

EVALUATION OF THE FISH COMMUNITY AND PREDATOR
STOCKINGS AT BROOKVILLE RESERVOIR

Franklin and Union Counties
2007 Fish Management Report

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EXECUTIVE SUMMARY

- Brookville Reservoir is a 5,260 acre Army Corps of Engineers flood control impoundment located in southeastern Indiana on the East Fork of Whitewater River.
- A fish community survey was conducted May 21 to 31, 2007.
- There were 3,552 fish collected that weighed 1,926 lbs. Twenty-six species and hybrid sunfish comprised the sample.
- The predominant species collected by number were channel catfish (26%), bluegill (25%), and gizzard shad (15%). Channel catfish (51%), common carp (14%), and shad (9%) were the most abundant species by weight.
- A fall walleye and striped bass evaluation was conducted October 22 to 25, 2007.
- A total of 154 walleye was collected that weighed 78.66 lbs. The CPUE was 32.3/h of electrofishing and 1.6/gill net lift. Walleye ranged in length from 5.4 to 22.5 in and averaged 10.5 in. Excluding YOY, 95% of the walleye measured at least 14 in.
- There were only two striped bass collected during the fall evaluation, compared to 34 stripers collected in the fall of 2005. One 4.0 in YOY striper that weighed 0.03 lbs was collected via electrofishing and one 16.0 in age-1 striper that weighed 1.70 lbs was collected via gill net.
- There were 11 reported bass tournaments at Brookville Reservoir in 2007. Anglers spent 4,708 hours fishing and caught a total of 595 bass, which equates to a CPUE of 0.13 bass/h.
- The annual stocking rate of 2,000 walleye fry/acre (10,520,000) should continue in order to maintain the reservoir as a reliable source of walleye broodstock.
- Annual stockings of fingerling striped bass at a rate of 10/acre (52,600) should continue in order to maintain a striped bass fishery at Brookville.
- Brookville should continue to serve as a surplus stocking site for muskie.
- A spring black bass population estimate and a creel survey are scheduled for 2009. The next fall evaluation of walleye and striped bass is scheduled for the fall of 2009. The walleye fishery will be examined more closely in 2009 to assess future management options.

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INTRODUCTION

Brookville Reservoir is a 5,260 acre Army Corps of Engineers flood control impoundment located in southeastern Indiana on the East Fork of Whitewater River about 1 mi north of Brookville, Indiana. There are ten public access boat ramps located around the reservoir. Brookville was impounded during the winter of 1973-74 and no pre-impoundment eradication of undesirable fish was conducted. Due to its large gizzard shad forage base, the reservoir has been regularly stocked with walleye, striped bass, and muskellunge.

Brookville Reservoir serves as the sole brood stock source of walleye for the Division of Fish and Wildlife (DFW). Thus, Brookville Reservoir is the highest priority stocking site in the state and is annually stocked with 10.5 million walleye fry. Nearly all of the fry and fingerling walleye that the DFW annually stocks across the state come from eggs collected at Brookville.

Striped bass have been annually stocked since the reservoir was impounded in 1974. Excluding a few years when striped bass production has been low or above average, Brookville has been annually stocked with 52,600 fingerling striped bass. Muskellunge stockings at Brookville rarely exceed 5,260 advanced fingerlings per year, and have not created much of a fishery.

The last fish community survey was conducted in 2002 (Wisener 2003). Gizzard shad was by far the most abundant species collected. Growth rates and abundance for most game fish had either improved or remained the same.

The present survey was conducted to evaluate the fish community at Brookville Reservoir. A fall evaluation of walleye and striped bass was also conducted. Success of the 2007 walleye and striper stockings along with survival and growth of previously stocked walleye and stripers were evaluated.

METHODS

FISH COMMUNITY SURVEY

The fish community survey was conducted May 21 to 31, 2007. Physical and chemical characteristics of the lake were measured and collected according to DFW survey guidelines (2001).

Fish were collected via night DC electrofishing for 3.5 h (14, 15-min stations) using two dippers, 11 standard experimental gill net lifts, 11 large experimental gill net lifts, and 10 trap net

lifts. The collected fish were measured to the nearest 0.1 in TL. Scale samples were collected from the dominant sport fish for age and growth analysis. In addition to scales, otoliths were collected from walleye and striped bass. Weight estimates of all species were calculated using central Indiana averages or length-weight regressions. Proportional stock density (PSD) was calculated for bluegill and largemouth bass (Anderson and Neumann 1996). The Bluegill Fishing Potential Index (BGFP) was used to describe the bluegill fishery (Ball and Tousignant 1996).

FALL WALLEYE AND STRIPED BASS EVALUATION

The fall walleye and striped bass evaluation was conducted October 22 to 25, 2007. Survey effort consisted of 4 h of night DC electrofishing and 16 large experimental gill net lifts. Sampling effort was reduced by 2 h of electrofishing and two gill net lifts because of adverse weather conditions and excessive damage to several gill nets. Otherwise, electrofishing and gill net sampling locations duplicated those of previous fall evaluations. Walleye and striped bass were measured to the nearest 0.1 in TL and weighed to the nearest 0.01 lb. Scale samples and otoliths were collected for age and growth determination.

BLACK BASS TOURNAMENT MONITORING

Organizations conducting tournaments were mandated by their permit to record and send in their bass tournament data to the Division of Fish and Wildlife. Reported information included hours fished, number of participants, big bass weight, total weight, and total number weighed-in. Recording bass lengths to the nearest 0.5 in was optional. Largemouth and smallmouth bass were not differentiated.

RESULTS

FISH COMMUNITY SURVEY

The surface temperature at Brookville Reservoir on May 31 was 76.6° F. Dissolved oxygen measurements were not recorded due to a bad membrane within the dissolved oxygen meter. Conductivity was 320 μ S and the Secchi disk reading was 6.5 ft.

There were 3,552 fish collected that weighed 1,926 lbs. Twenty-six species and hybrid sunfish comprised the sample. The predominant species collected by number were channel

catfish (26%), bluegill (25%), and gizzard shad (15%). Spotfin shiner, largemouth bass, longear sunfish, and smallmouth bass were the only other species to account for greater than 4% of the sample by number. Channel catfish (51%), common carp (14%), and shad (9%) were the most abundant species by weight.

Channel catfish was the most abundant species collected by number and by far the most abundant species collected by weight. Catfish abundance by number increased from 18% in 2002 to 26%, and abundance by weight increased from 32% to 51%. A total of 907 channel catfish was collected that weighed 972 lbs. Catfish CPUE was 5.4/h of electrofishing, 54.1/standard gill net lift, 25.1/large gill net lift, and 1.7/trap net lift. Catfish ranged in length from 5.8 to 23.9 in and averaged 13.6 in. As in 2002, 61% of channels caught were at least 12 in.

A total of 894 bluegill was collected that weighed 58 lbs. Bluegill abundance by number increased to 25% compared to 15% in 2002, but abundance by weight remained the same (3%). Bluegill CPUE was 201.1/h of electrofishing and 18.6/trap net lift. Bluegill ranged in length from 1.2 to 8.3 in and averaged 4.5 in. The percentage of 6.0 in or larger bluegill decreased from 36% in 2002 to 8%. Less than 1% of bluegill collected were 8.0 in or larger. Age-2 bluegill averaged 4.6 in long and comprised 80% of the sample. Bluegill PSD was 2. The BGFP score was 12 which equates to a “marginal” rating for the bluegill fishery.

Five hundred and twenty-four gizzard shad weighing 164 lbs were collected. Gizzard shad was the third most abundant species by number (15%) and weight (9%). In 2002, shad accounted for 42% of the sample number and 14% of the sample weight. Shad ranged in length from 3.5 to 13.7 in and averaged 9.8 in. The electrofishing CPUE for gizzard shad decreased to 64.3/h, compared to 369.3/h in 2002. Ninety-nine percent of shad collected were 7.0 in or larger.

Largemouth bass ranked fifth in abundance by number (6%) and fourth in abundance by weight (6%). There were 203 largemouth collected weighing 109 lbs. Bass were found up to 19.2 in and they averaged 9.4 in. Largemouth electrofishing CPUE increased from 36.5/h in 2002 to 57.7/h in the present survey. Age-1 through age-3 largemouth accounted for 86% of the collection. Only 6% of the bass collected met or exceeded the 14-in minimum size limit, compared to 25% in 2002. Bass PSD was 40.

One hundred and forty-four smallmouth bass weighing 29 lbs were collected. Smallmouth bass ranged in length from 3.9 to 14.9 in and averaged 6.9 in. The electrofishing

catch rate increased from 9.5/h in 2002 to 40.9/h in the present survey. Smallmouth bass up to age-4 were collected. Age-1 and age-2 smallmouth accounted for 84% of the collection. Only two smallmouth were above the legal size limit of 14 in.

A total of 79 common carp was collected that weighed 270 lbs, compared to 327 carp that weighed 663 lbs in 2002. Carp ranked second in abundance by weight (14%) and accounted for 2% of the collection by number. Carp ranged in length from 13.7 to 31.2 in and the average length was 19.2 in.

Seventy-five white crappie weighing 16 lbs were collected. White crappie abundance by number (2%) and weight (1%) was the same as in 2002. Crappie averaged 7.4 in and the largest fish sampled was 10.3 in. Crappie were collected from age-1 to age-3. Just over half of the white crappie collected (52%) were at least 8.5 in.

There were 69 yellow perch collected, compared to 11 in 2002. Yellow perch CPUE was 5.4/standard gill net lift and 0.8/large gill net lift. Perch ranged in length from 5.8 to 10.9 in and averaged 8.5 in. Seventy percent of yellow perch collected were 8.0 in or larger. The largest perch collected in 2002 was just 7.7 in.

A total of 46 white bass was collected that weighed 36 lbs. White bass ranged in length from 7.2 to 14.5 in and the average length was 12.2 in. There were no age-1 fish collected and only two age-2 fish collected. The remaining fish, ages 3 through 5, comprised 93% of the sample and were all 10.5 in or larger.

Walleye represented 1% of the sample by number and 2% by weight. There were 23 walleye collected that weighed 29 lbs. Walleye as long as 23.8 in were caught and the average fish was 15.1 in. Walleye CPUE was 1.5/large gill net lift and 0.6/standard gill net lift. Age-2 fish comprised 61% of the collection.

Striped bass comprised only 1% of the sample by number and 5% by weight. There were 19 stripers collected that weighed 103 lbs, compared to 208 stripers that weighed 674 lbs in 2002. Stripers ranged in length from 22.6 to 27.8 in and averaged 25.9 in. The 2002 year class of stripers (age-5) represented 84% of the sample. This year class was well represented in the 2003 and 2005 fall evaluations, comprising 65% and 74% of the total, respectively (Keller 2004).

Fifteen other species and hybrid sunfish were also collected and combined for 16% of the sample by number and 6% by weight. The most numerous of these species were spotfin shiner,

longear sunfish, logperch, and green sunfish. Other species collected that would be of interest to anglers were black crappie, flathead catfish, muskellunge, and rock bass.

FALL WALLEYE AND STRIPED BASS EVALUATION

A total of 154 walleye was collected that weighed 78.66 lbs. The CPUE was 32.3/h of electrofishing and 1.6/gill net lift. Walleye ranged in length from 5.4 to 22.5 in and averaged 10.5 in. Overall, 26% of the walleye were 14 in or larger. Excluding YOY, 95% of the walleye measured at least 14 in.

There were 111 YOY walleye collected via electrofishing and one YOY walleye collected via gill net. The electrofishing CPUE of YOY walleye was 27.8/h. This was higher than both the 2005 YOY catch rate (14.6/h) and the average fall YOY catch rate at Brookville Reservoir from 1994 to 2003 (20.4/h) (Long 2007). YOY walleye ranged from 5.4 to 11.3 in and averaged 8.4 in, an increase from the average in both 2003 (7.6 in) and 2005 (7.9 in).

Twenty-two age-1 walleye were collected at a rate of 2.8/h and 0.7/gill net lift. Age-1 walleye up to 16.0 in were found and they averaged 14.8 in. There were 15 age-2 walleye collected that averaged 16.8 in, of which the largest was 19.0 in. The remaining walleye collected were age-3 and they averaged 19.0 in.

There were only two striped bass collected during the fall evaluation, compared to 34 stripers collected in the fall of 2005. One 4.0 in YOY striper that weighed 0.03 lbs was collected via electrofishing and one 16.0 in age-1 striper that weighed 1.70 lbs was collected via gill net.

BLACK BASS TOURNAMENT MONITORING

There were 11 reported bass tournaments at Brookville Reservoir in 2007. The average number of anglers in each tournament was 58. Anglers spent 4,708 hours fishing and caught a total of 595 bass, which equates to a CPUE of 0.13 bass/h. In reported tournaments it took anglers approximately 8 hours to catch a legal size bass in Brookville. The big bass weighed-in averaged 4.6 lbs/tournament and the heaviest big bass weighed-in for 2007 was 6.2 lbs.

DISCUSSION

The fish community at Brookville Reservoir appears to have improved since the last community survey was conducted. There was a substantial decrease in the amount of gizzard

shad collected from the previous survey. Shad of any age feed heavily on zooplankton, as do the young of most other species. The decreased competition between gizzard shad and game species should promote improved growth for many species in Brookville Reservoir.

Channel catfish and bluegill were the most abundant species collected in the survey. Brookville has large numbers of good size channel catfish available to anglers and reproduction appears consistent due to the even distribution in the size of the fish. The 2005 year class of bluegill comprised 80% of the sample. The proportion of 6 in and larger bluegill should increase as this year class ages.

Quality size largemouth and smallmouth bass were found, however the majority of largemouth bass collected were age-1 through age-3 and 84% of smallmouth bass collected were age-1 and age-2. Although there is a 14-in minimum size limit on black bass, anglers are encouraged to release all bass caught. A black bass population estimate is scheduled for the spring of 2009.

Decent numbers of good size white bass, yellow perch, and white crappie were found at Brookville in 2007. In 2002, sampling conditions hindered the collection of white bass. With improved sampling conditions in 2007, increased numbers of white bass were found. Though recent recruitment appears to be low for white bass, the majority of the fish collected were at least 10.5 in. Yellow perch numbers have increased and the average perch from the current survey was 8.5 in, indicating perch fishing is improving. Over half of the white crappie collected were 8.5 in or longer.

Muskellunge numbers are low but a few larger fish have been seen during walleye broodstock collections and fall evaluations. Brookville should continue to serve as a surplus stocking site for muskie.

The DFW criteria for walleye stocking success is the collection of at least 7 YOY walleye/h of electrofishing. Nearly 28 YOY walleye/h were collected from the 2007 stocking. Age-1 and older walleye were well represented in the fall evaluation, and all but one were at least 14 in. Walleye evaluations in 2003, 2005, and 2007 have all indicated successful stockings and angling success for harvestable size walleye should be excellent. The size limit on walleye is 14 in and the daily bag limit is six.

Brookville Reservoir should continue to be the highest priority stocking location for walleye in Indiana to maintain the reservoir as a reliable source of walleye broodstock. The annual stocking rate is 2,000 walleye fry/acre (10,520,000).

The striped bass fishery at Brookville Reservoir continues to be highly variable. The fishery is still being dominated by the 2002 year class of fish. There were no stripers stocked in 2003 and 2004, and only 33% of the stocking goal was achieved in 2005. Due to the lack of fish caught during the standard survey and fall evaluation, angling success for bigger stripers could be poor once the 2002 year class of fish is harvested or dies through natural mortality. Annual stockings of fingerling striped bass at a rate of 10/acre (52,600) should continue in order to maintain a striped bass fishery at Brookville.

A creel survey is scheduled at Brookville for 2009. The next fall evaluation of walleye and striped bass is scheduled for the fall of 2009. Stocking success and survival and growth of older walleye and stripers will be evaluated. The walleye fishery will be examined more closely in 2009 to assess future management options. This will involve modeling information gathered during the creel survey and from a comprehensive age-length key of fish caught during spring broodstock operations and other spring sampling.

RECOMMENDATIONS

- The annual stocking rate of 2,000 walleye fry/acre (10,520,000) should continue in order to maintain the reservoir as a reliable source of walleye broodstock.
- Annual stockings of fingerling striped bass at a rate of 10/acre (52,600) should continue in order to maintain a striped bass fishery at Brookville.
- Brookville should continue to serve as a surplus stocking site for muskie.
- A spring black bass population estimate and a creel survey are scheduled for 2009. The next fall evaluation of walleye and striped bass is scheduled for the fall of 2009. The walleye fishery will be examined more closely in 2009 to assess future management options.

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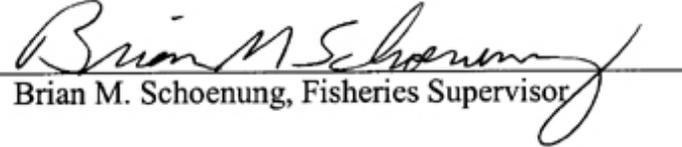
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Submitted by: Jamie L. Smyth, Assistant Fisheries Biologist
Date: April 15, 2008

Approved by: J. Rhett Wisener, Fisheries Biologist

Approved by: 
Brian M. Schoenung, Fisheries Supervisor

Date: September 9, 2008

LAKE SURVEY REPORT

Type of Survey	<input type="checkbox"/> Initial Survey	<input checked="" type="checkbox"/> Re-Survey
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Lake Name Brookville Reservoir	County Franklin/Union	Date of survey (Month, day, year) 5/21-31/2007, 10/22-25/2007
Biologist's name Jamie L. Smyth	Date of approval (Month, day, year) 9/9/2008	

LOCATION		
Quadrangle Name Brookville, New Fairfield, Everton, Whitcomb, Liberty	Range 2W	Section 3,4,5,8,9,10,16,17,20,21,22, 27,28,32,33,34
Township Name 9, 10, 11N	Nearest Town The dam is 1/2 mile north of Brookville, IN.	

ACCESSIBILITY					
State owned public access site Ten boat ramps and shoreline access.		Privately owned public access site None		Other access site Causeway crossings	
Surface acres 5,260	Maximum depth 116 ft	Average depth 30 ft	Acre feet 184,900	Water level 748 MSL	Extreme fluctuations 8 ft
Location of benchmark					

INLETS		
Name East Fork Whitewater River	Location North end	Origin T10N, R1W, S22
Silver Creek	Northeast end	T7N, R1W, S11
Hanna Creek	East side	T7N, R1W, S28

Others: Templeton Creek (SE), Wolf Creek (SW), and Salt Well Creek (SW).

OUTLETS	
Name East Fork Whitewater River	Location South end of lake.

POOL	ELEVATION (Feet MSL)	ACRES	Bottom type
TOP OF DAM	809		<input type="checkbox"/> Boulder
TOP OF FLOOD CONTROL POOL	775	7,790	<input checked="" type="checkbox"/> Gravel
TOP OF CONSERVATION POOL	748	5,260	<input checked="" type="checkbox"/> Sand
TOP OF MINIMUM POOL	713	2,250	<input checked="" type="checkbox"/> Muck
STREAMBED			<input checked="" type="checkbox"/> Clay
			<input type="checkbox"/> Marl

Watershed use
Varied agriculture, recreational, residential, commercial, and industrial uses.

Development of shoreline
Ten boat ramps, two beaches, a scenic road by the dam, two causeways, several picnic areas, and a golf course on the east side.

Previous surveys and investigations
Watershed study 1966. Standard fisheries survey 1975-1977, 1979, 1987, and 2002. Fish management survey 1981. Angler creel surveys 1975-1984, 1989-1991, and 2000. Walleye surveys 1980, 1981, 1984, and 1989. Muskellunge surveys 1980, 1981, and 1989. Striped bass surveys 1985 and 1989. Fall evaluations 1988, 1994-2001, 2003, and 2005.

SAMPLING EFFORT					
ELECTROFISHING	Day hours		Night hours		Total hours
			3.5		3.5
TRAP NETS	Number of traps		Number of Lifts		Total effort
	10		10		10 lifts
GILL NETS	Number of nets		Number of Lifts		Total effort
	Std = 11, Lg = 11		22		22 lifts
ROTENONE	Gallons	ppm	Acre Feet Treated	SHORELINE SEINING	Number of 100 Foot Seine Hauls

PHYSICAL AND CHEMICAL CHARACTERISTICS					
Color			Turbidity		
Green			6 Feet 6 Inches (SECCHI DISK)		
Alkalinity (ppm)*			pH		
Surface:		Bottom:	Surface:		Bottom:
			9.5		9.5
Conductivity:			Air temperature:		
320 micromhos			°F		
Water chemistry GPS coordinates:					
N			W		

TEMPERATURE AND DISSOLVED OXYGEN (D.O.)								
DEPTH (FEET)	Degrees (°F)	D.O. (ppm)	DEPTH (FEET)	DEGREES (°F)	D.O. (ppm)	DEPTH (FEET)	DEGREES (°F)	D.O. (ppm)
SURFACE	76.6		36	50.4		72		
2	76.2		38	50.0		74		
4	76.1		40	49.8		76		
6	75.8		42			78		
8	75.6		44			80		
10	74.6		46			82		
12	73.8		48			84		
14	72.2		50			86		
16	68.6		52			88		
18	66.1		54			90		
20	65.0		56			92		
22	63.9		58			94		
24	62.6		60			96		
26	61.5		62			98		
28	60.2		64			100		
30	55.5		66					
32	53.4		68					
34	51.2		70					

COMMENTS
Dissolved oxygen meter had a bad membrane, therefore D.O. readings were not accurate.

*ppm-parts per million

SPECIES AND RELATIVE ABUNDANCE OF FISHES COLLECTED BY NUMBER AND WEIGHT					
*COMMON NAME OF FISH	NUMBER	PERCENT	LENGTH RANGE (inches)	WEIGHT (pounds)	PERCENT
Channel catfish	907	25.5	5.8 - 23.9	971.99	50.5
Bluegill	894	25.2	1.2 - 8.3	57.53	3.0
Gizzard shad	524	14.8	3.5 - 13.7	163.69	8.5
Spotfin shiner	208	5.9	1.5 - 4.4	2.08	0.1
Largemouth bass	203	5.7	1.1 - 19.2	109.29	5.7
Longear sunfish	156	4.4	1.4 - 6.0	7.24	0.4
Smallmouth bass	144	4.1	3.9 - 14.9	29.04	1.5
Common carp	79	2.2	13.7 - 31.2	269.79	14.0
White crappie	75	2.1	3.2 - 10.3	15.51	0.8
Yellow perch	69	1.9	5.8 - 10.9	18.55	1.0
Logperch	69	1.9	2.5 - 5.4	1.38	0.1
Green sunfish	60	1.7	1.6 - 7.4	4.60	0.2
Quillback carpsucker	36	1.0	7.0 - 19.1	73.06	3.8
White bass	46	1.3	7.2 - 14.5	36.10	1.9
Walleye	23	0.6	10.3 - 23.8	29.26	1.5
Striped bass	19	0.5	22.6 - 27.8	102.59	5.3
Black crappie	15	0.4	3.4 - 10.2	1.81	0.1
River carpsucker	4	0.1	16.0 - 17.2	8.36	0.4
Golden redhorse	4	0.1	8.6 - 11.1	1.44	0.1
Northern hogsucker	4	0.1	6.0 - 10.5	1.13	0.1
Flathead catfish	3	0.1	16.0 - 19.0	12.81	0.7
Bluntnose minnow	3	0.1	2.5 - 3.2	0.03	< 0.1
Muskellunge	2	0.1	23.5 - 24.2	6.66	0.3
Mississippi silvery minnow	2	0.1	4.1 - 4.4	0.04	< 0.1
White sucker	1	< 0.1	13.4	1.03	0.1
Rock bass	1	< 0.1	7.9	0.32	< 0.1
Hybrid sunfish	1	< 0.1	7.5	0.29	< 0.1
TOTAL	3,552			1,925.62	

*Common names of fishes recognized by the American Fisheries Society.

NUMBER, PERCENTAGE, WEIGHT, AND AGE OF CHANNEL CATFISH

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0	30	3.3	2.46	
1.5					19.5	25	2.8	2.69	
2.0					20.0	17	1.9	2.95	
2.5					20.5	18	2.0	3.09	
3.0					21.0	8	0.8	3.43	
3.5					21.5	12	1.3	3.73	
4.0					22.0	4	0.4	3.98	
4.5					22.5	4	0.4	4.53	
5.0					23.0				
5.5	1	0.1	0.04	not aged	23.5	1	0.1	5.23	
6.0	2	0.2	0.06		24.0				
6.5	12	1.3	0.08		24.5				
7.0	27	3.0	0.09		25.0				
7.5	49	5.4	0.11		25.5				
8.0	54	6.0	0.15		26.0				
8.5	68	7.5	0.17		TOTAL	907			
9.0	42	4.6	0.20						
9.5	37	4.1	0.23						
10.0	23	2.5	0.28						
10.5	9	1.0	0.33						
11.0	11	1.2	0.38						
11.5	20	2.2	0.43						
12.0	24	2.6	0.49						
12.5	26	2.9	0.56						
13.0	30	3.3	0.67						
13.5	25	2.8	0.73						
14.0	34	3.7	0.83						
14.5	30	3.3	0.94						
15.0	25	2.8	1.03						
15.5	31	3.4	1.17						
16.0	33	3.6	1.33						
16.5	37	4.1	1.51						
17.0	36	4.0	1.66						
17.5	35	3.9	1.81						
18.0	41	4.5	2.02						
18.5	26	2.9	2.20						

ELECTROFISHING CATCH	5.4 / hr	GILL NET CATCH	Std = 54.1 / lift Lg = 25.1 / lift	TRAP NET CATCH	1.7 / lift
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NUMBER, PERCENTAGE, WEIGHT, AND AGE OF BLUEGILL

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0	6	0.7	0.01	not aged	19.0				
1.5	14	1.6	0.01	1	19.5				
2.0	23	2.6	0.01	1	20.0				
2.5	33	3.6	0.01	1	20.5				
3.0	18	2.0	0.02	1,2	21.0				
3.5	148	16.6	0.03	2	21.5				
4.0	159	17.8	0.04	2	22.0				
4.5	215	24.0	0.06	2,3	22.5				
5.0	158	17.7	0.08	2	23.0				
5.5	51	5.7	0.11	2,4	23.5				
6.0	21	2.3	0.15	2,3	24.0				
6.5	26	2.9	0.20	2,3	24.5				
7.0	13	1.5	0.25	3,4,5	25.0				
7.5	8	0.9	0.31	4,5	25.5				
8.0	1	0.1	0.38	4	26.0				
8.5					TOTAL	894			
9.0									
9.5									
10.0									
10.5									
11.0									
11.5									
12.0									
12.5									
13.0									
13.5									
14.0									
14.5									
15.0									
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									
ELECTROFISHING CATCH		201.1 / hr		GILL NET CATCH	Std = 0.3 / lift Lg = 0.1 / lift		TRAP NET CATCH	18.6 / lift	

NUMBER, PERCENTAGE, WEIGHT, AND AGE OF GIZZARD SHAD

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0				
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5	4	0.8	0.02	not aged	21.5				
4.0	1	0.2	0.03		22.0				
4.5	2	0.4	0.03		22.5				
5.0					23.0				
5.5					23.5				
6.0					24.0				
6.5					24.5				
7.0	3	0.6	0.11		25.0				
7.5	11	2.1	0.14		25.5				
8.0	52	9.9	0.17		26.0				
8.5	67	12.8	0.21		TOTAL	524			
9.0	53	10.1	0.24						
9.5	53	10.1	0.29						
10.0	116	22.1	0.34						
10.5	95	18.3	0.39						
11.0	42	8.0	0.45						
11.5	13	2.5	0.52						
12.0	3	0.6	0.58						
12.5	5	1.0	0.69						
13.0	3	0.6	0.80						
13.5	1	0.2	0.91						
14.0									
14.5									
15.0									
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									

ELECTROFISHING CATCH	64.3 / hr	GILL NET CATCH	Std = 17.6 / lift Lg = 9.5 / lift	TRAP NET CATCH	0.1 / lift
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NUMBER, PERCENTAGE, WEIGHT, AND AGE OF LARGEMOUTH BASS

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0	4	2.0	0.01	YOY	19.0	2	1.0	3.82	not aged
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5	2	1.0	0.02	1	21.5				
4.0	1	0.5	0.03	1	22.0				
4.5	2	1.0	0.04	1	22.5				
5.0	8	3.9	0.05	1	23.0				
5.5	9	4.4	0.07	1	23.5				
6.0	10	5.0	0.09	1,2	24.0				
6.5	9	4.4	0.12	1,2	24.5				
7.0	21	10.3	0.15	1,2	25.0				
7.5	20	10.0	0.19	1	25.5				
8.0	20	10.0	0.23	1,2	26.0				
8.5	5	2.5	0.28	1,2	TOTAL	203			
9.0	4	2.0	0.33	1,2					
9.5	1	0.5	0.40	3					
10.0	1	0.5	0.46	2					
10.5	10	5.0	0.54	2,3					
11.0	11	5.4	0.63	2,3					
11.5	19	9.4	0.72	2,3					
12.0	17	8.4	0.82	2,3					
12.5	9	4.4	0.95	3,4					
13.0	6	3.0	1.08	3,4					
13.5	1	0.5	1.20	4					
14.0									
14.5	2	1.0	1.56	5					
15.0									
15.5									
16.0	2	1.0	2.15	5					
16.5	2	1.0	2.36	not aged					
17.0	1	0.5	2.62	not aged					
17.5	1	0.5	2.84	not aged					
18.0	3	1.5	3.18	not aged					
18.5									

ELECTROFISHING CATCH	57.7 / hr	GILL NET CATCH	Std = 0.1 / lift Lg = 0.0 / lift	TRAP NET CATCH	0.0 / lift
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NUMBER, PERCENTAGE, WEIGHT, AND AGE OF SMALLMOUTH BASS									
TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0				
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5	1	0.7	0.02	1	21.5				
4.0	10	6.9	0.03	1	22.0				
4.5	22	15.3	0.04	1	22.5				
5.0	17	11.8	0.06	1,2	23.0				
5.5	23	16.0	0.07	1	23.5				
6.0	13	9.0	0.10	1,2	24.0				
6.5	7	4.9	0.13	1,2	24.5				
7.0	4	2.8	0.16	2	25.0				
7.5	6	4.2	0.19	2	25.5				
8.0	5	3.5	0.24	2	26.0				
8.5	5	3.5	0.28	2	TOTAL	144			
9.0	6	4.2	0.34	2,3					
9.5	5	3.5	0.38	2					
10.0	4	2.8	0.45	2,3					
10.5	5	3.5	0.52	2,3					
11.0									
11.5	3	2.1	0.70	4					
12.0	3	2.1	0.79	4					
12.5	1	0.7	0.93	4					
13.0	2	1.4	1.02	3,4					
13.5									
14.0									
14.5	2	1.4	1.42	4					
15.0									
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									
ELECTROFISHING CATCH		40.9 / hr		GILL NET CATCH	Std = 0.0 / lift Lg = 0.0 / lift		TRAP NET CATCH		0.1 / lift

NUMBER, PERCENTAGE, WEIGHT, AND AGE OF COMMON CARP

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0	6	7.6	3.17	
1.5					19.5	9	11.4	3.39	
2.0					20.0	5	6.3	3.72	
2.5					20.5	3	3.8	3.97	
3.0					21.0	5	6.3	4.23	
3.5					21.5	5	6.3	4.62	
4.0					22.0	1	1.3	4.95	
4.5					22.5	2	2.5	5.36	
5.0					23.0	1	1.3	5.82	
5.5					23.5				
6.0					24.0	2	2.5	6.90	
6.5					24.5				
7.0					25.0	1	1.3	7.15	
7.5					25.5				
8.0					26.0				
8.5					26.5				
9.0					27.0				
9.5					27.5				
10.0					28.0				
10.5					28.5				
11.0					29.0				
11.5					29.5				
12.0					30.0				
12.5					31.0	1	1.3	17.20	
13.0					31.5				
13.5	1	1.3	1.19	not aged	TOTAL	79			
14.0	2	2.5	1.32						
14.5									
15.0									
15.5	1	1.3	1.76						
16.0	6	7.6	1.89						
16.5	3	3.8	2.05						
17.0	7	8.9	2.24						
17.5	9	11.4	2.48						
18.0	6	7.6	2.68						
18.5	3	3.8	2.90						

ELECTROFISHING CATCH	8.0 / hr	GILL NET CATCH	Std = 0.5 / lift Lg = 1.7 / lift	TRAP NET CATCH	2.5 / lift
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NUMBER, PERCENTAGE, WEIGHT, AND AGE OF WHITE CRAPPIE

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0				
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0	2	2.7	0.01	1	21.0				
3.5	1	1.3	0.02	1	21.5				
4.0	8	10.7	0.03	1	22.0				
4.5	7	9.3	0.04	1	22.5				
5.0	4	5.3	0.05	1	23.0				
5.5	1	1.3	0.07	1	23.5				
6.0					24.0				
6.5					24.5				
7.0					25.0				
7.5	4	5.3	0.19	2,3	25.5				
8.0	9	12.0	0.22	2,3	26.0				
8.5	22	29.3	0.27	2,3	TOTAL	75			
9.0	12	16.0	0.33	2,3					
9.5	3	4.0	0.38	2					
10.0	2	2.7	0.45	2,3					
10.5									
11.0									
11.5									
12.0									
12.5									
13.0									
13.5									
14.0									
14.5									
15.0									
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									

ELECTROFISHING CATCH	0.3 / hr	GILL NET CATCH	Std = 1.4 / lift Lg = 0.3 / lift	TRAP NET CATCH	5.6 / lift
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NUMBER, PERCENTAGE, WEIGHT, AND AGE OF YELLOW PERCH

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0				
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5					21.5				
4.0					22.0				
4.5					22.5				
5.0					23.0				
5.5	3	4.3	0.07	1	23.5				
6.0	3	4.3	0.08	1,2	24.0				
6.5					24.5				
7.0	4	5.8	0.14	2	25.0				
7.5	11	16.0	0.18	2	25.5				
8.0	13	18.8	0.22	2,3,4	26.0				
8.5	10	14.5	0.27	2,3	TOTAL	69			
9.0	9	13.0	0.33	3,4					
9.5	9	13.0	0.40	3,4					
10.0	6	8.7	0.48	3,4					
10.5	1	1.5	0.55	3					
11.0									
11.5									
12.0									
12.5									
13.0									
13.5									
14.0									
14.5									
15.0									
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									

ELECTROFISHING CATCH	0.0 / hr	GILL NET CATCH	Std = 5.4 / lift Lg = 0.8 / lift	TRAP NET CATCH	0.1 / lift
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NUMBER, PERCENTAGE, WEIGHT, AND AGE OF WHITE BASS

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0				
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5					21.5				
4.0					22.0				
4.5					22.5				
5.0					23.0				
5.5					23.5				
6.0					24.0				
6.5					24.5				
7.0	1	2.2	0.14	2	25.0				
7.5	1	2.2	0.19	2	25.5				
8.0					26.0				
8.5					26.5				
9.0					27.0				
9.5					27.5				
10.0					28.0				
10.5	4	8.7	0.49	3	TOTAL	46			
11.0	8	17.4	0.57	3					
11.5	7	15.2	0.64	3,4					
12.0	3	6.5	0.74	3,5					
12.5	7	15.2	0.86	4,5					
13.0	3	6.5	0.97	4,5					
13.5	6	13.0	1.10	5					
14.0	5	10.9	1.14	4,5					
14.5	1	2.2	1.32	5					
15.0									
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									

ELECTROFISHING CATCH	0.6 / h	GILL NET CATCH	Std = 1.1 / lift Lg = 2.9 / lift	TRAP NET CATCH	0.0 / lift
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NUMBER, PERCENTAGE, WEIGHT, AND AGE OF WALLEYE (May standard survey)									
TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0	2	8.7	2.37	3
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5					21.5				
4.0					22.0				
4.5					22.5				
5.0					23.0				
5.5					23.5	1	4.3	5.03	not aged
6.0					24.0				
6.5					24.5				
7.0					25.0				
7.5					25.5				
8.0					26.0				
8.5					26.5				
9.0					27.0				
9.5					27.5				
10.0	1	4.3	0.31	1	28.0				
10.5	1	4.3	0.37	1	TOTAL	23			
11.0	1	4.3	0.41	1					
11.5	1	4.3	0.49	1					
12.0									
12.5									
13.0	1	4.3	0.72	2					
13.5									
14.0	4	17.4	0.90	2					
14.5	3	13.0	1.00	2					
15.0	3	13.0	1.13	2,3					
15.5	2	8.7	1.25	2					
16.0	2	8.7	1.34	2					
16.5									
17.0									
17.5									
18.0	1	4.3	2.02	3					
18.5									

ELECTROFISHING CATCH	0.0 / hr	GILL NET CATCH	Std = 0.6 / lift Lg = 1.5 / lift	TRAP NET CATCH	0.0 / lift
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NUMBER, PERCENTAGE, WEIGHT, AND AGE OF STRIPED BASS (May standard survey)

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0				
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5					21.5				
4.0					22.0				
4.5					22.5	1	5.3	4.95	5
5.0					23.0	1	5.3	4.55	5
5.5					23.5				
6.0					24.0	2	10.5	5.91	5
6.5					24.5	1	5.3	6.16	5
7.0					25.0				
7.5					25.5				
8.0					26.0	1	5.3	7.50	5
8.5					26.5	5	26.3	8.50	5,6
9.0					27.0	1	5.3	8.85	6
9.5					27.5	2	10.5	8.13	5,6
10.0					28.0				
10.5					TOTAL	19			
11.0									
11.5									
12.0									
12.5									
13.0									
13.5									
14.0									
14.5									
15.0									
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									

ELECTROFISHING CATCH	0.0 / hr	GILL NET CATCH	Std = 0.0 / lift Lg = 1.7 / lift	TRAP NET CATCH	0.0 / lift
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NUMBER, PERCENTAGE, WEIGHT, AND AGE OF WALLEYE (fall evaluation)									
TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0	1	0.6	2.37	2
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5					21.5				
4.0					22.0				
4.5					22.5	1	0.6	4.12	3
5.0	1	0.6	0.04	YOY	23.0				
5.5	4	2.6	0.05	YOY	23.5				
6.0	5	3.2	0.06	YOY	24.0				
6.5	10	6.5	0.07	YOY	24.5				
7.0	4	2.6	0.11	YOY	25.0				
7.5	9	5.8	0.12	YOY	25.5				
8.0	18	11.7	0.15	YOY	26.0				
8.5	17	11.0	0.18	YOY	TOTAL	154			
9.0	14	9.1	0.22	YOY					
9.5	18	11.7	0.27	YOY					
10.0	8	5.2	0.31	YOY					
10.5	2	1.3	0.37	YOY					
11.0	2	1.3	0.41	YOY					
11.5	1	0.6	0.49	1					
12.0									
12.5									
13.0									
13.5	1	0.6	0.80	1					
14.0	5	3.2	0.90	1,2					
14.5	5	3.2	1.00	1,2					
15.0	12	7.8	1.13	1					
15.5	2	1.3	1.25	2					
16.0	2	1.3	1.34	1,2					
16.5	2	1.3	1.47	2,3					
17.0	2	1.3	1.66	2					
17.5	2	1.3	1.83	2,3					
18.0	3	2.0	2.02	2					
18.5	3	2.0	2.17	2,3					
ELECTROFISHING CATCH	32.3 / hr			GILL NET CATCH	Std = NA Lg = 1.6 / lift		TRAP NET CATCH	NA	

NUMBER, PERCENTAGE, WEIGHT, AND AGE OF STRIPED BASS (fall evaluation)									
TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0				
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5					21.5				
4.0	1	50.0	0.03	YOY	22.0				
4.5					22.5				
5.0					23.0				
5.5					23.5				
6.0					24.0				
6.5					24.5				
7.0					25.0				
7.5					25.5				
8.0					26.0				
8.5					TOTAL	2			
9.0									
9.5									
10.0									
10.5									
11.0									
11.5									
12.0									
12.5									
13.0									
13.5									
14.0									
14.5									
15.0									
15.5									
16.0	1	50.0	1.70	1					
16.5									
17.0									
17.5									
18.0									
18.5									

ELECTROFISHING CATCH	0.3 / hr	GILL NET CATCH	Std = NA Lg = 0.1 / lift	TRAP NET CATCH	NA
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Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
Bluegill												
Intercept = 0.8	2006	15	1.5 - 3.0	1.9								
	2005	30	3.3 - 6.5	1.9	4.2							
	2004	7	4.9 - 6.7	2.4	4.2	6.2						
	2003	7	5.9 - 8.3	1.7	3.8	6.1	7.3					
	2002	3	7.1 - 7.9	1.7	3.3	5.6	6.6	7.3				

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
Largemouth bass												
Intercept = 0.8	2006	34	3.7 - 9.1	6.0								
	2005	19	6.0 - 12.3	4.4	8.6							
	2004	21	9.8 - 13.2	5.2	8.9	11.5						
	2003	3	12.5 - 13.6	4.6	7.3	11.2	12.8					
	2002	3	14.7 - 16.3	4.7	8.9	12.2	13.9	15.0				

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
Smallmouth bass												
Intercept = 1.4	2006	26	3.9 - 6.8	4.9								
	2005	34	5.2 - 10.9	3.7	7.9							
	2004	7	9.3 - 13.2	3.4	6.3	10.4						
	2003	7	11.5 - 14.9	3.8	7.8	11.2	12.6					

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
White crappie												
Intercept = 1.4	2006	21	3.2 - 5.5	3.6								
	2005	18	7.5 - 10.2	3.7	8.5							
	2004	8	7.9 - 10.3	3.3	4.6	8.4						

*Not included in average length calculations.

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
Yellow perch												
Intercept = 1.2	2006	5	5.8 - 6.1	5.3								
	2005	13	6.3 - 8.8	4.1	7.4							
	2004	17	8.2 - 10.9	4.5	7.0	9.1						
	2003	8	8.4 - 10.3	4.0	6.8	8.5	9.5					

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
White bass												
Intercept = 0.7												
	2005	2	7.2 - 7.7	1.2	7.0							
	2004	13	10.5 - 12.1	2.2	8.0	11.2						
	2003	8	11.5 - 14.2	5.2	8.2	11.1	12.3					
	2002	14	12.3 - 14.5	2.2	8.1	10.8	12.0	13.1				

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
Walleye (std.)												
Intercept = 2.2	2006	4	10.3 - 11.5	10.1								
	2005	14	13.1 - 16.3	8.3	14.3							
	2004	4	15.4 - 19.3	7.4	14.8	17.7						

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
Striped bass (std.)												
Intercept = 0.0												
	2002	16	22.6 - 27.6	8.8	14.0	18.5	22.7	25.0				
	2001	3	26.7 - 27.8	5.9	14.9	18.1	21.5	25.2	26.9			

*Not included in average length calculations.

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
Walleye (fall eval.)												
Intercept = 2.2	2006	18	11.8 - 16.0	9.5								
	2005	15	14.2 - 19.0	8.6	14.0							
	2004	5	16.7 - 22.5	7.1	13.8	17.1						

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
Intercept=												

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
Intercept=												

Species	YEAR CLASS	NUMBER OF FISH AGED	SIZE RANGE	BACK CALCULATED LENGTH (inches) AT EACH AGE								
				I	II	III	IV	V	VI	VII	VIII	
Intercept=												

*Not included in average length calculations.

GPS LOCATION OF SAMPLING EQUIPMENT (standard survey)

GILL NETS			TRAP NETS			ELECTROFISHING					
1	N 39.5558811	W -84.994353	1	N 39.5540242	W -84.981761	1	N 39.4603611	W -84.99324465			
	N	W	2	N 39.566105	W -85.008293		N	W			
2	N 39.5604328	W -85.006163	3	N 39.5519941	W -85.004393	2	N 39.4523015	W -84.9981807			
	N	W	4	N 39.5160711	W -85.008378		N	W			
3	N 39.5658254	W -85.006828	5	N 39.5172932	W -84.984923	3	N 39.4501875	W -84.9815731			
	N	W	6	N 39.4739573	W -84.984588		N	W			
4	N 39.5304238	W -85.006085	7	N 39.4778233	W -84.980389	4	N 39.4630832	W -84.9825581			
	N	W	8	N 39.4643822	W -84.979697		N	W			
5	N 39.5268363	W -84.994805	9	N 39.442445	W -84.985423	5	N 39.4971468	W -85.0000981			
	N	W	10	N	W		N	W			
6	N 39.5323374	W -84.995843	11	N	W	6	N 39.4856762	W -85.0024022			
	N	W	12	N	W		N	W			
7	N 39.5944068	W -84.990428	13	N	W	7	N 39.4752786	W -85.0009425			
	N	W	14	N	W		N	W			
8	N 39.5818365	W -84.996554	15	N	W	8	N 39.480021	W -84.9916576			
	N	W	16	N	W		N	W			
9	N 39.5523883	W -85.00172	17	N	W	9	N 39.4800142	W -84.9784757			
	N	W	18	N	W		N	W			
10	N 39.5429235	W -84.991335	19	N	W	10	N 39.558664	W -85.0001130			
	N	W	20	N	W		N	W			
11	N 39.5198261	W -85.004119				11	N 39.5668894	W -85.0067338			
	N	W					N	W			
12	N 39.5141466	W -84.98913				12	N 39.5624159	W -85.0137825			
	N	W					N	W			
13	N 39.5076599	W -84.993443				13	N 39.5389647	W -85.0031376			
	N	W					N	W			
14	N 39.4877255	W -84.990767				14	N 39.5450314	W -84.9904518			
	N	W					N	W			
15	N 39.484083	W -85.009552				15	N	W			
	N	W					N	W			
16	N 39.4796523	W -85.001015				16	N	W			
	N	W					N	W			
17	N 39.4688526	W -84.996915				17	N	W			
	N	W					N	W			
18	N 39.4755385	W -84.985383				GILL NETS			18	N	W
	N	W				N	W				
19	N 39.4634989	W -84.982533				21	N 39.4468339	W -84.989911	19	N	W
	N	W	N	W	N		W				
20	N 39.4526175	W -84.979346	22	N 39.4527367	W -84.996476	20	N	W			
	N	W		N	W		N	W			

Bluegill Age-length Key

Length group (in)	Total #	Sub-sample	Age														
			1	2	3	4	5	6	7	8	9	10	11	12	13		
1.0	6																
1.5	14	5	14														
2.0	23	5	18														
2.5	33	5	33														
3.0	18	5	4	14													
3.5	148	5		148													
4.0	159	5		159													
4.5	215	5		172	43												
5.0	158	5		158													
5.5	51	4		38			13										
6.0	21	3		14	7												
6.5	26	5		10	16												
7.0	13	5			5	3	5										
7.5	8	5				6	2										
8.0	1	1					1										
8.5																	
Total	894	63	69	714	71	23	7	0	0	0	0	0	0	0	0	0	0

Largemouth bass Age-length Key

Length group (in)	Total #	Sub-sample	Age														
			1	2	3	4	5	6	7	8	9	10	11	12	13		
1.0	4	0															
1.5																	
2.0																	
2.5																	
3.0																	
3.5	2	2	2														
4.0	1	1	1														
4.5	2	2	2														
5.0	8	4	8														
5.5	9	5	9														
6.0	10	5	8	2													
6.5	9	5	7	2													
7.0	21	5	13	8													
7.5	20	5	16														
8.0	20	5	12	8													
8.5	5	4	3	3													
9.0	4	4	2	2													
9.5	1	1			1												
10.0	1	1		1													
10.5	10	5		4	4												
11.0	11	5		4	7												
11.5	19	4		5	14												
12.0	17	5		3	14												
12.5	9	5			7	2											
13.0	6	5			5	1											
13.5	1	1				1											
14.0																	
14.5	2	2						2									
15.0																	
15.5																	
16.0	2	2						1									
16.5	2	0															
17.0	1	0															
17.5	1	0															
18.0	3	0															
18.5																	
19.0	2	0															
19.5																	
Total	203	83	82	42	51	4	3	0	0	0	0	0	0	0	0	0	0

Smallmouth bass Age-length Key														
Length group (in)	Total #	Sub-sample	Age											
			1	2	3	4	5	6	7	8	9	10	11	12
1.0														
1.5														
2.0														
2.5														
3.0														
3.5	1	1	1											
4.0	10	5	10											
4.5	22	5	22											
5.0	17	6	9	6										
5.5	23	5	23											
6.0	13	5	10	3										
6.5	7	5	4	3										
7.0	4	4		3										
7.5	6	5		5										
8.0	5	5		5										
8.5	5	5		5										
9.0	6	5		5	1									
9.5	5	5		4										
10.0	4	4		2	2									
10.5	5	5		2	3									
11.0														
11.5	3	3					2							
12.0	3	1					3							
12.5	1	1					1							
13.0	2	2				1	1							
13.5														
14.0														
14.5	2	2					2							
15.0														
Total	144	79	79	42	7	9	0	0	0	0	0	0	0	0

White crappie Age-length Key

Length group (in)	Total #	Sub-sample	Age													
			1	2	3	4	5	6	7	8	9	10	11	12	13	
1.0																
1.5																
2.0																
2.5																
3.0	2	2	2													
3.5	1	2	1													
4.0	8	6	8													
4.5	7	6	7													
5.0	4	4	4													
5.5	1	1	1													
6.0																
6.5																
7.0																
7.5	4	4		3	1											
8.0	9	4		7	2											
8.5	22	5		18	4											
9.0	12	8		6	6											
9.5	3	3		3												
10.0	2	2		1	1											
10.5																
Total	75	47	23	37	15	0	0	0	0	0	0	0	0	0	0	0

Yellow perch Age-length Key

Length group (in)	Total #	Sub-sample	Age														
			1	2	3	4	5	6	7	8	9	10	11	12	13		
1.0																	
1.5																	
2.0																	
2.5																	
3.0																	
3.5																	
4.0																	
4.5																	
5.0																	
5.5	3	3	3														
6.0	3	3	2	1													
6.5																	
7.0	4	4		4													
7.5	11	4		11													
8.0	13	6		7	4	2											
8.5	10	6		2	8												
9.0	9	5			5	4											
9.5	9	5			7	2											
10.0	6	6			2	4											
10.5	1	1			1												
11.0																	
Total	69	43	5	24	28	12	0	0	0	0	0	0	0	0	0	0	0

White bass Age-length Key

Length group (in)	Total #	Sub-sample	Age													
			1	2	3	4	5	6	7	8	9	10	11	12	13	
1.0																
1.5																
2.0																
2.5																
3.0																
3.5																
4.0																
4.5																
5.0																
5.5																
6.0																
6.5																
7.0	1	1		1												
7.5	1	1		1												
8.0																
8.5																
9.0																
9.5																
10.0																
10.5	4	4			4											
11.0	8	4			8											
11.5	7	5			4	1										
12.0	3	3			2		1									
12.5	7	5				4	3									
13.0	3	3				2	1									
13.5	6	5					6									
14.0	5	5				1	4									
14.5	1	1					1									
15.0																
Total	46	37	0	2	18	9	16	0	0	0	0	0	0	0	0	0

Walleye Age-length Key (May standard survey)

Length group (in)	Total #	Sub-sample	Age														
			1	2	3	4	5	6	7	8	9	10	11	12	13		
1.0																	
1.5																	
2.0																	
2.5																	
3.0																	
3.5																	
4.0																	
4.5																	
5.0																	
5.5																	
6.0																	
6.5																	
7.0																	
7.5																	
8.0																	
8.5																	
9.0																	
9.5																	
10.0	1	1	1														
10.5	1	1	1														
11.0	1	1	1														
11.5	1	1	1														
12.0																	
12.5																	
13.0	1	1		1													
13.5																	
14.0	4	4		4													
14.5	3	3		3													
15.0	3	3		2	1												
15.5	2	2		2													
16.0	2	2		2													
16.5																	
17.0																	
17.5																	
18.0	1	1			1												
18.5																	
19.0	2	2			2												
19.5																	
20.0																	
20.5																	
21.0																	
21.5																	
22.0																	
22.5																	
23.0																	
23.5	1	0															
24.0																	
Total	23	22	4	14	4	0	0	0	0	0	0	0	0	0	0	0	0

Walleye Age-length Key (fall evaluation)

Length group (in)	Total #	Sub-sample	Age													
			1	2	3	4	5	6	7	8	9	10	11	12	13	
1.0																
1.5																
2.0																
2.5																
3.0																
3.5																
4.0																
4.5																
5.0	1															
5.5	4															
6.0	5															
6.5	10															
7.0	4															
7.5	9															
8.0	18															
8.5	17															
9.0	14															
9.5	18															
10.0	8															
10.5	2															
11.0	2															
11.5	1	1	1													
12.0																
12.5																
13.0																
13.5	1	1	1													
14.0	5	5	3	2												
14.5	5	4	4	1												
15.0	12	9	12													
15.5	2	2		2												
16.0	2	2	1	1												
16.5	2	2		1	1											
17.0	2	2		2												
17.5	2	2		1	1											
18.0	3	3		3												
18.5	3	3		1	1											
19.0	1	1		1												
19.5																
20.0																
20.5																
21.0																
21.5																
22.0																
22.5	1	1			1											
23.0																
Total	154	38	22	15	4	0	0	0	0	0	0	0	0	0	0	0

Striped bass Age-length Key (May standard survey)

Length group (in)	Total #	Sub-sample	Age													
			1	2	3	4	5	6	7	8	9	10	11	12	13	
5.0																
5.5																
6.0																
6.5																
7.0																
7.5																
8.0																
8.5																
9.0																
9.5																
10.0																
10.5																
11.0																
11.5																
12.0																
12.5																
13.0																
13.5																
14.0																
14.5																
15.0																
15.5																
16.0																
16.5																
17.0																
17.5																
18.0																
18.5																
19.0																
19.5																
20.0																
20.5																
21.0																
21.5																
22.0																
22.5	1	1						1								
23.0	1	1						1								
23.5																
24.0	2	2						2								
24.5	1	1						1								
25.0																
25.5																
26.0	6	6						6								
26.5	5	5						4	1							
27.0	1	1							1							
27.5	2	2						1	1							
28.0																
Total	19	19	0	0	0	0	0	16	3	0	0	0	0	0	0	0

Striped bass Age-length Key (fall evaluation)

Length group (in)	Total #	Sub-sample	Age														
			1	2	3	4	5	6	7	8	9	10	11	12	13		
1.0																	
1.5																	
2.0																	
2.5																	
3.0																	
3.5																	
4.0	1																
4.5																	
5.0																	
5.5																	
6.0																	
6.5																	
7.0																	
7.5																	
8.0																	
8.5																	
9.0																	
9.5																	
10.0																	
10.5																	
11.0																	
11.5																	
12.0																	
12.5																	
13.0																	
13.5																	
14.0																	
14.5																	
15.0																	
15.5																	
16.0	1	1	1														
16.5																	
Total	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Mean length at Capture

Bluegill

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	69	2.4	0.19	0.05	2.3	2.5
2	714	4.6	0.50	0.03	4.6	4.7
3	71	5.5	0.98	0.12	5.3	5.8
4	23	6.6	0.99	0.21	6.2	7.0
5	7	7.4	0.05	0.09	7.2	7.5

Largemouth bass

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	82	6.9	1.57	0.14	6.6	7.2
2	42	9.3	3.86	0.30	8.7	9.9
3	51	12.0	0.56	0.10	11.8	12.2
4	4	13.2	0.22	0.23	12.7	13.6
5	3	15.3	0.75	0.50	14.3	16.3

Smallmouth bass

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	79	5.3	0.55	0.08	5.2	5.5
2	42	8.0	2.59	0.25	7.5	8.5
3	7	10.7	1.52	0.46	9.8	11.6
4	9	12.9	1.36	0.39	12.1	13.6

White crappie

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	23	4.5	0.38	0.13	4.3	4.8
2	37	8.8	0.31	0.09	8.6	9.0
3	15	8.9	0.36	0.16	8.6	9.2

Yellow perch

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	5	6.0	0.08	0.12	5.7	6.2
2	24	7.8	0.28	0.11	7.6	8.0
3	28	9.2	0.45	0.13	8.9	9.5
4	12	9.5	0.57	0.22	9.0	9.9

Mean length at Capture

White bass

Age	Number	Mean TL	Var	SE	Lo95%CI	Up 95%CI
1	0	0.0	0.00	0.00	0.0	0.0
2	2	7.5	0.13	0.25	7.0	8.0
3	18	11.4	0.22	0.11	11.1	11.6
4	9	12.9	0.53	0.25	12.4	13.4
5	16	13.6	0.48	0.17	13.3	14.0

Walleye (May standard survey)

Age	Number	Mean TL	Var	SE	Lo95%CI	Up 95%CI
1	4	11.0	0.42	0.32	10.4	11.6
2	14	14.9	0.75	0.23	14.5	15.4
3	4	18.0	3.58	0.95	16.1	19.9

Walleye (fall evaluation)

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	22	14.8	0.76	0.19	14.5	15.2
2	15	16.8	2.68	0.42	16.0	17.7
3	4	19.0	6.92	1.31	16.4	21.6

Striped bass (May standard survey)

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	0	0.0	0.00	0.00	0.0	0.0
2	0	0.0	0.00	0.00	0.0	0.0
3	0	0.0	0.00	0.00	0.0	0.0
4	0	0.0	0.00	0.00	0.0	0.0
5	16	25.7	2.02	0.35	25.0	26.4
6	3	27.3	0.25	0.29	26.7	27.8