	14.0 (3.6)	40.4 (4.0)	35.2 (4.0)	38.4 (12.0)	0.5 (0.5)	128.0 (14.0)
2000	14.5 (4.8)	35.5 (5.0)	21.0 (3.1)	42.4 (9.8)	0.5 (0.5)	113.5 (6.5)
2001	9.0 (3.2)	33.5 (4.3)	38.5 (7.2)	66.0 (15.2)	2.5 (1.1)	147.2 (16.4)
2002	6.5 (1.7)	29.5 (3.0)	41.5 (7.2)	54.5 (10.4)	1.5 (0.7)	132.0 (16.5)
2003	9.0 (2.5)	19.5 (2.3)	32.5 (4.1)	56.5 (8.8)	0.5 (0.5)	117.5 (9.8)
2004	6.5 (1.3)	31.5 (3.7)	45.0 (8.5)	57.5 (11.4)	2.5 (1.5)	140.5 (13.4)
2005	9.5 (1.3)	17.0 (2.6)	38.0 (5.8)	63.0 (13.7)	3.5 (1.4)	127.5 (15.5)
2006	13.5 (4.3)	35.5 (6.0)	25.5 (3.9)	62.5 (8.4)	1.0 (0.7)	137.0 (8.7)
2007	17.5 (3.5)	44.5 (6.7)	32.0 (2.8)	44.0 (8.1)	0.5 (0.5)	138.0 (6.1)
2008	9.5 (2.9)	47.5 (5.8)	75.0 (5.7)	62.5 (9.3)	1.5 (1.1)	194.5 (11.7)
2009	5.5 (2.0)	45.5 (7.4)	42.5 (5.0)	54.0 (5.4)	7.5 (1.2)	147.5 (13.8)
2010	33.0 (7.1)	26.8 (3.7)	28.3 (3.4)	44.3 (6.2)	1.8 (0.6)	132.3 (13.9)
2011	22.0 (4.3)	39.0 (5.4)	31.0 (3.3)	43.0 (6.4)	0.5 (0.5)	135.0 (11.2)
2012	25.5 (2.4)	80.5 (7.9)	43.0 (4.1)	63.5 (10.0)	3.0 (1.3)	212.5 (9.4)
2013			No sample			
2014	13.0 (2.7)	61.5 (8.5)	57.0 (6.9)	58.0 (3.2)	4.5 (1.4)	189.5 (14.0)

Dataset = cfdpsbpl.d14 - .d91

Table 139. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Bullock Pen Lake in 2014; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	353	65 (± 5)	32 (± 6)

Dataset = cfdpsbpl.d14

Table 140. Population assessment for largemouth bass collected during spring electrofishing at Bullock Pen Lake from 2000-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥15.0 in	Spring CPUE ≥20.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	10.5*	2.5	57.0	58.0	4.5				
	Score	2	1	4	4	4			15	Good
2013	Value				No sample					
	Score									
2012	Value	10.5*	9.5	43.0	63.5	3.0				
	Score	2	1	3	4	3			13	Good
2011	Value	10.5	5.1	31.0	43.0	0.5	0.422	34.4		
	Score	2	1	2	4	1			10	Fair
2010	Value	10.2*	6.4^	28.3	44.3	1.8				
	Score	2	1	2	4	2			11	Fair
2009	Value	10.2*	0.8^	42.5	54.0	7.5				
	Score	2	1	3	4	4			14	Good
2008	Value	10.2*	2.1^	75.0	62.5	1.5				
	Score	2	1	4	4	2			13	Good
2007	Value	10.2*	3.4^	32.0	44.0	0.5				
	Score	2	1	2	4	1			10	Fair
2006	Value	10.2	2.5	25.5	62.5	1.0	0.238	21.2		
	Score	2	1	2	4	2			11	Fair
2005	Value	10.7*	1.3^	38.0	63.0	3.5				
	Score	2	1	3	4	3			13	Good
2004	Value	10.7*	0.0^	45.0	57.5	2.5				
	Score	2	0	3	4	3			12	Good
2003	Value	10.7	1.8	32.5	56.5	0.5	0.323	27.6		
	Score	2	1	2	4	1			10	Fair
2002	Value	10.9	0.5	41.5	54.5	1.5	0.375	31.2		
	Score	3	1	3	4	2			13	Good
2001	Value	10.0	0.0	38.5	66.0	2.5	0.174	16.0		
	Score	1	0	3	4	3			11	Fair
2000	Value	9.3	6.8	21.0	42.4	0.5	0.186	17.0		
	Score	1	1	2	4	1			9	Fair

* Age data not collected
^Calculations based on age data gathered in previous years
-Instantaneous and annual mortality not calculated in years where age and growth data are not collected

Table 141. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Bullock Pen Lake in September 2014; numbers in parentheses are standard errors.

	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Largemouth bass	1	14	3	6	2	4	13	9	12	15	16	20	12	12	7	4	9	5	3	167	111.3 (14.4)

Dataset = cfdwrblp.d14

Table 142. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Bullock Pen Lake on 19 September 2014; standard errors are in parentheses.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	49	86 (1)	48	90 (1)	40	101 (1)	137	92 (1)

Dataset = cfdwrblp.d14

Table 143. Indices of year class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall in electrofishing samples at Bullock Pen Lake.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
1997	Total	3.6	(0.1)	34.0	(11.9)	0.7	(0.7)	3.0	(1.7)
1998	Total	3.5	(0.1)	28.0	(8.4)	1.3	(1.3)	4.0	(0.9)
1999	Total	3.7	(0.1)	30.0	(6.1)	2.0	(1.4)	6.8	(2.6)
2000	Total	3.8	(0.3)	6.3	(1.5)	0.0		0.0	
2001	Total	3.6	(0.2)	12.0	(2.7)	1.3	(0.8)	0.5	(0.5)
2002	Total	3.1	(0.1)	17.3	(4.6)	0.0		1.8	(0.7)
2003	Total	3.3	(0.1)	22.0	(8.1)	0.0		0.0	
2004	Total	4.1	(0.2)	16.0	(3.7)	4.0	(1.5)	*	
2005	Total	3.5	(0.1)	28.0	(8.1)	2.0	(0.9)	2.5	(1.3)
2006	Total	4.2	(0.2)	4.0	(1.5)	0.0		3.4	(1.1)
2007	Total	4.1	(0.2)	6.7	(2.0)	0.7	(0.7)	2.1	(1.1)
2008	Total	4.1	(0.2)	20.7	(5.6)	5.3	(1.7)	0.8	(0.5)
2009	Total	4.5	(0.4)	8.7	(2.4)	4.7	(1.9)	3.7	(1.4)
2010	Total	4.8	(0.1)	42.7	(8.0)	20.0	(3.7)	5.1	(1.6)
2011	Total	3.8	(0.1)	38.0	(4.2)	5.3	(2.0)	9.5	(1.1)
2012	Total	4.0	(0.1)	22.7	(5.2)	1.3	(0.8)	NS	NS
2013	Total	4.0	(0.2)	14.7	(2.0)	1.3	(0.8)	2.5	(0.7)
2014	Total	4.0	(0.2)	16.0	(3.1)	4.0	(1.5)		

*Largemouth bass were stocked, and were not able to be distinguished from the wild age-1 largemouth bass

Table 144. Length distribution and CPUE (fish/hr) of saugeye collected in 2.0 hours of 15-minute electrofishing runs in Bullock Pen Lake in September 2014; numbers in parentheses are standard errors.

	Inch class										
Species	6	7	8	9	10	11	12	13	14	Total	CPUE
Saugeye	1	8			10	3	4	4	1	31	15.5 (0.9)

Dataset = cfdwrbpl.d14

Table 145. Mean back calculated lengths (in) at each annulus for otoliths from white crappie collected in the fall from Bullock Pen Lake in 2014.

		Age								
Year	No.	1	2	3	4	5	6	7	8	9
2013	12	4.0								
2012	16	4.4	6.5							
2011	12	4.4	6.4	7.9						
2010	5	4.6	6.2	7.3	8.5					
2009	8	4.8	6.5	7.5	8.3	9.3				
2008	10	4.1	5.7	6.6	7.4	8.0	8.7			
2007	3	4.2	5.6	6.6	7.2	7.7	8.3	9.0		
2006	2	3.3	5.0	5.7	6.3	6.6	6.8	7.1	7.3	
2005	3	3.7	4.9	5.6	6.2	6.6	7.0	7.4	7.7	8.0
Mean	71	4.3	6.1	7.1	7.6	8.1	8.1	7.9	7.5	8.0
Smallest		2.8	4.1	4.8	5.4	5.7	6.1	6.3	6.5	6.6
Largest		6.1	8.3	10.0	10.6	12.0	12.4	12.6	9.9	10.5
Std Error		0.1	0.1	0.2	0.3	0.4	0.4	0.8	0.6	1.2
95% ConLo		4.1	5.9	6.7	7.0	7.3	7.3	6.4	6.3	5.6
95% ConHi		4.5	6.4	7.5	8.1	8.8	9.0	9.4	8.8	10.5

Intercept value = 0.00
Dataset = cfdagbpl.d14

Table 146. Mean back calculated lengths (in) at each annulus for otoliths from black crappie collected in the fall from Bullock Pen Lake in 2014.

		Age						
Year	No.	1	2	3	4	5	6	7
2013	12	4.0						
2012	1	4.9	7.4					
2011	3	3.9	5.9	7.0				
2010	2	4.4	6.3	7.1	7.8			
2009	3	4.5	6.0	6.8	7.3	7.9		
2008	2	3.5	5.6	6.8	7.3	7.8	8.1	
2007	1	5.0	6.4	7.3	8.1	8.7	9.1	9.3
Mean	24	4.1	6.1	7.0	7.5	8.0	8.4	9.3
Smallest		3.4	5.2	6.4	6.8	7.4	7.8	9.3
Largest		5.0	7.4	7.5	8.1	8.7	9.1	9.3
Std Error		0.1	0.2	0.1	0.2	0.2	0.4	
95% ConLo		4.0	5.8	6.7	7.2	7.6	7.6	
95% ConHi		4.3	6.4	7.2	7.8	8.4	9.2	

Intercept value = 0.00
Dataset = cfdagbpl.d14

Table 147. Length composition, relative abundance, and CPUE (fish/set) of channel catfish at Bullock Pen Lake. Channel catfish were collected using baited, tandem hoop nets (72 hours soak time) that were set on 6 October 2014. Nets were pulled three days after setting them and 3 sets of tandem nets were used for the sampling event.

	Inch class															Total	Average per set
Species	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
Channel catfish	18	46	36	45	41	23	16	10	3	4	4	3		1	3	253	84.3 (13.6)

Dataset = cfdhnbpl.d14

Table 148. PSD and RSD_{24} values obtained for channel catfish from tandem hoop net samples in Bullock Pen Lake in 2014; confidence intervals are in parentheses.

Species	No. ≥stock size	PSD	RSD_{24}
Channel catfish	153	12 (± 7)	0 (± 0)

Dataset = cfdhnbpl.d14

Table 149. Number of fish and the relative weight (Wr) for each length group of channel catfish collected at Bullock Pen Lake in October 2014; standard errors are in parentheses.

Species	Area	Length group						Total	
		11.0–15.9 in		16.0–23.9 in		≥24.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Channel catfish	Total	117	90 (1)	18	94 (3)	0		135	90 (1)

Dataset = cfdhnbpl.d14

Table 150. CPUE (fish/set) for each length group of channel catfish collected by hoop net from Bullock Pen Lake from 2007-2014; numbers in parentheses are standard errors.

Year	Length group			Total
	≥12.0 in	≥15.0 in	≥20.0 in	
2007	44.0 (24.6)	6.2 (4.3)	1.0 (0.6)	170.8 (102.7)
2008	10.8 (3.2)	2.8 (1.1)	0.4 (0.4)	43.0 (11.0)
2009	25.0 (12.1)	6.0 (2.9)	0.6 (0.4)	64.6 (39.9)
2010	36.2 (5.6)	15.2 (2.1)	1.2 (1.0)	69.0 (20.4)
2011				
2012	5.0 (1.5)	1.3 (0.3)	0.0 (0.0)	31.7 (11.7)
2013				
2014	36.0 (8.7)	9.3 (1.9)	1.3 (0.3)	84.3 (13.6)

Dataset = cfdhnbpl.d14 - .d07

Table 151. Length frequency, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 2.0 hours of 15-minute nocturnal electrofishing runs in Corinth Lake, May 2014; numbers in parentheses are standard errors.

	Inch class																			
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Largemouth bass	7	15	22	14	8	46	78	115	66	28	2	4	5	12	4	2	1	6	435	217.5 (10.4)

Dataset = cfdpscor.d14

Table 152. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Corinth Lake from 1992-2014; numbers in parentheses are standard errors.

	Length group					
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	≥20.0 in	Total
1992	31.0 (9.3)	22.5 (5.3)	5.0 (2.6)	0.0 (0.0)	0.0 (0.0)	58.5 (9.8)
1993	34.0 (8.2)	111.3 (11.5)	7.3 (2.4)	2.0 (1.4)	0.0 (0.0)	154.7 (13.5)
1996	53.5 (10.1)	174.5 (16.7)	14.5 (2.0)	4.5 (1.6)	0.0 (0.0)	247.0 (18.1)
1998	15.5 (3.2)	111.5 (9.8)	19.0 (3.0)	4.0 (1.7)	0.5 (0.5)	150.0 (14.4)
1999	137.0 (14.2)	56.5 (5.2)	24.5 (4.3)	3.5 (1.2)	1.0 (0.7)	221.5 (16.4)
2000	312.8 (47.0)	136.0 (18.2)	22.4 (6.5)	4.8 (2.3)	1.6 (1.0)	476.0 (63.7)
2001	127.2 (16.6)	231.2 (8.0)	20.8 (5.1)	9.6 (3.2)	0.0 (0.0)	388.8 (13.5)
2002	40.7 (8.1)	153.3 (21.7)	13.3 (2.9)	16.7 (2.8)	1.3 (1.3)	224.0 (28.7)
2003	58.0 (13.6)	146.0 (16.4)	23.3 (3.8)	6.0 (2.0)	0.7 (0.7)	233.3 (28.2)
2004	23.0 (4.8)	77.5 (5.0)	40.0 (4.3)	5.0 (1.5)	1.0 (1.0)	145.5 (8.0)
2005	45.5 (3.9)	115.0 (9.3)	72.0 (10.0)	20.5 (3.0)	2.5 (1.3)	253.0 (16.0)
2006	15.0 (2.7)	74.5 (6.8)	29.0 (1.3)	34.5 (4.7)	1.5 (0.7)	153.0 (8.8)
2007	88.5 (14.8)	106.0 (7.0)	21.5 (3.4)	22.5 (3.5)	5.5 (2.4)	238.5 (17.6)
2008	52.0 (9.7)	199.0 (17.0)	69.5 (4.8)	37.5 (3.9)	7.5 (1.9)	358.0 (25.2)
2009	30.0 (8.0)	82.5 (11.2)	17.5 (4.5)	27.5 (4.4)	6.0 (2.1)	157.5 (23.4)
2010	77.5 (7.0)	60.0 (8.3)	8.5 (1.6)	21.0 (4.9)	4.0 (1.3)	167.0 (13.6)
2011	90.0 (9.8)	177.0 (11.2)	37.0 (5.2)	33.0 (3.9)	8.5 (2.1)	337.0 (19.3)
2012	32.5 (6.1)	175.0 (15.3)	37.0 (4.9)	23.5 (4.0)	8.5 (2.3)	268.0 (21.2)
2013	24.5 (4.5)	161.0 (15.3)	22.5 (5.4)	24.5 (6.6)	4.5 (1.9)	232.5 (17.3)
2014	33.0 (5.5)	152.5 (9.7)	17.0 (3.8)	15.0 (2.6)	3.0 (1.5)	189.5 (14.0)

Dataset = cfdpscor.d14 – .d92

Table 153. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Corinth Lake in 2014; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	369	17 (± 4)	8 (± 2)

Dataset = cfdpscor.d14

Table 154. Population assessment for largemouth bass collected during spring electrofishing at Corinth Lake from 2000-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age-1	CPUE 12.0-14.9 in	CPUE ≥15.0 in	CPUE ≥20.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	11.1*	29.0	17.0	15.0	3.0				
	Score	3	2	1	2	3			11	Fair
2013	Value	11.1*	13.0	22.5	24.5	4.5				
	Score	3	1	2	3	4			13	Good
2012	Value	11.1*	24.5	37.0	23.5	8.5				
	Score	3	2	3	3	4			15	Good
2011	Value	11.1	90.2	37.0	33.0	8.5	0.515	40.2		
	Score	3	4	3	4	4			18	Excellent
2010	Value	11.1*	46.2^	8.5	21.0	4.0				
	Score	3	3	1	3	4			14	Good
2009	Value	11.1*	21.8^	17.5	27.5	6.0				
	Score	3	2	1	3	4			13	Good
2008	Value	11.1*	47.7^	69.5	37.5	7.5				
	Score	3	3	4	4	4			18	Excellent
2007	Value	11.1	86.7	21.5	22.5	5.5	0.498	39.3		
	Score	3	4	2	3	4			16	Good
2006	Value	10.1*	11.1^	29.0	34.5	1.5				
	Score	2	1	2	4	2			11	Fair
2005	Value	10.1*	32.4^	72.0	20.5	2.5				
	Score	2	2	4	3	3			14	Good
2004	Value	10.1*	21.1^	40.0	5.0	1.0				
	Score	2	2	3	2	2			11	Fair
2003	Value	10.1*	54.3^	23.3	6.0	0.7				
	Score	2	3	2	2	1			10	Fair
2002	Value	10.1	35.3	13.3	16.7	1.3	0.688	49.7		
	Score	2	2	1	2	2			9	Fair
2001	Value	8.7	63.4	20.8	9.6	0.0	0.805	55.3		
	Score	1	3	2	2	0			8	Fair
2000	Value	9.1	293.2	22.4	4.8	1.6	0.566	43.2		
	Score	1	4	2	2	2			11	Fair

* Age data not collected
^Calculations based on age data gathered in previous years
-Instantaneous and annual mortality not calculated in years where age and growth data are not collected

Table 155. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs for black bass in Corinth Lake on 11 September 2014; numbers in parentheses are standard errors.

	Inch class																			
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Largemouth bass	3	77	5	4	21	31	12	12	24	28	10	6	2	1	1	1	1	1	1	241	160.7 (19.0)

Dataset = cfdwrcor.d14

Table 156. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Corinth Lake on 11 September 2014; standard errors are in parentheses.

		Length group							
Species	Area	8.0–11.9 in		12.0–14.9 in		≥15.0 in		Total	
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	72	82 (1)	18	83 (5)	6	97 (2)	96	83 (1)

Dataset = cfdwrcor.d14

Table 157. Indices of year class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall in electrofishing samples at Corinth Lake.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
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	9.9	86.7	14.3
2007	Total	5.1	0.04	152.7	31.2	89.3	28.8	47.7	9.1
2008	Total	5.1	0.1	112.7	15.0	66.0	12.9	21.8	5.4
2009	Total	4.5	0.1	17.3	2.5	2.0	1.4	39.7	3.3
2010	Total	5.9	0.04	140.0	9.9	134.0	8.2	90.2	9.8
2011	Total	4.3	0.06	116.7	22.0	22.0	3.7	24.5	4.9
2012	Total	5.0	0.06	52.9	5.0	26.2	3.0	13.0	4.6
2013	Total	4.2	0.05	170.7	18.6	34.7	7.4	29.0	4.3
2014	Total	3.4	0.04	56.7	8.9	0.0			

Table 158. Species composition, relative abundance, and CPUE (fish/hr) of bluegill and redear sunfish collected in 1.25 hours of 7.5-minute electrofishing runs in Corinth Lake, May 2014; numbers in parentheses are standard errors.

	Inch class										
Species	2	3	4	5	6	7	8	9	10	Total	CPUE
Bluegill	6	18	56	38	26	55	5			204	163.2 (23.1)
Redear sunfish		1			2	11	20	21	1	56	44.8 (16.0)

Dataset = cfdpscor.d14

Table 159. PSD and RSD values calculated for sunfish collected during 1.25 hours of electrofishing at Corinth Lake during May 2014. Fish were collected in 7.5-minute runs.

Species	No. $\geq$stock size	PSD	RSD[a]
Bluegill	198	43 ($\pm$ 7)	2 ($\pm$ 2)
Redear sunfish	55	96 ($\pm$ 5)	40 ($\pm$ 14)

[a]Bluegill = RSD_8; Redear = RSD_9
Dataset = cfdpscor.d14

Table 160. Electrofishing CPUE (fish/hr) for each length group of bluegill collected from Corinth Lake from 1992-2014; numbers in parentheses are standard errors.

	Length group				
Year	<3.0 in	3.0–5.9 in	6.0-7.9 in	$\geq$8.0 in	Total
1992	3.0 (1.7)	36.0 (24.9)	49.0 (8.5)	10.0 (5.5)	98.0 (30.4)
1993	2.7 (1.3)	42.0 (13.1)	54.0 (10.9)	20.7 (5.2)	119.3 (26.2)
1996	6.0 (3.9)	75.0 (12.0)	54.5 (14.5)	1.5 (0.8)	137.0 (25.9)
1998	2.0 (1.1)	80.0 (19.4)	50.5 (10.3)	3.0 (1.0)	135.5 (23.7)
1999	42.0 (17.1)	113.0 (16.5)	32.5 (7.2)	17.0 (5.8)	204.5 (26.6)
2000	8.8 (2.5)	270.4 (20.1)	100.8 (12.0)	20.8 (3.6)	400.8 (25.9)
2001	7.2 (4.0)	185.6 (18.0)	140.0 (14.8)	5.6 (2.1)	338.4 (23.5)
2002	2.4 (1.2)	140.0 (16.7)	56.8 (12.1)	0.0	199.2 (26.6)
2003	14.2 (6.2)	164.4 (14.1)	91.6 (10.7)	0.9 (0.9)	271.1 (23.3)
2004	17.6 (4.9)	174.4 (15.9)	61.6 (10.9)	0.0	253.6 (22.7)
2005	12.0 (4.2)	262.4 (32.7)	82.4 (22.2)	0.0	356.8 (47.8)
2006	40.4 (6.0)	211.2 (17.9)	32.8 (6.4)	0.0	284.4 (14.7)
2007	13.2 (2.6)	148.8 (12.1)	98.0 (10.2)	0.0	260.0 (17.9)
2008	4.8 (1.2)	180.4 (13.7)	105.2 (12.4)	0.4 (0.4)	290.8 (18.8)
2009	9.2 (4.0)	151.6 (15.3)	166.8 (19.4)	0.0	327.6 (30.6)
2010	9.4 (2.6)	126.6 (11.1)	55.1 (6.9)	0.0	191.1 (15.5)
2011	32.0 (6.9)	222.8 (16.4)	60.0 (10.5)	0.0	314.8 (27.0)
2012	2.4 (1.2)	240.0 (24.6)	56.8 (6.1)	0.0	299.2 (27.7)
2013	0.8 (0.8)	60.0 (4.7)	106.4 (13.3)	0.0	167.2 (15.7)
2014	4.8 (2.1)	89.6 (14.4)	64.8 (10.4)	4.0 (1.3)	163.2 (23.1)

Dataset = cfdpscor.d14

Table 161. Population assessment for bluegill collected during spring electrofishing at Corinth Lake from 2000-2014 (scoring based on statewide assessment).

Year		Mean length age-2 at capture	Years to 6.0 in	CPUE ≥6.0 in	CPUE ≥8.0 in	Total score	Assessment rating
2014	Value	5.5	3-3+	68.8	4.0		
	Score	4	3	3	1	11	Good
2013	Value	4.7*	3-3*	106.4	0.0		
	Score	3	3	4	0	10	Fair
2012	Value	4.7	3-3+	56.8	0.0		
	Score	3	3	3	0	9	Fair
2011	Value	4.4	3-3+	60.0	0.0		
	Score	2	3	3	0	8	Fair
2010	Value	4.0	3-3+	55.1	0.0		
	Score	2	3	3	0	8	Fair
2009	Value	4.8	3-3+	166.8	0.0		
	Score	3	3	4	0	10	Fair
2008	Value	4.3	3-3+	105.6	0.4		
	Score	2	3	4	1	10	Fair
2007	Value	4.6	3-3+	98.0	0.0		
	Score	3	3	4	0	10	Fair
2006	Value	4.1	3-3+	32.8	0.0		
	Score	2	3	2	0	7	Fair
2005	Value	4.0	3-3+	82.4	0.0		
	Score	2	3	4	0	9	Fair
2004	Value	4.1	2-2+	61.6	0.0		
	Score	2	4	3	0	9	Fair
2003	Value	4.3	2-2+	92.4	0.9		
	Score	2	4	4	1	11	Good
2002	Value	4.2	2-2+	56.8	0.0		
	Score	2	4	3	0	9	Fair
2001	Value	4.3	2-2+	145.6	5.6		
	Score	2	4	4	2	12	Good
2000	Value	5.3	2-2+	121.6	20.8		
	Score	4	4	4	4	16	Excellent

* Age data not collected

^Calculations based on age data gathered in previous years

-Instantaneous and annual mortality not calculated in years where age and growth data are not collected

Table 162. Electrofishing CPUE (fish/hr) for each length group of redear sunfish collected from Corinth Lake from 1992-2014; numbers in parentheses are standard errors.

	Length group					
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	Total
1992	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
1993	0.0 (0.0)	0.0 (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 (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 (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 (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 (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 (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 (0.0)	19.6 (3.9)	54.0 (6.6)	7.6 (1.5)	0.4 (0.4)	81.2 (7.2)
2007	0.0 (0.0)	5.2 (1.3)	37.6 (7.1)	21.2 (5.5)	0.0 (0.0)	64.0 (11.7)
2008	0.0 (0.0)	10.4 (2.2)	33.6 (4.5)	27.6 (5.0)	0.0 (0.0)	71.6 (7.9)
2009	0.0 (0.0)	2.4 (1.0)	65.2 (7.6)	38.0 (7.5)	0.4 (0.4)	105.6 (14.1)
2010	0.9 (0.5)	7.1 (1.5)	18.9 (3.0)	12.0 (2.5)	0.0 (0.0)	38.9 (5.0)
2011	1.6 (0.7)	26.0 (4.5)	36.8 (3.0)	20.0 (3.0)	0.0 (0.0)	84.4 (8.0)
2012	0.0 (0.0)	4.8 (2.1)	38.4 (8.4)	24.0 (5.1)	0.0 (0.0)	67.2 (14.2)
2013	0.0 (0.0)	1.6 (1.1)	25.6 (3.7)	29.6 (7.0)	0.8 (0.8)	56.8 (8.6)
2014	0.0 (0.0)	0.8 (0.8)	10.4 (3.8)	33.6 (15.2)	0.8 (0.8)	44.8 (16.0)

Dataset = cfdpscor.d14

Table 163. Population assessment for redear sunfish collected during spring electrofishing at Corinth Lake from 2002-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Years to 8.0 in	CPUE ≥8.0 in	CPUE ≥10.0 in	Total score	Assessment rating
2014	Value	8.1	3-3+	33.6	0.8		
	Score	4	4	4	1	13	Good
2013	Value	7.8*	3-3+*	29.6	0.8		
	Score	4	4	4	1	13	Good
2012	Value	7.8	3-3+	24.0	0.0		
	Score	4	4	4	0	12	Good
2011	Value	7.8	3-3+	20.0	0.0		
	Score	4	4	4	0	12	Good
2010	Value	7.1	3-3+	12.0	0.0		
	Score	4	4	3	0	11	Good
2009	Value	7.7	3-3+	38.0	0.4		
	Score	4	4	4	1	13	Good
2008	Value	8.0	3-3+	27.6	0.0		
	Score	4	4	4	0	12	Good
2007	Value	7.6	3-3+	21.2	0.0		
	Score	4	4	4	0	12	Good
2006	Value	7.3	3-3+*	7.6	0.4		
	Score	4	4	2	1	11	Good
2005	Value	7.6	3-3+	31.2	3.2		
	Score	4	4	4	2	14	Excellent
2004	Value	9.1*	2-2+*	19.2	14.4		
	Score	4	4	4	4	16	Excellent
2003	Value	9.1*	2-2+*	28.4	24.9		
	Score	4	4	4	4	16	Excellent
2002	Value	9.1	2-2+	82.4	52.0		
	Score	4	4	4	4	16	Excellent

* Age data not collected

Table 164. Mean back calculated lengths (in) at each annulus for otoliths from bluegill collected in the fall from Corinth Lake in 2014.

		Age						
Year	No.	1	2	3	4	5	6	7
2013	33	2.9						
2012	9	3.0	5.5					
2011	7	2.7	4.8	6.4				
2010	6	2.7	4.6	5.8	6.6			
2009	1	2.2	3.9	5.1	5.6	6.3		
2008	1	2.4	4.0	5.3	6.0	6.5	7.4	
2007	1	1.9	4.4	5.5	6.2	6.8	7.3	7.6
Mean	58	2.8	4.9	6.0	6.4	6.6	7.3	7.6
Smallest		1.4	3.9	5.1	5.6	6.3	7.3	7.6
Largest		4.4	6.2	6.8	7.1	6.8	7.4	7.6
Std Error		0.1	0.1	0.1	0.2	0.1	0.0	
95% ConLo		2.6	4.7	5.7	6.1	6.3	7.3	
95% ConHi		3.0	5.2	6.2	6.7	6.8	7.4	

Intercept value = 0.00
Dataset = cfdagcor.d14

Table 165. Mean back calculated lengths (in) at each annulus for otoliths from redear sunfish collected in the fall from Corinth Lake in 2014.

		Age				
Year	No.	1	2	3	4	5
2013	21	3.3				
2012	4	3.6	7.1			
2011	3	3.7	6.6	8.1		
2010	5	4.1	6.6	8.0	8.9	
2009	2	3.1	5.7	7.3	8.2	9.2
Mean	35	3.5	6.6	7.9	8.7	9.2
Smallest		2.4	5.3	7.1	7.9	8.8
Largest		5.8	7.9	9.1	9.6	9.5
Std Error		0.1	0.2	0.2	0.2	0.4
95% ConLo		3.3	6.3	7.5	8.3	8.4
95% ConHi		3.7	7.0	8.2	9.1	9.9

Intercept value = 0.00
Dataset = cfdagcor.d14

Table 166. Number of fish and the relative weight (Wr) for each length group of bluegill and redear sunfish collected at Corinth Lake on 11 September 2014; standard errors are in parentheses.

	Length group									
Species	No.	Wr	No.	Wr	No.	Wr	No.	Wr	No.	Wr
	3.0–5.9 in		6.0–7.9 in		≥8.0 in				Total	
Bluegill	71	96 (2)	49	88 (1)	0				120	93 (1)
	1.0–3.9 in		4.0–6.9 in		7.0–9.0 in		≥9.0 in		Total	
Redear sunfish			20	100 (2)	9	95 (2)	6	96 (3)	35	98 (1)

Dataset = cfdwrcor.d14

Table 167. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected in 2.0 hours of 15-minute electrofishing runs in Elmer Davis Lake, May 2014; numbers in parentheses are standard errors.

	Inch class																					
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE
Largemouth bass	2	3	8	4	38	46	29	64	88	79	47	24	10	10	7	4	7	3	4	2	479	239.5 (31.7)

Dataset = cfdpselm.d14

Table 168. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from Elmer Davis Lake from 1996-2014; numbers in parentheses are standard errors.

	Length group					
Year	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	≥20.0 in	Total
1996	102.0 (15.3)	163.5 (19.5)	37.0 (6.2)	9.5 (3.4)	4.5 (1.4)	312.0 (32.7)
1997	113.5 (20.1)	252.0 (27.2)	39.0 (5.6)	19.0 (3.7)	5.5 (1.8)	423.5 (43.9)
1998	52.5 (9.5)	93.3 (6.8)	16.8 (2.3)	7.5 (1.7)	3.2 (1.1)	170.1 (15.1)
1999	253.5 (32.9)	47.0 (8.3)	36.0 (6.9)	17.5 (5.5)	2.5 (1.1)	354.0 (45.4)
2000	134.5 (14.7)	136.5 (11.0)	31.5 (6.0)	29.0 (4.4)	2.0 (1.3)	331.5 (21.3)
2001	121.0 (17.0)	220.0 (21.2)	18.5 (2.4)	21.0 (4.1)	0.5 (0.5)	380.5 (24.9)
2002	99.0 (16.3)	124.0 (12.3)	4.0 (1.3)	10.0 (2.7)	0.5 (0.5)	237.0 (26.2)
2003	96.0 (10.2)	189.5 (16.5)	14.5 (3.9)	15.0 (2.7)	3.5 (1.6)	315.0 (25.1)
2004	107.5 (10.0)	123.5 (10.0)	22.0 (3.5)	15.0 (1.7)	3.5 (1.6)	268.0 (17.4)
2005	93.0 (10.6)	197.0 (11.2)	60.0 (10.4)	15.0 (2.4)	3.5 (1.2)	365.0 (27.2)
2006	74.5 (11.5)	123.5 (12.2)	40.5 (7.9)	6.5 (1.8)	1.0 (0.7)	245.0 (15.4)
2007	32.5 (5.8)	137.0 (16.4)	41.5 (10.3)	8.0 (2.8)	1.0 (0.7)	219.0 (28.9)
2008	149.0 (17.9)	188.0 (20.7)	45.0 (5.6)	14.5 (4.0)	2.0 (1.3)	396.5 (35.2)
2009	36.0 (6.0)	192.5 (19.0)	76.0 (9.0)	28.0 (3.8)	6.5 (2.3)	332.5 (30.2)
2010	41.0 (5.0)	147.5 (17.9)	71.5 (12.3)	24.0 (5.0)	3.0 (1.3)	284.0 (33.5)
2011	51.0 (6.2)	152.5 (20.4)	69.5 (8.1)	23.0 (4.5)	3.5 (1.2)	296.0 (30.9)
2012	83.5 (8.8)	197.5 (10.9)	85.5 (7.3)	27.5 (3.7)	4.5 (1.2)	394.0 (12.4)
2013			No Sample			
2014	27.5 (4.1)	113.5 (13.8)	75.0 (14.2)	23.5 (4.0)	4.5 (1.4)	239.5 (31.7)

Dataset = cfdpselm.d14 – .d96

Table 169. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in Elmer Davis Lake in 2014; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	424	46 (± 5)	11 (± 3)

Dataset = cfdpselm.d14

Table 170. Population assessment for largemouth bass collected during spring electrofishing at Elmer Davis Lake from 2000-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE >15.0 in	Spring CPUE >20.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	10.5*	8.0	75.0	23.5	4.5				
	Score	2	1	4	3	4			14	Good
2013					No Sample					
2012	Value	10.5	78.0	85.5	27.5	4.5	0.392	32.5		
	Score	2	4	4	3	4			17	Excellent
2011	Value	9.8*	32.4	69.5	23.0	3.5				
	Score	1	2	4	3	3			13	Good
2010	Value	9.8*	29.0^	71.5	24.0	3.0				
	Score	1	2	4	3	3			13	Good
2009	Value	9.8*	18.5^	76.0	28.0	6.5				
	Score	1	2	4	3	4			14	Good
2008	Value	9.8	127.5	45.0	14.5	2.0	0.489	38.6		
	Score	1	4	3	2	3			13	Good
2007	Value	10.5*	26.9^	41.5	8.0	1.0				
	Score	2	2	3	2	2			11	Fair
2006	Value	10.5*	68.1^	40.5	6.5	1.0				
	Score	2	3	3	2	2			12	Good
2005	Value	10.5*	78.1^	60.0	15.0	3.5				
	Score	2	4	4	2	3			15	Good
2004	Value	10.5	94.4	22.0	15.0	3.5	0.481	38.2		
	Score	2	4	2	2	3			13	Good
2003	Value	10.3*	57.5^	14.5	15.0	3.5				
	Score	2	3	1	2	3			11	Fair
2002	Value	10.3*	80.6^	4.0	10.0	0.5				
	Score	2	4	1	2	1			10	Fair
2001	Value	10.3	52.8	18.5	21.0	0.5	0.516	40..3		
	Score	2	3	1	3	1			10	Fair
2000	Value	10.7	73.8	31.5	29.0	2.0	0.618	46.1		
	Score	2	3	2	3	3			13	Good

* Age data not collected
^Calculations based on age data gathered in previous years
-Instantaneous and annual mortality not calculated in years where age and growth data are not collected

Table 171. Species composition, relative abundance, and CPUE (fish/hr) of bluegill and redear sunfish collected in 1.25 hours of 7.5-minute electrofishing runs in Elmer Davis Lake, May 2014; numbers in parentheses are standard errors.

	Inch class											
Species	1	2	3	4	5	6	7	8	9	10	Total	CPUE
Bluegill	2	20	64	59	24	20	22				211	168.8 (26.5)
Redear sunfish		1	17	108	58	28	43	25	8	1	289	231.2 (53.2)

Dataset = cfdpselm.d14

Table 172. PSD and RSD values calculated for sunfish collected during 1.25 hours of electrofishing at Elmer Davis Lake during May 2014. Fish were collected in 7.5-minute runs.

Species	No. $\geq$stock size	PSD	RSD[a]
Bluegill	189	22 ($\pm$ 6)	
Redear sunfish	271	28 ($\pm$ 5)	3 ($\pm$ 2)

[a]Bluegill = RSD_8; Redear = RSD_9
Dataset = cfdpselm.d14

Table 173. Electrofishing CPUE (fish/hr) for each length group of bluegill collected from Elmer Davis Lake from 1994-2014; numbers in parentheses are standard errors.

	Length group				
Year	<3.0 in	3.0-5.9 in	6.0-7.9 in	$\geq$8.0 in	Total
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)
2007	7.6 (1.8)	81.2 (7.4)	42.8 (9.7)	9.2 (2.4)	140.8 (14.9)
2008	34.4 (5.7)	133.2 (24.7)	58.8 (9.3)	6.8 (2.3)	233.2 (33.0)
2009	8.8 (1.8)	58.1 (6.5)	33.9 (3.7)	1.1 (0.5)	101.9 (7.3)
2010	51.6 (12.8)	126.8 (16.2)	26.8 (4.1)	0.0 (0.0)	205.2 (23.4)
2011	112.4 (19.6)	226.0 (18.9)	50.0 (7.3)	5.6 (2.5)	394.0 (36.2)
2012	42.4 (7.3)	254.4 (39.6)	68.8 (15.0)	0.8 (0.8)	366.4 (57.9)
2013	49.6 (18.2)	179.2 (28.4)	54.4 (14.8)	0.8 (0.8)	284.0 (56.5)
2014	17.6 (7.4)	117.6 (25.5)	33.6 (10.2)	0.0 (0.0)	168.8 (26.5)

Dataset = cfdpselm.d14

Table 174. Population assessment for bluegill collected during spring electrofishing at Elmer Davis Lake from 2001-2014 (scoring based on statewide assessments).

Year		Mean length age-2 at capture	Years to 6.0 in	CPUE ≥6.0 in	CPUE ≥8.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	4.1*	3-3+*	33.6	0.0	-	-		
	Score	2	3	3	0			8	Fair
2013	Value	4.1	3-3+	55.2	0.8	-	-		
	Score	2	3	3	1			9	Fair
2012	Value	4.2	2-2+	69.6	0.8	1.305	72.9		
	Score	2	4	3	1			10	Fair
2011	Value	4.4	2-2+	55.6	5.6	*	*		
	Score	2	4	3	2			11	Good
2010	Value	4.3	2-2+	26.8	0.0	1.471	77.0		
	Score	2	4	2	0			8	Fair
2009	Value	4.4	2-2+	34.9	1.1	*	*		
	Score	2	4	2	1			9	Fair
2008	Value	4.1	2-2+	65.6	6.8	0.748	52.7		
	Score	2	4	3	2			11	Good
2007	Value	4.1	2-2+	52.0	9.2	0.718	51.2		
	Score	2	4	3	2			11	Good
2006	Value	5.1	2-2+	58.4	16.0	0.464	37.1		
	Score	4	4	3	4			15	Excellent
2005	Value	4.2	2-2+	68.0	8.8	0.729	51.7		
	Score	2	4	3	2			11	Good
2004	Value	4.3	2-2+	128.0	8.8	*	*		
	Score	2	4	4	2			12	Good
2003	Value	4.5	2-2+	153.6	2.4	*	*		
	Score	3	4	4	1			12	Good
2002	Value	4.5	2-2+	273.6	0.8	*	*		
	Score	3	4	4	1			12	Good
2001	Value	4.2	2-2+	157.5	0.5	*	*		
	Score	2	4	4	1			11	Good

* Age data not collected

Table 175. Electrofishing CPUE (fish/hr) for each length group of redear sunfish collected from Elmer Davis Lake from 1994-2014; numbers in parentheses are standard errors.

Year	Length group					Total
	<3.0 in	3.0-5.9 in	6.0-7.9 in	≥8.0 in	≥10.0 in	
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)
2007	0.4 (0.4)	1.6 (0.7)	18.0 (3.5)	15.6 (3.4)	2.0 (1.1)	35.6 (5.6)
2008	1.2 (0.7)	13.2 (2.7)	40.8 (9.2)	17.6 (5.3)	2.8 (1.5)	72.8 (14.7)
2009	0.8 (0.6)	5.6 (1.3)	18.7 (3.2)	6.4 (1.8)	1.9 (0.7)	31.5 (4.3)
2010	1.2 (0.9)	3.2 (1.4)	23.6 (2.7)	13.2 (2.9)	0.8 (0.6)	41.2 (4.7)
2011	4.8 (1.7)	22.4 (4.5)	6.8 (2.0)	58.0 (8.5)	2.4 (1.3)	92.0 (10.3)
2012	5.6 (2.6)	31.2 (5.3)	44.0 (9.3)	31.2 (7.2)	4.8 (1.3)	112.0 (11.6)
2013	32.8 (16.3)	149.6 (40.1)	39.2 (13.6)	20.8 (5.6)	0.8 (0.8)	242.4 (67.2)
2014	0.8 (0.8)	146.4 (37.0)	56.8 (19.7)	27.2 (7.8)	0.8 (0.8)	231.2 (53.2)

Dataset = cfdpselm.d14

Table 176. Population assessment for redear sunfish collected during spring electrofishing at Elmer Davis Lake from 2001-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Years to 8.0 in	CPUE ≥8.0 in	CPUE ≥10.0 in	Total score	Assessment rating
2014	Value	7.7*	3-3+*	27.2	0.8		
	Score	4	4	4	1	13	Good
2013	Value	7.7	3-3+	20.8	0.8		
	Score	4	4	4	1	13	Good
2012	Value	7.7	3-3+	31.2	4.8		
	Score	4	4	4	3	15	Excellent
2011	Value	8.7	2-2+	58.0	2.4		
	Score	4	4	4	2	14	Excellent
2010	Value	8.4	2-2+	13.2	1.2		
	Score	4	4	3	1	12	Good
2009	Value	8.0	3-3+	6.4	1.9		
	Score	4	4	2	2	12	Good
2008	Value	8.8	2-2+	17.6	2.8		
	Score	4	4	4	3	15	Excellent
2007	Value	8.6	2-2+	15.6	2.0		
	Score	4	4	4	2	14	Excellent
2006	Value	8.8	2-2+	30.4	4.0		
	Score	4	4	4	3	15	Excellent
2005	Value	8.7	2-2+	63.2	4.8		
	Score	4	4	4	3	15	Excellent
2004	Value	9.0*	2-2+*	24.8	3.2		
	Score	4	4	4	2	14	Excellent
2003	Value	9.0	2-2+	19.2	0.8		
	Score	4	4	4	1	13	Good
2002	Value	6.5*	4-4+*	15.2	0.8		
	Score	4	3	4	1	12	Good
2001	Value	6.5	4-4+	3.5	1.0		
	Score	4	3	1	1	9	Fair

* Age data not collected

Table 177. Length distribution and CPUE (fish/hr) of largemouth bass collected in 1.5 hours of 15-minute electrofishing runs in Kincaid Lake in September 2014; numbers in parentheses are standard errors.

	Inch class																					
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	30	4	3		4	28	15	15	19	20	15	17	6	10	13	6	11	2		1	219	146.0 (17.5)

Dataset = cfdwrkin.d14

Table 178. Number of fish and the relative weight (Wr) for each length group of largemouth bass collected at Kincaid Lake on 18 September 2014; standard errors are in parentheses.

Species	Area	Length group						Total	
		8.0–11.9 in		12.0–14.9 in		≥15.0 in			
		No.	Wr	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Total	69	90 (1)	38	93 (2)	43	93 (2)	150	92 (1)

Dataset = cfdwrkin.d14

Table 179. Indices of year class strength at age 0 and age 1 and mean length (in) of largemouth bass collected in the fall in electrofishing samples at Kincaid Lake.

Year class	No. of fish	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
1999	25	3.1	(0.2)	16.7	(5.7)	0.0		1.5	(1.10)
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		0.0	
2007	29	3.2	(0.1)	19.3	(4.8)	0.7	(0.7)	1.0	(0.7)
2008	42	3.3	(0.1)	28.0	(2.1)	0.0		2.5	(1.1)
2009	47	2.7	(0.04)	31.3	(8.2)	0.0		1.3	(0.5)
2010	80	4.2	(0.1)	53.3	(12.0)	14.0	(3.4)	5.0	(1.7)
2011	112	3.8	(0.1)	74.7	(28.8)	7.3	(4.2)	4.5	(1.4)
2012	71	3.4	(0.1)	47.3	(9.1)	0.7	(0.7)	1.0	(0.7)
2013	56	3.6	(0.1)	37.3	(13.8)	0.0		NS	
2014	37	2.6	(0.1)	24.7	(7.4)	0.0			

Dataset = cfdwrkin.d14

Table 180. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass collected in 1.0 hour of 15-minute electrofishing runs for black bass in McNeely Lake in May 2014; numbers in parentheses are standard errors.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Largemouth bass	1	8	6	3	8	47	52	41	27	14	2	2	7	5	1	3	2	2	1	232	232.0 .3)

Dataset = cfdpsmcl.d14

Table 181. Electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from McNeely Lake from 1996-2014; numbers in parentheses are standard errors.

Year	Length group					Total
	<8.0 in	8.0-11.9 in	12.0-14.9 in	≥15.0 in	≥20.0 in	
1996	77.3 (9.2)	6.7 (2.0)	18.0 (3.4)	23.3 (2.8)	0.0 (0.0)	125.3 (11.0)
1998	80.0 (11.1)	134.7 (18.6)	7.3 (2.2)	14.0 (3.4)	0.7 (0.7)	236.0 (26.0)
1999	71.0 (10.6)	161.0 (4.4)	27.0 (7.4)	22.0 (5.3)	2.0 (1.2)	281.0 (7.5)
2000	44.7 (5.0)	144.7 (13.4)	104.7 (13.8)	20.7 (2.2)	4.0 (1.5)	314.7 (24.7)
2001	71.3 (10.1)	144.0 (6.4)	97.7 (16.4)	31.3 (3.8)	2.7 (1.3)	346.0 (28.1)
2002	28.7 (3.0)	48.0 (12.5)	43.3 (4.8)	9.3 (1.7)	0.0 (0.0)	129.3 (30.3)
2003	44.7 (8.2)	96.0 (12.4)	56.0 (10.7)	27.3 (3.2)	1.3 (0.8)	224.0 (19.7)
2004	27.3 (4.3)	58.0 (8.9)	23.3 (4.3)	28.0 (3.9)	2.7 (1.3)	136.7 (15.6)
2005	23.3 (6.3)	76.7 (5.9)	46.0 (4.9)	30.0 (6.2)	1.3 (0.8)	176.0 (8.6)
2006	56.0 (5.6)	72.7 (12.1)	37.3 (6.5)	24.0 (2.5)	1.3 (0.8)	190.0 (14.6)
2007	14.7 (1.7)	98.0 (11.9)	46.7 (13.1)	40.0 (8.9)	1.3 (1.3)	199.3 (30.8)
2008	127.3 (6.5)	124.0 (14.6)	58.7 (6.6)	20.7 (4.6)	1.3 (0.8)	330.7 (21.5)
2009	66.7 (12.3)	73.3 (10.9)	28.0 (7.7)	12.0 (3.3)	1.3 (0.8)	180.0 (17.2)
2010	49.3 (2.2)	92.7 (11.5)	14.7 (2.0)	14.0 (3.5)	1.3 (0.8)	170.7 (12.8)
2011	76.0 (14.9)	64.7 (14.5)	27.3 (4.2)	14.7 (2.7)	2.7 (2.0)	182.7 (18.8)
2012	40.8 (7.5)	109.6 (12.9)	31.2 (8.4)	21.6 (6.1)	0.8 (0.8)	203.2 (24.0)
2013			No Sample			
2014	26.0 (6.2)	167.0 (11.8)	18.0 (2.6)	21.0 (3.0)	3.0 (1.0)	232.0 (16.3)

Dataset = cfdpsmcl.d14 – d96

Table 182. PSD and RSD_{15} values obtained for largemouth bass from spring electrofishing samples in McNeely Lake in 2014; confidence intervals are in parentheses.

Species	No. ≥8.0 in	PSD	RSD_{15}
Largemouth bass	206	18 (± 5)	10 (± 4)

Dataset = cfdpsmcl.d14

Table 183. Population assessment for largemouth bass collected during spring electrofishing at McNeely Lake from 2000-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE >15.0 in	Spring CPUE >20.0 in	Instantaneous mortality (z)	Annual mortality (AM)	Total score	Assessment rating
2014	Value	10.5*	18.0	18.0	21.0	3.0				
	Score	2	2	1	3	3			11	Fair
2013	Value					No Sample				
	Score									
2012	Value	10.5	15.2	31.2	21.6	0.8	0.356	30.0		
	Score	2	1	2	3	1			9	Fair
2011	Value	11.4*	72.0	27.3	14.7	2.7				
	Score	3	3	2	2	3			13	Good
2010	Value	11.4*	50.8^	14.7	14.0	1.3				
	Score	3	3	1	2	2			11	Fair
2009	Value	11.4*	67.8^	28.0	12.0	1.3				
	Score	3	3	2	2	2			12	Good
2008	Value	11.4	130.0	58.7	20.7	1.3	0.527	40.9		
	Score	3	4	4	3	2			16	Good
2007	Value	11.0*	5.3^	46.7	40.0	1.3				
	Score	3	1	3	4	2			13	Good
2006	Value	11.0*	50.7^	37.3	24.0	1.3				
	Score	3	3	3	3	2			14	Good
2005	Value	11.0*	12.7^	46.0	30.0	1.3				
	Score	3	1	3	4	2			13	Good
2004	Value	11.0	24.7	23.3	28.0	2.7	0.319	27.3		
	Score	3	2	2	3	3			13	Good
2003	Value	9.8*	20.0^	56.0	27.3	1.3				
	Score	1	2	4	3	2			12	Good
2002	Value	9.8*	23.3^	43.3	9.3	0.0				
	Score	1	2	3	2	0			8	Fair
2001	Value	9.8	70.0	99.3	31.3	2.7	0.392	32.4		
	Score	1	3	4	4	3			15	Good
2000	Value	10.4*	40.7^	104.7	20.7	4.0				
	Score	2	2	4	3	4			15	Good

* Age data not collected
^Calculations based on age data gathered in previous years
-Instantaneous and annual mortality not calculated in years where age and growth data are not collected

Table 184. Species composition, relative abundance, and CPUE (fish/hr) of largemouth bass and sunfish collected in 0.375 hours of electrofishing in Lincoln Homestead Lake, May 2014; numbers in parentheses are standard errors.

	Inch class																
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total	CPUE
Bluegill	5	20	89	60	93	26	3									296	789.3 (167.3)
Redear sunfish						4	22	3								29	77.3 (28.2)
Largemouth bass		1				3		4	6	5	5	2	2		5	33	88.0 (28.1)

Dataset = cfdpslhl.d14

CENTRAL FISHERIES DISTRICT

Stream Fishery Surveys – Warmwater Streams

FINDINGS

Stream sampling conditions for 2014 are summarized in Table 1.

Diurnal electrofishing for black bass and rock bass was conducted during March and April 2014 at various locations on Elkhorn Creek. These studies were conducted to assess the black bass, especially smallmouth bass and rock bass populations. Length distribution and CPUE data of black bass and rock bass from Elkhorn Creek are presented in Table 2. Smallmouth bass comprised 39% of the black bass sampled in the North Fork Elkhorn Creek, whereas, smallmouth bass comprised 90% of the black bass sampled on the main stem Elkhorn Creek. No spotted bass were collected in North Fork Elkhorn Creek and represented 2% of the black bass population in the main stem Elkhorn Creek. Largemouth bass comprised 60% of the black bass sampled in the North Fork Elkhorn Creek and 8% of the black bass sampled in the main stem Elkhorn Creek. Total catch rate of smallmouth bass on Elkhorn Creek was higher than the 7 year average of 62.5 fish/hr, which constitutes sampling done by Central Fishery District personnel (Table 3). The current catch rate of smallmouth bass (86.8 fish/hr) is slightly lower than the historical average of 92.6 fish/hr. The number of sampling efforts range from a low of 9 in 1982 and 1988-1989 to a high of 40 collected in 1991. The current catch rate of rock bass (39.3 fish/hr) was much higher than the historical catch rate (30.7 fish/hr) (Table 4). The smallmouth bass population assessment score for the North Fork Elkhorn Creek was 14 (Table 5), which results in a “Good” rating. The rock bass population assessment score for North Fork Elkhorn Creek was 7 (Table 6), which results in a “Fair” rating. The largemouth bass population assessment score for North Fork Elkhorn Creek was 14 (Table 7), which results in a “Good” rating. Fish populations on the North Fork Elkhorn Creek are effected by two dams in the vicinity of the Great Crossing areas. For the main stem Elkhorn Creek, the smallmouth bass population assessment score was 20 (Table 8), which results in an “Excellent” rating. The rock bass population assessment score was 10 (Table 9), which results in a “Good” rating. Finally, the largemouth bass population assessment score was 8 (Table 10), which results in a “Fair” rating.

Diurnal electrofishing for black bass and rock bass was conducted during April 2014 at various locations on Floyds Fork. These studies were conducted to assess the black bass, especially smallmouth bass and rock bass populations. Length distribution and CPUE data of black bass and rock bass from Floyds Fork are presented in Table 11. Smallmouth bass comprised 39% of the black bass sampled in Floyds Fork, whereas, largemouth bass comprised 36% of the sampled black bass. Finally, spotted bass represented 25% of the black bass population in Floyd’s Fork. The catch rate of smallmouth bass on Floyds Fork was lower in 2014 (7.8 fish/hr) compared to the historical average (12.1 fish/hr) (Table 12). Additionally, the current catch rate of rock bass (11.8 fish/hr) was slightly lower than the historical average (13.4 fish/hr) (Table 13). The smallmouth bass population assessment score for Floyds Fork was 13 (Table 14), which results in a “Good” rating. The rock bass population assessment score for Floyds Fork was 6 (Table 15), which results in a “Fair” rating. The largemouth bass population assessment score for Floyds Fork was 6 (Table 16), which results in a “Poor” rating. The assessment ratings for smallmouth bass, rock bass and largemouth bass for the Floyd’s Fork were very similar to previous years.

A voluntary creel survey was conducted at Parklands of the Floyds Fork from April 2014 through March 2015. Creel survey cards and drop boxes were available at all the open access sites which included: 1) North Beckley Paddling Access, 2) PNC Achievement Center at the Creekside Paddling Access, 3) Fisherville Paddling Access and 4) John Floyd Fields. Forty-five completed surveys were collected indicating that 71.4% of fishing trips were upstream of the Fisherville Paddling Access which was expected since the downstream paddling access sites were still being developed during this creel survey (Figure 1). However, 17.1% of the trips did occur between the Fisherville and Seatonville Paddling access sites, with 11.4% of the trips downstream of the Seatonville Paddling Access. The duration of most fishing trips were between 2.0-3.0 hrs (64.3%), while anglers reported trips length that ranged from 1.0-7.0 hrs. Seventy-three percent of anglers caught ≤5 fish/trip, 19.5% of anglers reported 6-10 fish/trip, with only 7.3% of anglers reporting catches >10 fish/trip. Of the anglers who caught fish, 80.0% did not harvest the fish they caught, indicating that catch and release may be heavily practiced at the Parklands of the Floyds Fork. Overall, most anglers (39.0%) fished for anything, followed by trout (31.7%), smallmouth bass (24.4%) and sunfish (4.9%; Figure 1). During this period, 70.5% of anglers reported being satisfied with their fishing trip, 11.4% were neutral and 18.2% were dissatisfied mainly due to lack of fish caught (Figure 1). Most anglers reported living within 20 miles of the park with one response from Myrtle Beach, SC (Figure 2). Most anglers did not complete the section of the survey card that reported the catch and harvest of different size classes for smallmouth bass, largemouth bass and rock bass, resulting in no reportable data.

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

Water body	Species	Date	Time (24hr)	Gear	Weather	Water temp. F	Water level	Secchi (in)	Conditions	Pertinent sampling comments [c]
North Fork Elkhorn Creek (Great Crossings)	Black Bass/ Rock Bass	3/31	1000	shock	sunny	49	3.91 ft Peaks Mill gauge	clear	good	good sample
Floyd's Fork (Miles Park)	Black Bass/ Rock Bass	4/1	1000	shock	partly sunny	53	1.93 ft. at Fisherville Gauge	20	good	good sample
Floyd's Fork (Fisherville Ramp)	Black Bass/ Rock Bass	4/1	1000	shock	partly sunny	51	1.93ft. at Fisherville Gauge	20	good	good sample
Floyd's Fork (Bob White House)	Black Bass/ Rock Bass	4/1	1200	shock	partly sunny	55	1.93 ft. at Fisherville Gauge	24	good	good sample
Floyd's Fork (Cane Run Access)	Black Bass/ Rock Bass	4/1	1300	shock	partly sunny	58	1.93 ft. at Fisherville Gauge	20	good	good sample
Elkhorn Creek (Peaks Mill)	Black Bass/ Rock Bass	4/2	1000	shock	Overcast light rain turned sunny and warm	56	3.51 ft Peaks Mill gauge	clear	good	good sample
Elkhorn Creek (Hatchery)	Black Bass/ Rock Bass	4/16	1100	shock	sunny / breezy and cool	52	3.47 ft Peaks Mill gauge	clear	good	good sample
Elkhorn Creek (Jackson Hole)	Black Bass/ Rock Bass	4/17	1000	shock	sunny / light breeze	53	3.35 ft Peaks Mill gauge	clear	good	good sample

Table 2. Length distribution and CPUE (fish/hr) of largemouth bass collected in 7.5 hours of 30-minute electrofishing runs for black bass in Elkhorn Creek in March-April 2014; numbers in parentheses are standard errors.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
Below dam at Great Crossings																		
Rock bass	1	4	4	3	1	1											14	7.0 (3.0)
Smallmouth bass			3		1	4	2	5	7	4	1	3					30	15.0 (4.2)
Spotted bass																	0	0.0 (0.0)
Largemouth bass			1	4	6	3	3		3	3	5	8	2	3	3	2	46	23.0 (1.9)
Jackson Hole																		
Rock bass		6	22	34	40	15	1										118	59.0 (14.7)
Smallmouth bass	6	2	41	39	28	16	20	14	11	13	11	13	8	2	1		225	112.5 (8.5)
Spotted bass							1	2									3	1.5 (0.5)
Largemouth bass							1		3	1	2		1		1		9	4.5 (3.2)
Peaks Mill																		
Rock bass		2	7	21	21	7	1										59	29.5 (7.2)
Smallmouth bass			4	15	11	13	6	8	15	8	7	9	9	3	1	1	110	55.0 (13.2)
Spotted bass						1	1										2	1.0 (0.6)
Largemouth bass				1	5	6	7	3	2	1		2	3	1			31	15.5 (5.5)
Hatchery																		
Rock bass			2	11	27	10	9										59	29.5 (1.5)
Smallmouth bass	2	1	18	36	11	10	16	22	14	16	15	10	9	5	1		186	93.0 (4.5)
Spotted bass					1		1		2	1							5	2.5 (1.5)
Largemouth bass					1	1	2		2		1	1		1			9	4.5 (1.3)
Total																		
Rock bass	1	14	44	85	72	32	2										250	31.4 (6.1)
Smallmouth bass	8	3	66	90	51	43	44	49	47	41	34	35	26	10	3	1	551	68.9 (10.4)
Spotted bass					1	1	3	2	2	1							10	1.3 (0.4)
Largemouth bass			1	5	12	10	13	3	10	5	8	11	6	5	4	2	95	11.9 (2.5)

Dataset = cfdpsehc.d14

Table 3. Electrofishing CPUE (fish/hr) for each length group of smallmouth bass collected from main stem Elkhorn Creek (Forks of Elkhorn to Confluence with Kentucky River) from 1984-2014; numbers in parentheses are standard errors. Number of samples and locations varies between years.

	Length group					
Year	<4.0 in	4.0-8.9 in	>9.0 in	>12.0 in	>14.0 in	Total
1982	0.0 (0.0)	34.9 (10.6)	24.7 (4.9)	4.7 (1.4)	1.6 (1.1)	59.6 (13.7)
1983			NS			
1984			NS			
1985			NS			
1986			NS			
1987			NS			
1988	1.9 (1.0)	42.8 (13.4)	40.8 (12.4)	2.0 (0.7)	0.0 (0.0)	85.5 (26.1)
1989	1.6 (0.6)	22.4 (5.9)	41.0 (8.8)	9.2 (2.1)	2.0 (0.6)	64.9 (14.1)
1990	0.2 (0.1)	41.0 (9.3)	62.1 (7.7)	18.2 (2.7)	2.7 (0.3)	103.2 (12.1)
1991	4.4 (1.0)	59.3 (6.5)	65.2 (5.5)	14.6 (1.5)	2.4 (0.4)	128.9 (10.9)
1992	1.0 (0.4)	81.4 (9.0)	56.6 (6.9)	6.9 (1.5)	0.7 (0.3)	138.9 (12.8)
1993	0.8 (0.3)	46.6 (10.2)	80.2 (7.2)	23.0 (3.2)	3.6 (0.9)	127.6 (12.5)
1994	4.4 (1.1)	51.2 (9.0)	81.1 (8.8)	42.2 (6.0)	8.7 (2.2)	136.8 (13.1)
1995	10.3 (3.5)	51.5 (10.0)	75.2 (8.6)	43.8 (6.0)	15.8 (2.7)	137.0 (14.0)
1996	3.7 (1.0)	40.7 (8.4)	57.8 (6.3)	36.7 (5.0)	15.1 (2.5)	102.2 (9.0)
1997	4.0 (1.1)	62.6 (10.1)	43.1 (4.7)	20.6 (2.5)	9.3 (1.4)	109.7 (13.2)
1998	9.6 (1.9)	48.9 (6.0)	46.3 (3.0)	18.3 (1.9)	7.5 (1.1)	104.7 (8.4)
1999	1.0 (0.3)	42.1 (7.6)	41.7 (3.1)	12.9 (2.1)	4.8 (0.9)	84.8 (8.2)
2000	11.3 (2.0)	48.1 (6.2)	67.0 (5.1)	29.5 (3.0)	10.3 (1.4)	126.4 (8.8)
2001	8.0 (1.7)	29.9 (4.0)	48.5 (3.1)	26.9 (2.1)	10.3 (1.1)	86.4 (7.0)
2002	2.5 (1.2)	56.1 (6.3)	49.9 (4.2)	24.2 (2.6)	12.0 (1.5)	108.5 (8.4)
2003	5.5 (1.5)	27.4 (3.1)	44.4 (4.0)	15.5 (1.5)	6.7 (1.0)	77.3 (6.5)
2004	4.9 (2.2)	29.0 (2.8)	52.6 (4.8)	16.8 (1.9)	6.9 (0.9)	86.5 (6.4)
2005	1.5 (0.4)	37.3 (6.2)	47.0 (4.1)	21.8 (2.2)	7.0 (0.9)	85.8 (8.5)
2006	11.4 (4.6)	18.2 (4.1)	77.4 (8.6)	42.6 (6.3)	16.1 (2.4)	107.0 (11.1)
2007			NS			
2008	0.7 (0.3)	20.3 (4.8)	22.3 (3.9)	11.8 (3.2)	5.7 (2.1)	43.3 (7.1)
2009	2.8 (0.8)	29.0 (9.3)	35.0 (6.6)	13.3 (3.6)	8.3 (2.3)	66.8 (13.2)
2010	0.2 (0.2)	31.7 (8.7)	36.7 (5.2)	13.0 (3.1)	5.5 (1.7)	68.5 (12.7)
2011	1.7 (0.7)	20.7 (4.6)	36.8 (3.6)	10.7 (1.9)	4.5 (1.6)	59.2 (6.2)
2012	9.4 (1.9)	27.6 (4.6)	18.0 (2.7)	5.9 (1.0)	2.1 (0.8)	55.0 (7.8)
2013	1.6 (0.5)	18.9 (3.1)	37.5 (5.9)	20.9 (3.8)	10.2 (2.6)	58.0 (7.2)
2014	1.3 (0.7)	40.8 (7.5)	44.7 (5.2)	23.7 (3.5)	12.0 (2.7)	86.8 (8.7)

Dataset = cfdpsehc.d14 – .d08 and bbrpselk.d82, .d88 – .d06

Table 4. Electrofishing CPUE (fish/hr) for each length group of rock bass collected from main stem Elkhorn Creek (Forks of Elkhorn to Confluence with Kentucky River) from 1984-2014; numbers in parentheses are standard errors. Number of samples and location varies between years.

	Length group				
Year	<4.0 in	4.0-5.9 in	>6.0 in	>8.0 in	Total
1982	0.1 (0.1)	1.2 (0.6)	10.5 (3.1)	1.9 (1.2)	11.8 (3.5)
1983			NS		
1984			NS		
1985			NS		
1986			NS		
1987			NS		
1988	0.7 (0.56)	7.1 (2.2)	22.4 (6.5)	1.3 (0.9)	30.2 (8.7)
1989	0.0 (0.0)	4.1 (0.9)	19.6 (4.2)	4.7 (1.3)	23.6 (4.9)
1990	0.6 (0.2)	5.9 (1.5)	17.9 (2.6)	3.3 (0.8)	24.4 (3.9)
1991	1.4 (0.5)	16.2 (2.7)	32.8 (3.3)	4.1 (0.6)	50.4 (5.6)
1992	0.7 (0.2)	9.8 (3.0)	37.1 (4.9)	2.2 (0.4)	47.5 (7.3)
1993	0.1 (0.1)	5.7 (1.8)	34.4 (4.8)	8.8 (1.4)	40.2 (6.1)
1994	0.0 (0.0)	3.6 (1.0)	28.8 (3.8)	11.2 (1.4)	32.3 (4.5)
1995	2.0 (0.7)	6.3 (1.2)	22.9 (3.2)	10.6 (1.6)	31.3 (4.6)
1996	3.0 (0.9)	6.7 (2.1)	16.3 (2.2)	6.2 (1.1)	25.9 (4.2)
1997	0.9 (0.4)	12.0 (2.4)	19.4 (3.0)	4.0 (0.8)	32.3 (4.9)
1998	1.5 (0.5)	8.0 (1.7)	28.2 (3.7)	3.5 (0.7)	37.7 (5.5)
1999	4.0 (1.1)	9.1 (1.5)	27.3 (2.9)	3.7 (0.7)	40.4 (4.8)
2000			NS		
2001			NS		
2002			NS		
2003			NS		
2004			NS		
2005	0.8 (0.4)	1.7 (0.6)	18.6 (3.6)	5.8 (0.8)	21.0 (4.3)
2006			NS		
2007			NS		
2008	0.3 (0.2)	4.3 (1.1)	22.0 (5.4)	4.2 (1.0)	26.7 (6.5)
2009	0.0 (0.0)	4.8 (1.2)	13.5 (3.2)	3.8 (1.1)	18.3 (4.1)
2010	0.8 (0.6)	10.2 (2.1)	23.7 (3.1)	4.5 (0.9)	34.7 (3.8)
2011	0.2 (0.2)	7.8 (2.3)	19.5 (4.8)	3.0 (0.7)	27.5 (6.8)
2012	2.9 (0.7)	4.4 (0.9)	18.5 (4.1)	1.6 (0.6)	25.8 (5.0)
2013	0.2 (0.2)	4.7 (1.4)	17.6 (4.7)	4.6 (1.1)	22.6 (5.3)
2014	0.0 (0.0)	8.3 (2.6)	31.0 (4.3)	5.5 (1.1)	39.3 (6.5)

Dataset = cfdpsehc.d14 – .d08 and bbrpselk.d82, .d88 – d.99, .d05

Table 5. Population assessment for smallmouth bass collected by boat electrofishing gear in the North Fork Elkhorn Creek from 2008-2014 (scoring based on statewide assessment).

Year		CPUE ≤ 4.0 in	CPUE 4.0 -8.9 in	CPUE ≥ 9.0 in	CPUE ≥ 12.0 in	CPUE ≥ 14.0 in	Total score	Assessment rating
2014	Value	0.0	4.0	11.0	4.0	1.5		
	Score	0	3	3	4	4	14	Good
2013	Value	0.5	10.5	16.5	9.0	1.5		
	Score	2	3	3	4	4	16	Good
2012	Value	2.0	22.5	15.5	5.5	1.5		
	Score	4	4	3	4	4	19	Excellent
2011	Value	1.0	16.0	11.0	3.0	2.5		
	Score	3	4	3	3	4	17	Excellent
2010	Value	0.0	15.5	14.5	5.0	1.5		
	Score	0	4	3	4	4	15	Good
2009	Value	1.0	22.8	20.3	5.0	1.8		
	Score	3	4	4	4	4	19	Excellent
2008	Value	0.0	1.0	10.0	5.5	1.5		
	Score	0	2	3	4	4	13	Good

Table 6. Population assessment for rock bass collected by boat electrofishing gear in the North Fork Elkhorn Creek from 2008-2014 (scoring based on statewide assessment).

Year		CPUE ≤ 4.0 in	CPUE 4.0 -5.9 in	CPUE ≥ 6.0 in	CPUE ≥ 8.0 in	Total score	Assessment rating
2014	Value	0.5	4.0	2.5	0.5		
	Score	2	2	1	2	7	Fair
2013	Value	0.5	2.5	3.0	1.0		
	Score	2	2	1	2	7	Fair
2012	Value	2.0	1.0	1.0	0.0		
	Score	2	2	1	0	5	Poor
2011	Value	0.0	6.0	5.5	0.0		
	Score	0	3	2	0	5	Poor
2010	Value	0.5	3.5	7.5	0.0		
	Score	2	2	2	0	6	Fair
2009	Value	2.8	9.3	20.3	2.5		
	Score	3	3	3	2	11	Good
2008	Value	0.5	2.0	0.5	0.0		
	Score	1	1	1	0	3	Poor

Table 7. Population assessment for largemouth bass collected by boat electrofishing gear in the North Fork Elkhorn Creek from 2008-2014 (scoring based on statewide assessment).

Year		CPUE ≤ 4.0 in	CPUE 4.0 -8.9 in	CPUE ≥ 9.0 in	CPUE ≥ 12.0 in	CPUE ≥ 15.0 in	Total score	Assessment rating
2014	Value	0.0	7.0	16.0	13.0	5.0		
	Score	0	3	3	4	4	14	Good
2013	Value	1.5	12.5	21.5	11.0	2.5		
	Score	3	4	4	3	2	16	Good
2012	Value	0.0	14.5	19.0	10.5	5.0		
	Score	0	4	4	3	4	15	Good
2011	Value	0.0	4.5	26.5	13.5	4.5		
	Score	0	2	4	4	3	13	Good
2010	Value	0.0	15.0	39.5	18.5	4.5		
	Score	0	4	4	4	3	15	Good
2009	Value	0.3	6.3	41.8	23.8	6.3		
	Score	2	3	4	4	4	17	Excellent
2008	Value	0.0	3.5	16.5	9.0	3.5		
	Score	0	2	4	4	3	13	Good

Table 8. Population assessment for smallmouth bass collected by boat electrofishing gear in the main stem Elkhorn Creek from 2000-2014 (scoring based on statewide assessment).

Year		CPUE ≤ 4.0 in	CPUE 4.0 -8.9 in	CPUE ≥ 9.0 in	CPUE ≥ 12.0 in	CPUE ≥ 14.0 in	Total score	Assessment rating
2014	Value	1.3	40.8	44.7	23.7	12.0		
	Score	4	4	4	4	4	20	Excellent
2013	Value	1.6	18.9	37.5	20.9	10.2		
	Score	4	4	4	4	4	20	Excellent
2012	Value	9.4	27.6	18.0	5.9	2.1		
	Score	4	4	3	4	4	19	Excellent
2011	Value	1.7	20.7	36.8	10.7	4.5		
	Score	4	4	4	4	4	20	Excellent
2010	Value	0.2	31.7	36.7	13.0	5.5		
	Score	2	4	4	4	4	18	Excellent
2009	Value	2.8	29.0	35.0	13.3	8.3		
	Score	4	4	4	4	4	20	Excellent
2008	Value	0.7	20.3	22.3	11.8	5.7		
	Score	3	4	4	4	4	19	Excellent
2007	Value							
	Score							
2006	Value	11.4	18.2	77.4	42.6	16.1		
	Score	4	4	4	4	4	20	Excellent
2005	Value	1.5	37.3	47.0	21.8	7.0		
	Score	4	4	4	4	4	20	Excellent
2004	Value	4.9	29.0	52.6	16.8	6.9		
	Score	4	4	4	4	4	20	Excellent
2003	Value	5.5	27.4	44.4	15.5	6.7		
	Score	4	4	4	4	4	20	Excellent
2002	Value	2.5	56.1	49.9	24.2	11.9		
	Score	4	4	4	4	4	20	Excellent
2001	Value	8.0	29.9	48.5	26.9	10.3		
	Score	4	4	4	4	4	20	Excellent
2000	Value	11.3	48.1	67.0	29.5	10.3		
	Score	4	4	4	4	4	20	Excellent

Table 9. Population assessment for rock bass collected by boat electrofishing gear in the main stem Elkhorn Creek from 2008-2014 (scoring based on statewide assessment).

Year		CPUE ≤ 4.0 in	CPUE 4.0 -5.9 in	CPUE ≥ 6.0 in	CPUE ≥ 8.0 in	Total score	Assessment rating
2014	Value	0.0	8.3	31.0	5.5		
	Score	0	3	4	3	10	Good
2013	Value	0.2	4.7	17.6	4.6		
	Score	1	2	3	2	8	Fair
2012	Value	2.9	4.4	18.5	1.6		
	Score	3	2	3	2	10	Good
2011	Value	0.2	7.8	19.5	3.0		
	Score	1	3	3	2	8	Fair
2010	Value	0.8	10.2	23.7	4.5		
	Score	2	4	3	2	11	Good
2009	Value	0.0	4.8	13.5	3.8		
	Score	0	2	2	2	6	Fair
2008	Value	0.3	4.3	22.0	4.2		
	Score	1	2	3	2	8	Fair

Table 10. Population assessment for largemouth bass collected by boat electrofishing gear in the main stem Elkhorn Creek from 2008-2014 (scoring based on statewide assessment).

Year		CPUE ≤ 4.0 in	CPUE 4.0 -8.9 in	CPUE ≥ 9.0 in	CPUE ≥ 12.0 in	CPUE ≥ 15.0 in	Total score	Assessment rating
2014	Value	0.0	2.3	5.8	2.5	1.2		
	Score	0	2	2	2	2	8	Fair
2013	Value	0.0	2.0	8.9	4.2	1.3		
	Score	0	2	2	2	2	8	Fair
2012	Value	0.0	6.5	3.50	1.0	0.7		
	Score	0	3	2	2	2	9	Fair
2011	Value	0.0	2.50	4.7	1.3	0.7		
	Score	0	2	2	2	2	8	Fair
2010	Value	0.2	3.0	3.2	2.8	0.8		
	Score	2	2	2	2	2	10	Fair
2009	Value	0.0	1.0	5.3	3.0	1.0		
	Score	0	1	2	2	2	7	Fair
2008	Value	0.0	3.3	5.7	2.8	0.5		
	Score	0	2	2	3	2	9	Fair

Table 11. Length distribution and CPUE (fish/hr) of black bass and rock bass collected in 4.75 hours of 15-minute electrofishing runs for black bass in April 2014 in the Floyd's Fork; numbers in parentheses are standard errors.

	Inch class												
Species	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE
Miles Park Canoe Access													
Rock bass		3	6	11	11							31	17.7 (7.0)
Smallmouth bass					1	1	2	1		1	2	8	4.6 (2.8)
Spotted bass			6	4	3	2	3	2	2			22	12.6 (3.1)
Largemouth bass				5	14	2	4	3	3	1		32	18.3 (9.4)
Bob White House at Echo Trail													
Rock bass	1	3	8	5	1							18	36.0 (24.0)
Smallmouth bass					2	5	1	1	2		2	13	26.0 (2.0)
Spotted bass				1								1	2.0 (2.0)
Largemouth bass												0	0.0 (0.0)
Fisherville Canoe Access													
Rock bass												0	0.0 (0.0)
Smallmouth bass							1				2	3	3.0 (1.9)
Spotted bass												0	0.0 (0.0)
Largemouth bass					1							1	1.0 (1.0)
Cane Run Canoe Access													
Rock bass		1	1	2	1							5	6.67 (2.7)
Smallmouth bass					1	1						2	2.67 (1.3)
Spotted bass						1						1	1.33 (1.3)
Largemouth bass												0	0.00 (0.0)
Below Bardstown Road													
Rock bass			1		1							2	2.67 (1.3)
Smallmouth bass			2	3	2	2					2	11	14.67 (12.7)
Spotted bass												0	0.00 (0.0)
Largemouth bass			1	1								2	2.67 (2.7)
Total													
Rock bass	1	7	16	18	14							56	11.8 (4.0)
Smallmouth bass			2	3	6	9	4	2	2	1	8	37	7.8 (2.7)
Spotted bass		6	5	3	3	3	2	2				24	5.1 (1.8)
Largemouth bass			1	6	15	2	4	3	3	1		35	7.4 (3.9)

Dataset = cfdpsflf.d14

Table 12. Electrofishing CPUE (fish/hr) for each length group of smallmouth bass collected from Floyd's Fork from 2007-2014; numbers in parentheses are standard errors. Number of samples and locations varies between years.

	Length group					
Year	<4.0 in	4.0-8.9 in	>9.0 in	>12.0 in	>14.0 in	Total
2007	0.0 (0.0)	7.0 (4.7)	2.0 (1.2)	1.0 (1.0)	0.0 (0.0)	9.0 (5.3)
2008			NS			
2009			NS			
2010			NS			
2011			NS			
2012	1.00 (0.5)	7.0 (2.7)	7.5 (2.0)	2.8 (1.1)	1.8 (0.7)	15.5 (4.4)
2013	0.3 (0.4)	7.8 (3.8)	8.0 (2.3)	2.7 (1.1)	0.5 (0.3)	16.0 (4.6)
2014	0.0	2.3 (1.5)	5.5 (1.9)	2.3 (0.8)	1.7 (0.6)	7.8 (2.7)

Dataset = cfdpsflf.d14–.d07

Table 13. Electrofishing CPUE (fish/hr) for each length group of rock bass collected from Floyd's Fork from 2007-2014; numbers in parentheses are standard errors. Number of samples and location varies between years.

	Length group				
Year	<4.0 in	4.0-5.9 in	>6.0 in	>8.0 in	Total
2007	2.0 (1.2)	10.0 (10.0)	5.0 (3.8)	1.0 (1.0)	17.0 (14.4)
2008			NS		
2009			NS		
2010			NS		
2011			NS		
2012	0.6 (0.3)	1.2 (0.53)	11.0 (3.3)	1.7 (0.7)	12.8 (3.6)
2013	0.0	1.3 (0.75)	10.7 (3.5)	2.2 (1.5)	11.9 (3.7)
2014	0.0	1.7 (0.93)	10.1 (3.4)	3.0 (1.3)	11.8 (4.0)

Dataset = cfdpsflf.d14–.d07

Table 14. Population assessment for smallmouth bass collected by boat electrofishing gear in Floyd's Fork from 2012-2014 (scoring based on statewide assessment).

Year		CPUE ≤ 4.0 in	CPUE 4.0 -8.9 in	CPUE ≥ 9.0 in	CPUE ≥ 12.0 in	CPUE ≥ 14.0 in	Total score	Assessment rating
2014	Value	0.0	2.3	5.5	2.3	1.7		
	Score	0	3	3	3	4	13	Good
2013	Value	0.3	7.8	8.0	2.7	0.5		
	Score	2	3	3	3	2	13	Good
2012	Value	1.0	7.0	7.5	2.8	1.8		
	Score	3	3	3	3	4	16	Good

Table 15. Population assessment for rock bass collected by boat electrofishing gear in Floyd's Fork from 2012-2014 (scoring based on statewide assessment).

Year		CPUE ≤ 4.0 in	CPUE 4.0 -5.9 in	CPUE ≥ 6.0 in	CPUE ≥ 8.0 in	Total score	Assessment rating
2014	Value	0.0	1.7	10.1	3.0		
	Score	0	2	2	2	6	Fair
2013	Value	0.0	1.3	10.7	2.2		
	Score	0	2	2	2	6	Fair
2012	Value	0.6	1.2	11.0	1.7		
	Score	2	2	2	2	8	Fair

Table 16. Population assessment largemouth bass collected by boat electrofishing gear in Floyd's Fork from 2012-2014 (scoring based on statewide assessment).

Year		CPUE ≤ 4.0 in	CPUE 4.0 -8.9 in	CPUE ≥ 9.0 in	CPUE ≥ 12.0 in	CPUE ≥ 15.0 in	Total score	Assessment rating
2014	Value	0.0	4.6	2.7	0.8	0.0		
	Score	0	2	2	2	0	6	Poor
2013	Value	0.3	4.5	1.5	0.0	0.0		
	Score	2	2	2	0	0	6	Poor
2012	Value	1.8	2.0	2.2	1.4	0.2		
	Score	3	2	2	2	1	10	Fair

Figure 1. Summary of voluntary creel survey conducted at the Parklands of the Floyds Fork from April 2014-March 2015.

Floyds Fork Stream Angler Survey

* Anglers, please fill out a survey for each fishing trip

Date ______________ Home zipcode ________ Total hours fished today **1.0-7.0 hrs**

Location: Fisherville Upstream **71.4%** Fisherville-Seatonville **17.1%** Seatonville Downstream **11.4%**

Total number of fish caught today **0-20 fish** Total number of fish kept today **0-15 fish**

What species of fish did you primarily fish for today (check only one)?
Smallmouth bass **24.4%** Largemouth bass **0%** Rock bass **0%** Catfish **0%** Trout **31.7%**
Sunfish **4.9%** Anything **39.0%** Other (list name)__________________________

For each species listed below please write in the number of each size (inches) caught and kept on the line provided. Leave blank if you did not catch or keep any of that size.

	Smallmouth bass		Largemouth bass	
Inches	Caught	Kept	Caught	Kept
less than 9	______		______	
9 - 11	______		______	
12 - 14	______		______	
Greater than 15	______	______	______	______

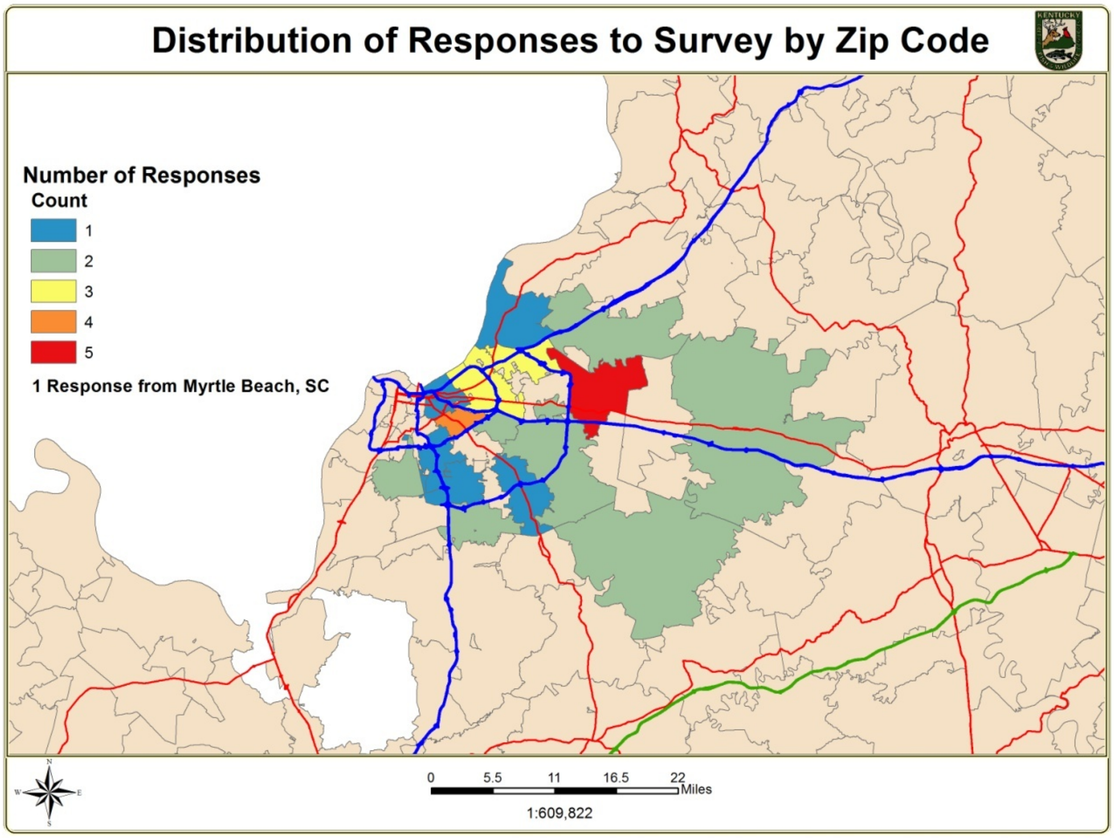
	Rock bass	
Inches	Caught	Kept
Less than 6	______	______
6 - 8	______	______
Greater than 8	______	______

What is your overall level of satisfaction with your fishing trip today?

Very satisfied **27.3%** Satisfied **43.2%** Neutral **11.4%** Dissatisfied **4.5%** Very dissatisfied **13.6%**

Please use back of survey for any comments or suggestions.

Figure 2. Distribution of angler responses to voluntary creel survey conducted at Parklands of the Floyds Fork by zip code.



CENTRAL FISHERIES DISTRICT

Trout Stream Fishery Surveys

FINDINGS

The Dix River (Herrington Lake tailwater) was electrofished for trout on November 6, 2014. Results from the electrofishing are presented in Table 1. The CPUE for rainbow trout was 93.3 fish/hr compared to the historic average of 40.9 fish/hr. CPUE for brown trout was 62.7 fish/hr compared to the historical average of 28.2 fish/hr. Historical catch rates of rainbow trout and brown trout are presented in Tables 2 and 3. Annual weather data and tailwater flow parameters for Herrington Lake tailwater are summarized in Table 4. Data is collected from the USGS 03286200 gauge and rainfall data is collected from the USGS 03285000 gauge or National Weather Service ID (DNK2). Tailwater observations appear to have a significant relationship to how the trout perform in Dix River Tailwater. During years of high flow and rainfall, there appears to be lower than average survival of trout from year to year and in some cases a reduction in the overall trout population. During years of low flow or rainfall the trout appear to flourish and high numbers of trout will survive to the next year. Overall, this Dix River tailwater trout fishery is strongly influenced by these yearly variations of weather and water conditions.

Table 1. Relative abundance and CPUE (fish/hr) of trout collected during 0.75 hours of diurnal electrofishing on the Dix River (Herrington Lake tailwater) on 6 November, 2014.

	Inch class								Std
Species	8	9	10	11	12	13	Total	CPUE	err
Rainbow trout		15	33	20	2		70	93.3	31.5
Brown trout	4	14	20	5	2	2	47	62.7	44.7

Dataset = cfdlfdix.d14

Table 2. Total CPUE (fish/hr) of rainbow trout collected during diurnal electrofishing on the Dix River (Herrington Lake tailwater) for previous years' sampling.

Year	Total	CPUE	Std Err
1996	5	5.0	3.0
1997	26	11.6	6.2
1998	27	9.9	5.0
1999	40	26.7	10.5
2000	100	50.0	19.9
2001	160	80.0	38.2
2002	36	18.0	14.9
2003	5	2.5	2.5
2004		No Sample (NS)	
2005	86	43.0	19.5
2006	41	32.2	27.0
2007	113	60.0	22.7
2008	95	85.0	37.5
2009	83	83.0	26.1
2010	39	39.0	21.0
2011	9	9.0	9.0
2012	39	47.8	33.2
2013	NS	NS	NS
2014	70	93.3	31.9

Dataset = cfdlfdix.d96-d14

Table 3. Total CPUE (fish/hr) of brown trout collected during diurnal electrofishing on the Dix River (Herrington Lake tailwater) for previous years' sampling.

Year	Total	CPUE	Std err
1996		None collected	
1997	2	0.9	0.9
1998	1	0.1	0.1
1999	29	19.3	10.1
2000	24	12.0	8.8
2001	35	17.5	10.4
2002	9	4.5	3.9
2003	3	1.5	1.5
2004		No Sample	
2005	36	18.0	8.4
2006	38	30.3	28.9
2007	108	57.1	33.2
2008	125	108.0	45.0
2009	52	52.0	29.4
2010	58	58.0	34.5
2011	0	0.0	0.0
2012	7	9.3	9.3
2013	NS	NS	NS
2014	47	62.7	44.7

Dataset = cfdlfdix.d96-d14

Table 4. Annual weather data and tailwater parameters for Herrington Lake tailwater. Tailwater data is collected from USGS 03286200 gauge and rainfall data is collected from USGS 03285000 gauge or National Weather Service ID (DNK2).

Year	Annual Average Gauge Height	Annual Average Discharge	Days over 10 feet gauge height	Annual Rainfall for Danville, KY
2014	**	586.9**	**	43.82
2013	7.1	669.2	53	64.13
2012	5.7	376.6	11	41.18
2011	7.3	527.4	52	61.43
2010	6.0	342.6	40*	45.34
2009				50.79
2008				44.86
2007				38.90
2006				46.61

Gauge height above 10 feet have probable backwater from Kentucky River.
* In 2010, gauging stations was down for 29.6 days due to extremely high water conditions in the tailwater – 29 days are included.
** In 2014, average gauge height was not recorded until August, therefore, the number of days the gauge exceeded 10 was not calculated. Additionally, gauging station was down for about 20 days during high water events.

NORTHEASTERN FISHERY DISTRICT

Project A: Lake and Tailwaters Fishery Surveys

FINDINGS

All sampling conditions can be found in Table 1. This includes dates, temperatures, secchi depths and any other pertinent sampling information during the sampling events.

Cave Run Lake (8,720a)

Muskellunge sampling

On 31 March, 1 – 2 April and 21 April, Cave Run Lake was diurnally electrofished for an assessment of the muskellunge population. In total, 184 fish (10.2 fish per electrofishing hour (fish/hr)) were captured ranging in size from 11.0 to 51.0 in (Table 2). The majority of the fish came from the middle and lower sections of the lake, and the largest fish captured in 2014 came from the lower portion of the lake. Overall relative weights (W_r) were slightly below average (Table 3). This most likely was due to the well below average weights of fish in the 20.0 – 30.0 in. range, as the remaining categories fell within their average values. Lengths and weights of known age muskellunge are very similar to past studies done on Cave Run Lake with a 3 year old fish exceeding 30.0 in. and a 4 year old fish falling just short of the minimum size limit of 36.0 in. (Table 4). Lengths and weights of known sex fish also echo past studies and show that males are generally smaller than the females (Table 5). The assessment of the muskellunge population in 2014 increased to an excellent mark and was higher than the 1995-2013 average (Table 6).

In October 2014, Cave Run Lake was stocked with 2,900 young-of-year muskellunge. Stocked fish continue to be marked to indicate their spawning year as is noted in the table below.

Year	Marking	Number Stocked	Average Length
2014	Left Cheek Wire Tag	2,900	13.3”
2013	Right Pectoral Fin Clip	2,800	12.6”
2012	Left Pelvic Fin Clip	1,923	12.4”
2011	Right Pelvic Fin Clip	2,800	12.8”
2010	Left Pectoral Fin Clip	2,811	12.5”

Black bass sampling (Spring)

On 29 and 30 April, the middle and upper sections of Cave Run Lake were nocturnally electrofished for an assessment of the black bass population. The lower section was not sampled due to rapidly rising waters at the time of the sample. In total 688 largemouth bass, 137 spotted bass and 13 smallmouth bass were captured from these 2 sections (Table 7). The majority of the spotted bass and all of the smallmouth bass were captured in the middle section. Overall, largemouth bass comprised the majority of the samples (> 80%) followed by spotted bass and smallmouth bass (Table 7). Overall Catch Per Unit Effort (CPUE) of largemouth bass was higher than the 1990 – 2013 average (Table 8). This was driven by the higher than ever capture rates of largemouth bass over 15.0 and 20.0 in. The remaining categories fell either right at or slightly above the 1990 – 2013 average (Table 8). Following Willis, et. Al 1993, Proportional Stock Densities (PSD) and Relative Stock Densities (RSD_{15}) indicate a balanced population with 39% of the largemouth bass in the population exceeding 12.0 in. and 18% exceeding 15.0 in. (Table 9). Overall, the largemouth bass population on Cave Run Lake was rated as good (Table 10). The high capture rates of larger fish indicate that the current slot limit regulation is continuing to provide larger fish and needs to remain in place. Furthermore, continued high capture rates of age-1 fish in the spring determined that regardless of the success of the spawning class Cave Run Lake would not be stocked and for that reason fall sampling was canceled for 2014.

White bass sampling

From 21 – 24 October, the population of white bass in Cave Run Lake was assessed using 150’ 3-panel gill nets. In total, 35 white bass were captured ranging in size from 7.0 – 13.0 in. (Table 11). Across all size ranges relative weights were down from previous years (Table 12). Due to the die off of white bass experienced in 2013, only 2 age classes of fish were captured (age-0 and age-1; Table 13) and age-1 fish made up over 90% of the fish collected (Table 14). The overall assessment of the white bass fishery at Cave Run Lake was poor in 2014, which was the lowest ever and somewhat expected given the die off experienced in 2013 (Table 15).

Creel survey

From 01 March to 31 October, a roving creel survey was conducted on Cave Run Lake. In 2014 there were slightly more trips on the lake when compared to past creel surveys but lower than normal number of hours fishing (Table 16). Anglers caught and harvested fewer fish, but the catch rate (in terms of number of fish caught per hour of fishing) was similar to past years (Table 16). As is typical with Cave Run Lake, the majority of the anglers are male (88.5%), who were residents (84.6%) that primarily fished by casting (72.1%) from a boat (94.4%; Table 16). Similar to the overall results, crappie, catfish, panfish and white bass anglers caught fewer fish in total, but catch rates were actually higher or similar when compared to past creel surveys (Table 17). The only species that showed a decline in the catch rates were largemouth bass, but these anglers did catch bigger fish when compared to previous years; it should also be noted that catch rates in past years have varied from 0.3 – 0.7 fish/hr (average of 0.5 fish/hr) so the 2014 catch rate does not vary much from this range (Table 17). Overall, anglers harvested around 9% of muskellunge caught and 19% of the largemouth bass caught (Table 18). Angler have to fish about 4 hours to catch a largemouth bass and 20 hours to catch a muskellunge on the lake, but this varies from month to month with May and June being the most successful months to catch a largemouth bass and March, June and October being the most successful months to catch a muskellunge (Table 19). Similarly, catch rates of crappie varied by month with April, July and September providing some of the highest catch rates (Table 20).

Recently, there have been specific questions raised by the public regarding the effectiveness of the slot limit regulation on largemouth bass at Cave Run Lake. The original goals of the slot limit were to provide for an increase in growth rates which would result in fewer smaller fish and more larger fish. Results from the 2014 creel survey help to demonstrate that the slot limit is successful in reaching these goals. Overall, the catch rates of largemouth bass on the lake are lower when compared to previous years (0.316 fish/hr in 2014 versus 0.412 fish/hr on average; Table 21). However, catch rates of fish in the 13.0 – 15.9 in protective slot, over 16.0 in and over 20.0 in were much higher than in past years. Meaning the decline in catch rates was because of lower catch rates of smaller fish (Table 21). In terms of time on the water; it takes roughly 45 minutes longer to catch a largemouth bass of any size in 2014, but significantly less time to catch a fish in the slot limit (2 hours less), over 16.0 in (10 hours less) or over 20.0 in (400 hours less; Table 22). The differences, when comparing 2014 catch rates to previous years, is that under the slot limit fish make up a smaller percentage of the fish caught (24.2% versus 71.8%; Table 22). With all this in mind, the goal of decreasing the numbers of smaller fish and increasing the numbers of larger fish has obviously been met with the slot limit regulation in place.

Angler attitude survey

In conjunction with the creel survey, anglers were asked a series of questions pertaining to their attitudes towards fishing on Cave Run Lake (Table 23). Anglers were only surveyed once in the year. Overall, the most fished for species were bass, crappie and muskie. As is typical there is a very even split on the number of anglers who prefer to fish for each of these species. Those that fished for bass are overall satisfied (95%). Those who were not satisfied were disappointed in the size of the fish caught. Most anglers who fished for bass feel as if their catch rates of fish over 15.0 in has stayed the same when compared to previous years. About half of the bass anglers surveyed fish tournaments at a rate of 1 – 6 a year. Similarly, the majority of the anglers who fished for muskellunge were satisfied (99%) and they were most satisfied with the number of fish they caught and the size of these fish. Muskellunge anglers feel as if their catches of fish over and under the 36-0 in minimum size limit have increased in the last 3 years. Both crappie anglers and white bass anglers were satisfied with their fishing experiences (95% and 62.5%, respectively). The majority of Cave Run anglers fish 1 – 10 times a month. Anglers support the 13.0 – 15.9 in protective slot limit on largemouth bass (84%) and the 36.0 in minimum size limit on muskellunge (85%). The majority of anglers rated the habitat in the lake as excellent (64.8%) and most know about and utilize department placed habitat and feel as though it has improved their fishing.

Grayson Lake (1,512a)

Black bass sampling (Spring/Fall)
From 21 – 23 April, Grayson Lake was nocturnally electrofished for an assessment of the black bass population. In total, 973 largemouth bass were collected ranging in size from 3.0 – 21.0 in, 243 spotted bass were collected ranging in size from 3.0 – 12.0 in and 9 smallmouth bass were collected ranging in size from 4.0 – 8.0 in (Table 24). As is normal for Grayson Lake, the numbers of spotted bass and smallmouth bass increased closer to the dam and the majority of the black bass collected (overall) were largemouth bass. Only 4 of the 973 largemouth bass collected were hatchery raised fish (Table 25). CPUE by individual size classes were at or near average for all size classes of fish with the exception of the < 8.0 in. class which was much lower (Table 26). PSD and RSD_{15} demonstrate that the lake shows balance concerning the largemouth bass population with 39% of the population over 12.0 in and 11% over 15.0 in (Table 27). The overall assessment of the largemouth bass fishery at Grayson Lake continues to be classified as Good (Table 28).

From 22 – 24 September, Grayson Lake was nocturnally electrofished for an assessment of largemouth bass age-0 year class strength. This assessment determined that Grayson Lake did not need to be stocked in 2014 (Table 29).

Crappie sampling
On 17 October, the upper portion of Grayson Lake was diurnally electrofished for an assessment of the crappie population. In total, 88 crappie were collected and 92% of these were white crappie (Table 30). Relative weights ranged from 85 – 95% and generally were better for the larger size class of fish (Table 31). The majority of the fish collected were under the 8.0 and 10.0 in range (Table 32). White crappie collected for age and growth purposes reached 7.0 in within 4 years, but struggled to grow out of this inch class (Table 33). The majority of the fish captured were between 2 and 4 year of age and in the 6.0 – 7.0 in size range (Table 34). The overall assessment of the crappie population at Grayson Lake was poor (Table 35). The factors that contribute to this poor rating are growth rates and capture rates of smaller (≤ age-1) and larger (≥ 8.0 in) fish. Assessment of this population drastically varies from poor to excellent; however, it continuously demonstrates poor growth rates (mean length of age-2 fish at capture) and low catch rates of age-0 fish. The assessment score is dictated by the ability (or lack thereof) to capture fish over age-1. This is most likely due to inadequate sampling techniques and efforts need to be made to determine a more suitable sampling technique.

Hybrid striped bass sampling
From 04 – 07 of November, the population of hybrid striped bass at Grayson Lake was assessed using 125' 5-panel gill nets. In total, 76 fish were caught ranging in size from 8.0 – 26.0 in (Table 36). Relative weights ranged from the mid-70's to mid-80's (Table 37) which should cause some concern about growth rates, but those appear to be fairly normal (Table 38). Hybrid striped bass reached 20.0 in by age-4 and some potentially by age-3. The majority of the fish sampled were between 0 and 3 years of age, but there were 4 fish collected that were 11 years old (some of the original stockings; Table 39). The overall assessment of the hybrid striped bass fishery was fair (Table 40) but it should be noted that the assessment parameters used were for 250' gill nets while 125' nets were used on Grayson Lake. With time and repeated sampling an individual lake assessment will be developed to better assess this fish population.

Clear Creek Lake (40a)

Black bass sampling (Spring)
On 29 April, Clear Creek Lake was diurnally electrofished for assessment of the largemouth bass population. In total, 136 fish (348.7 fish/hr) were collected ranging in size from 3.0 – 21.0 in (Table 41). Catch rates for fish in the ≥ 15.0 and ≥ 20.0 in ranges were slightly above the 10 year average, while catch rates for fish in the 8.0 – 11.9 in and 12.0 – 14.9 in ranges were slightly below the 10 year average (Table 42). PSD and RSD_{15} values show a slight tilt towards a panfish population with relatively small percentages of fish over the 12.0 in and 15.0 in mark (Table 43). Growth rates are on the slower side (Table 44) and the majority of the fish captured were less than 3 years old and under 11.0 in (Table 45). The overall assessment of the largemouth bass population was good, but growth rates raise some concern and need continued monitoring (Table 46).

Sunfish sampling

On 22 May, Clear Creek Lake was diurnally electrofished for assessment of the bluegill and redear sunfish populations. The majority of the fish captured while sampling were either bluegill or redear sunfish (42% and 46%, respectively; Table 47). Bluegill increased or were near the mean for all size classes of fish (Table 48), while PSD RSD_8 were down (Table 49). Growth rates for bluegill were good, reaching 6.4 in at age-2 (Table 50). However, the majority of the fish sampled were age-1 ranging in size from 3.0 – 6.0 in (Table 51). The overall assessment of the bluegill population was good (Table 52).

All sizes classes of redear sunfish showed an increase over the mean (Table 53) and while a third of the fish captured were over 7.0 in, there were no fish captured that reached a preferred size (10.0 in; Table 54). Growth rates for the fish that were captured were good (Table 55), but not enough larger fish were aged to properly determine all of the growth parameters (Table 56). Using previous data for the "Years to 8.0 in" category, the overall assessment of the redear sunfish population at Clear Creek Lake was fair (Table 57).

Black bass sampling (Fall)

On 02 October, Clear Creek Lake was diurnally electrofished for assessment of largemouth bass relative weights. In total, 78 fish (156.0 fish/hr) were collected ranging in size from 3.0 – 18.0 in (Table 58). Relative weights were in the 80% range for all size classes of fish (Table 59).

Greenbo Lake (181a)

Black bass sampling (Spring/Fall)

On 24 April, Greenbo Lake was nocturnally electrofished for assessment of the largemouth bass population. In total, 306 fish were captured ranging in size from 2.0 – 23.0 in (Table 60). The majority of the size ranges all demonstrated near mean catch rates with the exception of the 12.0 – 14.9 in category which was more than double the 15 year average (Table 61). The high capture rates of fish in the 12.0 – 14.9 in range lead to the highest PSD value ever obtained on Greenbo Lake but RSD_{15} values remain on the low side (Table 62). The overall assessment of the largemouth bass fishery at Greenbo Lake was good (Table 63).

On 25 September, Greenbo Lake was nocturnally electrofished for an assessment of largemouth bass age-0 year class strength. This assessment determined that Greenbo Lake did not need to be stocked in 2014 (Table 64).

Mill Creek Lake (41a)

Black bass sampling (Spring)

On 07 May, Mill Creek Lake was diurnally electrofished for an assessment of the largemouth bass population. In total, 232 fish were captured ranging in size from 3.0 – 22.0 in (Table 65). Catch rates across all size classes were higher than the 1990 – 2013 average (Table 66), but the majority of the fish were under the 12.0 in range (Table 67). The overall assessment of the largemouth bass fishery was good, but excellent ratings were obtained for catch rates of fish ≥ 20.0 in (Table 68).

Lake Reba (76a)

Black bass sampling (Spring/Fall)

On 21 April, Lake Reba was diurnally electrofished for assessment of the largemouth bass fishery. In total, 370 fish were captured ranging in size from 3.0 – 22.0 in (Table 69). Of those 370, only 21 (6%) were stocked fish that represented 2 different year classes (Table 70). All size ranges (with the exception of the < 8.0 in category) were above the almost 20 year average (Table 71). The majority of the fish were greater than 12.0 in and a quarter of these exceeded 15.0 in (Table 72). The overall assessment of the largemouth bass fishery was excellent (Table 73).

On 22 September, Lake Reba was diurnally electrofished for an assessment of largemouth bass age-0 year class strength. This assessment determined that Lake Reba did not need to be stocked in 2014 (Table 74).

Smoky Valley Lake (36a)

Black bass sampling (Spring)
On 08 May, Smoky Valley Lake was diurnally electrofished for an assessment of the largemouth bass fishery. In total, 208 fish were captured ranging in size from 3.0 – 13.0 in with one fish in the 18.0 in range (Table 75). All size ranges (with the exception of the 8.0 – 11.9 in category) were below the 1990 – 2013 average in capture rates (Table 76). The majority of the fish in the lake remain below the 12.0 and 15.0 in benchmarks (Table 77). The assessment of the largemouth bass fishery in the lake was fair (Table 78).

Sunfish sampling
On 27 May, Smoky Valley Lake was diurnally electrofished for an assessment of the bluegill fishery. In total, 195 sunfish were captured and of these, 78% were bluegill ranging in size from 3.0 – 7.0 in (Table 79). Catch rates of bluegill were near the 1990 – 2013 average for all size categories of fish (Table 80). PSD and RSD_8 values remain on the low size with the majority of the fish over 3.0 in being below 6.0 in (Table 81). These low catch rates of larger fish will lead to low assessment ratings (Table 82).

Lake Wilgreen (169a)

Black bass sampling (Spring)
On 06 May, Lake Wilgreen was diurnally electrofished for assessment of the largemouth bass population. In total, 385 fish (256.7 fish/hr) were captured ranging in size from 2.0 – 21.0 in (Table 83). Catch rates were below average for the < 8.0 and 8.0 – 11.9 in range, but were substantially above average for catch rates of fish in the ≥ 15.0 and ≥ 20.0 in range (Table 84). PSD and RSD_{15} values were very interesting as they showed that not only were the majority of the fish above 12.0 in, but almost half the fish captured were over 15.0 in (Table 85). Low capture rates of age-1 fish lead to a good rating in spite of the excellent ratings of capture rates of fish over 15.0 and 20.0 in (Table 86)

Sunfish sampling
On 19 May, Lake Wilgreen was diurnally electrofished for assessment of the bluegill and redear sunfish populations. In total, 1,200 sunfish were captured and of these, 88% were bluegill and 3% were redear sunfish (Table 87). The remaining fish were green sunfish, warmouth and hybrid sunfish. Bluegill capture rates by size classes were above average, with the exception of fish over 8.0 in (Table 88). PSD and RSD_8 values echo a proportional lack of fish over the 6.0 and 8.0 in benchmarks (Table 89). Lack of these larger fish will lead to lower assessment ratings (Table 90).

Redear sunfish were below average across all size classes (Table 91), and in spite of this, the majority of the fish were in the 6.0 – 7.0 in range which brought up the PSD value (Table 92). All in all, the low catch rates of fish over 8.0 and 10.0 in will lead to lower assessment scores in the future (Table 93).

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

Water body	Species	Date (2014)	Time 24hr	Gear	Weather	Water Temp (°F)	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Cave Run Lake	Muskie	3/31	1000	electro	clear	46.20	727.49	36	good	upper section
Cave Run Lake	Muskie	4/1	1000	electro	sunny/wind	47.50	727.93	14	good	middle section
Cave Run Lake	Muskie	4/2	1000	electro	prt cloudy	49.50	727.73	25	good	lower section
Cave Run Lake	Muskie	4/21	1000	electro	overcase	67.00	728.48	-	good	upper section (finish up after boat problems)
Cave Run Lake	LMB	4/29	1930	electro	overcast	67.60	729.82	54	good	upper section
Cave Run Lake	LMB	4/30	2015	electro	clear	62.20	731.04	47	okay	middle section; lake rising.
Cave Run Lake	WB	10/21	830	gill net	overcast/rain	low 60	727.76	-	good	
Cave Run Lake	WB	10/22	830	gill net	overcast/cold	low 60	727.43	-	good	
Cave Run Lake	WB	10/23	830	gill net	sunny/cool	low 60	727.01	-	good	
Cave Run Lake	WB	10/24	830	gill net	cool/fog	low 60	726.91	-	good	
Grayson Lake	LMB	4/21	2030	electro	clear	63.80	645.28	25	good	upper section
Grayson Lake	LMB	4/22	2030	electro	clear/cool	63.50	645.30	48	good	middle section
Grayson Lake	LMB	4/23	2030	electro	overcast	61.70	645.31	48	good	lower section
Grayson Lake	LMB	9/22	1930	electro	clear	69.20	n/a	36	good	upper section; < 10" LMB only sampled
Grayson Lake	LMB	9/23	1945	electro	overcast	68.70	n/a	-	good	middle section; < 10" LMB only sampled
Grayson Lake	LMB	9/24	2000	electro	clear/cold	72.70	n/a	-	good	lower section; < 10" LMB only sampled
Grayson Lake	BC/WC	10/17	900	electro	sunny	60's	645.66	-	good	upper section
Grayson Lake	HSB	11/4	900	gill net	nice	50's	645.08	-	good	lower and middle sections
Grayson Lake	HSB	11/5	900	gill net	rain	50's	645.05	-	good	lower and middle sections
Grayson Lake	HSB	11/6	900	gill net	cold/wind	50's	645.14	-	good	lower and middle sections
Grayson Lake	HSB	11/7	900	gill net	cold/wind	50's	645.24	-	good	lower and middle sections
Clear Creek Lake	LMB	4/29	1000	electro	sunny	-	normal	-	good	
Clear Creek Lake	BG/RE	5/22	1000	electro	sunny	-	normal	51	good	
Clear Creek Lake	LMB	10/2	1000	electro	sunny	-	normal	-	good	
Greenbo Lake	LMB	4/24	2000	electro	clear	60.80	normal	146	good	
Greenbo Lake	LMB	9/25	2000	electro	clear	71.90	normal	-	good	< 10" LMB only sampled
Mill Creek Lake	LMB	5/7	830	electro	sunny	64.50	normal	52	good	
Lake Reba	LMB	4/21	915	electro	sunny	63.50	normal	38	good	
Lake Reba	LMB	9/22	900	electro	sunny/wind	69.20	normal	24	good	< 10" LMB only sampled
Smoky Valley	LMB	5/8	930	electro	prt cloudy	68.30	normal	18 - 24	good	
Smoky Valley	BG/RE	5/27	1000	electro	sunny	-	normal	-	good	
Lake Wilgreen	LMB	5/6	1000	electro	prt cloudy	64.60	normal	27	good	
Lake Wilgreen	BG/RE	5/19	930	electro	sunny	68.90	normal	25	good	

Table 2. Relative abundance and CPUE (fish/hr) of muskellunge collected in the upper, middle and lower sections during 6.0 hours (18.0 hours total) of 30-minute runs in each area of Cave Run Lake (31 March and 01, 02, 21 April).

Species	Area	Inch class																																									Total	CPUE	Std. error
		11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51			
Muskellunge	Upper	1		1	3	2						1		2	3	3	1	1					5	1	2	2	1	1					1						1				32	5.3	1.1
	Middle	1	1	5	13	12	3	1				1	1	2	1	2					3	1	3			3	2	6	1	3	2	3	3	1	1								75	12.5	1.6
	Lower			4	15	8	3			1	2	1		2		1					1	1	3	3	3	5	6	5	3	3	2	1	2			1						1	77	12.8	1.5
	Total	2	1	10	31	22	6	1		1	2	3	1	6	4	6	1	1			4	2	11	4	5	10	9	12	4	6	4	4	6	1	1	1			1			1	184	10.2	1.0

nedmuscr.d14

Table 3. Number of fish and mean relative weight (W_r) values for length groups of Muskellunge collected across all lake units in Cave Run Lake from 2003 to present.

Year	≤ 20.0 in			20.1 - 30.0 in			30.1 - 38.0 in			≥ 38.1 in			Total		
	N	W_r	s.e.	N	W_r	s.e.	N	W_r	s.e.	N	W_r	s.e.	N	W_r	s.e.
2014	30	80	1	24	89	1	57	90	1	29	91	2	140	88	1
2013	11	79	2	4	95	2	41	94	1	17	92	3	73	91	1
2012	14	75	1	28	87	2	58	102	12	20	86	1	120	93	6
2011	23	83	2	29	93	1	40	91	1	27	88	2	119	89	1
2010	19	79	1	64	92	1	52	94	2	18	90	1	153	91	1
2009	12	88	4	11	97	1	36	93	1	23	93	1	82	93	1
2008	27	76	1	40	114	17	48	94	1	11	89	1	126	96	6
2007	35	84	1	9	102	4	18	95	3	14	92	2	76	90	1
2006	17	75	1	13	88	2	26	89	1	13	87	1	69	85	1
2005	26	81	4	23	91	1	38	89	1	22	85	2	109	87	1
2004	10	79	2	10	90	3	32	87	1	15	80	1	67	85	1
2003	22	82	3	16	96	3	33	92	2	9	87	2	80	90	1

nedmuscr.d14-d03

Table 4. Mean lengths and weights of known age muskellunge from Cave Run Lake captured from 2011 to present (standard errors are in parentheses)

	Age Class			
	Age 1	Age 2	Age 3	Age 4
2011	N= 33			
	L= 14.9 (0.15)			
	W= 0.59 (0.02)			
2012	N= 61	N= 15		
	L= 14.4 (0.09)	L= 23.4 (0.47)		
	W= 0.49 (0.01)	W= 2.78 (0.24)		
2013	N= 74	N= 2	N= 7	
	L= 13.9 (0.12)	L= 22.3 (2.80)	L= 31.0 (0.37)	
	W= 0.50 (0.01)	W= 2.60 (1.40)	W= 7.50 (0.49)	
2014	N= 73	N= 23	N= 9	N= 15
	L= 14.7 (0.12)	L= 23.4 (0.42)	L= 31.7 (0.38)	L= 34.0 (0.82)
	W= 0.55 (0.01)	W= 2.93 (0.19)	W= 8.06 (0.40)	W= 10.19 (0.91)
Average	L= 14.5 (0.21)	L= 23.0 (0.37)	L= 31.3 (0.36)	L= 34.0 -
	W= 0.53 (0.02)	W= 2.77 (0.10)	W= 7.78 (0.28)	W= 10.19 -

nedmuscr.d11-d14

Table 5. Mean lengths and weights of known sex muskellunge from Cave Run Lake captured from 2011 to present (standard errors are in parentheses)

	Sex	
	Males	Females
2011	N= 41	N= 54
	L= 31.15 (0.96)	L= 34.58 (0.96)
	W= 8.20 (0.69)	W= 12.01 (0.93)
2012	N= 51	N= 37
	L= 33.74 (0.40)	L= 37.64 (0.76)
	W= 9.68 (0.33)	W= 14.42 (0.98)
2013	N= 36	N= 25
	L= 34.51 (0.76)	L= 37.00 (0.81)
	W= 10.88 (0.57)	W= 14.73 (1.04)
2014	N= 54	N= 34
	L= 34.92 (0.39)	L= 39.74 (0.81)
	W= 10.99 (0.41)	W= 17.97 (1.24)
Average	L= 33.58 (0.85)	L= 37.24 (1.06)
	W= 9.94 (0.65)	W= 14.78 (1.22)

nedmuscr.d11-d14

Table 6. Muskellunge assessment for Cave Run Lake spring electrofishing from 1995 to present.

Year		Spring CPUE age-1	Spring CPUE ≥ 20.0 in	Spring CPUE ≥ 30.0 in	Spring CPUE ≥ 36.0 in	Spring CPUE ≥ 40.0 in	Total score	Assessment rating
2014	Value	4.1	6.1	4.8	2.8	1.1	18	Excellent
	Score	3	3	4	4	4		
2013	Value	4.2	3.4	3.2	1.6	0.6	15	Good
	Score	3	2	3	4	3		
2012	Value	3.5	5.9	4.3	1.9	0.6	16	Good
	Score	2	3	4	4	3		
2011	Value	1.9	5.3	3.7	2.2	0.9	15	Good
	Score	1	3	3	4	4		
2010	Value	6.8	7.4	3.9	1.9	0.6	16	Good
	Score	3	3	3	4	3		
2009	Value	2.6	3.9	3.3	1.7	0.7	15	Good
	Score	2	2	3	4	4		
2008	Value	2.7	5.5	3.3	1.3	0.3	14	Good
	Score	2	3	3	3	3		
2007	Value	3.6	2.5	1.8	1.2	0.4	12	Good
	Score	3	1	2	3	3		
2006	Value	2.4	2.9	2.2	1.2	0.4	11	Fair
	Score	2	1	2	3	3		
2005	Value	2.9	5.5	4.0	2.0	0.8	17	Excellent
	Score	2	3	4	4	4		
2004	Value	1.3	3.2	2.6	1.3	0.4	12	Good
	Score	1	2	3	3	3		
2003	Value	1.9	3.2	2.3	1.0	0.3	11	Fair
	Score	1	2	2	3	3		
2002[a]	Value							
	Score							
2001	Value	2.3	4.4	3.1	1.5	0.6	15	Good
	Score	2	2	3	4	4		
2000	Value	1.7	2.8	1.8	0.9	0.3	10	Fair
	Score	1	1	2	3	3		
1999	Value	1.6	3.2	2.3	0.7	0.2	9	Fair
	Score	1	2	2	2	2		
1998	Value	3.8	2.8	2.8	1.0	0.3	13	Good
	Score	3	3	2	3	2		
1997[a]								
1996	Value	5.2	4.2	2.4	0.8	0.4	12	Good
	Score	3	2	2	2	3		
1995	Value	2.9	4.5	2.8	1.6	0.6	14	Good
	Score	2	2	3	4	3		

nedmuscr.d14-09; nedMS2cr.d08; nedMK1cr.d07; nedmuscr.d06-95

[a] = Lake was not sampled

Table 7. Length frequency and CPUE (fish/hr) of black bass collected in 2.0 hours (4.0 hours total) of 30-minute nocturnal electrofishing runs in each area of Cave Run Lake on 29, 30 April.

Area	Species	Inch class																				Total	CPUE	Std. error
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Upper	Smallmouth bass																					0	0.0	0.0
	Spotted bass	1					7	3	1	1					1							14	7.0	4.4
	Largemouth bass	4	9	21	29	38	7	11	31	46	15	20	20	4	16	11	12	2	8	4	1	309	154.5	15.3
Middle	Smallmouth bass			3	2			3	3	1			1									13	6.5	3.4
	Spotted bass		6	20	16	8	21	27	11	7	4	1	2									123	61.5	13.0
	Largemouth bass	1	5	24	39	36	23	20	54	59	41	22	22	7	7	6	6	2	2	3		379	189.5	18.3
Total	Smallmouth bass			3	2			3	3	1			1									13	3.3	2.0
	Spotted bass	1	6	20	16	8	28	30	12	8	4	1	2		1							137	34.3	12.1
	Largemouth bass	5	14	45	68	74	30	31	85	105	56	42	42	11	23	17	18	4	10	7	1	688	172.0	12.9
nedpsdcr.d14																						838		

Table 8. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Cave Run Lake from 1990-present.

	Length group											
	< 8.0 in.		8.0 - 11.9 in.		12.0 - 14.9 in.		≥ 15.0 in.		≥ 20.0 in.		Total	
Year	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.
2014	59.0	7.5	69.3	10.6	23.8	3.4	20.0	3.1	2.0	0.7	172.0	12.9
2013	93.0	6.1	56.7	5.0	20.7	2.3	17.7	2.3	1.5	0.4	188.0	10.1
2012	46.0	6.7	88.0	4.9	25.5	3.6	18.3	2.4	1.3	0.4	177.8	10.7
2011_a												
2010_a												
2009_a												
2008	25.8	6.2	23.3	2.6	8.3	1.8	3.5	1.0	0.5	0.5	61.0	8.5
2007	67.5	7.2	43.3	3.5	19.9	2.8	7.9	1.3	0.3	0.2	138.7	10.7
2006	50.7	10.1	48.5	7.7	14.7	2.0	10.2	1.4	0.2	0.2	124.0	19.1
2005	75.0	13.1	41.7	6.4	14.7	2.7	7.2	1.6	0.7	0.4	138.5	22.2
2004	29.0	3.0	60.7	5.9	26.0	3.0	14.1	13.5	0.3	0.2	129.8	10.1
2003	41.0	6.0	64.6	5.2	24.8	2.3	20.3	2.9	0.8	0.3	150.6	13.0
2002_a												
2001	22.8	3.7	54.7	5.4	27.6	2.3	12.6	1.6	0.3	0.2	117.7	8.6
2000	45.1	4.9	78.3	6.5	26.8	2.9	9.0	1.5	0.4	0.3	159.3	10.7
1999	67.6	7.2	51.3	3.5	21.6	1.8	8.6	1.5	0.0		149.0	8.7
1998	18.7	3.5	17.9	2.9	20.6	2.1	6.9	1.5	0.0		64.0	7.6
1997	37.1	3.6	50.4	5.2	24.6	2.6	4.4	0.8	0.1	0.1	116.5	10.4
1996	58.9	6.5	42.4	4.0	15.3	1.5	4.0	0.7	0.0		116.1	9.5
1995	27.8	5.3	80.5	11.5	36.6	3.9	6.4	0.7	0.1	0.1	151.3	17.9
1994	62.5	7.0	54.7	7.9	38.8	3.1	3.7	0.6	0.3	0.2	159.6	15.5
1993	47.1	5.4	110.7	10.3	36.2	4.8	4.9	0.8	0.3	0.1	198.8	15.3
1992	52.0	4.3	77.9	5.1	21.9	1.8	2.8	0.6	0.2	0.1	152.8	6.8
1991	32.5	4.7	64.5	4.9	31.0	2.1	6.3	1.0	0.4	0.2	134.3	7.2
1990	23.3	2.7	43.0	2.7	18.5	2.2	3.4	0.9	0.2	0.1	88.2	5.8

nedpsdcr.d90 - d14

$_a$ = No sample

Table 9. PSD and RSD_a values obtained for each black bass species taken in spring electrofishing samples in each area of Cave Run Lake; 95% confidence intervals are in parentheses.

Area	Species	No. ≥ 8.0 in.	PSD		RSD_a	
Upper	Smalllmouth bass	0				
	Spotted bass	13	8	(±15)	8	(±15)
	Largemouth bass	201	49	(±07)	27	(±06)
Middle	Smalllmouth bass	8	13	(±25)		
	Spotted bass	73	10	(±07)		
	Largemouth bass	251	31	(±06)	10	(±04)
Total	Smallmouth bass	8	13	(±25)		
	Spotted bass	86	9	(±06)	1	(±02)
	Largemouth bass	452	39	(±05)	18	(±04)

nedpsdcr.d14

$_a$ = Largemouth bass = RSD_{15}, spotted and smallmouth bass = RSD_{14}

Table 10. Population assessment of largemouth bass based on samples collected at Cave Run Lake 2000-present (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥ 15.0 in	Spring CPUE ≥ 20.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value		59.0	23.8	20.0	2.0	16	Good		
	Score	3	4	2	4	3				
2013	Value		91.3	20.7	17.7	1.5	14	Good		
	Score	3	4	2	3	2				
2012	Value	11.8	45.3	25.5	18.3	1.3	14	Good	0.852	57.30%
	Score	3	3	3	3	2				
2011[a]	Value									
	Score									
2010[a]	Value									
	Score									
2009[a]	Value									
	Score									
2008	Value		24.9	8.3	3.5	0.5	9	Fair	0.786	54.40%
	Score	3	2	1	1	2				
2007	Value	12.4	66.5	19.9	7.9	0.3	13	Good	0.703	51.00%
	Score	3	4	2	2	2				
2006	Value		49.2	14.7	10.2	0.2	10	Fair	0.799	55.00%
	Score	3	3	1	2	1				
2005	Value		43.0	14.7	7.2	0.7	11	Fair	0.897	59.00%
	Score	3	3	1	2	2				
2004	Value		28.1	26.0	14.1	0.3	13	Good	0.846	57.00%
	Score	3	2	3	3	2				
2003	Value	12.4	39.8	24.8	20.3	0.8	14	Good		
	Score	3	3	2	4	2				
2002[a]	Value									
	Score									
2001	Value	10.7	15.1	27.6	12.6	0.3	10	Fair		
	Score	1	1	3	3	2				
2000	Value	10.3	35.5	26.8	9.0	0.4	10	Fair		
	Score	1	2	3	2	2				

nedpsdcr.d14

[a] = Lake was not sampled

Table 11. Length frequency and CPUE for white bass collected in 16 net-nights of sampling at Cave Run Lake from 21 - 24 October.

Species	Inch class							Total	CPUE	Std. Error
	7	8	9	10	11	12	13			
White bass	1	1			7	20	6	35	2.2	0.6

nedwtbcr.d14

Table 12. Number of fish and relative weight (W_r) for each length group of white bass collected at Cave Run Lake from 2007 - 2014. s.e. = standard error

	Length group								
	6.0 - 8.9 in			9.0 - 11.9 in			≥ 12.0 in		
Year	No.	W_r	s.e.	No.	W_r	s.e.	No.	W_r	s.e.
2014				34	85	1	25	85	1
2011	19	89	2	40	109	20	173	96	1
2008	22	93	2	19	90	2	94	92	1
2007	4	95	4	16	88	2	49	93	1

nedwtbcr.d14, d11, d08, d07

Table 13. Mean back calculated lengths (in) at each annulus for white bass collected from Cave Run Lake in October 2014; includes 95% confidence interval (CI) for mean length for each age class.

		Age
Year	Number	1
2014	0	
2013	33	8.8
Mean		8.8
Number	33	33
Smallest		7.1
Largest		10.3
Std. Error		0.1
95% CI (±)		0.6

nedaagcr.d14

Table 14. Age frequency and CPUE of white bass sampled in 2014.

Age	Inch class 7	8	9	10	11	12	13	Total	%	CPUE	Std. error
0	1	1						2	6	0.1	0.1
1					7	20	6	33	94	2.1	0.6
Total	1	1			7	20	6	35	100		
%	3	3			20	57	17	100			

nedwtbcr.d14; nedaagcr.d14

Table 15. Population assessment using statewide criteria for white bass based on fall sampling from 1993 through 2014 at Cave Run Lake.

Year		CPUE age-1 and older	Mean length age-2 at capture	CPUE ≥ 12.0 in	CPUE age-1	Total score	Assessment rating
2014	Value	2.1		1.6	2.1	5	Poor
	Score	1	2	1	1		
2011	Value	21.4	11.6	17.3	3.4	12	Good
	Score	4	2	4	2		
2008	Value	9.0	12.9	7.8	2.3	9	Fair
	Score	2	3	3	1		
2007	Value	4.3	12.9	3.1	1.1	7	Fair
	Score	1	3	2	1		
2005	Value	13.3	12.9	7.5	5.1	12	Good
	Score	3	3	3	3		
2003	Value	17.9	13.6	4.9	15.1	13	Good
	Score	3	4	2	4		
1998	Value	13.6	13.4	9.3	4.4	12	Good
	Score	3	4	3	2		
1993	Value	10.0	13.0	6.8	3.1	12	Good
	Score	3	4	3	2		

nedwtbcr.d14, d11, d07, d05, d03, d98, d93

Table 16. Fishery statistics derived from a daytime creel survey at Cave Run Lake during 2014 creel (March through October) as compared to findings from 2007, 2003, 1998 and 1994.

	2014	2007	2003	1998	1994
Fishing trips					
No. of fishing trips	30,264	23,316	26,208	33,354	24,406
(per acre)	(03.66)	(02.82)	(03.17)	(04.03)	(02.95)
Fishing pressure					
Total man-hours (S.E.)	122,001 (2,383)	120,079 (2,644)	177,202 (2,653)	134,650 (2,311)	117,788 (8,358)
Man hours/acre	14.75	14.52	21.43	16.28	14.24
Catch/harvest					
No. of fish caught (S.E.)	86,386 (9,683)	130,113 (10,507)	187,881 (11,843)	128,352 (12,798)	124,513 (12,143)
No. of fish harvested (S.E.)	42,465 (5,235)	61,966 (5,672)	99,936 (7,249)	64,507 (6,564)	53,778
Lbs. of fish harvested	24,898	29,248	54,818	31,197	31,347
Harvest rate					
Fish/hour	0.36	0.51	0.54	0.47	0.46
Fish/acre	5.13	7.49	12.08	7.80	6.50
Lbs/acre	3.01	3.54	6.63	3.77	3.79
Catch rates					
Fish/hour	0.74	1.05	1.03	0.96	1.06
Fish/acre	10.45	15.73	22.72	15.52	15.06
Misc. characteristics (%)					
Male	88.50	89.40	90.10	86.80	84.30
Female	11.50	10.60	9.90	13.20	15.80
Resident	84.60	91.00	91.30	85.50	79.90
Non-resident	15.40	9.00	8.70	14.20	20.10
Method (%)					
Still fishing	25.40	40.50	34.20	37.90	38.80
Casting	72.10	56.70	57.60	58.10	55.50
Fly fishing	0.00	0.00	0.00	t	t
Trolling	2.40	2.80	7.70	6.90	5.60
Spider Rig	0.20	0.00	0.00	0.00	0.00
Mode (%)					
Boat	94.40	90.60	92.40	94.00	91.60
Bank	5.50	9.30	7.40	5.60	7.80
Dock	t	t	t	t	0.60

(S.E.) = Standard error
t < 0.5%

Table 17. Fish harvest statistics derived from the 2014 creel survey at Cave Run Lake.

	White Crappie	Black Crappie	Crappie Group	Largemouth Bass	Spotted Bass	Smallmouth Bass	Black Bass Group	Bluegill	Warmouth	Redear Sunfish	Panfish Group	Muskie	Channel Catfish	Flathead Catfish	Catfish Group	White Bass	Drum	Common Carp	Anything
Number caught	44187	12420	56608	13599	534	205	14338	12061	122	44	12228	2180	803	85	888	34	50	16	
(per acre)	5.3	1.5	6.8	1.6	0.1	0.0	1.7	1.5	0.0	0.0	1.5	0.3	0.1	0.0	0.1	0.0	0.0	0.0	
Number harvested	23982	7645	31627	2650	95		27445	6894	38	44	6976	212	787	52	839	17	33	16	
(per acre)	2.9	0.9	3.8	0.3	0.0		0.3	0.8	0.0	0.0	0.8	0.0	0.1	0.0	0.1	0.0	0.0	0.0	
% of total number harvested	56.5	18.0	74.5	6.2	0.2		6.5	16.2	0.1	0.1	16.4	0.5	1.9	0.1	2.0	0.0	0.1	0.0	
Pounds harvested	9301.4	4434.9	13736.3	3.4	41.2		3428.4	1122.4	8.9	39.7	1171.0	4776.4	1283.2	367.3	1650.5	6.0	58.3	70.7	
(per acre)	1.1	0.5	1.7	0.4	0.0		0.4	0.1	0.0	0.0	1.4	0.6	0.2	0.0	0.2	0.0	0.0	0.0	
% of total pounds harvested	37.4	17.8	55.2	13.6	0.2		13.8	4.5	0.0	0.2	4.7	19.2	5.2	1.5	6.6	0.0	0.2	0.3	
Mean length (in)	9.37	10.26		13.47	9.75			6.33	7.00	11.00		40.73	17.41	26.50		9.00	16.00	21.00	
Mean weight (lb)	0.37	0.58		1.26	0.44			0.16	0.23	0.90		18.24	1.72	7.44		0.35	1.76	4.34	
Number fishing trips for that species			5710.4				10667.8				1236.8	11480.8			773.4				394.6
% of all trips			18.9				35.3				4.1	37.9			2.6				1.3
Hours fished for that species			23020.1				43004.4				4985.8	46282.0			3117.7				1590.8
(per acre)			(2.8)				(5.2)				(0.6)	(5.6)			(0.4)				(0.2)
Number harvested fishing for that species			31457				2599				5,468	194			761				
Pounds harvested fishing for that species			13606.3				3327.6				907.0	4503.0			1401.6				
Number harvested per hour fishing for that species			1.6				0.1				1.8	0.0			0.3				
% success fishing for that species			65.9				10.0				48.4	1.3			28.3				16.1

Table 18. Length distribution (length of released fish are estimates) for each species of fish harvested (H) or released (R) at Cave Run Lake from March through October 2014.

Species		Inch class																																															Total
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
Muskellunge	H																																	21		21	42					21	42			21		43	211
	R													23		23		69			46	46	23	23	23	93		93	69		139	46	232	162	93	139	46	232	208	46			23	71					1,968
Common Carp	H																		16																														16
	R																																																0
Channel Catfish	H									18	18	92	128		220	92	92	73	18		18	17																											786
	R															16																																	16
Flathead Catfish	H																				17				17	17																							51
	R																					32																											32
White Bass	H						16																																										16
	R							16																																									16
Warmouth	H				38																																												38
	R		51		17	16																																											84
Bluegill	H		713	3,242	2,636	302																																											6,893
	R	828	3,655	630	18	36																																											5,167
Redear Sunfish	H								44																																								44
	R																																																0
Smallmouth Bass	H																																																0
	R						19			75	19		56	19				17																															205
Spotted Bass	H						76			18																																							94
	R			21	21	42	230	42	21	42	19																																						438
Largemouth Bass	H						60	139	239	1,375				179	239	199	100	100	20																														2,650
	R					700	622	1,848	700	1,692	1,809	1,303	700	447	272	233	233	253	39	97																													10,948
White Crappie	H				471	1,727	11,262	7,560	920	1,167	763	90	22																																				23,982
	R		23	656	9,599	6,766	2,786	211	70	94																																							20,205
Black Crappie	H					41	2,064	3,516	634	654	552	143	40																																				7,644
	R				637	3,462	60	497		119																																							4,775
Freshwater Drum	H											17				16																																	33
	R													16																																			16
Longnose Gar	H																																																0
	R																											22					22																44

Table 19. Monthly black bass and muskie angling success at Cave Run Lake during the 2014 creel survey period.

	Total no. caught			Total no. harvested			Total no. of trips for			Hours fished for			Catch fishing for			Catch per hour fishing for			No. harvested fishing for		No. harvested per hour fishing for	
Month	Bass	Muskie		Bass	Muskie		Bass	Muskie		Bass	Muskie		Bass	Muskie		Bass	Muskie		Bass	Muskie	Bass	Muskie
Mar	82	246		0	0		261.29	1,175.81		1,053.33	4,740.00		82	246		0.08	0.05		0	0	0.00	0.00
Apr	1,087	395		99	0		2,012.69	2,246.73		8,113.67	9,057.12		988	362		0.12	0.04		99	0	0.01	0.00
May	2,934	128		844	0		1,729.10	1,094.60		6,958.33	4,412.60		2,825	110		0.41	0.02		844	0	0.12	0.00
Jun	2,591	244		179	0		1,218.81	790.58		4,913.32	3,187.02		2,379	196		0.48	0.06		130	0	0.03	0.00
Jul	2,213	114		134	0		1,269.16	794.83		5,116.29	3,204.14		2,060	114		0.40	0.04		76	0	0.01	0.00
Aug	952	289		170	17		1,099.80	965.13		4,433.57	3,890.69		833	238		0.19	0.06		153	0	0.03	0.00
Sep	2,257	354		752	44		2,015.59	1,358.99		8,125.33	5,478.44		2,058	300		0.25	0.05		730	44	0.09	0.01
Oct	1,483	408		473	150		1,064.52	3,054.14		4,290.55	12,312.00		1,375	408		0.32	0.03		473	150	0.11	0.01
Total	13,599	2,178	0	2,651	211	0	10,671	11,481	0	43,004	46,282	0	12,600	1,974	0			0	2,505	194		
Mean																0.28	0.05				0.05	0.00

Table 20. Monthly crapppie angling success at Cave Run Lake during the 2014 creel survey period.

	Trips Fishing For	Hours Fishing For	Catch		Harvest		Harvest			
			Fishing for	Total Catch	Fishing for	Total Catch	Mean Length (In)		Mean Weight (lb)	
March	130.65	526.67	657	657	657	657	7.8	-	0.19	-
April	1,658.05	6,792.84	16,209	16,340	7,742	7,742	9.5	*10.5*	0.38	*0.63*
May	491.17	1,980.01	4,053	4,071	1,284	1,302	9.6	*9.5*	0.39	*0.45*
June	472.15	1,903.36	3,487	3,601	2,363	2,379	9.1	*10.7*	0.33	*0.67*
July	1,038.40	4,186.06	12,287	12,288	7,231	7,231	9.5	*9.8*	0.38	*0.49*
August	561.12	2,262.03	4,539	4,606	3,196	3,247	10.4	*10.9*	0.51	*0.69*
September	992.52	4,001.11	11,840	11,972	6,706	6,727	9.6	*10.0*	0.39	*0.52*
October	339.35	1,368.00	3,008	3,073	2,278	2,342	9.6	*10.4*	0.40	*0.60*
Total	5,710.41	23,020.07	56,080	56,608	31,457	31,627				
Mean							9.4	*10.3*	0.37	*0.58*

* Mean Length and Mean Weight the first number is w hite crappie, and the second (in italics) is black crappie. Both of these numbers are based off of the fish harvested.

Table 21. Total catch and catch rates of largemouth bass in size classes relating to the slot limit regulation from 2014, 2007, 2003, 1998 and 1994.

Year	Hours Fishing		Harvested < 13.0"	Harvested ≥ 16.0"	Harvested ≥ 20.0"	Harvested Total	Catch and Release < 13.0"	Catch and Release "Slot"	Catch and Release ≥ 16.0"	Catch and Release ≥ 20.0"	Catch and Release Total	Total (Harvested and Catch and Release) < 13.0"	Total "Slot"	Total ≥ 16.0"	Total ≥ 20.0"	Total Total
2014	43,004	Total	1,813	837	120	2,650	5,562	3,812	1,574	389	10,948	7,375	3,812	2,411	509	13,598
		per hour	0.042	0.019	0.003	0.062	0.129	0.089	0.037	0.009	0.255	0.171	0.089	0.056	0.012	0.316
2007	34,497	Total	4,568	195	20	4,763	15,226	2,930	1,318	59	19,474	19,794	2,930	1,513	79	24,237
		per hour	0.132	0.006	0.001	0.138	0.441	0.085	0.038	0.002	0.565	0.574	0.085	0.044	0.002	0.703
2003	55,956	Total	6,860	783	71	7,643	18,872	4,722	3,215	188	26,809	25,732	4,722	3,998	259	34,452
		per hour	0.123	0.014	0.001	0.137	0.337	0.084	0.057	0.003	0.479	0.460	0.084	0.071	0.005	0.616
1998	47,813	Total	3,760	874	21	4,634	4,172	6,183	766	41	11,121	7,932	6,183	1,640	62	15,755
		per hour	0.079	0.018	0.000	0.097	0.087	0.129	0.016	0.001	0.233	0.166	0.129	0.034	0.001	0.330
Average (07, 03, 98)		Total	5,063	617	37	5,680	12,757	4,612	1,766	96	19,135	17,819	4,612	2,384	133	24,815
		per hour	0.083	0.009	0.001	0.093	0.216	0.075	0.028	0.001	0.319	0.300	0.075	0.037	0.002	0.412
1994*	35,389	Total	0	874	117	874	11,206	5,588	514	58	17,308	11,206	6,170	1,388	175	18,764
		per hour	0.000	0.025	0.003	0.025	0.317	0.158	0.015	0.002	0.489	0.317	0.174	0.039	0.005	0.530

* Lake was under a 15.0 in. minimum size limit.

Table 22. Number of hours to catch specfic-size largemouth bass and percentage of catch for those size classes of largemouth bass in 2014, 2007, 2003, 1998 and 1994 creels.

	Hours to Catch ≤ 12.9"	Hours to Catch 13.0-15.9"	Hours to Catch ≥ 16.0"	Hours to Catch ≥ 20.0"	Hours to Catch Total	% of Total Catch ≤ 12.9"	% of Total Catch 13.0-15.9"	% of Total Catch ≥ 16.0"	% of Total Catch ≥ 20.0"
2014	5.83	11.28	17.84	84.49	3.16	24.24	28.03	17.73	3.74
2007	1.74	11.77	22.8	436.67	1.42	81.67	12.09	6.25	0.33
2003	2.17	11.85	14	216.05	1.62	74.69	13.71	11.60	0.75
1998	6.03	7.73	29.15	771.18	3.03	50.35	39.24	10.41	0.39
Average (07, 03, 98)	3.33	13.39	26.74	486.89	2.43	71.81	18.58	9.61	0.54
1994*	3.16	5.74	25.51	202.22	1.89	59.72	30.88	7.40	0.93

* Lake was under a 15.0 in. minimum size limit.

Table 23. Angler attitude survey conducted during 2014 creel survey on Cave Run Lake.

3. Which species do you fish for at Cave Run Lake (check all that apply)?

Crappie = 43.4%; **Bass** = 41.9%; **Muskie** = 40.9%; **White Bas**s = 4.0%; **Catfish =**

4. Which species do you fish for most at Cave Run Lake (check only one)?

Bass = 32.8%; **Muskie** = 32.8%; **Crappie** = 32.8%; **Bluegill** = 0.5%; **Catfish** = 0.5%;

Bass Anglers

5. What level of satisfaction do you have with bass fishing at Cave Run Lake?

Very Satisfied	66.7%	**Somewhat**	28.6%	**Total**	95.3%
Very Dissatisfied	0.0%	**Somewhat**	1.2%	**Total**	1.2%
Neutral	2.4%	**No Opinion**	1.2%		

5a. If you responded with somewhat or very dissatisfied in question 5 - what is the single most reason for your dissatisfaction?

Note: These numbers are percentages **ONLY of those who were dissatisfied (1.2%)*

Size of fish	100.0%

6. Over the last 3 years has your catch rate of largemouth bass 15 inched and greater at Cave

Increased	36.9%
Stayed the Same	51.2%
Declined	3.6%
I don't know	8.3%

7. Do you fish bass tournaments on Cave Run Lake?

Yes = 48.8% **No** = 51.2%

7a. About how many bass tournamnets did you fish on Cave Run Lake in the last 12 months?

1-6 = 58.5% **7-12** = 34.1% **13-24** = 4.9%

13-24 = 4.9% **≥ 25** = 2.4%

Crappie Anglers

8. What level of satisfaction do you have with crappie fishing at Cave Run Lake?

Very Satisfied	82.9%	**Somewhat**	12.2%	**Total**	95.1%
Very Dissatisfied	0.0%	**Somewhat**	2.4%	**Total**	2.4%
Neutral	2.4%	**No Opinion**	0.0%		

8a. If you responded with somewhat or very dissatisfied in question 8 - what is the single most reason for your dissatisfaction?

Note: These numbers are percentages **ONLY of those who were dissatisfied (2.4%)*

Size of fish	100.0%

Muskie Anglers

9. What level of satisfaction do you have with muskie fishing at Cave Run Lake?

Very Satisfied	87.8%	**Somewhat**	11.0%	**Total**	98.8%
Very Dissatisfied	0.0%	**Somewhat**	0.0%	**Total**	0.0%
Neutral	1.2%	**No Opinion**	0.0%		

9a. If you responded with somewhat or very dissatisfied in question 9 - what is the single most reason for your dissatisfaction?

Note: These numbers are percentages **ONLY of those who were dissatisfied (0.0%)*

No Responses (no dissatisfied anglers)

9b. If you responded with somewhat or very satisfied in question 9 - what is the single most reason for your satisfaction?

Note: These numbers are percentages **ONLY of those who were satisfied (98.8%)*

Number of fish	44.3%
Size of Fish	32.9%
The regular stockings	11.4%
I like the regulations	2.9%
All of the above	2.9%
Just like the battle	2.9%
Get away from cold/people	1.4%
Catch rates	1.4%

Table 23 cont.

10. Over the last 3 years has your catch rate of muskie less than 36 inches at Cave Run Lake:

Increased	64.6%
Stayed the Same	15.2%
Declined	3.8%
I don't know	16.5%

11. Over the last 3 years has your catch rate of muskie greater than 36 inches at Cave Run Lake:

Increased	63.3%
Stayed the Same	20.3%
I don't know	16.5%

12. About what percentage of legal muskie did you keep in the last 3 years at Cave Run Lake?

I didn't keep any or very few	72.5%
About 25%	10.0%
About 50%	10.0%
About 75%	36.8%
All or Almost All	3.8%

13. Do you fish muskie tournaments on Cave Run Lake?

Yes = 27.5% **No** = 72.5%

13a. About how many muskie tournamnets did you fish on Cave Run Lake in the last 12 months?

1 - 2 = 86.4% **3 - 4** = 13.6% **≥ 4**= 0.0%

White Bass Anglers

14. What level of satisfaction do you have with white bass fishing at Cave Run Lake?

Very Satisfied	62.5%	**Somewhat**	0.0%	**Total**	62.5%
Very Dissatisfied	0.0%	**Somewhat**	12.5%	**Total**	12.5%
Neutral	25.0%	**No Opinion**	0.0%		

14a. If you responded with somewhat or very dissatisfied in question 14 - what is the single most reason for your dissatisfaction?

Note: These numbers are percentages **ONLY of those who were dissatisfied (12.5%)*

No white bass in the lake	100.0%

All Anglers

15. On average, how many times do you fish Cave Run Lake each month?

≤ 1	8.7%
1 - 4	37.8%
5 - 10	33.7%
≥ 10	19.9%

16. Do you support or oppose the current 13 - 16 inch slot limit on largemouth bass at Cave Run

Support	84.8%	**Oppose**	13.2%	**No Opinion**	2.0%

16a. What largemouth bass size limit do you prefer at Cave Run Lake?

Keep it as it is	78.6%
15 inch minimum size limit	13.0%
14 inch minimum size limit	2.6%
16 inch minimum size limit	2.1%
20 inch minimum size limit	1.0%
Catch and release only	1.0%
10 inch minimum size limit	0.5%
12 inch minimum size limit	0.5%
18 - 20 inch protective slot	0.5%

17. Do you support or oppose the current 36 inch minimum size limit on muskie at Cave Run

Support	84.8%	**Oppose**	13.2%	**No Opinion**	2.0%

Table 23 cont.

17a. What muskie size limit do you prefer at Cave Run Lake?

Keep it as it is	64.2%
30 inch minimum size limit	14.2%
40 inch minimum size limit	11.1%
45 inch minimum size limit	2.6%
50 inch minimum size limit	2.6%
Catch and release only	2.1%
No size limit	1.6%
15 inch minimum size limit	0.5%
25 inch minimum size limit	0.5%
42 inch minimum size limit	0.5%

18. How would you rate the existing fish habitat on Cave Run Lake (both natural and department

Excellent	64.8%	**Good**	33.7%
Fair	1.5%	**Poor**	0.0%

19. Were you aware the department places fish habitat within the lake?

Yes = 68.2% **No** = 31.8%

19a. Do you regularly fish the department habitat?

Yes = 68.4% **No** = 31.6%

19b. Do you feel fishing the department placed habitat has improved your fishing results?

Yes = 100% **No** = 0.0%

Table 24. Length frequency and CPUE (fish/hr) of black bass collected in 5.5 hours (2.0 hours in the upper and middle areas and 1.5 hours in the lower area) of nocturnal electrofishing for black bass in Grayson Lake on 21 -23 April.

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			
Upper	Smallmouth bass																						
	Spotted bass					3	2	1	1	3	1										11	5.5	2.1
	Largemouth bass	2	5	16	11	2	42	23	32	17	8	10	11	12	7	3	5	5	2		213	106.5	11.1
Middle	Smallmouth bass																						
	Spotted bass	2	13		13	22	9	6	3	3	1										72	36.0	12.4
	Largemouth bass	5	68	67	26	20	96	49	44	32	15	7	8	1	1	1	7	1	3	1	452	226.0	11.6
Lower	Smallmouth bass		4			3	2														9	6.0	6.0
	Spotted bass	1	39	9	19	32	23	15	17	4	1										160	106.7	9.8
	Largemouth bass	1	21	29	12	9	60	52	32	56	8		3	4	2	2	7	4	4	2	308	205.3	17.4
Total	Smallmouth bass		4			3	2														9	1.6	1.6
	Spotted bass	3	52	9	32	57	34	22	21	10	3										243	44.2	13.6
	Largemouth bass	8	94	112	49	31	198	124	108	105	31	17	22	17	10	6	19	10	9	3	973	176.9	18.3

nedpsdgl.d14

Table 25. Length frequency and CPUE (fish/hr) of stocked* and wild largemouth bass collected in 5.5 hours of nocturnal electrofishing at Grayson Lake.

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	21			
Wild	8	94	112	49	31	198	124	108	102	31	17	21	17	10	6	19	10	9	3	969	157.5	16.4
Stocked									3			1								4	0.7	0.3

nedstkgl.d14; nedwldgl.d14

Table 26. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Grayson Lake from 1999-present.

	Length group											
	< 8.0 in		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in		≥ 20.0 in		Total	
Year	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.
2014	53.5	10.7	97.3	11.3	12.7	1.6	13.5	2.0	2.2	0.7	176.9	18.3
2013	75.2	11.3	78.2	5.7	13.2	1.5	16.3	2.1	1.5	0.4	182.8	14.4
2012	67.0	11.4	91.0	6.5	16.8	2.2	13.3	2.8	0.3	0.3	188.0	16.1
2011[a]												
2010[a]												
2009	22.8	4.0	41.0	4.2	17.0	2.7	12.7	2.0	0.8	0.3	93.5	10.3
2008	25.7	7.2	22.5	4.4	11.5	2.5	3.7	0.9	0.3	0.2	63.3	11.5
2007	48.0	8.0	46.8	3.8	16.0	2.1	5.0	0.8	0.2	0.2	115.8	11.6
2006	18.8	2.9	55.5	7.4	23.7	3.9	5.3	1.1	0.3	0.2	103.3	10.1
2005	50.1	8.0	70.2	7.9	25.1	3.7	2.9	0.5	0.2	0.2	148.3	15.9
2004	162.3	22.0	77.8	10.1	12.9	1.4	2.9	0.6	0.3	0.2	255.9	31.9
2003	128.3	10.7	79.5	6.5	6.3	0.8	2.2	0.6	0.7	0.4	216.3	15.1
2002	132.5	17.9	54.5	5.5	4.8	1.4	3.0	0.8	0.8	0.4	194.8	22.7
2001	220.8	30.6	54.2	3.2	6.7	0.9	2.2	0.5	0.2	0.2	283.9	30.2
2000	143.3	20.6	65.7	5.9	13.4	1.5	6.7	1.0	0.3	0.2	229.1	25.9
1999	172.7	21.6	102.4	10.1	24.1	2.1	4.6	0.7	0.2	0.2	303.8	31.3

nedpsdgl.d14-d12; d09 - d99

[a] = No sample

Table 27. PSD and RSD_a values obtained for each black bass species taken in spring electrofishing samples in each area of Grayson Lake; 95% confidence intervals are in parentheses.

Area	Species	No. ≥ 8.0 in.	PSD		RSD_a	
Upper	Smalllmouth bass	0				
	Spotted bass	11	36	(±3.0)	-	-
	Largemouth bass	177	36	(±7.0)	19	(±6.0)
Middle	Smalllmouth bass	0				
	Spotted bass	44	9	(±9.0)	-	-
	Largemouth bass	266	17	(±5.0)	6	(±3.0)
Lower	Smalllmouth bass	5	-	-	-	-
	Spotted bass	92	5	(±5.0)	-	-
	Largemouth bass	236	15	(±5.0)	11	(±4.0)
Total	Smallmouth bass	5	-	-	-	-
	Spotted bass	147	9	(±5.0)	-	-
	Largemouth bass	679	39	(±3.0)	11	(±2.0)

nedpsdgl.d14

$_a$ = Largemouth bass = RSD_{15}, spotted and smallmouth bass = RSD_{14}

Table 28. Population assessment of largemouth bass based on samples collected at Grayson Lake from 2000 - present (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥ 15.0 in	Spring CPUE ≥ 20.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value		46.9	12.7	13.5	2.2	12	Good		
	Score	2	3	1	3	3				
2013	Value		73.2	13.2	16.3	1.5	12	Good		
	Score	2	4	1	3	2				
2012	Value		48.5	16.8	13.3	0.3	12	Good		
	Score	2	3	2	3	2				
2011[a]	Value									
	Score									
2010[a]	Value									
	Score									
2009	Value	11.6	19.9	17.0	12.7	0.8	10	Fair	-0.361	30.30%
	Score	2	1	2	3	2				
2008	Value	11.6	21.3	11.5	3.7	0.3	7	Poor	-0.445	35.90%
	Score	2	1	1	1	2				
2007	Value	10.7	45.9	16.0	5.0	0.2	9	Fair	-0.538	41.60%
	Score	1	3	2	2	1				
2006	Value	10.7	17.3	23.7	5.3	0.3	8	Fair	-5.350	41.50%
	Score	1	1	2	2	2				
2005	Value	10.7	46.8	25.1	2.9	0.2	10	Fair	-0.731	51.90%
	Score	1	3	3	1	2				
2004	Value	10.7	40.4	12.9	2.9	0.3	8	Fair		
	Score	1	3	1	1	2				
2003	Value	10.7	125.2	6.3	2.2	0.7	9	Fair		
	Score	1	4	1	1	2				
2002	Value	10.7	127.2	4.8	3.0	0.8	9	Fair		
	Score	1	4	1	1	2				
2001	Value	10.7	218.1	6.7	2.2	0.2	9	Fair		
	Score	1	4	1	1	2				
2000	Value	10.5	130.8	13.4	6.7	0.3	10	Fair		
	Score	1	4	1	2	2				

nedpsdgl.d14

[a] = Lake was not sampled

Table 29. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in September while nocturnal electrofishing at Grayson Lake.

Year class	Area	Age 0		Age 0		Age 0 ≥ 5.0 in.		Age 1	
		Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2014	Total	4.6	0.04	101.8	15.7	31.8	8.3		
2013	Total	4.3	0.04	81.3	11.2	15.3	3.3	46.9	9.5
2012	Total	4.5	0.04	139.1	23.0	41.8	6.1	65.7	9.1
2011	Total	4.0	0.04	83.6	15.0	11.1	2.6	48.5	12.0
2010	Total	4.8	0.04	98.2	17.3	42.0	6.9	*	*
2009	Total	4.1	0.06	33.1	5.7	4.2	1.4	*	*
2008	Total	4.1	0.04	66.0	16.4	8.7	2.8	19.9	3.8
2007	Total	4.3	0.07	44.9	9.2	12.9	2.8	29.8	10.0
2006	Total	4.1	0.04	87.1	17.9	12.0	2.6	45.9	8.0
2005	Total	4.0	0.04	72.3	17.0	11.7	2.2	17.3	2.8
2004	Total	4.3	0.08	40.4	5.7	11.3	2.1	46.8	7.8
2003	Total	4.3	0.03	59.1	6.8	10.4	1.7	158.9	21.7

* No sample collected due to high water

nedbsigl.d14-d13; nedwrsgl.d12 - d03; nedpsdgl.d14-d12, d09 - d04

nedaaggl.d03, d08

Table 30. Length frequency and CPUE (fish/hr) for each species of crappie collected at Grayson Lake while electrofishing for 1.5 hr (6- 15-minute runs) on 17 October.

Species	Inch class						Total	CPUE	Std. error
	5	6	7	8	9	10			
White crappie	1	35	32	6	4	3	81	54.0	13.2
Black crappie		5	1		1		7	4.7	4.7

nedcwrgl.d14

Table 31. Number of fish and relative weight (W_r) for each length group of crappie collected at Grayson Lake in 2014; s.e. = standard error.

	Length group											
	5.0 - 7.9 in			8.0 - 11.9 in			≥ 10.0 in			Total		
Year	No.	W_r	s.e.	No.	W_r	s.e.	No.	W_r	s.e.	No.	W_r	s.e.
White crappie	67	89	1	10	81	2	3	94	8	80	88	1
Black crappie	6	124	32	1	79	-				7	117	28

nedcwrgl.d14

Table 32. PSD and RSD_{10} values for crappie collected while electrofishing Grayson Lake; 95% confidence limits are in parentheses.

	No.≥5.0 in	PSD		RSD_{10}	
White crappie	81	16	(±8)	14	(±28)
Black crappie	7	4	(±4)		

nedcwrgl.d14

Table 33. Mean back calculated lengths (in) at each annulus for white crappie collected from Grayson Lake in October 2014, includes 95% confidence interval (CI) for mean length for each age class.

		Age						
Year	No.	1	2	3	4	5	6	7
2013	1	3.6						
2012	6	3.6	5.3					
2011	8	3.3	5.2	6.5				
2010	8	3.4	5.3	6.6	7.5			
2009	2	3.2	5.7	6.9	8.0	8.9		
2008	4	3.4	5.1	6.6	7.3	7.8	8.3	
2007	2	3.2	4.4	5.4	6.1	6.7	7.1	7.4
Mean		3.4	5.2	6.5	7.3	7.8	7.9	7.4
Number	31	31	30	24	16	8	6	2
Smallest		2.6	4.0	5.3	5.9	6.6	7.1	7.3
Largest		4.4	6.0	7.7	8.8	9.8	9.9	7.5
Std. Error		0.1	0.1	0.1	0.2	0.4	0.4	0.1
95% CI (±)		0.3	0.4	0.6	0.9	1.6	1.7	0.8

nedaaggl.d14

Table 34. Age frequency and CPUE of white crappie from Grayson Lake in October 2014.

Age	Inch class						Total	%	CPUE	Std. error
	5	6	7	8	9	10				
1	1						1	1	0.7	0.7
2		23					23	29	15.6	3.8
3		8	13	2			23	28	15.1	3.7
4		4	10	1	4	1	19	24	13.0	3.4
5				1		1	2	2	1.3	0.4
6			3	2		1	6	8	4.1	1.0
7			6				6	8	4.3	1.4
Total	1	35	32	6	4	3	81	100		
%	1	43	40	7	5	4	100			

nedcwrgl.d14; nedaaggl.d14

Table 35. Population assessment for white crappie based on samples collected during the fall at Grayson Lake from 2005-2012 (scoring based on lake-specific assessment).

Year		Mean length age-2 at capture	CPUE age-0	CPUE age-1	CPUE ≥ age -1	CPUE ≥ 8.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value	6.6	0.0	0.7	54.0	8.7	6	Poor	-0.752	52.80%
	Score	1	0	1	3	1				
2013[a]	Value									
	Score									
2012	Value		2.0	11.5	125.2	27.3	12	Good		
	Score	1	1	2	4	4				
2011[a]	Value									
	Score									
2010	Value	6.6	0.7	13.5	124.0	24.7	12	Good	-0.425	34.60%
	Score	1	1	3	4	3				
2009	Value	6.4	0.5	16.8	69.3	10.3	10	Fair	-0.384	56.60%
	Score	1	1	3	3	2				
2008	Value	6.4	1.7	27.6	104.6	16.0	12	Fair	-0.754	53.00%
	Score	1	1	4	4	2				
2007	Value	5.6	0.3	1.3	21.6	6.0	5	Poor	-0.900	59.30%
	Score	1	1	1	1	1				
2006	Value	5.6	39.6	83.3	228.8	42.4	17	Excellent	-1.185	69.40%
	Score	1	4	4	4	4				
2005	Value	5.1	1.3	9.9	41.3	16.7	8	Fair	-0.233	20.80%
	Score	1	1	2	2	2				

nedcwrgld12-d05; nedaaggl.d05, d06, d08, d10

[a] = No sample

Table 36. Length frequency and CPUE (fish/hr) for hybrid striped bass collected at Grayson Lake while gill netting (17 net-nights) on 4 - 7 November.

Species	Inch class 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Total	CPUE	Std. error
Hybrid striped bass	18	3	1	1	1	4	5	1	6	10	7	1	6	3	3	1		2	3	76	4.5	0.7

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Table 37. Number of fish and relative weight (W_r) for each length group of hybrid striped bass collected at Grayson Lake in 2014; s.e. = standard error.

	Length Groups											
	8.0 - 11.9 in			12.0 - 14.9 in			≥ 15.0 in			Total		
Year	No.	W_r	s.e.	No.	W_r	s.e.	No.	W_r	s.e.	No.	W_r	s.e.
2014	23	79	2	10	76	2	43	83	1	76	81	1

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Table 38. Mean back calculated lengths (in) at each annulus for hybrid striped bass collected from Grayson Lake in November 2014, includes 95% confidence interval (CI) for mean length for each age class.

		Age										
Year	No.	1	2	3	4	5	6	7	8	9	10	11
2014	0											
2013	13	8.6										
2012	21	8.7	14.1									
2011	9	9.3	14.1	17.2								
2010	4	9.0	14.3	17.3	19.6							
2009	5	8.2	14.3	17.2	20.1	21.9						
2003	4	9.6	15.9	19.7	22.1	23.6	24.2	24.8	25.2	25.5	25.8	26.1
Mean		8.8	14.4	17.7	20.6	22.6	24.2	24.8	25.2	25.5	25.8	26.1
Number	56	56	43	22	13	9	4	4	4	4	4	4
Smallest		6.7	12.2	15.4	17.4	20.7	23.8	24.3	24.6	24.9	25.1	25.4
Largest		10.5	16.3	20.2	22.4	24.4	24.9	25.4	25.9	26.1	26.4	26.6
Std. Error		0.1	0.1	0.3	0.4	0.4	0.2	0.2	0.3	0.3	0.3	0.3
95% CI (±)		0.5	0.5	1.1	1.6	1.7	0.9	0.8	1.1	1.0	1.0	1.0

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Table 39. Age frequency and CPUE of hybrid striped bass sampled using gill nets for 17 net-nights at Grayson Lake in November 2014.

Age	Inch class																			Total	%	CPUE	Std. error
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
0	18	3																		21	28	1.2	0.5
1			1	1	1	4	4													11	15	0.7	0.2
2							1		6	9		1								21	27	1.2	0.3
3									1	2			6							9	16	0.5	0.2
4										1				1	2					4	6	0.3	0.1
5														2	1	1		1		5	7	0.3	0.1
11																		1	3	4	5	0.2	0.1
Total	18	3	1	1	1	4	5		6	10	7	1	6	3	3	1		2	3	75	100		
%	24	4	1	1	1	5	7		8	13	9	1	8	4	4	1		3	4	100			

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Table 40. Population assessment for hybrid striped bass based on samples collected during the fall at Grayson Lake in 2014 (scoring based on lake-specific assessment for 250' nets).

Year		CPUE ≥ age -1	Mean length age-2	CPUE age-1	CPUE ≥ 15.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value	3.2	17.30	2.5	0.7	7	Fair	-0.352	29.70%
	Score	1	3	2	1				

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Table 41. Length frequency and CPUE (fish/hr) of black bass collected in 0.375 hour (3 - 7.5 minute runs) of diurnal electrofishing largemouth bass in Clear Creek Lake on 29 April.

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			
Largemouth bass	5	9	4	35	27	17	16	5	8	1	1	1	1	2				2	2	136	348.7	57.3

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Table 42. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Clear Creek Lake.

	Length group											
	< 8.0 in		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in		≥ 20.0 in		Total	
Year	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.
2014	205.1	21.9	118.0	33.9	7.7	0.0	18.0	2.6	10.3	5.1	348.7	57.3
2013[a]												
2012	80.0	20.1	234.7	41.4	10.7	2.7	16.0	8.0	8.0	0.0	341.3	49.4
2011[a]												
2010[a]												
2009	82.7	10.7	36.0	9.2	16.0	4.6	8.0	4.6	5.3	2.7	261.3	31.4
2008	378.0	66.4	162.0	13.2	12.0	5.2	10.0	3.8	4.0	2.3	562.0	55.1
2007	197.3	23.2	149.3	11.6	46.7	19.2	16.0	8.0	8.0	4.7	405.3	35.3
2006	136.0	20.1	189.3	13.3	10.7	7.1	13.3	7.1	2.7	2.7	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	2.7	2.7	261.3	34.7

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[a] = Lake not sampled

Table 43. Largemouth bass PSD and RSD_{15} values from spring electrofishing at Clear Creek Lake; confidence limits are in parentheses.

Year	No. ≥ 8.0 in	PSD		RSD_{15}	
2014	56	18	(±10)	13	(±09)
2013[a]					
2012	98	10	(±06)	6	(±05)
2011[a]					
2010[a]					
2009	36	25	(±14)	8	(±09)
2008	92	12	(±07)	5	(±05)
2007	78	28	(±10)	8	(±06)
2006	80	11	(±07)	6	(±05)
2005	37	19	(±26)	5	(±15)

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[a] = Lake not sampled

Table 44. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Clear Creek Lake in October 2014, includes 95% confidence interval (CI) for mean length for each age class.

Year	No.	Age 1	2	3	4	5
2014	0					
2013	4	4.7				
2012	23	5.0	6.9			
2011	6	4.9	7.9	9.1		
2010	1	5.2	8.4	9.8	11.0	
2009	1	6.4	9.4	10.7	12.3	13.4
Mean		5.0	7.2	9.4	11.7	13.4
Number		35	31	8	2	1
Smallest		3.9	5.8	8.3	11.0	
Largest		6.4	9.4	10.7	12.3	
Std. Error		0.1	0.1	0.3	0.6	
95% CI (±)		0.4	0.6	1.2	2.5	

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Table 45. Age frequency and CPUE of largemouth bass from Clear Creek Lake in 2014.

Age	Inch class 3	4	5	6	7	8	9	10	11	12	13	14	Total	%	CPUE	Std. error
0	5	9	4										18	14	46.2	8.9
1				21	3								24	19	61.5	12.7
2				14	24	15	11	2					65	52	167.8	37.7
3						2	5	3	4				15	11	37.3	9.0
4									4				4	3	10.3	3.4
5												1	1	1	2.6	2.6
Total	5	9	4	35	27	17	16	5	8	0	0	1	127	100		
%	4	7	3	28	21	13	13	4	6	0	0	1	100			

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Table 46. Population assessment of largemouth bass based on samples collected at Clear Creek Lake in 2014, 2012 and 2009 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥ 15.0 in	Spring CPUE ≥ 20.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value	9.9	61.5	7.7	18.0	10.3	12	Good	-0.914	59.90%
	Score	1	3	1	3	4				
2013[a]	Value									
	Score									
2012	Value		65.6	10.7	16.0	8.0	12	Good		
	Score	2	3	1	2	4				
2011[a]	Value									
	Score									
2010[a]	Value									
	Score									
2009	Value	10.6	56.0	8.0	4.0	5.3	12	Good	-0.643	47.50%
	Score	2	3	1	2	4				

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[a] = Lake was not sampled

Table 47. Length frequency and CPUE (fish/hr) for each species of sunfish collected at Clear Creek Lake while electrofishing for 0.5 hours (4 - 7.5-minute runs) on 22 May.

Species	Inch class						Total	CPUE	Std. error
	3	4	5	6	7	8			
Redear sunfish	31	37	25	53	41	16	203	406.0	46.1
Bluegill	101	44	9	15	16	2	187	374.0	64.9
Warmouth		8	19	18	5		50	100.0	15.1
Green sunfish			1				1	2.0	2.0

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Table 48. Spring electrofishing CPUE (fish/hr) for each length group of bluegill collected at Clear Creek Lake.

Year	Length group										Total		Total (excl. < 3.0 in)
	< 3.0 in		3.0 - 5.9 in		6.0 - 7.9 in		≥ 6.0 in		≥ 8.0 in				
	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE
2014			308.0	68.7	62.0	34.2	66.0	35.1	4.0	2.3	374.0	64.9	374.0
2013a													
2012			74.0	18.0	54.0	36.9	56.0	38.8	2.0	2.0	130.0	26.4	130.0
2011	494.0	161.8	150.0	36.1	54.0	22.2	54.0	22.2			698.0	151.2	204.0
2010	1132.0	565.8	210.0	42.1	38.0	30.2	38.0	30.2			1380.0	585.1	248.0
2009	121.6	44.6	174.4	43.0	33.6	13.5	33.6	13.5			329.6	54.2	208.0
2008	378.0	162.8	112.0	33.2	72.0	69.4	72.0	69.4			562.0	138.2	184.0
2007			122.0	16.5	102.0	33.8	102.0	33.8			224.0	50.3	224.0
2006	308.8	113.1	161.6	40.9	88.0	31.4	91.2	32.1	3.2	2.0	561.6	139.7	252.8

nedsuncc.d06-d14

a = Lake was not sampled

Table 49. PSD and RSD_8 values obtained for bluegill taken in spring electrofishing samples in each area of Clear Creek Lake; 95% confidence intervals are in parentheses.

Year	No. ≥ 3.0 in	PSD		RSD_8	
2014	187	18	(±06)	1	(±01)
2013a					
2012	65	43	(±12)	2	(±02)
2011	102	26	(±09)		
2010	124	15	(±06)		
2009	130	16	(±06)		
2008	92	39	(±10)		

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a = Lake not sampled

Table 50. Mean back calculated lengths (in) at each annulus for bluegill collected from Clear Creek Lake in October 2014, includes 95% confidence interval (CI) for mean length for each age class.

Year	No.	Age				
		1	2	3	4	5
2014	0					
2013	16	2.8				
2012	4	2.4	4.4			
2011	11	2.8	4.3	6.0		
2010	1	2.1	4.0	6.0	6.9	
2009	1	1.9	3.2	4.5	5.9	6.8
Mean		2.7	4.2	5.9	6.4	6.8
Number	31	33	17	13	2	1
Smallest		1.8	3.2	4.5	5.9	
Largest		4.1	5.6	7.7	6.9	
Std. Error		0.1	0.2	0.2	0.5	
95% CI (±)		0.4	0.6	0.9	2.1	

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Table 51. Age frequency and CPUE of bluegill from Clear Creek Lake in 2014.

Age	Inch Class					Total	%	CPUE	Std. error
	3	4	5	6	7				
0	34					34	18	67.3	20.5
1	67	44	9	2		122	66	245.0	48.1
2				9		9	5	17.1	11.1
3				4	13	17	9	34.8	18.0
4					1	1	1	2.9	1.4
5					1	1	1	2.9	1.4
Total	101	44	9	15	16	185	100		
%	55	24	5	8	9	100			

nedsuncc.d14; nedaagcc.d14

Table 52. Population assessment of bluegill based on samples collected at Clear Creek Lake from 2006-2014 (scoring based on statewide assessment).

Year		Mean length age-2 at capture	Years to 6.0 in	CPUE ≥ 6.0 in	CPUE ≥ 8.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value	6.4	3-3+	66.0	4.0	12	Good	-1.377	74.80%
	Score	4	3	3	2				
2013[a]	Value								
	Score								
2012	Value			56.0	2.0				
	Score			3	1				
2011	Value			54.0	0.0				
	Score			3	0				
2010	Value			38.0	0.0				
	Score			2	0				
2009	Value	3.4	4-4+	33.6	0.0	5	Poor	-0.786	54.40%
	Score	1	2	2	0				
2008	Value			72.0	0.0				
	Score			3	0				
2007	Value			102.0	0.0				
	Score			4	0				
2006	Value	5.1	3-3+	35.6	1.3	10	Good	-1.930	86.00%
	Score	4	3	2	1				

nedsuncc.d09-14; nedaagcc.d09, nedaagcc.d14

[a] = Lake not sampled

Table 53. Spring electrofishing CPUE (fish/hr) for each length group of redear sunfish collected at Clear Creek Lake.

Year	Length group												Total		Total (excl. < 3.0 in)
	< 3.0 in		3.0 - 5.9 in		6.0 - 7.9 in		≥ 6.0 in		≥ 8.0 in		≥ 10.0 in				
	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE
2014			186.0	13.2	188.0	30.0	220.0	33.1	32.0	33.1	0.0		406.0	46.1	406.0
2013[a]															
2012			22.0	6.8	122.0	38.6	124.0	38.9	2.0	2.0	0.0		146.0	36.6	146.0
2011	16.0	9.8	76.0	19.7	330.0	78.5	368.0	103.5	38.0	32.7	0.0		460.0	124.3	444.0
2010	12.0	5.2	260.0	62.4	358.0	86.9	364.0	90.4	6.0	3.8	0.0		636.0	146.4	624.0
2009	4.8	2.0	238.4	37.8	129.6	68.4	131.2	70.0	1.6	1.6	0.0		374.4	98.8	369.6
2008	58.0	29.6	170.0	26.8	22.0	9.5	26.0	10.5	4.0	2.3	0.0		254.0	43.7	196.0
2007			112.0	15.0	104.0	35.3	148.0	41.9	44.0	6.9	2.0	2.0	260.0	52.5	260.0
2006	60.8	18.7	60.8	18.0	24.0	10.4	28.8	10.9	4.8	2.0	0.0		150.4	23.4	89.6

nedsuncc.d06-d14

[a] = Lake was not sampled

Table 54. PSD and RSD_{10} values obtained for redear sunfish taken in spring electrofishing samples in each area of Clear Creek Lake; 95% confidence intervals are in parentheses.

Year	No. ≥ 4.0 in	PSD		RSD_{10}	
2014	172	33	(±07)		
2013[a]					
2012	69	45	(±12)		
2011	215	46	(±07)	1	(±01)
2010	292	15	(±04)		
2009	202	7	(±07)		
2008	59	7	(±06)	2	(±03)

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[a] = Lake not sampled

Table 55. Mean back calculated lengths (in) at each annulus for redear sunfish collected from Clear Creek Lake in October 2014, includes 95% confidence interval (CI) for mean length for each age class.

Year	No.	Age		
		1	2	3
2014	0			
2013	22	3.2		
2012	10	3.0	4.8	
2011	5	3.1	4.7	6.2
Mean		3.1	4.8	6.2
Number		37	15	5
Smallest		2.0	3.5	5.0
Largest		4.3	6.0	7.0
Std. Error		0.1	0.2	0.4
95% CI (±)		0.4	0.6	1.4

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Table 56. Age frequency and CPUE of redear sunfish from Clear Creek Lake in 2014.

Age	Inch class					Total	%	CPUE	Std. error
	3	4	5	6	7				
0	27					27	14	53.1	6.5
1	4	37	25	5		71	38	142.5	17.7
2				43	8	52	28	103.1	15.1
3				5	33	38	20	75.2	18.9
Total	31	37	25	53	41	187	100		
%	17	20	13	28	22	100			

nedsuncc.d14; nedaagcc.d14

Table 57. Population assessment of redear sunfish based on samples collected at Clear Creek Lake in 2014 - 2009 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Years to 8.0 in	Spring CPUE ≥ 8.0 in	Spring CPUE ≥ 10.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value	7.3	5-5+	32.0	0.0	7	Fair	-0.313	26.80%
	Score	4	2	1	0				
2013[a]	Value								
	Score								
2012	Value			2.0	0.0				
	Score			1	0				
2011	Value			38.0	0.0				
	Score			4	0				
2010	Value			6.0	0.0				
	Score			2	0				
2009	Value	6.1	5-5+	1.6	0.0	6	Poor	-1.495	77.60%
	Score	3	2	1	0				

nedsuncc.d09-14; nedaagcc.d09, nedaagcc.d14

[a] = Lake not sampled

Table 58. Length frequency and CPUE (fish/hr) of black bass collected in 0.5 hours (4 - 7.5-minute runs) of diurnal electrofishing largemouth bass in Clear Creek Lake on 02 October.

Species	Inch class																Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
Largemouth bass	6	11	2	4	18	24	5	3	2			1			1	1	78	156.0	20.8

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Table 59. Number of fish and relative weight (W_r) for each length group of largemouth bass collected at Clear Creek Lake in 2014; s.e. = standard error.

	Length groups											
	8.0 - 11.9 in			12.0 - 14.9 in			≥ 15.0 in			Total		
Species	No.	W_r	s.e.	No.	W_r	s.e.	No.	W_r	s.e.	No.	W_r	s.e.
Largemouth bass	34	83	1	1	82	-	2	89	5	37	83	1

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Table 60. Length frequency and CPUE (fish/hr) of black bass collected in 1.5 hours of nocturnal electrofishing (6- 15-minute runs) at Greenbo Lake (Greenup Co.) on 24 April.

Species	Inch class																						Total	CPUE	Std. error
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Largemouth bass	1	8	7	11	9	6	16	19	16	28	86	72	16	3	1			2	1	2	1	1	306	204.0	16.0

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Table 61. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Greenbo Lake.

	Length group											
	< 8.0 in		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in		≥ 20.0 in		Total	
Year	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.
2014	28.0	7.2	52.7	3.0	116.0	16.1	7.3	1.6	3.3	1.2	204.0	16.0
2013	14.0	1.7	78.7	7.4	75.3	17.3	8.7	2.2	1.3	0.8	176.7	22.4
2012	25.3	4.8	111.3	11.8	64.7	8.0	8.7	2.8	2.0	0.9	210.0	21.1
2011	46.0	13.1	91.3	9.3	58.0	8.9	6.7	3.2	1.3	0.8	202.0	14.8
2010	78.0	12.9	87.3	3.5	45.3	9.3	13.3	5.8	2.0	1.4	224.0	11.3
2009	44.7	9.4	60.0	8.7	50.0	8.0	18.0	3.4	2.7	1.3	172.7	16.7
2008	24.0	7.2	27.3	5.8	19.3	2.8	9.3	3.0	2.7	1.3	80.0	15.2
2007	0.0	0.0	39.3	11.8	48.7	13.3	8.7	2.4	1.3	1.3	164.7	21.5
2006	28.0	5.3	66.0	12.2	50.0	7.8	18.7	4.7	7.3	2.4	162.7	19.8
2005	42.0	20.3	58.7	9.6	28.0	3.4	13.3	3.5	3.3	1.2	142.0	22.5
2004	14.0	2.9	116.8	9.9	58.8	7.5	16.8	3.0	4.0	1.0	206.4	14.1
2003	101.3	20.6	76.0	18.7	45.3	4.3	10.7	3.4	2.0	0.9	233.3	41.4
2002[a]												
2001	79.0	8.1	64.0	3.3	42.0	8.1	5.0	1.0	1.0	1.0	190.0	4.8
2000	41.0	9.0	90.0	15.7	26.0	2.6	4.0	1.6			161.0	24.8
1999	88.0	14.3	84.0	5.7	26.0	8.1	6.0	3.8	3.0	3.0	204.0	17.4
1998	77.0	26.7	119.0	16.7	57.0	8.1	7.0	2.5	1.0	1.0	260.0	27.2

nedpsdgb.d14 - d98

[a] = Lake not sampled

Table 62. Largemouth bass PSD and RSD_{15} values from spring electrofishing at Greenbo Lake; confidence limits are in parentheses.

Year	No. ≥ 8.0 in	PSD		RSD_{15}	
2014	264	70	(±06)	4	(±02)
2013	244	52	(±06)	5	(±03)
2012	277	40	(±06)	5	(±03)
2011	234	51	(±06)	4	(±03)
2010	219	40	(±07)	9	(±04)
2009	192	53	(±07)	14	(±05)
2008	84	51	(±11)	17	(±08)
2007	188	46	(±07)	7	(±04)
2006	202	51	(±07)	14	(±05)
2005	150	41	(±08)	13	(±05)

nedpsdgb.d14 - d05

Table 63. Population assessment of largemouth bass based on samples collected at Greenbo Lake from 2004 - present (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥ 15.0 in	Spring CPUE ≥ 20.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value		21.3	116.0	7.3	3.3	15	Good		
	Score	3	2	4	2	4				
2013	Value		3.8	75.3	8.7	1.3	12	Good		
	Score	3	1	4	2	2				
2012	Value	11.2	2.0	64.7	8.7	2.0	13	Good	-0.812	56.60%
	Score	3	1	4	2	3				
2011	Value		9.5	58.0	6.7	1.3	11	Fair		
	Score	2	1	4	2	2				
2010	Value	10.7	5.3	45.3	13.3	2.0	11	Fair	-0.597	45.00%
	Score	2	1	3	2	3				
2009	Value	10.7	3.2	50.0	18.0	2.7	13	Good	-0.415	34.00%
	Score	2	1	4	3	3				
2008	Value	10.7	1.0	19.3	9.3	2.7	9	Fair	-0.642	47.40%
	Score	2	1	1	2	3				
2007	Value	10.7	16.0	48.7	8.7	1.3	11	Fair	-0.687	49.70%
	Score	2	2	3	2	2				
2006	Value	11.7	35.6	50.0	18.7	7.3	17	Excellent	-0.521	40.70%
	Score	4	2	4	3	4				
2005	Value	11.7	46.7	28.0	13.3	3.3	14	Good	-0.493	39.00%
	Score	4	3	2	2	3				
2004	Value	11.7	33.6	58.8	16.8	4.0	16	Good	-0.557	42.70%
	Score	4	2	4	2	4				

nedpsdgb.d14

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 (diurnal sampling in 2012) at Greenbo Lake.

Year class	Age 0		Age 0		Age 0 ≥ 5.0 in		Age 1	
	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2014	4.2	0.15	51.3	10.8	15.3	4.1		
2013	3.3	0.06	99.3	9.8	3.3	1.6	21.3	6.3
2012	3.5	0.04	219.3	35.0	13.3	5.9	3.8	1.4
2011	3.5	0.15	44.0	11.9	6.0	1.7	2.0	0.9
2010	3.9	0.14	40.7	9.2	8.7	2.6	9.5	2.8
2009	5.1	0.16	48.0	6.0	26.0	4.8	5.3	0.4
2008	3.5	0.06	82.0	7.6	2.0	1.4	3.2	1.3
2007	3.9	0.09	44.7	11.3	3.3	1.2	1.0	0.9
2006	3.6	0.10	45.3	9.2	2.7	1.7	2.1	1.0
2005	3.8	0.12	32.0	7.0	4.0	1.0	35.6	5.5
2004	3.6	0.17	20.0	6.0	2.7	1.3	46.7	21.2
2003	4.4	0.12	45.0	7.7	14.0	3.5	33.6	2.1

nedbsigb.d14-d13; nedwrsgb.d12 - d03; nedpsdgb.d14 - 04; nedaaggb.d03, 07, 12

Table 65. Length frequency and CPUE (fish/hr) for largemouth bass collected in 1.0 hour of nocturnal electrofishing (4- 15-minute runs) at Mill Creek Lake (Powell/Wolfe Co.) on 07 May.

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	5	10	4	2	6	15	43	59	38	27	3	2	3	4	1	4	1	2	2	1	232	232.0	11.9

nedpsdmc.d14

Table 66. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Mill Creek Lake.

	Length group											
	< 8.0 in		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in		≥ 20.0 in		Total	
Year	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.
2014	27.0	3.8	155.0	14.3	32.0	7.8	18.0	2.6	5.0	1.9	232.0	11.9
2013[a]												
2012	27.0	11.5	97.0	12.4	20.0	5.4	14.0	2.6	7.0	3.0	158.0	27.8
2011[a]												
2010	43.0	8.1	65.0	6.6	41.0	10.3	12.0	3.7	1.0	1.0	161.0	10.0
2009	9.0	3.8	52.0	5.4	44.0	3.3	12.0	4.6	4.0	1.6	117.0	3.4
2008	10.0	3.5	89.0	10.8	38.0	3.5	12.0	3.7	3.0	1.9	149.0	11.0
2007	31.0	5.3	84.0	15.9	31.0	9.0	7.0	2.5			153.0	22.3
2006	45.0	18.5	108.0	11.0	22.0	2.0	7.0	4.4			182.0	28.7
2005[a]												
2004	50.4	16.1	68.0	4.6	17.6	2.0	5.6	1.6	1.6	1.6	283.0	35.9
2003[a]												
2002[a]												
2001	36.0	8.5	59.0	10.6	13.0	3.0	7.0	2.5	1.0	1.0	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
1999	29.0	6.8	4.0	11.4	70.0	3.4	2.0	1.2			78.0	20.9
1998[a]												
1997	27.0	6.6	44.0	6.7	22.0	3.5	6.0	2.6	3.0	1.9	99.0	13.9
1996[a]												
1995[a]												
1994	91.0	21.0	178.0	4.0	8.0	4.0	5.0	1.0	2.0	0.0	282.0	12.0
1993[a]												
1992	90.0	0.0	44.0	6.0	12.0	2.0	4.0	0.0			150.0	4.0
1991	86.1	6.1	31.5	2.5	19.2	0.8	2.3	0.3			176.0	40.0
1990[a]												

nedpsdmc.d12 - d04; nedlmbmc.d03 - d90

[a] = Lake not sampled

Table 67. Largemouth bass PSD and RSD_{15} values from spring electrofishing at Mill Creek Lake; confidence limits are in parentheses.

Year	No. ≥ 8.0 in	PSD		RSD_{15}	
2014	205	24	(±06)	9	(±04)
2013_a					
2012	131	26	(±08)	11	(±05)
2011_a					
2010	118	45	(±09)	10	(±05)
2009	108	52	(±09)	11	(±06)
2008	139	36	(±08)	9	(±05)
2007	122	31	(±08)	6	(±04)
2006	137	21	(±07)	5	(±04)
2005_a					
2004	114	25	(±08)	6	(±04)
2003_a					
2002_a					
2001	79	25	(±10)	9	(±06)
2000	86	19	(±08)	5	(±04)
1999	49	18	(±11)	4	(±06)
1998_a					
1997	72	39	(±11)	8	(±06)
1996_a					
1995_a					
1994	191	7	(±04)	3	(±02)
1993_a					
1992	60	27	(±11)	7	(±06)
1991	47	40	(±14)	4	(±06)
1990_a					

nedpsdmc.d12 - d04; nedlmbmc.d03 - d90

$_a$ = Lake not sampled

Table 68. Population assessment of largemouth bass based on samples collected at Mill Creek Lake from 2000 - present (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥ 15.0 in	Spring CPUE ≥ 20.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value		22.0	32.0	18.0	5.0	13	Good		
	Score	2	2	2	3	4				
2013[a]	Value									
	Score									
2012	Value		25.0	20.0	14.0	7.0	12	Good		
	Score	2	2	2	2	4				
2011[a]	Value									
	Score									
2010	Value		1.0	41.0	12.0	1.0	10	Fair	--0.302	26.00%
	Score	2	1	3	2	2				
2009	Value		1.0	44.0	12.0	4.0	12	Good	--0.085	8.10%
	Score	2	1	3	2	4				
2008	Value	10.5	2.0	38.0	12.0	3.0	11	Fair	--0.312	26.80%
	Score	2	1	3	2	3				
2007	Value		14.1	31.0	7.0	0.0	7	Poor	--0.825	56.20%
	Score	2	1	2	2	0				
2006	Value		19.6	22.0	7.0	0.0	8	Fair	--0.425	34.90%
	Score	2	2	2	2	0				
2005[a]	Value									
	Score									
2004	Value		17.0	17.0	5.6	1.6	9	Fair	--0.315	27.10%
	Score	2	2	1	2	2				
2003[a]	Value									
	Score									
2002[a]	Value									
	Score									
2001	Value	10.7	30.1	13.0	7.0	1.0	9	Fair		
	Score	2	2	1	2	2				
2000	Value		27.8	12.0	4.0	0.0	7	Poor		
	Score	2	2	1	2	0				

nedpsdmc.d14

[a] = Lake was not sampled

Table 69. Length frequency and CPUE (fish/hr) of black bass collected in 1.0 hour (4 - 15-minute runs) of diurnal electrofishing largemouth bass in Lake Reba on 21 April.

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	11	23	9	7	6	12	25	53	54	40	24	31	25	22	6	8	7	6		1	370	370.00	22.72

nedpsdlr.d14

Table 70. Length frequency and CPUE (fish/hr) of stocked and wild largemouth bass collected in 1.0 hour of diurnal electrofishing at Lake Reba.

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	21	22			
Wild	11	8	6	7	6	12	25	52	54	39	24	30	25	22	6	8	7	6		1	349	349.0	26.6
Stocked		15	3					1		1		1									21	21.0	5.0

nedstklr.d14; nedwldlr.d14

Table 71. Spring electrofishing CPUE (fish/hr) for various length groups of largemouth bass collected at Lake Reba from 1995-present.

	Length group											
	< 8.0 in		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in		≥ 20.0 in		Total	
Year	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.
2014	56.0	11.0	144.0	12.4	95.0	10.8	75.0	18.1	7.0	5.7	370.0	22.7
2013	60.1	7.8	102.4	7.7	63.3	11.0	27.1	8.7	0.0		252.9	26.9
2012	103.3	16.5	90.7	9.0	68.0	8.2	16.7	4.2	1.3	0.8	278.7	13.5
2011	66.0	11.4	108.7	16.8	106.0	18.6	25.3	6.1	2.0	1.4	306.0	35.8
2010	67.7	8.1	118.3	19.4	57.7	8.0	6.8	1.7	0.7	0.7	246.0	26.8
2009	47.3	7.6	238.7	12.9	92.7	7.3	26.0	3.2	0.7	0.7	404.7	23.4
2008	77.3	18.4	208.0	28.4	34.0	6.3	12.7	2.6	0.0		332.0	47.1
2007	134.7	20.9	216.7	45.9	60.7	5.2	18.7	4.1	0.7	0.7	430.7	52.2
2006	189.3	18.9	70.7	13.5	26.0	4.9	6.0	2.3	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		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		314.0	67.0
2001	196.0	25.0	32.0	15.1	9.3	5.3	4.0	2.3	0.0		241.3	32.4
2000	104.1	17.3	35.1	6.6	4.6	0.6	8.0	3.3	0.0		151.7	11.3
1999	122.7	29.4	10.0	3.5	8.0	2.1	18.0	4.7	0.7	0.7	158.7	27.3
1998	76.0	23.7	10.0	2.6	23.0	5.5	21.0	3.4	2.0	1.2	130.0	28.5
1997[a]												
1996	104.0	32.2	7.0	3.4	15.0	5.7	14.0	2.6	0.0		140.0	28.8
1995	160.0	52.9	21.0	7.7	74.0	7.4	3.0	1.9	0.0		258.0	61.5

nedpsdlr.d95 - Present

[a] = Lake not sampled

Table 72. Largemouth bass PSD and RSD_{15} values from spring electrofishing at Lake Reba; confidence limits are in parentheses.

Year	No. ≥ 8.0 in	PSD		RSD_{15}	
2014	314	54	(±06)	24	(±05)
2013	243	47	(±06)	14	(±04)
2012	263	48	(±06)	10	(±04)
2011	360	55	(±05)	11	(±03)
2010	270	35	(±06)	4	(±02)
2009	536	33	(±04)	7	(±02)
2008	382	18	(±04)	5	(±02)
2007	444	27	(±04)	6	(±02)
2006	154	31	(±07)	6	(±04)
2005	174	51	(±07)	11	(±05)
2004	275	32	(±06)	4	(±02)
2003	279	32	(±05)	4	(±02)
2002	176	20	(±06)	3	(±02)
2001	33	30	(±16)	9	(±10)
2000	43	28	(±14)	19	(±12)
1999	98	72	(±12)	50	(±13)
1998	26	81	(±10)	39	(±13)
1997[a]					
1996	54	96	(±08)	62	(±19)
1995	54	79	(±08)	3	(±03)

nedpsdlr.d95 - Present

[a] = Lake not sampled

Table 73. Population assessment of largemouth bass based on samples collected at Lake Reba from 2000 - present (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥ 15.0 in	Spring CPUE ≥ 20.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value		50.0	95.0	75.0	7.0	18	Excellent		
	Score	3	3	4	4	4				
2013	Value		28.4	63.3	27.1	0.0	12	Good		
	Score	3	2	4	3	0				
2012	Value		76.0	68.0	16.7	1.3	15	Good		
	Score	3	4	4	2	2				
2011	Value		52.7	106.0	25.3	2.0	16	Good		
	Score	3	3	4	3	3				
2010	Value	11.4	47.1	57.7	6.8	0.7	13	Good	-1.019	63.90%
	Score	3	3	4	2	1				
2009	Value		65.3	92.7	26.0	0.7	14	Good	-0.162	15.00%
	Score	3	3	4	3	1				
2008	Value		113.0	34.0	12.7	0.0	11	Fair	-1.030	64.30%
	Score	3	4	2	2	0				
2007	Value		183.7	60.7	18.7	0.7	15	Good	-1.040	65.00%
	Score	3	4	4	3	1				
2006	Value	11.2	192.0	26.0	6.0	0.0	11	Fair	-0.790	55.00%
	Score	3	4	2	2	0				
2005	Value		41.2	45.3	13.3	0.7	10	Fair	-0.250	22.00%
	Score	2	2	3	2	1				
2004	Value		23.2	51.3	6.7	0.0	10	Fair	-0.290	25.00%
	Score	2	2	4	2	0				
2003	Value		52.1	52.0	8.0	0.7	12	Good	-0.500	39.00%
	Score	2	3	4	2	1				
2002	Value		105.8	31.0	5.0	0.0	10	Fair		
	Score	2	4	2	2	0				
2001	Value	10.1	186.9	9.3	4.0	0.0	9	Fair		
	Score	2	4	1	2	0				
2000	Value	8.8	99.7	4.6	8.0	0.0	8	Fair		
	Score	1	4	1	2	0				

nedpsdlr.d14

Table 74. Indices of year class strength at age 0 and age 1, and mean lengths (in) of largemouth bass collected in the fall while electrofishing at Lake Reba.

Year class	Age 0		Age 0		Age 0 ≥ 5.0 in.		Age 1	
	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2014	4.1	0.05	375.0	29.6	74.0	16.5		
2013	3.9	0.09	80.0	16.4	12.0	4.4	50.0	8.9
2012	4.5	0.10	129.1	16.8	37.2	6.0	54.6	9.4
2011	4.4	0.00	334.9	44.8	84.4	19.5	76.0	14.9
2010	3.9	0.10	58.7	18.9	10.7	4.8	57.3	10.5
2009	4.0	0.09	58.7	15.6	11.3	8.1	47.1	7.0
2008	4.2	0.09	58.7	15.6	11.3	8.1	65.3	7.1
2007	4.3	0.06	44.0	11.2	5.3	2.2	113.0	27.2
2006	4.3	0.04	175.3	35.9	30.0	8.7	183.7	22.1
2005	5.2	0.06	225.0	48.6	133.0	30.2	192.0	19.5
2004	4.2	0.08	76.7	9.6	15.3	1.9	61.0	10.4
2003	3.7	0.15	23.3	4.8	0.7	0.7	47.3	14.0

nedbsilr.d14 - d12, nedwrslr.d11 - d03, nedpsdlr.d12-d02

Table 75. Length frequency and CPUE (fish/hr) for largemouth bass collected in 0.75 hours of nocturnal electrofishing (3- 15-minute runs) at Smoky Valley Lake (Carter Co.) on 05 May.

Species	Inch class																Total	CPUE	Std. error
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
Largemouth bass	6	12	19	13	2	20	28	51	38	16	2					1	208	273.9	42.6

nedpsdsv.d14

Table 76. Spring electrofishing CPUE (fish/hr) for various length groups of largemouth bass collected at Smoky Valley Lake from 1990-Present.

	Length group											
	< 8.0 in		8.0 - 11.9 in		12.0 - 14.9 in		≥ 15.0 in		≥ 20.0 in		Total	
Year	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.
2014	71.1	16.6	177.4	28.8	24.4	5.5	1.0	1.0			273.9	42.6
2013	100.9	8.5	109.8	11.5	8.9	1.9	2.0	1.2			221.6	6.5
2012	112.1	21.8	98.9	22.3	12.8	2.0	1.0	1.0			224.7	41.4
2011	150.0	34.0	69.0	8.7	10.0	6.2					229.5	31.8
2010	47.7	9.3	65.9	7.8	3.3	1.1	1.0	1.0			117.9	15.3
2009	97.0	6.6	145.0	23.7	14.0	2.6	1.0	1.0			383.0	153.4
2008	155.0	23.3	199.0	34.4	46.0	7.8					607.0	260.2
2007	119.0	21.8	229.0	32.5	37.0	6.4	2.0	1.2			573.0	223.4
2006	112.0	12.8	256.0	33.8	62.0	8.7	4.0	1.6			633.5	234.4
2005	54.4	10.2	190.4	22.7	63.2	9.1	0.8	0.8			397.6	90.9
2004_a												
2003_a												
2002_a												
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
1999												
1998	135.0	32.2	132.0	25.5	75.0	15.1	3.0	1.0			546.0	264.9
1997	46.0	8.9	63.0	6.0	39.0	4.1	3.0	1.9			151.0	3.8
1996	30.0	5.8	77.0	11.5	50.0	7.8	3.0	1.9			160.0	14.3
1995	41.0	14.4	104.0	21.9	84.0	17.7	2.0	2.0			231.0	43.7
1994	72.0	5.9	104.0	14.5	94.0	10.5	7.0	1.9	1.0	1.0	277.0	13.2
1993	34.7	18.3	58.7	28.6	24.7	13.9	4.0	4.0			122.0	63.1
1992	43.4	8.9	96.1	10.9	94.0	6.8.	7.3	3.5	1.8	1.0	261.0	36.8
1991	18.0	2.6	129.0	17.1	18.0	2.0	6.0	1.2	1.0	1.0	171.0	16.9
1990	58.7	9.7	109.2	21.8	34.1	1.2	18.6	5.8	2.4	1.2	352.0	158.0

nedpsdsv.d14, d09-05, d96, nedsprsv.d10, nedlmbsv.d01-00, d98-97, d95-d90

$_a$ = Lake not sampled

Table 77. Largemouth bass PSD and RSD_{15} values from spring electrofishing at Smoky Valley Lake; confidence limits are in parentheses.

Year	No. ≥ 8.0 in	PSD		RSD_{15}	
2014	156	12	(±05)	1	(±01)
2013	105	10	(±06)	2	(±03)
2012	101	13	(±07)	1	(±02)
2011	70	14	(±08)		
2010	67	6	(±06)	1	(±03)
2009	160	9	(±05)	1	(±01)
2008	245	19	(±05)		(±00)
2007	268	15	(±04)	1	(±01)
2006	322	20	(±04)	1	(±01)
2005	318	25	(±05)	0	(±01)
2004_a					
2003_a					
2002_a					
2001	172	22	(±06)	1	(±02)
2000	288	24	(±05)	0	(±01)
1999					
1998	210	37	(±07)	1	(±02)
1997	105	40	(±09)	3	(±03)
1996	130	41	(±08)	2	(±03)
1995	190	45	(±07)	1	(±01)
1994	205	49	(±07)	3	(±02)
1993	131	33	(±08)	5	(±04)
1992	213	51	(±07)	4	(±03)
1991	153	16	(±06)	4	(±03)
1990	194	30	(±06)	11	(±04)

nedpsdsv.d14, d09-05, d96, nedsprsv.d10, nedlmbsv.d01-00, d98-97, d95-d90

$_a$ = Lake not sampled

Table 78. Population assessment of largemouth bass based on samples collected at Smoky Valley lake from 2000-present (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥ 15.0 in	Spring CPUE ≥ 20.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value		70.1	24.4	1.0	0.0	10	Fair		
	Score	4	3	2	1	0				
2013	Value		80.0	8.9	2.0	0.0	10	Fair		
	Score	4	4	1	1	0				
2012	Value	11.50	68.0	12.8	1.0	0.0	9	Fair	-0.936	60.80%
	Score	4	3	1	1	0				
2011	Value		150.5	10.0	0.0	0.0	6	Poor		
	Score	1	4	1	0	0				
2010	Value	9.6	34.9	3.3	1.0	0.0	5	Poor	-0.787	54.50%
	Score	1	2	1	1	0				
2009	Value		9.0	14.0	1.0	0.0	4	Poor	-0.223	20.00%
	Score	1	1	1	1	0				
2008	Value		56.0	46.0	0.0	0.0	7	Poor	-0.550	22.50%
	Score	1	3	3	0	0				
2007	Value	9.6	7.0	37.0	2.0	0.0	6	Poor	-0.513	40.10%
	Score	1	1	3	1	0				
2006	Value		70.1	62.0	4.0	0.0	12	Good	-0.579	43.90%
	Score	3	3	4	2	0				
2005	Value		19.1	36.2	8.0	0.0	10	Fair	-0.353	29.80%
	Score	3	2	3	2	0				
2004[a]	Value									
	Score									
2003[a]	Value									
	Score									
2002[a]	Value									
	Score									
2001	Value	11.0	23.1	46.7	2.7	0.0	9	Fair		
	Score	3	2	3	1	0				
2000	Value		44.0	69.0	1.0	0.0	10	Fair		
	Score	3	2	4	1	0				

nedpsdsv.d14

[a] = Lake was not sampled

Table 79. Length frequency and CPUE (fish/hr) for sunfish collected in 0.75 hours of nocturnal electrofishing (3- 15-minute runs) at Smoky Valley Lake (Carter Co.) on 24 May.

Species	Inch class					Total	CPUE	Std. error
	3	4	5	6	7			
Bluegill	73	35	15	25	5	153	204.0	44.2
Green sunfish	8	10	13	3	1	35	46.7	19.6
Longear sunfish	3	4				7	9.3	3.5

nedsunsv.d14

Table 80. Spring electrofishing CPUE (fish/hr) for various length groups of bluegill collected at Smoky Valley Lake from 1990-present.

Year	Length group < 3.0 in		3.0 - 5.9 in		6.0 - 7.9 in		≥ 6.0 in		≥ 8.0 in		Total		Total (excl. < 3.0 in)
	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE
2014			164.0	41.6	40.0	18.0	40.0	18.0	0.0		204.0	44.2	204.0
2013[a]													
2012			210.6	53.0	25.6	5.4	26.6	5.8	1.0	1.0	237.1	47.4	237.1
2011	742.0	78.1	105.0	23.7	12.0	5.9	13.0	6.6	1.0	1.0	860.0	60.0	118.0
2010	216.9	69.4	167.0	36.8	28.6	6.0	29.6	5.6	1.0	1.0	384.0	97.4	167.1
2009	203.0	34.5	214.0	44.3	24.0	10.7	25.0	11.7	1.0	1.0	442.0	64.4	239.0
2008			53.0	14.4	31.0	13.7	31.0	13.7			84.0	22.7	84.0
2007			89.1	17.1	10.3	5.2	11.4	5.2	1.1	1.1	67.4	13.3	67.4
2006	464.0	116.5	88.0	15.2	16.0	4.3	16.0	4.3			568.0	125.8	104.0
2005	164.0	41.5	169.0	30.3	38.0	8.9	42.0	8.9	4.0	3.0	307.0	70.1	143.0
2004	24.8	6.8	139.3	22.0	25.6	4.8	26.5	4.8	0.9	0.9	190.6	27.3	165.8
2003	200.0	61.1	102.0	30.3	107.0	34.0	111.0	34.0	4.0	2.1	345.0	106.9	145.0
2002[a]													
2001			152.0	12.9	48.0	12.7	53.3	12.7	5.3	3.5	205.3	11.6	205.3
2000			128.0	44.6	66.0	20.3	67.0	20.3	1.0	1.0	195.0	61.0	195.0
1999[a]													
1998			116.0	4.0	90.0	2.0	90.0	2.0			206.0	6.0	206.0
1997			98.0	46.0	86.0	42.0	90.0	42.0	4.0	4.0	188.0	88.0	188.0
1996[a]													
1995			78.0	2.0	58.0	4.0	60.0	4.0	2.0	2.0	138.0	2.0	138.0
1994			190.0	10.0	52.0	12.0	56.0	12.0	4.0	4.0	246.0	22.0	246.0
1993	97.0	37.0	68.0	16.0	19.0	8.0	20.0	8.0	1.0	1.0	370.0	90.0	273.0
1992	144.0	96.8	105.3	13.5	46.7	17.0	54.7	17.0	8.0	2.3	304.0	76.1	160.0
1991	6.0	2.0	98.0	2.0	46.0	34.0	50.0	34.0	4.0	4.0	154.0	34.0	148.0
1990	76.0	20.0	642.0	154.0	182.0	32.0	184.0	32.0	2.0	2.0	902.0	206.0	826.0

nedsunsv.d14; nedsunsv.d12-d03; nedpsdsv.d01-d00; nedsunsv.d98-d97; d95-d90

[a] = Lake was not sampled

Table 81. Bluegill PSD and RSD_8 values from spring electrofishing at Smoky Valley Lake; confidence limits are in parentheses.

Year	No. ≥ 3.0 in	PSD		RSD_8	
2014	153	20	(±06)	-	-
2013[a]					
2012	231	11	(±04)	0	(±01)
2011	118	11	(±06)	1	(±02)
2010	185	15	(±05)	1	(±01)
2009	239	10	(±04)	0	(±01)
2008	84	37	(±10)		
2007	88	11	(±07)	1	(±02)
2006	104	15	(±07)		
2005	211	20	(±05)	2	(±02)
2004	194	16	(±05)	1	(±01)
2003	213	52	(±07)	2	(±02)
2002[a]					
2001	154	26	(±07)	3	(±03)
2000	195	34	(±07)	1	(±01)
1999[a]					
1998	103	44	(±10)		
1997	94	48	(±10)	2	(±03)
1996[a]					
1995	69	43	(±12)	1	(±03)
1994	123	23	(±07)	2	(±02)
1993	88	23	(±09)	1	(±02)
1992	120	34	(±09)	5	(±04)
1991	74	34	(±11)	3	(±04)
1990	413	22	(±04)	0	(±00)

nedsunsv.d14; nedsunsv.d12-d03; nedpsdsv.d01-d00; nedsunsv.d98-d97; d95-d90

[a] = Lake was not sampled

- = No fish over 8.0" captured to determine RSD_8

Table 82. Population assessment of bluegill based on samples collected at Smoky Valley lake from 2000-present (scoring based on statewide assessment).

Year		Mean length age-2 at capture	Years to 6.0 in	CPUE ≥ 6.0 in	CPUE ≥ 8.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value			4.0	0.0				
	Score			2	0				
2013	Value								
	Score								
2012	Value	4.10	3-3+	26.6	1.0	8	Fair	-1.277	72.10%
	Score	2	3	2	1				
2011	Value			13.0	1.0				
	Score			1	1				
2010	Value			29.6	1.0				
	Score			2	1				
2009	Value			25.0	1.0				
	Score			2	1				
2008	Value	3.9	4-4+	31.0	0.0	6	Poor	-0.722	51.50%
	Score	2	2	2	0				
2007	Value			11.4	1.1				
	Score			1	1				
2006	Value			16.0	0.0				
	Score			1	0				
2005	Value			42.0	4.0				
	Score			2	1				
2004	Value			26.5	0.9				
	Score			2	1				
2003	Value	3.2	4-4+	111.0	4.0	8	Fair	-0.523	40.70%
	Score	1	2	4	1				
2002	Value								
	Score								
2001	Value	4.7	4-4+	53.3	5.3	10	Fair		
	Score	3	2	3	2				
2000	Value			67.0	1.0				
	Score			3	1				

nedsunsv.d14; nedsunsv.d12-d03; nedpsdsv.d01-d00

Table 83. Length frequency and CPUE (fish/hr) for largemouth bass collected in1.5 hours of nocturnal electrofishing (6- 15-minute runs) at Lake Wilgreen (Madison Co.) on 06 May.

Species	Inch class																				Total	CPUE	Std. error
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Largemouth bass	2	7	3	2	2	12	19	35	21	32	18	30	26	41	46	34	24	18	11	2	385	256.7	21.0

nedpsdlw.d14

Table 84. Spring electrofishing CPUE (fish/hr) for various length groups of largemouth bass collected at Lake Wilgreen from 1990-present.

	Length group											
	< 8.0 in		8.0 - 11.9 in		12.0 - 14.9 in		$\geq$ 15.0 in		$\geq$ 20.0 in		Total	
Year	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.
2014	18.7	2.5	71.3	7.1	49.3	9.7	117.3	12.0	8.7	1.9	256.7	21.0
2013[a]												
2012	58.0	13.1	118.0	11.0	46.7	10.2	78.7	8.2	10.7	2.2	301.3	25.1
2011	84.0	18.0	66.0	12.9	25.3	4.1	42.0	4.7	3.3	2.2	217.3	31.2
2010	42.7	5.7	79.3	14.4	53.3	6.5	51.3	4.1	1.3	0.8	226.7	21.7
2009	19.3	5.6	76.0	14.2	52.0	12.0	50.0	9.5	1.3	0.8	197.3	26.5
2008	8.7	1.9	24.7	5.9	18.7	3.8	10.7	3.7	0.7	0.7	62.7	9.0
2007	238.7	25.9	194.7	16.1	115.3	15.0	18.7	2.2	2.7	1.3	567.3	30.6
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	12.0	12.8	108.7	23.0	6.0	2.7			371.3	45.3
2004[a]												
2003	89.2	11.1	376.8	41.0	48.0	6.3	12.8	2.5	0.4	0.4	526.8	50.2
2002[a]												
2001[a]												
2000	361.0	51.0	274.0	10.6	58.0	12.3	6.0	1.2			699.0	57.0
1999	152.0	6.3	235.0	29.6	43.0	11.8	8.0	2.3	2.0	1.2	438.0	42.9
1998[a]												
1997[a]												
1996	149.0	47.8	247.0	24.8	90.0	19.8	15.0	6.2	5.0	1.0	601.0	73.0
1995	77.0	22.7	382.0	45.3	42.0	9.3	10.0	2.6	1.0	1.0	511.0	71.6
1994	298.0	79.5	427.0	50.1	46.0	7.4	24.0	4.9	2.0	1.2	795.0	122.0
1993[a]												
1992	244.0	42.4	100.0	22.3	70.7	14.1	12.0	4.0	1.3	1.3	426.7	64.1
1991	72.0	6.1	206.7	16.7	58.7	5.8	5.3	1.3	1.3	1.3	342.7	18.7
1990[a]												

nedpsdlw.d14; d12-d05, d03, nedlmblw.d00-d99, d96-d94, d92-d91

[a] = Lake was not sampled

Table 85. Largemouth bass PSD and RSD_{15} values from spring electrofishing at Lake Wilgreen; confidence limits are in parentheses.

Year	No. ≥ 8.0 in	PSD		RSD_{15}	
2014	357	70	(±05)	49	(±05)
2013[a]					
2012	365	52	(±05)	32	(±05)
2011	200	51	(±07)	32	(±06)
2010	276	57	(±06)	28	(±05)
2009	267	57	(±06)	28	(±05)
2008	81	54	(±11)	20	(±09)
2007	493	41	(±04)	6	(±02)
2006	548	47	(±04)	6	(±02)
2005	427	40	(±05)	2	(±01)
2004[a]					
2003	1094	14	(±02)	3	(±01)
2002[a]					
2001[a]					
2000	338	19	(±04)	2	(±01)
1999	286	18	(±04)	3	(±02)
1998[a]					
1997[a]					
1996	352	30	(±05)	4	(±02)
1995	434	12	(±03)	2	(±01)
1994	497	14	(±03)	5	(±02)
1993[a]					
1992	137	45	(±08)	7	(±04)
1991	203	24	(±06)	2	(±02)
1990[a]					

nedpsdlw.d14; d12-d05, d03, nedlmblw.d00-d99, d96-d94, d92-d91

[a] = Lake was not sampled

Table 86. Population assessment of largemouth bass based on samples collected at Lake Wilgreen from 2000-present (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age-1	Spring CPUE 12.0-14.9 in	Spring CPUE ≥ 15.0 in	Spring CPUE ≥ 20.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value		9.3	49.3	117.3	8.7	16	Good		
	Score	4	1	3	4	4				
2013[a]	Value									
	Score									
2012	Value		30.7	46.7	78.7	10.7	17	Excellent		
	Score	4	2	3	4	4				
2011	Value		55.3	25.3	42.0	3.3	16	Good		
	Score	4	3	2	4	3				
2010	Value		6.0	53.3	51.3	1.3	15	Good	-0.331	28.10%
	Score	4	1	4	4	2				
2009	Value		6.0	52.0	50.0	1.3	15	Good	-0.162	15.00%
	Score	4	1	4	4	2				
2008	Value	12.6	5.3	18.7	10.7	0.7	9	Fair	-0.633	46.90%
	Score	4	1	1	2	1				
2007	Value		230.0	115.3	18.7	2.7	16	Good	-0.580	32.50%
	Score	2	4	4	3	3				
2006	Value		58.1	148.0	22.0	2.7	15	Good	-0.069	6.60%
	Score	2	3	4	3	3				
2005	Value		81.2	108.7	6.0	0.0	12	Good	-0.127	11.90%
	Score	2	4	4	2	0				
2004[a]	Value									
	Score									
2003	Value	10.2	91.5	48.0	12.8	0.4	12	Good		
	Score	2	4	3	2	1				
2002[a]	Value									
	Score									
2001[a]	Value									
	Score									
2000	Value	10.9	54.2	58.0	6.0	0.0	12	Good		
	Score	3	3	4	2	0				

nedpsdlw.d14

[a] = Lake was not sampled

Table 87. Length frequency and CPUE (fish/hr) for sunfish collected in 1.25 hours of nocturnal electrofishing (10- 7.5-minute runs) at Lake Wilgreen (Madison Co.) on 19 May.

Species	Inch class					Total	CPUE	Std. error
	3	4	5	6	7			
Bluegill	146	363	319	211	13	1,052	841.6	66.7
Green sunfish	24	30	21	21	1	97	77.6	18.9
Redear sunfish	1	1		11	19	32	25.6	5.7
Warmouth	3	4	3	2	3	15	12.0	4.0
Hybrid sunfish	1	1		2		4	3.2	1.8
nedsunlw.d14						1,200		

Table 88. Spring electrofishing CPUE (fish/hr) for various length groups of bluegill collected at Lake Wilgreen from 1990-present.

Year	Length group < 3.0 in CPUE	s.e.	3.0 - 5.9 in CPUE	s.e.	6.0 - 7.9 in CPUE	s.e.	≥ 6.0 in CPUE	s.e.	≥ 8.0 in CPUE	s.e.	Total CPUE	s.e.	Total (excl. < 3.0 in) CPUE
2014			662.4	62.9	179.2	34.6	179.2	34.6	0.0		841.6	66.7	841.6
2013[a]													
2012			638.4	57.0	74.4	15.3	74.4	15.3	0.0		712.8	57.9	712.8
2011	476.0	58.6	630.4	90.9	92.8	24.7	92.8	24.7	0.0		1199.2	158.0	723.2
2010	464.0	14.1	380.8	28.9	57.6	14.9	57.6	14.9	0.0		484.8	43.9	20.8
2009	105.0	23.3	287.0	36.2	109.0	27.4	110.0	27.9	1.0	1.0	502.0	55.7	397.0
2008	50.0	17.0	115.0	17.1	45.0	17.3	45.0	17.3	0.0		210.0	38.8	160.0
2007			283.2	26.7	88.8	16.7	88.8	16.7	0.0		372.0	39.4	372.0
2006	279.2	51.3	409.6	34.5	64.8	20.4	67.2	20.7	2.4	1.2	756.0	79.7	476.8
2005	211.2	67.0	576.8	73.2	40.8	10.8	41.6	11.1	0.8	0.8	829.6	122.7	618.4
2004[a]													
2003[a]													
2002	354.4	91.6	496.8	99.2	177.6	18.6	177.6	18.6	0.0		1028.8	196.2	674.4
2001[a]													
2000			298.0	79.6	100.0	14.3	109.0	16.4	9.0	3.0	407.0	83.2	407.0
1999			214.0	50.0	120.0	64.0	140.0	60.0	20.0	4.0	354.0	110.0	354.0
1998[a]													
1997[a]													
1996			128.0	32.0	202.0	86.0	212.0	84.0	10.0	2.0	340.0	116.0	340.0
1995			332.0	148.0	208.0	8.0	216.0	12.0	8.0	4.0	548.0	160.0	548.0
1994	72.0	44.0	458.0	242.0	294.0	74.0	294.0	74.0	0.0		824.0	360.0	752.0
1993[a]													
1992	201.3	27.1	892.0	74.8	14.0	12.2	142.7	9.6	2.7	2.7	1236.0	84.3	1034.7
1991	197.3	60.8	126.7	19.2	134.7	19.6	144.0	22.7	9.3	3.5	468.0	86.2	270.7
1990[a]													

nedsunlw.d14; d12-d05; d02; d00-99; d96-94; d91-92

[a] = Lake was not sampled

Table 89. Bluegill PSD and RSD_8 values from spring electrofishing at Lake Wilgreen; confidence limits are in parentheses.

Year	No. ≥ 3.0 in	PSD		RSD_8	
2014	1052	21	(±02)	-	-
2013_a					
2012	891	10	(±02)	-	-
2011	904	13	(±02)	-	-
2010	548	13	(±03)	-	-
2009	397	28	(±04)	0	(±00)
2008	160	28	(±07)	-	-
2007	465	24	(±04)	-	-
2006	596	14	(±03)	1	(±01)
2005	773	7	(±02)	0	(±00)
2004_a					
2003_a					
2002	843	26	(±03)	-	-
2001_a					
2000	407	27	(±04)	2	(±01)
1999	177	40	(±07)	6	(±03)
1998_a					
1997_a					
1996	170	62	(±07)	3	(±03)
1995	274	39	(±06)	1	(±01)
1994	376	39	(±05)	-	-
1993_a					
1992	776	14	(±02)	0	(±00)
1991	203	53	(±07)	3	(±03)
1990_a					

nedsunlw.d14; d12-d05; d02; d00-99; d96-94; d91-92

$_a$ = Lake was not sampled

- = No fish over 8.0" captured to determine RSD_8

Table 90. Population assessment of bluegill based on samples collected at Lake Wilgreen from 2000-present (scoring based on statewide assessment).

Year		Mean length age-2 at capture	Years to 6.0 in	CPUE ≥ 6.0 in	CPUE ≥ 8.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value			179.2	0.0				
	Score			4	0				
2013[a]	Value								
	Score								
2012	Value			74.4	0.0				
	Score			4	0				
2011	Value			92.8	0.0				
	Score			4	0				
2010	Value			57.6	0.0				
	Score			3	0				
2009	Value			110.0	1.0				
	Score			4	1				
2008	Value			45.0	0.0				
	Score			2	0				
2007	Value	4.8	4	88.8	0.0	9	Fair	-0.156	10.90%
	Score	3	2	4	0				
2006	Value			67.2	2.4				
	Score			3	1				
2005	Value			41.6	0.8				
	Score			2	1				
2004[a]	Value								
	Score								
2003[a]	Value								
	Score								
2002	Value	5.5	3	177.6	0.0	11	Good	-0.360	30.20%
	Score	4	3	4	0				
2001[a]	Value								
	Score								
2000	Value	4.4	3	109.0	9.0	11	Good		
	Score	2	3	4	2				

nedsunlw.d14; d12-d05; d02; d00

[a] = Lake was not sampled

Table 91. Spring electrofishing CPUE (fish/hr) for various length groups of redear sunfish collected at Lake Wilgreen from 1995-present.

Year	Length group												Total		Total (excl. < 3.0 in)
	< 3.0 in		3.0 - 5.9 in		6.0 - 7.9 in		≥ 6.0 in		≥ 8.0 in		≥ 10.0 in				
	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE	s.e.	CPUE
2014			1.6	1.1	24.0	5.5	24.0	5.5	0.0		0.0		25.6	5.7	25.6
2013[a]															
2012			21.6	6.1	19.2	6.3	20.0	6.1	0.8	0.8	0.0		41.6	9.9	41.6
2011	2.4	1.2	12.0	5.5	24.0	8.5	24.8	8.4	0.8	0.8	0.0		39.2	13.7	36.8
2010			12.0	4.3	14.4	3.7	18.4	4.8	4.0	1.8	0.0		30.4	6.6	30.4
2009			11.0	4.8	13.0	5.6	27.0	6.6	14.0	2.5	1.0	1.0	38.0	8.5	38.0
2008	3.0	3.0	6.0	3.3	11.0	7.7	12.0	8.7	1.0	1.0	0.0		33.6	21.8	30.6
2007			0.8	0.8	15.2	4.4	16.8	4.7	1.6	1.1	0.0		22.0	4.5	22.0
2006			20.0	5.1	4.8	2.1	15.2	10.1	10.4	8.8	2.4	1.7	35.2	11.0	35.2
2005			4.0	2.5	7.2	3.7	14.4	5.7	7.2	3.5	0.0		26.3	6.5	26.3
2004[a]															
2003[a]															
2002			20.8	9.9	44.0	11.0	48.8	12.0	4.8	2.4	0.0		77.3	20.0	77.3
2001[a]															
2000					5.0	2.5	18.0	12.8	13.0	10.4	3.0	1.9	18.0	12.8	18.0
1999			2.0	2.0	8.0	8.0	12.0	12.0	4.0	4.0	2.0	2.0	14.0	10.0	14.0
1998[a]															
1997[a]															
1996			6.0	2.0	30.0	10.0	30.0	10.0	0.0		0.0		36.0	12.0	36.0
1995			6.0	6.0	4.0	4.0	4.0	4.0	0.0		0.0		20.0	0.0	20.0

nedsunlw.d12-d05; d02; d00-99; d96-95

[a] = Lake was not sampled

Table 92. Redear sunfish PSD and RSD_{10} values from spring electrofishing at Smoky Valley Lake; confidence limits are in parentheses.

Year	No. ≥ 4.0 in	PSD		RSD_{10}	
2014	31	61	(±17)	-	-
2013[a]					
2012	48	13	(±09)	-	-
2011	37	14	(±11)	-	-
2010	36	25	(±14)	-	-
2009	33	67	(±16)	18	(±13)
2008	13	31	(±26)	-	-
2007	22	55	(±21)	-	-
2006	40	38	(±15)	20	(±13)
2005	21	57	(±22)	5	(±09)
2004[a]					
2003[a]					
2002	81	23	(±09)	1	(±02)
2001[a]					
2000	18	100	(±00)	33	(±22)
1999	7	57	(±40)	14	(±28)
1998[a]					
1997[a]					
1996	18	22	(±20)	-	-
1995	5	40	(±48)	20	(±39)

nedsunlw.d12-d05; d02; d00-99; d96-95

[a] = Lake was not sampled

- = No fish over 10.0" captured to determine RSD_{10}

Table 93. Population assessment of redear sunfish based on samples collected at Lake Wilgreen from 2000-present (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Years to 8.0 in	Spring CPUE ≥ 8.0 in	Spring CPUE ≥ 10.0 in	Total score	Assessment rating	Instantaneous mortality (z)	Annual mortality (A)%
2014	Value			0.0	0.0				
	Score			0	0				
2013a	Value								
	Score								
2012	Value			0.8	0.0				
	Score			1	0				
2011	Value			8.0	0.0				
	Score			2	0				
2010	Value			4.0	0.0				
	Score			1	0				
2009	Value			14.0	1.0				
	Score			3	1				
2008	Value			1.0	0.0				
	Score			1	0				
2007	Value	7.8	*	1.6	0.0	8	Fair		
	Score	4	3	1	0				
2006	Value			10.4	2.4				
	Score			3	2				
2005	Value			7.2	0.0				
	Score			2	0				
2004a	Value								
	Score								
2003a	Value								
	Score								
2002	Value			4.8	0.0				
	Score			1	0				
2001a	Value								
	Score								
2000	Value			4.8	0.0				
	Score			1	0				

nedsunlw.d14; d12-d05; d02; d00

a = Lake was not sampled

SOUTHEASTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Conditions encountered during sampling at southeastern district lakes are listed in Table 1.

Lake Cumberland (50,250 acres)

Lake levels in Lake Cumberland rose to 723 msl in 2014 with the completion of repairs to Wolf Creek Dam. Sampling completed in 2014 was conducted in areas that were sampled prior to 2007. Samples from 2007-2012 were conducted in areas further downstream in the embayments due to reduced water levels; therefore, any comparisons of the 2007-2012 data should be interpreted accordingly.

Black Bass Sampling (Spring)
Nocturnal electrofishing studies were conducted at Wolf Creek dam, and in the Harmon Creek, Fishing Creek, and Lily Creek embayments of Lake Cumberland during April and May 2014 to assess the black bass populations. The length-frequency and catch-per-unit-effort (CPUE) of the three black bass species collected in each area is shown in Table 2. The catch-per-hour (by area and length group) of the three black bass species are shown in Tables 3-6. Table 7 compares the catch-per-hour by length group of black bass in Lake Cumberland to other SEFD lakes sampled in 2014. Catch rates for black bass species increased in 2014.

Largemouth bass catch rates met two of the four CPUE management objectives (Table 8). The spotted bass and smallmouth bass populations both met two of the CPUE management objectives (Tables 9 and 10, respectively).

Largemouth and smallmouth bass populations exhibited good size structure, with a PSD value of 58 and an RSD_{15} value of 27 for largemouth bass and a PSD value of 49 and an RSD_{14} value of 27 for smallmouth bass (Table 11). Spotted bass populations had a moderate size structure, with a PSD value of 40 and an RSD_{14} value of 9 (Table 11). Table 12 compares the size structure of black bass populations in Lake Cumberland to other SEFD lakes sampled in 2014.

Black Bass Sampling (Fall)
Nocturnal electrofishing was conducted in the Fishing Creek embayment during September to index the largemouth bass year class strength (Tables 13 and 14). Catch rates of age-0 largemouth bass declined sharply in 2014 (Table 14). Table 15 compares the CPUE of age-0 largemouth bass in Lake Cumberland to other SEFD lakes sampled in fall 2014. Relative weight (Wr) values for largemouth bass and spotted bass collected during October sampling are shown in Table 16. Table 17 compares Wr values for black bass in Lake Cumberland to other SEFD lakes sampled in fall 2014.

Walleye and White Bass Sampling
Gill nets were used in November 2014 to evaluate the walleye and white bass populations in the Jamestown/Bugwood, Conley Bottom, and Waitsboro/Burnside areas of Lake Cumberland. A total of 330 walleye were captured in 32 net-nights for a catch rate of 10.3 fish/nn. Length frequency and CPUE of walleye is shown in Table 18. Walleye ranged from 9.0-25.0 in with the mode being the 18.0 in class (68 fish). Two of the three catch rate management objectives for walleye were met (Table 19). 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. Eight year-classes were represented in the catch, with the 2013 year class (age-1; 35%) being most abundant (Table 23). Mean length of age-2+ walleye at capture (18.3 in) met the growth objective of 18.0 in (Table 24). The walleye assessment score was 14 (rating=excellent; Table 24). Relative weight (Wr) values for walleye are shown in Table 25.

A total of 23 white bass were captured in 32 net-nights for a catch rate of 0.7 fish/nn. Length frequency and CPUE of white bass is shown in Table 18. White bass ranged from 8.0-15.0 in with the mode being the 10.0 in class (6 fish). Age-growth data for white bass is shown in Table 26. Three year classes were collected during sampling, with the 2014 (age-0) year class comprising 70% of the white bass catch (Table 27). The white bass assessment score was 7 (rating=fair; Table 28). Relative weight (Wr) values for white bass are shown in Table 29.

Striped Bass Sampling
Gill nets were used in December 2014 to evaluate the striped bass population in Lake Cumberland. Twenty net-nights captured 121 striped bass for a catch rate of 6.1 fish/nn. Length-frequency and CPUE of striped bass are shown in Table 30. Striped bass ranged from 8.0 to 29.0 in with the mode being the 18.0 in class (42 fish). Three of the four management objectives were met for the striped bass population (Table 31). The age-growth data for striped bass collected during 2014 is shown in Table 32. Seven year-classes were represented in the catch (Table 33). The 2013 (age-1) year class was the most abundant year class collected (84%), which coincided with the increased (pulsed) stocking rate of approximately 14.0 fish/acre in 2013. Mean length of age-2+ fish at capture (2012 year class) was 21.9 in, which met the growth objective (21.0 in) for the striped bass fishery (Table 34). The striped bass assessment score was 13 (rating=good; Table 34). Striped bass collected during walleye netting and striped bass netting were used to evaluate relative weight (Wr) values, which are shown in Table 35.

Laurel River Lake (6,060 acres)

Black Bass Sampling (Spring)
Nocturnal electrofishing sampling was conducted during April and May 2014 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 36. The catch-per-hour (by area and length group) of the three black bass species are shown in Tables 37-40. Table 7 compares the catch-per-hour by length group of black bass in Laurel River Lake to other SEFD lakes sampled in 2014.

The largemouth bass population met two of the four catch rate objectives (Table 41). Spotted bass met one of the four catch rate management objectives (Table 42). The smallmouth bass population met two of the four catch rate management objectives (Table 43).

All three black bass species exhibited an excellent size structure, with largemouth bass having a PSD value of 66 and an RSD_{15} value of 37 and smallmouth bass having a PSD value of 77 and an RSD_{14} value of 64 (Table 44). Spotted bass had a PSD of 51 and an RSD_{14} of 19 (Table 44). Table 12 compares the size structure values of black bass populations in Laurel River Lake to other SEFD lakes sampled in 2014.

Black Bass Sampling (Fall)
Nocturnal electrofishing was conducted in the Laurel River arm during September 2014 to index largemouth bass year class strength (Tables 45 and 46). The CPUE of age-0 largemouth bass in 2014 was lower than catch rates observed in 2013; however, catch rates were sufficient, so additional stocking of age-0 bass was not warranted (Table 46). Relative weight (Wr) values for largemouth and spotted bass collected during September sampling are shown in Table 47.

Cedar Creek Lake (784 acres; Lincoln Co.)

Black Bass Sampling (Spring)
Nocturnal electrofishing was conducted on 6 May 2014 to assess the largemouth bass population in Cedar Creek Lake. The length-frequency and CPUE of largemouth bass is shown in Table 48. Size structure of largemouth bass was good (PSD=82, RSD_{15}=47; Table 49). The catch-per-hour (by area and length group) of largemouth bass for 2003-2014 is shown in Table 50. Three of the four CPUE management objectives for the largemouth bass population were exceeded, with the age-1 bass CPUE (3.7 fish/hr) failing to meet the objective of 16.0 fish/hr (Table 51).

Black Bass Sampling (Fall)
Nocturnal electrofishing was conducted on 18 September 2014 to index the largemouth bass year-class strength (Tables 52 and 53). Catch rates of age-0 bass in 2014 increased slightly over previous years sampling (Table 53). Relative weight (Wr) values for largemouth bass are found in Table 54.

Bluegill/Redear Sunfish Sampling
Diurnal electrofishing was conducted on 30 May and 2 June 2014, in conjunction with the Black Bass Research (BBR) section, to assess the bluegill and redear sunfish populations in Cedar Creek Lake. The length-frequency and CPUE of bluegill and redear sunfish is shown in Table 55. The catch-per-hour (by length group) of bluegill and redear sunfish is shown in Table 56. PSD and RSD values for bluegill and redear sunfish are shown in Table 57.

Chenoa Lake (35 acres; Bell Co.)

Largemouth Bass Sampling (Spring)
Nocturnal electrofishing was conducted on 9 April 2014 at Chenoa Lake to assess the largemouth bass population. Length frequency and CPUE for largemouth bass is shown in Table 58. Catch-per-hour (by length group) for largemouth bass is shown in Table 59. The largemouth bass size structure was fair, with a PSD value of 42 (RSD_{15}=17; Table 60).

Bluegill/Redear Sunfish Sampling
Daytime electrofishing was conducted on 28 May 2014 at Chenoa Lake to assess the bluegill and redear sunfish populations. Length-frequency and CPUE for bluegill and redear sunfish is shown in Table 61. Catch-per-hour (by length group) for bluegill and redear sunfish is in Table 62. The bluegill population exhibited a fair size structure (PSD=42, RSD_8=0; Table 63). The redear sunfish population exhibited a good size structure with a PSD of 63 (RSD_9=38; Table 63). Age-growth for bluegill collected during 2014 is shown in Table 64. Six year-classes were represented in the catch, with ages 1 and 3 comprising 51% of the catch (Table 65). The bluegill population assessment score was 6 (rating=poor; Table 66). Age-growth for redear sunfish collected during 2014 is shown in Table 67. Five year-classes were represented in the catch, with ages 1 and 3 comprising 63% of the catch (Table 68). The redear sunfish population assessment score was 9 (rating=fair; Table 69).

Dale Hollow Lake (6,746 acres; Kentucky portion)

Black Bass Sampling (Spring)
Nocturnal electrofishing was conducted on 24 April 2014 in the Illwill Creek and Little Sulphur Creek embayments of Dale Hollow Lake to assess the black bass population. Length frequency and CPUE for the three black bass species are shown in Table 70. The catch-per-hour by length group of the three black bass species are shown in Tables 71-73. Largemouth and smallmouth bass exhibited excellent size structure, with largemouth bass having a PSD value of 85 (RSD_{15}=61) and smallmouth bass having a PSD value of 74 (RSD_{14}=43; Table 74). The size structure of spotted bass was good, having a PSD value of 52 (RSD_{14}=9; Table 74).

Lake Linville (358 acres; Rockcastle Co.)

Black Bass Sampling (Spring)
Nocturnal electrofishing was conducted on 8 May 2014 at Lake Linville to assess the black bass population. Length frequency and CPUE for the black bass populations are shown in Tables 75-77. A population assessment for largemouth bass is shown in Table 78. All of the catch rate management objectives were met (Table 78). The size structure for the largemouth bass population has improved over previous sampling, with a PSD value of 48 (RSD_{15}=7), and the spotted bass population is comprised of small individuals (PSD=23, RSD_{14}=2; Table 79).

Wood Creek Lake (625 acres; Laurel Co.)

Black Bass Sampling (Spring)
Nocturnal electrofishing was conducted on 22 April 2014 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 80. The size structure for largemouth bass was poor, having a PSD value of 34 (RSD_{15}=10; Table 81). The spotted bass population also had a poor size structure (PSD=21, RSD_{14}=0; Table 81). Catch-per-hour (by length group) for largemouth and spotted bass are shown in Tables 82 and 83, respectively. A largemouth bass population assessment is shown in Table 84. One of the catch rate management objectives was met for the largemouth bass population (Table 84).

Black Bass Sampling (Fall)

Nocturnal electrofishing was conducted on 24 September 2014 in the Dam, Pump Station, and Dock areas of Wood Creek Lake to index largemouth bass year class strength (Tables 85 and 86). Catch rates of age-0 largemouth bass in 2014 were lower than 2013 (Table 86). Due to the low catch rate, age-0 largemouth bass were stocked in Wood Creek Lake during the fall. Relative weight values for largemouth and spotted bass are in Table 87. Age-growth data from largemouth bass collected in 2014 is shown in Table 88.

Table 1. Summary of sampling conditions by waterbody, species sampled, and date for the Southeastern Fisheries District in 2014.

Water body	Location	Species	Date	Time (24hr)	Gear	Weather	Water temp. F	Water level	Secchi (in)	Conditions	Pertinent sampling comments
Lake Cumberland											
	Dam	Black bass	4/21/2014	2000	shock	nice, 70s, increasing clouds	65	717	42	good	lots of flooded vegetation in coves
	Harmon Creek	Black bass	4/10/2014	1950	shock	mostly clear, 70s, breezy	53	716	30	fair	murky; debris and trees along bank
	Fishing Creek	Black bass	5/5/2014	1930	shock	clear	68	725	24	fair	slightly murky; generator kept shutting dow n
	Lily Creek	Black bass	5/7/2014	1930	shock	clear, w arm, 80s	72	724	36-48	fair	shocking difficult in coves due to trees and debris
	Fishing Creek	Black bass	9/23/2014	1940	shock	clear, 70s, nice	75	704	24	good	slightly murky; hard to get to bank w ith trees in w ater
	Jamestow n	Walleye/w hite bass	11/19-11/21		gill net	cold, clear, w indy 30s	54	708	-	good	
	Conley Bottom	Walleye/w hite bass	11/19-11/21		gill net	cool and w indy, 30s	54	708	-	good	
	Waitsboro	Walleye/w hite bass	11/12-11/14		gill net	clouds and sun, low 30s	57	708	-	good	
	Beaver Creek	Striped bass	12/2-12/4		gill net	cloudy, breezy, 40s	51	702	-	good	
	Lily/Wolf/Caney	Striped bass	12/2-12/4		gill net	cloudy, rainy 40-50s, breezy	52	702	-	good	
Laurel River Lake											
	Dam	Black bass	4/10/2014	2000	shock	clear, 70s and dropping, w indy	53	1014	48-54	good	w ater clearish green, volunteer dippers
	Spruce Creek	Black bass	4/21/2014	1930	shock	beautiful day, 70s	64	1014	48	good	slightly murky
	Craig's Creek	Black bass	4/24/2014	2000	shock	clear, mild 60s, cooling	62	1014	72-84	good	w ater green and clear
	312 Bridge	Black bass	5/5/2014	2000	shock	beautiful day	66	1015	18-24	fair	w ater murky and trash in w ater
	312 Bridge	Black bass	9/17/2014	1940	shock	mostly clear, 70s	76	1012	36	good	
Cedar Creek Lake		LMB	5/6/2014	2030	shock	clear, 80s	69-71	full	18	fair	murky
		LMB	9/18/2014	1950	shock	clear	75	full	36	good	one boat doing 15 minute runs
		BLG/redear	5/30/2014	900	shock	clear, nice, upper 60s at start	78	normal	36	good	w ater green color; coontail spreading in 1770 area
Chenoa Lake		LMB	4/9/2014	1930	shock	mostly clear, upper 60s, breezy	56	full	20	fair	a little murky
		BLG/redear	5/28/2014	845	shock	foggy, upper 60s	72	full	36-48	fair	w atershield made sampling near shore difficult
Dale Hollow Lake											
	Illw ill	Black bass	4/24/2014	2000	shock	sunny, 70s, beautiful day	65	full	48-60	good	green w ater; looks good
	Little Sulphur	Black bass	4/24/2014	2000	shock	mostly clear, 70s, slight breeze	68	650	42	good	
Linville Lake		Black bass	5/8/2014	1945	shock	clear, w arm, 80s	71	normal	18	good	a little murky
Wood Creek Lake		Black bass	4/22/2014	2000	shock	mostly clear, breezy, 60s	65	full	60-120	good	tw o crew s
		Black bass	9/24/2014	1930	shock	clear, low 70s, nice	73	normal	36-120	good	tw o crew s, only one dipper on low er end, w ater clearish green

Table 2. Species composition, relative abundance, and CPUE (fish/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 2014; standard error is in parentheses.

		Inch class																			
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	21	Total	CPUE
Dam	Largemouth bass			1	2	1	2				5	3	3	4	5	6				32	21.3 (11.7)
	Spotted bass	1		4	9	11	6	7	6	4	11	12	6	3	1					81	54.0 (9.9)
	Smallmouth bass				2	2	6	6	2	1	5	1	3	3		2		1		34	22.7 (8.5)
Harmon	Largemouth bass				2			1			4		2	2			1			12	8.0 (3.7)
Creek	Spotted bass	1	1			2	4		1	1										10	6.7 (2.7)
	Smallmouth bass		1			1	1	1	2	1	1	1	1			2				12	8.0 (2.1)
Fishing	Largemouth bass	2		5	15	13	6			3	7	6	6	4	3	1		1	1	73	48.7 (15.9)
Creek	Spotted bass	2	1			1	2	2	1	1		1								11	7.3 (4.9)
	Smallmouth bass																			0	0.0 (0.0)
Lily	Largemouth bass				5	11	18	34	7	6	5	8	9	12	3	4	2			124	82.7 (16.1)
Creek	Spotted bass			1		9	7	15	16	4	7	5	3	1						68	45.3 (12.3)
	Smallmouth bass					1		1												2	1.3 (0.8)
Total	Largemouth bass	2		6	24	25	26	35	7	9	21	17	20	22	11	11	3	1	1	241	40.2 (8.5)
	Spotted bass	4	2	5	9	23	19	24	24	10	18	18	9	4	1					170	28.3 (6.0)
	Smallmouth bass		1		2	4	7	8	4	2	6	2	4	3		4		1		48	8.0 (2.8)

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Table 3. Comparison of catch-per-hour of black bass (by area) captured during spring electrofishing on Lake Cumberland during the period of 2010-2014.

	Stock					Quality					Preferred				
Species/Area	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Largemouth bass															
Dam	20.0	6.7	24.0	4.0	18.7	14.0	4.7	14.7	3.3	17.3	9.3	2.7	9.3	2.7	10.0
Harmon Creek	16.0	5.3	13.3	9.3	6.7	10.7	3.3	8.7	8.0	6.0	5.3	1.3	4.7	4.0	2.0
Fishing Creek	102.7	31.3	120.7	45.3	25.3	47.3	12.7	80.7	21.3	19.3	16.0	4.7	25.3	5.3	6.7
Lily Creek	52.0	18.0	59.3	25.3	72.0	25.3	14.7	29.3	18.7	28.7	12.0	6.0	7.3	6.7	14.0
Mean	47.7	15.3	54.3	21.0	30.7	24.3	8.8	33.3	12.8	17.8	10.7	3.7	11.7	4.7	8.2
Spotted bass															
Dam	46.7	36.0	82.7	26.0	44.7	23.3	19.3	26.7	17.3	24.7	2.0	1.3	2.7	3.3	6.7
Harmon Creek	40.7	18.7	28.7	16.7	5.3	10.0	0.7	7.3	10.7	0.7	0.7	0.0	0.0	0.7	0.0
Fishing Creek	14.0	8.7	1.3	2.7	5.3	2.7	0.7	0.0	0.0	1.3	0.7	0.0	0.0	0.0	0.0
Lily Creek	94.0	19.3	36.7	35.3	44.7	16.0	3.3	4.0	17.3	13.3	0.0	0.0	0.0	2.0	2.7
Mean	48.8	20.7	37.3	20.2	25.0	13.0	6.0	9.5	11.3	10.0	0.8	0.3	0.7	1.5	2.3
Smallmouth bass															
Dam	12.0	0.7	11.3	10.7	21.3	6.0	0.0	5.3	3.3	10.7	5.3	0.0	4.7	2.7	6.0
Harmon Creek	17.3	2.7	9.3	6.0	7.3	12.0	2.0	2.7	3.3	4.0	9.3	0.0	2.0	3.3	2.0
Fishing Creek	0.7	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lily Creek	4.0	1.3	1.3	1.3	1.3	0.7	1.3	0.0	1.3	0.0	0.0	0.7	0.0	0.7	0.0
Mean	8.5	1.3	5.5	4.5	7.5	4.8	0.8	2.0	2.0	3.7	3.7	0.2	1.7	1.7	2.0

Largemouth bass - $\geq$8.0 in = stock, $\geq$12.0 in = quality, $\geq$15.0 in = preferred.
Smallmouth bass and spotted bass - $\geq$7.0 in = stock, $\geq$11.0 in = quality, $\geq$14.0 in = preferred.
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Table 4. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Lake Cumberland during April and May 2014.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	9.5	3.7	12.8	4.4	9.7	2.4	8.2	2.0	0.3	0.2	40.2	8.5
2013	1.8	1.1	8.2	2.6	8.2	1.8	4.7	1.1	0.2	0.2	22.8	5.0
2012	15.3	3.8	21.0	3.7	21.7	4.9	11.7	2.4	0.2	0.2	69.7	13.0
2011	5.7	2.7	6.5	2.2	5.2	1.7	3.7	1.1	0.2	0.2	21.0	6.3
2010	12.3	3.0	23.3	5.3	13.7	3.3	10.7	2.0	0.5	0.3	60.0	11.7
2009	20.3	6.5	9.7	3.5	8.5	2.8	8.2	2.3	0.5	0.3	46.7	12.5
2008	7.3	2.3	11.0	2.8	20.2	5.7	18.0	4.0	0.2	0.2	56.5	13.2
2007	8.4	3.2	14.1	4.5	20.9	7.1	15.3	4.1	0.5	0.3	58.6	18.1
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 5. Spring electrofishing CPUE (fish/hr) for each length group of spotted bass collected at Lake Cumberland during April and May 2014.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		>14.0 in		>17.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	7.2	1.9	11.2	2.5	7.7	2.4	2.3	1.2	0.0	0.0	28.3	6.0
2013	1.8	0.6	7.7	1.6	9.8	2.4	1.5	0.7	0.0	0.0	20.8	3.8
2012	27.3	4.7	20.5	3.9	8.8	2.6	0.7	0.5	0.0	0.0	57.3	10.1
2011	8.7	1.7	12.2	2.1	5.7	2.4	0.3	0.2	0.0	0.0	26.8	4.6
2010	28.3	4.0	26.7	5.5	12.2	2.6	0.8	0.4	0.0	0.0	68.0	9.2
2009	22.7	4.3	20.5	5.1	10.0	2.1	1.0	0.4	0.0	0.0	54.2	10.3
2008	34.7	4.5	26.7	3.7	15.3	4.0	5.0	2.1	0.0	0.0	81.7	11.1
2007	27.1	6.8	27.5	5.0	13.6	3.6	7.0	2.7	0.4	0.2	75.1	13.5
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 6. Spring electrofishing CPUE (fish/hr) for each length group of smallmouth bass collected at Lake Cumberland during April and May 2014.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	1.2	0.6	3.2	1.5	1.7	0.7	2.0	1.1	0.8	0.4	8.0	2.8
2013	1.0	0.6	2.3	0.6	0.3	0.2	1.7	0.5	0.3	0.2	5.3	1.3
2012	4.3	1.4	2.3	0.7	0.3	0.2	1.7	0.7	0.5	0.3	8.7	2.1
2011	0.5	0.4	0.3	0.2	0.7	0.3	0.2	0.2	0.2	0.2	1.7	0.5
2010	2.8	0.7	2.5	0.8	1.2	0.4	3.7	1.2	2.3	1.0	10.2	1.9
2009	3.5	1.3	1.5	0.6	0.2	0.2	0.7	0.3	0.2	0.2	5.8	1.5
2008	5.2	1.8	2.0	0.8	1.2	0.5	2.7	1.0	0.8	0.4	11.0	2.8
2007	6.8	2.6	7.1	2.4	3.8	1.3	1.4	0.6	0.5	0.4	19.1	5.4
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 7. Catch-per-hour of black bass captured during spring electrofishing on lakes in the Southeastern Fishery District during 2014.

Species/Lake	Stock*	Quality*	Preferred*
Largemouth bass			
Lake Cumberland	30.7	17.8	8.2
Laurel River Lake	58.3	38.3	21.5
Cedar Creek Lake	166.3	136.0	78.3
Chenoa Lake	89.0	37.0	15.0
Dale Hollow Lake	91.7	78.0	56.0
Lake Linville	182.0	86.7	12.0
Wood Creek Lake	111.3	37.3	11.7
Spotted bass			
Lake Cumberland	25.0	10.0	2.3
Laurel River Lake	20.0	10.2	3.8
Dale Hollow Lake	23.0	12.0	2.0
Lake Linville	88.7	20.0	2.0
Wood Creek Lake	20.3	4.3	0.0
Smallmouth bass			
Lake Cumberland	7.5	3.7	2.0
Laurel River Lake	3.7	2.8	2.3
Dale Hollow Lake	11.7	8.7	5.0
Wood Creek Lake	1.0	0.3	0.0

*Largemouth bass - $\geq$8.0 in = stock, $\geq$12.0 in = quality, $\geq$15.0 in = preferred
*Smallmouth and spotted bass - $\geq$7.0 in = stock, $\geq$11.0 in = quality, $\geq$14.0 in = preferred

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Table 8. Population assessment for largemouth bass based on spring electrofishing at Lake Cumberland from 1990-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age 1	CPUE 12.0-14.9 in	CPUE >15.0 in	CPUE >20.0 in	Total score	Assessement rating
Management objective		>13.0 in	>5.0 fish/hr	>10.0 fish/hr	>8.0 fish/hr	>0.5 fish/hr		
2014	Value		12.8	9.7	8.2	0.3		
	Score	4	1	1	2	2	10	F
2013	Value		6.6	8.2	4.7	0.2		
	Score	4	1	1	2	1	9	F
2012	Value	14.0	21.0	21.7	11.7	0.2		
	Score	4	2	2	2	1	11	F
2011	Value		6.8	5.2	3.7	0.2		
	Score	4	1	1	1	1	8	F
2010	Value		11.5	13.7	10.7	0.5		
	Score	4	1	1	2	2	10	F
2009	Value		25.7	8.5	8.2	0.5		
	Score	4	2	1	2	2	11	F
2008	Value		10.0	20.2	18.0	0.2		
	Score	4	1	2	3	1	11	F
2007	Value	13.4	10.3	20.9	15.3	0.5		
	Score	4	1	2	3	2	12	G
2006	Value		1.2	8.8	10.2	0.5		
	Score	4	1	1	2	2	10	F
2005	Value		1.2	9.9	5.5	0.0		
	Score	4	1	1	2	0	8	F
2004	Value		1.1	7.0	6.5	1.0		
	Score	4	1	1	2	2	10	F
2003	Value		3.0	6.1	8.3	0.1		
	Score	4	1	1	2	1	9	F
2002	Value	13.6	0.4	7.6	6.4	0.1		
	Score	4	1	1	2	1	9	F
2001	Value		2.9	7.7	5.2	0.3		
	Score	4	1	1	2	2	10	F
2000	Value		2.8	9.5	5.2	0.3		
	Score	4	1	1	2	2	10	F
1999	Value	13.5	9.5	13.3	11.7	0.4		
	Score	4	1	1	2	2	10	F
1997	Value		2.6	29.5	18.6	0.4		
	Score	4	1	3	3	2	13	G
1996	Value		1.7	9.6	9.6	0.5		
	Score	4	1	1	2	2	10	F
1995	Value		1.5	21.7	13.9	0.4		
	Score	4	1	2	3	2	12	G
1993	Value		1.8	20.5	4.4	0.1		
	Score	4	1	2	2	1	10	F
1992	Value		3.7	27.1	4.4	0.2		
	Score	4	1	3	2	1	11	F
1991	Value		5.7	11.8	3.9	0.1		
	Score	4	1	1	1	1	8	F
1990	Value		19.6	10.1	4.2	0.0		
	Score	4	1	1	2	0	8	F

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Table 9. Population assessment for spotted bass based on spring electrofishing at Lake Cumberland from 1990-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age 1	CPUE 11.0-13.9 in	CPUE ≥14.0 in	CPUE ≥17.0 in	Total score	Assessement rating
Management objective		≥9.6 in	≥4.0 fish/hr	≥7.0 fish/hr	≥2.0 fish/hr	≥0.1 fish/hr		
2014	Value		1.2	7.7	2.3	0.0		
	Score	4	2	4	4	0	14	G
2013	Value	11.1	0.0	9.8	1.5	0.0		
	Score	4	0	4	3	0	11	F
2012	Value		14.0	8.8	0.7	0.0		
	Score	4	3	4	3	0	14	G
2011	Value		3.9	5.7	0.3	0.0		
	Score	4	2	3	3	0	12	G
2010	Value		9.7	12.2	0.8	0.0		
	Score	4	3	4	3	0	14	G
2009	Value		6.8	10.0	1.0	0.0		
	Score	4	2	4	3	0	13	G
2008	Value	11.0	8.8	15.3	5.0	0.0		
	Score	4	3	4	4	0	15	G
2007	Value		1.3	13.6	7.0	0.4		
	Score	4	2	4	4	3	17	E
2006	Value		1.8	13.8	8.0	0.2		
	Score	4	2	4	4	2	16	G
2005	Value		5.1	11.2	3.1	0.0		
	Score	4	2	4	4	0	14	G
2004	Value		6.0	10.5	1.9	0.0		
	Score	4	2	4	3	0	13	G
2003	Value	11.4	16.7	9.1	2.9	0.0		
	Score	4	3	4	4	0	15	G
2002	Value		5.1	5.2	1.5	0.0		
	Score	4	2	3	3	0	12	G
2001	Value		2.1	4.7	1.6	0.0		
	Score	4	2	3	3	0	12	G
2000	Value		1.9	5.6	1.2	0.0		
	Score	4	2	3	3	0	12	G
1999	Value		3.0	11.2	3.0	0.1		
	Score	4	2	4	4	2	16	G
1997	Value		6.0	6.7	1.9	0.0		
	Score	4	2	3	3	0	12	G
1996	Value		1.0	6.6	1.3	0.0		
	Score	4	2	3	3	0	12	G
1995	Value		1.3	2.3	0.6	0.0		
	Score	4	2	3	3	0	12	G
1993	Value		0.7	2.7	0.0	0.0		
	Score	4	1	3	0	0	8	F
1992	Value		0.7	2.7	0.4	0.0		
	Score	4	1	3	3	0	11	F
1991	Value		1.3	1.3	0.0	0.0		
	Score	4	2	2	0	0	8	F
1990	Value		3.5	1.2	0.0	0.0		
	Score	4	2	2	0	0	8	F

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Table 10. Population assessment for smallmouth bass based on spring electrofishing at Lake Cumberland from 1990-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age 1	CPUE 11.0-13.9 in	CPUE ≥14.0 in	CPUE ≥17.0 in	Total score	Assessement rating
Management objective		≥11.0 in	≥2.0 fish/hr	≥3.0 fish/hr	≥2.0 fish/hr	≥0.5 fish/hr		
2014	Value		0.2	1.7	2.0	0.8		
	Score	3	1	3	4	4	15	G
2013	Value		0.3	0.3	1.7	0.3		
	Score	3	2	2	4	3	14	G
2012	Value		2.5	0.3	1.7	0.5		
	Score	3	4	2	4	4	17	E
2011	Value		0.0	0.7	0.2	0.2		
	Score	3	0	2	2	2	9	F
2010	Value	11.3	0.7	1.2	3.7	2.3		
	Score	3	2	3	4	4	16	G
2009	Value		1.8	0.2	0.7	0.2		
	Score	4	3	2	3	2	14	G
2008	Value		2.5	1.2	2.7	0.8		
	Score	4	4	3	4	4	19	E
2007	Value		2.6	3.8	1.4	0.5		
	Score	4	4	4	4	4	20	E
2006	Value		0.0	0.3	0.3	0.2		
	Score	4	0	2	2	2	10	F
2005	Value	12.2	0.8	1.3	3.9	1.3		
	Score	4	2	3	4	4	17	E
2004	Value		1.9	1.2	1.3	0.0		
	Score	2	3	3	4	0	12	G
2003	Value		1.3	1.6	3.4	1.0		
	Score	2	3	3	4	4	16	G
2002	Value		1.7	2.4	0.9	0.1		
	Score	2	3	3	3	2	13	G
2001	Value		0.5	0.4	0.9	0.5		
	Score	2	2	2	3	4	13	G
2000	Value		0.0	1.4	1.1	0.0		
	Score	2	0	3	4	0	9	F
1999	Value		0.5	2.6	2.5	0.8		
	Score	2	2	4	4	4	16	G
1997	Value	9.6	6.1	3.8	1.3	0.3		
	Score	2	4	4	4	3	17	E
1996	Value		0.1	3.2	2.5	0.8		
	Score	2	1	4	4	4	15	G
1995	Value		6.7	7.4	4.0	1.5		
	Score	2	4	4	4	4	18	E
1993	Value		0.7	2.2	1.1	0.2		
	Score	2	2	3	4	2	13	G
1992	Value		0.8	4.7	1.8	0.3		
	Score	2	2	4	4	3	15	G
1991	Value		3.2	5.5	2.3	0.8		
	Score	2	4	4	4	4	18	E
1990	Value		5.2	4.0	1.3	0.7		
	Score	2	4	4	4	4	18	E

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Table 11. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Lake Cumberland during April and May 2014; 95% confidence limits are in parentheses.

		Largemouth bass			Spotted bass			Smallmouth bass		
Year	Area	No. $\geq$ stock size	PSD (+/- 95%)	RSD_{15} (+/- 95%)	No. $\geq$ stock size	PSD (+/- 95%)	RSD_{14} (+/- 95%)	No. $\geq$ stock size	PSD (+/- 95%)	RSD_{14} (+/- 95%)
2014	Dam	28	93 (± 10)	54 (± 19)	67	55 (± 12)	15 (± 9)	32	50 (± 18)	28 (± 16)
	Harmon Creek	10	90 (± 20)	30 (± 30)	8	13 (± 25)	0 (± 0)	11	55 (± 31)	27 (± 28)
	Fishing Creek	38	76 (± 14)	26 (± 14)	8	25 (± 32)	0 (± 0)	0	0 (± 0)	0 (± 0)
	Lily Creek	108	40 (± 10)	19 (± 7)	67	30 (± 11)	6 (± 6)	2	0 (± 0)	0 (± 0)
	Total	184	58 (± 7)	27 (± 6)	150	40 (± 8)	9 (± 5)	45	49 (± 15)	27 (± 13)
2013	Total	126	61 (± 9)	22 (± 7)	121	56 (± 9)	7 (± 5)	27	44 (± 19)	37 (± 19)
2012	Total	326	61 (± 5)	21 (± 4)	224	25 (± 6)	2 (± 2)	33	36 (± 17)	30 (± 16)
2011	Total	92	58 (± 10)	24 (± 9)	124	29 (± 8)	2 (± 2)	8	63 (± 36)	13 (± 25)
2010	Total	286	51 (± 6)	22 (± 5)	293	27 (± 5)	2 (± 1)	51	57 (± 14)	43 (± 14)
2009	Total	158	63 (± 8)	31 (± 7)	230	29 (± 6)	3 (± 2)	17	29 (± 22)	24 (± 21)
2008	Total	295	78 (± 5)	37 (± 6)	349	35 (± 5)	9 (± 3)	42	55 (± 15)	38 (± 15)
2007	Total	289	72 (± 5)	30 (± 5)	310	38 (± 5)	13 (± 4)	81	37 (± 11)	10 (± 7)
2006	Total	151	75 (± 7)	40 (± 8)	259	51 (± 6)	19 (± 5)	13	31 (± 26)	15 (± 20)
2005	Total	127	91 (± 5)	32 (± 8)	216	50 (± 7)	11 (± 4)	49	80 (± 11)	59 (± 14)
2004	Total	140	88 (± 6)	39 (± 9)	325	42 (± 13)	12 (± 8)	42	36 (± 8)	8 (± 5)

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Table 12. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Lake Cumberland, Laurel River Lake, Cedar Creek Lake, Chenoa Lake, Dale Hollow Lake, Lake Linville, and Wood Creek Lake during 2014; 95% confidence limits are in parentheses.

	Largemouth bass		Smallmouth bass		Spotted bass	
Lake	PSD	RSD_{15}	PSD	RSD_{14}	PSD	RSD_{14}
Lake Cumberland	58 (±7)	27 (±6)	49 (±15)	27 (±13)	40 (±8)	9 (±5)
Laurel River Lake	66 (±5)	37 (±5)	77 (±18)	64 (±21)	51 (±9)	19 (±7)
Cedar Creek Lake	82 (±3)	47 (±4)				
Chenoa Lake	42 (±10)	17 (±8)				
Dale Hollow Lake	85 (±4)	61 (±6)	74 (±15)	43 (±17)	52 (±12)	9 (±7)
Lake Linville	48 (±6)	7 (±3)			23 (±7)	2 (±3)
Wood Creek Lake	34 (±5)	10 (±3)			21 (±10)	0 (±0)

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Table 13. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 1.5 hours of 15-minute nocturnal electrofishing runs for black bass in Fishing Creek of Lake Cumberland on 23 September 2014; standard error is in parentheses.

	Inch class														
Species	2	4	5	6	7	8	9	10	11	12	14	15	16	Total	CPUE
Largemouth bass			3	7	3	1		3	6	1	2	2	1	29	19.3 (4.1)
Spotted bass	1	1			1	1	1							5	3.3 (1.9)

sedyoycb.d14

Table 14. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall (September and October) in electrofishing samples at Lake Cumberland.

		Age-0		Age-0		Age-0 ≥5.0 in		Age-1 [a]	
Year class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
	Lake Cumberland								
2014	Fishing Creek	6.7	0.2	9.3	2.2	9.3	2.2		
2013	Fishing Creek	6.1	0.1	80.0	23.8	61.3	15.9	26.0	13.6
2012	Fishing Creek	6.1	0.1	96.7	24.6	80.0	19.6	21.8	6.2
2011	Fishing Creek	6.1	0.1	114.7	25.1	102.0	23.2	46.5	7.0
2010	Fishing Creek	5.8	0.1	85.3	9.4	67.3	8.4	16.7	11.5
2009	Fishing Creek	4.8	0.2	42.0	9.5	22.7	6.4	21.3	6.6
2008	Fishing Creek	5.0	0.1	166.0	40.1	80.7	31.3	81.3	13.5
2007	Fishing Creek	5.0	0.3	4.7	3.2	2.7	1.3	24.9	5.5
2006	Fishing Creek	6.3	0.2	22.0	3.1	20.7	2.4	32.0	8.2
2005	Fishing Creek	6.2	0.2	14.0	4.5	13.3	4.1	3.3	1.2
2004	Fishing Creek	6.2	0.1	50.7	8.2	41.3	7.4	4.0	2.1
2003	Fishing Creek	5.8	0.4	6.0	2.7	4.0	2.5	1.3	0.8
2002	Fishing Creek	6.0	0.1	192.7	36.7	160.7	36.3	4.0	1.5

[a] Age-1 largemouth bass CPUE based only on Fishing Creek location
sedyoycb.d14

Table 15. Year class strength at age 0 and mean lengths (in) of largemouth bass collected in September 2014 in electrofishing samples at Lake Cumberland, Laurel River Lake, Cedar Creek Lake, and Wood Creek Lake.

		Age 0		Age 0		Age 0 ≥5.0 in	
Lake	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error
Lake Cumberland	Fishing Creek	6.7	0.2	9.3	2.2	9.3	2.2
Laurel River Lake	Laurel River Arm	4.4	0.1	19.3	4.3	4.0	1.0
Cedar Creek Lake		3.8	0.2	19.3	7.6	3.3	1.2
Wood Creek Lake		3.7	0.2	2.7	0.9	0.0	0.0

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sedyoywc.d14

Table 16. Number of fish and mean relative weight (Wr) for each length group of black bass collected in Fishing Creek of Lake Cumberland during 23 September 2014. Standard error is in parentheses.

Species	Length group					
	8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Largemouth bass	No.	Wr	No.	Wr	No.	Wr
	10	88 (2)	3	95 (4)	3	93 (2)
	7.0-10.9 in		11.0-13.9 in		≥14.0 in	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	3	107 (4)	0	-	0	-

sedyoycb.d14

Table 17. Number of fish and mean relative weight (Wr) for each length group of black bass collected in Lake Cumberland, Laurel River Lake, Cedar Creek Lake, and Wood Creek Lake during September 2014. Standard error is in parentheses.

Species	Location	Length group					
		No.	Wr	No.	Wr	No.	Wr
Largemouth bass		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
	Lake Cumberland (Fishing Creek)	10	88 (2)	3	95 (4)	3	93 (2)
	Laurel River Lake (Laurel River Arm)	21	88 (2)	12	94 (3)	2	99 (6)
	Cedar Creek Lake	26	91 (1)	27	93 (2)	24	96 (2)
	Wood Creek Lake	125	84 (1)	46	83 (1)	8	91 (2)
Spotted bass		7.0-10.9 in		11.0-13.9 in		≥14.0 in	
	Lake Cumberland (Fishing Creek)	3	107 (4)	0	-	0	-
	Laurel River Lake (Laurel River Arm)	37	97 (1)	4	95 (4)	1	94 (-)
	Wood Creek Lake	35	94 (1)	6	87 (5)	0	-

sedyoycb.d14
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Table 18. Length frequency and CPUE (fish/nn) of walleye, white bass, sauger, and striped collected from the Jamestown/Bugwood (10 net-nights), Conley Bottom (10 net-nights), and Burnside/Waitsboro (12 net-nights) areas of Lake Cumberland in November 2014.

		Inch class																								
Area	Species	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
Jamestown/Bugwood																										
	Walleye							1	10	25	28	42	29	11	2	2								150	15.0	2.3
	White bass			1																				1	0.1	0.1
	Sauger																							0	0.0	0.0
	Striped bass			1	1	1		1		2	6	21	7	3	2	1	1	1		2		1		51	5.1	1.6
Conley Bottom																										
	Walleye		2	3	1	1		5	22	20	15	15	10	4					1					99	9.9	1.4
	White bass	1	1	1				1	1															5	0.5	0.2
	Sauger									1	1													2	0.2	0.1
	Striped bass				1					1	7	9	4	1	2	2	1			2			1	31	3.1	0.6
Burnside/Waitsboro																										
	Walleye		5	9	7	5	1	6	10	14	3	11	5	4	1									81	6.8	1.0
	White bass	4	4	4		1	1		3															17	1.4	0.3
	Sauger								1		2													3	0.3	0.1
	Striped bass	2						1	1	3	12	19	5	1	4	5			1		1	2		57	4.8	1.6
Total																										
	Walleye		7	12	8	6	1	12	42	59	46	68	44	19	3	2			1					330	10.3	1.1
	White bass	5	5	6		1	1	1	4															23	0.7	0.2
	Sauger								1	1	3													5	0.2	0.1
	Striped bass	2		1	2	1		2	1	6	25	49	16	5	8	8	2	1	1	4	1	3	1	139	4.3	0.8

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Table 19. Population assessment for walleye based on fall gill netting at Lake Cumberland from 1991-2014.

Year		Parameters: CPUE ≥ age 1+	Mean length age 2+ at capture	CPUE ≥ 20.0 in	CPUE age 1+	Total score	Assessment rating
Management objective		≥ 6.0 fish/nn	≥ 18.0 in	≥ 1.5 fish/nn	≥ 3.0 fish/nn		
2014	Value	9.3	18.3	0.8	3.6		
	Score	4	4	2	4	14	E
2012	Value	6.3	18.2	0.2	3.1		
	Score	4	4	1	4	13	G
2010	Value	3.3	17.6	0.1	1.9		
	Score	2	3	1	2	8	F
2008	Value	5.9	18.5	0.9	2.5		
	Score	3	4	2	3	12	G
2006	Value	14.8	19.1	3.9	3.1		
	Score	4	4	4	4	16	E
2004	Value	8.9	18.8	1.8	4.6		
	Score	4	4	3	4	15	E
2002	Value	12.1	19.1	2.5	6.4		
	Score	4	4	4	4	16	E
2000	Value	4.3	18.6	1.5	1.6		
	Score	3	4	3	2	12	G
1998	Value	7.9	18.5	2.4	1.9		
	Score	4	4	4	2	14	E
1996	Value	5.3	18.5	0.9	3.6		
	Score	3	4	2	4	13	G
1994	Value	3.5	18.5	0.9	0.7		
	Score	2	4	2	1	9	F
1991	Value	5.1	18.5*	0.2	2.7		
	Score	3	4	1	3	11	G

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* 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 2014, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2013	17	11.2						
2012	11	11.9	15.7					
2011	13	11.5	15.9	18.0				
2010	2	11.9	15.9	17.4	18.6			
2009	2	11.4	15.4	17.0	18.1	19.0		
2008	2	11.2	15.0	16.5	17.4	18.2	18.8	
2007	2	10.4	12.6	14.2	15.6	16.6	17.5	18.1
Mean		11.4	15.5	17.4	17.4	18.0	18.2	18.1
Number		49	32	21	8	6	4	2
Smallest		9.7	11.9	14.0	15.0	16.1	16.8	17.1
Largest		13.0	17.5	19.7	19.1	19.6	18.8	19.0
Std error		0.1	0.2	0.3	0.5	0.5	0.5	1.0
95% CI ±		0.3	0.4	0.6	1.0	1.0	1.0	1.9

Otoliths were used for age-growth determinations; Intercept = 0
sedagcwm.d14

Table 21. Mean back calculated lengths (in) at each annulus for female walleye collected from Lake Cumberland during 2014, including the 95% confidence interval (CI) for each mean length per age group.

		Age				
Year	No.	1	2	3	4	5
2012	4	12.4	16.8			
2011	5	11.5	16.6	19.3		
2010	1	12.0	15.9	19.8	21.7	
2009	2	11.3	16.3	19.2	21.3	22.6
Mean		11.8	16.6	19.4	21.4	22.6
Number		12	12	8	3	2
Smallest		11.0	15.8	18.6	19.9	21.1
Largest		12.7	17.8	20.5	22.7	24.2
Std error		0.2	0.2	0.3	0.8	1.5
95% CI ±		0.3	0.4	0.5	1.6	3.0

Otoliths were used for age-growth determinations; Intercept = 0
sedagcwf.d14

Table 22. Mean back calculated lengths (in) at each annulus for walleye (both sexes) collected from Lake Cumberland during 2014, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2013	32	11.4						
2012	16	12.1	15.9					
2011	19	11.5	16.1	18.4				
2010	3	12.0	15.9	18.2	19.6			
2009	4	11.4	15.9	18.1	19.7	20.8		
2008	2	11.2	15.0	16.5	17.4	18.2	18.8	
2007	2	10.4	12.6	14.2	15.6	16.6	17.5	18.1
Mean		11.5	15.8	17.9	18.5	19.1	18.2	18.1
Number		78	46	30	11	8	4	2
Smallest		9.5	11.9	14.0	15.0	16.1	16.8	17.1
Largest		13.0	17.8	20.5	22.7	24.2	18.8	19.0
Std error		0.1	0.2	0.3	0.7	0.9	0.5	1.0
95% CI $\pm$		0.2	0.3	0.6	1.4	1.8	1.0	1.9

Otoliths were used for age-growth determinations; Intercept = 0
sedagcbw.d14

Table 23. Age-frequency and CPUE (fish/nn) of walleye gill netting for 32 net-nights at Lake Cumberland during November 2014.

	Inch class																		Std
Age	9	10	11	12	13	14	15	16	17	18	19	20	21	22	25	Total	%	CPUE	error
0	7	12	8	6	1											34	10.3	1.1	0.3
1						12	42	48	14							116	35.0	3.6	0.4
2								11	28	25	9	4				77	23.3	2.4	0.4
3										43	9	13	2	1		68	20.5	2.1	0.4
4											9			1		10	3.0	0.3	0.1
5											4	2	1		1	8	2.4	0.3	0.1
6											9					9	2.7	0.3	0.1
7									5		4					9	2.7	0.3	0.1
Total	7	12	8	6	1	12	42	59	47	68	44	19	3	2	1	331	100.0	10.3	
%	2.1	3.6	2.4	1.8	0.3	3.6	12.7	17.8	14.2	20.5	13.3	5.7	0.9	0.6	0.3				

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sedagcbw.d14

Table 24. Walleye population assessment for walleye gill netted at Lake Cumberland in November 2014.

Parameter	Actual value	Assessment score
Population density (CPUE age 1 and older)	9.3	4
Growth rate (Mean length age 2+ at capture)	18.3	4
Size structure (CPUE $\geq$20.0 in)	0.8	2
Recruitment (CPUE age 1)	3.6	4
Instantaneous mortality (Z)	0.503	
Annual mortality (A)	39.5	
Total score		14
Assessment rating		E

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sedagcbw.d14

Table 25. Number of fish and mean relative weight (Wr) for each length group of walleye collected in Lake Cumberland during November 2014. Standard error is in parentheses.

Length group					
10.0-14.9 in		15.0-19.9 in		$\geq$20.0 in	
No.	Wr	No.	Wr	No.	Wr
37	96 (1)	229	94 (0)	23	91 (2)

sedgncbw.d14

Table 26. Mean back calculated lengths (in) at each annulus for white bass collected from Lake Cumberland during 2014, including the 95% confidence interval (CI) for each mean length per age group.

		Age		
Year	No.	1	2	3
2013	1	11.1		
2011	8	9.9	13.3	14.6
Mean		10.0	13.3	14.6
Number		9	8	8
Smallest		8.3	11.0	12.4
Largest		11.7	15.1	16.2
Std error		0.4	0.4	0.4
95% CI ±		0.8	0.8	0.8

Otoliths were used for age-growth determinations; Intercept = 0
sedagcwb.d14

Table 27. Age-frequency and CPUE (fish/nn) of white bass collected during gill netting for 32 net-nights at Lake Cumberland during November 2014.

	Inch class										Std
Age	8	9	10	12	13	14	15	Total	%	CPUE	error
0	5	5	6					16	69.6	0.50	0.1
1+				1				1	4.3	0.03	0.0
3+					1	1	4	6	26.1	0.19	0.1
Total	5	5	6	1	1	1	4	23	26.1	0.7	
%	21.7	21.7	26.1	4.3	4.3	4.3	17.4				

sedgncbw.d14
sedagcwb.d14

Table 28. Population assessment for white bass collected from Lake Cumberland in November 2014.

Parameter	Actual value	Assessment score
CPUE age-1 and older	0.2	1
Mean length age-2+ at capture	13.6 *	4
CPUE >12.0 in	0.2	1
CPUE age 1	0.03	1
Instantaneous mortality (Z)	-	
Annual mortality (A)	-	
Total score		7
Assessment rating		F

* 2010 data used for assessment

sedgncbw.d14
sedagcwb.d14

Table 29. Number of fish and mean relative weight (Wr) for each length group of white bass collected in Lake Cumberland during November 2014. Standard error is in parentheses.

Length group					
6.0-8.9 in		9.0-11.9 in		>12.0 in	
No.	Wr	No.	Wr	No.	Wr
5	96 (2)	11	98 (3)	7	96 (5)

sedgncbw.d14

Table 30. Length frequency and CPUE (fish/nn) of striped bass collected at Lake Cumberland in 20 net-nights on 2-4 December 2014.

	Inch class																	
Species	8	10	15	16	17	18	19	20	22	23	24	26	27	28	29	Total	CPUE	Std. error
Striped bass	1	1	1	8	19	42	31	3	3	1	2	2	2	3	2	121	6.1	1.1

sedgncbs.d14

Table 31. Population assessment for striped bass based on fall gill netting at Lake Cumberland from 1994-2014.

Year		CPUE ≥age 1	Mean length age 2 at capture	CPUE ≥24.0 in	CPUE age-1	Total score	Assessement rating
Management objective		≥4.0 fish/nn	≥21.0 in	≥1.0 fish/nn	≥2.0 fish/nn		
2014	Value	6.1	21.9	0.6	5.2		
	Score	4	3	2	4	13	G
2013	Value	7.2	22.1	2.8	2.6		
	Score	4	4	4	3	15	E
2012	Value	7.3	20.6	1.9	0.8		
	Score	4	2	3	1	10	G
2011	Value	5.9	20.5	1.2	0.6		
	Score	3	2	3	1	9	F
2009	Value	4.0	21.6	1.2	1.8		
	Score	3	3	3	2	11	G
2008	Value	9.2	22.1	1.5	2.7		
	Score	4	4	3	3	14	E
2007	Value	5.3	23.7	1.2	3.9		
	Score	3	4	3	4	14	E
2006	Value	3.9	22.8	1.6	1.3		
	Score	2	4	3	2	11	G
2005	Value	3.4	23.3	1.5	1.2		
	Score	2	4	3	2	11	G
2004	Value	4.4	23.4	2.1	1.8		
	Score	3	4	4	2	13	G
2003	Value	4.1	21.9	1.2	1.7		
	Score	3	3	3	2	11	G
2002	Value	3.5	22.9	1.3	1.8		
	Score	2	4	3	2	11	G
2001	Value	3.1	21.0	0.1	2.7		
	Score	2	3	1	3	9	F
2000	Value	3.4	23.3	0.7	2.5		
	Score	2	4	2	3	11	G
1999	Value	3.4	22.4	0.3	2.7		
	Score	2	4	1	3	10	G
1998	Value	5.3	21.5	0.4	4.8		
	Score	3	3	1	4	11	G
1997	Value	1.9	21.5	1.1	0.4		
	Score	1	3	3	1	8	F
1996	Value	2.7	22.2	0.9	1.0		
	Score	2	4	2	2	10	G
1995	Value	3.5	22.7	1.5	1.5		
	Score	2	4	3	2	11	G
1994	Value	4.3	21.7	0.8	2.7		
	Score	3	3	2	3	11	G

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sedagcbs.d14

Table 32. Mean back calculated lengths (in) at each annulus for striped bass collected from Lake Cumberland during 2014, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2013	52	12.0						
2012	24	11.9	18.4					
2011	1	13.1	20.7	23.4				
2010	5	13.1	18.8	22.1	24.6			
2009	15	13.0	18.9	22.0	23.8	25.5		
2007	2	11.7	18.0	21.5	23.4	24.9	26.4	27.2
Mean		12.2	18.6	22.1	24.0	25.4	26.4	27.2
Number		99	47	23	22	17	2	2
Smallest		6.8	16.4	19.4	21.0	22.3	26.1	26.6
Largest		14.7	20.7	23.7	26.5	27.5	26.7	27.8
Std error		0.2	0.2	0.2	0.3	0.4	0.3	0.6
95% CI ±		0.3	0.3	0.5	0.6	0.7	0.6	1.2

Otoliths were used for age-growth determinations; Intercept = 0
sedagcbs.d14

Table 33. Age-frequency and CPUE (fish/nn) of striped bass gill netted for 20 net-nights at Lake Cumberland in December 2014.

	Inch class																		Std
Age	8	10	15	16	17	18	19	20	22	23	24	26	27	28	29	Total	%	CPUE	error
0	1	1														2	1.6	0.1	0.1
1+			1	8	19	42	31	2								103	83.7	5.2	1.0
2+								2	3		1					6	4.9	0.3	0.1
3+													1			1	0.8	0.1	0.0
4+											1			1		2	1.6	0.1	0.1
5+										1		2	1	2	1	7	5.7	0.4	0.2
7+													1		1	2	1.6	0.1	0.0
Total	1	1	1	8	19	42	31	4	3	1	2	2	3	3	2	123	100.0	6.2	
%	0.8	0.8	0.8	6.5	15.4	34.1	25.2	3.3	2.4	0.8	1.6	1.6	2.4	2.4	1.6				

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sedagcbs.d14

Table 34. Population assessment for striped bass gill netted at Lake Cumberland in December 2014.

Parameter	Actual value	Assessment score
Population density (CPUE age 1 and older)	6.1	4
Growth rate (Mean length age 2+ at capture)	21.9	3
Size structure (CPUE $\geq$24.0 in)	0.6	2
Recruitment (CPUE age 1)	5.2	4
Instantaneous mortality (Z)	0.628	
Annual mortality (A)	46.7	
Total score		13
Assessment rating		G

sedgncbs.d14
sedagcbs.d14

Table 35. Number of fish and mean relative weight (Wr) for each length group of striped bass collected in Lake Cumberland in November and December 2014. Standard error is in parentheses.

Length group					
12.0-19.9 in		20.0-29.9 in		$\geq$30.0 in	
No.	Wr	No.	Wr	No.	Wr
158	91 (0)	51	89 (1)	0	-

sedgncbs.d14
sedgncbw.d14

Table 36. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 6.0 hours of 15-minute nocturnal electrofishing runs for black bass in Laurel River Lake during April and May 2014; standard error is in parentheses.

		Inch class																			
Area	Species	3	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Dam	Largemouth bass			1	3	3	1		4	2	4	6	8	4	3	4	1			44	29.3 (9.0)
	Spotted bass				2		2	1	1	1			1							8	5.3 (2.5)
	Smallmouth bass																1	1		2	1.3 (0.8)
Spruce	Largemouth bass		2	1	3	5	4	3	3	6	9	9	8	7	4	4	2	1		71	47.3 (8.8)
Creek	Spotted bass				1	3	3	1	1	3	3	3	4							22	14.7 (4.5)
	Smallmouth bass			1	1	1	1	1					1		2					8	5.3 (0.8)
Laurel	Largemouth bass	2	1	5	5	9	18	38	18	16	9	10	8	15	2	5	3	1	2	167	111.3 (12.9)
River	Spotted bass	3		3	3	7	8	3	3	1	2									33	22.0 (3.7)
Arm	Smallmouth bass												1							1	0.7 (0.7)
Upper	Largemouth bass		2	1	9	8	1	3	2	4	11	15	24	9	7	6		1		103	68.7 (8.5)
Craigs	Spotted bass			2	4	4	10	7	8	8	7	9	6							65	43.3 (6.3)
Creek	Smallmouth bass			1	1				3			2	3	1	2					13	8.7 (1.9)
Total	Largemouth bass	2	5	8	20	25	24	44	27	28	33	40	48	35	16	19	6	3	2	385	64.2 (7.9)
	Spotted bass	3		5	10	14	23	12	13	13	12	12	11							128	21.3 (3.6)
	Smallmouth bass			2	2	1	1	1	3			2	5	1	4		1	1		24	4.0 (0.9)

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Table 37. Comparison of catch-per-hour of black bass (by area) captured during spring electrofishing on Laurel River Lake during the period of 2010-2014.

	Stock					Quality					Preferred				
Species/Area	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Largemouth bass															
Dam	70.7	33.3	52.7	64.7	26.7	46.0	15.3	31.3	53.3	21.3	21.3	6.7	15.3	12.7	13.3
Spruce Creek	80.7	50.7	32.0	60.0	43.3	58.0	45.3	24.0	49.3	33.3	28.7	25.3	16.0	26.7	17.3
Laurel River Arm	87.3	102.0	102.7	59.3	102.7	47.3	74.0	61.3	42.7	47.3	25.3	32.7	27.3	24.0	24.0
Craigs Cr. headwaters	52.7	80.0	54.7	59.3	60.7	16.0	52.0	32.0	44.7	51.3	9.3	15.3	14.7	21.3	31.3
Mean	72.8	66.5	60.5	60.8	58.3	41.8	46.7	37.2	47.5	38.3	21.2	20.0	18.3	21.2	21.5
Spotted bass															
Dam	34.7	16.0	18.0	6.0	5.3	24.7	8.0	8.7	3.3	2.0	8.7	3.3	2.7	0.7	0.7
Spruce Creek	22.7	18.0	18.7	25.3	14.7	10.0	11.3	12.7	22.7	9.3	6.7	2.7	3.3	6.0	4.7
Laurel River Arm	39.3	15.3	17.3	8.7	18.0	7.3	2.0	2.7	4.7	4.0	1.3	0.0	0.7	0.7	0.0
Craigs Cr. headwaters	44.0	38.7	28.7	36.0	42.0	13.3	16.7	10.0	21.3	25.3	2.7	2.0	0.0	1.3	10.0
Mean	35.2	22.0	20.7	19.0	20.0	13.8	9.5	8.5	13.0	10.2	4.8	2.0	1.7	2.2	3.8
Smallmouth bass															
Dam	16.7	2.0	2.7	2.7	1.3	8.0	0.0	2.7	2.7	1.3	6.0	0.0	2.0	1.3	1.3
Spruce Creek	8.0	6.0	2.7	4.7	4.7	4.7	2.7	2.0	4.7	2.0	4.0	2.0	2.0	2.0	2.0
Laurel River Arm	1.3	1.3	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.7
Craigs Cr. headwaters	1.3	4.7	0.7	1.3	8.0	1.3	2.7	0.7	0.0	7.3	1.3	1.3	0.0	0.0	5.3
Mean	6.8	3.5	1.5	2.2	3.7	3.5	1.3	1.3	1.8	2.8	2.8	0.8	1.0	0.8	2.3

Largemouth bass - ≥8.0 in = stock, ≥12.0 in = quality, ≥15.0 in = preferred.
Smallmouth bass and spotted bass - ≥7.0 in = stock, ≥11.0 in = quality, ≥14.0 in = preferred.
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Table 38. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Laurel River Lake during April and May 2014.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	5.8	1.2	20.0	4.9	16.8	2.5	21.5	2.6	0.8	0.3	64.2	7.9
2013	5.0	1.2	13.3	2.1	26.3	3.0	21.2	2.1	1.2	0.4	65.8	4.6
2012	6.0	1.2	23.3	3.6	18.8	2.9	18.3	2.0	0.2	0.2	66.5	7.6
2011	11.5	3.7	19.8	4.1	26.7	4.7	20.0	2.9	0.8	0.3	78.0	11.6
2010	15.8	3.0	31.0	4.4	20.7	3.1	21.2	2.4	0.8	0.4	88.7	8.4
2009	13.2	2.4	12.2	2.7	16.8	2.6	20.8	3.2	0.8	0.5	63.0	8.5
2008	37.5	11.5	15.0	2.0	7.8	1.5	17.7	2.7	0.7	0.5	78.0	13.8
2007	2.3	0.8	7.8	1.9	14.5	1.9	21.8	2.6	0.5	0.3	46.5	4.0
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 39. Spring electrofishing CPUE (fish/hr) for each length group of spotted bass collected at Laurel River Lake during April and May 2014.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	3.0	0.7	8.2	1.7	6.3	1.5	3.8	1.2	0.0	0.0	21.3	3.6
2013	3.3	0.8	4.8	1.4	10.8	2.9	2.2	0.7	0.0	0.0	21.2	3.9
2012	6.3	1.6	8.3	1.8	6.8	1.6	1.7	0.5	0.0	0.0	23.2	3.3
2011	7.3	1.4	9.2	1.3	7.5	1.7	2.0	0.5	0.0	0.0	26.0	3.5
2010	25.2	4.2	13.0	2.3	9.0	2.0	4.8	1.2	0.0	0.0	52.0	6.1
2009	6.5	1.5	12.5	2.4	6.8	1.5	2.7	0.8	0.2	0.2	28.5	4.6
2008	20.2	4.2	12.7	2.6	8.5	1.4	2.3	0.6	0.0	0.0	43.7	7.0
2007	12.2	2.3	13.5	2.2	10.7	1.7	2.0	0.6	0.0	0.0	38.3	4.0
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 40. Spring electrofishing CPUE (fish/hr) for each length group of smallmouth bass collected at Laurel River Lake during April and May 2014.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	0.7	0.3	0.5	0.3	0.5	0.4	2.3	0.6	1.0	0.4	4.0	0.9
2013	0.3	0.2	0.2	0.2	1.0	0.6	0.8	0.4	0.0	0.0	2.3	0.8
2012	0.3	0.2	0.2	0.2	0.3	0.2	1.0	0.4	0.5	0.3	1.8	0.6
2011	1.0	0.4	1.7	0.5	0.5	0.3	0.8	0.4	0.7	0.3	4.0	1.1
2010	10.2	2.2	1.2	0.5	0.7	0.4	2.8	0.7	1.2	0.4	14.8	3.0
2009	1.7	1.2	1.0	0.4	0.7	0.4	3.5	1.5	1.8	0.8	6.8	2.4
2008	1.7	0.7	1.8	0.7	1.3	0.5	3.2	1.2	1.8	0.6	8.0	2.3
2007	2.8	0.8	1.7	0.7	0.3	0.2	1.2	0.5	0.8	0.4	6.0	1.4
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 41. Population assessment for largemouth bass based on spring electrofishing at Laurel River Lake from 1990-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age 1	CPUE 12.0-14.9 in	CPUE >15.0 in	CPUE >20.0 in	Total score	Assessement rating
Management objective		>13.0 in	>10.0 fish/hr	>20.0 fish/hr	>10.0 fish/hr	>0.5 fish/hr		
2014	Value		1.6	16.8	21.5	0.8		
	Score	4	1	2	4	2	13	G
2013	Value	13.1	1.2	26.3	21.2	1.2		
	Score	4	1	3	4	2	14	G
2012	Value		3.3	18.8	18.3	0.2		
	Score	4	1	2	3	1	11	F
2011	Value		9.2	26.7	20.0	0.8		
	Score	4	1	3	4	2	14	G
2010	Value		6.5	20.7	21.2	0.8		
	Score	4	1	2	4	2	13	G
2009	Value		12.2	16.8	20.8	0.8		
	Score	4	1	2	4	2	13	G
2008	Value	13.3	36.3	7.8	17.7	0.7		
	Score	4	3	1	3	2	13	G
2007	Value		2.1	14.5	21.8	0.5		
	Score	4	1	1	4	2	12	G
2006	Value		18.4	17.1	19.5	0.6		
	Score	4	1	2	3	2	12	G
2005	Value		4.6	18.5	22.5	0.2		
	Score	4	1	2	4	1	12	G
2004	Value		2.6	18.5	14.2	0.0		
	Score	4	1	2	3	0	10	F
2003	Value	13.7	7.8	29.3	13.8	0.0		
	Score	4	1	3	3	0	11	F
2002	Value		18.2	23.3	8.8	0.0		
	Score	4	1	2	2	0	9	F
2001	Value		17.8	22.1	2.5	0.3		
	Score	4	1	2	1	2	10	F
2000	Value		2.3	16.3	2.1	0.1		
	Score	4	1	2	1	1	9	F
1999	Value		8.2	26.0	6.4	0.5		
	Score	4	1	3	2	2	12	G
1998	Value		6.0	9.2	7.8	1.5		
	Score	4	1	1	2	2	10	F
1997	Value		14.5	25.4	6.2	0.7		
	Score	4	1	3	2	2	12	G
1996	Value		8.7	15.4	6.6	0.9		
	Score	4	1	2	2	2	11	F
1995	Value		1.2	9.3	6.1	1.1		
	Score	4	1	1	2	2	10	F
1994	Value		5.7	13.9	7.0	1.3		
	Score	4	1	1	2	2	10	F
1993	Value		6.0	11.4	6.5	1.3		
	Score	4	1	1	2	2	10	F
1992	Value		9.1	24.4	8.8	1.3		
	Score	4	1	2	2	2	11	F
1991	Value		22.1	11.6	4.7	0.0		
	Score	4	2	1	2	0	9	F
1990	Value		17.5	10.2	4.9	1.1		
	Score	4	1	1	2	2	10	F

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Table 42. Population assessment for spotted bass based on spring electrofishing at Laurel River Lake from 1990-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age 1	CPUE 11.0-13.9 in	CPUE >14.0 in	CPUE >17.0 in	Total score	Assessement rating
Management objective		>11.0 in	>3.0 fish/hr	>7.0 fish/hr	>1.0 fish/hr	>0.1 fish/hr		
2014	Value		0.5	6.3	3.8	0.0		
	Score	4	1	3	4	0	12	G
2013	Value		0.3	10.8	2.2	0.0		
	Score	4	1	4	4	0	13	G
2012	Value	10.0	0.5	6.8	1.7	0.0		
	Score	4	1	3	3	0	11	F
2011	Value		0.8	7.5	2.0	0.0		
	Score	4	1	4	4	0	13	G
2010	Value		2.5	9.0	4.8	0.0		
	Score	4	2	4	4	0	14	G
2009	Value		0.3	6.8	2.7	0.2		
	Score	4	1	3	4	2	14	G
2008	Value		4.0	8.5	2.3	0.0		
	Score	4	2	4	4	0	14	G
2007	Value	10.4	0.8	10.7	2.0	0.0		
	Score	4	1	4	4	0	13	G
2006	Value		4.3	9.1	2.6	0.0		
	Score	4	2	4	4	0	14	G
2005	Value		1.5	7.7	3.7	0.0		
	Score	4	2	4	4	0	14	G
2004	Value		0.0	9.8	2.2	0.0		
	Score	4	0	4	4	0	12	G
2003	Value		2.3	10.2	0.8	0.0		
	Score	4	2	4	3	0	13	G
2002	Value	11.5	2.2	5.5	0.3	0.0		
	Score	4	2	3	3	0	12	G
2001	Value		6.0	8.3	0.1	0.0		
	Score	4	2	4	2	0	12	G
2000	Value		2.6	2.3	0.1	0.0		
	Score	4	2	3	2	0	11	F
1999	Value		1.5	5.6	0.4	0.0		
	Score	4	2	3	3	0	12	G
1998	Value		6.6	4.8	0.3	0.0		
	Score	4	2	3	3	0	12	G
1997	Value		1.6	7.5	0.7	0.0		
	Score	4	2	4	3	0	13	G
1996	Value		0.3	7.9	0.7	0.0		
	Score	4	1	4	3	0	12	G
1995	Value		1.2	9.9	0.0	0.0		
	Score	4	2	4	0	0	10	F
1994	Value		4.8	5.4	1.4	0.0		
	Score	4	2	3	3	0	12	G
1993	Value		1.2	5.3	0.6	0.2		
	Score	4	2	3	3	2	14	G
1992	Value		3.4	13.2	1.0	0.0		
	Score	4	2	4	3	0	13	G
1991	Value		4.0	12.7	0.0	0.0		
	Score	4	2	4	0	0	10	F
1990	Value		6.7	3.2	2.4	0.0		
	Score	4	2	3	4	0	13	G

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Table 43. Population assessment for smallmouth bass based on spring electrofishing at Laurel River Lake from 1990-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age 1	CPUE 11.0-13.9 in	CPUE ≥14.0 in	CPUE ≥17.0 in	Total score	Assessement rating
Management objective		≥13.0 in	≥3.0 fish/hr	≥1.5 fish/hr	≥1.0 fish/hr	≥0.5 fish/hr		
2014	Value		0.0	0.5	2.3	1.0		
	Score	4	0	2	4	4	14	G
2013	Value	13.2	0.0	1.0	0.8	0.0		
	Score	4	0	3	3	0	10	F
2012	Value		0.0	0.3	1.0	0.5		
	Score	4	0	2	4	4	14	G
2011	Value		0.3	0.5	0.8	0.7		
	Score	4	2	2	3	4	15	G
2010	Value		3.8	0.7	2.8	1.2		
	Score	4	4	2	4	4	18	E
2009	Value		0.3	0.7	3.5	1.8		
	Score	4	2	2	4	4	16	G
2008	Value	13.6	0.8	1.3	3.2	1.8		
	Score	4	2	3	4	4	17	E
2007	Value		1.2	0.3	1.2	0.8		
	Score	4	3	2	4	4	17	E
2006	Value		0.4	0.2	1.0	0.3		
	Score	4	2	2	3	3	14	G
2005	Value		0.1	1.5	5.5	2.8		
	Score	4	1	3	4	4	16	G
2004	Value		0.4	0.7	1.2	0.0		
	Score	4	2	2	4	0	12	G
2003	Value	13.6	4.0	1.8	2.2	0.2		
	Score	4	4	3	4	2	17	E
2002	Value		6.0	2.2	0.7	0.2		
	Score	4	4	3	3	2	16	G
2001	Value		3.4	2.8	1.1	0.0		
	Score	4	4	4	4	0	16	G
2000	Value		0.9	1.3	0.6	0.1		
	Score	4	2	3	3	2	14	G
1999	Value		2.1	1.9	0.5	0.1		
	Score	4	3	3	3	2	15	G
1998	Value		12.7	0.7	0.7	0.5		
	Score	4	4	2	3	4	17	E
1997	Value		6.7	2.1	1.5	0.1		
	Score	4	4	3	4	2	17	E
1996	Value		0.1	2.9	0.4	0.0		
	Score	4	1	4	3	0	12	G
1995	Value		1.2	0.5	1.1	0.3		
	Score	4	3	2	4	3	16	G
1994	Value		3.4	1.3	0.7	0.3		
	Score	4	4	3	3	3	17	E
1993	Value		1.6	0.6	0.4	0.3		
	Score	4	3	2	3	3	15	G
1992	Value		1.9	1.5	0.2	0.0		
	Score	4	3	3	2	0	12	G
1991	Value		0.4	0.4	0.0	0.0		
	Score	4	2	2	0	0	8	F
1990	Value		8.6	1.4	1.4	0.5		
	Score	4	4	3	4	4	19	E

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Table 44. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Laurel River Lake during April and May 2014; 95% confidence limits are in parentheses.

		Largemouth bass			Spotted bass			Smallmouth bass		
Year	Area	No. ≥ stock size	PSD (+/- 95%)	RSD_{15} (+/- 95%)	No. ≥ stock size	PSD (+/- 95%)	RSD_{14} (+/- 95%)	No. ≥ stock size	PSD (+/- 95%)	RSD_{14} (+/- 95%)
2014	Dam	40	80 (± 13)	50 (± 16)	8	38 (± 36)	13 (± 25)	2	100 (± 0)	100 (± 0)
	Spruce Creek	65	77 (± 10)	40 (± 12)	22	64 (± 21)	32 (± 20)	7	43 (± 40)	43 (± 40)
	Laurel River Arm	154	46 (± 8)	23 (± 7)	27	22 (± 16)	0 (± 0)	1	100 (± 0)	100 (± 0)
	Upper Craigs Creek	91	85 (± 7)	52 (± 10)	63	60 (± 12)	24 (± 11)	12	92 (± 16)	67 (± 28)
	Total	350	66 (± 5)	37 (± 5)	120	51 (± 9)	19 (± 7)	22	77 (± 18)	64 (± 21)
2013	Total	365	78 (± 4)	35 (± 5)	114	68 (± 9)	11 (± 6)	13	85 (± 20)	38 (± 28)
2012	Total	363	61 (± 5)	30 (± 5)	124	41 (± 9)	8 (± 5)	9	89 (± 22)	67 (± 33)
2011	Total	399	70 (± 4)	30 (± 5)	132	43 (± 8)	9 (± 5)	21	38 (± 21)	24 (± 19)
2010	Total	437	57 (± 5)	29 (± 4)	211	39 (± 7)	14 (± 5)	41	51 (± 15)	41 (± 15)
2009	Total	299	76 (± 5)	42 (± 6)	145	39 (± 8)	11 (± 5)	36	69 (± 15)	58 (± 16)
2008	Total	243	63 (± 6)	44 (± 6)	193	34 (± 7)	7 (± 4)	38	71 (± 15)	50 (± 16)
2007	Total	265	82 (± 5)	49 (± 6)	192	40 (± 7)	6 (± 3)	27	33 (± 18)	26 (± 17)
2006	Total	316	72 (± 5)	39 (± 5)	193	38 (± 7)	8 (± 4)	10	70 (± 30)	60 (± 32)
2005	Total	336	73 (± 5)	40 (± 5)	98	69 (± 9)	22 (± 8)	47	89 (± 9)	70 (± 13)
2004	Total	262	75 (± 5)	32 (± 6)	158	41 (± 19)	26 (± 17)	27	46 (± 8)	8 (± 4)

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Table 45. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 1.5 hours of 15-minute nocturnal electrofishing runs for black bass in Laurel River Lake on 17 September 2014; standard error is in parentheses.

		Inch class																
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	Total	CPUE
Laurel River Arm	Largemouth bass		9	14	7	32	45	6	3	4	8	3	8	1	1	1	142	94.7 (18.9)
	Spotted bass	1	3	3	9	5	5	9	13	10	1	2	1		1		63	42.0 (7.1)
	Smallmouth bass					1			1								2	1.3 (0.8)

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Table 46. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in the fall (September and October) in electrofishing samples at Laurel River Lake.

		Age 0		Age 0		Age 0 ≥5.0 in		Age 1[a]	
Year Class	Area	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2014	Laurel River Arm	4.4	0.1	19.3	4.3	4.0	1.0		
2013	Laurel River Arm	4.0	0.1	21.3	6.6	2.7	1.3	6.7	2.2
2012	Laurel River Arm	4.6	0.1	11.3	3.6	3.3	1.9	4.0	2.1
2011 [b]	Laurel River Arm	4.1	0.3	10.7	5.6	3.3	1.9	6.0[c]	0.9
2010 [b]	Laurel River Arm	5.4	0.4	2.7	0.8	2.0	0.9	31.5[d]	7.5
2009	Laurel River Arm	3.8	0.3	6.0	3.2	0.7	0.7	19.3	7.0
2008 [b]	Laurel River Arm	3.2	0.3	1.3	0.8	0.0	0.0	14.0[e]	4.6
2007 [b]	Laurel River Arm	3.5	0.1	5.3	4.6	0.0	0.0	118.9[f]	12.4
2006 [b]	Laurel River Arm	3.7	0.1	12.7	4.9	0.7	0.7	5.4[g]	2.1
2005 [b]	Laurel River Arm	4.4	0.2	14.0	3.5	3.3	1.6	58.3[h]	9.2
2004	Laurel River Arm	4.9	0.2	14.0	5.8	8.0	3.4	8.3	2.4
2003	Laurel River Arm	3.4	0.1	36.7	14.0	0.7	0.7	2.6	1.0
2002	Laurel River Arm	4.5	0.1	30.7	5.8	8.7	3.5	10.3	4.1

[a] Age-1 largemouth bass CPUE based only on Laurel River Arm location

[b] Age-0 largemouth bass stocked in the fall

[c] Includes bass stocked in fall 2011; CPUE of fin-clipped bass=0.0 fish/hr

[d] Includes bass stocked in fall 2010; CPUE of fin-clipped bass=8.0 fish/hr

[e] Includes bass stocked in fall 2008; CPUE of fin-clipped bass=8.0 fish/hr

[f] Includes bass stocked in fall 2007; CPUE of fin-clipped bass=108.0 fish/hr

[g] Includes bass stocked in fall 2006; CPUE of fin-clipped bass=2.0 fish/hr

[h] Includes bass stocked in fall 2005; CPUE of fin-clipped bass=36.0 fish/hr

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Table 47. Number of fish and mean relative weight (Wr) for each length group of black bass collected at 312 Bridge in Laurel River Lake on 17 September 2014. Standard error is in parentheses.

Species	Length group					
	8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Largemouth bass	No.	Wr	No.	Wr	No.	Wr
	21	88 (2)	12	94 (3)	2	99 (6)
	7.0-10.9 in		11.0-13.9 in		≥14.0 in	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	37	97 (1)	4	95 (4)	1	94 (-)

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Table 48. Length frequency and CPUE (fish/hr) of largemouth bass collected at Cedar Creek Lake in 3.5 hours (2.0 hours in lower end; 1.5 hours upper end; 30-min runs) of nocturnal electrofishing on 6 May 2014.

		Inch class																				
Area	Species	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total	CPUE	Std. error
Lower	Largemouth bass		7	6	10	12	13	7	24	31	27	31	17	17	15	23	9	1		250	125.0	9.5
Upper	Largemouth bass	2	4	3	21	13	12	18	25	46	49	48	40	31	22	10	7	2	1	354	236.0	30.1
Total	Largemouth bass	2	11	9	31	25	25	25	49	77	76	79	57	48	37	33	16	3	1	604	172.6	25.7

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Table 49. PSD and RSD_{15} values obtained for largemouth bass taken in spring electrofishing samples in each area of Cedar Creek Lake on 6 May 2014; 95% confidence levels are in parentheses.

	Lower Lake			Upper Lake			Total		
Year	No. $\geq$ 8.0 in	PSD (+/- 95%)	RSD_{15} (+/- 95%)	No. $\geq$ 8.0 in	PSD (+/- 95%)	RSD_{15} (+/- 95%)	No. $\geq$ 8.0 in	PSD (+/- 95%)	RSD_{15} (+/- 95%)
2014	237	82 ($\pm$ 5)	48 ($\pm$ 6)	345	81 ($\pm$ 4)	47 ($\pm$ 5)	582	82 ($\pm$ 3)	47 ($\pm$ 4)
2013	448	69 ($\pm$ 4)	33 ($\pm$ 4)	299	66 ($\pm$ 5)	36 ($\pm$ 5)	747	68 ($\pm$ 3)	34 ($\pm$ 3)
2012	406	56 ($\pm$ 5)	27 ($\pm$ 4)	409	60 ($\pm$ 5)	30 ($\pm$ 4)	815	58 ($\pm$ 3)	29 ($\pm$ 3)
2011	283	55 ($\pm$ 6)	22 ($\pm$ 5)	172	62 ($\pm$ 7)	31 ($\pm$ 7)	455	57 ($\pm$ 5)	25 ($\pm$ 4)
2010	386	43 ($\pm$ 5)	22 ($\pm$ 4)	310	48 ($\pm$ 6)	23 ($\pm$ 5)	696	45 ($\pm$ 4)	22 ($\pm$ 3)
2009	260	55 ($\pm$ 6)	27 ($\pm$ 5)	208	50 ($\pm$ 7)	27 ($\pm$ 6)	468	53 ($\pm$ 5)	27 ($\pm$ 4)
2008	249	39 ($\pm$ 6)	27 ($\pm$ 6)	177	45 ($\pm$ 7)	26 ($\pm$ 6)	426	42 ($\pm$ 5)	27 ($\pm$ 4)
2007	322	36 ($\pm$ 5)	22 ($\pm$ 5)	145	49 ($\pm$ 8)	36 ($\pm$ 8)	467	40 ($\pm$ 4)	26 ($\pm$ 4)
2006	238	36 ($\pm$ 6)	31 ($\pm$ 6)	99	55 ($\pm$ 10)	43 ($\pm$ 10)	337	42 ($\pm$ 5)	35 ($\pm$ 5)
2005	228	83 ($\pm$ 5)	50 ($\pm$ 7)	95	93 ($\pm$ 6)	63 ($\pm$ 10)	323	86 ($\pm$ 4)	54 ($\pm$ 6)
2004	277	66 ($\pm$ 6)	6 ($\pm$ 3)	178	76 ($\pm$ 7)	5 ($\pm$ 3)	455	70 ($\pm$ 5)	6 ($\pm$ 3)

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Table 50. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected from each section of Cedar Creek Lake from 2003-2014.

		Length group											
		<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in			
Year	Area	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	Total	Std. err.
2014	Lower	6.5	2.1	21.0	6.1	41.0	4.5	56.5	7.2	5.0	1.9	125.0	9.5
	Upper	6.0	3.5	42.7	6.8	80.0	8.3	107.3	12.7	6.7	0.7	236.0	30.1
	Total	6.3	1.7	30.3	6.0	57.7	8.8	78.3	12.0	5.7	1.1	172.6	25.7
2013	Lower	4.0	1.2	70.5	5.7	80.5	11.5	73.0	7.8	12.5	2.9	228.0	16.8
	Upper	9.3	4.4	67.3	5.5	60.7	8.7	71.3	7.1	7.3	3.7	208.7	18.8
	Total	6.3	2.1	69.1	3.7	72.0	8.1	72.3	5.0	10.3	2.3	219.7	12.1
2012	Lower	29.5	11.7	90.0	12.3	57.5	9.5	55.5	9.0	8.0	2.9	232.5	25.3
	Upper	10.7	2.7	110.0	9.5	81.3	3.7	81.3	8.7	6.7	0.7	283.3	10.1
	Total	21.4	7.4	98.6	8.5	67.7	7.1	66.6	7.8	7.4	1.6	254.3	17.4
2011	Lower	89.0	12.8	64.0	8.6	46.5	6.2	31.0	8.8	5.0	1.7	230.5	19.2
	Upper	43.3	16.3	44.0	10.1	35.3	4.8	35.3	8.7	3.3	1.3	158.0	13.6
	Total	69.4	13.1	55.4	7.2	41.7	4.4	32.9	5.8	4.3	1.1	199.4	18.6
2010	Lower	50.2	5.4	103.8	15.6	40.2	6.8	38.8	11.1	4.1	2.2	233.1	24.3
	Upper	17.3	9.4	107.3	14.5	51.3	10.5	48.0	5.3	4.0	1.2	224.0	23.2
	Total	36.1	8.1	105.3	10.0	45.0	5.8	42.8	6.5	4.1	1.3	229.2	15.8
2009	Lower	111.0	37.8	59.0	10.3	35.5	6.7	35.5	6.9	5.5	1.3	241.0	37.5
	Upper	64.7	38.8	69.3	13.0	32.0	6.0	37.3	12.8	4.7	1.8	203.3	35.7
	Total	91.1	26.7	63.4	7.7	34.0	4.3	36.3	6.1	5.1	1.0	224.9	25.3
2008	Lower	81.5	23.6	75.5	15.6	15.0	3.4	34.0	6.5	4.5	2.6	206.0	36.7
	Upper	56.7	4.8	64.7	7.7	22.7	1.3	30.7	9.8	4.0	3.1	174.7	1.3
	Total	70.9	13.7	70.9	9.1	18.3	2.5	32.6	5.1	4.3	1.8	192.6	20.6
2007	Lower	40.0	9.5	102.5	28.6	23.5	6.4	35.0	3.1	3.5	0.5	201.0	38.5
	Upper	17.3	13.5	49.3	8.7	12.7	2.7	34.7	3.3	3.3	1.3	114.0	21.2
	Total	30.3	8.5	79.7	19.0	18.9	4.2	34.9	2.1	3.4	0.6	163.7	28.2
2006	Lower	33.0	9.9	76.0	23.4	6.0	2.5	37.0	5.9			152.0	36.3
	Upper	12.0	3.1	30.0	1.2	7.3	1.8	28.7	2.7	0.7	0.7	78.0	4.2
	Total	24.0	6.9	56.3	15.6	6.6	1.5	33.4	3.7	0.3	0.3	120.3	24.5
2005	Lower	122.0	11.4	19.0	7.0	38.5	5.7	56.5	12.3			236.0	25.0
	Upper	23.3	9.3	4.7	1.8	18.7	0.7	40.0	7.2			86.7	12.9
	Total	79.7	21.1	12.9	4.8	30.0	5.1	49.4	7.9			172.0	33.4
2004	Lower	37.8	7.3	38.3	5.7	68.7	15.1	6.5	3.1			151.3	22.5
	Upper	11.3	3.5	28.0	7.2	84.7	11.7	6.0	2.0			130.0	24.1
	Total	27.9	6.6	34.5	4.6	74.7	10.2	6.3	2.0			143.3	16.1
2003	Lower	134.4	8.5	8.8	2.9	19.6	3.3	0.8	0.5			163.6	11.7
	Upper	218.0	51.3	18.7	9.8	13.3	2.4					250.0	54.0
	Total	165.8	23.3	12.5	4.1	17.3	2.4	0.5	0.3			196.0	24.7

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Table 51. Population assessment for largemouth bass based on spring electrofishing at Cedar Creek Lake from 2003-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age 1	CPUE 12.0-14.9 in	CPUE >15.0 in	CPUE >20.0 in	Total score	Assessement rating
Management objective		>11.5 in	>16.0 fish/hr	>20.0 fish/hr	>30.0 fish/hr	>4.0 fish/hr		
2014	Value		3.7	57.7	78.3	5.7		
	Score	4	1	4	4	4	17	E
2013	Value		4.9	72.0	72.3	10.3		
	Score	4	1	4	4	4	17	E
2012	Value		16.3	67.7	66.6	7.4		
	Score	4	2	4	4	4	18	E
2011	Value		68.6	41.7	32.9	4.3		
	Score	4	3	3	4	4	18	E
2010	Value	13.5	35.5	45.0	42.8	4.1		
	Score	4	2	3	4	4	17	E
2009	Value		92.6	34.0	36.3	5.1		
	Score	4	4	2	4	4	18	E
2008	Value		72.6	18.3	32.6	4.3		
	Score	4	3	1	4	4	16	G
2007	Value	12.0	26.6	18.9	34.9	3.4		
	Score	4	2	1	4	3	14	G
2006	Value		23.1	6.6	33.4	0.3		
	Score	4	2	1	4	1	12	G
2005	Value	14.0	1.7	30.0	49.4	0.0		
	Score	4	1	2	4	0	11	F
2004	Value		5.4	74.7	6.3	0.0		
	Score	4	1	4	2	0	11	F
2003	Value		6.0	17.3	0.5	0.0		
	Score	4	1	1	1	0	7	P

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Table 52. Length-frequency and CPUE (fish/hr) of largemouth bass collected during 1.5 hours of nocturnal electrofishing (0.75 hours in lower end; 0.75 hours upper end; 30-minute runs) at Cedar Creek Lake on 18 September 2014; standard error is in parentheses.

	Inch class																				
Area	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Lower	3	8	7	3	4	6	4	2	2	2	5	4	4	2		1	1			58	77.3 (15.4)
Upper	5	1		4	2	10	5	1	3	7	9	1	4	4	8	4	2	1	1	72	96.0 (12.2)
Total	8	9	7	7	6	16	9	3	5	9	14	5	8	6	8	5	3	1	1	130	86.7 (9.7)

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Table 53. 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 $\geq$5.0 in		Age 1	
Year class	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2014	3.8	0.2	19.3	7.6	3.3	1.2		
2013	3.5	0.2	9.4	3.9	0.3	0.3	3.7	1.2
2012	4.0	0.2	18.3	7.6	7.1	1.8	4.9	2.1
2011	4.2	0.1	27.1	4.0	6.0	1.1	16.3	6.5
2010	5.0	0.1	59.5	15.8	33.4	6.1	68.6	12.9
2009	4.1	0.1	17.4	4.3	3.7	1.8	35.5	7.9
2008	4.7	0.1	55.7	8.6	24.9	5.4	92.6	26.9
2007	5.4	0.0	32.9	7.8	28.6	6.6	72.6	13.5
2006	4.7	0.1	43.7	11.3	17.7	5.3	26.6	7.4
2005	4.8	0.1	55.7	9.5	28.0	7.7	23.1	6.7
2004	4.8	0.0	17.4	3.1	12.9		1.7	0.9

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Table 54. Number of fish and mean relative weight (Wr) for each length group of largemouth bass collected in Cedar Creek Lake on 18 September 2014. Standard error is in parentheses.

		Length group					
		8.0-11.9 in		12.0-14.9 in		≥15.0 in	
Species	Area	No.	Wr	No.	Wr	No.	Wr
Largemouth bass	Lower	10	92 (2)	13	95 (3)	4	99 (7)
	Upper	16	90 (2)	14	91 (2)	20	95 (2)
	Total	26	91 (1)	27	93 (2)	24	96 (2)

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Table 55. Length frequency and CPUE (fish/hr) of bluegill and redear sunfish collected at Cedar Creek Lake in 2.0 hours (7.5-min runs) of daytime electrofishing on 30 May and 2 June 2014.

	Inch class											
Species	1	2	3	4	5	6	7	8	9	Total	CPUE	Std. error
Bluegill	66	727	571	125	39	44	11	1	1	1585	792.5	116.2
Redear sunfish		10	17	42	31	22	32	15	2	171	85.5	16.1

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Table 56. Spring electrofishing CPUE (fish/hr) for each length group of bluegill and redear sunfish collected at Cedar Creek from 2007-2014.

		Length group											
		<3.0 in		3.0-5.9 in		6.0-7.9 in		>8.0 in		>10.0 in		Total	
Species	Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
Bluegill													
	2014	396.5	60.6	367.5	98.4	27.5	5.9	1.0	0.7			792.5	116.2
	2013	410.0	102.7	318.5	48.2	21.5	4.6	0.0	0.0			750.0	126.4
	2012	65.1	14.0	206.9	40.8	16.5	5.3	0.0	0.0			288.5	52.7
	2011	301.0	45.9	411.0	56.7	21.0	4.8	0.0	0.0			733.0	81.1
	2010	411.7	106.5	426.1	48.6	20.3	3.9	0.0	0.0			858.1	145.7
	2009	579.6	92.4	217.2	22.8	20.4	7.8	0.0	0.0			817.2	95.6
	2008	408.8	78.7	370.0	35.6	23.6	5.1	0.0	0.0			802.4	91.7
	2007	234.8	57.1	289.6	25.2	25.6	6.1	0.0	0.0			550.0	63.4
Redear sunfish													
	2014	5.0	1.6	45.0	10.8	27.0	7.6	8.5	3.3	0.0	0.0	85.5	16.1
	2013	4.0	2.2	33.0	7.2	163.5	75.4	31.0	10.9	0.5	0.5	231.5	84.4
	2012	2.1	1.2	22.4	5.3	43.7	10.5	3.2	1.3	0.0	0.0	71.5	14.7
	2011	3.0	1.4	56.5	10.7	21.0	3.9	0.5	0.5	0.0	0.0	81.0	14.3
	2010	12.8	4.7	56.0	9.6	26.1	7.0	3.7	1.7	0.0	0.0	98.7	15.2
	2009	27.2	6.5	51.6	7.8	36.4	5.8	2.4	1.7	0.0	0.0	117.6	13.4
	2008	10.4	3.0	66.0	12.1	102.0	25.1	8.0	4.0	0.0	0.0	186.4	32.7
	2007	13.2	3.7	46.0	8.2	159.6	48.8	16.4	6.2	0.0	0.0	235.2	52.0

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Table 57. PSD and RSD_{15} values obtained for bluegill and redear sunfish taken in spring electrofishing samples in Cedar Creek Lake on 30 May and 2 June 2014; 95% confidence levels are in parentheses.

Species	No. ≥ stock size	PSD	RSD[a]
Bluegill	792	7 (± 2)	0 (± 0)
Redear sunfish	144	34 (± 8)	1 (± 2)

[a] Bluegill = RSD_8, redear sunfish = RSD_9

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Table 58. Length frequency and CPUE (fish/hr) of largemouth bass collected at Chenoa Lake in 1.0 hours (7.5-min runs) of nocturnal electrofishing on 9 April 2014.

	Inch class																					Std.
Species	2	3	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	Total	CPUE	error
Largemouth bass	6	1	1	4	4	10	12	13	17	15	4	3	6	2	2	1	2	1	1	105	105.0	20.1

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Table 59. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Chenoa Lake on 9 April 2014.

	Length group										Total	
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in			
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	16.0	4.8	52.0	14.7	22.0	3.3	15.0	7.6	2.0	1.3	105.0	20.1
2011	35.2	7.1	35.2	7.8	63.2	9.7	8.8	2.5	0.8	0.8	142.4	18.7
2008	24.0	4.5	49.6	14.1	63.2	10.7	20.0	4.3	1.6	1.1	156.8	23.2
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

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Table 60. PSD and RSD_{15} values obtained for largemouth bass taken in spring electrofishing samples in Chenoa Lake on 9 April 2014; 95% confidence levels are in parentheses.

Year	No. ≥ 8.0 in	PSD (+/- 95%)	RSD_{15} (+/- 95%)
2014	89	42 (± 10)	17 (± 8)
2011	134	67 (± 8)	8 (± 5)
2008	166	63 (± 7)	15 (± 5)
2006	161	66 (± 7)	13 (± 5)

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Table 61. Length frequency and CPUE (fish/hr) of bluegill and redear sunfish collected at Chenoa Lake in 1.0 hours (7.5-min runs) of daytime electrofishing on 28 May 2014.

	Inch class											
Species	1	2	3	4	5	6	7	8	9	Total	CPUE	Std. error
Bluegill	21	11	7	15	19	17	13			103	103.0	12.8
Redear sunfish		3		2		1	1	1	3	11	11.0	3.4

sedbgcl.d14

Table 62. Spring electrofishing CPUE (fish/hr) for each length group of bluegill and redear sunfish collected at Chenoa Lake on 28 May 2014.

		Length group											
		<3.0 in		3.0-5.9 in		6.0-7.9 in		≥8.0 in		≥10.0 in		Total	
Species	Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
Bluegill													
	2014	32.0	7.7	41.0	7.8	30.0	6.9	0.0	0.0			103.0	12.8
	2011	68.0	13.7	68.8	10.0	32.0	8.2	0.8	0.8			169.6	24.8
	2008	60.8	14.8	88.0	24.6	42.4	7.7	14.4	6.2			205.6	40.1
Redear sunfish													
	2014			2.0	1.3	2.0	1.3	4.0	2.1	0.0	0.0	11.0	3.4
	2011			4.0	1.3	5.6	2.4	4.0	1.3	0.8	0.8	13.6	3.4
	2008			6.4	2.6	3.2	1.3	6.4	6.4	0.8	0.8	16.0	7.9

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Table 63. PSD and RSD values obtained for bluegill and redear sunfish taken in spring electrofishing samples in Chenoa Lake on 28 May 2014; 95% confidence levels are in parentheses.

Species	No. ≥ stock size	PSD	RSD[a]
Bluegill	71	42 (± 12)	0 (± 0)
Redear sunfish	8	63 (± 36)	38 (± 36)

[a] Bluegill = RSD_8, Redear sunfish = RSD_9

sedbgcl.d14

Table 64. Mean back calculated lengths (in) at each annulus for bluegill collected from Chenoa Lake during May 2014, including the 95% confidence interval (CI) for each mean length per age group.

		Age					
Year	No.	1	2	3	4	5	6
2013	9	2.0					
2012	14	1.9	3.5				
2011	17	2.3	3.7	5.2			
2010	10	2.4	4.0	5.3	6.3		
2009	9	2.3	4.3	5.8	6.6	7.2	
2008	3	1.9	3.6	5.1	6.1	6.7	7.0
Mean		2.2	3.8	5.3	6.4	7.1	7.0
Number		62	53	39	22	12	3
Smallest		1.0	2.4	4.1	5.8	6.2	6.4
Largest		3.4	5.0	6.3	7.2	7.8	7.4
Std error		0.1	0.1	0.1	0.1	0.1	0.3
95% CI ±		0.2	0.2	0.2	0.2	0.3	0.7

Otoliths were used for age-growth determinations; Intercept = 0
sedagcl.d14

Table 65. Age-frequency and CPUE (fish/hr) of bluegill collected during 1.0 hour of daytime electrofishing at Chenoa Lake in Bell county on 28 May 2014.

	Inch class										Std
Age	1	2	3	4	5	6	7	Total	%	CPUE	error
1	21	6						27	25.5	27.0	6.4
2		6	7	5				18	17.0	18.0	2.5
3				10	15	2		27	25.5	27.0	5.0
4					4	9	3	16	15.1	16.0	3.2
5						5	8	13	12.3	13.0	2.6
6						2	3	5	4.7	5.0	0.9
Total	21	12	7	15	19	18	14	106	100.0	106.0	
%	19.8	11.3	6.6	14.2	17.9	17.0	13.2	100.0			

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sedagcl.d14

Table 66. Population assessment for bluegill collected from Chenoa Lake in May 2014.

Parameter	Actual value	Assessment score
Mean length age-2 at capture	3.5	2
Years to 6.0 in	4-4+	2
CPUE $\geq$6.0 in	30.0	2
CPUE $\geq$8.0 in	0.0	0
Instantaneous mortality (Z)	0.322	
Annual mortality (A)	27.6	
Total score		6
Assessment rating		P

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Table 67. Mean back calculated lengths (in) at each annulus for redear sunfish collected from Chenoa Lake during spring 2014, including the 95% confidence interval (CI) for each mean length per age group.

		Age					
Year	No.	1	2	3	4	5	6
2013	2	2.4					
2011	2	4.1	6.4	7.9			
2010	1	4.5	7.7	8.5	9.3		
2009	1	3.1	7.1	8.7	9.2	9.7	
2008	1	2.6	5.7	8.0	8.8	9.3	9.6
Mean		3.3	6.7	8.2	9.1	9.5	9.6
Number		7	5	5	3	2	1
Smallest		2.2	5.7	7.7	8.8	9.3	9.6
Largest		5.0	7.7	8.7	9.3	9.7	9.6
Std error		0.4	0.4	0.2	0.1	0.2	
95% CI $\pm$		0.8	0.8	0.4	0.3	0.4	

Otoliths were used for age-growth determinations; Intercept = 0
sedagcl.d14

Table 68. Age-frequency and CPUE (fish/hr) of redear sunfish collected during 1.0 hour of daytime electrofishing at Chenoa Lake in Bell county on 28 May 2014.

Age	Inch class 2	7	8	9	Total	%	CPUE	Std error
1	3				3	37.5	3.0	2.1
3		1	1		2	25.0	2.0	1.3
4				1	1	12.5	1.0	0.7
5				1	1	12.5	1.0	0.7
6				1	1	12.5	1.0	0.7
Total	3	1	1	3	8	100.0	8.0	
%	37.5	12.5	12.5	37.5	100.0			

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sedagcl.d14

Table 69. Population assessment for redear sunfish collected from Chenoa Lake in May 2014.

Parameter	Actual value	Assessment score
Mean length age-3 at capture*	7.9	4
Years to 8.0 in	3-3+	4
CPUE $\geq$8.0 in	4.0	1
CPUE $\geq$10.0 in	0.0	0
Instantaneous mortality (Z)	0.054	
Annual mortality (A)	5.3	
Total score		9
Assessment rating		F

* Based on 2 fish
sedbgcl.d14

Table 70. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 3.0 hours of 15-minute nocturnal electrofishing runs for black bass in Dale Hollow Lake on 24 April 2014; standard error is in parentheses.

		Inch Class																		
Area	Species	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
Illw ill	Largemouth bass			1		4	3	10	6	9	10	21	34	25	14	4	1		142	94.7 (14.3)
Creek	Spotted bass			1	2	3	3		2	4	1								16	10.7 (4.7)
	Smallmouth bass			1	1	1	2	1	5	1	1	1		1	1		1		17	11.3 (2.2)
Little Sulphur	Largemouth bass	1	3	1	1	1	13	9	10	7	24	21	25	15	5	2		1	139	92.7 (12.1)
Creek	Spotted bass	1	1	2	5	9	8	11	7	6	4	1							55	36.7 (6.9)
	Smallmouth bass		1	1		3		3		1	2	3	2		2		1		19	12.7 (4.6)
Total	Largemouth bass	1	3	2	1	5	16	19	16	16	34	42	59	40	19	6	1	1	281	93.7 (8.9)
	Spotted bass	1	1	3	7	12	11	11	9	10	5	1							71	23.7 (5.6)
	Smallmouth bass		1	2	1	4	2	4	5	2	3	4	2	1	3		2		36	12.0 (2.4)

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Table 71. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Dale Hollow Lake during April 2014.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	2.0	1.0	13.7	3.1	22.0	3.3	56.0	7.1	0.7	0.5	93.7	8.9
2011	2.3	1.3	10.3	3.3	4.0	1.6	2.3	0.9	0.0	0.0	19.0	5.2
2008	1.0	0.5	3.3	1.1	6.0	1.9	16.7	4.2	0.0	0.0	27.0	5.7
2005	0.0	0.0	0.0	0.0	1.0	1.0	1.0	0.5	0.0	0.0	2.0	1.4

sedpsddh.d14

Table 72. Spring electrofishing CPUE (fish/hr) for each length group of spotted bass collected at Dale Hollow Lake during April 2014.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	1.7	0.6	10.0	2.3	10.0	3.4	2.0	0.8	0.0	0.0	23.7	5.6
2011	22.3	4.1	13.7	1.8	5.7	1.7	1.3	0.8	0.0	0.0	43.0	5.0
2008	8.3	2.6	12.0	3.2	11.0	1.8	3.3	2.0	0.0	0.0	34.7	5.4
2005	6.7	3.6	9.7	4.4	6.0	2.2	3.3	1.4	0.0	0.0	25.7	9.2

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Table 73. Spring electrofishing CPUE (fish/hr) for each length group of smallmouth bass collected at Dale Hollow Lake during April 2014.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	1.0	0.5	2.3	0.9	3.7	1.2	5.0	1.6	2.0	0.8	12.0	2.4
2011	4.0	0.9	2.3	0.8	1.7	0.8	3.0	1.0	0.3	0.3	11.0	2.0
2008	4.3	1.5	2.7	1.0	5.7	1.4	4.7	1.3	1.7	0.9	17.3	3.5
2005	3.0	1.4	3.0	1.0	1.7	0.6	3.3	1.1	2.3	1.2	11.0	1.8

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Table 74. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Dale Hollow Lake on 24 April 2014; 95% confidence limits are in parentheses.

		Largemouth bass			Spotted bass			Smallmouth bass		
Year	Area	No. $\geq$ stock size	PSD (+/- 95%)	RSD_{15} (+/- 95%)	No. $\geq$ stock size	PSD (+/- 95%)	RSD_{14} (+/- 95%)	No. $\geq$ stock size	PSD (+/- 95%)	RSD_{14} (+/- 95%)
2014	Illwill Creek	141	88 ($\pm$ 5)	70 ($\pm$ 8)	16	44 ($\pm$ 25)	6 ($\pm$ 12)	17	71 ($\pm$ 22)	29 ($\pm$ 22)
	Little Sulphur Creek	134	82 ($\pm$ 7)	51 ($\pm$ 8)	53	55 ($\pm$ 14)	9 ($\pm$ 8)	18	78 ($\pm$ 20)	56 ($\pm$ 24)
	Total	275	85 ($\pm$ 4)	61 ($\pm$ 6)	69	52 ($\pm$ 12)	9 ($\pm$ 7)	35	74 ($\pm$ 15)	43 ($\pm$ 17)
2011	Total	50	38 ($\pm$ 14)	14 ($\pm$ 10)	91	23 ($\pm$ 9)	4 ($\pm$ 4)	21	67 ($\pm$ 21)	43 ($\pm$ 22)
2008	Total	78	87 ($\pm$ 7)	64 ($\pm$ 11)	90	48 ($\pm$ 10)	11 ($\pm$ 7)	45	69 ($\pm$ 14)	31 ($\pm$ 14)
2005	Total	6	100 ($\pm$ 0)	50 ($\pm$ 44)	66	42 ($\pm$ 12)	15 ($\pm$ 9)	27	56 ($\pm$ 19)	37 ($\pm$ 19)

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Table 75. Length frequency and CPUE (fish/hr) of black bass collected at Lake Linville in 1.5 hours (15-min runs) of nocturnal electrofishing on 8 May 2014.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	20	21	Total	CPUE	Std. error
Largemouth bass	1	4	6	13	5	15	31	52	45	72	26	14	4	3	4	4	2	1	302	201.3	19.9
Spotted bass				8	29	35	19	20	16	9	2	3							141	94.0	19.3

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Table 76. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Lake Linville on 8 May 2014.

	Length group										Total	
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in			
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	19.3	7.3	95.3	16.4	74.7	7.1	12.0	3.4	2.0	1.4	201.3	19.9
2012	47.3	10.6	135.3	26.2	42.0	5.2	12.0	2.7	0.7	0.7	236.7	40.3
2011	48.0	7.8	108.7	11.0	22.0	5.5	9.3	2.7	1.3	1.3	188.0	18.0
2010	52.0	25.1	194.7	45.4	39.3	8.4	10.7	2.2	4.7	1.2	296.7	71.5
2009	55.6	10.8	93.2	10.9	8.4	1.5	10.4	1.6	2.4	0.9	167.6	17.1
2008	54.0	13.5	144.4	19.9	12.4	3.9	18.4	4.6	2.8	1.2	229.2	28.0
2007	46.4	15.7	101.6	19.6	13.2	1.9	25.6	3.6	4.8	2.1	186.8	32.0
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

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Table 77. Spring electrofishing CPUE (fish/hr) for each length group of spotted bass collected at Lake Linville on 8 May 2014.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	24.7	8.0	49.3	9.4	18.0	6.2	2.0	0.9	0.0	0.0	94.0	19.3
2012	16.7	6.7	66.7	11.8	22.0	4.5	2.7	0.8	0.0	0.0	108.0	18.3
2011	22.7	5.7	47.3	8.0	9.3	4.0	1.3	0.8	0.0	0.0	80.7	14.4
2010	32.0	8.3	114.0	22.3	20.0	5.3	0.7	0.7	0.0	0.0	166.7	34.4
2009	62.4	11.6	64.0	9.2	2.8	1.0	0.4	0.4	0.0	0.0	129.6	19.5
2008	96.0	14.5	60.4	8.6	8.0	2.2	1.6	0.9	0.0	0.0	166.0	23.6
2007	76.0	26.0	44.8	10.4	15.2	4.5	2.0	1.2	0.4	0.4	138.0	36.5
2006	24.0	7.0	35.3	7.1	10.0	2.7	2.0	1.4	0.0	0.0	71.3	14.5

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Table 78. Population assessment for largemouth bass based on spring electrofishing at Lake Linville from 2002-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	Spring CPUE age 1	Spring CPUE 12.0-14.9 in	Spring CPUE >15.0 in	Spring CPUE >20.0 in	Total score	Assessement rating
Management objectives		> 10.8 in	> 16.0 f/h	> 20.0 f/h	> 17.0 f/h	> 2.0 f/h		
2014	Value		19.3	74.7	12.0	2.0		
	Score	3	2	4	2	3	14	G
2012	Value	11.3	47.3	42.0	12.0	0.7		
	Score	3	3	3	2	1	12	G
2011	Value		48.0	22.0	9.3	1.3		
	Score	3	3	2	2	2	12	G
2010	Value		47.3	39.3	10.7	4.7		
	Score	3	3	3	2	4	15	G
2009	Value		52.0	8.4	10.4	2.4		
	Score	3	3	1	2	3	12	G
2008	Value		34.8	12.4	18.4	2.8		
	Score	3	2	1	3	3	12	G
2007	Value	11.1	39.2	13.2	25.6	4.8		
	Score	3	2	1	3	4	13	G
2006	Value		6.5	22.0	10.0	2.7		
	Score	3	1	2	2	3	11	F
2002	Value	11.7	4.0	12.0	14.7	1.3		
	Score	4	1	1	2	2	10	F

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Table 79. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Lake Linville on 8 May 2014; 95% confidence limits are in parentheses.

	Largemouth bass			Spotted bass		
Year	No. $\geq$ stock size	PSD (+/- 95%)	RSD_{15} (+/- 95%)	No. $\geq$ stock size	PSD (+/- 95%)	RSD_{14} (+/- 95%)
2014	273	48 ($\pm$ 6)	7 ($\pm$ 3)	133	23 ($\pm$ 7)	2 ($\pm$ 3)
2012	284	29 ($\pm$ 5)	6 ($\pm$ 3)	146	25 ($\pm$ 7)	3 ($\pm$ 3)
2011	210	22 ($\pm$ 6)	7 ($\pm$ 3)	96	17 ($\pm$ 7)	2 ($\pm$ 3)
2010	367	20 ($\pm$ 4)	4 ($\pm$ 2)	229	14 ($\pm$ 4)	0 ($\pm$ 1)
2009	280	17 ($\pm$ 4)	9 ($\pm$ 3)	247	3 ($\pm$ 2)	0 ($\pm$ 1)
2008	438	18 ($\pm$ 4)	11 ($\pm$ 3)	288	8 ($\pm$ 3)	1 ($\pm$ 1)
2007	351	28 ($\pm$ 5)	18 ($\pm$ 4)	204	21 ($\pm$ 6)	2 ($\pm$ 2)
2006	119	40 ($\pm$ 9)	13 ($\pm$ 6)	83	22 ($\pm$ 9)	4 ($\pm$ 4)
2002	56	32 ($\pm$ 11)	15 ($\pm$ 8)	32	20 ($\pm$ 13)	3 ($\pm$ 4)

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Table 80. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 3.0 hours of 15-minute nocturnal electrofishing runs for black bass in Wood Creek Lake on 22 April 2014; standard error is in parentheses.

		Inch class																				
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE
Dam	Largemouth bass	7	2		1	1	1	6	7	11	9	10	4	3	1	1		1	1	1	67	67.0 (3.0)
	Spotted bass	2		1	1	1	3	1	7	8	1	1									26	26.0 (2.6)
	Smallmouth bass					1		1	1												3	3.0 (1.9)
Pump Station	Largemouth bass	1				4	7	15	16	13	23	19	7	7	2			2		2	118	118.0 (10.7)
	Spotted bass	1			1	5	4	1	7	9	6	2	1								37	37.0 (11.4)
	Smallmouth bass										1										1	1.0 (1.0)
Dock	Largemouth bass			3	1	4	25	36	33	22	31	12	10	5	3	7	6	2	6		206	206.0 (29.6)
	Spotted bass							3	1	4	1	1									10	10.0 (5.0)
	Smallmouth bass																				0	0.0 (0.0)
Total	Largemouth bass	8	2	3	2	9	33	57	56	46	63	41	21	15	6	8	6	5	7	3	391	130.3 (19.8)
	Spotted bass	3		1	2	6	7	5	15	21	8	4	1								73	24.3 (5.1)
	Smallmouth bass					1		1	1		1										4	1.3 (0.8)

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Table 81. PSD and RSD values obtained for each black bass species taken in spring electrofishing samples at Wood Creek Lake on 22 April 2014; 95% confidence limits are in parentheses.

		Largemouth bass			Spotted bass		
Year	Area	No. $\geq$ stock size	PSD (+/- 95%)	RSD_{15} (+/- 95%)	No. $\geq$ stock size	PSD (+/- 95%)	RSD_{14} (+/- 95%)
2014	Dam	55	40 ($\pm$ 13)	9 ($\pm$ 8)	21	10 ($\pm$ 13)	0 ($\pm$ 0)
	Pump Station	106	37 ($\pm$ 9)	6 ($\pm$ 4)	30	30 ($\pm$ 17)	0 ($\pm$ 0)
	Dock	173	29 ($\pm$ 7)	14($\pm$ 5)	10	20 ($\pm$ 26)	0 ($\pm$ 0)
	Total	334	34 ($\pm$ 5)	10 ($\pm$ 3)	61	21 ($\pm$ 10)	0 ($\pm$ 0)
2013	Total	256	23 ($\pm$ 5)	9 ($\pm$ 4)	79	14 ($\pm$ 8)	1 ($\pm$ 2)
2012	Total	215	20 ($\pm$ 5)	5 ($\pm$ 3)	60	17 ($\pm$ 10)	0 ($\pm$ 0)
2011	Total	185	39 ($\pm$ 7)	16 ($\pm$ 5)	47	17 ($\pm$ 11)	0 ($\pm$ 0)
2010	Total	181	52 ($\pm$ 7)	15 ($\pm$ 5)	55	20 ($\pm$ 11)	0 ($\pm$ 0)
2009	Total	241	55 ($\pm$ 6)	17 ($\pm$ 5)	69	16 ($\pm$ 9)	1 ($\pm$ 3)
2008	Total	223	40 ($\pm$ 6)	19 ($\pm$ 5)	66	12 ($\pm$ 8)	2 ($\pm$ 3)
2007	Total	223	32 ($\pm$ 6)	24 ($\pm$ 6)	109	23 ($\pm$ 8)	5 ($\pm$ 4)
2006	Total	165	56 ($\pm$ 8)	38 ($\pm$ 7)	93	44 ($\pm$ 10)	11 ($\pm$ 6)
2005	Total	138	74 ($\pm$ 7)	23 ($\pm$ 7)	86	57 ($\pm$ 11)	13 ($\pm$ 7)

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Table 82. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Wood Creek Lake during April 2014.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	19.0	4.2	74.0	13.4	25.7	4.7	11.7	3.1	1.0	0.7	130.3	19.8
2013	16.7	5.4	65.3	12.1	12.0	1.8	8.0	1.6	1.0	0.5	102.0	17.7
2012	13.7	4.6	57.0	15.2	11.0	2.5	3.7	0.9	0.3	0.3	85.3	19.4
2011	28.3	5.8	37.7	5.9	14.3	3.3	9.7	2.7	1.0	0.5	90.0	12.9
2010	27.5	9.2	43.0	11.3	33.5	5.2	14.0	2.8	2.5	1.1	118.0	26.6
2009	6.7	3.1	36.0	7.5	31.0	2.5	13.3	3.6	2.7	0.9	87.0	14.1
2008	6.7	3.6	44.7	6.8	15.3	2.7	14.3	2.4	2.0	0.8	81.0	12.3
2007	6.7	2.3	50.3	8.5	6.0	1.2	18.0	3.3	1.3	0.6	81.0	12.5
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	3.2	1.7	59.2	9.3

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Table 83. Spring electrofishing CPUE (fish/hr) for each length group of spotted bass collected at Wood Creek Lake during April 2014.

	Length group											
	<8.0 in		8.0-10.9 in		11.0-13.9 in		≥14.0 in		≥17.0 in		Total	
Year	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.	CPUE	Std. err.
2014	6.3	2.5	13.7	2.7	4.3	1.5	0.0	0.0	0.0	0.0	24.3	5.1
2013	6.0	2.0	19.7	5.4	3.3	1.7	0.3	0.3	0.0	0.0	29.3	7.0
2012	17.7	4.4	11.0	2.3	3.3	1.2	0.0	0.0	0.0	0.0	32.0	7.1
2011	16.3	4.2	9.0	2.8	2.7	1.2	0.0	0.0	0.0	0.0	28.0	7.3
2010	13.5	5.5	19.0	2.9	5.5	1.3	0.0	0.0	0.0	0.0	38.0	8.0
2009	16.7	4.9	15.7	3.4	3.3	1.0	0.3	0.3	0.0	0.0	36.0	6.5
2008	11.7	3.3	16.7	2.9	2.3	1.2	0.3	0.3	0.0	0.0	31.0	5.4
2007	14.7	3.9	20.7	3.8	6.7	1.6	1.7	1.0	0.0	0.0	43.7	7.5
2006	13.7	2.7	14.0	2.8	10.3	2.2	3.3	1.0	0.0	0.0	41.3	6.0
2005	8.8	2.9	13.6	5.5	15.2	2.8	4.4	1.3	0.0	0.0	42.0	10.2

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Table 84. Population assessment for largemouth bass based on spring electrofishing at Wood Creek Lake from 2005-2014 (scoring based on statewide assessment).

Year		Mean length age-3 at capture	CPUE age 1	CPUE 12.0-14.9 in	CPUE ≥15.0 in	CPUE ≥20.0 in	Total score	Assessement rating
Management objectives		≥11.5 in	≥8.0 fish/hr	≥20.0 fish/hr	≥17.0 fish/hr	≥2.0 fish/hr		
2014	Value	11.3	6.0	25.7	11.7	1.0		
	Score	3	1	2	2	2	10	F
2013	Value		14.0	12.0	8.0	1.0		
	Score	3	1	1	2	2	9	F
2012	Value		4.3	11.0	3.7	0.3		
	Score	3	1	1	1	1	7	P
2011	Value		24.8	14.3	9.7	1.0		
	Score	3	2	1	2	2	10	F
2010	Value	11.4	15.1	33.5	14.0	2.5		
	Score	3	1	2	2	3	11	F
2009	Value		5.3	31.0	13.3	2.7		
	Score	4	1	2	2	3	12	G
2008	Value		5.7	15.3	14.3	2.0		
	Score	4	1	1	2	3	11	F
2007	Value		5.3	6.0	18.0	1.3		
	Score	4	1	1	3	2	11	F
2006	Value		11.8	10.0	20.7	2.0		
	Score	4	1	1	3	3	12	G
2005	Value	12.3	2.4	28.0	12.8	3.2		
	Score	4	1	2	2	3	12	G

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Table 85. Species composition, relative abundance, and CPUE (fish/hr) of black bass collected during 3.0 hours of 15-minute nocturnal electrofishing runs for black bass in Wood Creek Lake on 24 September 2014; standard error is in parentheses.

		Inch class																		
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	21	Total	CPUE
Dam	Largemouth bass	3		1	2	4		4	2	5	4		1						26	26.0 (6.6)
	Spotted bass		2	3	2	1	2	1	4	1									16	16.0 (5.2)
	Smallmouth bass																		0	0.0 (0.0)
Pump station	Largemouth bass	1	2	2	7	3	4	9	17	11	8	2	1		1		1		69	69.0 (8.5)
	Spotted bass	1	1	2	1	6	5	2	4	3									25	25.0 (6.2)
	Smallmouth bass			1								1							2	2.0 (1.2)
Dock	Largemouth bass		2	1	4	12	10	22	27	29	14	10	6	3	1	1		1	143	143.0 (37.0)
	Spotted bass					1	2	5	2	2									12	12.0 (5.9)
	Smallmouth bass																		0	0.0 (0.0)
Total	Largemouth bass	4	4	4	13	19	14	35	46	45	26	12	8	3	2	1	1	1	238	79.3 (18.6)
	Spotted bass	1	3	5	3	8	9	8	10	6									53	17.7 (3.4)
	Smallmouth bass			1								1							2	0.7 (0.5)

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Table 86. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected in fall (September and October) electrofishing samples at Wood Creek Lake.

	Age 0		Age 0		Age 0 >5.0 in		Age 1	
Year Class	Mean length	Std. error	CPUE	Std. error	CPUE	Std. error	CPUE	Std. error
2014 [a]	3.7	0.2	2.7	0.9	0.0	0.0		
2013 [a]	3.4	0.2	11.3	3.0	1.0	0.5	6.0	1.7
2012	4.3	0.1	34.7	10.1	8.3	4.2	14.0	4.9
2011 [a]	4.0	0.1	12.3	4.1	0.7	0.7	4.3[b]	1.6
2010	5.0	0.1	36.7	14.9	18.0	6.6	24.8	6.0
2009 [a]	3.7	0.4	2.7	1.7	0.7	0.5	15.1[c]	7.4
2008	3.8	0.1	13.3	3.2	1.0	0.7	5.3	2.7
2007	4.2	0.1	13.3	7.6	2.7	1.2	5.7	3.2
2006 [a]	4.4	0.3	3.7	1.7	0.7	0.5	5.3[d]	2.4
2005	4.0	0.1	23.7	11.9	3.3	1.4	11.8	4.4
2004	4.2	0.1	17.9	4.8	4.3	1.5	2.4	1.2

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[a] Age-0 largemouth bass stocked in the fall

[b] Includes fish stocked in fall 2011; CPUE stocked fish=1.0 fish/hr

[c] Includes fish stocked in fall 2009; CPUE stocked fish=10.0 fish/hr

[d] Includes fish stocked in fall 2006; CPUE stocked fish=0.3 fish/hr

Table 87. Number of fish and mean relative weight (Wr) for each length group of black bass collected at Wood Creek Lake during 24 September 2014. Standard error is in parentheses.

Species	Length group					
	8.0-11.9 in		12.0-14.9 in		>15.0 in	
Largemouth bass	No.	Wr	No.	Wr	No.	Wr
	125	84 (1)	46	83 (1)	8	91 (2)
	7.0-10.9 in		11.0-13.9 in		>14.0 in	
Spotted bass	No.	Wr	No.	Wr	No.	Wr
	35	94 (1)	6	87 (5)	0	-

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Table 88. Mean back calculated lengths (in) at each annulus for largemouth bass collected from Wood Creek Lake during 2014, including the 95% confidence interval (CI) for each mean length per age group.

		Age						
Year	No.	1	2	3	4	5	6	7
2013	32	4.3						
2012	25	4.7	8.5					
2011	6	4.8	9.0	11.3				
2010	18	5.9	9.2	11.1	12.4			
2009	5	4.5	8.8	10.9	12.2	13.3		
2008	4	4.8	8.4	10.7	12.0	12.7	13.6	
2007	3	6.4	10.6	12.8	14.2	15.3	16.1	16.5
Mean		4.9	8.9	11.2	12.5	13.6	14.6	16.5
Number		93	61	36	30	12	7	3
Smallest		2.7	7.1	9.4	10.7	11.6	12.5	15.0
Largest		7.5	11.7	14.0	15.7	17.0	17.9	18.3
Std error		0.1	0.1	0.2	0.2	0.5	0.7	1.0
95% CI $\pm$		0.3	0.2	0.3	0.4	1.0	1.3	1.9

Otoliths were used for age-growth determinations; Intercept = 0
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SOUTHEASTERN FISHERY DISTRICT

Stream Fishery Surveys – Warmwater Streams

FINDINGS

Rockcastle River Basin

The Southeastern Fishery district sampled one location on the Rockcastle River in Rockcastle County on 27 June 2014 to assess the black bass, rock bass, and walleye populations. A total of 1.5 hours of shocking yielded 77 fish, with longear sunfish comprising 29% of the catch (Table 1). Smallmouth bass rated fair (score=8; Table 2) and rock bass rated poor (score=3; Table 3).

South Fork Kentucky River Basin

The Southeastern Fishery district sampled one location in the South Fork Kentucky River Basin in Clay County on 26 June 2014. Sampling was conducted to assess the black bass, sunfish, and muskellunge populations. During 2.75 hours of shocking, 109 fish were collected, which was comprised of 13 species (Table 4). Smallmouth bass in the South Fork Kentucky River rated poor (score=6; Table 5). Two muskellunge, 38.0 and 40.0 inches, were collected during sampling for a catch rate of 0.7 fish per hour.

Table 1. Length-frequency and CPUE (fish/hr) of selected fish species* collected during 1.5 hours of electrofishing (15 minute runs) in the I-75 ramp area of the Rockcastle River on 27 June 2014; standard error is in parantheses.

	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	13	17	18	19	20	21	25	28	30	Total	CPUE
Smallmouth bass		1	2	4	3	1		1	1	2										15	10.0 (2.3)
Spotted bass		1		1	1	3														6	4.0 (1.5)
Rock bass			2	4	5															11	7.3 (3.0)
Green sunfish			1																	1	0.7 (0.7)
Bluegill			2		1	3														6	4.0 (2.7)
Longear sunfish	2	10	8	2																22	14.7 (5.8)
Walleye												2		2						4	2.7 (1.3)
Longnose gar															1		3	2	2	8	5.3 (1.7)
Flathead catfish							1													1	0.7 (0.7)
Freshw ater drum											1		1			1				3	2.0 (2.0)

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* Did not net shad, suckers, and minnow s.

Table 2. Population assessment for smallmouth bass collected from the Rockcastle River in 2014.

Parameter	Actual value	Assessment score
Recruitment (CPUE < 4.0 in)	0.7	2
Intermediate density (CPUE 4.0-8.9 in)	6.7	3
Adult density (CPUE ≥ 9.0 in)	2.7	3
Quality size density (CPUE ≥ 12.0 in)	0.0	0
Preferred size density (CPUE ≥ 14.0 in)	0.0	0
Total score		8
Assessment rating		F

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Table 3. Population assessment for rock bass collected from the Rockcastle River in 2014.

Parameter	Actual value	Assessment score
Recruitment (CPUE < 4.0 in)	0.0	0
Intermediate density (CPUE 4.0-5.9 in)	4.0	2
Quality size density (CPUE ≥ 6.0 in)	3.3	1
Preferred size density (CPUE ≥ 8.0 in)	0.0	0
Total score		3
Assessment rating		P

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Table 4. Length-frequency and CPUE (fish/hr) of selected fish species* collected during 2.75 hours of electrofishing (15-minute runs) in the Long Hole area of the South Fork Kentucky River on 26 June 2014; standard error is in parantheses.

	Inch class																									
Specie Location	2	3	4	5	6	7	8	9	10	11	12	14	16	17	18	19	20	21	22	23	24	25	38	40	Total	CPUE
Smallmouth bass		1	1		1		2		2																7	2.6 (1.0)
Spotted bass			2	1	5	4																			12	4.4 (1.4)
Largemouth bass				2				1	2	2	1														8	2.9 (1.5)
Rock bass				1	5	2	1																		9	3.3 (1.3)
Green sunfish			2																						2	0.7 (0.5)
Bluegill	1	1	3	2	1	2																			10	3.6 (2.4)
Longear sunfish		10	8	5																					23	8.4 (3.2)
Warmouth			1																						1	0.4 (0.4)
Muskellunge																							1	1	2	0.7 (0.5)
Longnose gar													1		1	4	4	3	3	3		1			20	7.3 (1.7)
Channel catfish											1			1				1							3	1.1 (0.8)
Flathead catfish									1	1	2						1								5	1.8 (0.6)
Freshwater drum												1	1		1	1					2	1			7	2.6 (1.2)

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* Did not net shad, suckers, and minnows.

Table 5. Population assessment for smallmouth bass collected from the South Fork Kentucky River in 2014.

Parameter	Actual value	Assessment score
Recruitment (CPUE < 4.0 in)	0.40	2
Intermediate density (CPUE 4.0-8.9 in)	1.50	2
Adult density (CPUE $\geq$ 9.0 in)	0.70	2
Quality size density (CPUE $\geq$ 12.0 in)	0.0	0
Preferred size density (CPUE $\geq$ 14.0 in)	0.0	0
Total score		6
Assessment rating		P

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EASTERN FISHERY DISTRICT

Project 1: Lake and Tailwater Fishery Surveys

FINDINGS

Table 1 shows sampling conditions by water body for eastern fishery district lakes in 2014.

Buckhorn Lake

Muskellunge were sampled in the spring and conditions were again not ideal. A cold front moving in the night before formed a thin layer of ice on a large portion of the lake surface. This hindered sampling efforts in shallow water areas. However, CPUE was greater than the previous year (Table 2). Length range of collected musky was from 11.0-42.0 in (Table 2). The assessment rating of "Good" (Table 3) is not necessarily an improvement versus the 2013 assessment, but probably just more representative of the population. From 2010-2012, all assessments were "Good" and once again "Good" in 2014 (Table 3). The recent decline in fish numbers ≥ 40.0 in may be reversing (Table 3). Further data collection will be used to monitor this and other trends. A total of 425 muskellunge (13.1 in) were stocked during September 2014. Fish stocked in 2014 received a wire tag inserted in the left cheek for future identification. The tailwater below Buckhorn Lake continues to provide an additional good muskellunge fishery.

Black bass were sampled during the spring and fall (Tables 4-10). Both sample periods encountered rain storms reducing sample time. The 2014 spring assessment rating was "Poor" (Table 7). However, recent years assessed "Fair-Good" and are more indicative of the true population. No supplemental stocking of fingerling bass in the fall was necessary based on age-0 recruitment (Table 9). Age and growth was recorded for largemouth bass from the fall sample (Table 10). Fish are reaching legal size at age 4.

Other fish management work consisted of rainbow trout stocking at the tailwater and construction of fish habitat. Approximately 5,000 rainbow trout (8.0-12.0 in) were stocked during the months of April-June and October-November. Fish habitat work consisted of 16 new wood pallet and brush structures, 4 new Christmas tree reefs, 2 refurbished Christmas tree reefs, and 200 lbs of winter wheat seed sowed on mudflats.

A random roving angler creel survey was conducted from April – October for the lake. There was 1 survey area for the lake; from the dam to Trace Branch recreation area. The survey was daytime only and consisted of 2 random 6.0-hour time periods (morning 0700-1300 and afternoon 1300-1900). Angler counts were conducted at random occurring at the start, middle, or end of the creel period. Data obtained is presented in Tables 11-17.

The 2014 survey observed 4,430 angler fishing trips (Table 11) versus 1,683 trips in the same survey in 2008. Total angler hours were similar with 12,728 hrs in 2014 (Table 11) and 11, 898 hrs in 2008. The number of fish caught and harvested approximately doubled from the 2008 to 2014 survey. There were 31,728 caught and 7,954 harvested in 2014 (Table 11) and 15,256 caught and 3,918 harvested in 2008. From 2008 to 2014, there were improvements in catch and harvest statistics of most all fish species. White crappie showed the most significant increases in number caught and harvested from 2008 – 2014. There was catch and harvest of white crappie of 5,073 and 856 in 2008 and 14,969 and 3,795 in 2014 (Table 12), respectively. During the 2014 survey, angler success rates were 0.0% for muskellunge, 81.8% for catfish, 37.7% for panfish, 3.2% for black bass, and 62.2% for crappie (Table 12). Table 13 lists harvest and release lengths and numbers by species. Monthly black bass (Table 14), white crappie (Table 15), and musky (Table 16) angling success showed that the most numerous catches occurred in spring for black bass, spring and summer for white crappie and summer for musky. Harvest statistics are presented in Table 17 for largemouth bass, white crappie, and muskellunge. Average length harvested was 17.9 in for largemouth bass, 10.3 in for white crappie, and 37.0 in for musky (Table 17).

An angler attitude survey was conducted during the creel survey to obtain further data. Results of this attitude survey are listed in Appendix A. Anglers were asked to answer a series of questions regarding the fishery at Buckhorn Lake. Anglers were surveyed throughout the creel during 2014 with anglers only being asked the questions once during the creel period. A total of 32 surveys were completed during the lake creel. This total was much lower than the previous total of 202 from the lake survey of 2008. However, during 2008 there were a lot of local anglers demanding to complete an attitude survey with discussion of reducing the length limit for musky. This made observations difficult as to who actually fished the lake when multiple people would line up rod and reel tackle and say they were fishing. White crappie at 65.6% (N=21) were the most popular species fished for on the lake followed by black bass at 62.5% (N=20), musky at 43.8% (N=14), catfish at 34.4% (N=11), and bluegill at 9.4% (N=3). Level of fishing satisfaction was determined for several fish groups or species and all categories exceeded 43.0% being somewhat satisfied to very satisfied. Musky were highest at 93.4%, second was black bass at 44.0%, and third was white crappie at 42.8%.

Carr Creek Lake

During 2014, electrofishing was used to sample black bass in the spring and fall (Tables 18-23). The recent increase in spring CPUE (Table 19) was influenced by stocking of supplemental fingerling bass in the spring versus previous stockings occurring in the fall. Largemouth bass PSD values are good (Table 20) as well as the assessment rating being "Good" (Table 21). There has been a long running issue with recruitment of age-0 fish and low sampling catch rates have led to continued supplemental stocking (Table 23). Fingerling largemouth bass will be stocked in the spring of 2015 at approximately 7,000 fish to aid the below average numbers of natural age-0 fish in 2014.

Spring electrofishing was utilized to sample walleye from 15.0-25.0 in (Table 24). From 2008-2013, some of the lower catch rates (Table 24) are from increased sampling time to collect broodstock for hatchery production. This requires sampling parts of the lake multiple times and sampling areas that are less productive. Changes have been made to reduce effort at this lake through addition of broodstock collection at other lakes. The assessment rating continues to remain "Good" (Table 25) and scoring is expected to improve with increases in the population density parameter. An estimated 35,192 walleye (1.4 in) were stocked in May.

Black and black-nosed (black) crappie, along with white crappie, were sampled during the spring. The crappie fishery is managed under a 9.0-in minimum size limit special regulation. Angler catch of crappie has been increasing recently. There are numerous smaller fish (Table 26); however, fish $\geq$ 8.0 in and $\geq$ 10.0 in have increased (Table 27). PSD values are not great (Table 28), but angler satisfaction is good and constructed fish habitat structures are primary targets. During the fall of 2009, a research study was initiated on white crappie recruitment. Totals of 5,440, 9,676, 3,822, 17,814, and 18,160 white crappie were stocked from 2009-2013, respectively.

Habitat work consisted of herbicide applications to control hydrilla and construction of fish attractors. A cooperative study was completed with Aquatic Control, Inc. with application of liquid and granular Komeen to evaluate effectiveness of control of hydrilla. The only effective control was found to be a dual application of 45 lbs of granular Komeen at an interval of 24 hours. With these results, work will continue in 2015 with applications of granular Komeen. Construction of fish habitat structures included 2 new brushpiles, 6 refurbished brushpiles, 2 refurbished Christmas tree reefs, 16 hinge-cut trees, and 1 rock pile. Sago pondweed and water celery plantings in previous years continued to provide good stands of vegetation in 2014.

Cranks Creek Lake

Angler satisfaction at Cranks Creek Lake continues to improve for largemouth bass, white crappie, and redear sunfish. Trophy size largemouth bass numbers have increased as well as white crappie and redear sunfish numbers. Multiple species of aquatic plants are present in the lake due to the excellent water clarity. Brittle naiad has become a nuisance in shallow upper lake areas and requires some herbicide application at boat access areas. However, this thick growth of aquatic vegetation has correlated with increased quality of the largemouth bass, white crappie, and redear sunfish fisheries. Fall electrofishing was completed at Cranks Creek Lake (219 acres) for black bass in 2014. Largemouth bass from 2.0–22.0 in and spotted bass from 3.0–10.0 in were observed during this sampling (Table 29). Age-0 largemouth bass numbers were well above average and age-0 $\geq$ 5.0 in were average (Table 30). No supplemental stocking of fingerling bass was necessary.

During 2015, spring and fall electrofishing will be conducted for black bass if lake conditions allow. Although recent largemouth bass electrofishing assessments have rated “Fair” from 2010 - 2012, this fishery is expected to improve to “Good” in 2015.

Fish stockings during the year consisted of trout and catfish. Rainbow trout were stocked at 1,500/mo during January, April, May, and October for a total of 6,000 fish. Approximately 2,000 channel catfish (5.0-12.0 in) were stocked during August.

Dewey Lake

Electrofishing was completed during the spring and fall for black bass (Tables 31-36). Largemouth bass in the spring sample were collected to 21.0 in and spotted bass to 12.0 in (Table 31). Due to the use of a single dipper on the electrofishing boat, spring catch rates may have been reduced (Table 1). However, based on general trends in length groups from recent sample data (Table 32) and angler reports, largemouth bass are improving in size. The assessment rating continued to be “Good” in 2014 for largemouth bass (Table 34). Below average age-0 numbers were observed (Table 36) and 16,500 fingerling largemouth bass were stocked in October to supplement the 2014 year class.

Trap netting was used in the fall to sample black and white crappie. Tables 37-44 contain data for both species. Black crappie were sampled from 2.0-9.0 in and white crappie from 2.0-14.0 in (Table 37). A CPUE of 29.7 white crappie/net-night and 20.7 black crappie/net-night were obtained with 19 net-nights of effort (Table 37). The largest age classes were age-2 for white crappie (Table 41) and age-3 for black crappie (Table 42). Both species are popular with anglers and attract a lot of fishing effort. The assessment rating for white crappie has decreased to “Fair” (Table 43), but this fishery at present has good numbers of larger fish. The “Fair” rating was largely due to decreases in age-0 and age-1 catch rates. If catch data is representative of the white crappie population, there could be a decline in harvest later in 2016. The assessment rating continued to be “Fair” for black crappie (Table 44).

In addition to largemouth bass, muskellunge and rainbow trout were stocked in 2014. Muskellunge were introduced to the lake for the first time with a stocking of 500 fish (13.0 in) in October. These fish received a left cheek pit tag for later identification. Rainbow trout were stocked in the tailwater of Dewey Lake in April, May, October, and November (1,000/mo; 8.0-12.0 in). Blue catfish stocking will resume again in 2015.

Fish habitat was constructed of both new and refurbished structures to aid in recruitment of sportfish and to act as fish attractors for anglers. This work consisted of 9 new brushpiles, 16 refurbished brushpiles, 3 refurbished Christmas tree reefs, 89 hinge-cut trees, 1 new stake bed, 4 refurbished stake beds, 250lbs winter wheat sowed, aquatic plants planted (water willow, floating leaf pondweed, chara, and bald cypress), and mowing of bank access points in Stratton Branch and Arrowhead Point.

Fishtrap Lake

Spring and fall electrofishing was completed for black bass. The spring sample was shortened due to one of the electrofishing boats having mechanical problems. Tables 45-50 contain spring and fall black bass data. Smallmouth, spotted, and largemouth bass are present in this lake and all are caught regularly by anglers. The largemouth bass fishery has a good proportion of quality fish with PSD values near 60 (Table 47). The assessment rating of largemouth bass remains “Good” (Table 48). Fall sampling for black bass collected all three species mentioned earlier (Table 49). Age-0 largemouth bass numbers were below average (Table 50). A total of 17,100 fingerling largemouth bass were stocked in October to supplement the 2014 year class.

Morones were sampled with gill nets in the fall. A length range of 6.0-27.0 in was observed for hybrid striped bass and 9.0-13.0 in for white bass (Table 51). Growth rates are good for hybrid striped bass (Table 52), but fish are short-lived with most age-5 or younger (Table 53). The assessment rating remains “Excellent” (Table 54). This fishery provides angling opportunity in the lake and tailwater with larger fish commonly 9-12 lbs. Approximately

23,040 hybrid striped bass (1.6 in) were stocked in the lake during the month of June. This fishery will be re-evaluated in 2017.

Additional fish stockings consisted of redear sunfish, walleye, and rainbow trout. A total of 25,000 redear sunfish (1.0-4.0 in) were stocked for predation on the invasive zebra mussel. Native strain walleye (9,064 fish; 1.7 in) were stocked in the Levisa Fork upstream of Fishtrap Lake during June. Anglers have caught some of the previously stocked native strain walleye ranging from 8.0-23.0 in. Rainbow trout were stocked in the tailwater (2,000 fish/mo; months 4, 5, 6, 10, 11). Blue catfish stocking will resume again in 2015.

Habitat work of several types occurred during the late winter and summer. This work consisted of 2 refurbished Christmas tree reefs, 19 refurbished brushpiles, and 140 hinge-cut trees.

Martins Fork Lake

Martins Fork Lake (330 acres) was sampled for black bass and native strain walleye in the spring and fall of 2014 (Tables 55-61). Spring sampling collected four species of black bass (Table 55) and the assessment stayed at "Fair" for largemouth bass (Table 58). Walleye were most numerous in the fall sample at 16.8 fish/hr (Table 59). Walleye were sampled up to 9.0 in in the fall. No supplemental stocking of fingerling largemouth bass was necessary as determined by above-average age-0 fish numbers (Table 60). Age and growth data is listed in Table 61. During 2015, spring and fall electrofishing will continue to be used to monitor black bass and walleye.

Channel catfish, native strain walleye, and rainbow trout were stocked in 2014. Approximately 3,000 channel catfish (5.0-12.0 in) were stocked in August. The second annual stocking of native strain walleye occurred in June and totaled 17,727 fish (1.7 in). Rainbow trout were stocked at the tailwater throughout the year for an approximate total of 3,750 fish (750 fish/mo; months 4, 5, 6, 10, 11).

No herbicides were applied for aquatic vegetation and no new fish habitat structures were placed in the lake. For 2015, habitat construction will consist of hinge-cut trees and construction of Christmas tree brushpiles.

Paintsville Lake

Black bass were sampled during the spring and fall (Tables 62-67). Although spotted and smallmouth bass are present, largemouth bass are the primary species. There was finally an observed increase in 12.0-14.9 in largemouth bass during spring sampling (Table 63). The 12.0-15.0 in protective slot length limit, implemented in 2002 had not increased numbers significantly until now. Angler catches of largemouth bass have slowly been improving for fish ≥ 15.0 in. The assessment value for largemouth bass improved to "Good" in 2014 (Table 65). From 2008-2012, smallmouth bass fingerlings were stocked. During recent electrofishing sampling there has been no observed increase in numbers of smallmouth bass.

Walleye were sampled in the spring with electrofishing (Tables 68-69). Fish were sampled from 14.0-29.0 in and CPUE improved slightly from the last sample in 2012 (Table 68). A rating of "Fair" was observed for the assessment and CPUE of fish ≥ 20.0 in increased (Table 69). This fishery is slowly improving and may eventually get back to its previous good to excellent fishery of the 1990's. A total of 57,120 walleye (1.4 in) were stocked in May.

Spring electrofishing was utilized to sample black and white crappie (Tables 70-72). A recent introduction, black-nosed (black) crappie have been stocked each year from 2011-2013 and anglers are catching keeper-sized fish. There are black crappie (including black-nosed crappie) and white crappie present in Paintsville Lake (1,150 acres). All black crappie collected during spring sampling were black-nosed crappie. The white crappie population is currently strong and will furnish a good fishery for the next couple years (Table 71).

The lake received a stocking of approximately 3,250 rainbow trout (8.0 in) during February. This will be increased to 4,500 rainbow trout in 2015. Additional fisheries provided by the lake are the brown and rainbow trout fisheries found in the tailwater area below the dam. Approximately 20,000 rainbow trout were stocked in the tailwater from April to November, and 300 brown trout were stocked in the tailwater in April 2014. Occasionally, tailwater stockings during the summer are supplemented with extra rainbow trout from other eastern Kentucky stocking locations due to poor water quality at those locations.

Fish habitat projects consisted of herbicide application and construction of brushpile fish attractors. One application of Sculpin G was applied in the vicinity of the State park boat ramp. Four new hardwood brushpiles were constructed and 1 Christmas tree reef was refurbished.

Pan Bowl Lake

During April, electrofishing was completed for largemouth bass (Tables 73-76). Recent largemouth bass samples have resulted in low PSD and RSD values at Pan Bowl Lake and this was observed again in 2014 (Table 75). This lake was previously known for quality bass fishing and with producing the best numbers of trophy fish in the eastern fisheries district area. Prior PSD's would normally range from 40- 45. The largemouth bass assessment for 2014 dropped to "Poor" for the first time (Table 76).

Multiple species of aquatic plants have historically been present at this lake. Eurasian milfoil has become the dominant species filling in open water areas. Some effort has been applied to reducing milfoil with herbicide applications prior to 2013. This was to aid bass predation on sunfish. There are a limited number of grass carp in the lake to aid with various types of vegetation. No herbicide applications were made in 2014. Fisheries management is working with law enforcement to try to increase patrol at the lake and reduce illegal harvest of bass to aid recruitment of keeper size fish ($\geq$ 12.0 in).

Management at this 98 acre lake also includes stocking of trout and channel catfish and periodic spring electrofishing for bluegill and redear sunfish. Rainbow trout were stocked in March and October at 3,000 fish/month. Approximately 1,865 channel catfish (5.0-12.0 in) were stocked in July.

Pikeville City Lake

The primary fisheries supported at Pikeville City Lake (20 acres) are largemouth bass, bluegill, white crappie, common carp, and channel catfish. However, this lake was formed as a remnant portion of the Levisa Fork River, cut-off by road construction, and therefore contains other miscellaneous species. Additionally, the lake is susceptible to flash flood events and can acquire different fish species from these events as well. This lake has high fertility, which is not common in most lakes of the eastern district and is heavily populated with gizzard shad. During the summer, oxygen is added to the lake by 1 to 4 aerators as needed to prevent fish kills. The largemouth bass fishery has been very good for quality-size fish for many years and continues to support good recruitment of young fish.

On April 21, electrofishing was utilized to sample largemouth bass. Fish were sampled from the 5.0-21.0 in class (Table 77). Total CPUE and CPUE's of various length groups were very good compared to recent years (Table 78). The PSD and RSD values of 76 and 61 (Table 79) are high, but expected with current catch-and-release-only management regulation since March 1, 2006.

Yatesville Lake

Black bass were sampled via electrofishing during the spring and fall (Tables 80-85). Spring sampling observed largemouth bass from 3.0-20.0 in and a total CPUE of 153.7 fish/hr (Table 80). An assessment rating of "Good" was obtained for largemouth bass, improving from the “Fair” rating in 2012 (Table 83). Fall sample data showed above average numbers of age-0 largemouth bass (Table 85). There were no supplemental fingerling largemouth bass stocked in the fall. Although the largemouth bass population at Yatesville Lake (2,280 acres) receives a great amount of fishing pressure (resident and nonresident) through tournaments on the weekends, it has remained consistent.

During 2015, largemouth bass will be sampled in the spring and fall and additional management techniques will be employed. Additional fall data will entail collection of largemouth bass age and growth data. To assist with traffic congestion problems at boat access points, signage will be displayed for anglers to use the department web page for tournament registration. Additionally, a random roving daytime creel survey will be conducted to assess fishing pressure and angler harvest on the lake.

White crappie were sampled with trap nets in November. A total of 1,463 fish were collected from 3.0-13.0 in for a CPUE of 69.7 fish/net-night (Table 86). Data for PSD/RSD, age and growth, and age frequency can be found in Tables 87-89. Most fish collected were age 1-5 (Table 89). There are a good number of quality-size fish > 8.0 in for anglers to harvest (Table 89) and fishing success should be improved for 2015. The assessment rating was “Good” and mean length of age-2 fish at capture remained stable at 6.6 in (Table 90).

Additional fisheries management at Yatesville Lake (2,280 acres) included redear sunfish and rainbow trout stocking and fish habitat work. The fifth and final year of stocking to intiate a fishery for redear sunfish was completed with 25,000 (1.0-3.0 in) fish stocked in September. Rainbow trout were stocked in the tailwater of Yatesville Lake throughout the year (2,250 fish total; 750 fish/month for months 4, 5, 11). Fish habitat work consisted of 12 refurbished brush piles, 1 refurbished Christmas tree reef, and 4 hinge-cut trees. In 2015, further habitat work of different types will continue to aid the recruitment of multiple sportfish species.

Table 1. Summary of 2014 sampling conditions by waterbody, species sampled and date.

Water body	Species	Date	Time (24hr)	Gear	Weather	Water temp (ºF)	Water level (msl)	Secchi (in)	Pertinent sampling comments[a,b]
Buckhorn Lake	Musky	2/20	1100	shock	cloudy	44.0	759.20	17	cond: 265; outflow : 1054CFS; used 2 boats; w hole lake; LFR assissted
Buckhorn Lake	LMB	5/13	2000	shock	rainstorms	78.0	782.20	60	cond: 259; bp: 35.15; outflow :438CFS; used 1 boat; w hole lake; poor
Buckhorn Lake	LMB	9/17	2000	shock	cloudy, humid	74.0	781.60	44	cond: 375; bp: 29.99; outflow : 216CFS; used 1 boat; w hole lake; age and grow th
Carr Creek Lake	WC/BC	2/25	1000	shock	cloudy / w indy / cold	45.0	1020.00		cond: 294; bp: 30.13; outflow : 436CFS; used 1 boat; w hole lake
Carr Creek Lake	Walleye	3/11	1000	shock	sunny	45.0	1017.9	18	cond: 361; bp: 29.82; used 2 boats; w ater turbid; w alleye broodfish and sampling
Carr Creek Lake	LMB	5/1	2000	shock	partly cloudy	68.0	1027.1	54	cond: 494; w hole lake; 2 boats
Carr Creek Lake	LMB	8/15	2000	shock	partly cloudy, humid	76.0	1028.00	72	cond: 291; BP 30.24; w hole lake; used 1 boat; clear w ater; outflow 12CFS
Cranks Creek Lake	LMB	9/22	2000	shock	clear	71.0	normal		used one boat; one dipper; clear w ater
Dew ey Lake	LMB	4/29	2000	shock	cloudy	68.0		29	cond: 571; upper lake; used 1 boat; 1 dipper
Dew ey Lake	LMB	4/30	2000	shock	cloudy	68.0		86	cond: 457; low er lake; 1 boat
Dew ey Lake	LMB	11/23	2000	shock	clear	73.0	650.54	24	BP 30.29; 2 boats: 2 dippers
Dew ey Lake	WC/BC	11/12	1000	trap net	rain / snow	51.5-52	648.36		upper lake; lake level falling; bp: 30.18; outflow : variable, 387-242CFS
Fishtrap Lake	LMB	4/23	1000	shock	clear	61.0	757.72	120	cond: 491; bp: 30.02; outflow : 125CFS; 2 boats
Fishtrap Lake	LMB	9/24	2000	shock	clear	76.5	757.81	60	cond: 730; bp: 30.34; used 2 boats; w hole lake
Fishtrap Lake	HSB	12/15	1000	gill net	cloudy, rainy	45.5	735.85		bp: 30.08; outflow : 359CFS; low er lake
Martins Fk Lake	LMB	5/6	2000	shock	clear / breezy	73.0	1309.25	44	cond: 146; bp: 29.97; w hole lake; 1 boat; sample impeded by tournament
Martins Fk Lake	LMB	9/22	2000	shock	clear	75.0	1310.15		cond: 192; bp: 30.2; outflow : 10 CFS; age and grow th
Martins Fk Lake	LMB	10/28	1000	shock	partly cloudy	63.5	1305.90		cond: 127; bp: 30.06; outflow : 115 CFS; LFR staff assisted
Paintsville Lake	w c/w alleye	3/21	1000	shock	sunny	49.5	709.50	25	cond: 129; bp: 30.09; used 1 boat; upper lake;
Paintsville Lake	w alleye	4/2	1000	shock	sunny / partly cloudy	55.0	709.67	48	cond: 80; bp:30.11; 2 boats; low er lake; w alleye broodfish collection; clear w ater
Paintsville Lake	LMB/SMB	5/7	2000	shock	sunny / clear	72.0	709.89	51	cond: 94; bp: 30.03; used 3 boats; w hole lake; BBR assisted
Paintsville Lake	LMB/SMB	10/15	2000	shock	cloudy / rainy	66.0	710.22	88	cond: low ; bp: 29.85; outflow : 446CFS; used 2 boats; w hole lake
Panbow l	LMB	4/24	1000	shock	sunny		summer pool	84	bp: 30.11; used 1 boat; w hole lake; 7.5 minute runs
Pikeville City Lake	LMB	4/21	1000	shock	sunny / partly cloudy	65.0	normal	30	cond: 475; bp: 30.14; used 1 boat; w hole lake
Yatesville Lake	LMB	5/19	2000	shock	partly cloudy	74.0	630.31	42	cond: 132; bp: 30.25; outflow : 99CFS; used 2 boats; w hole lake
Yatesville Lake	LMB	9/29	2000	shock	overcast	74.0	630.15	72	cond: 172; bp: 30.07; outflow : 26CFS; used 2 boats; w hole lake
Yatesville Lake	WC	11/24	1000	trap net	sunny / w indy	49-46	626.76		upper lake; lake level falling; bp: 29.54; outflow : variable, 119-652CFS

[a] cond = conductivity in µS/cm

[b] bp = barometric pressure in inches

Table 2. Length frequency and electrofishing CPUE (fish/hr) of muskellunge collected during spring sampling on Buckhorn Lake from 1998-2014; numbers in parentheses are standard errors. Results from 2002 are from fall electrofishing.

	Inch class																																						
Year	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	Total	CPUE
1998	1	1	2	7	4	1	1				1	4	3	1	1	1						1		1	1			1	1										33	6.6 (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)
2007					1	1	2	1					2	3	6	2		1			1		2		1	2		1	2		1	1				1		1	32	13.7 (4.5)
2008				2	6	10	6	1						1	1	3				1		1	5	2			1				1			1			1		43	8.3 (1.6)
2009	1			2	4	11	12	6					1		1	3	2	3	1	1		1	1	4	3	3	3		1		2				1		1		68	17.6 (3.4)
2010			1	4	13	18			1	1	1	1		6	6	10	6	1		2	3	2	1	3	2	1	2	1	4	3	1	1					1		96	12.9 (1.6)
2011			4	5	17	14	3					2		3	3	1				1		3	1	3		3	2	1	1		1			1					69	12.6 (2.7)
2012		1		1	8	20	2					1	2	1	6	1	1					1		2		1	3	2	2	1			1						57	13.4 (1.8)
2013			3	6	3							1											1	1			1												16	4.3 (0.9)
2014		1	2	1	6	2						1	2	1	4								1		1				1		1		2						26	7.4 (1.9)

EFDBLMSS.D98-D10, D12, D14

LFRBHLSP.D11, D13

Table 3. Population assessment for muskellunge from Buckhorn Lake (1,230 acres) captured during spring electrofishing from 2000-2014. Assessment scores for 2002 were derived from fall electrofishing data. Actual values are in parentheses. Scoring based on statewide assessment.

	Year														
Parameter	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
CPUE age 1	2	1	1	2	3	2	3	1	3	4	3	3	3	2	2
	(2.7)	(1.5)	(0.5)	(3.3)	(5.9)	(2.5)	(7.9)	(1.7)	(4.8)	(9.3)	(5.1)	(7.8)	(7.5)	(3.2)	(3.4)
CPUE ≥ 20.0 in	3	1	3	2	4	2	3	4	2	3	3	2	3	1	2
	(5.4)	(1.7)	(5.5)	(3.9)	(11.1)	(3.7)	(6.3)	(12.0)	(3.8)	(7.7)	(7.8)	(4.7)	(5.9)	(1.1)	(4.0)
CPUE ≥ 30.0 in	3	1	4	2	4	3	4	4	2	4	3	3	3	1	2
	(3.8)	(1.2)	(4.0)	(2.0)	(6.3)	(2.6)	(4.4)	(5.3)	(2.2)	(4.7)	(3.4)	(2.9)	(3.1)	(0.8)	(1.7)
CPUE ≥ 36.0 in	3	2	4	2	4	4	4	4	2	4	4	3	4	1	3
	(1.0)	(0.5)	(1.5)	(0.7)	(2.8)	(2.1)	(2.5)	(2.5)	(0.6)	(1.8)	(1.7)	(1.1)	(2.1)	(0.3)	(1.1)
CPUE ≥ 40.0 in	2	3	3	3	3	4	4	4	3	4	3	3	2	0	4
	(0.2)	(0.3)	(0.5)	(0.3)	(0.3)	(1.1)	(1.0)	(1.6)	(0.5)	(1.0)	(0.4)	(0.4)	(0.2)	(0.0)	(0.9)
Total score	13	8	15	11	18	15	18	17	12	19	16	14	15	5	13
Assessment	Good	Fair	Good	Fair	Excellent	Good	Excellent	Excellent	Good	Excellent	Good	Good	Good	Poor	Good

EFDBLMSS.D00-D10, D12, D14
LFRBHLSP.D11, D13

Table 4. Species composition, relative abundance and CPUE (fish/hr) of black bass collected in approximately 1.25 hours of 15-minute electrofishing samples at Buckhorn Lake (1,230 acres) on 13 May 2014; numbers in parentheses are standard errors.

		Inch class																		
Area	Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	
Lower	Largemouth bass	1			1	1	5	4		2	1	1	2					18	36.0	(8.0)
Upper	Largemouth bass	3	5	4		3	5	8	12	4	1		1				1	47	62.7	(4.8)
Total	Largemouth bass	4	5	4	1	4	10	12	12	6	2	1	3	0	0	0	1	65	52.0	(7.5)

EFDBLLSS.D14

Table 5. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Buckhorn Lake (1,230 acres). SE=standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	22.7	3.5	18.7	2.3	28.3	3.8	6.3	1.2	0.0		76.0	6.9
2004	38.0	6.2	51.7	6.5	29.3	4.2	4.3	1.2	0.0		123.3	11.6
2005	17.0	3.5	45.0	5.1	38.3	5.5	8.3	1.2	0.3	0.3	108.7	7.9
2006	14.2	2.2	35.2	4.6	40.5	5.1	15.2	3.4	0.3	0.3	105.1	11.0
2007	14.5	4.3	26.0	2.7	20.5	3.3	14.0	2.4	0.5	0.5	75.0	6.0
2008	14.8	5.5	27.0	7.2	21.4	3.3	13.8	1.8	0.0		77.0	12.0
2009	41.2	3.5	32.0	7.7	17.2	4.8	14.5	3.0	0.0		104.8	13.2
2010	21.2	4.5	31.8	6.6	18.3	3.7	10.7	2.6	0.4	0.4	82.0	11.7
2011						no sample						
2012	32.5	6.3	26.5	5.3	7.5	0.9	3.5	1.2	0.5	0.5	70.0	8.3
2013						no sample						
2014	11.2	3.4	30.4	4.5	7.2	1.5	3.2	1.5	0.0		52.0	7.5

EFDBLLSS.D03-D10, D12, D14

Table 6. PSD and RSD values for each species of black bass in each area of Buckhorn Lake (1,230 acres) on 13 May 2014. 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		
Area	No.	PSD	RSD_{15}	No.	PSD	RSD_{14}
Lower	16	38 (13-62)	13 (0-29)			
Upper	35	20 (7-33)	6 (0-14)			
Total	51	25 (13-38)	8 (0-15)	0		

EFDBLLSS.D14

Table 7. Population assessment for largemouth bass collected during spring at Buckhorn Lake (1,230 acres). Actual values are in parentheses. Scoring based on statewide assessment.

	Year									
Parameter	2003	2004	2005	2006	2007	2008	2009	2010	2012	2014
Mean length age 3 at capture	4	4	4	4	4	4	4	4	4	4
	(12.6)	(12.6)	(12.6)	(12.6)	(12.6)	(12.6)	(13.3)	(13.3)	(13.3)	(12.8)
Spring CPUE age 1	1	2	1	1	1	1	3	2	3	1
	(19.2)	(35.5)	(16.3)	(11.2)	(13.0)	(11.2)	(43.8)	(26.1)	(36.1)	(10.4)
Spring CPUE 12.0-14.9 in	3	3	4	4	2	2	2	2	1	1
	(28.3)	(29.3)	(38.3)	(40.5)	(20.5)	(21.4)	(17.2)	(18.3)	(7.5)	(7.2)
Spring CPUE ≥15.0 in	2	2	2	3	3	3	3	2	1	1
	(6.3)	(4.3)	(8.3)	(15.2)	(14.0)	(13.8)	(14.5)	(10.7)	(3.5)	(3.2)
Spring CPUE ≥20.0 in	0	0	2	2	2	0	0	2	2	0
	(0.0)	(0.0)	(0.3)	(0.3)	(0.5)	(0.0)	(0.0)	(0.4)	(0.5)	(0.0)
Total score	10	11	13	14	12	10	12	12	11	7
Assessment rating	Fair	Fair	Good	Good	Good	Fair	Good	Good	Fair	Poor
Instantaneous mortality (z)	0.61	0.85	0.67	0.48	0.45	0.42	0.64	0.73	0.77	
Annual mortality (A)	45.60	57.20	48.70	38.00	36.40	34.20	47.40	51.80	54.90	

EFDBLLSS.D03-D10, D12, D14
EFDBLLAS.D04, D09
EFDBLLAF.D14

Table 8. Length frequency and CPUE (fish/hr) of black bass collected in approximately 1.25 hours of 15-min nocturnal electrofishing runs at Buckhorn Lake (1,230 acres) on 17 September 2014; 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	Total	CPUE	
Lower																				
	LMB	6	22	20	11	1	3	5	7	11	15	3	5			1		110	110.0	(31.2)
Upper																				
	SB				1													1	1.0	(1.0)
	LMB		35	37	33	8		4	13	14	8	2	3				1	158	158.0	(39.8)
Total																				
	SB	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	(0.5)
	LMB	6	57	57	44	9	3	9	20	25	23	5	8	0	0	1	1	268	134.0	(25.1)

LMB = largemouth bass

SB = spotted bass

EFDBLLSF.D14

Table 9. Indices of year class strength at age-0 and age-1 and mean lengths (in) of age-0 largemouth bass at Buckhorn Lake (1,230 acres) from electrofishing. CPUE=fish/hr, SE=standard error.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	4.5	0.1	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	13.0	3.7
2007	4.5	0.2	18.8	6.4	9.6	3.4	11.2	3.8
2008	4.9	0.1	21.4	3.7	9.9	2.3	43.7	3.5
2009			no fall sample				26.1	5.2
2010	4.3	0.1	67.0	5.0	22.5	5.8	no spring sample	
2011	4.5	0.1	126.7	26.7	42.0	10.0	36.1	6.5
2012	5.0	0.2	39.0	9.6	21.0	7.2	no spring sample	
2013	4.1	0.1	68.8	10.8	16.8	4.3	10.4	3.7
2014	4.4	0.1	86.5	24.9	26.5	8.6		

EFDBLLSF.D02-D08, D10-D14
EFDBLLAS.D04, D09
EFDBLLAF.D14
EFDBLLSS.D03-D10, D12, D14

Table 10. Mean back-calculated length (in) at each annulus for largemouth bass collected from Buckhorn Lake (1,230 acres) on 17 September 2014, including 95% confidence intervals.

Year class	No.	Age 1	2	3	4	5
2013	17	6.1				
2012	14	6.2	9.6			
2011	2	7.2	10.6	12.1		
2010	1	7.5	10.4	13.6	15.3	
2009	1	7.6	10.9	13.3	15.0	16.9
Mean		6.3	9.8	12.8	15.1	16.9
Smallest		4.8	7.7	11.9	15.0	16.9
Largest		8.8	11.1	13.6	15.3	16.9
STD error		0.2	0.2	0.4	0.2	
95% CI LO		6.0	9.4	12.0	14.8	
95% CI HI		6.6	10.2	13.6	15.5	

Intercept = 0
EFDBLLAF.D14

Table 11. Fish harvest statistics derived from a creel survey at Buckhorn Lake (1,230 acres) from 4 April through 30 October 2014. Standard errors are in parentheses.

Fishing trips	
No. of fishing trips	4,430
No. of fishing trips per acre	3.60
Fishing pressure	
Total angler hours	12,728 (338)
Man-hours/acre	10.35
Catch/harvest	
No. of fish caught	31,728 (3,093)
No. of fish harvested	7,954 (1,312)
Lb of fish harvested	4,034
Harvest rates	
Fish/hour	0.69
Fish/acre	6.47
Lb/acre	3.28
Catch rate	
Fish/hour	2.48
Fish/acre	25.80
Miscellaneous characteristics (%)	
Male	88.50
Female	11.50
Resident	97.79
Non-resident	2.21
Method (%)	
Still fishing	21.90
Casting	63.05
Tickling/noodling	0.44
Trolling	14.60
Mode (%)	
Boat	74.56
Bank	14.16
Dock	11.28

Table 12. Fish harvest statistics derived from a creel survey at Buckhorn Lake (1,230 acres) from 4 April through 30 October 2014.

	White bass	Muskellunge	Flathead catfish	Channel catfish	Warmouth	Bluegill	Common carp	Spotted bass	Largemouth bass	White Crappie	Green sunfish	Longear sunfish	Longnose gar	Rock bass
No. caught	59	183	10	1700	22	8680	138	28	5311	14969	544	46	7	33
(per acre)	(0.05)	(0.15)	(0.01)	(1.38)	(0.02)	(7.06)	(0.11)	(0.02)	(4.32)	(12.17)	(0.44)	(0.04)	(0.01)	(0.03)
No. harvested	32	14	10	274	22	3590	0	0	91	3795	80	46	0	0
(per acre)	(0.03)	(0.01)	(0.01)	(0.22)	(0.02)	2.92			(0.07)	(3.09)	(0.07)	(0.04)		
% of total no.	0.40	0.18	0.13	3.44	0.28	45.13			1.14	47.71	1.01	0.58		
Lb harvested	41.5	180.1	103.0	495.7	9.6	862.0			448.5	1873.5	14.7	5.8		
(per acre)	(0.03)	(0.15)	(0.08)	(0.40)	(0.01)	(0.70)			(0.37)	(1.52)	(0.01)	(0.01)		
% of total lb harvested	1.03	4.46	2.55	12.29	0.24	21.37			11.12	46.44	0.36	0.14		
Mean length (in)	14.5	37.0	30.0	17.0	8.5	7.2			17.9	10.3	6.2	6.0		
Mean w eight (lb)	1.20	12.77	10.69	1.59	0.45	0.23			3.38	0.50	0.16	0.13		

	Muskellunge	Catfish group	Panfish group	Black bass group	Crappie group	Anything
No. of fishing trips for that species	208	226	434	1,200	1,446	916
% of all trips	4.76	5.10	9.80	27.09	32.64	20.68
Hours fished for that species	596.90	648.39	1246.82	3448.99	4154.34	2632.49
(per acre)	(0.49)	(0.53)	(1.01)	(2.80)	(3.38)	(2.14)
No. harvested fishing for that species	0	230	1,783	35	3707	
Lb harvested fishing for that species	0.00	512.10	397.20	86.50	1832.60	
No./hour harvested fishing for that species	0.000	0.375	1.843	0.013	0.887	
% success fishing for that species	0.00	81.82	37.74	3.17	62.16	11.69

t < 0.01

Table 13. Species composition and length distribution of each species of fish harvested (H) and released (R) from a creel survey on Buckhorn Lake (1,230 acres) from 4 April to 30 October 2014.

		Inch class																																
Species		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	24	25	28	29	30	32	33	35	37	38	40	41	44	45	47
Muskellunge	H																											14						
	R											11											11	23	11	23	11		11	23	11	11	11	11
Channel catfish	H												32	32	48		97	32	16		17													
	R						40		40	158	40	119	356	119	79	40			434															
Flathead catfish	H																							9										
	R																																	
White bass	H											11	11				10																	
	R						9				17																							
Bluegill	H			204	215	1,586	1,404	159	22																									
	R	44	631	586	2,036	1,261	376	155																										
Warmouth	H					11			10																									
	R																																	
Green sunfish	H			16	16	24	24																											
	R		108	108	139	62	15	31																										
Longear sunfish	H				45																													
	R																																	
Rock bass	H																																	
	R						7	26																										
Spotted bass	H																																	
	R								9		18																							
Largemouth bass	H													30	30			15		15														
	R						362	187	1,399	250	1,536	550	637	162	25	62	25		25															
White crappie	H							693	2,048	592	422	30	10																					
	R		130	178	1993	6,180	1,756	700	154	12	59	11																						
Longnose gar	H																																	
	R																					6												
Common carp	H																																	
	R																		137															

Table 14. Monthly black bass angling success at Buckhorn Lake during the 2014 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	2,066	46	223	642	918	1.481	0	0.000
May	1,318	13	304	874	1,017	1.376	13	0.018
Jun	328	0	61	174	202	1.780	0	0.000
Jul	242	12	158	455	174	0.566	12	0.037
Aug	423	10	97	278	165	0.865	0	0.000
Sep	296	0	167	479	240	0.515	0	0.000
Oct	665	10	191	547	636	0.640	10	0.010
Total	5,339	91	1,200	3,449	3,352		35	
Mean						0.971		0.013

Table 15. Monthly white crappie angling success at Buckhorn Lake during the 2014 creel survey period.

	Total no. of white crappie caught	Total no. of white crappie harvested	No. of white crappie fishing trips	Hours fished by crappie anglers	Crappie caught by crappie anglers	Crappie caught/hour by crappie anglers	Crappie harvested by crappie anglers	Crappie harvested/hour by crappie anglers
Apr	2,296	0	261	749	2,296	3.937	0	0.000
May	2,597	723	279	801	2,450	2.465	676	0.680
Jun	819	39	67	194	733	3.234	39	0.170
Jul	2,090	647	142	407	2,079	3.163	647	0.984
Aug	3,066	1404	266	765	3,066	3.337	1,404	1.528
Sep	3,202	846	271	778	2,920	3.094	804	0.852
Oct	899	137	160	461	821	4.773	137	0.795
Total	14,969	3,795	1,446	4,154	14,365		3,707	
Mean						3.035		0.877

Table 16. Monthly muskellunge angling success at Buckhorn Lake during the 2014 creel survey period.

	Total no. of musky caught	Total no. of musky harvested	No. of musky fishing trips	Hours fished by musky anglers	Musky caught by musky anglers	Musky caught/hour by musky anglers	Musky harvested by musky anglers	Musky harvested/hour by musky anglers
Apr								
May								
Jun								
Jul	135		108	312	135	0.288		
Aug	23		32	93	23	0.167		
Sep	14	14						
Oct	11		68	192	11	0.017		
Total	183	14	208	597	169		0	
Mean						0.204		0.000

Table 17. Catch and harvest statistics derived from a creel survey at Buckhorn Lake (1,230 acres) in 2014 for largemouth bass, white crappie, and muskellunge.

	Largemouth bass				White crappie				Muskellunge			
		Catch & release				Catch & release				Catch & release		
	Harvest	12-14.9 in	≥15.0 in	Total	Harvest	<8.9 in	≥9.0 in	Total	Harvest	< 30.0 in	≥30.0 in	Total
Total number	91	2,723	299	5,311	3,795	10,237	937	14,969	14	22	146	183
Total weight (lb)	448.5	2,008.0	221.3	4,297.8	1,873.5	1,499.0	137.0	3,509.5	180.1	42.4	2002.7	2225.2
Mean length (in)	17.9				10.3				37.0			
Mean weight (lb)	3.38				0.50				12.77			
Rate (fish/hour)	0.006				0.354				t			

t=trace < 0.001

Table 18. Species composition, relative abundance and CPUE (fish/hr) of black bass collected in approximately 2.0 hours of 15-minute electrofishing samples at Carr Creek Lake (710 acres) on 1 May 2014; numbers in parentheses are standard errors.

		Inch class																			
Area	Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	
Lower	Smallmouth bass					2								1					3	3.0	(1.0)
	Spotted bass			1	4	3	3		2										13	13.0	(5.0)
	Largemouth bass	5	135	11	3	5	10	15	13	5	7	5	5	5		1			225	225.0	(29.8)
Upper	Smallmouth bass																		0		
	Spotted bass			1	1	2	2	1											7	7.0	(3.4)
	Largemouth bass	2	45	23	6	13	14	15	11	9	13	11	10	7	1	5	1	2	188	188.0	(20.2)
Total	Smallmouth bass	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	3	1.5	(0.7)
	Spotted bass	0	0	2	5	5	5	1	2	0	0	0	0	0	0	0	0	0	20	10.0	(3.0)
	Largemouth bass	7	180	34	9	18	24	30	24	14	20	16	15	12	1	6	1	2	413	206.5	(18.1)

EFDCLLSS.D14

Table 19. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Carr Creek Lake (710 acres) from 2002-2014. SE=standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		>15.0 in		>20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	116.3	14.2	16.9	1.7	12.3	1.6	7.1	1.2	0.0		152.7	13.3
2003	67.6	11.3	15.9	2.2	11.1	1.5	10.7	1.5	0.4	0.3	105.2	14.4
2004	135.0	17.7	24.4	5.3	8.4	1.4	9.0	1.2	0.2	0.2	176.9	18.8
2005	20.0	2.7	19.8	1.6	24.8	2.4	14.0	1.8	0.3	0.3	78.6	4.9
2006	22.3	7.0	30.9	4.8	27.9	3.3	29.9	3.1	0.7	0.5	111.0	10.2
2007	8.0	1.9	20.8	4.7	18.6	3.4	15.7	3.6	0.5	0.5	63.0	5.5
2008	3.0	1.3	16.4	2.6	24.7	5.4	23.7	3.3	0.5	0.5	67.8	8.4
2009	5.1	0.7	10.3	2.6	17.1	3.0	16.0	3.4	0.6	0.6	48.6	6.1
2010	13.8	3.2	10.8	2.6	10.8	2.1	12.6	3.5	0.9	0.6	47.9	4.8
2011	11.0	4.4	10.5	2.6	5.5	1.3	16.0	4.5	1.0	1.0	43.0	9.8
2012	15.0	3.1	21.5	3.5	9.0	1.5	13.5	3.5	1.5	0.7	59.0	8.4
2013	113.3	51.4	20.0	4.5	16.0	3.7	16.7	2.2	2.7	1.3	166.0	53.2
2014	115.0	23.6	48.0	7.8	25.0	4.3	18.5	3.5	1.0	0.7	206.5	18.1

BBRPSCFL.D02-D05
EFDCLLSS.D06-D10, D12-D14

Table 20. PSD and RSD values for each species of black bass in each area of Carr Creek Lake (710 acres) on 1 May 2014. 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	71	39	15	3	33	33	12	17	0
		(28-51)	(7-24)		(0-99)	(0-99)		(0-39)	
Upper	112	53	23				6	0	
		(48-74)	(15-31)						
Total	183	48	20	3	33	33	18	11	0
		(40-55)	(14-26)		(0-99)	(0-99)		(0-26)	

EFDCLLSS.D14

Table 21. Population assessments for largemouth bass collected from Carr Creek Lake (710 acres). Actual values are in parentheses. Scoring based on statewide assessment.

	Year										
Parameter	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Mean length age 3 at capture	4	4	4	4	4	4	4	4	4	4	4
	(13.2)	(13.2)	(13.2)	(13.2)	(12.6)	(12.6)	(12.6)	(12.6)	(12.6)	(13.4)	(13.4)
Spring CPUE age 1	4	2	2	1	1	1	1	1	1	4	4
	(133.7)	(18.8)	(21.1)	(7.6)	(2.4)	(3.1)	(10.0)	(9.0)	(13.9)	(114.7)	(116.0)
Spring CPUE 12.0-14.9 in	1	2	2	1	2	1	1	1	1	1	2
	(8.4)	(24.8)	(27.9)	(18.6)	(24.7)	(17.1)	(10.8)	(5.5)	(9.0)	(16.0)	(25.0)
Spring CPUE ≥15.0 in	2	2	3	2	3	2	2	2	2	2	3
	(9.0)	(14.0)	(29.9)	(15.7)	(23.7)	(16.0)	(12.6)	(16.0)	(30.2)	(16.7)	(18.5)
Spring CPUE ≥20.0 in	1	1	1	1	1	1	1	1	2	3	1
	(0.2)	(0.3)	(0.7)	(0.5)	(0.5)	(0.6)	(0.9)	(1.0)	(1.5)	(2.7)	(1.0)
Total score	12	11	12	9	11	9	9	9	10	14	14
Assessment rating	Good	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Good	Good
Instantaneous mortality (z)	0.54	0.47	0.43	0.37	0.41	0.74	0.34	0.27	0.44		
Annual mortality (A)	42.00	37.50	35.10	30.90	33.50	52.30	29.10	23.80	35.80		

BBRPSCFL.D04-D05
EFDCLLSS.D06-D14
EFDCLLAS.D08
EFDCLLAF.D13

Table 22. Length frequency and electrofishing CPUE (fish/hr) of black bass collected in approximately 1.5 hours of 15-minute nocturnal electrofishing samples at Carr Creek Lake (710 acres) on 15 September 2014; numbers in parentheses are standard errors.

		Inch class																				
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	
Lower	Smallmouth bass																			0	0.0	(1.0)
	Spotted bass				1		3	2	4	1		1								12	16.0	(8.0)
	Largemouth bass		1	1	3	3	8	3		2	2	4	2	2	3	2	3	1		40	53.3	(19.6)
Upper	Smallmouth bass																			0	0.0	(0.0)
	Spotted bass				1	1	1				1		1							5	6.7	(4.8)
	Largemouth bass	6	1	3	1	3	11	4	1		4	3	1	3	4	1		1	1	48	64.0	(12.0)
Total	Smallmouth bass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	(0.0)
	Spotted bass	0	0	0	2	1	4	2	4	1	1	1	1	0	0	0	0	0	0	17	11.3	(4.7)
	Largemouth bass	6	2	4	4	6	19	7	1	2	6	7	3	5	7	3	3	2	1	88	58.7	(10.6)

EFDCLLSF.D14

Table 23. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected by electrofishing at Carr Creek Lake (710 acres). CPUE=fish/hr, SE=standard error.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	4.4	0.1	14.0	5.4	5.8	2.3	133.8*	17.5
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	7.6	2.0
2007	3.7	0.5	5.0	2.2	1.0	0.7	2.4	1.2
2008	4.3	0.2	15.2	6.6	3.8	1.7	3.1	0.8
2009	3.6	0.3	12.5	2.8	3.5	1.6	10.0	2.5
2010	4.6	0.2	13.5	4.4	5.0	1.7	9.0	3.1
2011	4.6	0.1	17.6	5.7	7.2	3.0	13.2	2.6
2012	4.3	0.2	34.5	10.9	11.5	4.0	114.7	51.8
2013	4.4	0.2	14.0	4.6	4.8	1.8	116.0	23.8
2014	4.4	0.3	13.3	4.2	5.3	1.7		

* Includes stocked fish
BBRWRCFL.D03-D05
BBRSCCFL.D03
EFDCLLSF.D06-D14
EFDCLLAS.D08
EFDCLLSS.D06-D13
EFDCLLAF.D13

Table 24. Length frequency and CPUE (fish/hr) of walleye collected at Carr Creek Lake (710 acres) during daytime spring electrofishing.

	Inch class																							
Year	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	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 sample												
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
2007								1		1	2	4	3	11	15	8	4	4	5	2			60	32.9	7.4
2008									1	2	5	12	16	19	21	19	15	14	7	3	1	1	136	12.8	1.2
2009								1	4	3	9	18	21	17	15	13	10	11	2				124	21.3	1.3
2010								6	8	7	7	10	15	16	14	16	13	8	8	9		1	138	12.7	3.3
2011	1	1				1			2	6	8	8	5	15	7	11	5	5	2	3	1		81	15.4	5.2
2012								1	1	2	1	13	19	22	14	4	4	5	1				87	20.8	2.5
2013									3	2	8	11	13	16	21	9	2	2	1				88	10.7	1.4
2014									1		2	14	9	12	10	6	1		1				56	11.8	2.9

EFDCLWSS.D00-D14

Table 25. Spring electrofishing population assessment for walleye at Carr Creek Lake (710 acres). Actual values are in parentheses. Scoring based on statewide assessment.

	Year									
Parameter	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Population density	4	4	4	2	4	2	3	4	2	2
(Total CPUE)	(28.2)	(31.3)	(32.9)	(12.8)	(21.3)	(12.7)	(15.4)	(20.8)	(10.7)	(11.8)
Growth rate	4	4	4	4	4	4	4	4	4	4
(Mean length age 3 at capture)	(20.6)	(20.6)	(20.6)	(20.6)	(19.3)	(19.3)	(19.3)	(19.3)	(19.3)	(19.3)
Size structure	4	4	4	4	4	4	4	4	4	4
(CPUE $\geq$20.0 in)	(18.4)	(24.8)	(20.9)	(9.3)	(11.8)	(7.8)	(9.3)	(11.9)	(6.2)	(6.3)
Recruitment	0	0	0	0	0	0	2	0	0	0
(CPUE <13.0 in)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.5)	(0.0)	(0.0)	(0.0)
Total score	12	12	12	10	12	9	13	12	10	10
Assessment rating	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Instantaneous mortality (z)	0.26	0.20	0.35	0.94	0.36	0.33	0.29	0.43	0.34	0.34
Annual mortality (A)	22.50	22.50	41.40	60.90	30.60	28.20	25.00	35.20	28.90	29.50

EFDCLWSS.D05-D14
EFDCLWAS.D03, D09

Table 26. Length frequency and CPUE (fish/hr) of crappie collected by electrofishing at Carr Creek Lake (710 acres) on 25 February 2014; numbers in parentheses are standard errors.

	Inch class												
Species	3	4	5	6	7	8	9	10	11	12	13	Total	CPUE
White crappie	4	11	89	124	70	16	8	11	10	5	2	350	280.0 (69.5)
Black crappie		2	7	10	7	4	4	1	1			36	28.8 (5.6)

EFDCLCSS.D14

Table 27. Spring electrofishing CPUE (fish/hr) for each length group of black and white crappie collected at Carr Creek Lake (710 acres). SE=standard error.

	Length group															
	≥8.0 in				≥10.0 in				≥8.0 in		≥10.0 in		Total			
	WC		BC		WC		BC		all crappie		all crappie		WC		BC	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2007	10.1	9.1	3.8	3.0	6.2	5.3	0.7	0.7	13.9	12.1	6.9	5.1	27.8	26.0	6.9	5.3
2008	1.3	0.8	1.0	0.4	0.8	0.5	0.2	0.1	2.3	1.0	0.9	0.5	1.7	1.0	1.6	0.7
2009	1.3	0.6	4.6	2.2	0.8	0.4	0.6	0.4	5.9	2.8	1.4	0.6	1.6	0.5	7.5	4.8
2010	2.5	1.9	2.4	1.0	2.2	1.8	0.8	0.3	4.9	2.3	2.9	2.0	4.9	3.5	6.1	2.3
2011	2.0	1.3	1.3	0.8	0.7	0.7	0.4	0.3	3.3	1.2	1.1	0.6	21.7	14.1	3.5	0.9
2012	3.1	1.3	11.3	9.1	1.4	0.8	0.9	0.7	14.4	9.4	2.4	1.2	8.7	3.9	16.7	12.9
2013	14.0	4.3	10.5	2.9	2.0	1.1	1.0	0.7	24.5	4.9	3.0	1.0	85.0	19.9	41.0	10.8
2014	41.6	11.4	8.0	3.1	22.4	8.6	1.6	1.6	49.6	11.1	24.0	9.6	280.0	69.5	28.8	5.6

EFDCLCSS.D07-D14

Table 28. PSD and RSD_{10} values for black and white crappie taken in spring electrofishing samples at Carr Creek Lake (710 acres) on 25 February 2014; 95% confidence intervals are in parentheses.

Species	No. ≥5.0 in	PSD	RSD_{10}
White crappie	335	16	8
		(12-19)	(5-11)
Black crappie	34	29	6
		(14-45)	(0-14)

EFDCLCSS.D14

Table 29. Length frequency and CPUE (fish/hr) of black bass collected in 1.25 hours of 15-min nocturnal electrofishing runs at Cranks Creek Lake (219 acres) on 22 September 2014; 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	
SB		3	1				1		2													7	5.6	(2.4)
LMB	12	68	25	22	6	9	9	22	23	21	9	2				1	2	1		1	2	235	188.0	(34.3)

SB = spotted bass
LMB = largemouth bass
EFDCCLSF.D14

Table 30. Indices of year class strength at age-0 and age-1 and mean lengths (in) of age-0 largemouth bass at Cranks Creek Lake (219 acres) from electrofishing. CPUE=fish/hr, SE=standard error.

	Age 0		Age 0		Age 0 >5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
1999							44.3	10.4
2000							14.3	4.8
2001	5.0	0.1	27.3	5.2	13.3	3.0		
2002	5.1	0.1	34.4	10.6	20.8	7.7		
2003							15.0	4.3
2004							50.4	15.3
2005								
2006								
2007	4.3	0.1	32.0	8.7	7.2	2.9	23.0	7.3
2008								
2009	3.9	0.1	64.0	29.8	7.2	4.8	68.8	26.1
2010	4.3	0.1	93.3	28.5	16.0	6.1	45.6	6.0
2011	5.3	0.1	51.2	5.4	34.4	5.3	28.0	10.7
2012	4.1	0.1	66.4	27.4	10.4	5.3		
2013	3.9	0.2	11.2	5.4	0.8	0.8		
2014	4.0	0.1	104.8	24.5	20.8	5.1		

EFDCCLSF.D01-D02, D07, D09-D14
EFDCCLAS.D08
EFDCCLSS.D00, D01, D04, D05, D08, D10-D12
EFDCCLAF.D13

Table 31. Species composition, relative abundance and CPUE (fish/hr) of black bass collected in approximately 2.5 hours of 15-minute nocturnal electrofishing samples by area at Dewey Lake (1,100 acres) on 29 and 30 April 2014. Standard errors are in parentheses.

		Inch class																				
Area	Species	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	
Lower	Spotted bass	1	2	4	3	2	6	7	7	1										33	26.4	(11.8)
	Largemouth bass	8	8	1	4	11	10	9	40	25	23	8	13	6	1				2	169	135.2	(26.1)
Upper	Spotted bass						3													3	2.4	(2.4)
	Largemouth bass	1	2	5	2	8	8	9	6	10	7	5	9	13		3	2	1		91	72.8	(3.9)
Total	Spotted bass	1	2	4	3	2	9	7	7	1	0	0	0	0	0	0	0	0	0	36	14.4	(17.0)
	Largemouth bass	9	10	6	6	19	18	18	46	35	30	13	22	19	1	3	2	1	2	260	104.0	(16.2)

EFDDLLSS.D14

Table 32. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Dewey Lake (1,100 acres). SE=standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
1987	44.6		38.3		12.0		0.6		0.0		95.4	
1988	84.0		40.7		26.7		2.0		0.0		154.7	
1989	75.0		27.5		10.8		7.0		0.0		120.7	
1990	58.8		68.0		32.0		11.4		0.6		171.4	
1991	73.8		50.6		18.4		3.5		0.2		146.4	
1992	57.4		64.1		17.2		7.4		0.2		146.1	
1993	43.7		71.8		15.6		8.8		0.8		140.0	
1994						no sample						
1995	46.6		59.6		28.5		3.6		0.0		138.3	16.9
1996						no sample						
1997	15.3		53.3		32.3		11.0		1.0		112.0	12.2
1998	20.1		51.4		43.2		7.2		0.6		122.0	8.5
1999	78.9		34.6		39.5		12.8		0.5		165.8	12.7
2000	62.2	4.7	44.0	4.4	23.6	3.5	10.3	1.3	0.1		140.1	9.5
2001	150.1	17.2	57.8	5.7	26.9	2.7	17.8	1.6	0.6		252.6	22.8
2002						no sample						
2003	71.1	10.1	55.6	4.4	23.1	1.8	22.0	2.1	0.7		171.8	14.6
2004	96.2	11.9	34.7	3.8	20.0	3.2	17.5	2.6	1.0		168.3	13.9
2005	39.3	5.0	59.2	6.3	31.0	3.2	24.5	1.9	0.3		153.9	12.8
2006	32.3	5.7	66.4	8.6	24.2	3.6	24.9	3.6	0.7		147.8	10.0
2007	54.9	9.6	80.8	9.8	35.1	5.0	30.2	4.1	1.5	0.7	200.9	19.9
2008	87.4	10.4	86.5	9.5	21.6	3.6	16.3	3.4	0.8	0.5	211.7	12.4
2009	83.7	12.7	62.8	6.3	18.8	1.9	14.4	3.4	0.5	0.5	179.8	16.9
2010	42.6	5.9	98.0	27.6	12.3	2.8	8.3	2.0	0.0	0.0	161.2	33.0
2011						no sample						
2012	27.2	4.6	63.2	7.0	34.9	3.9	10.7	2.5	0.4	0.4	136.0	8.6
2013	20.8	3.9	92.8	14.8	54.0	6.5	17.2	1.9	1.2	0.6	184.8	20.8
2014	12.4	2.6	40.4	8.1	31.2	6.6	20.0	2.1	1.2	0.9	104.0	16.2

EFDDLLSS.D87-D02, D06-D10, D12-D14
BBRPSDEW.D03-D05

Table 33. PSD and RSD values for each species of black bass in each area of Dewey Lake (1,100 acres) during spring 2014. Numbers in parentheses are 95% confidence intervals.

	Largemouth bass			Spotted bass		
Area	No.	PSD	RSD_{15}	No.	PSD	RSD_{14}
Lower	148	53 (45-61)	15 (9-21)	26	31 (13-49)	0
Upper	81	62 (51-72)	35 (24-45)	3	0	
Total	229	56 (49-62)	22 (16-27)	29	28 (11-44)	0

EFDDLLSS.D14

Table 34. Population assessment for largemouth bass collected from Dewey Lake (1,100 acres). Actual values are in parentheses. Scoring based on statewide assessment.

	Year									
Parameter	2004	2005	2006	2007	2008	2009	2010	2012	2013	2014
Mean length age 3 at capture	1	1	1	1	2	2	2	2	2	2
	(10.5)	(10.5)	(10.5)	(10.5)	(11.3)	(11.3)	(11.3)	(11.3)	(11.2)	(11.2)
Spring CPUE age 1	4	2	2	3	4	4	1	1	2	1
	(79.7)	(24.8)	(27.9)	(49.0)	(49.5)	(55.6)	(16.4)	(19.5)	(20.8)	(10.8)
Spring CPUE 12.0-14.9 in	2	3	2	4	2	2	1	3	4	3
	(20.0)	(31.0)	(24.2)	(35.1)	(21.6)	(18.8)	(12.3)	(34.9)	(54.0)	(31.2)
Spring CPUE ≥15.0 in	3	4	4	4	3	3	2	2	3	4
	(17.5)	(24.5)	(24.9)	(30.2)	(16.4)	(14.4)	(8.3)	(10.7)	(17.2)	(20.0)
Spring CPUE ≥20.0 in	2	2	2	2	2	2	0	2	2	2
	(1.0)	(0.3)	(0.7)	(1.5)	(0.8)	(0.5)	(0.0)	(0.4)	(1.2)	(1.2)
Total score	12	12	11	14	13	13	6	10	13	12
Assessment rating	Good	Good	Fair	Good	Good	Good	Poor	Fair	Good	Good
Instantaneous mortality (z)	0.40	0.42	0.41	0.39	0.56	0.48	0.77	0.64		
Annual mortality (A)	32.60	34.30	33.50	32.10	42.80	38.40	53.90	35.80		

BBRPSDEW.D04-D05
EFDDLLSS.D06-D10, D13-D14
EFDDLLAS.D08
EFDDLLAF.D13

Table 35. Length frequency distribution of each black bass species captured during 2.5 hours of 15-minute nocturnal electrofishing runs at Dewey Lake (1,100 acres) on 23 September 2014. Standard errors are in parentheses.

		Inch class																						
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	
Lower	Spotted bass	2	2	1	1	2	1	2	2	1	1											15	12.0	(4.6)
	Largemouth bass	31	14	3		3	3	5	3	9	19	12	8	5	8	3	1	1	1			129	103.2	(19.2)
Upper	Spotted bass						1															1	0.8	(0.8)
	Largemouth bass	3	7	9	15	7		16	12	14	16	11	2	3	7	2	1	4	1		1	131	104.8	(13.7)
Total	Spotted bass	2	2	1	1	2	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	16	6.4	(2.9)
	Largemouth bass	34	21	12	15	10	3	21	15	23	35	23	10	8	15	5	2	5	2	0	1	260	104.0	(11.1)

EFDDLLSF.D14

Table 36. Indices of year class strength at age-0 and age-1 and mean lengths (in) of age-0 largemouth bass at Dewey Lake (1,100 acres) from electrofishing. CPUE=fish/hr, SE=standard error.

	Age 0		Age 0		Age 0 $\geq$5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	5.0	0.0	75.6	14.2	37.6	9.4	61.2	9.4
2003	4.9	0.1	38.9	10.6	15.1	3.8	79.7	10.5
2004	5.2	0.1	45.2	7.1	25.4	4.6	24.8	4.1
2005	4.4	0.1	58.7	16.1	16.9	6.6	27.9	5.5
2006	5.1	0.1	39.0	9.9	21.3	5.8	49.0	9.2
2007	4.8	0.1	54.3	12.8	21.2	4.2	49.5	10.0
2008	5.0	0.1	54.9	14.3	30.0	7.4	55.6	12.1
2009	5.3	0.1	45.7	8.8	28.8	5.2	16.4	3.3
2010	5.0	0.1	67.6	14.2	38.4	8.5	no sample	
2011	4.6	0.1	37.2	9.3	14.8	3.6	19.5	4.4
2012	4.4	0.1	26.0	5.3	7.2	1.7	20.8	3.9
2013	3.4	0.2	25.2	6.3	3.2	0.8	10.8	2.8
2014	3.9	0.1	36.8	8.3	10.0	4.3		

BBRPSDEW.D03-D05
BBRDLLSF.D02
BBRWRDEW.D03-D04
BBRSCDEW.D03
EFDDLLSF.D05-D14
EFDDLLSS.D06-D10, D12-D14
EFDDLLAS.D08

Table 37. Length frequency and CPUE (fish/nn) for white crappie collected at Dewey Lake (1,100 acres) in 19 net-nights from 12 - 14 November 2014. Standard errors are in parentheses.

	Inch class															
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	CPUE	
WC	20	11	10	11	85	213	81	49	44	29	7	3	2	565	29.7	(6.2)
BC	2	4	5	6	90	230	50	6						393	20.7	(5.3)

WC=white crappie
BC=black crappie
EFDDLCTF.D14

Table 38. PSD and RSD values calculated for crappie collected in trap nets at Dewey Lake (1,100 acres) during November 2014; 95% confidence intervals are in parentheses.

Species	No. fish $\geq$ 5.0 in	PSD	RSD_{10}
WC	524	41 (37-45)	16.00 (13-19)
BC	382	15 (11-18)	0

WC = white crappie
BC = black crappie
EFDDLCTF.D14

Table 39. Mean back-calculated length (in) at each annulus for white crappie collected from Dewey Lake (1,100 acres) in November 2014, including 95% confidence intervals.

Year		Age					
class	No.	1	2	3	4	5	6
2013	20	4					
2012	51	4.4	6.6				
2011	42	4.8	7.4	9.0			
2010	13	5.1	7.6	9.0	10.2		
2009	2	4.9	7.9	10.1	11.5	12.6	
2008	2	4.6	7.6	9.8	11.6	12.9	14.1
Mean		4.5	7.1	9.1	10.5	12.8	14.1
Smallest		3.2	5.4	7.0	7.6	12.4	13.8
Largest		6.2	9.3	12.3	11.9	13.4	14.3
STD error		0.1	0.1	0.1	3.0	0.2	0.3
95% CI LO		4.4	6.9	8.8	9.9	12.3	13.5
95% CI HI		4.6	7.2	9.3	11.1	13.2	14.6

Intercept = 0
EFDDLCAF.D14

Table 40. Mean back-calculated length (in) at each annulus for black crappie collected from Dewey Lake (1,100 acres) in November 2014, including 95% confidence intervals.

Year		Age									
class	No.	1	2	3	4	5	6	7	8	9	10
2013	10	3.2									
2012	14	3.4	5.3								
2011	30	3.7	5.9	7.1							
2010	14	3.7	5.9	7.1	7.6						
2009	1	4.2	5.8	7.5	8.6	9.2					
2007	2	3.4	4.9	5.8	6.5	7.0	7.6	8.1			
2006	1	3.3	4.6	5.9	6.8	7.7	8.3	8.6	8.8		
2005	6	3.4	4.9	5.7	6.2	6.8	7.4	7.9	8.4	8.7	
2004	2	3.7	4.9	5.5	6.1	6.6	7.0	7.5	7.9	8.3	8.7
Mean		3.5	5.6	6.8	7.1	7.1	7.4	7.9	8.3	8.6	8.7
Smallest		2.8	4.2	4.9	5.6	6.0	6.3	6.7	7.0	7.4	7.8
Largest		5.5	7.9	8.7	8.6	9.2	8.5	8.9	9.3	9.7	9.6
STD error		0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.9
95% CI LO		3.5	5.5	6.6	6.8	6.6	7.0	7.6	7.9	8.1	6.9
95% CI HI		3.6	5.8	7.0	7.4	7.6	7.8	8.3	8.7	9.1	10.5

Intercept = 0

EFDDLCAF.D14

Table 41. Age frequency and CPUE (fish/nn) of white crappie collected by trap netting for 19 net-nights at Dewey Lake (1,100 acres) in November 2014; numbers in parentheses are standard errors.

	Inch class																
Age	2	3	4	5	6	7	8	9	10	11	12	13	14	Total	Age%	CPUE	
0	20	11	10	1										42	8	2.2	(0.8)
1				10	47	34								91	16	4.8	(1.2)
2					38	168	55	28	3	2				294	52	15.4	(3.3)
3						11	23	18	36	22	2			112	20	5.9	(1.4)
4							3	3	6	5	5	2		24	4	1.2	(0.3)
5												2		2	0	0.1	(0.0)
6													2	2	0	0.1	(0.1)
Total	20	11	10	11	85	213	81	49	45	29	7		2	565			
%	4	2	2	2	15	38	14	9	8	5	1	1	0				

CPUE of $\geq$8.0 in (quality size) = 11.3 fish/nn

CPUE of $\geq$10.0 in (preferred size) = 4.5 fish/nn

EFDDLCAF.D14

EFDDLCTF.D14

Table 42. Age frequency and CPUE (fish/nn) of black crappie collected by trap netting for 19 net-nights at Dewey Lake (1,100 acres) in November 2014; numbers in parentheses are standard errors.

	Inch class										
Age	3	4	5	6	7	8	9	Total	Age%	CPUE	
0	4							4	1	0.2	(0.1)
1		5	5					10	2	0.5	(0.2)
2			2	71				73	19	3.9	(1.0)
3				19	184	14	1	218	56	11.5	(3.1)
4					46	21		67	17	3.6	(0.9)
5							1	1	0	0.1	(0.0)
6								0			
7						5		5	1	0.3	(0.1)
8							1	1	0	0.1	(0.0)
9						7	2	9	2	0.5	(0.1)
10						2	1	3	1	0.2	(0.0)
Total	4	5	7	90	230	49	6	391			
%	1	1	2	23	59	13	2				

CPUE of $\geq$8.0 in (quality size) =2.95 fish/nn

CPUE of $\geq$10.0 in (preferred size) = 0.00 fish/nn

EFDBLCAF.D14

EFDBLCTF.D14

Table 43. Population assessment scores for white crappie collected from Dewey Lake (1,100 acres). Actual assessment values are in parentheses. Scoring based on statewide assessment.

	Year				
Parameter	2002	2008	2010	2012	2014
CPUE	4	4	3	4	4
(excluding age 0)	(48.2)	(44.0)	(15.6)	(26.0)	(27.5)
CPUE age 1	4	2	3	4	2
	(14.4)	(6.6)	(7.8)	(15.2)	(4.8)
CPUE age 0	4	1	2	2	1
	(27.5)	(2.6)	(4.8)	(5.1)	(2.2)
CPUE $\geq$ 8.0 in	2	4	3	3	4
	(4.8)	(15.5)	(8.7)	(10.1)	(11.3)
Mean length age 2 at capture	1	1	3	4	1
	(6.3)	(7.0)	(9.1)	(9.6)	(8.1)
Instantaneous mortality (z)	1.27	0.49	0.50	0.65	1.40
Annual Mortality (A)	72.00	38.80	39.50	47.60	75.40
Total score	15	12	14	17	12
Assessment rating	Good	Fair	Good	Good	Fair

EFDDLCTF.D02, D08, D10, D12, D14
EFDDLCAF.D02, D08, D10, D12, D14

Table 44. Population assessment scores for black crappie collected from Dewey Lake (1,100 acres). Actual assessment values are in parentheses. Scoring based on statewide assessment.

	Year				
Parameter	2002	2008	2010	2012	2014
CPUE	2	3	1	3	3
(excluding age 0)	(6.1)	(17.4)	(2.0)	(16.0)	(20.5)
CPUE age 1	1	1	1	1	1
	(1.3)	(2.9)	(0.1)	(0.7)	(0.5)
CPUE age 0	1	1	1	1	1
	(1.6)	(2.4)	(1.0)	(0.3)	(0.2)
CPUE $\geq$ 8.0 in	1	1	1	3	2
	(0.1)	(1.8)	(0.7)	(5.8)	(3.0)
Mean length age 2 at capture	1	1	1	1	1
	(5.0)	(6.5)	(6.7)	(6.8)	(6.6)
Instantaneous mortality (z)	1.25	0.35	0.06	0.33	0.45
Annual Mortality (A)	71.40	29.60	6.20	28.10	36.10
Total score	6	7	5	9	8
Assessment rating	Poor	Poor	Poor	Fair	Fair

EFDDLCTF.D02, D08, D10, D12, D14
EFDDLCAF.D02, D08, D10, D12, D14

Table 45. Species composition, relative abundance and CPUE (fish/hr) of black bass collected in approximately 1.25 hours of 15-minute electrofishing samples at Fishtrap Lake (1,143 acres) on 23 April 2014; numbers in parentheses are standard errors.

		Inch class																				
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	
Lower	Smallmouth bass		2	1																	3	4.0	(2.3)
	Spotted bass						1	1	3	3											8	10.7	(10.7)
	Largemouth bass	1	2		6	5	3	11	12	6	13	13	6	4	2	4	1	1		2	92	122.7	(19.6)
Upper	Smallmouth bass																				0	0.0	
	Spotted bass																				0	0.0	
	Largemouth bass		5	10	2	1		2	2	5	5	4	3	2	1	1	1		2		46	92.0	(24.0)
Total	Smallmouth bass	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2.4	(1.6)
	Spotted bass	0	0	0	0	0	1	1	3	3	0	0	0	0	0	0	0	0	0	0	8	6.4	(6.4)
	Largemouth bass	1	7	10	8	6	3	13	14	11	18	17	9	6	3	5	2	1	2	2	138	110.4	(15.2)

EFDFLLSS.D14

Table 46. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass at Fishtrap Lake (1,143 acres).

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		>15.0 in		>20.0 in		Total	
Year	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.	CPUE	S.E.
2000	28.7	4.2	29.0	2.3	19.0	2.6	23.0	4.3	3.4		99.7	9.9
2001	20.3	3.7	32.7	4.3	17.3	2.5	10.3	2.9	1.3		80.7	7.7
2002	no data											
2003	43.0	4.4	25.0	7.6	16.0	4.9	11.0	3.4	2.0		95.0	4.1
2004	44.7	6.8	45.1	5.8	19.3	2.2	13.1	3.9	1.5		122.2	10.7
2005	61.8	10.2	67.6	10.0	38.9	6.5	14.9	2.0	0.0		183.3	20.8
2006	52.5	8.8	37.6	1.9	33.0	3.4	4.0	0.7	0.0		127.1	11.6
2007	28.7	4.7	53.9	8.3	33.0	3.5	7.9	1.9	1.2	0.9	123.5	13.5
2008	39.5	12.7	31.1	3.5	32.0	5.8	9.4	2.7	0.0		111.9	15.0
2009	44.2	10.7	61.4	11.8	20.4	4.8	9.9	2.4	0.6	0.6	135.9	15.1
2010	52.4	3.1	35.6	5.6	20.4	2.8	10.4	2.5	0.4	0.4	118.8	11.3
2011						no sample						
2012	54.7	9.0	20.7	1.9	12.0	2.3	12.7	4.3	3.3	2.6	100.0	9.4
2013						no sample						
2014	25.6	5.5	32.8	10.2	35.2	5.9	16.8	5.3	3.2	1.5	110.4	15.2

EFDFLLSS.D00-D10, D12, D14

Table 47. PSD and RSD values for each species of black bass in each area of Fishtrap Lake (1,143 acres) on 23 April 2014. Number of fish (No.) is the number of stock-size or larger fish collected and numbers in parentheses are 95% confidence intervals.

	Smallmouth bass			Spotted bass			Largemouth bass		
Area	No.	PSD	RSD_{14}	No.	PSD	RSD_{14}	No.	PSD	RSD_{15}
Lower	0			8	38 (2-73)	0	78	59 (48-70)	18 (9-27)
Upper	0						28	68 (50-85)	25 (9-41)
Total	0			8	38 (2-73)	0		61 (52-71)	20 (12-27)

EFDFLLSS.D14

Table 48. Population assessment for largemouth bass collected from Fishtrap Lake (1,143 acres). Actual values are in parentheses. Scoring based on statewide assessment.

	Year									
Parameter	2003	2004	2005	2006	2007	2008	2009	2010	2012	2014
Mean length age 3 at capture	4	4	4	4	4	4	4	3	3	3
	(13.6)	(13.6)	(13.6)	(13.6)	(13.6)	(13.6)	(13.6)	(11.7)	(11.7)	(11.7)
Spring CPUE age 1	3	2	4	4	2	3	3	4	4	2
	(42.0)	(35.4)	(61.5)	(52.5)	(28.3)	(38.5)	(44.2)	(51.6)	(50.8)	(24.2)
Spring CPUE 12.0-14.9 in	2	2	4	3	3	3	2	2	1	4
	(16.0)	(19.3)	(38.9)	(33.0)	(33.0)	(32.0)	(20.4)	(20.4)	(12.0)	(35.2)
Spring CPUE $\geq$15.0 in	2	3	3	1	2	2	2	2	3	3
	(11.0)	(13.1)	(14.9)	(4.0)	(7.9)	(9.4)	(9.9)	(10.4)	(12.7)	(16.8)
Spring CPUE $\geq$20.0 in	3	2	0	0	2	0	2	2	4	4
	(2.0)	(1.5)	(0.0)	(0.0)	(1.2)	(0.0)	(0.6)	(0.4)	(3.3)	(3.2)
Total score	14	13	15	12	13	12	13	13	15	16
Assessment rating	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Instantaneous mortality (z)	0.52	0.56	0.65	0.83	0.72	0.59	0.67	0.66	0.50	0.43
Annual mortality (A)	40.40	42.70	48.00	56.50	51.30	44.30	49.10	48.20	39.20	35.20

EFDFLLSS.D03-D10, D12, D14
EFDFLLAS.D04, D10

Table 49. Species composition, relative abundance and CPUE (fish/hr) of black bass collected in approximately 2.50 hours of 15-minute electrofishing samples at Fishtrap Lake (1,143 acres) on 24 September; numbers in parentheses are standard errors.

		Inch class																						
Area	Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	
Lower	Smallmouth bass		1				2	5	3			2			1	1						15	12.0	(5.2)
	Spotted bass		6	4	3	9	7	3	1	3	2		1									39	31.2	(14.9)
	Largemouth bass		8	34	17	9	5	13	27	17	12	18	7	3	5	6	3	1	2	2	1	190	152.0	(11.5)
Upper	Smallmouth bass											1	1			1	1					4	3.2	(1.5)
	Spotted bass		1		1		1							1								4	3.2	(0.8)
	Largemouth bass	2	3	35	22	5	3	31	43	13	9	11	7	2	5	2	2	1	2	2		200	160.0	(23.3)
Total	Smallmouth bass	0	1	0	0	0	2	5	3	0	0	3	1	0	1	2	1	0	0	0	0	19	7.6	(3.0)
	Spotted bass	0	7	4	4	9	8	3	1	3	2	0	1	1	0	0	0	0	0	0	0	43	17.2	(8.4)
	Largemouth bass	2	11	69	39	14	8	44	70	30	21	29	14	5	10	8	5	2	4	4	1	390	156.0	(12.3)

EFDFLLSS.D14

Table 50. Indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected at Fishtrap Lake (1,143 acres).

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	5.1	0.0	106.2	32.9	59.6	15.9	35.4	6.0
2004	5.0	0.0	256.0	51.1	122.7	23.9	61.5	10.2
2005	4.5	0.1	108.0	41.3	24.0	11.1	52.5	8.8
2006	5.0	0.1	72.7	14.1	36.5	8.0	28.3	4.5
2007	5.1	0.1	114.2	23.7	63.5	11.0	38.5	12.1
2008	4.6	0.1	75.3	25.9	26.3	9.5	44.2	10.7
2009	4.8	0.1	83.3	15.1	39.3	5.4	51.6	3.2
2010	5.2	0.1	111.6	16.4	61.6	8.4	no sample	
2011	5.1	0.1	119.4	26.9	69.1	13.3	50.8	8.2
2012	5.1	0.1	72.7	24.3	38.0	12.0	no sample	
2013	4.6	0.1	63.5	16.4	19.5	5.2	24.2	6.2
2014	4.8	0.1	54.0	8.8	21.2	3.6		

EFDFLLSF.D03-D14
EFDFLLSS.D04-D10, D12, D14
EFDFLLAS.D04, D10

Table 51. Length frequency and gillnetting CPUE (fish/nn) of hybrid striped bass collected in 3 net-nights at Fishtrap Lake (1,143 acres) on 15-16 December 2014; numbers in parentheses are standard errors.

	Inch class																							
Species	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total	CPUE
WB				1	3		3	3															10	3.3 (2.9)
HB	2	2	2	1	4	9	28	28	11	5	1	3	8	8	13	11	11	10	4	2	2	1	165	53.3 (15.7)

EFDFLHGF.D14
HB=hybrid striped bass
WB=white bass

Table 52. Mean back-calculated length (in) at each annulus for hybrid striped bass collected from Fishtrap Lake (1,143 acres) in 2014, including the length range of bass at each age and the 95% confidence intervals for each age group.

Year		Age								
class	No.	1	2	3	4	5	6	7	8	9
2013	46	8.2								
2012	16	9.1	15.5							
2011	19	8.9	15.1	18.8						
2010	12	9.8	15.6	19.0	21.0					
2009	10	9.3	15.3	18.1	20.2	21.4				
2008	3	8.8	15.8	19.6	21.0	22.3	22.9			
2007	3	7.2	14.8	18.9	21.6	22.8	23.8	24.4		
2006	2	8.4	15.0	19.0	21.4	22.2	23.3	23.8	24.3	
2005	4	8.6	15.6	19.4	21.6	22.9	23.9	24.6	25.2	25.5
Mean		8.7	15.3	18.8	20.9	22.1	23.5	24.3	24.9	25.5
Smallest		5.5	10.9	12.9	14.0	15.0	21.4	22.2	22.7	23.2
Largest		11.7	17.6	20.8	22.8	24.2	25.3	25.8	26.3	27.2
Std error		0.1	0.1	0.2	0.3	0.4	0.3	0.4	0.6	1.2
95% CI LO		8.5	15.1	18.4	20.4	21.3	22.9	23.6	23.8	23.2
95% CI HI		9.0	15.6	19.2	21.4	22.8	24.2	25.1	26.0	27.9

intercept=0
EFDFLHAF.D14

Table 53. Age frequency and CPUE (fish/nn) of hybrid striped bass collected at Fishtrap Lake (1,143 acres) in December 2014; numbers in parentheses are standard error.

	Inch class																								
Age	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total	Age%	CPUE	
0	2	2	2																				6	4	2.0	(1.0)
1				1	4	9	28	25	10	4	1		1										83	50	27.7	(9.9)
2									1			3	7	5		1							17	10	5.6	(0.2)
3								3						3	13	3	2						24	15	8.2	(2.0)
4																6	4	3					13	8	4.3	(1.6)
5										1						1	3	5					10	6	3.5	(1.4)
6																	1	1	1				3	2	1.0	(0.3)
7																			2	1			3	2	1.0	(0.3)
8																			1	1			2	1	0.7	(0.2)
9																		1			2	1	4	2	1.3	(0.8)
Total	2	2	2	1	4	9	28	28	11	5	1	3	8	8	13	11	10	10	4	2	2	1	165			
%	1	1	1	1	2	5	17	17	7	3	1	2	5	5	8	7	7	6	2	1	1	1				

EFDFLHAF.D14
EFDFLHGF.D14

Table 54. Hybrid striped bass population assessment for fish gill netted at Fishtrap Lake (1,143 acres) from 2000 - 2014, CPUE = fish/net-night.

	Year							
Parameters	2000	2002	2004	2005	2007	2009	2011	2014
CPUE	3	4	3	4	4	4	4	4
Actual value	31.4	28.8	15.0	29.1	26.8	77.7	67.3	53.3
Mean length age 2+ at capture	2	3	1	3	3	3	2	4
Actual value	16.0	17.3	13.7	17.3	17.6	17.4	16.9	18.5
CPUE $\geq$15 in	3	4	3	4	4	4	4	4
Actual value	18.8	16.9	5.0	14.9	17.8	58.0	48.3	26.3
CPUE age-1	3	4	2	3	3	4	4	4
Actual value	7.90	12.6	4.6	9.4	9.3	20.3	16.9	27.7
Total score	11	15	9	14	14	15	14	16
Assessment rating	Good	Excellent	Fair	Excellent	Excellent	Excellent	Excellent	Excellent
Instantaneous mortality	0.67	0.87	0.45	0.62	0.44	1.01	0.62	0.40
Annual mortality	48.60	58.20	36.00	46.40	35.60	63.40	46.10	33.20

EFDFLHAF.D00-D14

EFDFLHGF.D00-D14

Table 55. Length frequency and CPUE (fish/hr) of black bass and walleye collected in 1.00 hour of 15-min electrofishing runs in Martins Fork Lake (330 acres) on 6 May 2014; numbers in parentheses are standard errors.

	Inch class																				
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE
LMB		9	7	6	16	13	15	12	6	4	3	4	3	5		1	1		1	106	106.0 (18.9)
SB	5	3		1	7	9	2		1	1										29	29.0 (8.7)
SMB	1																			1	1.0 (1.0)
Coosa	1	1	1	1		3														7	7.0 (2.5)
Walleye						1														1	1.0 (1.0)

LMB = largemouth bass

SB = spotted bass

SMB = smallmouth bass

EFDMLLSS.D14

Table 56. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Martins Fork Lake (330 acres). S.E. = standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	14.0	3.7	22.0	3.8	3.3	1.2	5.3	2.0	0.0		68.0	15.7
2004	2.7	2.7	89.3	19.2	4.0	2.3	5.3	3.5	0.0		101.3	26.8
2005	4.8	2.3	23.2	6.0	17.6	4.8	4.8	2.0	0.0		50.4	10.8
2006	9.3	2.0	19.9	6.0	13.3	3.0	9.3	2.7	0.7		51.7	10.7
2007	7.9	3.3	48.6	13.3	15.7	2.6	21.1	5.3	1.6	1.0	93.3	19.3
2008	7.8	4.8	19.5	7.2	20.2	3.7	19.4	2.4	0.8	0.8	66.9	12.2
2009	11.2	4.1	19.9	3.3	9.6	2.0	11.2	1.5	1.6	1.0	51.8	7.4
2010	17.6	6.3	26.4	16.4	8.0	2.8	19.2	2.7	0.8	0.8	71.2	22.8
2011	23.2	5.6	34.4	9.7	16.8	3.9	16.0	3.4	0.8	0.8	90.4	12.8
2012	16.8	4.6	12.0	3.8	5.6	2.4	10.4	4.3	0.8	0.8	44.8	8.3
2013						no sample						
2014	38.0	6.6	46.0	12.5	11.0	6.2	11.0	2.5	1.0	1.0	106.0	18.9

EFDMLLSS.D03-D12, D14

Table 57. PSD and RSD values obtained for each black bass species taken in spring nocturnal electrofishing samples in Martins Fork Lake (330 acres) in May 2014; 95% confidence intervals are in parentheses.

Largemouth bass			Spotted bass		
No.	PSD	RSD_{15}	No.	PSD	RSD_{14}
68	32	16	20	10	0
	(21-44)	(7-25)		(0-23)	

EFDMLLSS.D14

Table 58. Spring electrofishing population assessment for largemouth bass collected from Martins Fork Lake (330 acres). Actual values are in parentheses. Scoring based on statewide assessment.

Parameter	2004	2005	2006	2007	2008	2009	2010	2011	2012	2014
Mean length age-3 at capture	4	4	4	4	4	4	4	4	4	4
	(14.3)	(14.3)	(14.3)	(14.3)	(14.3)	(11.8)	(11.8)	(11.8)	(11.8)	(12.0)
Spring CPUE age 1	1	1	1	1	1	1	1	1	1	2
	(10.9)	(5.4)	(10.0)	(10.1)	(10.0)	(7.2)	(4.8)	(11.2)	(8.8)	(22.0)
Spring CPUE 12.0-14.9 in	1	1	1	1	2	1	1	1	1	1
	(4.0)	(17.6)	(13.3)	(15.7)	(20.2)	(9.6)	(8.0)	(16.8)	(5.6)	(11.0)
Spring CPUE $\geq$15.0 in	2	2	2	3	3	2	3	2	2	2
	(5.3)	(4.8)	(9.3)	(21.1)	(19.4)	(11.2)	(19.2)	(16.0)	(10.4)	(11.0)
Spring CPUE >20.0 in	0	0	1	2	1	2	1	1	1	2
	(0.0)	(0.0)	(0.7)	(1.6)	(0.8)	(1.6)	(0.8)	(0.8)	(0.8)	(1.0)
Total score	8	8	9	11	11	10	10	9	9	11
Assessment rating	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
Instantaneous mortality (z)	2.04	1.08	0.81	0.80	0.48	0.54	0.37	0.33	0.54	
Annual mortality (A)	87.00	66.00	55.70	55.10	38.40	41.60	31.30	28.40	41.60	

EFDMLLSS.D03-D12, D14
EFDMLLAS.D03, D09
EFDMLLAF.D14

Table 59. Length frequency and CPUE (fish/hr) of black bass and walleye collected at Martins Fork Lake (330 acres) during 1.25 hours of 15 minute nocturnal electrofishing samples on 22 September 2014; numbers in parentheses are standard errors.

	Inch class																	
Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE
LMB	4	18	22	6	2	6	6	4	10	2		2				1	83	66.40 (21.41)
SB	5	22	12	2	7	8	4	3	3	1							67	53.60 (11.77)
SMB	1	1	1	1													4	3.20 (0.80)
Coosa																	0	0.00
Walleye				4	12	4	1										21	16.80 (4.45)

LMB = largemouth bass
SB = spotted bass
SMB = smallmouth bass
EFDMLLSF.D14

Table 60. Electrofishing indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected during 2002-2014 at Martins Fork Lake (330 acres); CPUE = fish/hr, SE = standard error.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002	5.5	0.1	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	0.2	32.0	4.3	10.0	2.6	10.0	2.3
2006	4.5	0.1	38.4	14.5	11.2	3.2	10.1	3.4
2007	4.6	0.2	28.7	8.7	10.4	3.0	10.0	5.1
2008	4.4	0.2	31.9	14.3	10.3	2.7	7.2	2.9
2009	4.3	0.2	23.2	8.3	7.2	2.3	4.8	2.0
2010	5.2	0.2	40.0	11.6	26.7	9.3	11.2	3.4
2011	4.7	0.1	20.0	6.8	7.2	1.5	8.8	2.7
2012	4.8	0.2	28.8	4.6	13.6	3.9	no sample	
2013	4.0	0.2	21.0	6.6	6.0	1.2	22.0	5.3
2014	4.9	0.1	39.2	11.8	21.6	8.2		

EFDMLLSF.D02
EFDMLLSF.D05-D13
EFDMLLSS.D03-D12, D14
EFDMLLAS.D03, D09
EFDMLLAF.D14

Table 61. Mean back-calculated length (in) at each annulus for largemouth bass collected from Martins Fork Lake (330 acres) on 22 September 2014, including 95% confidence intervals.

Year class	No.	Age 1	2	3	4	5	6
2013	9	5.7					
2012	11	5.8	8.5				
2011	10	5.8	8.8	10.9			
2010	4	6.1	9.5	12.3	14.6		
2009	2	6.8	10.0	12.5	14.6	15.9	
2008	1	5.3	9.1	12.2	14.5	15.7	17.0
Mean		5.8	8.9	11.5	14.6	15.8	17.0
Smallest		4.2	6.8	9.3	11.9	15.5	17.0
Largest		7.3	10.9	14.5	16.9	16.2	17.0
STD error		0.1	0.2	0.3	0.6	0.2	
95% CI LO		5.6	8.6	10.8	13.5	15.4	
95% CI HI		6.1	9.2	12.2	15.7	16.3	

Intercept = 0

EFDMLLAF.D14

Table 62. Length frequency and CPUE (fish/hr) of black bass collected in approximately 3.75 hours of 15-minute nocturnal electrofishing samples in Paintsville Lake (1,150 acres) on 7 May 2014; numbers in parentheses are standard errors.

	Inch class																					
Species/Area	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	
Lower																						
SMB		1																		1	0.8	(0.8)
SB		4	3	1	2	1		1			1									13	10.4	(4.3)
LMB	1	6	16	24	15	2	28	28	37	32	6	4	2	1	2	1	1	1	1	208	166.4	(14.3)
Middle																						
SMB																				0	0.0	
SB		1		1	1	3		1												7	5.6	(2.0)
LMB	1	12	41	7	3	8	25	13	19	24	5	3	1		2	1				165	132.0	(10.8)
Upper																						
SMB																				0	0.0	
SB					1							1								2	1.6	(1.6)
LMB	10	23	40	24	11	23	32	19	8	13	5	1	1			1		1		212	169.6	(15.6)
Total																						
SMB	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	(0.3)
SB	0	5	3	2	4	4	0	2	0	0	1	1	0	0	0	0	0	0	0	22	5.9	(1.8)
LMB	12	41	97	55	29	33	85	60	64	69	16	8	4	1	4	3	1	2	1	585	156.0	(8.6)

SMB = smallmouth bass

SB = spotted bass

LMB = largemouth bass

EFDPLLSS.D14

Table 63. Spring nocturnal electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Paintsville Lake (1,150 acres). SE = standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
1988	6.8		10.6		1.6		0.3		0.0		19.3	
1989	15.4		16.0		3.4		0.9		0.0		36.3	
1990	34.0		31.3		2.7		2.0		0.0		70.0	
1991	26.6		33.1		12.0		0.4		0.4		72.0	
1992	16.4		44.0		21.3		0.7		0.0		82.4	
1993	16.4		26.3		22.5		2.8		0.6		68.0	
1994	34.0		47.4		26.6		3.6		0.3		111.6	15.6
1995						no sample						
1996						no sample						
1997	29.0		40.0		26.3		1.0		0.3		96.3	11.5
1998	25.7		87.7		26.3		0.0		0.0		139.7	17.9
1999	36.3		65.7		36.7		2.3		0.0		141.0	12.1
2000	12.7	5.0	95.0	19.6	27.0	7.8	2.0	0.8	0.0	0.0	136.7	28.0
2001	42.3	5.5	63.0	10.8	46.7	4.8	4.3	0.9	0.7	0.5	156.3	17.5
2002	41.8	1.8	70.5	2.7	36.0	1.4	2.2	0.2	0.0	0.0	150.9	14.2
2003	106.0	21.2	71.0	10.8	19.7	5.7	3.0	1.3	0.3	0.3	199.7	35.2
2004	62.7	10.9	92.0	19.2	17.0	3.4	2.0	0.9	0.0	0.0	173.7	25.4
2005	80.4	31.9	133.3	38.9	35.1	6.0	6.2	1.2	0.4	0.4	255.1	72.7
2006	30.6	4.4	65.1	12.6	13.6	1.9	2.6	1.1	0.0	0.0	111.9	14.3
2007	39.8	9.5	81.6	23.0	11.1	3.1	6.5	0.8	0.0	0.0	139.0	20.5
2008	37.8	6.6	79.3	11.9	9.8	1.8	4.0	1.6	0.4	0.4	130.8	14.1
2009	28.1	8.0	69.2	24.6	6.2	2.6	2.3	1.0	0.0	0.0	105.9	16.4
2010	51.2	16.4	86.4	11.6	13.3	1.7	5.6	1.1	1.9	0.5	156.5	26.3
2011	40.6	7.2	56.9	5.1	9.4	1.9	3.7	0.9	1.1	0.5	110.6	11.6
2012	63.2	10.5	61.6	7.0	9.9	1.6	2.1	0.7	1.3	0.5	136.8	14.8
2013	58.6	4.9	60.0	5.6	4.6	1.1	4.0	1.0	0.3	0.3	127.1	7.0
2014	62.4	8.1	64.5	6.0	24.8	3.8	4.3	1.3	0.8	0.4	156.0	8.6

EFDPLLSS.D88-D14

Table 64. 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 7 May 2014; 95% confidence intervals are in parentheses.

	Largemouth bass			Spotted bass		
Area	No.	PSD	RSD_{15}	No.	PSD	RSD_{14}
Lower	146	35	6	5	20	0
		(27-43)	(2-10)		(0-59)	
Middle	101	36	4	5	0	
		(26-45)	(0-8)			
Upper		21	3	2	50	50
	104	(13-29)	(0-6)		(0-148)	(0-148)
Total	351	31	5	10	17	8
		(26-36)	(2-7)		(0-37)	(0-25)

EFDPLLSS.D14

Table 65. Spring nocturnal electrofishing population assessment for largemouth bass collected in Paintsville Lake (1,150 acres). Actual values are in parentheses. Scoring based on statewide assessment.

Parameter	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Mean length age-3 at capture	2	2	2	3	3	3	3	3	1	3	3	3
	(11.4)	(11.4)	(11.4)	(11.7)	(11.7)	(11.7)	(11.7)	(11.7)	(10.6)	(11.7)	(11.7)	(11.7)
Spring CPUE age 1	4	4	4	3	3	4	2	4	2	4	4	4
	(95.18)	(61.44)	(75.60)	(43.52)	(43.97)	(51.50)	(35.64)	(58.13)	(35.59)	(68.80)	(64.86)	(63.73)
Spring CPUE 12.0-14.9 in	2	2	4	1	1	1	1	1	1	1	1	2
	(19.67)	(17.00)	(35.10)	(13.60)	(11.11)	(9.84)	(6.20)	(13.33)	(9.43)	(9.87)	(4.57)	(24.80)
Spring CPUE $\geq$15.0 in	1	1	2	1	2	1	1	2	1	1	1	2
	(3.00)	(2.00)	(6.20)	(2.64)	(6.53)	(3.96)	(2.33)	(5.60)	(3.71)	(2.13)	(4.00)	(4.27)
Spring CPUE $\geq$20.0 in	2	0	2	0	0	2	0	3	2	2	2	2
	(0.31)	(0.00)	(0.44)	(0.00)	(0.00)	(0.39)	(0.00)	(1.87)	(1.14)	(1.33)	(0.29)	(0.80)
Total score	11	9	14	8	9	11	7	13	7	11	11	13
Assessment rating	Fair	Fair	Good	Fair	Fair	Fair	Poor	Good	Poor	Fair	Fair	Good
Instantaneous mortality (z)	0.95	1.15	1.10	1.02	1.16	1.17	1.12	1.18	0.57			
Annual mortality (A)	61.30	68.20	66.60	63.80	68.60	69.10	67.40	69.40	83.70			

EFDPLLSS.D03-D14
EFDPLLAS.D03, D06, D11
EFDPLLAF.D12

Table 66. Length frequency and CPUE (fish/hr) of black bass collected in 3.00 hours of 15-minute nocturnal electrofishing samples in Paintsville Lake (1,150 acres) 15 October 2014; 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	
Lower																							
SMB																					0	0.0	
SB		1		3			2				1										7	4.7	(3.9)
LMB	4	24	36	44	9	8	23	30	15	9	7	3	1		2						215	143.3	(20.4)
Upper																							
SMB																					0	0.0	
SB						1															1	0.7	(0.7)
LMB	2	9	24	22	8	21	35	14	5	5	1	2	1	2		1					152	101.3	(19.2)
Total																							
SMB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
SB	0	1	0	3	0	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	8	2.7	(2.0)
LMB	6	33	60	66	17	29	58	44	20	14	8	5	2	2	2	1	0	0	0	0	367	122.3	(14.8)

SMB = smallmouth bass

SB= spotted bass

LMB = largemouth bass

EFDPLLSF.D14

Table 67. Nocturnal electrofishing indices of year class strength at age-0 and age-1 and mean lengths (in) of largemouth bass collected at Paintsville Lake (1,150 acres); CPUE = fish/hr.

	Age 0		Age 0		Age 0 ≥5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2002							95.2	20.1
2003	4.8	0.1	31.3	6.1	14.0	2.2	61.4	10.7
2004	5.1	0.1	65.7	10.8	37.3	8.6	75.6	29.2
2005	4.5	0.1	46.0	9.6	10.7	2.7	43.5	5.9
2006	4.9	0.1	72.4	12.0	33.6	5.1	44.0	8.4
2007	5.1	0.1	52.4	24.0	30.2	15.6	51.5	7.3
2008	4.6	0.1	24.8	8.8	8.1	5.2	35.6	9.7
2009	4.6	0.1	64.6	13.3	23.1	10.7	58.1	17.6
2010	4.6	0.1	86.4	19.5	31.5	6.9	35.6	6.7
2011	5.1	0.1	36.3	7.2	19.7	4.3	68.8	11.1
2012	5.0	0.1	58.1	10.6	32.3	7.3	64.9	5.0
2013	4.9	0.0	111.7	13.8	53.1	5.0	63.7	8.3
2014	4.8	0.1	60.0	11.0	27.0	7.3		

EFDPLLSF.D03-D14
EFDPLLSS.D02-D14
EFDPLLAS.D03, D06, D11
EFDPLLAF.D12

Table 68. Length frequency and CPUE (fish/hr) of walleye collected at Paintsville Lake (1,150 acres) during 2.25 hours of daytime electrofishing on 2 April 2014; numbers in parentheses are standard errors.

	Inch class																			
Year	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	Total	CPUE	SE
2000	1	3	2	1	2												1	10	5.1	(0.0)
2001				1	1		1		1	3	1				1			9	7.3	(0.0)
2002	no data																			
2003			1					1		1	1		1	4				9	5.1	(2.6)
2004	2	1	5	2		2		1			2			1				16	6.4	(2.3)
2005	no data																			
2006		1	4	11	6	2	2	1										27	29.0	(13.2)
2007	no data																			
2008		1	2	4	2	6	4	3	2		2	1			3	4		34	7.9	(4.1)
2009		1	1		1	1	1	1	1	1			1	1		1		11	2.2	(1.1)
2010			1	1	3	2		1	3	2	3	1	8	5	5	1		36	8.6	(2.7)
2011			1	1	3	4		2	3				1	1	2			18	5.2	(2.2)
2012	no data																			
2013	no data																			
2014		1		1	2	1	2	4	2		1			2		1	2	19	8.4	(3.5)

EFDPLWSS.D00-D14

Table 69. Spring electrofishing population assessment for the walleye population at Paintsville Lake. Actual values are in parentheses. Scoring based on statewide assessment.

	Year				
Parameter	2008	2009	2010	2011	2014
Population Density	1	1	1	1	1
(CPUE all fish)	(7.9)	(2.2)	(8.6)	(5.2)	(8.4)
Growth rate	3	3	3	3	3
(mean length age 3 at capture)	(17.4)	(17.4)	(17.4)	(17.4)	(17.4)
Size structure	3	2	4	2	4
(CPUE $\geq$20.0 in)	(3.5)	(1.3)	(7.0)	(2.4)	(5.3)
Recruitment	0	0	0	0	0
(CPUE <13.0 in)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Total score	7	6	8	6	8
Assessment rating	Fair	Fair	Fair	Fair	Fair
Instantaneous mortality (z)	0.31	0.16	0.17	0.24	0.24
Annual mortality (A)	26.70	14.60	15.60	21.20	21.70

EFDPLWSS.D08-D14
EFDPLWAS.D08

Table 70. Length frequency and CPUE (fish/hr) of black and white crappie collected at Paintsville Lake (1,150 acres) during 1.50 hours of daytime spring electrofishing on 21 March 2014; numbers in parentheses are standard errors.

	Inch class										
	5	6	7	8	9	10	11	12	Total	CPUE	
Black crappie		2	3	1	1			1	8	5.3	(3.2)
White crappie	42	58	61	17	7	10	1	3	199	132.7	(25.1)

EFDPLCSS.D14

Table 71. Spring electrofishing CPUE (fish/hr) for each length group of black and white crappie collected at Paintsville Lake (1,150 acres). SE=standard error.

	Length group												Total			
	≥8.0 in				≥10.0 in				≥8.0 in		≥10.0 in					
	WC		BC		WC		BC		all crappie		all crappie		WC		BC	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2008	3.8	1.5			1.4	0.5			3.8	1.5	1.4	0.5	8.1	5.8		
2009	5.2	2.5			1.6	1.1			5.2	2.5	1.6	1.1	39.0	21.3		
2010	6.1	2.4			1.4	0.9			6.1	2.4	1.4	0.9	22.6	10.4		
2011	11.6	3.9			4.4	1.7			11.6	3.9	4.4	1.7	35.3	14.5		
2014	25.3	5.5	2.0	1.4	9.3	3.4	0.7	0.7	27.3	6.1	10.0	4.0	132.7	25.1	5.3	3.2

EFDPLCSS.D08-D14

Table 72. PSD and RSD values for black and white crappie taken in spring electrofishing samples at Paintsville Lake (1,150 acres) on 21 March 2014; 95% confidence intervals are in parentheses.

Species	No. ≥5.0 in	PSD	RSD_{10}
White crappie	199	19	7
		(14-25)	(5-11)
Black crappie	8	38	13
		(2-73)	(0-37)

EFDPLCSS.D14

Table 73. Length frequency and electrofishing CPUE (fish/hr) of largemouth bass collected at Pan Bowl Lake (98 acres) during 0.75 hour of 7.5-minute daytime runs on 24 April 2014; numbers in parentheses are standard errors.

Inch class																		
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total	CPUE	
6	30	15	6	4	13	29	19	4							1	127	169.3	(24.6)

EFDPBLSS.D14

Table 74. Spring daytime electrofishing catch-per-unit-effort (CPUE) for each length group of largemouth bass collected at Pan Bowl Lake (98 acres). Nocturnal electrofishing was used 1992-2000. CPUE = fish/hr, SE = standard error.

	Length group											
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in		Total	
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
1992	19.4		22.3		14.3		25.7		1.1		81.7	
1993	no data											
1994	no data											
1995	no data											
1996	20.0		56.0		9.0		14.0		2.0		99.0	27.4
1997	12.1		39.5		8.1		15.3		0.8		75.0	19.9
1998	26.0		20.0		5.0		10.0		3.0		61.0	20.6
1999	17.3		24.7		30.0		15.3		4.0		87.3	22.7
2000	34.0		52.0		18.0		34.7		8.7		138.7	21.8
2001	no data											
2002	no data											
2003	28.8	10.2	47.2	9.6	12.0	1.3	25.6	4.1	3.2		113.6	20.5
2004	no data											
2005	12.8	4.1	65.8	13.3	9.4	3.6	18.0	4.3	1.8		106.0	18.9
2006	no data											
2007	90.3	26.6	149.7	20.2	12.6	3.9	22.9	4.4	6.9	2.7	275.4	39.2
2008	28.0	10.0	91.0	15.6	21.5	6.4	18.0	4.7	7.0	1.8	158.5	26.9
2009	50.4	8.4	120.0	17.8	11.2	3.2	8.4	2.2	2.9	1.4	190.0	22.6
2010	72.0	22.5	105.0	19.4	7.0	2.8	10.0	2.9	2.0	1.3	194.0	32.1
2011	102.0	10.9	108.0	11.9	11.0	3.0	4.0	3.0	1.0	1.0	225.0	20.0
2012	37.0	10.7	81.0	13.9	3.0	2.1	2.0	2.0	1.0	1.0	123.0	21.9
2013	no data											
2014	81.3	16.2	86.7	15.7	0.0		1.3	1.3	0.0			

EFDPBLSS.D03-D14

Table 75. PSD and RSD values for largemouth bass taken in spring electrofishing samples in Pan Bowl Lake (98 acres) on 24 April 2014; 95% confidence intervals are in parentheses.

No.	PSD	RSD_{15}
66	2	2
	(0-4)	(0-4)

EFDPBLSS.D14

Table 76. Population assessment for largemouth bass collected during spring at Pan Bowl Lake (98 acres). Actual values are in parentheses. Scoring based on statewide assessment.

	Year								
Parameter	2003	2005	2007	2008	2009	2010	2011	2012	2014
Mean length age 3 at capture	2	2	2	2	2	2	2	2	2
	(10.5)	(10.5)	(10.5)	(10.5)	(10.5)	(10.5)	(10.5)	(10.5)	(10.5)
Spring CPUE age 1	2	1	3	2	2	3	4	2	4
	(19.2)	(3.4)	(72.0)	(17.0)	(43.9)	(51.0)	(95.0)	(16.0)	(76.0)
Spring CPUE 12-14.9 in	1	1	1	2	1	1	1	1	0
	(12.0)	(9.4)	(12.6)	(21.5)	(11.2)	(7.0)	(11.0)	(3.0)	(0.0)
Spring CPUE $\geq$ 15.0 in	3	3	3	3	2	2	2	1	1
	(25.6)	(18.0)	(22.9)	(18.0)	(8.4)	(10.0)	(4.0)	(2.0)	(1.3)
Spring CPUE $\geq$ 20.0 in	3	2	4	4	3	3	2	2	0
	(3.2)	(1.8)	(6.9)	(7.0)	(2.9)	(2.0)	(1.0)	(1.0)	(0.0)
Total score	11	9	13	13	10	11	11	8	7
Assessment rating	Fair	Fair	Good	Good	Fair	Fair	Fair	Fair	Poor
Instantaneous mortality (z)	0.36	0.37	0.43	0.42	0.62	0.65	0.54	0.58	0.99
Annual mortality (A)	30.30	31.20	35.20	34.10	46.10	47.60	41.90	44.30	63.20

EFDPBLSS.D03, D05, D07-D14
EFDPBLAS.D07

Table 77. Length frequency and electrofishing CPUE (fish/hr) of largemouth bass collected in approximately 0.875 hours of 7.5-min. electrofishing runs in Pikeville City Lake (20 acres) on 21 April 2014; numbers in parentheses are standard errors.

Inch class																			
5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total	CPUE	
2	2	6	5	4	4	7	9	2	1	4	9	11	10	6	6	4	92	105.1	(8.8)

EFDHALSS.D14

Table 78. Spring electrofishing CPUE (fish/hr) for each length group of largemouth bass collected at Pikeville City Lake (20 acres). SE = standard error.

	Length group										Total	
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in			
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
2004	5.1	2.6	12.8	12.8	15.4	7.7	30.8	8.9	2.6		64.1	2.6
2005	12.8	4.3	11.5	3.3	1.3	1.3	51.3	9.5	8.9		76.9	8.1
2006	5.1	2.5	34.8	4.1	4.0	2.7	49.0	6.2	1.3		92.9	9.1
2007	43.2	15.1	11.2	3.2	8.0	4.4	46.4	6.9	6.4	3.0	108.8	24.3
2008	10.7	3.4	48.0	7.5	10.7	2.7	50.7	7.4	10.7	4.9	120.0	16.7
2009	22.7	4.8	18.7	4.9	9.3	3.2	25.3	4.8	8.0	2.1	76.0	6.1
2010	22.9	3.2	21.7	5.4	21.7	7.6	52.6	4.9	8.0	1.8	118.9	10.1
2011						no sample						
2012	8.0	2.9	6.7	2.5	4.0	2.7	36.0	6.8	1.3	1.3	54.7	9.1
2013						no sample						
2014	11.4	3.4	22.9	2.1	13.7	3.4	57.1	9.1	11.4	3.0	105.1	8.8

EFDHALSS.D04-D14

Table 79. PSD and RSD values obtained for largemouth bass species taken in spring electrofishing samples in Pikeville City Lake (20 acres) on 21 April 2014; 95% confidence intervals are in parentheses.

No.	PSD	RSD_{15}
82	76	61
	(66-85)	(50-72)

EFDHALSS.D14

Table 80. Species composition, relative abundance and CPUE (fish/hr) of black bass collected in approximately 3.00 hours of 15-minute electrofishing samples at Yatesville Lake (2,280 acres) on 19 May 2014; numbers in parentheses are standard errors.

		Inch class																			
Area	Species	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	CPUE	
Lower	LMB	4	14	31	15	7	23	25	19	14	14	10	6	6	11	9	2	1	1	212	141.3	(18.3)
	SB				1	4	3	3	2		2	3								18	12.0	(5.0)
Upper	LMB	1	7	26	22	11	39	34	28	21	20	8	12	7	10	2	1			249	166.0	(8.7)
	SB		3				1				1									5	3.3	(2.2)
Total	LMB	5	21	57	37	18	62	59	47	35	34	18	18	13	21	11	3	1	1	461	153.7	(10.3)
	SB	0	3	0	1	4	4	3	2	0	3	3	0	0	0	0	0	0	0	23	7.7	(2.9)

LMB =largemouth bass
SB = spotted bass
EFDYLLSS.D14

Table 81. Spring nocturnal electrofishing CPUE (fish/hr) for each length group of largemouth bass at Yatesville Lake (2,280 acres). SE = standard error.

	Length group										Total	
	<8.0 in		8.0-11.9 in		12.0-14.9 in		≥15.0 in		≥20.0 in			
Year	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE	CPUE	SE
1993	153.7		82.9		20.1		7.4		0.0		264.0	
1994						no sample						
1995						no sample						
1996	21.5		65.5		7.8		1.5		0.0		96.3	11.5
1997	50.7		23.7		16.7		2.0		0.0		93.0	10.5
1998	10.7		25.7		16.3		5.7		0.0		58.3	7.2
1999	42.7		29.0		16.3		13.7		0.3		101.7	12.2
2000	63.3	8.0	55.7	7.9	9.3	1.1	7.0	1.6	0.0		135.5	13.7
2001	35.0	7.0	58.3	7.5	19.3	3.2	9.7	2.1	0.3		122.3	7.8
2002	54.3	7.8	50.0	4.4	19.3	2.9	16.7	3.2	0.0		140.3	7.4
2003						no sample						
2004	12.7	2.8	40.3	10.5	23.7	5.1	9.0	2.2	0.0		85.7	19.4
2005	43.7	7.8	61.3	6.6	42.0	4.7	21.7	2.1	0.3		168.7	15.4
2006	47.3	7.4	68.0	10.3	20.3	2.2	16.0	4.0	0.7		151.7	17.5
2007	47.7	5.9	62.3	5.7	31.3	4.2	15.8	2.7	0.0		157.1	10.7
2008	47.0	8.4	38.3	3.8	20.4	3.7	16.6	4.9	0.0		122.3	10.3
2009	28.6	5.4	68.3	7.5	30.6	2.8	16.6	3.2	0.0		144.1	9.7
2010	44.0	6.3	57.0	8.7	19.3	3.8	11.0	2.8	0.7	0.5	131.3	11.7
2011						no sample						
2012	23.2	2.8	49.2	7.4	21.6	2.6	8.4	2.1	0.8	0.5	102.4	10.3
2013						no sample						
2014	46.0	2.7	67.7	6.7	23.3	2.7	16.7	2.6	0.3	0.3	153.7	10.3

EFDYLLSS.D93, D96-D02, D04-D10, D12, D14

Table 82. PSD and RSD values for black bass species taken in spring electrofishing samples in each area of Yatesville Lake (2,280 acres) on 19 May 2014; 95% confidence intervals are in parentheses.

	Largemouth bass			Spotted bass		
Area	No.	PSD	RSD_{15}	No.	PSD	RSD_{14}
Lower	141	43	21	17	29	0
		(34-51)	(15-28)		(7-52)	
Upper	182	33	11	2	50	0
		(26-40)	(6-16)		(0-148)	
Total	323	37	16	19	32	0
		(32-42)	(12-19)		(10-53)	

EFDYLLSS.D14

Table 83. Spring nocturnal electrofishing population assessment for largemouth bass collected at Yatesville Lake (2,280 acres). Actual values are in parentheses. Scoring based on statewide assessment.

	Year									
Parameter	2002	2004	2005	2006	2007	2008	2009	2010	2012	2014
Mean length age-3 at capture	4	4	4	4	4	4	4	4	3	3
	(13.2)	(13.2)	(13.2)	(13.5)	(13.5)	(13.5)	(13.5)	(13.5)	(12.4)	(12.4)
Spring CPUE age 1	4	1	3	3	3	3	2	3	1	3
	(52.1)	(13.0)	(42.3)	(45.9)	(47.0)	(45.0)	(28.2)	(42.6)	(19.4)	(37.0)
Spring CPUE 12.0-14.9 in	2	2	4	2	3	2	3	2	2	2
	(19.3)	(23.7)	(42.0)	(20.3)	(31.3)	(20.4)	(30.6)	(19.3)	(21.6)	(23.3)
Spring CPUE $\geq$15.0 in	3	2	4	3	3	3	3	2	2	3
	(16.7)	(9.0)	(21.7)	(16.0)	(15.8)	(16.6)	(16.6)	(11.0)	(8.4)	(16.7)
Spring CPUE $\geq$20.0 in	0	0	2	2	0	0	0	2	2	2
	(0.0)	(0.0)	(0.3)	(0.7)	(0.0)	(0.0)	(0.0)	(0.7)	(0.8)	(0.3)
Total score	14	10	17	14	13	12	12	13	10	13
Assessment rating	Good	Fair	Excellent	Good	Good	Good	Good	Good	Fair	Good
Instantaneous mortality (z)	0.86	1.07	0.91	1.23	0.80	0.70	0.91	1.22	0.79	
Annual mortality (A)	57.80	65.80	59.80	70.70	55.20	50.20	59.80	70.40	54.60	

EFDYLLSS.D02-D10, D12
EFDYLLAS.D05, D06, D12

Table 84. Length frequency and nocturnal electrofishing CPUE (fish/hr) of black bass collected at Yatesville Lake (2,280 acres) during 3.00 hours of 15-minute samples on 29 September 2014; numbers in parentheses are standard errors.

Area/	Inch class																				
Species	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total	CPUE	
Lower																					
LMB	2	24	63	34	10	6	33	22	5	4	3		2	1				1	210	140.0	(48.0)
SB	3	28	5	7	5	8	2	3	1	2									64	42.7	(16.7)
Upper																					
LMB	3	16	42	35	9	6	35	25	18	12	4	1	5	1	3	2	1		218	145.3	(10.1)
SB			1	1	1	4													7	4.7	(3.9)
Total																					
LMB	5	40	105	69	19	12	68	47	23	16	7	1	7	2	3	2	1	1	428	142.7	(23.4)
SB	3	28	6	8	6	12	2	3	1	2	0	0	0	0	0	0	0	0	71	23.7	(10.0)

LMB = largemouth bass
SB= spotted bass
EFDYLLSF.14

Table 85. Fall electrofishing indices of year class strength at age 0 and age 1 and mean lengths (in) of largemouth bass collected during 2003 - 2014 at Yatesville Lake (2,280 acres); CPUE = fish/hr, SE = standard error.

	Age 0		Age 0		Age 0 $\geq$5.0 in		Age 1	
Year class	Mean length	SE	CPUE	SE	CPUE	SE	CPUE	SE
2003	5.3	0.1	46.0	6.3	29.3	4.4	12.7	2.8
2004	4.8	0.1	69.5	13.5	32.5	10.8	42.3	7.1
2005	4.7	0.1	47.0	12.3	20.0	7.1	45.9	7.2
2006	4.9	0.1	29.5	7.8	13.8	3.8	47.0	6.0
2007	5.3	0.1	37.4	10.6	23.2	6.1	45.0	8.1
2008	5.1	0.1	45.9	7.8	28.4	6.0	28.2	5.3
2009	4.9	0.1	32.7	6.5	16.3	4.0	42.6	6.4
2010	5.1	0.1	78.6	11.5	45.1	8.7	no sample	
2011	4.9	0.1	55.3	9.6	28.7	4.9	19.4	2.5
2012	5.0	0.1	82.9	20.0	45.1	10.1	no sample	
2013	5.2	0.1	39.6	5.8	25.6	5.0	37.0	2.9
2014	4.7	0.1	79.3	14.8	29.3	7.8		

EFDYLLSS.D03-D10, D12 D14
EFDYLLSF.D03-D14
EFDYLLAS.D05, D06, D12

Table 86. Length frequency and CPUE (fish/nn) for white crappie collected at Yatesville Lake (2,280 acres) in 20 net-nights from 25 - 26 November 2014. Standard errors are in parentheses.

Inch class													
3	4	5	6	7	8	9	10	11	12	13	Total	CPUE	
46	74	493	290	143	121	86	99	67	33	11	1463	69.7	(10.7)

EFDYLCTF.D14

Table 87. PSD and RSD values calculated for white crappie collected in trap nets at Yatesville Lake (2,280 acres) during November 2014; 95% confidence intervals are in parentheses.

No. $\geq$ 5.0 in	PSD	RSD_{10}
1,343	31	16
	(29-34)	(14-18)

EFDYLCTF.D14

Table 88. Mean back-calculated length (in) at each annulus for white crappie collected from Yatesville Lake (2,280 acres) in November 2014, including 95% confidence intervals.

Year		Age							
class	No.	1	2	3	4	5	6	7	8
2013	8	3.8							
2012	17	4.1	5.5						
2011	19	3.8	5.0	5.9					
2010	49	4.1	5.4	6.4	7.4				
2009	42	4.2	5.5	6.5	7.5	8.4			
2008	19	4.5	5.7	6.8	7.7	8.7	10.0		
2007	8	4.5	5.8	6.9	7.6	8.3	9.1	10.4	
2006	1	4.3	5.4	6.4	7.3	8.2	8.8	9.5	10.9
Mean		4.2	5.5	6.5	7.5	8.5	9.7	10.3	10.9
Smallest		2.8	3.9	4.4	5.0	5.4	5.7	8.4	10.9
Largest		6.2	7.9	8.5	10.1	12.3	12.2	12.0	10.9
STD error		0.0	0.1	0.1	0.1	0.2	0.3	0.4	
95% CI LO		4.1	5.3	6.3	7.3	8.1	9.1	9.5	
95% CI HI		4.2	5.6	6.6	7.7	8.8	10.3	11.1	

Intercept = 0

EFDYLCAF.D14

Table 89. Age frequency and CPUE (fish/nn) of white crappie collected by trap netting for 20 net-nights at Yatesville Lake (2,280 acres) in November 2014; numbers in parentheses are standard errors.

	Inch class														
Age	3	4	5	6	7	8	9	10	11	12	13	Total	Age%	CPUE	
0	46											46	3	2.2	(0.6)
1		74	87	11								172	12	8.2	(2.0)
2			203	56	18	5	5	6				293	20	13.9	(2.6)
3			116	89	18	21	5					249	17	11.9	(2.2)
4			87	56	72	68	40	33	16	3		375	26	17.9	(2.5)
5				67	27	26	25	44	32	9	2	232	16	11.1	(1.5)
6				11	9		5	11	16	12	6	70	5	3.3	(0.5)
7				14	6	4	5	6	3	6	3	47	2	1.1	(0.2)
8										3		3	0	0.1	(0.0)
Total	46	74	493	304	150	124	85	100	67	33	11	1487	100		
%	3	5	34	20	10	8	6	7	5	2	1	100			

CPUE of ≥8.0 in (quality size) = 19.9 fish/hr
CPUE of ≥10.0 in (preferred size) = 10.0 fish/hr
EFDYLCAF.D14
EFDYLCTF.D14

Table 90. Population assessment scores for white crappie collected from Yatesville Lake (2,280 acres). Actual assessment values are in parentheses. Scoring based on statewide assessment.

	Year					
Parameter	2002	2004	2006	2009	2012	2014
CPUE	3	4	4	4	4	4
(excluding age 0)	(19.5)	(28.2)	(58.6)	(26.4)	(39.4)	(67.5)
CPUE age 1	2	2	3	3	2	3
	(3.9)	(3.7)	(8.9)	(7.5)	(4.4)	(8.2)
CPUE age 0	1	4	2	3	2	1
	(1.5)	(23.9)	(3.6)	(6.0)	(4.8)	(2.2)
CPUE ≥ 8.0 in	2	2	4	2	3	4
	(3.0)	(4.8)	(13.6)	(2.2)	(6.9)	(19.9)
Mean length age 2 at capture	1	1	1	1	1	1
	(6.1)	(5.6)	(6.0)	(5.5)	(6.8)	(6.6)
Instantaneous mortality (z)	1.08	0.59	0.98	1.01	0.43	0.72
Annual Mortality (A)	66.0	45.0	62.4	63.6	34.9	51.4
Total score	9	13	14	13	12	13
Assessment rating	Fair	Good	Good	Good	Fair	Good

EFDYLCTF.D02, D04, D06, D09, D12, D14
EFDYLCAF.D02, D04, D06, D09, D12, D14

Appendix A. Buckhorn Lake Angler Attitude Survey 2014 (N=32)

Q3. Which species of fish do you fish for at Buckhorn Lake? Bass

	Frequency	Percent
Bass	20	62.5%
Crappie	21	65.6%
Muskie	14	43.8%
Catfish	11	34.4%
Bluegill	3	9.4%

Q4. Which one species do you fish for most often at Buckhorn Lake?

	Frequency	Percent
Bass	12	38.7%
Crappie	11	35.5%
Muskie	7	22.6%
Catfish	1	3.2%
Total	31	
No Response	1	

Q5. What level of satisfaction do you have with Bass fishing at Buckhorn Lake?

	Frequency	Percent
Very Satisfied	2	8.0%
Somewhat Satisfied	9	36.0%
Neutral	7	28.0%
Somewhat Dissatisfied	5	20.0%
Very Dissatisfied	2	8.0%
Total	25	
No Response	7	

Q5a. What is the single most important reason for your dissatisfaction with Bass fishing?

	Frequency	Percent
Number of fish	4	50.0%
Size of fish	3	37.5%
Not happy with regulations	1	12.5%
Too many anglers	0	0.0%
Unfamiliar with lake	0	0.0%
Total	8	
No Response	24	

Q6. What level of satisfaction do you have with Crappie fishing at Buckhorn Lake?

	Frequency	Percent
Very Satisfied	4	19.0%
Somewhat Satisfied	5	23.8%
Neutral	6	28.6%
Somewhat Dissatisfied	4	19.0%
Very Dissatisfied	1	4.8%
No Opinion	1	4.8%
Total	21	
No Response	11	

Q6a. What is the single most important reason for your dissatisfaction with Crappie fishing?

	Frequency	Percent
Number of fish	1	20.0%
Size of fish	4	80.0%
Not happy with regulations	0	0.0%
Too many anglers	0	0.0%
Unfamiliar with lake	0	0.0%
Total	5	
No Response	27	

Q7. What level of satisfaction do you have with Muskie fishing at Buckhorn Lake?

	Frequency	Percent
Very Satisfied	4	26.7%
Somewhat Satisfied	10	66.7%
Neutral	1	6.7%
Somewhat Dissatisfied	0	0.0%
Very Dissatisfied	0	0.0%
No Opinion	0	0.0%
Total	15	
No Response	17	

Q7a. What is the single most important reason for your dissatisfaction with Muskie fishing?

	Frequency	Percent
Number of fish	0	0.0%
Size of fish	0	0.0%
Not happy with regulations	0	0.0%
Too many anglers	0	0.0%
Unfamiliar with lake	1	100.0%
Total	1	
No Response	31	

Q7b. What is the single most important reason for your satisfaction with Muskie fishing?

	Frequency	Percent
Number of fish	5	35.7%
Size of fish	9	64.3%
Like regulations	0	0.0%
The regular stocking	0	0.0%
Total	14	
No Response	18	

Q8. Over the last 3 years, has your catch rate of Muskie less than 36 inches at Buckhorn Lake...

	Frequency	Percent
Increased	2	13.3%
Stayed the same	8	53.3%
Declined	3	20.0%
Don't know	2	13.3%
Total	15	
No Response	17	

Q9. Over the last 3 years, has your catch rate of Muskie greater than 36 inches at Buckhorn Lake...

	Frequency	Percent
Increased	3	20.0%
Stayed the same	7	46.7%
Declined	4	26.7%
Don't know	1	6.7%
Total	15	
No Response	17	

Q10. About what percentage of legal muskie did you keep in the last 3 years at Buckhorn Lake?

	Frequency	Percent
All or almost all	0	0.0%
About 25%	2	13.3%
About 50%	1	6.7%
About 75%		0.0%
Didn't keep any or very few	12	80.0%
Total	15	
No Response	17	

Q11. Do you fish muskie tournaments on Buckhorn Lake?

	Frequency	Percent
Yes	2	13.3%
No	13	86.7%
Total	15	
No Response	17	

Q11a. About how many muskie tournaments did you fish on Buckhorn Lake in the last 12 months?

	Frequency	Percent
1-2	0	0.0%
3-4	2	100.0%
4-5	0	0.0%
6 or more	0	0.0%
Total	2	
No Response	30	

Q12. On average, how many times do you fish Buckhorn Lake each month?

	Frequency	Percent
Less than 1	6	18.8%
1-4	17	53.1%
5-10	8	25.0%
More than 10	1	3.1%
Total	32	
No Response	0	

Q13. Do you support or oppose the current 15 inch minimum length limit on Largemouth Bass at Buckhorn Lake??

	Frequency	Percent
Support	21	65.6%
Oppose	5	15.6%
No Opinion	6	18.8%
Total	32	
No Response	0	

Q13a. What Largemouth Bass size limit would you prefer at Buckhorn Lake?

	Frequency	Percent
Keep as is	16	61.5%
Catch and Release only	1	3.8%
No size limit	1	3.8%
slot 15"-18"	1	3.8%
12" Minimum	7	26.9%
Total	26	
No Response	6	

Q14. Do you support or oppose the current 9 inch minimum size limit on Crappie at Buckhorn Lake?

	Frequency	Percent
Support	21	65.6%
Oppose	6	18.8%
No Opinion	5	15.6%
Total	32	
No Response	0	

Q14a. What Crappie size limit would you prefer at Buckhorn Lake?

	Frequency	Percent
Keep as is	15	60.0%
Catch and Release only	0	0.0%
No size limit	5	20.0%
10" minimum	3	12.0%
12" minimum	2	8.0%
Total	25	
No Response	7	

Q15. Do you support or oppose the current 36 inch minimum size limit on Muskie at Buckhorn Lake?

	Frequency	Percent
Support	20	62.5%
Oppose	11	34.4%
No Opinion	1	3.1%
Total	32	
No Response	0	

Q15a. What Muskie size limit would you prefer at Buckhorn Lake?

	Frequency	Percent
Keep as is	11	45.8%
Catch and release only	0	0.0%
No size limit	3	12.5%
30" Minimum	4	16.7%
31" Minimum	1	4.2%
40" Minimum	5	20.8%
Total	24	
No Response	8	

STATEWIDE FISH HABITAT IMPROVEMENT

Public Lakes Fertilization

Lake		County	Size (acres)
Northwestern Fishery District	Subtotal		38
Peabody WMA (Honeycomb, Boot and Little Gill lakes)		Muhlenburg	20
Washburn		Ohio	18
Southwestern Fishery District	Subtotal		68
Marion County Lake		Marion	25
Spurlington Lake		Taylor	25
Briggs Lake		Logan	18
Eastern Fishery District	Subtotal		742
Carr Creek Lake		Knott	710
Fishpond Lake		Letcher	32

Fish Habitat Improvement - Fish Attractors

District / Lake	Fish Attractor Sites
Western Fishery District	
Barkley Lake	3 units of brush were used to create 1 new shallow site; 48 Christmas trees were used to build deep water fish attractor sites (18 units for new sites and 30 units for refurbishing existing sites)
Kentucky Lake	219 units of brush were used to create 53 new deep water fish attractor sites with GPS coordinates available; 81 units of brush were used to refurbish existing deep water sites marked with bouys; 171 Christmas trees were used to refurbish shallow and deep water fish attractor sites, 11 existing deepwater sites marked with bouys, and 4 existing shallow water sites; 205 Christmas trees were used to create 13 new, unmarked deep water sites with GPS coordinates available, and 2 new shallow water sites; 182 stake beds were refurbished and 7 new stake beds were created
Energy Lake (LBL)	18 hardwood trees were used to build new fish attractor sites; 1 new location marked with a bouy and 5 new unmarked sites with GPS coordinates available
Benton Lake (Clarks River Nation Wildlife Refuge)	33 bundles of small cedar trees were used to create 4 new shallow water fish attractor sites in a small public fishing pond in Benton, KY; sites were marked with white poles
Northwestern Fishery District	
Peabody WMA Lakes	
Island Lake	23 stake bucket attractors
Bell Lake	20 stake bucket attractors
Goose Lake	13 stake bucket attractors; 1 "beaver lodge" built with pallets and brush
Nolin River Lake	
Dog Creek (lower)	22 mature (30+ ft.) flood-killed cedar trees
Moutardier	16 mature (30+ ft.) flood-killed cedar trees
Southwestern Fishery District	
Barren River Lake	2 new brush sites, 6 refurbished brush sites.
Green River Lake	5 new brush sites, 3 refurbished brush sites, 8 new stakebeds, 7 refurbished stakebeds.
Briggs Lake	2 refurbished brush sites.
Shanty Hollow Lake	4 new brushpiles (200+ x-mas trees).
Marion County Lake	3 new pallet tree sites.
Mill Creek Lake	2 refurbished brush sites (30+ xmas trees), 3 new cedar tree brush sites.
Metcalfe County Lake	1 stake bed, 1 refurbished brush site.
Three Springs Lake	5 refurbished brush sites.

Fish Habitat Improvement - Fish Attractors

District / Lake	Fish Attractor Sites
<u>Central Fishery District</u>	
Elmer Davis Lake	16 shallow water brush piles (2 trees per unit); 1 deep water brush pile (6 trees per unit)
<u>Northeastern Fishery District</u>	
Cave Run Lake	3 refurbished brush sites (Christmast tree sites - 108 trees); 2 large-scale improvement projects over 1,000 units of structure added to the lake improving just under 2 miles of shoreline in 2 areas of the lake; structure included Christmas tree bundles, larger cedar trees, pallet structures, stake buckets, plastic pallet structures and wooden spool structures
Grayson Lake	4 refurbished brush sites (Christmas tree sites – 150 trees)
<u>Southeastern Fishery District</u>	
Lake Cumberland	1 new brush site (25 trees)
Laurel River Lake	10 new brush sites (40 Christmas trees per site)
<u>Eastern Fishery District</u>	
Buckhorn Lake	4 new Christmas tree reefs; 2 refurbished Christmas tree reefs; 16 new pallet structures; 200 lbs of winter wheat sowed
Carr Creek Lake	2 new brushpiles; 6 refurbished brushpiles; 2 refurbished Christmas tree reefs; 16 hinge-cut trees; 1 rock pile
Dewey Lake	9 new brushpiles; 16 refurbished brushpiles; 3 Christmas tree reefs refurbished; 89 hinge-cut trees; 1 new stake bed; 4 refurbished stake beds; 250 lbs winter wheat sowed; aquatic plants planted (water willow, floating leaf pondweed, chara, bald cypress)
Fishtrap Lake	19 refurbished brushpiles; 2 refurbished Christmas tree reefs; 140 hinge-cut trees
Martin County Lake (Milo)	3 new brushpiles; 5 hinge-cut trees
Paintsville Lake	4 new brushpiles; 1 refurbished christmas tree reef
Yatesville Lake	12 refurbished brushpiles; 1 refurbished christmas tree reef; 4 hinge-cut trees

WESTERN FISHERY DISTRICT

Project B: Technical Guidance

FINDINGS

Table 1. Technical guidance given to pond owners in the Western Fishery District during the 2014 project year. An additional 82 telephone calls to the office regarding technical guidance and stocking were also handled.

County Pond Owner	Date of Inspection	Findings	Management Recommendations
Ballard			
Derail and Tammie Munsell	30-Sep	back pond - low DO and Alk., no bass in sample	Aeration, Ag. Lime, stock bass from other pond
Derail and Tammie Munsell	30-Sep	front pond - C.W.Primrose	treat vegetation with Rodeo, ShoreKlear or Weed Trine D
Calloway			
Donnie Roberson	2-Oct	Filamentous Algae, fish kill in 2013	Stock 30 LMB, 15 Ccat, Copper Sulfate
Bobby McCuistion	22-May	small LMB, large BLG, low alkalinity, clear water, Filamentous Algae	Ag. Lime, wait 2 yrs on bass harvest, harvest some BLG, treat algae with Copper Sulfate, Fertilize in Spring
Eric Penniston	2-Jul	clear water, no LMB, low Alkalinity	Ag. Lime, stock 200 LMB, fertilize, add fish habitat
Bill Sampson	20-Jun	filamentous algae, Pondweed, thermocline	treat algae with Cutrine Plus, Pondweed with WeedTrine D, stock fathead minnows, add habitat
Carlisle			
Robert Blasil	30-Sep	low Alkalinity, no small BLG, stunted LMB, clear water, thermocline	Add Ag. Lime, stock fathead minnows, remove stunted bass, Fertilizer in Spring, fish habitat
Crittenden			
Steve Harper	20-Jun	C.W.Primrose, Fil. Algae, cattails, Chara, clear water, poor BLG recruitment	stock fathead minnows, Apply Rodeo to primrose, stock grass carp, Copper Sulfate, fertilizer
Graves			
Keith Hayden	28-Jul	Scholtz - stunted LMB, Naiad, C.W.Primrose	harvest some LMB, treat vegetation
Keith Hayden	28-Jul	poor BLG fishery, clear water	stock fathead minnows, fish habitat, fertilize in Spring
Robert Camden - LakeShore Drive	8-Sep	clear water, Fil. Algae, Pondweed, C.W.Primrose, Naiad, and Cattails	wrote extensive vegetation plan for treatment, fishery OK
Hickman			
Rick Stutts	21-Apr	Filamentous Algae, C.W.Primrose	visited pond many times, to shallow, constant vegetation problem, Dig the Lake out

Table 1 continued.

County Pond Owner	Date of Inspection	Findings	Management Recommendations
Livingston			
Eric Cannon	22-Apr	pond too shallow, C.W. Primrose, Fil. Algae, clear water	best option is to dig out pond, or treat C.W.Primrose with 2-4-D, Copper Sulfate for Algae
Marshall			
David Culp	29-May	stunted LMB, clear water	harvest some LMB, fertilize in Spring, add fish habitat
Callie Knott	22-May	stunted LMB, no BLG	stock Ccat, harvest stunted bass, stock BLG
Peggy Castlemen	12-Jun	fish kill, DO issues, Pondweed, Duck weed	Extreme high (16) DO at surface, low at 3' (2), aeration, extreme algae bloom
McCracken			
Jan Schoborg	23-Jun	fish kill, C.W.Primrose	neighborhood lake, restock
Mike Boatwright	21-Apr	stunted bass, Fil. Algae	Harvest some LMB, stock fathead minnows, shallow water fish habitat, treat Algae, with Copper Sulfate
Bruce Johnson	21-Apr	lake flood from Ohio River, rough fish present, muddy water	contact commercial angler to fish lake, add Ag. Lime

NORTHWESTERN FISHERY DISTRICT

Project B: Technical Guidance

FINDINGS

Eighteen on-site pond visits were provided to 15 pond owners in 2014. Problems include unbalanced fish populations, excessive amounts of aquatic vegetation, liming and/or fertilization needs and the presence of nuisance fish species. Table 1 contains problems encountered and management recommendations. Many other requests for information were handled via telephone, e-mail and office visits.

Table 1. On-site technical guidance provided to pond ow ners in the Northw estern Fishery District in 2014.

County	Pond/Lake Ow ner	Date	Findings	Recommendations
Breckinridge	KY FFA Camp	5/23/14	Few , large LMB, blue green algae	Stock remedial LMB, w ater quality investigation
Breckinridge	Wayne Meyer	5/23/14	Stunted LMB, vegetation issue	Remove 25 LMB, vegetation control
Daviess	Brandon Kellems	4/24/14	No boat access, good color, ow ner not catching fish	Continue fishing, keep harvest log, restock in fall if no fish caught
Daviess	Lake Forest HOA	4/24/14	Look at 4 lakes w / veg issues	grass carp and chemical treatment as needed
Daviess	Steven Bryson	4/24/14	Clear, deep, no boat access, filamentous algae	Lime, fertilize, chemical algae treatment as needed
Daviess	Vicki Doss	4/24/14	Clear, vegetation issue	Chemical treatment as needed
Daviess	William Purdy	5/19/14	Stunted LMB, no BG, no cover, clear w ater	Remove ~25 LMB, stock 200 remedial BG, add dense cover, begin fertilizing 2015
Hancock	Hancock Co Fish & Game	5/23/14	Stunted LMB, very clear w ater, undesirable species	Remove sublegal LMB, lime, fertilize, remove undesirables
Hardin	Hardin Co SC	6/11/14	Stunted LMB, very clear w ater, vegetation issue	Remove ~750 LMB, fertilize, vegetation control as needed
Henderson	Audubon State Park lake	6/3/14	Bass/BG OK, lots shad and other undesirables	Shad kill Jan 2015, remove other undesirables as caught
McLean	Kevin Perry #1	5/22/14	Stunted LMB, vegetation issue	Remove 75 LMB, vegetation control
McLean	#2	5/22/14	Vegetation issue, could not sample	Vegetation control, w ill re-visit at later date
McLean	#3	5/22/14	Stunted LMB, clear, no structure	Remove 25 LMB, add cover, fertilize
Muhlenberg	Lake Luzerne, Muhlenbger Co FC	5/19/14	Good LMB, BG, RE	Add off shore structure in a few locations, continue current management
Ohio	City of Fordsville	5/19/14	Turbid w ater, Good LMB/BG, crappie, w armouth	Remove undesirables, continue current management, investigate source of turbidity
Ohio	Josh Tichener #1	5/22/14	Stunted LMB, no cover, very clear w ater	Remove 25 LMB, add cover, fertilize
Ohio	#2	5/22/14	Good sportfish pop, vegetation issue, undesirables	Remove undesirables, vegetation control, continue current sportfish management
Union	Moffit Lake, Union Co FC	5/12/14	Stunted LMB, all big BG/RE, muddy w ater	Remove ~1000 LMB <14", add shoreline cover for BG/RE fry, vegetate shoreline

SOUTHWESTERN FISHERY DISTRICT

Project B: Technical Guidance

FINDINGS

Onsite technical guidance given during 2014: Emails and phone calls also taken, but were not enumerated.

Table 1: Onsite technical guidance visits during 2014

County	Date	Landowner	Problem/Situation	Recommendations
Adair	6/13	Don Knifeley	DO check for aeration & bottom withdrawal	None - lake destratifed.
Barren	7/25	Bill Reynolds Jr.	No bass & misc. other spp.	Remedial bass stocking or kill out
Butler	8/20	Brad Moss	New property & pond mgt.	Watch veg. & cut trees on dam. Fish pop in good shape
Edmonson	6/20	Donna Hennion	Bass crowded, but BG excellent	Thin bass pop.
Logan	6/19	Red River Fish & Game Club	Aquatic veg. ID & aeration issues	Clean air stones on aerator, grass carp
Marion	4/14	Knobs Haven	Pond mgt. for aquatic veg. & aesthics	Add grass carp, retrofit discharge for bottom withdrawal
	6/30	Jerry Lanhum	Corrective stocking??	Kill out – just had green sunfish
	6/23	James Langford	Low alkalinity/productivity	Lime, consider aeration & cut dam trees
	6/23	Charles Ferrell Jr.	Low alkalinity, no bass	Add bass & redear
	6/23	Ralph Hamilton	No bass & veg. issues	Add bass & grass carp
Warren	6/20	Ron Frint	Aquatic veg.	Grass carp

CENTRAL FISHERIES DISTRICT

Project B: Technical Guidance

FINDINGS

A total of 46 pond owners and 51 ponds were visited in 2014. Most common problems were unbalanced fish populations, excessive aquatic plant growth, lack of fish cover, and the presence of undesirable fish species (Table 1). During our 2014 technical guidance sampling three landowners requested a Fisheries Special Management Permit (FMP) for their ponds. Finally, a total of 362 phone calls, 202 e-mails, and 6 walk-in office visits concerning farm pond problems were handled this year.

Table 1. Technical guidance in the Central Fisheries District in 2014.

County	Name of lake / pond owner	Date sampled	Findings	Recommendations
Bullitt (2)	Miles Place Association	6/26/14	Excessive vegetation	Herbicide for control of aquatic vegetation
	Thomas Armstrong	7/31/14	Unbalanced fish populations	Stock BG
Campbell (2)	Greg Reinhardt	7/1/14	Crowded LMB populations	remove LMB to reduce crowding
	Sun Valley Home Corp	7/1/14	Crowded LMB populations	remove LMB to reduce crowding
Carroll (1)	Mike Weedman	8/12/14	Limited fish populations	Protect LMB and BG
Fayette (3)	Central Kentucky Riding for Hoping	6/23/14	Inaccessible due to vegetation; duckweed	Sonar for vegetation control
	Hidden Lake Homeowners Assn.	8/6/14	Strong LMB populations	Manage for panfish fishery; add cover, remove trees from dam
	Tom Foley	8/21/14	Good fish populations	Harvest crappie; add cover
Franklin (2)	Vic Gasperini	6/6/14	Unbalanced fish populations; shad present	Renovate and restock
	Ronald Spencer	6/30/14	Unbalanced fish populations	Stock BG
Garrard (3)	Hidden Valley Neighborhood Assn.	7/14/14	Crowded LMB populations	remove LMB to reduce crowding
	Phillip Harrison	7/14/14	Inaccessible due to size	Enlarge; stock LMB and BG
	Wendall Johnson	8/15/14	Inaccessible due to shallow water and vegetation; duckweed	Renovate and restock Sonar for vegetation control
Henry (2)	Jack Tolliver	6/4/14	2 ponds; 1) Good fish populations 2) Inaccessible due to vegetation; duckweed	1) No recommendations; 2) Sonar for vegetation control
	Ron Slaughter	8/12/14	Good fish populations	None
Jefferson (2)	Chris Goffey	6/26/14	Unbalanced fish populations	Stock LMB
	Kevin Durrett	8/26/14	Inaccessible, crowded bass populations	Harvest LMB; FMP
Jessamine (2)	Daren Turner	7/23/14	Excellent fish populations	Add cover
	George Allen	8/15/14	Good fish populations; excessive bluegreen algae bloom	Control nutrients entering pond; add cover, harvest crappie
Mercer (1)	Jerry Bliss	7/24/14	Good fish populations	Harvest crappie;
Nelson (2)	Larry Richardson	7/23/14	3 ponds; 1) Good fish populations; 2) unbalanced fish populations; 3) Good fish populations	1) None 2) Stock LMB 3) None
	Jeff Gilland	8/20/14	Fair fish populations	Stock BG and CCF

Table 1. (continued)

County	Name of lake / pond owner	Date sampled	Findings	Recommendations
Oldham (3)	Pamela Conniff	7/22/14	Good fish populations; vegetation issue	Herbicides for control of aquatic vegetation
	Bill Wehage	7/22/14	Inaccessible due to size	Very small; difficult to manage
	Ed Valentine	8/18/14	Undesirable fish species and shallow pond	Renovate an restock
Scott (3)	James Lyons	6/19/14	Unbalance fish populations; undesirable fish species; shad	Stock LMB
	Josh Hutchison	6/19/14	Good fish populations	Selectively harvest a few LMB
	Scott County Board of Education	7/24/14	Undesirable fish present	Harvest common carp: FMP
	Mallard Point Estates	9/3/2012	3 ponds; 1) Good bass populations 2) and 3) Good panfish populations	1) supplement LMB suppressed spawning by stocking LMB 2) and 3) Harvest LMB to reduce crowding; FMP for both
Shelby (10)	Dave Sadler	6/4/14	Good fish populations	Add cover; remove trees on dam
	Horace Brown – Trailwoods Lake	6/17/14	Good fish populations	None
	Ronnie Bland	6/24/14	Crowded LMB populations	remove LMB to reduce crowding
	Phil Bland	6/24/14	Unbalanced fish populations	Stock LMB
	John Shuck, Jr.	6/25/14	Unbalanced fish populations	Stock LMB
	Joey Renfro	6/25/14	Fair fish populations	Remove crappie
	Scott McAtee	7/30/14	Good fish populations	Add cover
	Wilson's Nursery	7/30/14	Fair fish populations	Stock LMB
	Mike Jefferies	7/30/14	Good fish populations	Add cover
	John Rodgers	8/7/14	Unbalance fish populations	Protect LMB and BG: Lime
Spencer (2)	Steven Rapier	7/11/14	Good fish populations	Add cover
	Mark Rausch	7/11/14	Good fish populations	None
Washington (3)	Brian Mudd	7/15/14	Fair fish populations	Stock BG
	John Medley, Jr.	7/15/14	Good fish populations	Harvest crappie
	Mark Wheatley	7/15/14	Unbalanced fish populations	Stock LMB
Woodford (2)	Thomas Greathouse	6/30/14	Inaccessible due to vegetation; duckweed	Sonar for vegetation control
	Buckley Wildlife Sanctuary	7/28/14	Unbalanced fish populations	Stock LMB

NORTHEASTERN FISHERY DISTRICT

Project B: Technical Guidance

FINDINGS

Table 1 provides a list of ponds visited (13) in 2014 and our findings and recommendations. In addition to on-site inspections, consultations were rendered via telephone (50). Several office walk-in's and emails where also resolved. Typical problems responded to include: pond stocking, aquatic vegetation problems, undesirable species, fishing information, fish kills, farm pond management, fish pathogens, water quality, pond construction, structural problems with dams, and pond nuisances.

Table 1. On-site technical guidance provided by the Northeastern Fishery District during 2014.

County	Name	Date	Findings	Recommendations
Bourbon	M. Davis	27-Aug	Unbalanced-no largemouth bass	Stock 75 largemouth bass 4-6"
Clark	J. Kuperstein	17-Apr	Found tilapia in 2013. Went back to check for any survivors	No tilapia were found and recommendation from 2013 sample remained the same
	O. Rowland	17-Apr	Vegetation problem, also has a balanced population with low numbers	Apply Aquathol Super K granular and continue present stocking practices
Elliot	W. Pentansky	9-Sep	Unbalanced small pond with few large fish	Harvest large fish and stock 25 adult bleugill
Madison	R. Keith	10-Sep	Vegetation problem	Apply Sonar RTU and Glyphosate product
Montgomery	J. Zakrzewski	23-Jul	P1-had fish kill and owner wants channel catfish P2-vegetatation problem P3-small woodland pond with low ph	P1-stock 75 adult bleugill and 40 channel catfish P2-apply sonar P3-take soil test and apply lime
Morgan	G. Lewis	18-Jul	Unbalanced-low bluegill numbers	Stock 100 2-3" bluegill
	T. Mays	18-Jul	Balanced with low numbers, low ph	Perform soil test and apply lime
Nicholas	J. Grabes	27-Aug	Upon arrival discovered major fish kill looked to be complete on larger fish	Rescheduled for spring and answered many questions
Rowan	N. Gregory	30-Oct	Unbalanced and has vegetation problem	Stock 50, 4-6" bluegill and apply glyphosate
	A. Markwell	4-May	Vegetation problem	Apply Copper Sulfate and Rodeo

SOUTHEASTERN FISHERY DISTRICT

Project B: Technical Guidance

FINDINGS

Details of the technical guidance provided during 2014 are shown in Table 1. Technical guidance (17) was provided by on-site visits (14), over the telephone, or by written correspondence. Topics encountered and responded to included: fish population balance, water quality problems, fish disease, fish stocking, and aquatic vegetation problems.

Several other requests for information (approximately 200) about area fisheries and miscellaneous information about fish management in lakes and ponds were handled over the telephone.

Table 1. Technical guidance provided in the Southeastern Fishery District during 2014.

County	Name of pond or pond owner	Date	Findings	Recommendations
Casey	Elmer Coleman	7/29	Requested pond stocking application	Sent stocking application
	Frank Tomeo		Requested pond stocking application	Sent stocking application
Knox	David Lockhart	5/21	Balanced fish population but low numbers of fish	Add lime; add woody cover; add grass carp to control submerged vegetation; consider fertilizing
Laurel	Cardinal Heights	6/10	Bass slightly overcrowded	Limit inflow of sediment; remove some bass; add cover; consider addling lime and aeration
	Hank Vaugh	7/23	Bass overcrowded	Remove skinny bass; add cover; aerate and fertilize
	Sherry Kirby	8/5	Fish population balanced; excessive vegetation; green sunfish and bullheads observed	Add cover; remove green sunfish and bullheads; use diquat for control of naiads; stock grass carp for extended vegetation control
Lincoln	Greg Breyer	7/18	Bass slightly overcrowded	Remove some bass; consider liming the pond; consider aeration
	James Sims	7/11	Small crappie observed and water turbid	Restock the pond; remove horses and geese from around pond; add cover; reduce turbidity
	Peter Tate	5/30	Rotenone pond: green sunfish still present	Rotenone pond again
		5/30	Pond #2: Balanced fish population and abundant pondweeds	Stock more grass carp to control vegetation
Pulaski	Cooper Power Plant	3/7	Requested water quality tests	Water quality fine; provided stocking application
	David Gilbert	6/17	Some bass skinny	Remove skinny bass; add cover; limit sediment inflow; consider fertilizing
	Ann Mounce	9/26	Grass carp dying; abundant watermeal	Low dissolved oxygen levels; use Clipper to treat watermeal; aerate
Rockcastle	Julia Lamb	8/5	Abundant filamentous algae and naiads	Control vegetation with herbicides; stock grass carp for extended control
Whitley	Richard Brasher	5/21	Requested advice for pond being developed	Increase the slope of the bank
	Jerry Rains	5/21	Bass slightly skinny; bluegill skewed towards larger size; considerable amount of black muck on pond bottom	Add grass carp to control vegetation; harvest 1/3 of the large bluegill; aerate pond; add woody cover; stock 12-25 catfish
	Roger Wells	7/17	Balanced fish population	Add cover; lime; stock 4 grass carp; use Rodeo to control cattails
Madison	Gordon Edwards	4/3	Requested fish supplier list	Sent fish supplier list

EASTERN FISHERY DISTRICT

Project B: Technical Guidance

FINDINGS

Details of the technical guidance provided during 2014 are shown in Table 1. Technical guidance (28) was provided by on-site visits (5), over the telephone, or by written correspondence. Topics encountered and responded to included: fish population balance, water quality problems, fish disease, fish stocking, and aquatic vegetation problems.

Several other requests for information about area fisheries and miscellaneous information about fish management in lakes and ponds were handled over the telephone.

Table 1. Pond technical guidance in the Eastern Fishery District during 2014.

Date	County	Owner	Problem	Recommendations
3/6	Pike	Johns Crk.Paylake	stocking	fish dealer list
*3/6	Johnson	Dave Hall	weeds	Aquathol Granular
3/13	Lawrence	Donivan Waugh	renovated pond	sent KDFWR stock applic., pond book
3/17	Lawrence	Dan Fitzpatrick	fertilizer	liquid 9-18-9
4/7	Harlan	George Whitfield	building pond, permits	refer to NRCS, London Ky
4/8	Letcher	Buddy Sexton	renovated pond	web site for app., help fill out
4/14	Harlin	Otis Noe	grass carp	grass carp private dealer list
4/15	W.V.A.	Edd	Pay Lake Fish	refer to Frankfort
*4/17	Johnson	Ron Fraley	Algae (filamentous)	copper sulfate
5/8	Floyd	Bob Bradley	pond stocking	fish dealer list
5/19	Lawrence	Curt Fitzpatrick	weeds, chara	stop fertilizing, cutrine plus
5/19	Floyd	William Reed	new pond	pond stocking app., and LEO officer contact info
5/19	Pike	James May	weeds	Cutrine, Shore Clear
5/22	Johnson	Linda Hamilton	pond stocking	fish supplier list
6/6	Harlan	Eddie Brigman	pond water red	dinoflagellate stop feeding fish 2-3 weeks
6/6	Martin	Closter Bowen	Water Shield	Shore Klear plus or Sonar AS
6/12	Floyd	Billy Burchett	weeds	reward/cutrine-plus
*6/17	Floyd	Betty Puckett	pond balance	low pH add lime
6/18	Lawrence	Brian Davidson	new pond cons.	refer to NRCS
*7/3	Lawrence	Darrell Walker	fish die off, waterme	aeration, reward
8/11	Floyd	Brent Allen	fish dying	renovate pond and increase depth
8/18	Lawrence	Allen Holbrook	catfish stocking	fish supplier list
8/18	Lawrence	Kevin Culp	pond balance	harvest larger fish, add brush piles
*9/16	Johnson	Danny Fitch	fish dying	aerate, & remove dead fish
9/17	Magoffin	Scotty Howard	fish dying, water mea	aerate, remove dead fish & watermeal (Reward)
10/17	Perry	Ishmael Stacy	pond stocking	make up for 2013 Stocking program
10/20	Johnson	Sherry Slone	new pond cons.	pond book NRCS
12/8	Magoffin	Myra Howard	sick fish	stocked stressed fish, need to monitor fish closely

*Designates on-site visit.

Project C – Fish Propagation and Transportation

Table 1. Kentucky Department of Fish & Wildlife Resource's fish production list for 2014.

		Planned		Actual			
Species	Hatchery	No.	Size (in)	No.	Size (in)	Location	
Muskellunge - surplus fish	**Minor Clark**	2,700	13.0	2,801	13.0	*Cave Run Lake	
stocked in list of surplus streams		2,700	13.0	2,800	13.0	*Green River Lake	
		400	13.0	425	13.0	*Buckhorn Lake	* Left Check Wire Tagged
		2,400	9.0	3,602	8.5	Green River	** Wire Tagged in three
Surplus Streams		500	9.0	1,000	8.0	Licking River	different locations
Barren River (3,100) - 9"		50	9.0	113	8.0	North Fork Triplett Cr.	
Kentucky River (2,000) - 8.5"		100	9.0	200	8.5	Kinniconick Creek	
S.F. Kentucky River (800) - 9"		200	9.0	400	9.0	Little Sandy River	
N.F. Kentucky River (800) - 9"		150	9.0	300	8.5	Red River	
Station Camp (80) - 8.5"		100	9.0	200	9.0	Kentucky River Pools 8	
Sturgeon Creek (80) - 9"						and 9 (50 per pool)	
Green River (892) - 13"							
Licking River (94) - 15"							
Tygarts Creek (400) - 9"							
Drakes Creek (60) - 9"							
Musky Lake (50) - 8.5"							
Goose Lake (100) - 8.5"							
Tennessee (4,131) - 9"							
West Virginia (1,000) - 9"							
KY River Pools 3-9 (150) - 9"							
*Kentucky River (154) - 13"							
*Dewey Lake (500) - 13"							
*Cave Run Lake (99) - 15"							
**Hatchery Oxbow (285) - 15"							
Ohio River (105,342) - Eggs		3,649	9.0	563,896	Fry		
Licking (563,896) - Fry				105,342	Eggs		
				26,616	8-15		
Walleye - Surplus Erie strain fry:	**Minor Clark**	350,000	1.5	506,058	1.5	Lake Cumberland	
Licking River (516,900)		300,000	1.5	302,346	1.5	Laurel River Lake	
West Virginia (1,015,200)		35,000	1.5	35,192	1.5	Carr Creek Lake	
Virginia (350,280)		57,000	1.5	57,120	1.5	Paintsville Lake	
Green River Lake (983,600)		200,000	1.5	269,350	1.5	Nolin River Lake	
Surplus Native strain to Tennessee (126,690)		300,000	1.5	448,742	1.5	Green River Lake	
		15,000	1.5	15,272	1.5	Russell Fork	
		9,100	1.5	9,065	2	Upper Levisa Fork (native) - OTC as fingerlings	
		33,600	1.5	31,775	1.5	Wood Creek Lake (native)	
		25,250	1.5	24,232	2	Upper Barren River (native) - OTC as fingerlings	
		16,700	1.5	17,127	2	Martins Fork Lake (native) - OTC as fingerlings	
		65,650	1.5	40,681	2	Upper Cumberland River (native) - OTC as fingerlings	
		1,407,300	1.5	1,756,960	1.5		
				2,992,670	Fry		
Striped bass	**Minor Clark**	350,000	1.5	285,776	2	Lake Cumberland	
		261,000	1.5	0		Ohio River (Markland - 49,000; McAlpine - 38,000; Cannelton - 46,000; Newburg - 33,000; Uniontown - 40,000; Smithland - 55,000)	
		50,000	1.5	0		Kentucky Lake tailwater	
		50,000	1.5	0		Barkley Lake tailwater	
		711,000	1.5	285,776	2		

		Planned		Actual		
Species	Hatchery	No.	Size	No.	Size	Location
Hybrid striped bass	**Minor Clark**	200,000	1.5	200,383	1.5	Barren River Lake
		286,200	1.5	357,291	1	Ohio River (Markland - 54,500; McAlpine - 41,500;
		2,600	1.5	2,640	2	Sympson Lake (Nelson
		15,000	1.5	15,046	2	Grayson Lake
		102,000	1.5	103,352	1.5	Rough River Lake
Barkley Lake TW (100,038) - 1.5"		60,000	1.5	60,133	1.5	Taylorsville Lake
Kentucky Lake TW (100,162) - 1.5"		50,000	1.5	50,131	1.5	Herrington Lake
Grayson Lake (1,587) - 6"		23,000	1.5	23,040	2	Fishtrap Lake
		20,000	1.5	20,446	1.5	Kentucky River
		7,200	1.5	7,230	2	Lake Linville
		19,000	1.5	19,026	2	Guist Creek Lake
		785,000	2	1,060,508	1.5	
	Pfeiffer			7,000,000	fry	(Minor Clark, IN, WV, and Barren River Lake)
White bass	**Minor Clark**	75,000	1.5	134,310	1.5	*Green River Lake (*OTC marked as fingerlings)
	Pfeiffer			2,175,000	fry	(Minor Clark, Pfeiffer, and Green River Lake)
Largemouth bass	**Minor Clark**	100,000	5.0	190,003	4.5	Priority 1 lakes at 15 fish per acre
		175,000	2.0	169,296	2.0	*Ohio River - Markland & Meldahl Pool (OTC as
						* Right Pectoral Fin Clip
Blue catfish	**Pfeiffer**	296	5-7	296	4-6	Reformatory Lake
		732	5-7	732	4-6	Bullock Pen Lake
		424	5-7	9,425	4-6	Barren River Lake
		350	5-7	350	4-6	West Fork Drakes Creek Lake
		545	5-7	545	4-6	Mill Creek Lake
		1,200	5-7	1,200	4-6	Spa Lake
		1,750	5-7	1,750	4-6	A.J. Jolly
		110	5-7	110	4-6	Metcalfe Lake
		1,350	5-7	1,350	4-6	Wilgreen Lake
				23,500	8-15	Taylorsville Lake
				24,004	8-15	Barren River Lake
		6,658	5-7	15,758	5-7	
		54,162	8-15	47,504	8-15	
Sauger	**Pfeiffer**	7,100	1.5	7,100	1.5	Salt River (10 f/a - OTC mark)
		44,250	1.5	44,300	1.5	Green River (10 f/a - OTC mark)
		9,900	1.5	9,900	1.5	Barren River (10 f/a - OTC mark)
		25,000	1.5	16,434	1.5	Kentucky River
						(North Fork, South Fork, Pools 4,5,6 @5,000 each)
		86,250	1.5	77,734	1.5	

		Planned		Actual		
Species	Hatchery	No.	Size	No.	Size	Location
Saugeye	**Pfeiffer**	31,600	1.5	26,000	1.5	Guist Creek Lake (75/acre)
		14,600	1.5	12,377	1.5	Bullock Pen Lake (75/acre)
		17,500	1.5	15,199	1.5	A.J. Jolly Lake (75/acre)
		63,700	2	53,576	1.5	
Channel catfish	**Pfeiffer**	62,400	15.0	52,682	15.0	FINS program
		181,590	8-12	121,769	8-12	Public fishing lakes (even year stockings)
Redear sunfish - surplus to Lake Cumberland / 4500 Peabody WMA.	**Pfeiffer**	40,000	1.5	52,000	2	Yatesville and Fishtrap lakes
				226,072	2	Lake Cumberland
				4,500	2	Peabody
				282,572	2	
Hybrid sunfish	**Pfeiffer**	61,025	1.5	9,673	3-8"	FINS program (Spring & Fall stockings)
Alligator Gar - not charged to	**Pfeiffer**	8,000	13.0	5,764		Alligator Gar restoration zone in Western Kentucky.
Lake Sturgeon - not charged to Sport Fish Restoration. Funding provided under SWG program.	**Pfeiffer**	6,000	8.0	5,730		2,766 at Cumberland River (6.8"), 2,964 at Cumberland River (8")
Technical Guidance (Farm Pond Stocking Program)						
Bluegill	**Pfeiffer**	133,000	0.75	23,430	2-3"	
Channel Catfish	**Pfeiffer**	20,000	3.0	13,805	3.0	
Largemouth bass	**Minor Clark**	30,000	0.75	41,677	1.5	
Rainbow trout	**Wolf Creek**	1,500	9.0	1,500	9.0	Anderson County Park - Anderson County
		3,750	9.0	3,750	9.0	Bark Camp Creek - Whitley County
		1,500	9.0	1,500	9.0	Beaver Creek - Wayne County
		1,200	9.0	1,200	9.0	Beaver Creek Left Fork - Floyd County
		1,200	9.0	1,000	9.0	Beaver Creek Right Fork - Floyd County
		4,000	9.0	4,000	9.0	Bert Combs Lake - Clay County
		4,000	9.0	4,000	9.0	Beulah Lake - Jackson County
		1,500	9.0	1,500	9.0	J. Beville Lake - Grayson County
		1,200	9.0	1,200	9.0	Big Bone Creek - Boone County
		4,000	9.0	4,000	9.0	Big Caney Creek - Elliott County
		1,000	9.0	1,800	9.0	Big Double Creek - Clay County
		1,500	9.0	1,500	9.0	Bloomfield Park - Nelson County
		6,250	9.0	6,249	9.0	Bob Noble Park - McCracken County
		6,250	9.0	6,349	9.0	Brickyard Pond - Knox County
		5,000	9.0	5,000	9.0	Buckhorn Lake TW (Middle Fork KY) - Perry County
		500	9.0	500	9.0	Buffalo Creek (Right Fork) - Owsley County
		6,250	9.0	6,250	9.0	Camp Ernst Lake - Boone County
		3,750	9.0	3,750	9.0	Cane Creek - Laurel County
		6,000	9.0	6,000	9.0	Cannon Creek Lake - Bell County
		5,000	9.0	5,250	9.0	Carr Creek Lake tailwater - Knott County

		Planned		Actual		
Species	Hatchery	No.	Size (in)	No.	Size (in)	Location
Rainbow trout	Wolf Creek	8,000	9.0	8,000	9.0	Casey Creek - Trigg County
		6,800	9.0	4,800	9.0	Cave Run Lake TW (Licking River) - Rowan County
		21,000	9.0	20,499	9.0	Cedar Creek Lake - Lincoln County
		3,750	9.0	3,750	9.0	Cherokee Park Lake - Jefferson County
		1,200	9.0	1,200	9.0	Clear Creek - Bell County
		1,000	9.0	1,000	9.0	Craney Creek - Rowan County
		5,000	9.0	5,000	9.0	Cranks Creek Lake - Harlan County
		4,000	9.0	4,000	9.0	Dewey Lake tailwater (Johns Creek) - Floyd County
		1,500	9.0	1,500	9.0	Dickerson Lake - Meade County
		4,500	9.0	1,800	9.0	East Fork Indian Creek - Menifee County
		1,500	9.0	1,500	9.0	Easy Walker Park - Montgomery County
		1,600	9.0	1,600	9.0	Elk Spring Creek - Wayne County
		2,000	9.0	2,000	9.0	Fagen Branch - Marion County
		3,000	9.0	3,000	9.0	Fisherman's Park Lake (2 lakes) - Jefferson County
		5,000	9.0	5,000	9.0	Fishpond Lake - Letcher County
		10,000	9.0	10,000	9.0	Fishtrap Lake tailwater (Levisa Fork) - Pike County
		5,250	9.0	5,250	9.0	Ft. Campbell - Christian County
		4,000	9.0	11,508	9.0	Ft. Knox (Otter Creek) - Meade County
		3,600	9.0	3,600	9.0	Floyds Fork (2 sites) - Jefferson County
		1,500	9.0	1,500	9.0	Goose Creek - Casey County
		1,500	9.0	1,500	9.0	Grants Branch Lake - Pike County
		5,000	9.0	5,000	9.0	Grayson Lake tw (Little Sandy River) - Carter County
		1,200	9.0	1,200	9.0	Greasy Creek - Leslie County
		11,000	9.0	5,500	9.0	Greenbo Lake - Greenup County
		4,500	9.0	4,500	9.0	Herrington Lake tailwater - Garrard/Mercer Co.
		2,750	9.0	2,750	9.0	Highsplint Lake - Pike County
		500	9.0	500	9.0	Hood Creek - Johnson County
		1,500	9.0	1,500	9.0	Jack C. Fisher Park Lake - Daviess County
		12,000	9.0	12,000	9.0	Jacobson Park Lake - Fayette County
		7,000	9.0	7,000	9.0	Jennings Creek - Warren County
		3,750	9.0	3,750	9.0	Kingdom Come Lake - Harlan County
		161,000	9.0	127,845	9.0	Lake Cumberland tailwater (Cumberland River) -
						Russell/Clinton/Cumberland/Monroe counties
		45,000	9.0	41,152	9.0	Laurel River Lake - Laurel County
		250	9.0	250	9.0	Laurel River Lake tailwater - Laurel/Whitley counties
		3,000	9.0	2,500	9.0	Laurel Creek - Elliott County
		1,250	9.0	1,250	9.0	Lick Fork Creek - Simpson County
		1,000	9.0	1,000	9.0	Line Fork - Letcher County
		800	9.0	800	9.0	Little Sandy River (East Fork) - Boyd County
		1,500	9.0	1,500	9.0	Looney Creek - Harlan County
		1,500	9.0	1,500	9.0	Lower Sportsman's Lake - Franklin County
		1,500	9.0	1,500	9.0	Lusby Park Lake- Scott County
		2,500	9.0	2,500	9.0	Lynn Camp Creek - Hart County
		6,250	9.0	6,250	9.0	Madisonville City Park Lake North - Hopkins County
		6,250	9.0	3,750	9.0	Martin County Reservoir - Martin County

		Planned		Actual		
Species	Hatchery	No.	Size (in)	No.	Size (in)	Location
Rainbow trout	Wolf Creek	3,750	9.0	3,750	9.0	Martins Fork Lake tailwater - Harlan County
		500	9.0	500	9.0	Metcalfe County Lake - Metcalfe County
		3,000	9.0	750	9.0	Middle Fork Red River - Powell County
		3,000	9.0	3,000	9.0	Middleton Mills Park Lakes (2) - Kenton County
		3,750	9.0	3,750	9.0	Mike Miller Park Lake - Marshall County
		1,500	9.0	1,500	9.0	Miles Park Lake #3 - Jefferson County
		3,750	9.0	3,750	9.0	Miles Park Lake #4 - Jefferson County
		6,000	9.0	6,000	9.0	Mill Creek Lake - Powell County
		1,500	9.0	1,500	9.0	Millenium Park Lake - Boyle County
		6,250	9.0	6,250	9.0	Milo Lake - Martin County
		1,500	9.0	1,500	9.0	Mingo Lake - Jessamine County
		1,000	9.0	1,000	9.0	Mortons Lake - Union County
		14,000	9.0	14,000	9.0	Nolin River Lake tailwater - Edmonson
		1,400	9.0	1,400	9.0	North Fork Triplett Creek - Rowan County
		7,500	9.0	11,508	9.0	Otter Creek - Meade County
		3,250	9.0	5,750	9.0	Paintsville Lake - Johnson/Morgan Counties
		20,000	9.0	19,650	9.0	Paintsville Lake tailwater - Johnson County
		6,000	9.0	3,000	9.0	Panbowl Lake - (Breathitt County)
		3,750	9.0	3,500	9.0	Panther Creek Park Lake - Daviess County
		5,250	9.0	5,250	9.0	Peabody WMA (3 lakes)
		750	9.0	750	9.0	Peter Creek - Barren County
		3,750	9.0	3,750	9.0	Pollywog Lake - Grant County
		3,750	9.0	3,750	9.0	Prisoner's Lake - Kenton County
		800	9.0	500	9.0	Raven Creek - Harrison County
		800	9.0	800	9.0	Rockcastle Creek - Martin County
		15,600	9.0	15,625	9.0	Rock Creek (South Fork Cumberland
		750	9.0	750	9.0	Rough Creek - Hardin County
		3,000	9.0	3,000	9.0	Rough River Lake tw - Breckinridge/Grayson Counties
		2,800	9.0	2,800	9.0	Roundstone Creek - Hart County
		1,600	9.0	1,600	9.0	Royal Springs - Scott County
		2,250	9.0	2,250	9.0	Russell Fork - Pike County
		1,000	9.0	1,000	9.0	Sandy Lee Watkins Park Lake - Henderson County
		1,500	9.0	1,500	9.0	Scott County Park - Scott County
		1,200	9.0	1,200	9.0	Sinking Creek - Breckinridge County
		1,500	9.0	1,500	9.0	Southgate - Boone County
		1,000	9.0	1,000	9.0	Stanford Lake - Lincoln County
		1,000	9.0	1,000	9.0	Station Camp Creek - Estill County
		6,250	9.0	6,250	9.0	Stein Lake - Campbell County
		800	9.0	800	9.0	Sturgeon Creek - Lee County
		2,500	9.0	2,500	9.0	Sulphur Spring Creek - Simpson County
		1,000	9.0	1,000	9.0	Swift Camp Creek - Wolfe County
		3,000	9.0	3,000	9.0	Taylorsville Lake tailwater - Spencer County
		6,250	9.0	6,250	9.0	Three Springs Park Lake - Warren County
		6,250	9.0	6,250	9.0	Tom Wallace Lake - Jefferson County
		8,750	9.0	8,750	9.0	Trammel Fork - Allen County
		1,600	9.0	1,650	9.0	Triplett Creek - Rowan County
		6,250	9.0	4,583	9.0	Upper Sportsman's Lake - Franklin County
		2,500	9.0	3,300	9.0	War Fork - Jackson County

		Planned		Actual		
Species	Hatchery	No.	Size (in)	No.	Size (in)	Location
		3,750	9.0	3,750	9.0	Watterson Park Lake - Jefferson County
		6,250	9.0	6,250	9.0	Waverly Park Lake - Jefferson County
		6,250	9.0	6,250	9.0	Waymond Morris Park Lake - Daviess County
		6,250	9.0	6,250	9.0	Whitehall Pond - Madison County
		8,000	9.0	7,991	9.0	Wood Creek Lake - Laurel County
		2,250	9.0	2,250	9.0	Yatesville Lake tailwater
		1,500	9.0	1,750	9.0	Yellow Creek Lake - Daviess County
		661,150	9.0	618,709	9.0	
Brown trout	**Wolf Creek**	500	8.0	500	8.0	Bark Camp Creek - Whitley County
		250	8.0	4,000	8.0	Big Caney Creek - Elliott County
		450	4.0	450	4.0	Chimney Top Creek - Wolfe County
		400	8.0	400	8.0	East Fork Indian Creek - Menifee County
		750	8.0	750	8.0	Fletchers Fork - Ft. Campbell Military Reservation
		1,000	8.0	2,175	8.0	Herrington Lake tailwater - Garrard/Mercer Co.
		200	8.0	800	8.0	Jennings Creek - Warren County
		38,000	8.0	76,549	8.0	Lake Cumberland tailwater

Table 1 (cont). Kentucky Department of Fish & Wildlife Resource's fish production list for 2014.

Species	Hatchery	No.	Size (in)			Location
Brown trout	**Wolf Creek**	250	8.0	250	8.0	Laurel Creek - Elliott County
		250	8.0	250	8.0	Laurel River Lake tailwater
		2,500	8.0	2,500	8.0	Little West Fork - Ft. Campbell Military Reservation
		700	8.0	700	8.0	Looney Creek - Harlan County
		1,000	8.0	1,000	8.0	Nolin Tailwater - Edmonson County
		500	8.0	500	8.0	Otter Creek - Meade County
		300	8.0	300	8.0	Paint Creek - Johnson County
		300	8.0	1,000	8.0	Roundstone Creek - Hart County
		100	8.0	300	8.0	Sulphur Springs Creek - Simpson County
		400	8.0	1,150	8.0	Trammel Fork - Allen County
		450	4.0	450	4.0	
		47,400	8.0	93,124	8.0	
Brook trout	**Wolf Creek**	40,000	8.0	11,847	8.0	Lake Cumberland tailwater
		Planned		Actual		
	TOTALS:	4,758,734		5,099,273	Fingerlings	
				17,830,839	Including Fry	