

LAY LAKE SPRING MANAGEMENT REPORT FY 2008

Prepared by

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Introduction

Lay Lake was previously sampled in 2004, 2001, 1997, 1992, 1987, 1985 and 1984 (Haffner et al. 2004). In the 2004 collection, electrofishing catch rates of largemouth and spotted bass were quite high. BAIT data corroborated our electrofishing data and suggested that Lay Lake provides a very high-quality bass fishery.

Methods

Largemouth bass were collected from 4 sites and spotted bass were collected from 9 sites from April 7-10, 2008, according to the guidelines of the Alabama Reservoir Management Manual (1999). Information from bass tournaments was collected through the Bass Angling Information Team (BAIT) and pertinent data was incorporated into this report.

Results and Discussion

Largemouth Bass

The CPH of largemouth bass (N=140) in 2008 was 69.4, a catch rate slightly below the previous collection (2004) and the lake average (Table 2). The largemouth bass population continues to exhibit satisfactory size structure. The PSD was 80 and the RSD-15 was at an all-time high of 47. The CPH of substock fish fell sharply in 2008, compared to previous collections (Table 2). The CPH of S-Q fish was below the lake average and the statewide average (Figure 3). The CPH of Q-P fish was below the lake average but above the 75th percentile of Q-P values, statewide. The CPH of P-M fish was above the lake average and well above the 75th percentile of P-M values, statewide (Figure 3). The CPH of M-T fish was slightly below the lake and statewide averages.

The incremental RSD values for S-Q, Q-P and M-T fish were slightly below the lake averages (Figure 4). In 5 previous collections, the RSD of P-M fish had remained remarkably stable. By virtue of the abundance of 3 to 5-year old fish in the 2008 collection, the RSD of P-M fish jumped substantially to 46 (Table 2 and Figure 2).

The largemouth bass sample consisted of 9 age classes (Table 3). Four year-classes (2003-2006) were well represented. Female largemouth bass composed 35.0% collection and grew more rapidly than males (Figure 5). When age-growth data of both sexes was combined, growth rates in 2008 were very similar to earlier collections. Mean relative weights for all incremental size categories were similar to the lake averages.

Total annual survival of 3 to 8-year old largemouth bass (N=89) was estimated to be 61%, $r^2=0.99$, 95% C.I. = 57% - 65% (Figure 7). Estimates of annual survival of largemouth bass at Lay Lake have been remarkably similar in each of the last 3 collections.

Lay Lake ranked eighth overall in the 2007 BAIT report, out of twenty-two reservoirs reporting five or more tournaments (Abernethy 2008). Only two of five quality indicators improved in 2007, compared to the previous year. In the two most important quality indicators, numbers and pounds of fish weighed-in, Lay Reservoir ranked eighth and tenth, respectively, statewide, and both were above the statewide average. The quantity of fishing effort required to catch a bass ≥ 5 pounds at Lay in 2007 was about 25% greater than what was required in 2006.

Spotted Bass

In 2008, spotted bass (N=144) were captured at a rate of 35.6 fish/hour, a CPH twice the rate of the 2004 collection and above the lake average (Table 2). Surprisingly, no substock fish, nor age-1 fish, were collected in 2008. CPH of S-Q fish were below the lake average and well below the statewide average while catch rates of Q-P, P-M, and M-T fish were above the lake averages and well above the statewide averages (Figure 8).

The incremental RSD value of S-Q fish was below the lake average and well below the statewide average. The incremental RSD value of Q-P fish was at the lake average, while RSD values of P-M and M-T fish were well above the statewide averages (Figure 9). The incremental RSD value of P-M fish exceeded the lake average.

Seven age classes were present in the spotted bass collection (Table 4). Like the largemouth bass sample, four strong year-classes (2003-2006) were present. However, no age-1 spotted bass were present in the 2008 collection. Since female fish made up only 19.4% of the collection, age-growth data was combined for both sexes. Growth of spotted bass in 2008 was similar to previous collections (Figure 10). Mean relative weights for all incremental RSD categories ranged from 103 to 111 in 2008 and were similar to the lake averages. Total annual survival of 3 to 8-year old spotted bass

(N=118) was estimated to be 56%, $r^2=0.90$, 95% C. I. = 43% - 74% (Figure 10) and represents a slight decline in annual survival from the previous collection.

Creel Survey

Three hundred ninety anglers (212 parties) were interviewed during spring 2008. Bass and crappie anglers made up 61.5% and 22.3%, respectively, of all anglers surveyed (Table 5). Sixty three (16.2%) anglers that were interviewed were fishing for striped bass, bream, catfish, or “anything that bites”.

During 2008, bass anglers caught black bass (spotted and largemouth bass) of all sizes at a rate of 0.57 fish/hour but only harvested bass at a rate of 0.02 fish/hour (Table 6). Bass tournament anglers had a somewhat higher catch rate (0.77 fish/hour), but did not report any harvest.

The catch and harvest rate of crappie, by crappie anglers at Lay Lake was 0.25 and 0.15 fish/hour, respectively. Catch and harvest of “legal size” crappie (fish ≥ 9 inches in length) was 0.21 and 0.15 fish/hour, respectively (Table 6). Catch and harvest rates for crappie on Lay Reservoir are significantly lower than on other major reservoirs in District III, probably due to variable year classes and poor recruitment. In comparison, the catch and harvest rate of crappie (any size) at Demopolis Reservoir in 2007 was 2.63 and 0.92 fish/hour, respectively (Table 14).

A total of 185 bass anglers (77.1%) surveyed caught one or more bass per trip while 69 (28.8%) caught five or more bass per trip (Table 7). Only 16 (6.3%) of the 240 anglers interviewed harvested black bass. Eighty percent of the black bass harvested by all anglers were less than 400 mm TL (Figure 12).

Eighty seven crappie anglers were interviewed at Lay Lake in 2008. Only 31 (35.6%) crappie anglers were able to catch one or more crappie during their fishing trip and just four (4.5%) caught five or more crappie (Table 9). Twenty three (26.4%) crappie anglers harvested one or more crappie per trip.

Because fish consumption advisories that have been posted on Lay Reservoir during recent years, harvest of popular sport fish species for consumptive purposes is estimated to be lower than other reservoirs due to the presence of PCB's within the watershed. However, 188 (48.2%) of the 390 anglers interviewed indicated that they have harvested fish they caught from Lay Lake within the last two years (Table 12).

One hundred and sixty two (67.5%) of the 240 bass anglers said they have not harvested bass from Lay Lake in the past two years.

Summary

The largemouth and spotted bass fishery at Lay Lake continues to be outstanding. Presently, the largemouth and spotted bass populations are dominated by preferred-size fish. Several year-classes are supporting the fishery. Growth is satisfactory. Poor recruitment appears to be the only factor limiting further improvement of the fishery.

Conclusions

1. Resample Lay Lake in 2011.
2. Encourage an aggressive aquatic plant management program by the Alabama Power Company directed at preventing the spread of water hyacinths and lettuce, *Lyngbya*, and other nuisance aquatic plants.
3. Encourage more local bass clubs to participate in the BAIT Program.

Literature Cited

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Appendix A

Table and Figures

Table 1. Morphometric, physical and chemical characteristics of Lay Lake.

Surface area		12,000 acres
Drainage area		9,087 sq. mi.
Full pool elevation		396 feet-msl
Mean annual fluxuation		0.5 feet
Shoreline distance		289 miles
Shoreline development index		19 (Welch 1948)
Mean depth		22 feet
Maximum depth		88 feet
Outlet depth	(upper)	362 feet
	(lower)	342 feet
Thermocline depth		None
Stratification index		10.16
Total dissolved solids		118 mg/l
Morphoedaphic index		5.4 TDS/mean depth(ft) (Ryder 1965)
Growing season		210 frost free days (Jenkins 1967)
Year impounded		1914

Table 2. Incremental relative stock density (RSD) catch per hour (CPH) and relative weight (Wr) of largemouth and spotted bass from spring electrofishing surveys at Lay Lake.

SPECIES	YEAR	NO. OF SAMPLES	TOTAL EFFORT ¹	SUBSTOCK ²			RSD S - Q				RSD Q - P				RSD P - M				RSD M - T				TOTAL	
				NO.	CPE	SSR	NO.	CPE	PCT.	Wr	NO.	CPE	PCT.	Wr	NO.	CPE	PCT.	Wr	NO.	CPE	PCT.	Wr	NO.	CPE
LARGEMOUTH BASS	2008	4	2.02	9	4.5	7	26	12.9	20	96	44	21.8	34	97	59	29.2	45	91	2	1.0	2	90	140	69.4
LARGEMOUTH BASS	2004	3	1.51	24	15.9	24	35	23.1	35	93	31	20.5	31	93	33	21.8	33	94	1	0.7	1	93	124	81.9
LARGEMOUTH BASS	2001	3	1.11	20	18.0	18	38	34.3	33	94	33	29.8	29	97	38	34.3	33	99	5	4.5	4	106	134	120.9
LARGEMOUTH BASS	1997	4	1.68	4	2.4	4	28	16.6	27	94	49	29.1	48	94	23	13.7	23	93	2	1.2	2	94	106	63.0
LARGEMOUTH BASS	1992	4	1.80	7	3.9	7	14	7.8	13	94	49	27.2	47	99	37	20.6	36	105	4	2.2	4	105	111	61.7
LARGEMOUTH BASS	1987	3	2.00	38	19.0	37	20	10.0	19		39	19.5	38		38	19.0	37		6	3.0	6		141	70.5
LAKE AVERAGE				10.6	16			17.4	25	94		24.6	38	96		23.1	34	96		2.1	3	98		77.9
SPOTTED BASS	2008	8	4.05	0	0.0	0	8	2.0	6	109	42	10.4	29	111	77	19.0	53	110	17	4.2	12	103	144	35.6
SPOTTED BASS	2004	10	5.03	5	1.0	6	9	1.8	11	99	27	5.4	33	97	31	6.2	37	100	16	3.2	19	97	88	17.5
SPOTTED BASS	2001	6	2.88	8	2.8	6	27	9.4	21	102	32	11.1	25	103	48	16.7	38	103	19	6.6	15	108	134	46.5
SPOTTED BASS	1997	8	3.69	3	0.8	3	6	1.6	6	103	31	8.4	29	105	47	12.7	44	104	23	6.2	21	107	110	29.8
SPOTTED BASS	1992	10	5.00	0	0.0	0	13	2.6	23	121	18	3.6	32	107	18	3.6	32	109	8	1.6	14	109	57	11.4
SPOTTED BASS	1987	10	5.00	4	0.8	4	27	5.4	28		33	6.6	34		27	5.4	28		9	1.8	9		100	20.0
LAKE AVERAGE				0.9	3			3.8	16	107		7.6	30	105		10.6	39	105		3.9	15	105		26.8

¹ Effort is in hours

² SSR denotes substock ratio; the number of substock fish per 100 stock-size fish

Table 3. Age composition and mean total length (mm) of largemouth bass from Lay Lake, April 2008.

Age	Year Class	Number	Percent	CPE	Mean TL	SE	Range
1	2007	14	10.0	6.9	192	11	128 - 256
2	2006	36	25.7	17.8	300	8	193 - 385
3	2005	36	25.7	17.8	359	7	262 - 454
4	2004	21	15.0	10.4	407	9	331 - 490
5	2003	16	11.4	7.9	413	6	376 - 464
6	2002	8	5.7	4.0	441	13	394 - 513
7	2001	5	3.6	2.5	453	16	393 - 482
8	2000	3	2.1	1.5	471	34	413 - 529
9	1999	0	0.0	0.0			
10	1998	1	0.7	0.5	491		491
Total		140	100.0	69.4			

Table 4. Age composition and mean total length (mm) of spotted bass from Lay Lake, April 2008.

Age	Year Class	Number	Percent	CPE	Mean TL	SE	Range
2	2006	26	18.1	6.4	296	6	238 - 339
3	2005	54	37.5	13.3	354	2	316 - 389
4	2004	38	26.4	9.4	392	4	352 - 440
5	2003	11	7.6	2.7	408	6	379 - 442
6	2002	5	3.5	1.2	437	8	420 - 459
7	2001	7	4.9	1.7	440	5	414 - 454
8	2000	3	2.1	0.7	494	22	458 - 533
Total		144	100.0	35.6			

Table 5. Creel Survey Statistics of Lay Lake anglers, spring 2008.

Type	No. of Parties	Pct. of Parties	No. of Anglers	Pct. of Anglers	Fishing effort	
					Hours	Percent
Fished for bass	135	63.7	240	61.5	1,422.5	68.9
Fished for crappie	48	22.6	87	22.3	364.5	17.7
Fished for other species	29	13.7	63	16.2	277.0	13.4
Total	212	100.0	390	100.0	2,064.0	100.0
Non-tournament bass anglers	97	45.8	168	43.1	916.3	44.4
Tournament bass anglers	20	9.4	43	11.0	305.8	14.8
Anglers prefishing for tournament	18	8.5	29	7.4	200.5	9.7
Totals for bass anglers	135	63.7	240	61.5	1,422.5	68.9

Table 6. Catch per hour (CPH) and harvest per hour (HPH) of bass, crappie, and other species by Lay Lake anglers during the creel survey, spring 2008.

CPH of all crappie by crappie anglers	0.25
HPH of all crappie by crappie anglers	0.15
Percent harvest of all crappie caught by crappie anglers	60.0
Percent harvest of crappie ≥ 9 " caught by crappie anglers	70.1
CPH of all black bass by bass anglers	0.57
HPH of all black bass by bass anglers	0.02
CPH of all black bass by bass tournament anglers	0.77
HPH of all black bass by bass tournament anglers	0.00
CPH of all black bass by non-tournament bass anglers	0.52
HPH of all black bass by non-tournament bass anglers	0.02
Percent of Black Bass caught harvested by all bass anglers	3.31%
% harvest of black bass ≥ 12 " non-tourney bass anglers	3.24%
% harvest of black bass < 12 " non-tourney bass anglers	4.51%
CPH of all black bass by crappie anglers	0.13
HPH of all black bass by crappie anglers	0.02
CPH of all black bass by other anglers	0.17
HPH of all black bass by other anglers	0.04
CPH of all fish by all anglers	0.74
HPH of all fish by all anglers	0.15
CPH of black bass < 12 " by bass anglers	0.12
HPH of black bass < 12 " by bass anglers	0.004
CPH of black bass < 12 " by bass tournament anglers	0.11
HPH of black bass < 12 " by bass tournament anglers	0.00
CPH of black bass < 12 " by non-tournament bass anglers	0.12
HPH of black bass < 12 " by non-tournament bass anglers	0.01
CPH of black bass ≥ 12 " by bass anglers	0.46
HPH of black bass ≥ 12 " by bass anglers	0.015
CPH of black bass ≥ 12 " by bass tournament anglers	0.66
HPH of black bass ≥ 12 " by bass tournament anglers	0.00
CPH of black bass ≥ 12 " by non-tournament bass anglers	0.40
HPH of black bass ≥ 12 " by non-tournament bass anglers	0.019
CPH of crappie < 9 " by crappie anglers	0.04
HPH of crappie < 9 " by crappie anglers	0.00
CPH of crappie > 9 " by crappie anglers	0.21
HPH of crappie > 9 " by crappie anglers	0.15

Table 7. The total number of largemouth and spotted bass, bass anglers estimated they caught and kept or released per trip during the Lay Lake creel survey, spring 2008.

Number of bass caught	Bass anglers	
	No.	Pct.
0	55	22.9
1	44	18.3
2	29	12.1
3	21	8.8
4	22	9.2
5	21	8.8
6 - 9	29	12.1
10 or more	19	7.9
Total	240	100.0

Table 8. The total number of largemouth and spotted bass harvested by bass anglers in the Lay Lake creel survey, spring 2008.

Number of bass harvested	Bass anglers	
	No.	Pct.
0	224	93.3
1	10	4.2
2	4	1.7
3	1	0.4
4	0	0.0
5	0	0.0
6 - 9	1	0.4
10 (limit)	0	0.0
>10	0	0.0
Total	240	100.0

Table 9. The total number of black and white crappie, crappie anglers estimated they caught and kept or released per trip during the Lay Lake creel survey, spring 2008.

Number of crappie caught	Crappie anglers	
	No.	Pct.
0	56	64.4
1	11	12.6
2	6	6.9
3	6	6.9
4	4	4.6
5	1	1.1
6 - 10	3	3.4
11 - 20	0	0.0
21 - 30	0	0.0
> 30	0	0.0
Total	87	100.0

Table 10 The total number of black and white crappie harvested by anglers during the Lay Lake creel survey, spring 2008.

Number of crappie harvested	Crappie anglers	
	Number	Percent
0	64	73.6
1	8	9.2
2	7	8.0
3	6	6.9
4	1	1.1
5	0	0.0
6 - 10	1	1.1
11 - 20	0	0.0
21 - 30	0	0.0
>30	0	0.0
Total	87	100.0

Table 11. Fishing effort by survey day at Lay Lake, spring 2008.

Date	Site*	Bass anglers			Crappie anglers			Other anglers			All anglers		
		No.	Hrs.	Pct.	No.	Hrs.	Pct.	No.	Hrs.	Pct.	No.	Hrs.	Pct.
9-Mar	LD	13	40.00	2.8	15	47.75	13.1	0	0.00	0.0	28	87.75	4.3
15-Mar	C	0	0.00	0.0	4	22.00	6.0	8	23.50	8.5	12	45.50	2.2
22-Mar	LL	36	198.00	13.9	34	153.00	42.0	12	64.00	23.1	82	415.00	20.1
30-Mar	C	2	8.00	0.6	3	19.00	5.2	4	24.50	8.8	9	51.50	2.5
5-Apr	BW	71	491.75	34.6	4	22.00	6.0	0	0.00	0.0	75	513.75	24.9
13-Apr	BW	26	125.25	8.8	5	11.25	3.1	2	4.00	1.4	33	140.50	6.8
20-Apr	C	10	44.25	3.1	3	3.75	1.0	15	75.00	27.1	28	123.00	6.0
4-May	LL	38	243.00	17.1	11	40.75	11.2	12	32.00	11.6	61	315.75	15.3
10-May	LL	9	55.00	3.9	0	0.00	0.0	1	6.00	2.2	10	61.00	3.0
18-May	LL	25	157.25	11.1	5	24.00	6.6	2	12.00	4.3	32	193.25	9.4
24-May	LD	10	60.00	4.2	3	21.00	5.8	7	36.00	13.0	20	117.00	5.7
Total		240	1422.50	100.0	87	364.50	100.0	63	277.00	100.0	390	2064.00	100.0

* C = Childersburg, BW = Beeswax LL = Lay Lake Access. Area, LD = Lay Dam Access Area

Table 12 Comments of Lay Lake anglers creel survey, spring 2008.

Comments on questions asked all anglers surveyed.	Bass Anglers		Crappie Anglers		Any/Other Anglers		All Anglers	
	No.	%	No.	%	No.	%	No.	%
Angler has eaten fish they caught from Lay in the last two years	78	32.5	65	74.7	45	71.4	188	48.2
Angler has not kept fish they caught from Lay in the last two years	162	67.5	22	25.3	18	28.6	202	51.8
Angler sometimes consumes black bass they caught from Lay	62	25.8	28	32.2	23	36.5	113	29.0
Angler sometimes consumes bream they caught from Lay	13	5.4	14	16.1	28	44.4	55	14.1
Angler sometimes consumes crappie they caught from Lay	56	23.3	56	64.4	31	49.2	143	36.7
Angler sometimes consumes catfish they caught from Lay	35	14.6	29	33.3	32	50.8	96	24.6
Angler sometimes consumes striped/white bass they caught from Lay	8	3.3	1	1.1	11	17.5	20	5.1
Angler sometimes consumes other fish species they caught from Lay	2	0.8	0	0.0	0	0.0	2	0.5
Angler doesn't fish tournaments on Lay	132	55.0	80	92.0	58	92.1	270	69.2
Angler estimated he/she fishes tournaments on Lay 1 to 5 times per year	79	32.9	4	4.6	4	6.3	87	22.3
Estimated he/she fishes tournaments on Lay 6 to 10 times per year	14	5.8	1	1.1	1	1.6	16	4.1
Estimated he/she fishes tournaments on Lay 11 to 20 times per year	8	3.3	0	0.0	0	0.0	8	2.1
Estimated he/she fishes tournaments on Lay 21 to 50 times per year	6	2.5	2	2.3	0	0.0	8	2.1
Estimated he/she fishes tournaments on Lay 100 times per year	1	0.4	0	0.0	0	0.0	1	0.3
Does not fish Lay except in tournaments	18	7.5	0	0.0	0	0.0	18	4.6
Estimated he/she fishes Lay 1 to 5 times per year when not in a tourney.	54	22.5	26	29.9	11	17.5	91	23.3
Estimated he/she fishes Lay 6 to 10 times per year when not in a tourney.	41	17.1	11	12.6	12	19.0	64	16.4
Estimated he/she fishes Lay 11 to 20 times per year when not in a tourney.	46	19.2	12	13.8	10	15.9	68	17.4
Estimated he/she fishes Lay 21 to 30 times per year when not in a tourney.	25	10.4	9	10.3	13	20.6	47	12.1
Estimated he/she fishes Lay 31 to 40 times per year when not in a tourney.	11	4.6	4	4.6	0	0.0	15	3.8
Estimated he/she fishes Lay 41 to 50 times per year when not in a tourney.	26	10.8	0	0.0	12	19.0	38	9.7
Estimated he/she fishes Lay 51 to 100 times per year when not in a tourney.	9	3.8	21	24.1	5	7.9	35	9.0
Estimated he/she fishes Lay 101 to 150 times per year when not in a tourney.	3	1.3	1	1.1	0	0.0	4	1.0
Estimated he/she fishes Lay 151 to 200 times per year when not in a tourney.	2	0.8	2	2.3	0	0.0	4	1.0
Estimated he/she fishes Lay over 200 times per year when not in a tourney.	5	2.1	5	5.7	0	0.0	10	2.6
Voluntary comments on angler's subject of choice.								
Wants state to stock more fish on this reservoir	2	0.8	3	3.4	0	0.0	5	1.3
Wants more boat ramps and access areas on Lay	5	2.1	0	0.0	0	0.0	5	1.3
Wants more repairs and improvements made to access areas on Lay	21	8.8	12	13.8	6	9.5	39	10.0
Wants a length limit on black bass at Lay	2	0.8	0	0.0	0	0.0	2	0.5
Wants to raise the minimum length limit on crappie at Lay	1	0.4	1	1.1	0	0.0	2	0.5
Does not want aquatic weeds sprayed at Lay	3	1.3	0	0.0	0	0.0	3	0.8
Wants aquatic weeds sprayed at Lay to keep areas open for fishing	2	0.0	0	0.0	0	0.0	2	0.5
Complaint against bass tournaments using access areas, too many, etc.	0	0.0	1	1.1	0	0.0	1	0.3
Complaint against reckless and/or discourteous boat driving	6	2.5	7	8.0	0	0.0	13	3.3
Complaint against reckless and discourteous driving of jet skis at Lay	2	0.8	1	1.1	3	4.8	6	1.5
Complaint about litter on the lake and shore	3	1.3	3	3.4	2	3.2	8	2.1
Believes we need more law enforcement on Lay	4	1.7	1	1.1	2	3.2	7	1.8
Angler volunteered that he/she appreciates creel survey and job ADCNR is doing.	16	6.7	4	4.6	2	3.2	22	5.6
Wants access areas patrolled more often	6	2.5	0	0.0	0	0.0	6	1.5
Wants more marked fish reefs/fish attractors on Lay	0	0.0	1	1.1	2	3.2	3	0.8
Wants a speed limit on Lay	3	1.3	0	0.0	0	0.0	3	0.8
Wants more obstructions\stumps marked on Lay	3	1.3	3	3.4	3	4.8	9	2.3
Wants stumps/stick-ups removed on Lay Lake	0	0.0	2	2.3	0	0.0	2	0.5
Wants tailrace access area dredged	1	0.4	0	0.0	4	6.3	5	1.3
Wants water level on Lay kept more stable	2	0.8	0	0.0	0	0.0	2	0.5
Complaint about fishing license expiring on August 31st	2	0.8	2	2.3	2	3.2	6	1.5
Wants a state access area built on Cedar Creek	0	0.0	3	3.4	0	0.0	3	0.8

Table 13. County of residence of Lay Lake anglers, during the creel survey, spring 2008.

State	County	Bass anglers		Crappie anglers		Any\other anglers		All anglers	
		No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Alabama	Shelby	106	44.2	39	44.8	22	34.9	167	42.8
Alabama	Jefferson	32	13.3	11	12.6	5	7.9	48	12.3
Alabama	Chilton	31	12.9	28	32.2	10	15.9	69	17.7
Alabama	Talladega	13	5.4	9	10.3	23	36.5	45	11.5
Alabama	St. Clair	18	7.5	0	0.0	0	0.0	18	4.6
Alabama	Tuscaloosa	13	5.4	0	0.0	0	0.0	13	3.3
Alabama	Elmore	5	2.1	0	0.0	0	0.0	5	1.3
Alabama	Autauga	4	1.7	0	0.0	0	0.0	4	1.0
Alabama	Blount	4	1.7	0	0.0	0	0.0	4	1.0
Alabama	Bibb	2	0.8	0	0.0	0	0.0	2	0.5
Alabama	Covington	2	0.8	0	0.0	0	0.0	2	0.5
Alabama	Marengo	2	0.8	0	0.0	0	0.0	2	0.5
Alabama	Calhoun	1	0.4	0	0.0	0	0.0	1	0.3
Alabama	Cherokee	1	0.4	0	0.0	0	0.0	1	0.3
Alabama	Coosa	0	0.0	0	0.0	2	3.2	2	0.5
Alabama	Cullman	1	0.4	0	0.0	0	0.0	1	0.3
Alabama	Sumter	1	0.4	0	0.0	0	0.0	1	0.3
Alabama	Lauderdale	1	0.4	0	0.0	0	0.0	1	0.3
Alabama	Winston	1	0.4	0	0.0	0	0.0	1	0.3
Total		238	99.2	87	100.0	62	98.4	387	99.2
State	County	Bass anglers		Crappie anglers		Any\other anglers		All anglers	
		No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Florida	Okaloosa	0	0.0	0	0.0	1	1.6	1	0.3
Texas	Cash	1	0.4	0	0.0	0	0.0	1	0.3
Tennessee	Gile	1	0.4	0	0.0	0	0.0	1	0.3
Total		2	0.8	0	0.0	1	1.6	3	0.8
Grand Total		240	100.0	87	100.0	63	100.0	390	100.0

Table 14. Catch per hour (CPH) and harvest per hour (HPH) for bass and crappie anglers fishing on Alabama reservoirs during Spring creel surveys 1996 through 2008.

Reservoir / Year	Bass anglers				Crappie anglers			
	Number	Effort (hours)	CPH	HPH	Number	Effort (hours)	CPH	HPH
Bankhead / 1996	326	2208.4	0.77	0.10	96	457.0	0.79	0.47
Warrior / 2000	188	1168.8	0.53	0.07	89	362.0	1.09	0.65
Aliceville / 2002	259	1710.0	0.59	0.07	115	549.0	0.63	0.40
Gainesville / 2003	178	1274.5	0.77	0.06	145	828.0	1.88	0.82
Tuscaloosa / 2004	178	799.3	0.70	0.05	226	983.8	1.76	0.52
Aliceville / 2006	168	1047.8	0.54	0.03	95	571.8	1.47	0.76
Demopolis / 2007	79	427.8	0.76	0.01	119	704.5	2.63	0.92
Lay / 2008	240	1422.5	0.57	0.02	87	364.5	0.25	0.17
Average	1616	10058.9	0.66	0.06	972	4820.5	1.49	0.62

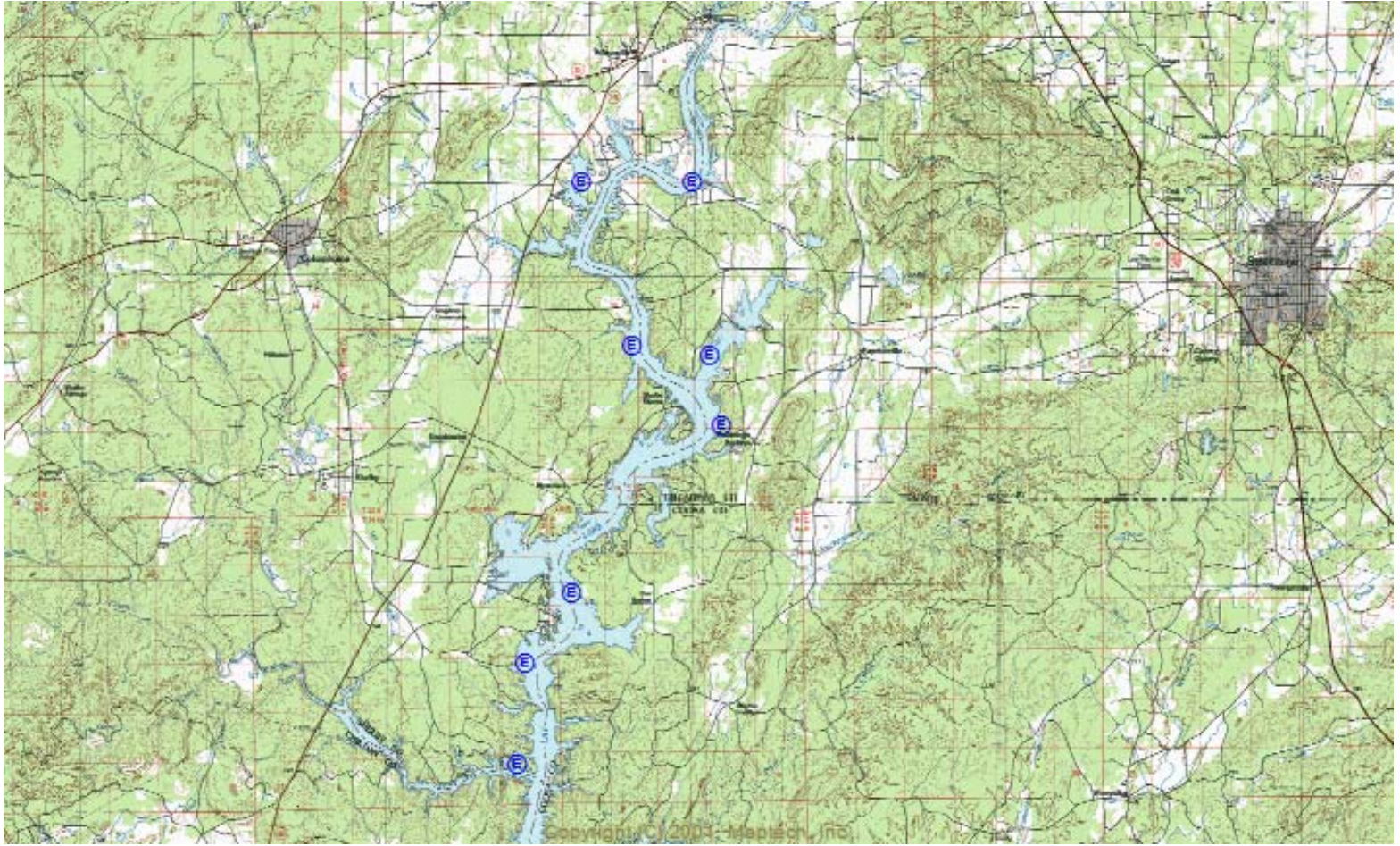


Figure 1. Spring 2008 electrofishing sites at Lay Lake.

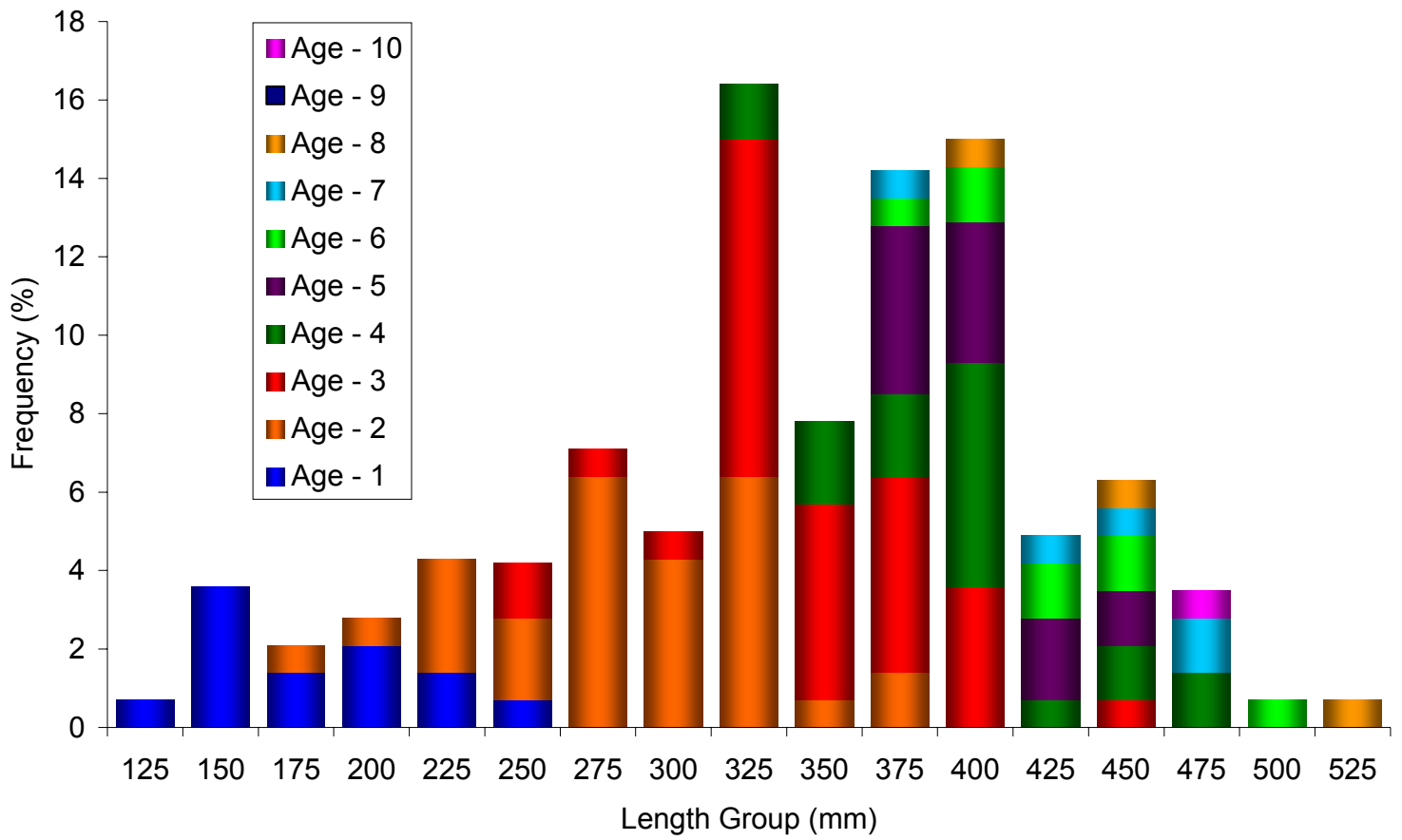


Figure 2. Length at age frequency of largemouth bass (N=140) at Lay Lake, April 2008.

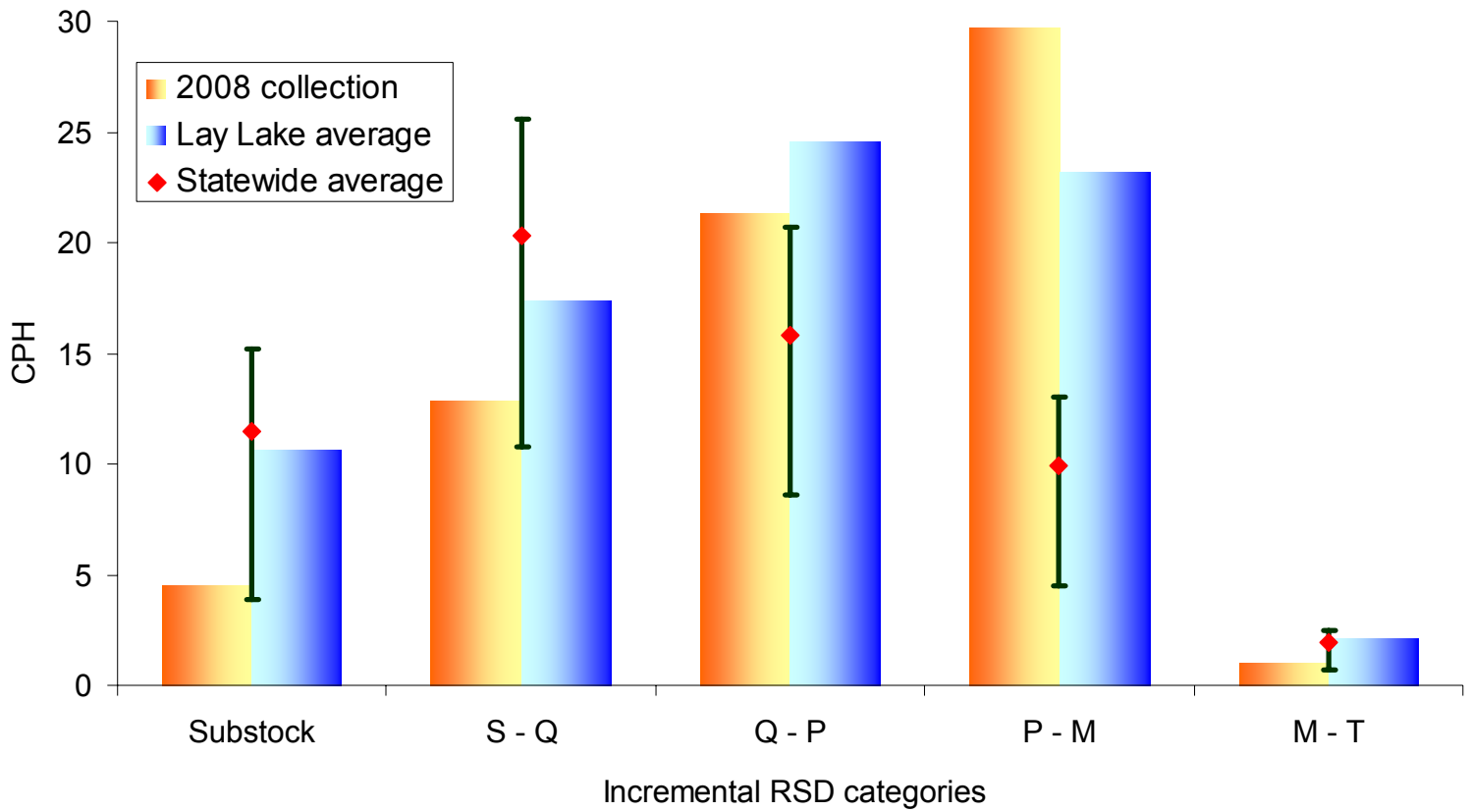


Figure 3. Catch per hour (CPH) of largemouth bass (N=140) at Lay Lake, April 2008, and the lake and statewide averages. Error bars represent the 25th and 75th percentile of CPH values, statewide.

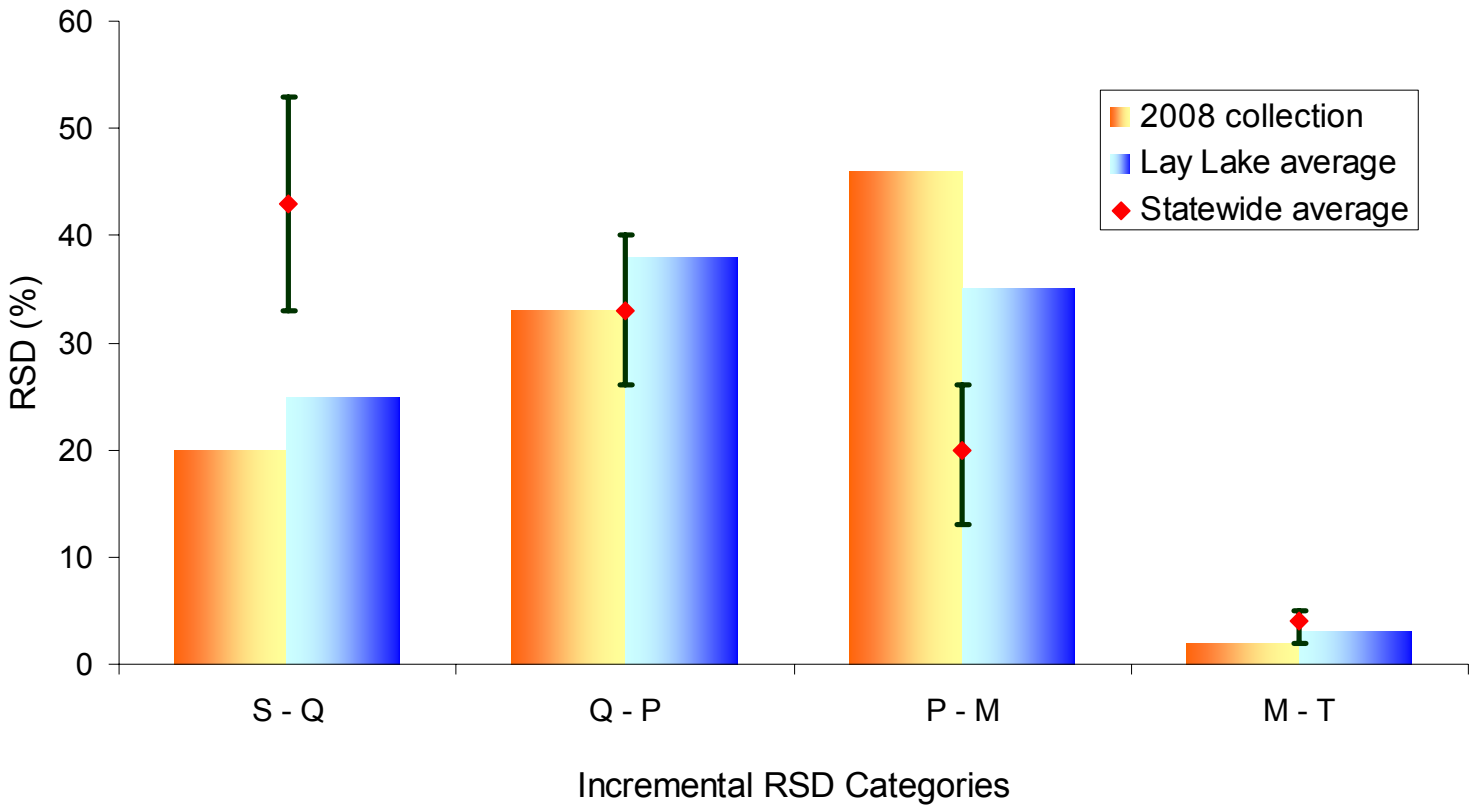


Figure 4. Relative stock density (RSD) of largemouth bass (N=140) at Lay Lake, April 2008, and the lake and statewide averages. Error bars represent the 25th and 75th percentile of RSD values, statewide.

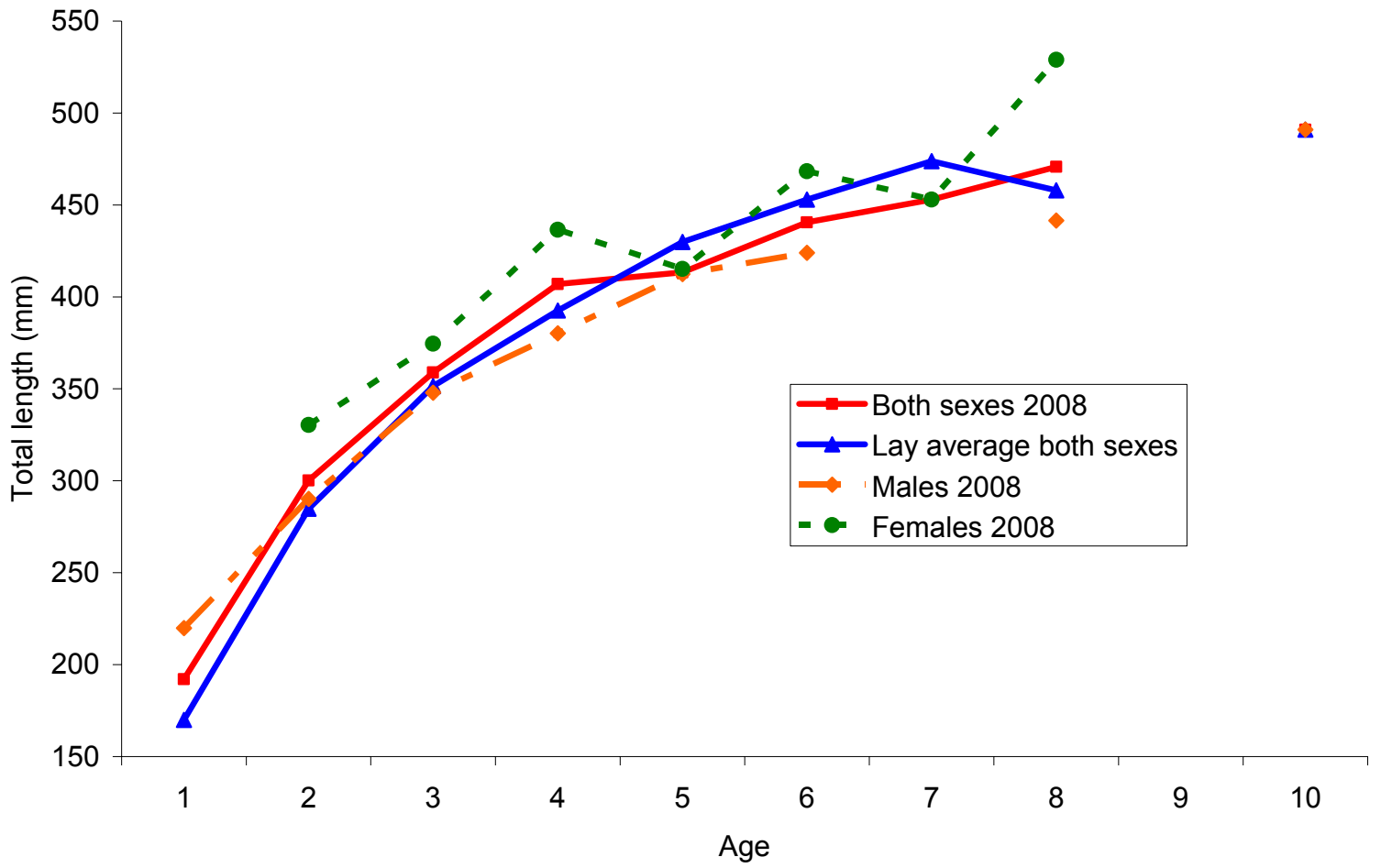


Figure 5. Growth rates of largemouth bass at Lay Lake

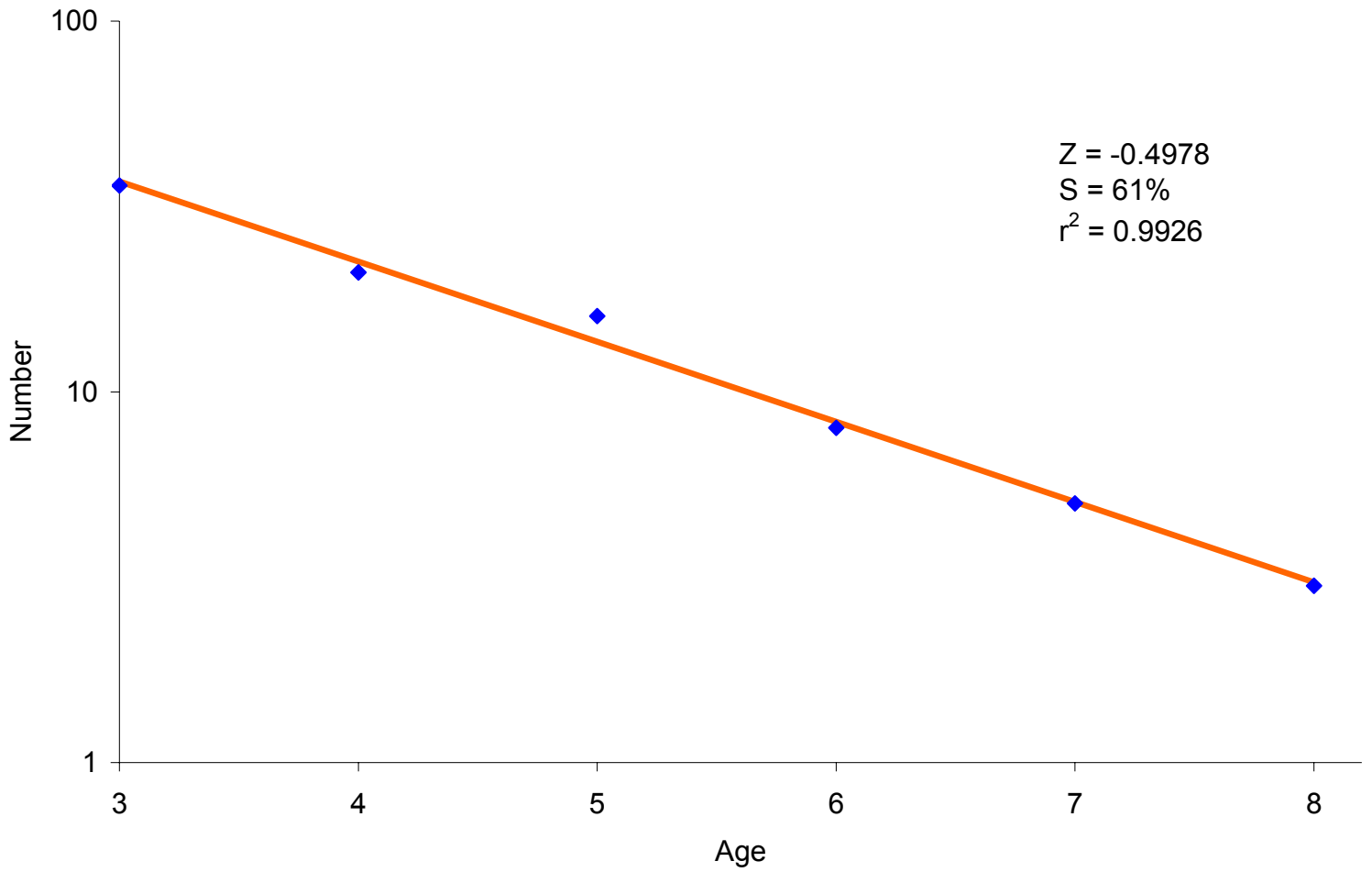


Figure 6. Catch curve regression and annual survival rate (S) of 3 to 8-year old largemouth bass (N=89) at Lay Lake, April 2008.

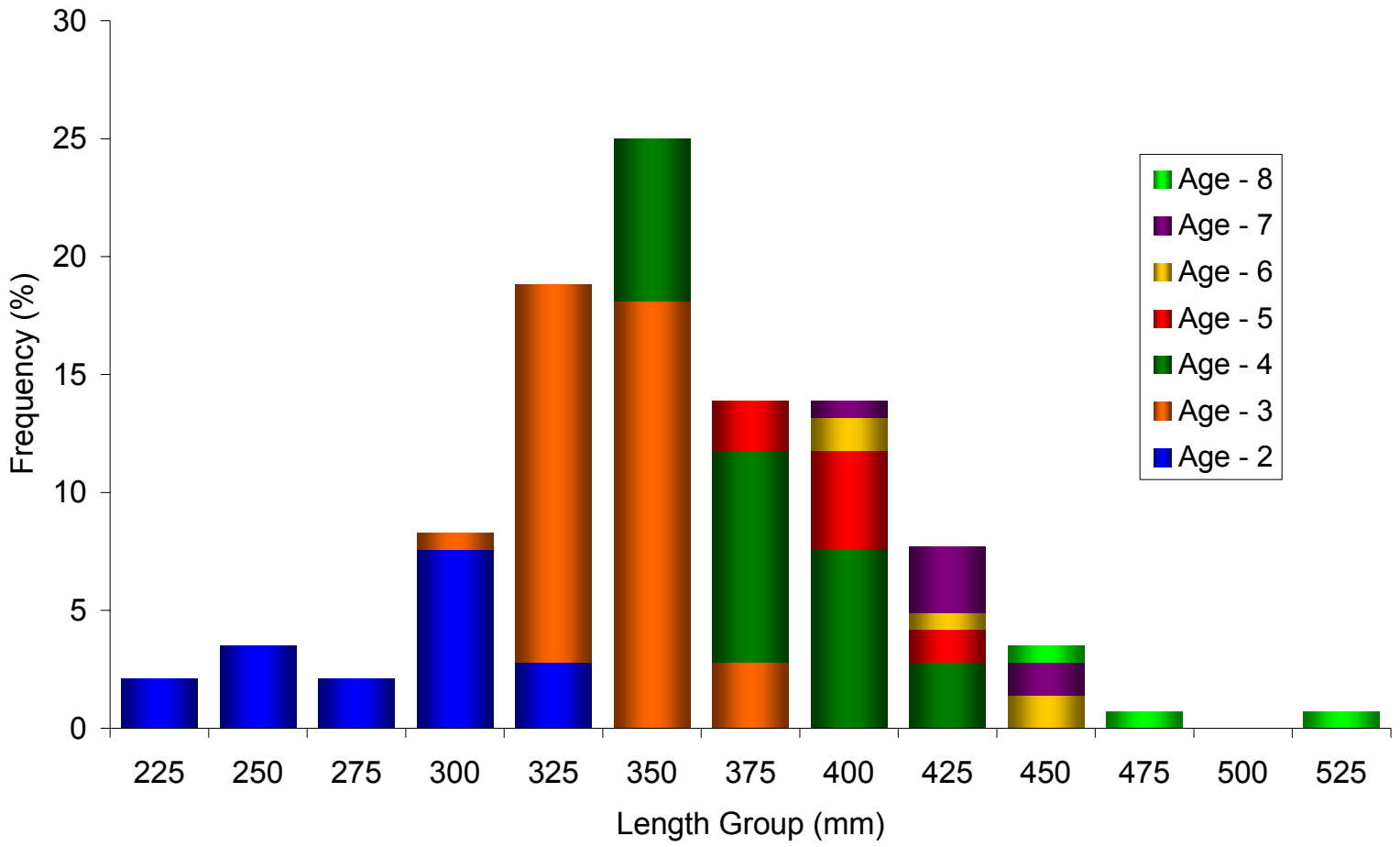


Figure 7. Length at age frequency of spotted bass (N=144) at Lay Lake, April 2008.

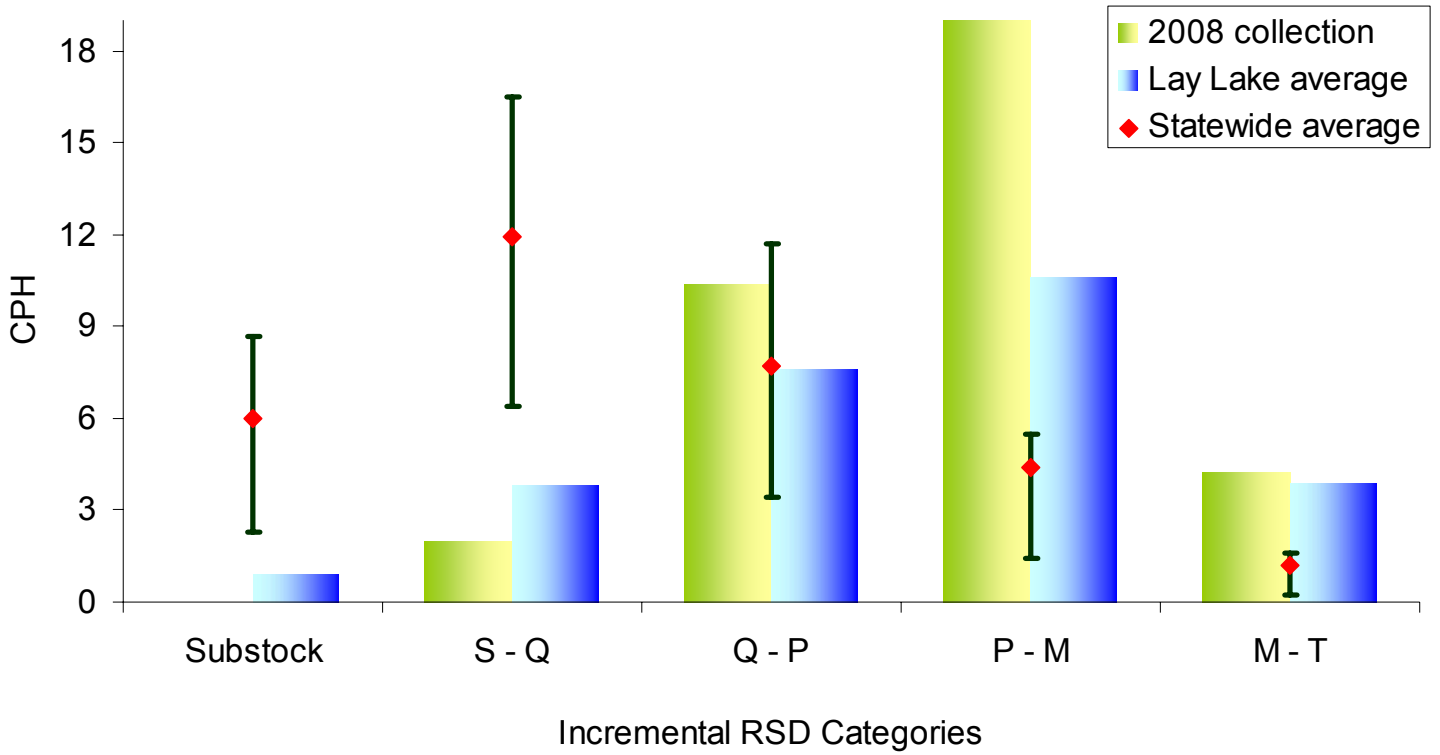


Figure 8. Catch per hour (CPH) of spotted bass (N=144) at Lay Lake, April 2008, and the lake and statewide averages. Error bars represent the 25th and 75th percentile of CPH values, statewide.

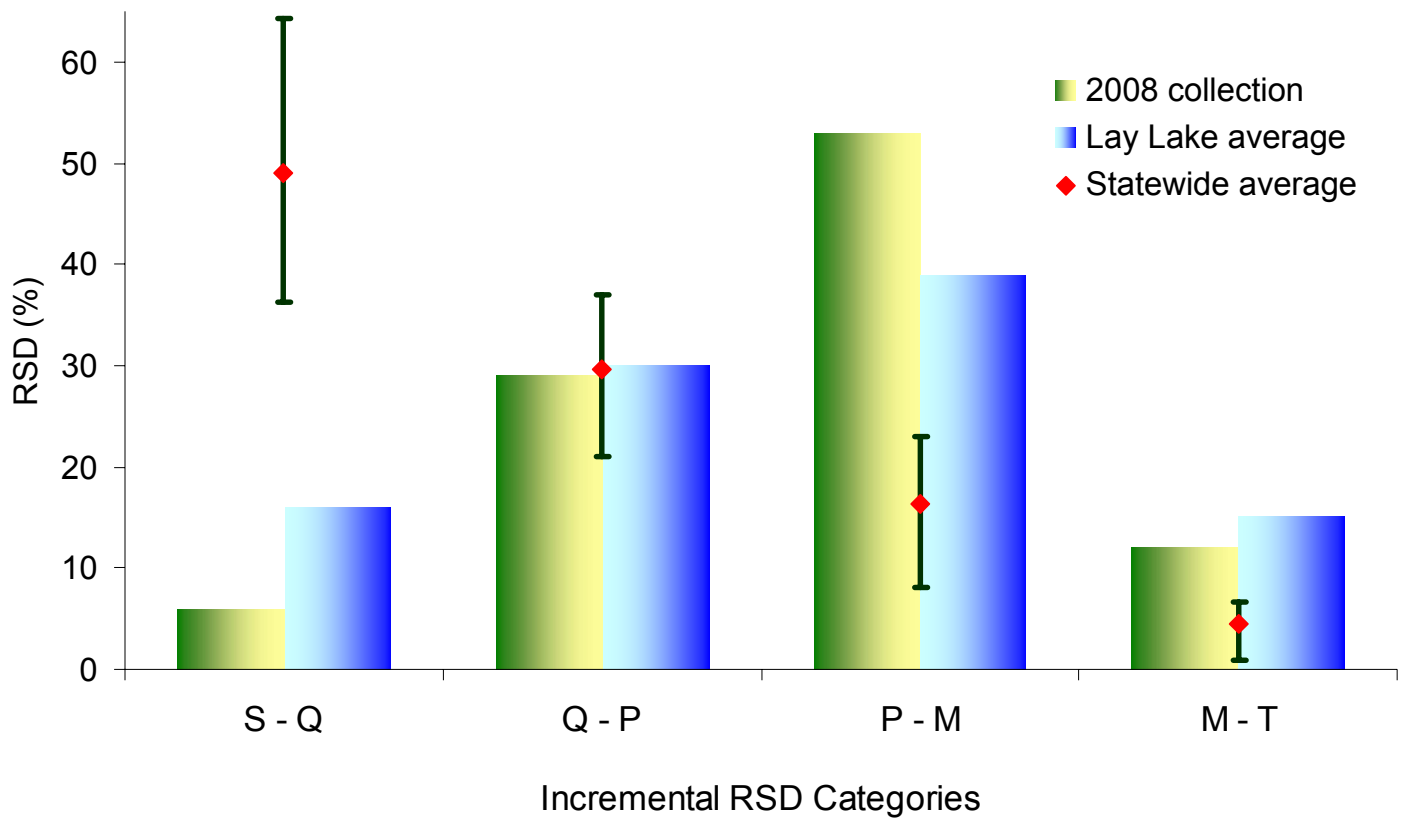


Figure 9. Relative stock density (RSD) of spotted bass (N=144) at Lay Lake, April 2008, and the lake and statewide averages. Error bars represent the 25th and 75th percentile of RSD values, statewide.

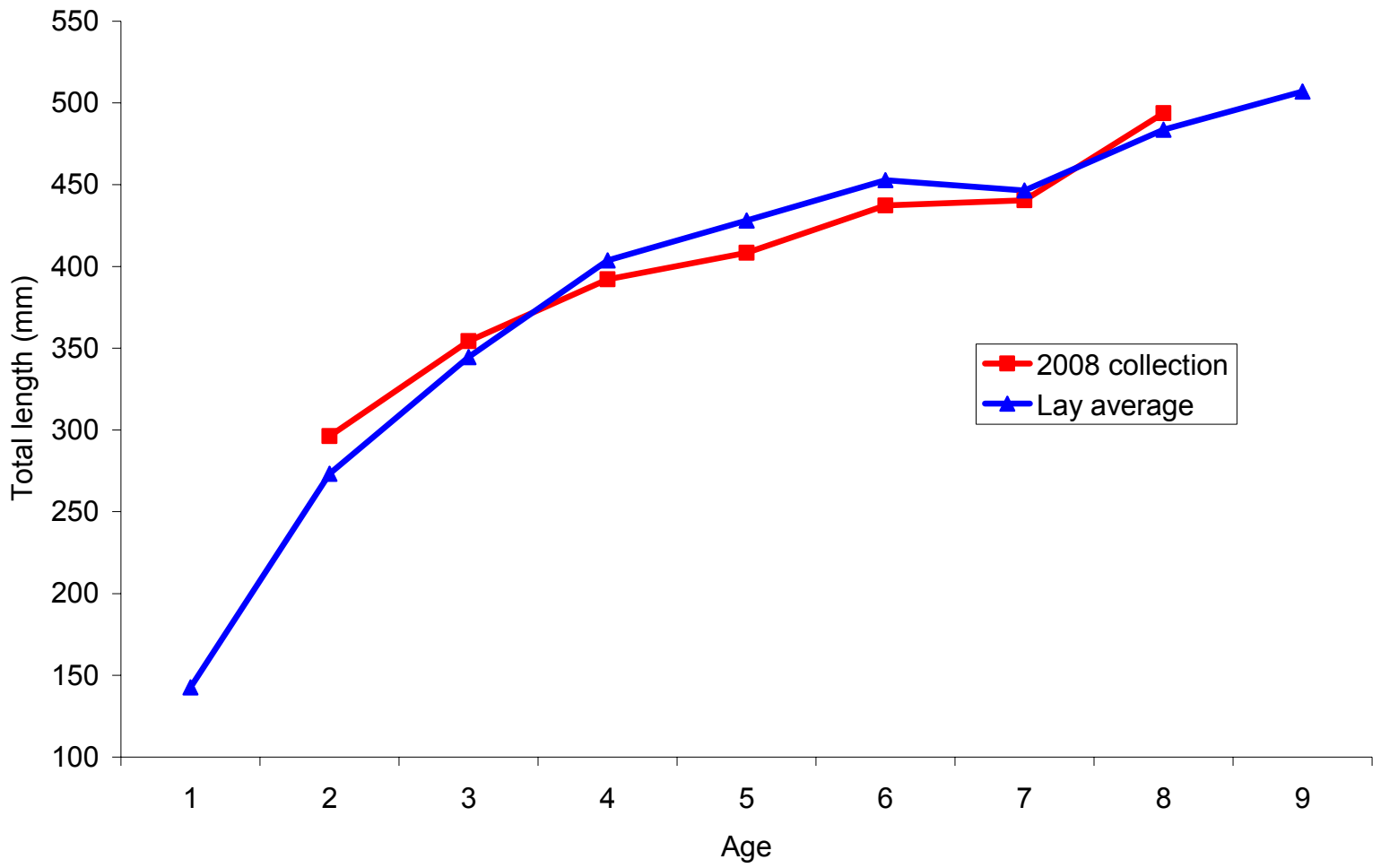


Figure 10. Growth of spotted bass at Lay Lake.

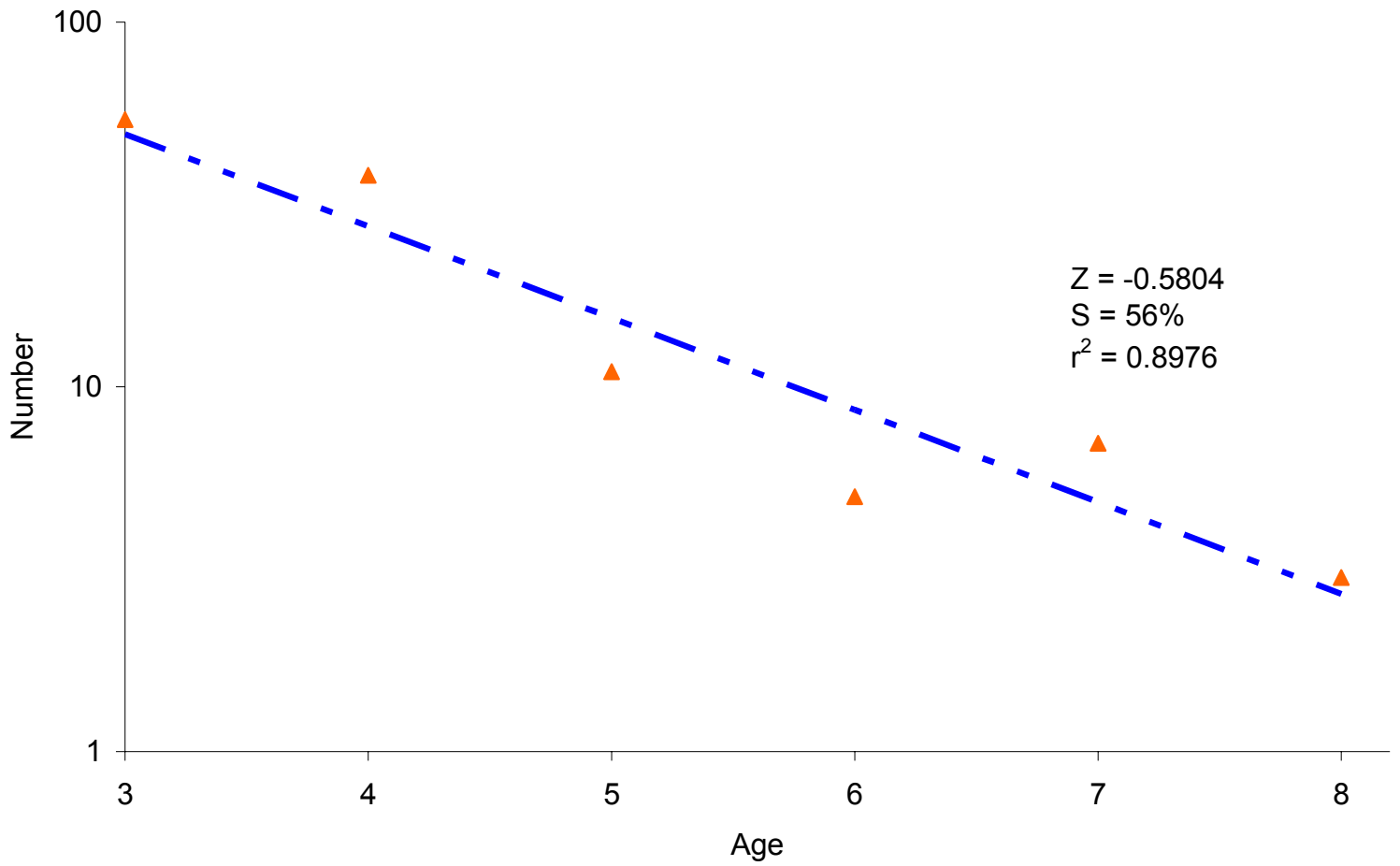


Figure 11. Catch curve regression and annual survival rate (S) of 3 to 8-year old spotted bass (N=118) at Lay Lake, April 2008.

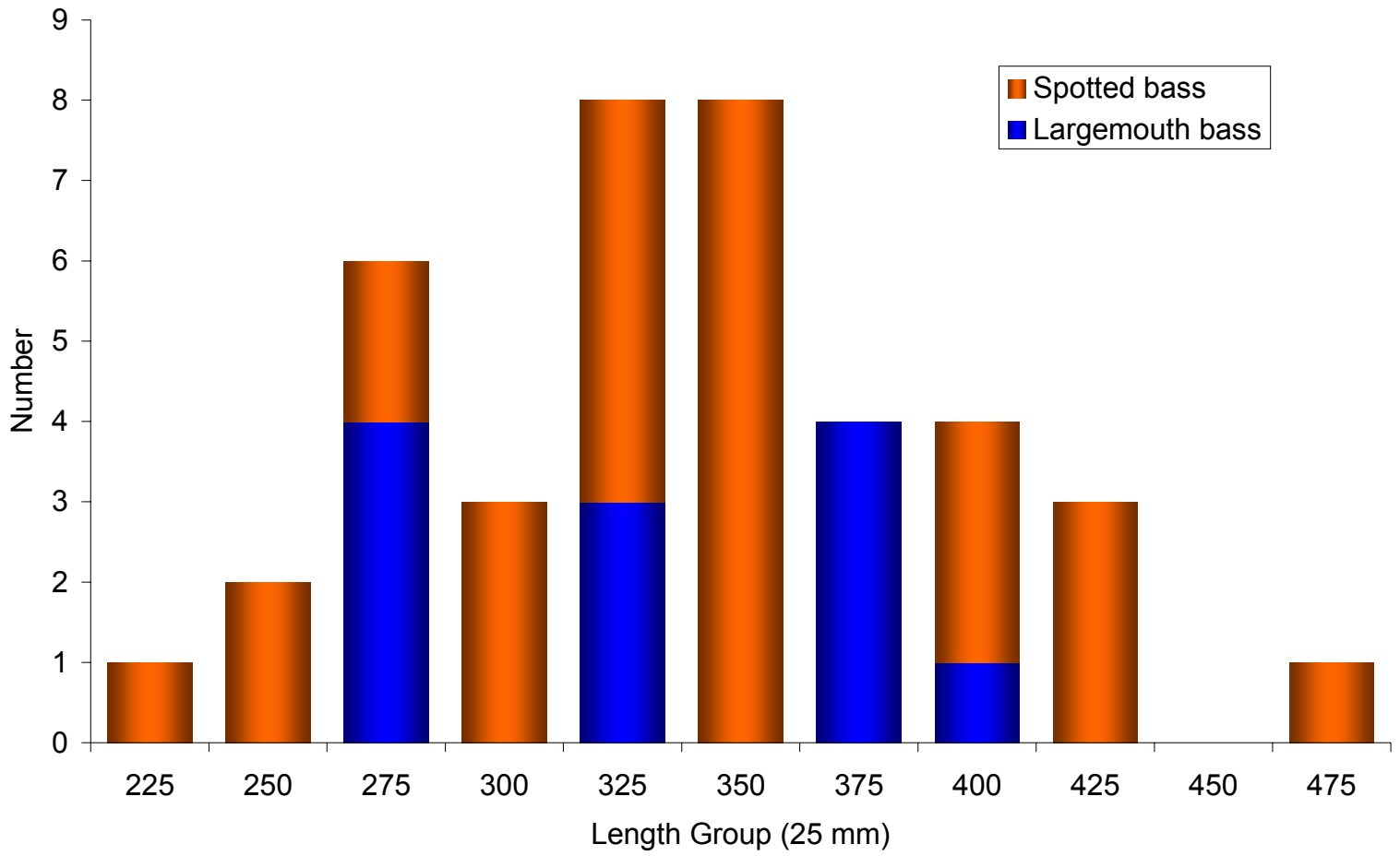


Figure 12. Length frequency distribution of largemouth bass (N=13) and spotted bass (N=27) harvested by anglers at Lay Lake, March - May, 2008.

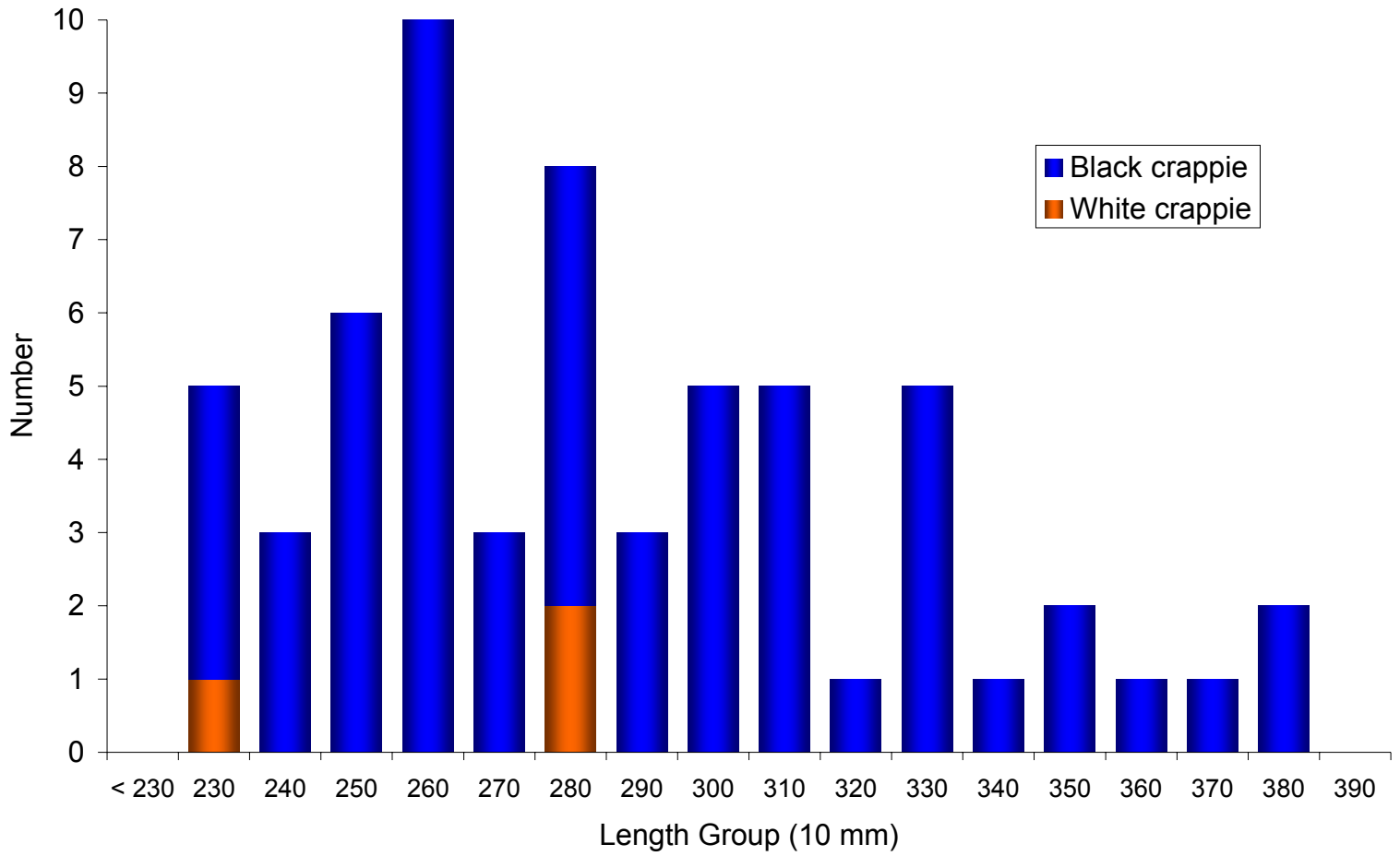


Figure 13. Length frequency distribution of black crappie (N=58) and white crappie (N=3) harvested by anglers at Lay Lake, March - May, 2008.