

## PERFORMANCE REPORT

State: Oklahoma

Grant Number: F-50-R-13

Grant Title: Fish Research for Oklahoma Waters

Project Number: 24

Project Title: Size at Harvest and Growth of Blue Catfish in Oklahoma Reservoirs

Contract Period: From: May 18, 2006 To: December 31, 2006

Project Objectives: 1) Collect age, growth and mortality data on an additional six Oklahoma reservoirs; and 2) Determine the average daily creel of catfish anglers and the proportional length of catfish being harvested in Oklahoma reservoirs.

I. Segment Objective: 1) ) Collect age, growth and mortality data on an additional three Oklahoma reservoirs; and 2) Determine the average daily creel of catfish anglers and the proportional length of catfish being harvested in Oklahoma reservoirs.

### II. Summary of Progress

#### A. Introduction

Blue catfish *Ictalurus furcatus* are widely distributed throughout Oklahoma rivers and reservoirs. However, life history information on the blue catfish is scarce in the published literature (Graham 1999). Intensive management of catfish has historically been limited to stocking programs for put-grow-take and/or put-take fisheries in small impoundments (Michaletz and Dillard 1999). Constraints to implementing catfish management programs include low agency priority/angler interest, inadequate habitat, inadequate sampling methods, and inadequate data (Michaletz and Dillard 1999).

Angler interest in the pursuit of “trophy-sized” catfish has increased in recent years. Most catfish anglers (71%) take at least one trip annually to pursue trophy catfish (Arterburn et al. 2002). This interest has given rise to an increasing number of catfish angling tournament circuits (e.g., Bass Pro Cat Quest, Cabela’s King Kat, Duracats, Southern Cats Association, United States Catfish Angler Tournament Series). Fishing for trophy-sized fish is more important for blue catfish *Ictalurus furcatus* and flathead catfish *Pylodictis olivaris* anglers than for anglers pursuing channel catfish *I. punctatus* (Wilde and Ditton 1999; Arterburn et al. 2002). However, the emphasis placed on managing catfish fisheries by agencies appears to be lagging behind angler interest to do so. Only 2% of agency experts surveyed by Arterburn et al. (2002) indicated that their agencies emphasized managing trophy catfish fisheries even though 75% of catfish anglers surveyed were in favor of developing trophy fisheries. Lack of biological information on catfish populations was the primary reason given for the low emphasis placed on managing catfish fisheries.

Lake Texoma has a reputation as a world-class blue catfish fishery with a former rod and reel world record blue catfish (122.5 lb) being caught in January 2004. The Oklahoma Department of Wildlife Conservation (ODWC) has been collecting abundance trend data since the early 1990's but concerns have arisen in recent years that increased fishing pressure on the largest individuals could jeopardize the trophy status of the fishery. Blue catfish growth information was collected on Texoma in 2003 (Mauck and Boxrucker 2005). Growth rates were relatively slow (blue catfish averaged 23 in at age 10) and highly variable making management of the fishery for trophy potential challenging. ODWC staff recognized the need to collect growth and mortality information on additional blue catfish populations. To date, age and growth information

has been collected on seven reservoirs and blue catfish, as a species, are relatively slow growing. On average, it takes 13-16 years for blue catfish in Oklahoma reservoirs to reach preferred size (30 inches; Gablehouse 1984)). Slow growth and increasing angler pressure on the largest fish in the population have increased interest of fisheries biologists in implementing restrictive harvest regulations.

Creel data on catfish anglers is largely unavailable for Oklahoma reservoirs. Fisheries managers do not know what percent of catfish anglers catch their daily creel limit or what proportion of the harvest is composed of large catfish. These data are important for developing a scientific-based management program and to inform the public on the need for more restrictive regulations. Blue catfish age and growth information on additional reservoirs will add to the basic life history knowledge base for the species in Oklahoma. This information will also be useful in helping to tailor harvest regulations to those systems with the most potential to meet management objectives. Numbers and sizes of catfish being harvested by individual anglers and the methods used is information needed to develop an informed management program.

Creel information is expensive to collect and, as a result, is usually available on a select number of systems. Because concerns have been raised over the potential overharvest of blue catfish in numerous reservoirs and rivers, the need exists for this information to be available on a statewide basis. Law Enforcement personnel (game wardens) are assigned on a county basis, with as many as three wardens working some of the larger counties. Consequently, several wardens may work some of the larger reservoirs and river systems. Given that wardens patrol these systems during the normal course of their assigned duties, the opportunity existed to use this labor force to collect creel information on blue catfish harvest. The objective of the creel survey was to

determine: 1) the percentage of catfish anglers that are catching their daily creel limit (15 daily of channel catfish and blue catfish in aggregate; six flathead catfish daily) and; 2) the percentage of catfish anglers that harvest one or more blue catfish  $\geq$  30 inches.

## B. Methods:

### Abundance; Age and Growth

Blue catfish abundance (catch rate) data were collected on three Oklahoma impoundments (Arcadia, Oologah, Robert S. Kerr). These data will complement data collected previously on seven impoundments under F-44-D, Project 2 (Table 1).

Low-frequency (15 pulses/sec), low amperage (4 amps), pulsed-DC electrofishing samples, targeting blue catfish, were collected in August 2006. Samples were collected in uplake portions of the reservoir on flats in depths of 6-15 ft. The electrofishing boat was manned with a driver and two dippers. In addition, two chase boats, each equipped with a driver and two dippers, assisted in collecting fish. Due to the distance that fish surface from the electrofishing boat, chase boats were essential to maximize collections. The electrofishing boat remained stationary until fish began to surface and then moved slowly in the direction of surfacing fish. Eight units of effort (15 min each) were collected per reservoir for a total of 2 h of sampling effort. Total length (mm) and weight (g) were recorded from all blue catfish collected. Otoliths were removed from a subsample (20 fish/in length group) and processed using methods described by Mauck and Boxrucker (2005). Annular ring counts were not conducted on the otolith samples at the time of this report writing; consequently age and growth data and annual mortality estimates will be included in the final report.

## Data Analysis

Catch per unit effort (CPUE) was calculated as number of blue catfish/15-min units of effort, multiplied by four and expressed as number/h. Catch data were partitioned by total catch and catch of blue catfish  $\geq 30$  in. Precision of the CPUE data was expressed as coefficient of variation of the mean ( $CV_0$ ; Cyr et al. 1992). A  $CV_0 = 0.20$  was set as a target level of precision.

## Creel Procedures

Oklahoma Department of Wildlife Conservation Law Enforcement personnel were asked to conduct creel interviews during the normal course of their law enforcement activities. A series of training workshops were set up to train wardens in creel procedures. Wardens were supplied with measuring boards, clip boards, and printed instructions. Only time spent conducting creel interviews was charged to this federal aid project. Time spent doing law enforcement activity was not charged to federal aid.

Wardens recorded date, lake name, number of anglers in party, type of fishing (boat or bank), angling method, whether or not the trip was completed, and speciated and measured all catfish in possession on the form in Table 2. Completed creel forms were collected monthly, reviewed by the project leader, and any problems evident were addressed immediately.

Creel data were stratified by year, by season, by gear and by season and lake, by season and gear, and by season, lake, and gear to determine:

- Number of anglers interviewed
- Number and percent of completed and uncompleted trips
- Average number of anglers in party
- Number of catfish harvested by species

- Percent of anglers harvesting daily creel limit
- Number and percent of blue catfish harvested  $\geq 30$  inches
- Number and percent of anglers harvesting one or more blue catfish  $\geq 30$  inches

## C. Results and Discussion

### Abundance

Electrofishing catch rates ( $CPUE_{total}$ ) ranged from 124.0/h (Ft. Cobb) to 693.5/h (Ellsworth; Table 2). Precision of the  $CPUE_{total}$  estimates was generally good with  $CV_{Ototal} \leq 0.31$  on all lakes sampled with  $CV_{Ototal} \leq 0.20$  (target level) on six of the 12 reservoirs sampled (Table 2). Catch rates of preferred-size blue catfish ( $CPUE_{\geq 30}$ ) ranged from 0/h (Eufaula) to 5.0/h (Waurika; Table 2). Precision of the  $CPUE_{\geq 30}$  data was poor with  $CV_{O30} > 0.40$  on all reservoirs sampled.

Catch rates in this study were high; approaching 700/h in two of the seven reservoirs sampled. Low-frequency electrofishing catch rates in the Rappahannock River, Virginia in 2006 were 4,698/h (Greenlee 2006). The results of this study coupled with the high catch rate reported from Virginia suggest that low-frequency electrofishing is highly effective for collecting large numbers of blue catfish. The precision of the CPUE data (Table 1) was comparable to what the agency obtains for its largemouth bass spring electrofishing data (Oklahoma Department of Wildlife Conservation, unpublished data). As such, we feel that our electrofishing protocol was adequate to compare annual trends in blue catfish abundance.  $CPUE_{\geq 30}$  was low, ranging from 0-5 fish/h, suggesting that fish of this size are rare in all populations sampled. However, precision of the  $CPUE_{\geq 30}$  data was poor (Table 1) making that data somewhat suspect. Negative bias toward large blue catfish in low-frequency electrofishing samples is also a

concern in Virginia (Greenlee 2006) and in Alabama (E.R. Irwin, Auburn University, pers. commun.). Some modification of the sampling protocol (e.g., time of year, habitat) may be warranted to decrease the variability in the  $CPUE_{\geq 762}$  data and to determine if that sample is representative of the population. However, if our sampling is representative of the size distribution of blue catfish populations in Oklahoma reservoirs, the proportion of large fish ( $\geq 30$  in) in the population is low.

### Creel

Creel data were collected on 56 different bodies of water that included large reservoirs, tail races, small municipal impoundments, and rivers (Table 3). Number of anglers interviewed on each water body ranged from one at Hulah, Kiddy, and Temple City to 455 at Texoma. Eight water bodies had more than 100 anglers interviewed, Ellsworth (116), Eufaula (239), Fort Gibson (265), Grand (180), Kaw (144), Robert S. Kerr (135), Texoma (455), and Waurika (117).

On an annual basis, most catfish anglers interviewed fished with rod and reel (62.7%), followed by jugline (27.5%), trotline (6.7%), noodling (3.0%), and limblime (0.1%; Table 4). This same pattern was observed when the data were analyzed by season, with the exception of winter (December) when more anglers fished with juglines (65.7%) than rod and reel (34.3%). However, only 35 anglers were interviewed in December and these interviews were limited to three reservoirs, Texoma, Ft. Gibson, and Waurika (Table 4). Rod and reel anglers harvested the most catfish (2325; 55.9%); however trotlines were most effective with harvest averaging 2.4 catfish/angler (Table 4). Juglines were also more efficient (2.1 catfish/angler) than rod and reel (1.5 catfish/angler) at harvesting catfish (Table 4). The seasonal harvest trends for spring and summer were similar to the annual trends. However, the efficiency of juglines

increased in fall with 17.5% of the anglers harvesting 45.2% of the catfish and the number of catfish harvested/angler increased to 3.9 (Table 4).

Blue catfish comprised 64.3% of the catfish harvested, followed by channel catfish (31.7%), and flathead catfish (4.0%). Mean length of blue catfish harvested in spring (19.3 inches) was similar to the length of blue catfish harvested in summer (19.2 inches; Table 5). Mean length increased slightly in fall (20.1 inches) and continued to increase in winter (21.5 inches). The mean length of channel catfish in the harvest was also similar in spring and summer, 16.4 and 16.2 inches, respectively (Table 5). The mean length of flathead catfish harvested was 24.7 inches in the spring and increased to 27.7 inches in the fall (Table 5). None of the anglers interviewed harvested flatheads in fall and winter.

Approximately 22% of the anglers interviewed were from completed trips (Table 6). Four hundred eight-four anglers (19.5% of total) were from completed trips that had at least one catfish in the creel (Table 7). Of those anglers, only four (0.8%) harvested their daily creel limit of blue catfish and channel catfish (15 in aggregate).

Only 6.1% of the 1536 anglers that harvested blue catfish harvested blue catfish  $\geq 30$  inches in length and only 0.6% of anglers harvested more than one blue catfish  $\geq 30$  inches on an annual basis (Table 8). The percentages increased in fall and winter to 8.7% and 11.5% of anglers harvesting blue catfish over 30 inches in length, respectively and 5% of anglers harvested more than one blue catfish over 30 inches in winter (Table 8).

Only 3% of blue catfish harvested were  $\geq 30$  inches in length on an annual basis (Table 9). This percentage increased to 11.3% and 21.2% in fall and winter, respectively (Table 9). Anglers using rod and reel (2.8%) and juglines (2.9%) harvested a similar

percentage of their catch  $\geq 30$  inches but the percent harvest  $\geq 30$  inches was slightly higher (5.3%) for anglers using trotlines (Table 9).

If the November and December data are analyzed separately, the size distribution of the harvest increased dramatically (Table 10). Forty-two percent of anglers harvested blue catfish  $\geq 30$  inches in length and 18.8% of blue catfish harvested were  $\geq 30$  inches (Table 10). The number of anglers interviewed during this period was small (40) largely because game wardens were concentrating enforcement efforts on hunting seasons. However, this trend bears further investigation. Only 44 of 8315 (0.5%) of blue catfish in electrofishing samples were  $\geq 30$  inches in length (Table 10). Even given the low percentage of blue catfish  $\geq 30$  inches in the angler harvest (3%; Table 9), this still represents a higher proportion of larger fish in the creel than were seen in the population samples. This study was not designed to estimate total numbers of catfish harvested on a statewide basis and it is not known what proportion of total fishing pressure occurs during these colder months. However, if data collected in the future continue to bear out the increased percentage of large blue catfish harvested in late fall, winter, and early spring, there may be cause for concern over the potential overharvest of large blue catfish.

#### D. Conclusions/Recommendations

- § Rod and reel is the most popular method of angling for catfish (62.7% of catfish anglers fish with rod and reel)
- § More catfish are harvested with rod and reel (55.9%) than with juglines (33.7%) but juglines are more efficient (2.1 catfish/angler) than rod and reel (1.5 catfish/angler)

- § The average length of blue catfish, channel catfish, and flathead catfish harvested was 19.3, 16.3, and 26.7 inches, respectively.
- § Few anglers harvest daily creel limits of blue catfish and channel catfish (0.8%)
- § The percentage of anglers harvesting blue catfish  $\geq 30$  inches on an annual basis is low (6.1%); however, this percentage increases markedly in fall (11.4%) and winter (57.5%).
- § Even though the percentage of blue catfish  $\geq 30$  inches in the harvest is low (3.0%) on an annual basis, this is still substantially higher than large blue catfish ( $\geq 30$  inches) are represented in population samples (0.5%)
- § Both the percentage of anglers harvesting blue catfish  $\geq 30$  inches and the percentage of blue catfish  $\geq 30$  inches in the harvest increase in November and December raising concerns over potential overharvest of large blue catfish from late fall through early spring.
- § Game wardens will be encouraged to interview catfish anglers during the cold weather period (late winter and early spring) once hunting regulation enforcement duties have subsided with closing of seasons

## E. Literature Cited

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Table 1. Catch per unit effort ( $\bar{N}/h$ ) of all blue catfish in the sample ( $CPUE_{total}$ ) and of preferred-sized blue catfish ( $CPUE_{\geq 30}$ ) with respective precision estimates [coefficient of variation of the mean ( $CV_{O_{total}}$  and  $CV_{O_{\geq 30}}$ )] of blue catfish from selected Oklahoma reservoirs. \*Data were collected under F-44-D, Project 5.

Reservoirs	$CPUE_{total}$	$CV_{O_{total}}$	$CPUE_{\geq 30}$	$CV_{O_{\geq 30}}$
Arcadia	118.5	0.18	0	
Ellsworth*	693.5	0.24	0.5	1.00
Eufaula*	390.0	0.15	0	
Frederick*	330.5	0.22	0.5	1.00
Ft. Cobb*	124.0	0.28	3.4	0.54
Hugo*	633.5	0.11	0.5	1.00
Kaw*	294.0	0.15	2.0	0.53
Keystone*	224.0	0.28	3.0	0.42
Oologah	339.5	0.22	2.5	0.80
R.S. Kerr	294.0	0.31	1.5	0.70
Texoma*	225.0	0.09	3.0	0.83
Waurika*	490.5	0.09	5.0	0.45



Table 3. Water bodies, with number of anglers interviewed, on which catfish creel data were collected in Oklahoma, 2006. Highlighted water bodies had more than 100 anglers interviewed.

Water Body	No. Anglers	Water Body	No. Anglers	Water Body	No. Anglers
Arbuckle	28	Fort Gibson	265	Okmulgee	20
Arcadia	2	Fort Supply	33	Oologah	41
Arkansas River	11	Grand	180	Ponca City	12
Atoka	4	Grand Tailrace	2	Red Creek	5
Beaver Creek	2	Great Salt Plains	47	Red River	13
Carl Blackwell	28	Hudson	85	Skiatook	27
Boomer	2	Hudson Tailrace	21	Sooner	8
Cache Creek	8	Hugo	17	Salt Fork River	27
Caddo Creek	2	Hugo Tailrace	11	Temple City	1
Canton	2	Hulah	1	Tenkiller	4
Chikaskia River	24	Kaw	144	Texoma	455
Cimmaron River	11	Kaw Tailrace	40	Thunderbird	55
Coon Creek	4	Robert S. Kerr	135	Verdigris	39
Copan	7	Keystone	65	Washita River	12
Dripping Springs	8	Kiddy	1	Waurika	117
Ellsworth	116	Lawtonka	4	W.D. Mayo	14
Eufaula	239	Lone Chimney	2	Webbers Falls	57
Frederick	4	N. Canadian River	4	Wister	9
Fort Cobb	8	Neosho River	2		

Table 4. Number and percent of anglers, average number of anglers in party, number and percent of catfish harvested and average number of catfish per angler by angling method from 56 bodies of water in Oklahoma, 2006.

Angling Method	Number Anglers	Percent Anglers	Average Number in Party	Number Catfish Harvested	Percent Catfish Harvested	Average Number Fish/Angler
Rod & Reel	1551	62.7	2.4	2325	55.9	1.5
Jugline	682	27.5	2.7	1450	33.7	2.1
Trotline	167	6.7	2.2	394	9.3	2.4
Noodling	74	3.0	3.1	39	0.9	0.5
Limblime	3	0.1	1.8	8	0.2	2.7
<b>TOTAL</b>	<b>2477</b>			<b>4216</b>		
<i>Spring</i>						
Rod & Reel	518	70.1	2.4	812	62.3	1.6
Jugline	161	21.8	2.6	405	31.1	2.5
Trotline	38	5.1	2.4	76	5.8	2.0
Noodling	22	3.0	4.3	10	0.8	0.5
Limblime	0	0		0	0	
<b>TOTAL</b>	<b>739</b>			<b>1303</b>		
<i>Summer</i>						
Rod & Reel	941	58.8	2.4	1416	52.5	1.5
Jugline	480	30	2.8	936	34.6	2.0
Trotline	124	7.8	2.2	310	11.5	2.5
Noodling	52	3.2	2.7	29	1.1	0.6
Limblime	3	0.2	1.8	8	0.3	2.7
<b>TOTAL</b>	<b>1600</b>			<b>2699</b>		
<i>Fall</i>						
Rod & Reel	80	77.6	2.4	78	49.7	1.0
Jugline	18	17.5	2.4	71	45.2	3.9
Trotline	5	4.9	2.4	8	5.1	1.6
Noodling	0			0		
Limblime	0			0		
<b>TOTAL</b>	<b>103</b>			<b>157</b>		
<i>Winter</i>						
Rod & Reel	12	34.3	1.7	19	21.2	0.9
Jugline	23	65.7	2.9	38	78.8	1.8
Trotline	0			0		
Noodling	0			0		
Limblime	0			0		
<b>TOTAL</b>	<b>35</b>			<b>57</b>		

Table 5. Number and mean length of catfish caught by species and season from 56 bodies of water in Oklahoma, 2006.

Species	Spring		Summer		Fall		Winter		<i>Total</i>	
	No. Fish	Mean Length	No. Fish	Mean Length	No. Fish	Mean Length	No. Fish	Mean Length	No. Fish	<i>Mean Length</i>
Blue Catfish	732	19.3	1799	19.2	123	20.1	55	21.5	2709	19.3
Channel Catfish	512	16.4	788	16.2	34	15.8	2	18.0	1336	16.3
<i>Flathead Catfish</i>	59	24.7	112	27.7	0		0		171	26.7

Table 6. Number and percent of catfish anglers interviewed by completed and uncompleted trips by season from 56 bodies of water in Oklahoma, 2006.

Trip Length	Spring	Summer	Fall	Winter	<i>Total</i>
Completed	210	292	17	25	544
Uncompleted	529	1314	86	10	1939
<i>% Completed</i>	28.4	18.2	16.5	71.4	21.9

Table 7. Number and percent of anglers catching daily creel limit (15) of blue catfish and channel catfish in aggregate from completed trips only from 56 bodies of water in Oklahoma, 2006. These data included only those anglers harvesting at least one catfish.

Angling Method	No. Anglers	<i>Percent Anglers</i>
Rod and Reel	160	1.3
Jugline	226	0.9
Trotline	92	0
Noodling	5	0
Limblines	1	0
<i>All Methods</i>	484	0.8

Table 8. Number of anglers harvesting blue catfish by season and angling method, number and percent of fishing trips where one or more blue catfish >30 inches total length was harvested and number of anglers harvesting one or more blue catfish >30 inches total length by season and angling method from 56 bodies of water in Oklahoma, 2006.

Angling Method	Number of Anglers Harvesting Blue Catfish	Number of Anglers Harvesting Blue Catfish >30"	Percent of Anglers Harvesting Blue Catfish >30"	<i>Number (%) of Anglers Harvesting &gt;1 Blue Catfish &gt;30"</i>
Rod & Reel	845	38.0	4.5	5.0 (0.6)
Jugline	573	44.5	7.8	3.5 (0.6)
Trotline	108	11.1	10.3	
Noodling	8	0	0	
Limblines	3	0	0	
TOTAL	1537	93.6	6.1	8.5 (0.6)
<i>Spring</i>				
Rod & Reel	243	5.6	2.3	1 (0.4)
Jugline	138	10.8	7.8	0
Trotline	15	0	0	0
Noodling	3	0	0	0
Limblines	0			
TOTAL	399	16.4	4.1	1 (0.3)
<i>Summer</i>				
Rod & Reel	545	29.4	5.4	3
Jugline	420	16.5	3.9	0
Trotline	88	11.1	12.6	1.3
Noodling	5	0	0	
Limblines	3	0	0	
TOTAL	1061	57	5.4	4.3 (0.4)
<i>Fall</i>				
Rod & Reel	57	0	0	0
Jugline	14	8.7	62.1	3.5 (25)
Trotline	5	0	0	0
Noodling	0			
Limblines	0			
TOTAL	76	8.7	11.4	3.5 (1.3)
<i>Winter</i>				
Rod & Reel	5	3.0	46.0	1 (20.0)
Jugline	15	8.5	56.6	0
Trotline	0			
Noodling	0			
Limblines	0			
TOTAL	20	11.5	57.5	1 (5.0)

Table 9. Number of blue catfish harvested by season and angling method along with number and percent of blue catfish >30 inches total length harvested by season and angling method harvesting one or more blue catfish >30 inches total length by season and angling method from 56 bodies of water in Oklahoma, 2006. These data are from completed trips only.

Angling Method	Number of Blue Catfish Harvested	Number of Blue Catfish >30" Harvested	Percent of Blue Catfish >30" Harvested
Rod & Reel	1321	37	2.8
Jugline	1134	33	2.9
Trotline	189	10	5.3
Noodling	4	0	0
Limblines	6	0	0
TOTAL	2654	80	3.0
<i>Spring</i>			
Rod & Reel	387	6	1.6
Jugline	331	10	3.0
Trotline	13	0	0
Noodling	1	0	0
Limblines	0		
TOTAL	732	16	2.2
<i>Summer</i>			
Rod & Reel	855	24	2.8
Jugline	767	17	2.2
Trotline	168	10	6.0
Noodling	3	0	0
Limblines	6	0	0
TOTAL	1799	61	3.4
<i>Fall</i>			
Rod & Reel	79	7	8.9
Jugline	36	6	16.7
Trotline	8	0	0
Noodling	0		
Limblines	0		
TOTAL	115	13	11.3
<i>Winter</i>			
Rod & Reel	12	4	33.3
Jugline	35	6	17.1
Trotline	0		
Noodling	0		
Limblines	0		
TOTAL	47	10	21.2

Table 10. Number of blue catfish harvested by angling method along with number and percent of blue catfish >30 inches total length harvested by angling method harvesting one or more blue catfish >30 inches total length by season and angling method from 56 bodies of water in Oklahoma, November and December 2006. Number of blue catfish and number and percent of blue catfish collected in electrofishing samples, 2003-2006.

	Rod and Reel	Jugline	Trotline	<i>Total</i>
Number of Anglers Harvesting Blue Catfish	11	27	2	40
Number (%) Anglers Harvesting Blue Catfish >30"	3 (27.3)	13.8 (51.1)	0	16.8 (42.0)
Number Blue Catfish Harvested	23	84	5	112
Number (%) Blue Catfish >30" Harvested	4 (17.4)	17 (20.2)	0	21 (18.8)
Number Blue Catfish Collected Electrofishing				8315
<i>Number (%) Blue Catfish &gt;30" Collected Electrofishing</i>				44 (0.5)