PERFORMANCE REPORT

As Required by

FEDERAL AID IN SPORT FISH RESTORATION ACT

TEXAS

FEDERAL AID PROJECT F-30-R-34

STATEWIDE FRESHWATER FISHERIES MONITORING AND MANAGEMENT PROGRAM

2008 Survey Report

Lake Somerville

Prepared by:

Jeff Henson and Mark Webb
Inland Fisheries Division
District 3E, Bryan, Texas

Carter P. Smith
Executive Director

Phil Durocher
Director, Inland Fisheries

July 31, 2009

TABLE OF CONTENTS

SURVEY AND MANAGEMENT SUMMARY

Fish populations in Lake Somerville were surveyed in 2008 using electrofishing and trap netting and in 2009 using gill netting. This report summarizes the results of the surveys and contains a management plan for the reservoir based on those findings.

- **Reservoir Description:** Lake Somerville is an 11,456-acre flood control reservoir constructed by the U.S. Army Corps of Engineers on Yegua Creek in Burleson, Lee, and Washington Counties, Texas. Principle tributaries are Middle Yegua, West Yegua, and Nails Creeks. Lake Somerville has a drainage area of approximately 1,006 square miles and a shoreline length of 104 miles.

- **Management history:** Important sport fish include white bass, palmetto bass, largemouth bass, crappie, and blue and channel catfish. The management plan from 2005 included annual gill netting and annual stockings of palmetto bass. In June 2008, 296,657 Florida largemouth bass were stocked. During the 2008-2009 ShareLunker season, an angler contributed a largemouth bass weighing 13.6 pounds, the first contribution to the program from Lake Somerville and a new water body record for the lake. Crappie and catfish populations have been monitored every four years. A new lake record blue catfish was caught in spring 2009. Hydrilla was present along with native plants; however, we have received no complaints from recreational users regarding aquatic plants.

- **Fish Community**

  - **Prey species:** Threadfin shad were the predominant prey species in Lake Somerville. Gizzard shad were also present and most were available as prey. Bluegill and longear sunfish were the most common sunfish prey. Electrofishing catch rates for sunfish were down from 2004. Other less important prey species included bullhead minnow, pugnose minnow, inland silverside, longear sunfish, green sunfish, warmouth, and redear sunfish.

  - **Catfishes:** Channel and blue catfish were present in moderately high numbers. Surveys indicated a sustainable population and previous angler creel surveys indicate a popular fishery. A lake record blue catfish weighing 85 pounds was caught on a trotline in the spring of 2009.

  - **Temperate basses:** White bass and palmetto bass were both present in Lake Somerville and were popular with anglers, particularly during the spring spawning run. Palmetto bass have been stocked annually.

  - **Largemouth bass:** Largemouth bass relative abundance and size structure have improved over the last several years. Florida bass fingerlings were stocked in 2008. During the 2008-2009 ShareLunker season, an angler caught and donated the first ever ShareLunker largemouth bass from Lake Somerville, which also set a new lake record at 13.6 pounds.

  - **Crappie:** Black and white crappie occur in Lake Somerville with white crappie being the more prominent species. According to a previous creel survey, crappies are the most sought-after species at Lake Somerville.

- **Management Strategies:** TPWD will monitor the temperate bass populations annually in the spring with gill nets Largemouth bass and their prey will be monitored by electrofishing and crappie by trap nets in the fall of 2012. Exotic vegetation surveys will be conducted annually to monitor changes in hydrilla abundance.

INTRODUCTION

This document is a summary of fisheries data collected from Lake Somerville from June 2008 through May 2009. The purpose of the document is to provide fisheries information and make management recommendations to protect and improve the sport fishery. While information on other species of fishes was collected, this report deals primarily with major sport fishes and important prey species. Historical data is presented with the 2008-2009 data for comparison.

Reservoir Description

Lake Somerville is an 11,456-acre flood control reservoir constructed by the U.S. Army Corps of Engineers on Yegua Creek in Burleson, Lee, and Washington Counties, Texas. Principle tributaries are Middle Yegua, West Yegua, and Nails Creeks. Lake Somerville has a drainage area of approximately 1,006 square miles, a shoreline length of 104 miles, and a shoreline development ratio of 5.7. The reservoir has a mean depth of 11 feet and a maximum depth of 38 feet. Average rainfall in the watershed is 39 inches per year. Conservation elevation is 238 feet above MSL and typically varies 2 to 4 feet annually (Figure 1). The reservoir lies within the Post Oak Savannah Land Resource Area with soils consisting of Falba-Burlewash, Kaufman-Gowen, and Tabor-Axtell associations. Land uses around the reservoir are primarily agricultural and recreational. Other descriptive characteristics for Lake Somerville are recorded in Table 1.

Management History

Previous management strategies and actions: Management strategies and actions from the previous survey report (Henson and Webb 2005) included:

1. White bass and palmetto bass are important species to anglers.
   Action: Palmetto bass were stocked in 2005 (100,175), 2007 (58,375), and 2008 (110,079). The creel survey planned for 2006-2007 had to be postponed due to the hydrilla survey and creel survey on Lake Conroe. A creel survey on Lake Somerville began in June 2009.

2. Crappies are the most sought-after species group at Lake Somerville as a harvestable resource.
   Action: A creel survey scheduled for 2006-2007 was not conducted due to other sampling priorities. In fall 2008, the crappie population was surveyed as part of the lighted/unlighted trap net study.

3. Largemouth bass have increased in relative abundance and are popular with bass clubs and other sport anglers.
   Action: The largemouth bass survey planned for 2006 was deferred and the creel survey planned for 2006-2007 was postponed to 2009-2010 due to higher priority obligations and time constraints. Florida largemouth bass fingerlings were stocked in 2008.

4. Hydrilla was no longer problematic in 2004, but noted that any increase in abundance should be carefully observed.
   Action: Continued annual monitoring of hydrilla abundance and communicated our findings to the Army Corps of Engineers. Hydrilla abundance has increased since 2004 but is still not problematic. No control measures were taken during the period of record from 2004 through 2008.

5. Keeping the public informed of angling opportunities and fisheries management activities is vital to our role as a resource management agency.
   Action: In October 2008, spoke with Somerville bass club about the potential for trophy bass in Lake Somerville and encouraged the donation of any fish over 13 pounds to the

ShareLunker program. The first ShareLunker was donated in March 2009.

6. Several access areas need repairs and improvements to ensure excellent access is maintained for reservoir users.
   Action: The Corps of Engineers no longer manages Overlook Park. It is now owned by a private operator. Access is good.

Harvest regulation history: Currently on Lake Somerville there are no exceptions to statewide fishing regulations. Table 2 summarizes the harvest regulations for the reservoir.

Stocking history: Since 1975, 3,555,130 palmetto bass have been stocked into Lake Somerville. Florida largemouth bass were stocked in 1990, 2000, 2001, and 2008 for a total of 1,131,686. The complete stocking history is found in Table 3.

Vegetation/habitat history: Lake Somerville has a mixed aquatic plant community of both native and non-native species (Table 4). Hydrilla has been present for several years. In 2000, only about 5 acres of hydrilla were found, but by 2004 307 acres were documented. In 2008, 410 acres were present but did not pose an impediment to access or angling. No control measures have been taken and no complaints have been received by anglers or other recreational users. Water hyacinth was discovered in 2008 and an initial effort to manually remove the plant was unsuccessful. Remaining plants were treated with herbicide.

Structural shoreline habitat consisted primarily of non-descript mud and sand shoreline with overhanging brush. Riprap occurred along the dam and in some of the parks. Much of the shoreline in shallow coves was dominated by American lotus.

METHODS

Fishes were collected by electrofishing (2 hours at 24 5-min stations), gill netting (15 net nights at 15 stations), and trap netting (20 net nights at 10 stations). The trap net survey was conducted as part of a special project evaluating lighted versus standard sets. Ten nets were set at ten randomly chosen sites for two consecutive nights, one night with light and one night without. Catch per unit effort (CPUE) for electrofishing was recorded as the number of fish caught per hour (fish/h) of actual electrofishing and for gill and trap nets, as the number of fish per net night (fish/nn). All survey sites were randomly selected, and all surveys were conducted according to the Fishery Assessment Procedures (TPWD, Inland Fisheries Division, unpublished manual revised 2008).

Sampling statistics (CPUE for various length categories), structural indices [Proportional Stock Density (PSD), Relative Stock Density (RSD)], and condition indices [relative weight (W_r)] were calculated for target fishes according to Anderson and Neumann (1996). Index of vulnerability (IOV) was calculated for gizzard shad (DiCenzo et al. 1996). Relative standard error (RSE = 100 X SE of the estimate/estimate) was calculated for all CPUE statistics and for creel statistics, and SE was calculated for structural indices and IOV. Source for water level data was the United States Geological Survey (USGS) website.

RESULTS AND DISCUSSION

Habitat: Littoral zone habitat consists primarily of non-descript shoreline with hydrilla and American lotus dominating the shoreline plant community. Riprap occurs along the dam and along jetties within the state parks. A trace of water hyacinth was discovered during the survey (Table 4).

Prey species: Threadfin shad were the dominant prey fish in Lake Somerville. In 2004, the electrofishing catch rate for threadfin shad was down to 174.0/h (Henson and Webb 2005), the lowest since 1994, but in 2008 the catch rate increased to over 1,800/h (Appendix A). The electrofishing catch rate of gizzard shad was 231.5/h, only slightly less than in 2004 (304.0/h). Most gizzard shad in the sample were less than 8

inches and available as prey (IOV = 99.4%, Figure 2). Bluegill were the most abundant sunfish prey with a catch rate in 2008 of 132.5/h, down from 313.5/h in 2004 (Figure 3). Other less important prey species included longear sunfish, redear sunfish, green sunfish, warmouth, bullhead minnow, and inland silverside (Appendix A).

Catfishes: Gill net catch rates of blue catfish have decreased since 2005. The catch rate in 2009 was 0.7/nn, a decrease from 2.7/nn in 2005 (Figure 4). The current sample length frequency indicated fewer large fish in the population than in 2005. In 2005, half of the sample was composed of fish 20 inches or longer, yet no individuals longer than 19 inches were collected in 2009. Rod-and-reel anglers harvest few blue catfish from Lake Somerville (Henson and Webb 2005).

Lake Somerville supports a sustainable population of channel catfish. The gill net catch rate in 2009 was 8.5/nn, down slightly from 11.1/nn in 2005 (Figure 5). Channel catfish numbers have declined since 2001 when just over 20/nn were captured (Henson and Webb 2000). Creel results from 2001-2002 indicated low directed rod-and-reel angling effort for catfishes (0.75 hours/acre), with an angler catch rate estimated at 0.59 fish/h (Henson and Webb 2005).

Temperate basses: White bass were captured at a rate of 10.6/nn in 2009, up from 5.9/nn in 2005 but lower than in 2004 (17.7/nn) (Figure 6). The length frequency of the 2009 gill net sample indicates a higher level of recruitment in 2009 than in 2005. White bass are very popular with anglers, particularly during the spring spawning run. In 2001-2002, anglers harvested over 19,000 white bass from Lake Somerville (Henson and Webb 2005).

Gill net CPUE of palmetto bass was 2.2/nn in 2009, much lower than the 13.7/nn observed in 2005 but similar to that of 2004 (2.3 /nn) (Figure 7). The relative abundance of legal-length fish in 2009 ($CPUE_{18}$=0.7) has not changed since 2005 ($CPUE_{18}$=0.8), but is less than in 2004 ($CPUE_{18}$=1.5). The stocking rate was cut from 10/acre to 5/acre in 2006 and 2007 and perhaps accounts for the lower population statistics observed in 2009.

Largemouth bass: The electrofishing catch rates observed in 2004 and 2008 were similar at 76.5/h and 77.5/h, respectively (Figure 8). Recruitment was high with the catch rate of stock-sized fish being 55.0/h in 2008, up from 38.5 in 2004. Bass up to 18 inches total length were observed in the sample.

Florida largemouth bass fingerlings were stocked in 2008 after genetic analysis in 2004 indicated that the proportion of FLMB genotypes had dropped to 20% (Henson and Webb 2005). Because Florida largemouth bass fingerlings were stocked in the spring of 2008, no genetics analysis was conducted from the fall sample. A history of the population genetics is presented in Table 5.

During the 2008-2009 season, Lake Somerville produced its first ShareLunker when an angler caught and donated a 13.6-pound bass that set a new lake record. ShareLunker fingerlings were stocked (2,990) in May 2009.

Crappies: Black and white crappie occur in Lake Somerville. Trap net catch rates since 2000 have been very low. In 2004 and 2008, trap net CPUE was only 1.6/nn and 1.1/nn, respectively for white crappie (Figure 9). One black crappie was captured in 2004 and none were observed in the 2008 sample. This is a stark contrast to the trap net catch observed in 2000 when white crappie were captured at a rate of 17.7/nn and black crappie at a rate of 2.2/nn (Henson and Webb 2005). One possible explanation for the decline is during the spring of that year, the Corps of Engineers released water downstream, dropping the reservoir level by as much as four feet. This drop in level occurred during the spawning period. Angling pressure during this time was also high. Creel data from a 2001-2002 survey indicated very high directed effort for crappie with substantial harvest of fish to 15 inches (Henson and Webb 2005). This pressure on the adults in the population along with the very low recruitment of the 2000 year class may have been enough to send the population into an extended decline.

Fisheries management plan for Lake Somerville, Texas

Prepared – July 2009.

ISSUE 1: Temperate basses are the most important species to anglers at Lake Somerville.

MANAGEMENT STRATEGY

1. Survey white bass and palmetto bass annually using spring gill netting.
2. Stock palmetto bass annually at a rate of 10/acre.

ISSUE 2: Crappies are the most sought after species group at Lake Somerville and provide a harvestable resource.

MANAGEMENT STRATEGY

1. Monitor crappie fishery with creel survey every four years beginning in 2009-2010.
2. Monitor crappie population with trap nets in 2012.

ISSUE 3: The largemouth bass fishery at Lake Somerville is increasing in popularity and quality evidenced by the new lake record/ShareLunker from 2009.

MANAGEMENT STRATEGY

1. Continue outreach to anglers in the Lake Somerville area encouraging participation in all TPWD angler recognition programs including ShareLunker.
2. Send news releases to local media outlets highlighting ShareLunker offspring stocking at Lake Somerville.
3. Conduct a bass-only electrofishing survey in fall 2010 to evaluate population parameters and genetic composition. Request Florida largemouth bass stocking in 2010.
4. Conduct a standard electrofishing survey in the fall of 2012 to monitor largemouth bass and prey fish populations.

ISSUE 4: Hydrilla is currently not a problem on Lake Somerville but the coverage is expanding.

MANAGEMENT STRATEGY

1. Continue annual monitoring of hydrilla at Lake Somerville keeping the U. S. Army Corps of Engineers informed and making treatment recommendations if necessary.

ISSUE 5: Water hyacinth was discovered at Lake Somerville in 2008. Plants were manually removed but re-occurred. All plants found were subsequently treated with herbicide.

MANAGEMENT STRATEGY

1. Continue annual monitoring of Lake Somerville for water hyacinth and facilitate herbicide treatment where observed.

SAMPLING SCHEDULE JUSTIFICATION: Trap netting and a complete habitat and vegetation survey will be conducted every four years. Gill netting will be conducted annually to monitor white bass and palmetto bass populations. Electrofishing surveys will be conducted biennially to monitor the largemouth bass population. An exotic vegetation survey will be conducted annually to provide information on exotic vegetation infestations. A creel survey will be conducted every four years beginning in June 2009 to monitor angler activity.

LITERATURE CITED

Anderson, R. O., and R. M. Neumann. 1996. Length, weight, and associated structural indices. Pages 447-482 in B. R. Murphy and D. W. Willis, editors. Fisheries techniques, 2nd edition. American Fisheries Society, Bethesda, Maryland.

DiCenzo, V. J., M. J. Maceina, and M. R. Stimert. 1996. Relations between reservoir trophic state and gizzard shad population characteristics in Alabama reservoirs. North American Journal of Fisheries Management 16:888-895.

Henson, J. C., and M. A. Webb. 2001. Statewide freshwater fisheries monitoring and management program survey report for Lake Somerville, 2000. Texas Parks and Wildlife Department, Federal Aid Report F-30-R-26, Austin.

Henson, J. C., and M. A. Webb. 2005. Statewide freshwater fisheries monitoring and management program survey report for Lake Somerville, 2004. Texas Parks and Wildlife Department, Federal Aid Report F-30-R-30, Austin.

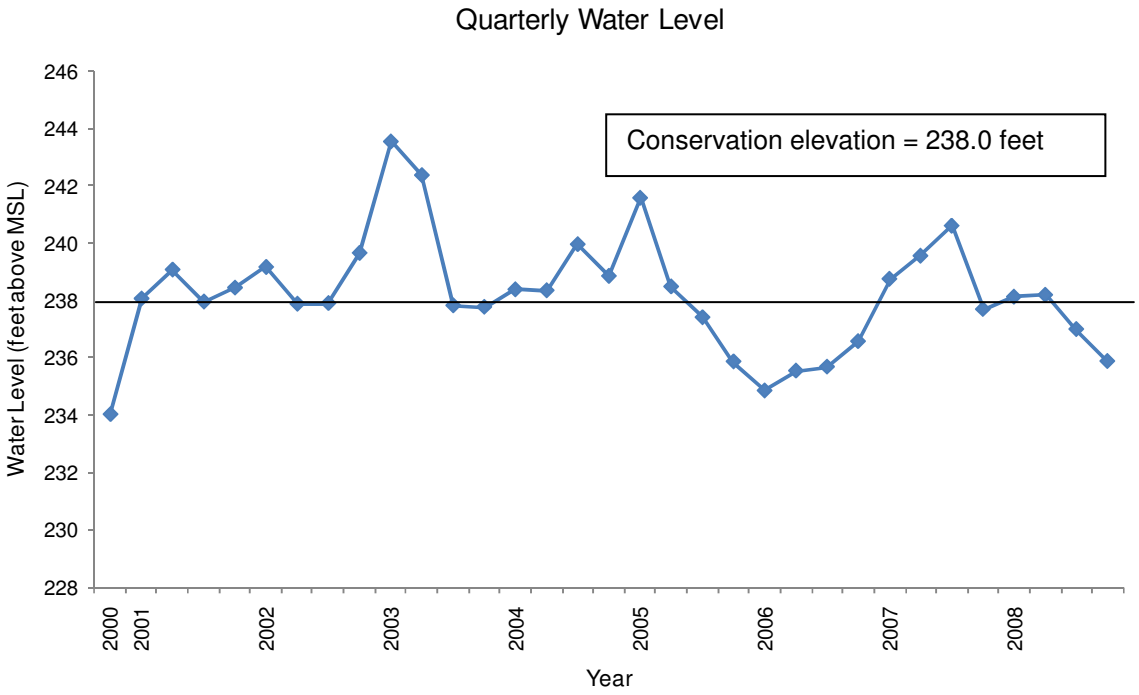


Figure 1. Quarterly mean water level elevations in feet above mean sea level (MSL) recorded for Lake Somerville, Texas from October 2000 to October 2008.

Table 1. Characteristics of Lake Somerville, Texas.

Characteristic	Description
Year constructed	1967
Controlling authority	U. S. Army Corps of Engineers
Counties	Washington (location of dam), Lee, and Burleson
Reservoir type	Tributary
Shoreline Development Index (SDI)	5.2
Conductivity	290-330 umhos/cm

Table 2. Harvest regulations for Lake Somerville.

Species	Bag Limit	Minimum-Maximum Length (inches)
Catfish: channel and blue catfish, their hybrids and subspecies	25 (in any combination)	12 - No Limit
Catfish, flathead	5	18 - No Limit
Bass, white	25	10 - No Limit
Bass, palmetto	5	18 - No Limit
Bass: largemouth	5	14 - No Limit
Crappie: white and black crappie, their hybrids and subspecies	25 (in any combination)	10 - No Limit

Table 3. Stocking history of Lake Somerville, Texas. Size Categories are FRY =<1 inch, FGL = 1-3 inches, and AFGL = 6-8 inches.

Species	Year		Number	Size
Blue catfish	1967		23,000	UNK
Channel catfish	1967		73,850	AFGL
	1968		302,000	AFGL
	1973		29,500	AFGL
		Total	405,350	
Palmetto bass	1975		50,000	UNK
	1977		72,649	UNK
	1979		128,500	UNK
	1981		67,416	UNK
	1983		76,912	UNK
	1984		250,576	FGL
	1985		144,271	FGL
	1986		170,600	FRY
	1987		184,600	FRY
	1988		232,347	FRY
	1989		232,497	FGL
	1991		116,651	FGL
	1992		178,626	FGL
	1993		92,723	FGL
	1994		170,800	FGL
	1995		324,800	FGL
	1996		173,638	FGL
	1997		50,215	FGL
	1998		177,621	FGL
	1999		85,436	FGL
	2000		29,800	FGL
	2002		22,020	FGL
	2004		115,312	FGL
	2005		100,175	FGL
	2006		58,085	FGL
	2007		58,375	FGL
	2008		110,079	FGL
	2009		80,406	FGL
		Total	3,555,130	
Florida largemouth bass	1990		287,680	FRY
	2000		287,642	FGL
	2001		259,707	FGL
	2008		296,657	FGL
		Total	1,131,686	
ShareLunker largemouth bass	2009		2,990	FGL
Largemouth bass	1967		100,000	UNK
White crappie	1967		4,000	UNK

Table 3. Stocking history continued.

Species	Year		Number	Size
Black crappie	1967		4,000	UNK
Walleye	1973		655,000	FRY
	1974		171,600	FRY
	1975		253,200	FRY
		Total	1,079,800	

Table 4. Survey of littoral zone and physical habitat types, Lake Somerville, Texas, 2008. A linear shoreline distance (miles) was recorded for each habitat type found. Surface area (acres) and percent of reservoir surface area was determined for each type of aquatic vegetation found.

Shoreline habitat type	Shoreline Distance		Surface Area	
	Miles	Percent of total	Acres	Percent of reservoir surface area
Structural habitat				
Concrete	1.0	1.0		
Eroded bank	2.6	2.5		
Non-descript	93.8	90.0		
Overhanging brush	3.4	3.3		
Rip rap	1.2	1.0		
Rocky shoreline	2.2	2.1		
Native vegetation				
Native emergent			831	7.2
Native submergent			94	0.8
Native floating			< 1	
Non-native vegetation				
Hydrilla			410	2.7
Water hyacinth			< 1	

Gizzard Shad

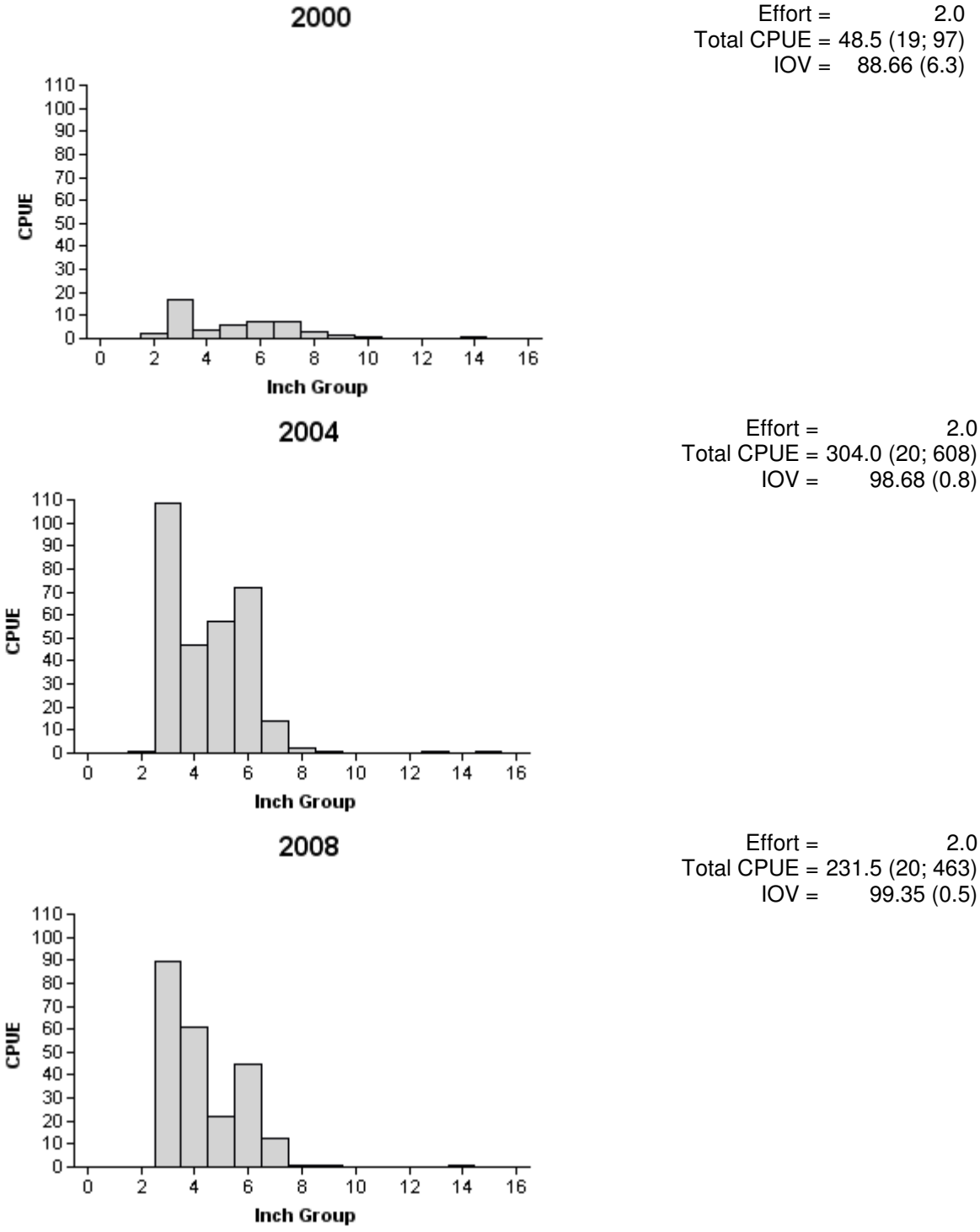


Figure 2. Number of gizzard shad caught per hour (CPUE) and population indices (RSE and N for CPUE and SE for IOV are in parentheses) for fall electrofishing surveys, Lake Somerville, Texas, 2000, 2004, and 2008.

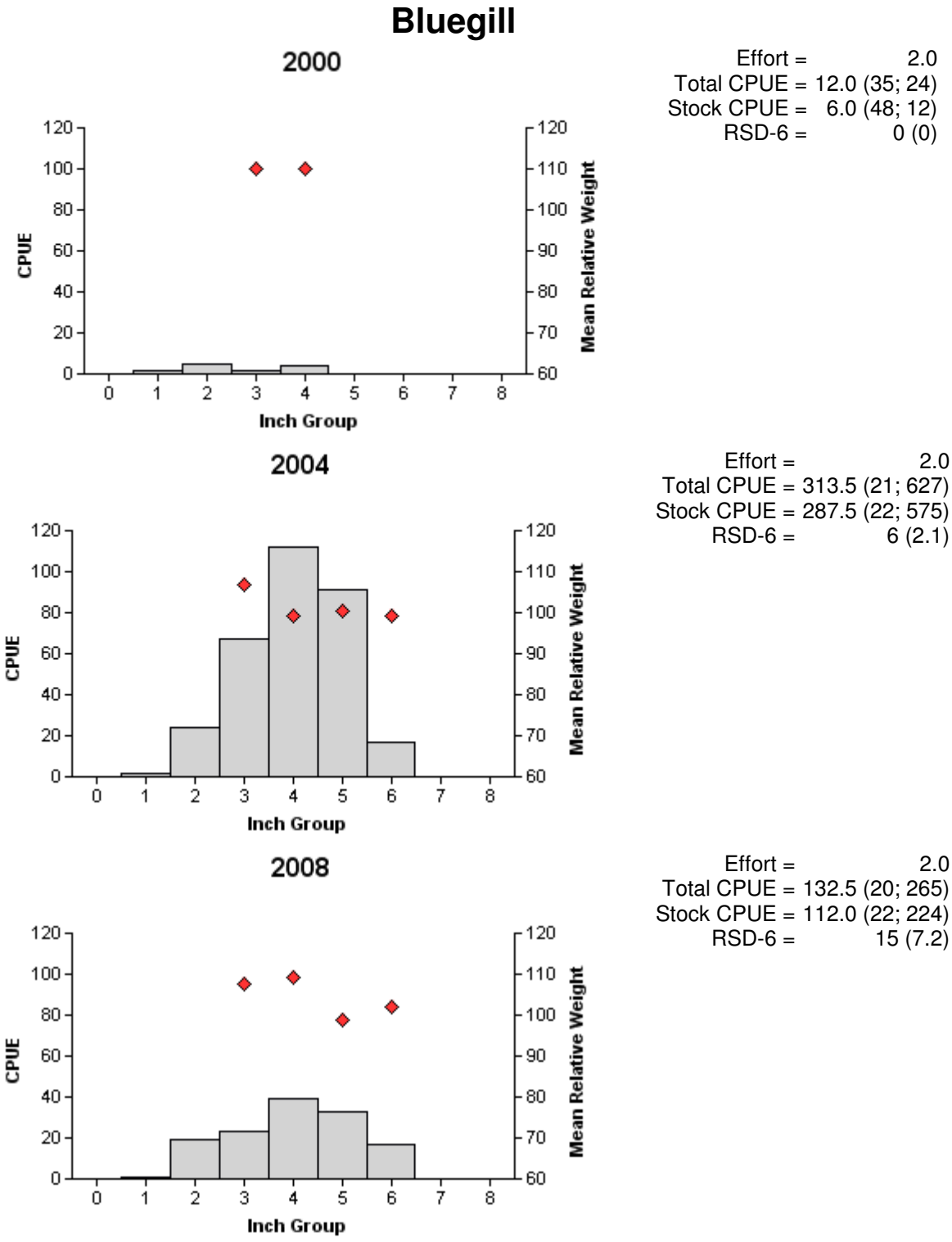


Figure 3. Number of bluegill caught per hour (CPUE, bars), mean relative weight (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall electrofishing surveys, Lake Somerville, Texas, 2000, 2004, and 2008.

Blue Catfish

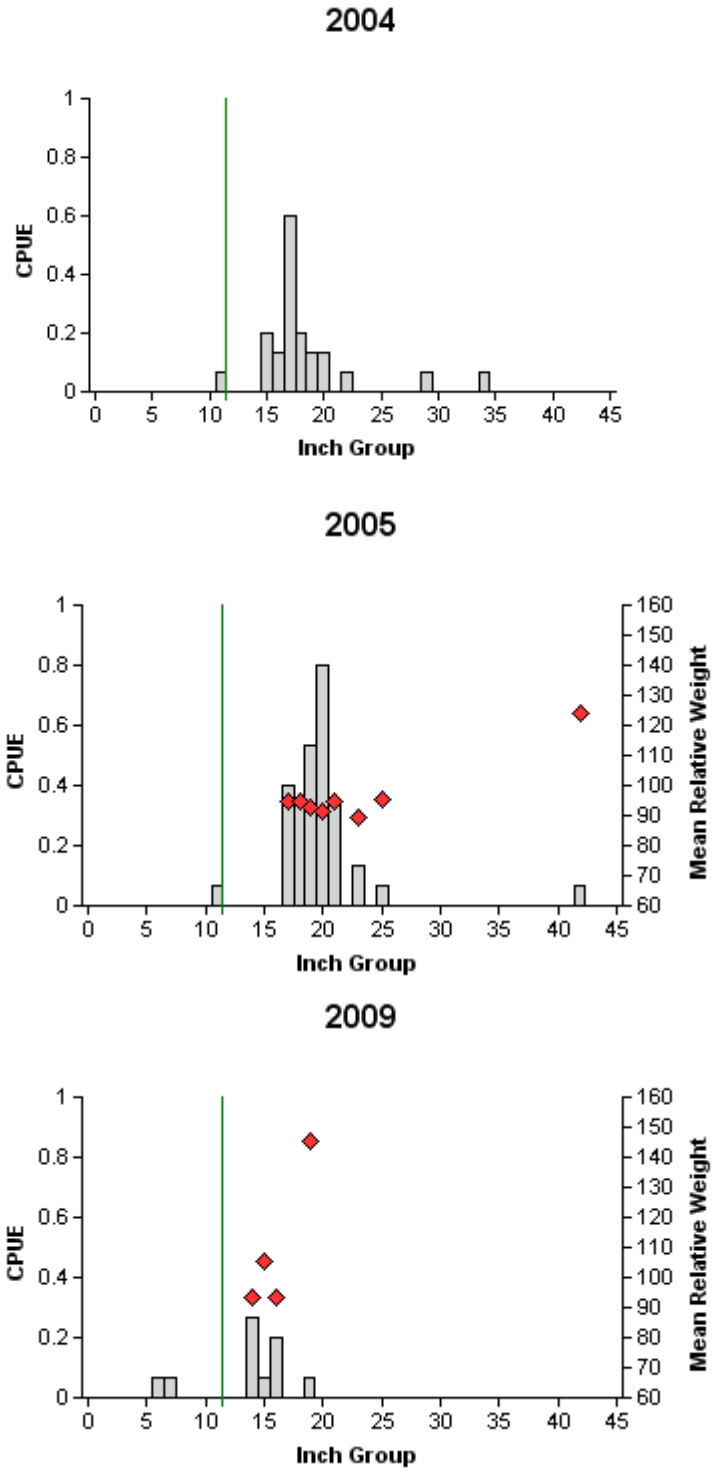


Figure 4. Number of blue catfish caught per net night (CPUE, bars), mean relative weight (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for spring gill net surveys, Lake Somerville, Texas, 2004, 2005, and 2009. Vertical lines indicate minimum length limit at time of survey. Relative weight was not evaluated in 2004.

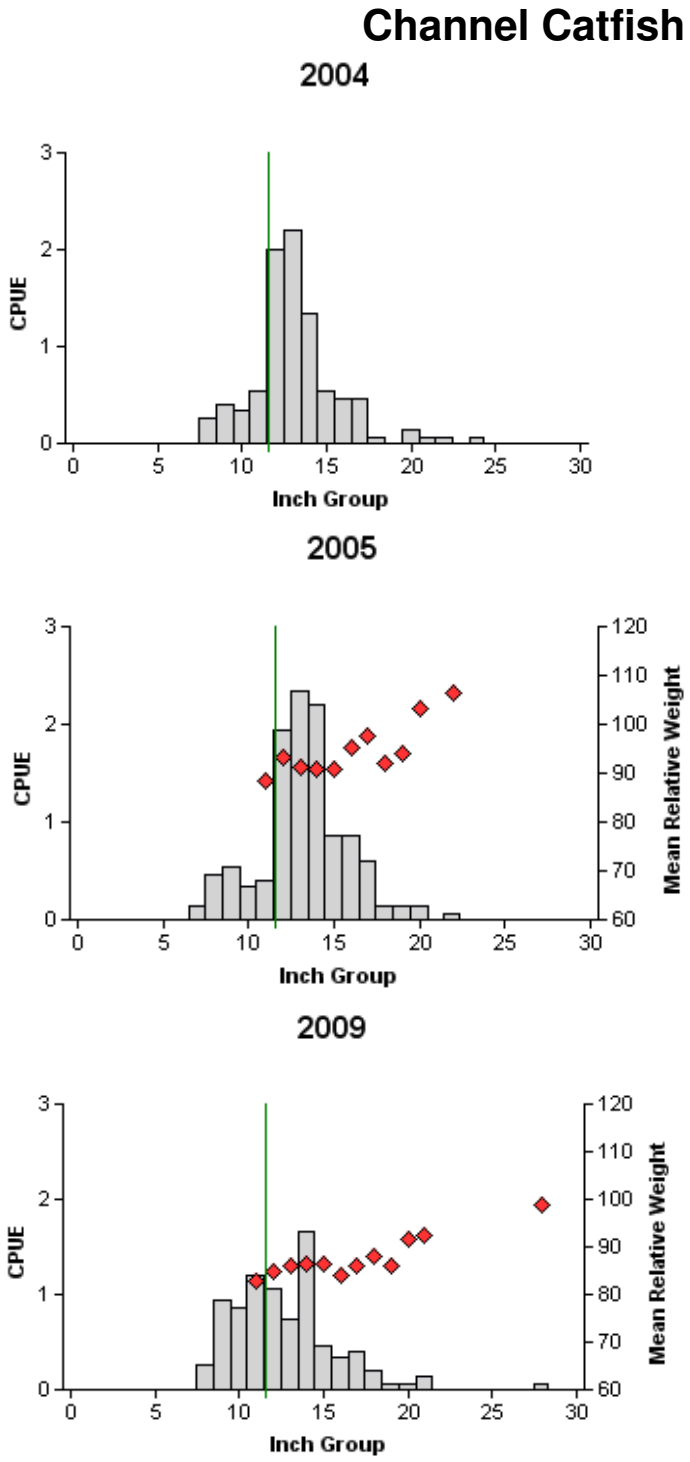


Figure 5. Number of channel catfish caught per net night (CPUE, bars), mean relative weight (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for spring gill net surveys, Lake Somerville, Texas, 2004, 2005, and 2009. Vertical lines indicate minimum length limit at time of survey. Relative weight was not evaluated in 2004.

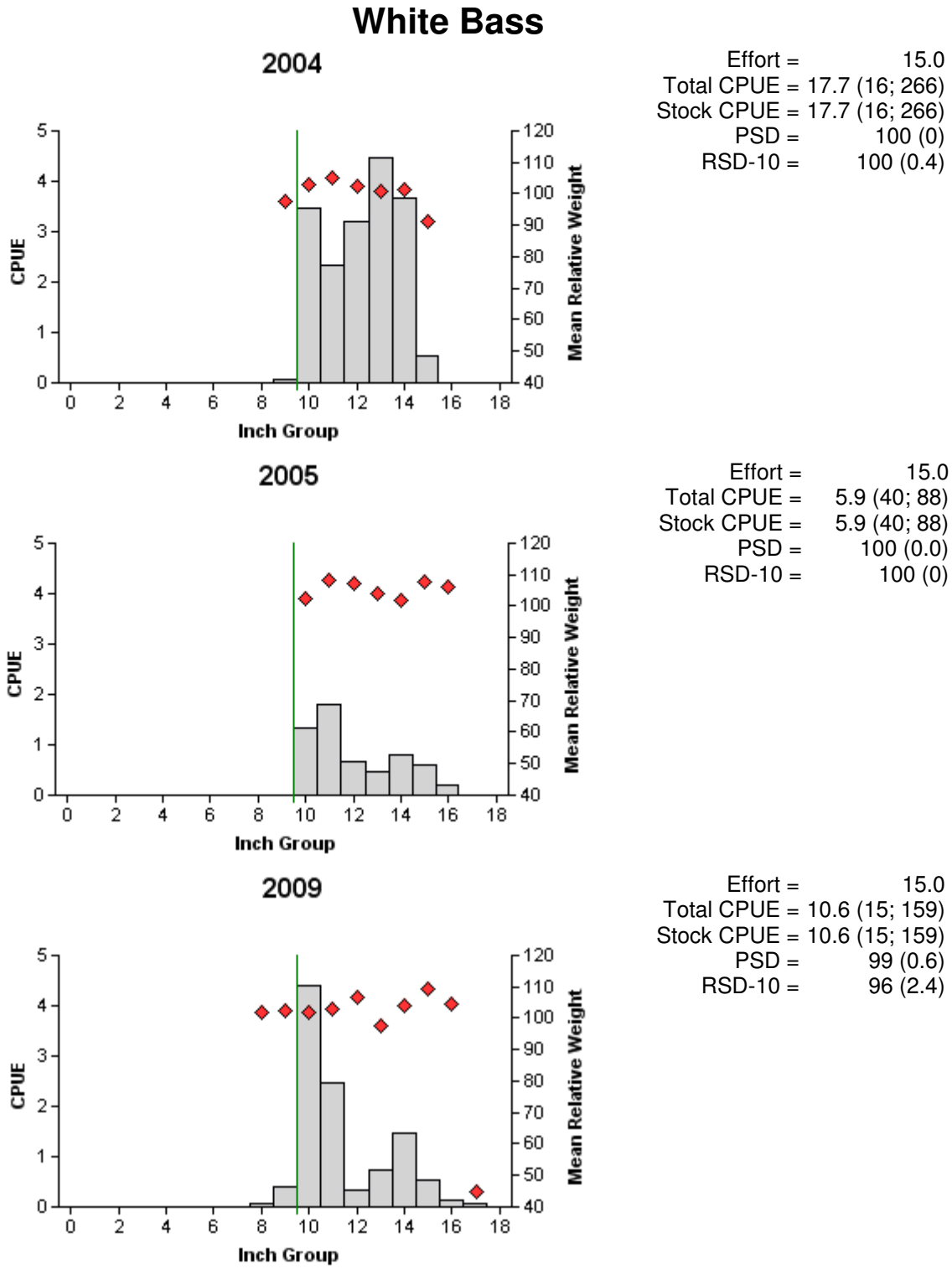


Figure 6. Number of white bass caught per net night (CPUE, bars), mean relative weight (diamonds) and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for spring gill net surveys, Lake Somerville, Texas, 2004, 2005, and 2009. Vertical lines indicate minimum length limit at time of survey.

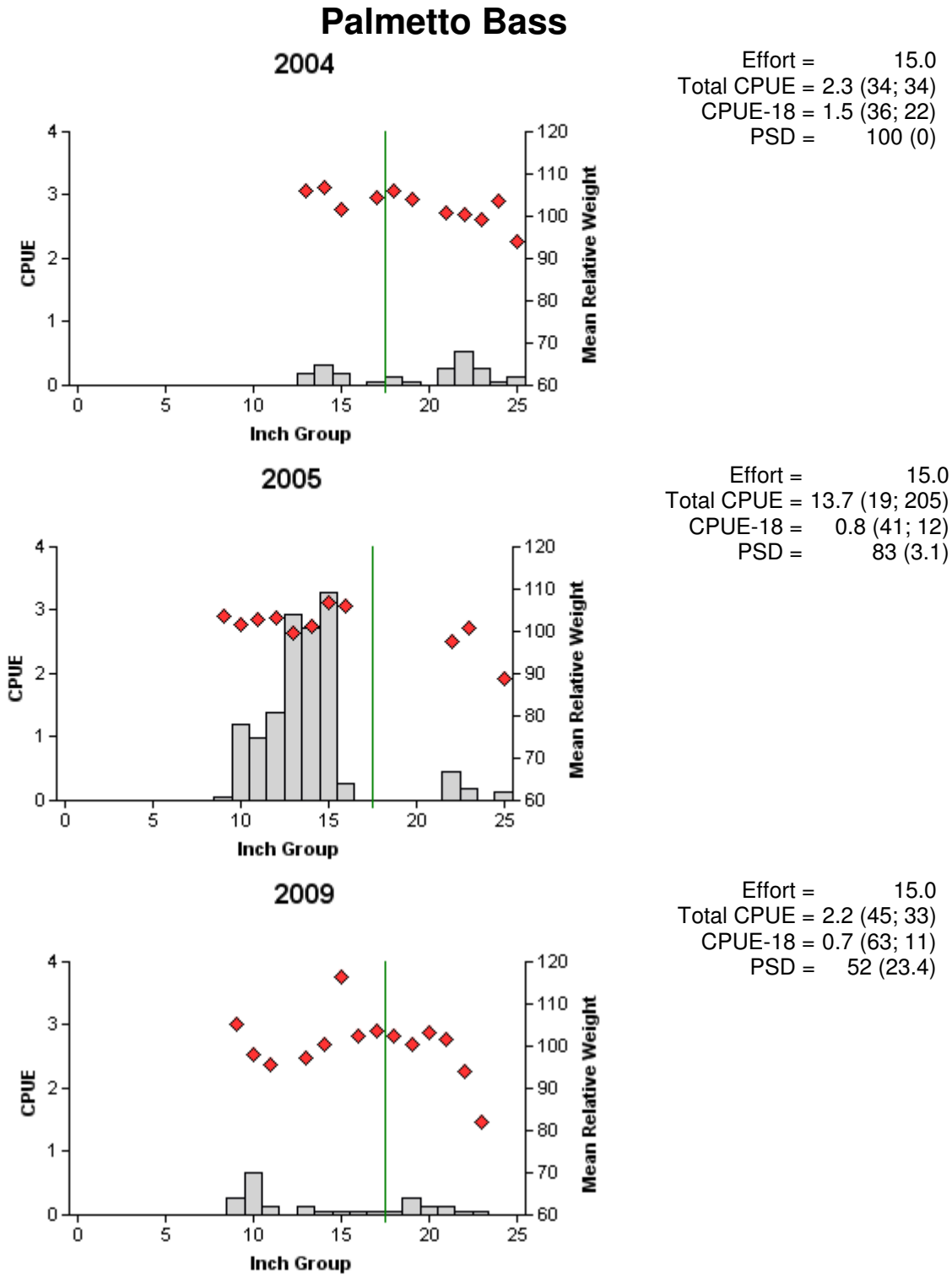


Figure 7. Number of palmetto bass caught per net night (CPUE, bars), mean relative weight (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for spring gill net surveys, Lake Somerville, Texas, 2004, 2005, and 2009. Vertical lines indicate minimum length limit at time of survey.

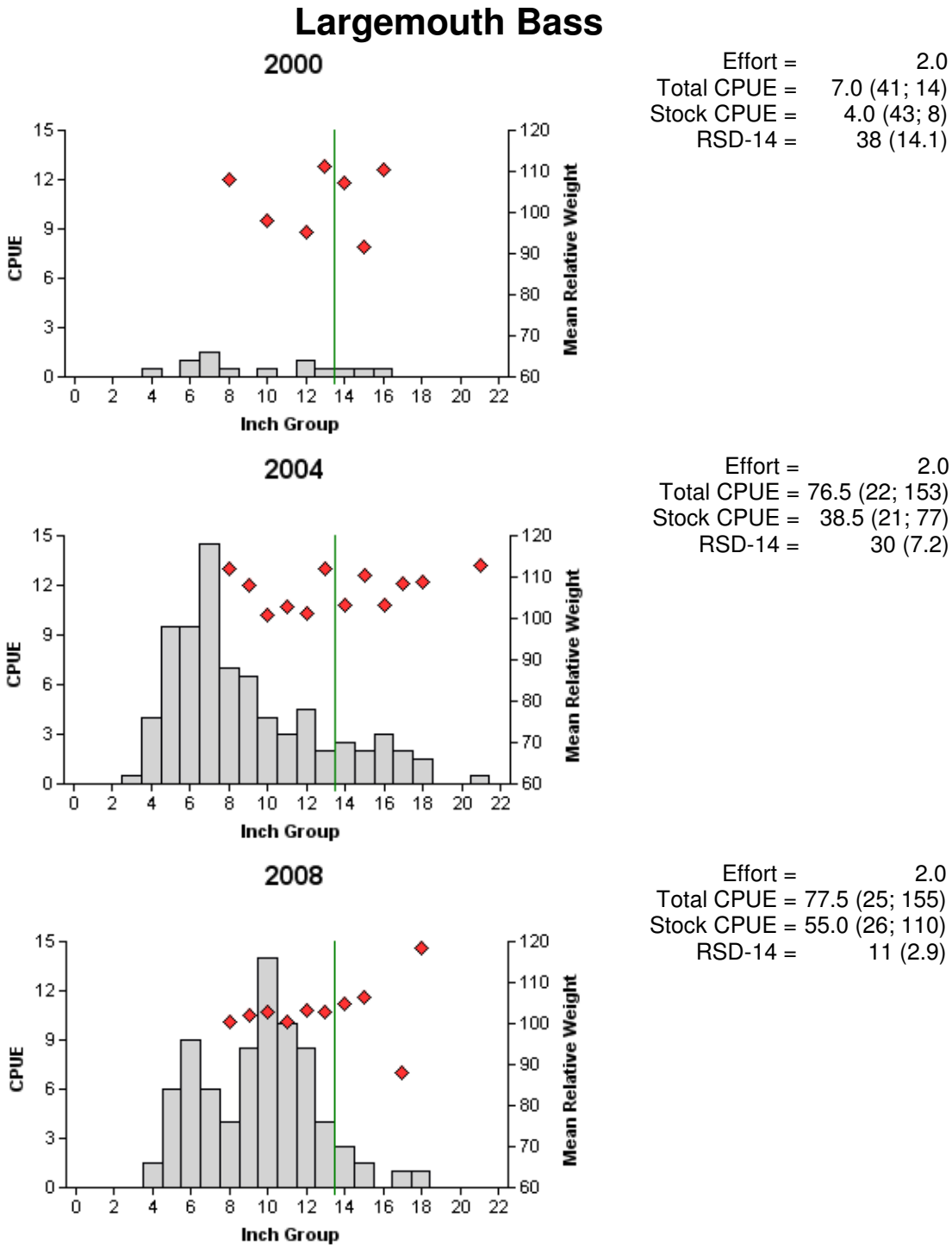
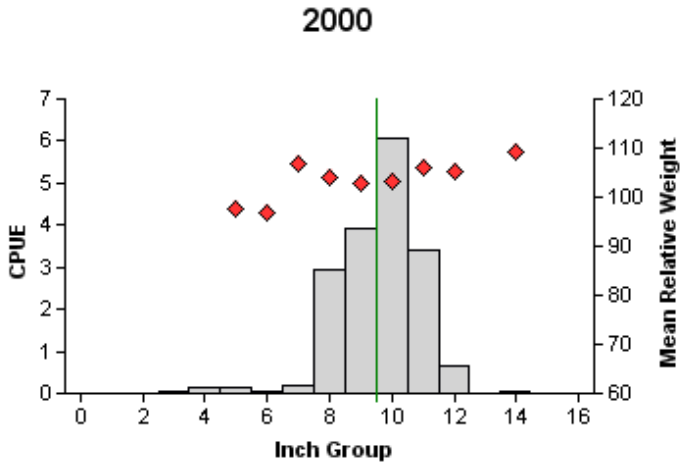


Figure 8. Number of largemouth bass caught per hour (CPUE, bars), mean relative weight (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall electrofishing surveys, Lake Somerville, Texas, 2000, 2004, and 2008. Vertical lines indicate minimum length limit at time of survey.

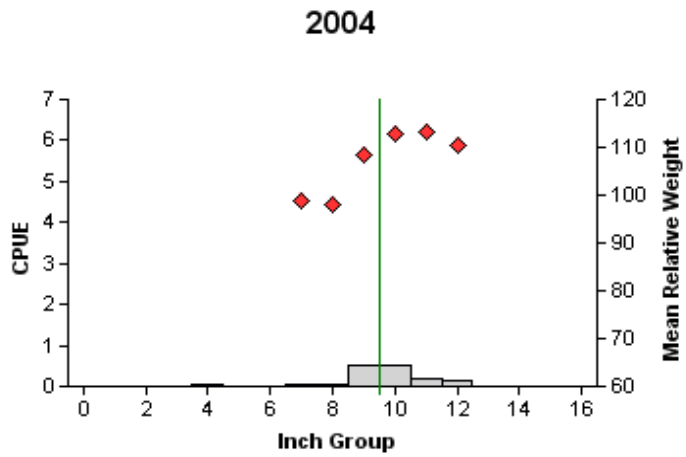
Table 5. Results of genetic analysis of largemouth bass collected by fall electrofishing, Lake Somerville, Texas, 1994, 1997, 2000, and 2004. FLMB = Florida largemouth bass, NLMB = Northern largemouth bass, F1 = first generation hybrid between a FLMB and a NLMB, Fx = second or higher generation hybrid between a FLMB and a NLMB.

		Genotype					
Year	Sample size	FLMB	F1	Fx	NLMB	% FLMB alleles	% pure FLMB
1994	43	3	9	14	17	27.5	7.0
1997	40	2	3	16	19	23.8	5.0
2000	7	5	2	0	0	85.7	71.4
2004	50	10	9	30	1	58.0	20.0

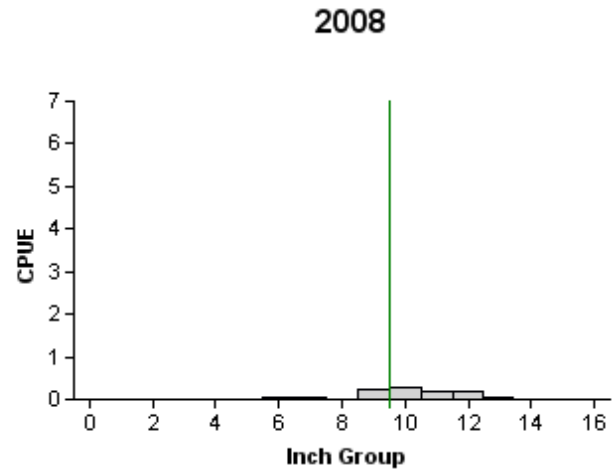
White Crappie



Effort = 15.0
Total CPUE = 17.7 (39; 265)
Stock CPUE = 17.5 (38; 262)
PSD = 98 (0.9)
RSD-10 = 58 (2.8)



Effort = 15.0
Total CPUE = 1.6 (23; 24)
Stock CPUE = 1.5 (24; 23)
PSD = 96 (4.4)
RSD-10 = 57 (10.1)



Effort = 20.0
Total CPUE = 1.1 (38; 22)
Stock CPUE = 1.1 (38; 22)
PSD = 91 (7.2)
RSD-10 = 68 (9.1)

Figure 9. Number of white crappie caught per net night (CPUE, bars), mean relative weight (diamonds), and population indices (RSE and N for CPUE and SE for size structure are in parentheses) for fall trap net surveys, Lake Somerville, Texas, 2000, 2004, and 2008. Vertical lines indicate minimum length limit. Relative weight was not evaluated in 2008. Because the data from 2008 was collected with non-standard methods as part of a research topic, it is not statistically comparable to previous years.

Table 6. Proposed sampling schedule for Lake Somerville, Texas. Gill netting surveys are conducted in the spring while electrofishing and trap netting surveys are conducted in the fall. Standard survey denoted by S and additional survey denoted by A.

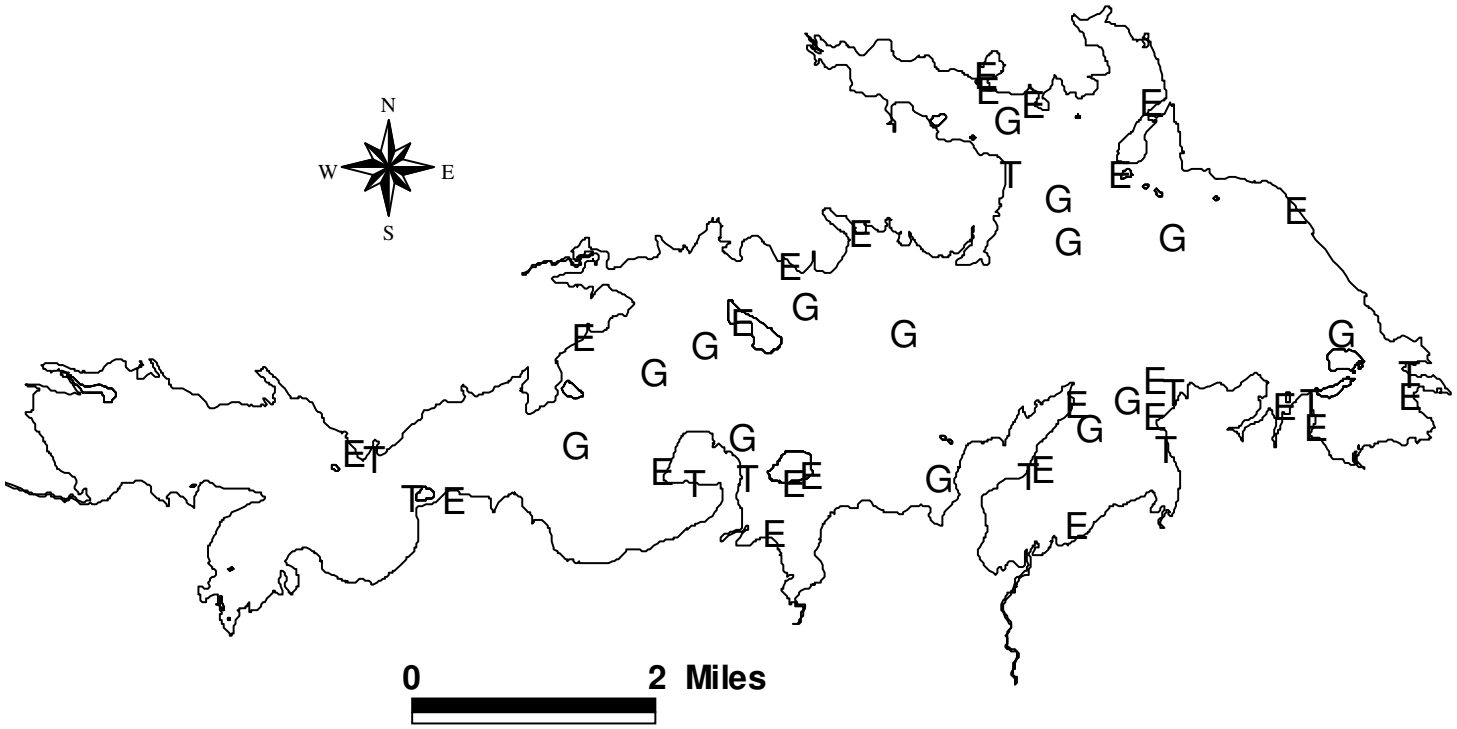
Survey Year	Electrofisher	Trap Net	Gill Net	Creel Survey	Vegetation Survey	Report
Fall 2009-Spring 2010			A	A	S	
Fall 2010-Spring 2011	A		A		S	
Fall 2011-Spring 2012			A		S	
Fall 2012-Spring 2013	S	A	S		S	S

APPENDIX A

Number (N) and catch rate (CPUE) of all target species collected from all gear types from Lake Somerville, Texas, 2008-2009.

Species	Gill Netting		Trap Netting		Electrofishing	
	N	CPUE	N	CPUE	N	CPUE
Gizzard shad					463	231.5
Threadfin shad					3,721	1,860.5
Bullhead minnow					3	1.5
Pugnose minnow					3	1.5
Inland silverside					103	51.5
Blue catfish	11	0.7				
Channel catfish	127	8.5				
White bass	159	10.6				
Palmetto bass	33	2.2				
Green sunfish					1	0.5
Warmouth					2	1.0
Bluegill					265	132.5
Longear sunfish					51	25.5
Redear sunfish					1	0.5
Largemouth bass					155	78.0
White crappie	3	0.2	22	1.1	2	1.0
Black crappie	19.5	1.3	0	0.0	2	1.0

APPENDIX B



Location of sampling sites, Lake Somerville, Texas, 2008-2009. Trap netting, gill netting, and electrofishing stations are indicated by T, G, and E, respectively. Each T represents one trap net set for two consecutive nights for a total effort of 20 net nights. Water level was near full pool at time of sampling.