

Kansas Black Bass Tournament Monitoring

2009 Annual Report

Kansas Department of Wildlife, Parks and Tourism
Robin Jennison
Secretary

Prepared by
Susan F. Steffen
Environmental Scientist
PO Box 1525
Emporia, Kansas 66801

Joe Kramer, Director
Fisheries and Wildlife Division

Doug Nygren, Chief
Fisheries Section



July 2011
A contribution of Dingell-Johnson Funds
Federal Aid Project No. F-30-R15 & 16
Report for Period
January 1, 2009 to December 31, 2009

This program receives Federal financial assistance from the U.S. Fish and Wildlife Service. Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972, the U.S. Department of the Interior and its bureaus prohibit discrimination on the bases of race, color, national origin, age, disability or sex (in educational programs). If you believe that you have been discriminated against in any program, activity or facility, or if you desire further information please write to:

The U.S. Fish and Wildlife Service
Office for Diversity and Civil Rights Programs-External Programs
4040 North Fairfax Drive, Suite 130
Arlington, VA 22203

Introduction

This report summarizes catches of black bass (*Micropterus* spp.) species from tournaments conducted in 2009 on Kansas waters by bass clubs that cooperated in our tournament monitoring program. Tournament catches of black bass have been recorded in Kansas since 1977 and have proven valuable for indexing largemouth bass (*Micropterus salmoides*) relative abundance and length frequencies in impoundments. These catch statistics supplement the Department of Wildlife, Parks and Tourism's sampling data and are used to evaluate management activities. However, caution is expressed on the reliability of estimates of length frequency, structural indices or catch rates based on catch data at impoundments with few events reported.

Results and Discussion

In 2009, eight bass clubs reported the catches of black bass from twenty-five tournaments (Table 1). All but three tournaments were held on federal reservoirs; two tournaments were held at Fort Scott City Lake and one was held at Lake Miola.

Table 1. Bass clubs contributing black bass catch data from Kansas tournaments in 2009.

Bass Club
Angling Nebraska
Backlashers Bass Club
Boy Scouts of America "Timeless Values" Bass Fishing Classic
Dick's Wednesday Nite Bass Anglers
Fort Scott T.N.T
Kansas Best of Bass Team Trail
Miami County Bass Club
Shawnee Mission Bassmasters

The number of tournament events reported in 2009 was 70% lower than the 13-year mean number of events and 39% lower than in 2008 (Table 2). The reported number of angler-hours for black bass tournaments in 2009 was 67% lower than the 13-year mean but 20% more than the previous year. The number of bass greater than twelve inches caught was 70% lower than the 13-year mean and 7% more than in 2008. The weight of bass greater than twelve inches caught was 73% lower than the 13-year mean and 6% lower than in 2008. The 2009 hourly catch rate of bass greater than twelve inches was 5% greater than the 13-year mean, but the same as the catch rate in 2008.

In 2009, seven bass over twenty inches were caught. This was 95% lower than the 13-year mean number caught and 82% lower than in 2008. On average, it took 145 angler-hours to catch one bass over twenty inches; this is 39% greater than the 13-year mean and 41% more compared to 2008. The heaviest bass reported from tournaments conducted in 2009 was 5.63 pounds; this was 25% less than the 13-year mean and 22% less than in 2008.

Reservoir Tournament Results

An accepted standard of quality largemouth bass fishing can be indicated by a catch rate of 0.2 bass per hour (for bass twelve inches or larger). In 2009, four out of seven reservoirs had catch rates that met or exceeded the standard (Table 3). Wilson Reservoir had the highest catch rate of bass per hour (for bass twelve inches or larger) at 0.88; LaCygne Reservoir had the lowest catch rate of bass per hour (for bass twelve inches or larger) at 0.09. Bass caught that were greater than twelve inches averaged 1.84 pounds (Table 3). Perry Reservoir had the highest mean weight for bass greater than twelve inches (2.19 pounds); Wilson Reservoir had the lowest mean weight for bass greater than twelve inches (1.61 pounds).

Perry Reservoir had the highest reported number of bass greater than twenty inches caught (3), followed by Hillsdale (2), and Pomona (1) (Table 3). These three reservoirs required 108, 51, and 270 angler-hours, respectively, per bass over twenty inches. Tournament reports for Glen Elder, LaCygne, Melvern, and Wilson reservoirs indicated no bass twenty inches or greater were caught.

Table 4 lists black bass tournament catch rates at Kansas reservoirs dating back to 1997. Comparing current catch rates to historic mean catch rates can serve as a reference to indicate the current condition of the fishery. The percent deviation indicates whether catch rates were above (indicated by a positive number) or below (indicated by a negative number) average and the magnitude of the deviation. Percent deviations above average may suggest the presence of strong year classes, whereas steady-state populations may be indicated by deviations within +/- 10% of the mean. Catch rates 25% or lower than the historical average may indicate a decline in reproduction or recruitment.

State, County, and City Lake Tournament Results

Catch data reported from tournaments held at small impoundments are seldom adequate to make reliable estimates of length frequency, structural indices or catch rates because of the low number of events conducted per lake. Nonetheless, three tournaments were reported on two lakes in 2009 and catch data from these impoundments are summarized in Table 5.

The catch rate of black bass (greater than twelve inches) at Fort Scott City Lake was 0.95 bass per hour and 0.45 bass per hour at Lake Miola; these catch rates exceeded the standard of 0.20 bass (greater than twelve inches) per hour (Table 5). Bass caught that were greater than twelve inches averaged 1.54 pounds at these two impoundments. One bass greater than twenty inches was caught at Fort Scott City Lake; no bass greater than twenty inches were caught at Lake Miola. On average, it

took 152 angler-hours to catch one bass over twenty inches at Fort Scott City Lake. The heaviest bass at Fort Scott City Lake was 3.8 pounds and 3.0 pounds at Lake Miola.

Voluntary participation in our monitoring program continued to decline from 2008 to 2009. This trend of decline, and likely cause, was documented in previous annual reports. KDWPT does not suspect the number of tournaments conducted is significantly declining. Catch data from multiple tournaments at impoundments is critical to provide reliable and accurate statistical interpretation. Catch statistics provided in this report may be skewed because there were few reported tournaments. KDWPT will continue to review the processes through which it receives tournament catch data.

Table 2. Annual black bass tournament statistics in Kansas reservoirs reported by bass clubs from 1997-2009.

Statistic	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	13-year mean	2009	2009
															% deviation from mean	% deviation from 2008
Tournaments reported	170	160	174	149	88	65	53	32	38	39	35	41	25	82	-70	-39
Total Angler-days	3,240	3,488	3,442	3,238	2,129	1,609	1,557	572	782	776	797	488	748	1,759	-57	53
Total Angler-hours	25,920	27,902	27,532	25,902	17,029	12,874	12,456	4,572	6,252	6,206	6,377	3,901	4,675	13,969	-67	20
Bass over 12 inches	6,684	7,291	9,106	9,141	7,832	5,202	4,667	1,649	2,240	3,104	2,192	1,337	1,427	4,759	-70	7
Pounds of bass over 12 inches	14,091	15,768	19,111	18,976	15,545	10,247	9,308	3,340	4,509	5,788	4,379	2,746	2,590	9,723	-73	-6
Mean pounds per bass over 12 inches	2.1	2.2	2.1	2.2	2.1	2.3	2.1	2.1	2.0	1.79	1.9	2.15	1.84	2.06	-11	-14
Bass over 12 inches per hour	0.31	0.28	0.31	0.34	0.36	0.31	0.26	0.26	0.34	0.48	0.28	0.34	0.34	0.32	5	0
Pounds of bass > 12 inches per hour	0.54	0.57	0.69	0.73	0.91	1.25	1.33	0.73	0.72	0.93	0.69	0.7	0.55	0.80	-30	-21
Bass over 20 inches	222	210	279	292	170	137	142	61	65	53	51	38	7	133	-95	-82
Hours per bass over 20 inches	117	133	99	89	100	94	88	68	96	96	125	103	145	104	39	41
Largest bass (lbs)	8.1	7.7	8.2	8.8	8.8	7.3	7.7	8.2	6.3	6.9	6.9	7.2	5.63	8	-25	-22

Table 3. Summary of length frequencies, stock indices, and catches of black bass in tournaments on Kansas Reservoirs in 2009.

Length (inches)	Percent of Catch							Mean	Total
	Glen Elder	Hillsdale	LaCygne	Melvern	Perry	Pomona	Wilson		
8	6	0	0	0	1	0	5	2	
9	3	1	0	0	0	0	1	1	
10	10	0	0	0	1	0	10	3	
11	5	2	4	1	1	0	0	2	
12	20	13	8	14	8	9	19	13	
13	12	14	32	16	13	17	15	17	
14	19	21	36	33	23	25	33	27	
15	10	27	8	18	11	25	8	15	
16	8	8	4	13	18	15	8	11	
17	8	6	0	2	16	5	0	5	
18	0	4	4	1	6	2	2	3	
19	0	3	4	1	1	1	1	2	
20	0	0	0	0	1	1	0	0	
21	0	0	0	0	1	0	0	0	
22	0	0	0	0	0	0	0	0	
23	0	0	0	0	0	0	0	0	
24	0	0	0	0	0	0	0	0	
25	0	0	0	0	0	0	0	0	
Total Bass (all sizes)	115	343	25	317	158	136	132	175	1226
Total Anglers	30	385	32	68	64	88	16	98	683
Angler Hours	510	1518	256	562	548	763	128	612	4285
Number of Tournaments	1	12	1	2	2	3	1	3	22
Percent of Catch									
Bass 8-12 inches	23	3	4	2	3	0	15	7	
Bass 12-15 inches	51	48	76	63	44	51	67	57	
Bass 15-20 inches	25	48	20	35	52	49	17	35	
Bass 20-25 inches	0	1	0	0	2	1	0	0	
Catch By Size Category *									
Bass 8-12 inches/hour	0.05	0.01	0.00	0.01	0.01	0.00	0.16	0.03	
Bass 12-15 inches/hour	0.12	0.08	0.07	0.36	0.13	0.09	0.70	0.22	
Bass 15-20 inches/hour	0.06	0.13	0.02	0.20	0.14	0.09	0.18	0.12	
Bass 20-25 inches/hour	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Bass > 8 inches / hour	0.23	0.22	0.10	0.57	0.28	0.17	1.03	0.37	
Bass > 12 inches / hour	0.17	0.21	0.09	0.56	0.27	0.17	0.88	0.34	
Wt. of bass >12 in. (lbs.)	150	653	42	548	338	261	181	310.32	2172
Mean wt. of bass >12 inches	1.70	1.96	1.74	1.76	2.19	1.92	1.61	1.84	
Number of bass > 12 inches	88	333	24	312	154	136	112	165.57	1159
Number of bass > 20 inches	0	2	0	0	3	1	0		6
Hours per bass > 20 inches	0	51	0	0	108	270	0		
Wt. of largest bass (lbs.)	3.6	4.3	4.7	4.2	5.1	4.1	3.0	4.1	

* Geometric mean catches were weighted according to the number of tournaments at each reservoir. Hourly catches of bass > 8 or > 12 inches may not equal the sum of catches of included length groups because each catch statistic was calculated independently as a mean of replicate tournaments on each reservoir.

Table 4. Trends in catch per hour for two length groups of black bass from Kansas reservoir black bass angling tournaments from 1997-2009.

Reservoir	Length Group (inches)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Geo-metric mean	2009 % deviation from mean	2009 % deviation from 2008	
Big Hill	>8	0.38	0.33	0.41	0.46	0.55	0.50	0.39	0.44	0.48	0.55	0.47	0.52		0.45			
	>12	0.29	0.25	0.33	0.35	0.53	0.52	0.36	0.37	0.39	0.46	0.38	0.37		0.38			
Cedar Bluff	>8	0.46	0.47	0.51	0.58	0.74	0.37	0.33	0.70	0.33	0.56	0.36			0.47			
	>12	0.42	0.35	0.44	0.59	0.74	0.37	0.30	0.66	0.30	0.51	0.33			0.43			
Clinton	>8	0.17	0.29	0.26	0.24	0.09	0.12	0.26					0.14		0.18			
	>12	0.14	0.25	0.21	0.20	0.06	0.06	0.25				0.14			0.14			
Council Grove	>8	0.17	0.67												0.34			
	>12	0.13	0.52												0.26			
El Dorado	>8	0.36	0.54	0.14	0.14			0.08	0.54				0.24		0.23			
	>12	0.28	0.34	0.11	0.10			0.08	0.33				0.14		0.17			
Fall River	>8	0.06													0.06			
	>12	0.04													0.04			
Glen Elder***	>8		0.11										0.36		0.21		8.7	
	>12		0.08										0.27		0.16		11.3	
Hillsdale	>8	0.11	0.15	0.16	0.14	0.22	0.12		0.08				0.27	0.25	0.22	0.16	36.1	-12.5
	>12	0.10	0.15	0.17	0.14	0.19	0.10		0.05				0.23	0.22	0.21	0.14	46.2	-4.9
Kanopolis	>8		0.10												0.10			
	>12		0.04												0.04			
Kirwin	>8	0.79	0.43	0.43	0.62	0.59	0.15	0.23							0.41			
	>12	0.70	0.39	0.39	0.60	0.58	0.14	0.23							0.38			
LaCygne ***	>8	0.37	0.22	0.34	0.35	0.38	0.11	0.13					0.29	0.25	0.10	0.23	-57.1	-60.9
	>12	0.30	0.18	0.26	0.26	0.22	0.10	0.13					0.27	0.13	0.09	0.18	-47.7	-27.9
Marion	>8																	
	>12																	
Melvern ***	>8	0.22	0.31	0.25	0.24	0.26	0.67	0.37			0.37	0.63	0.48	0.57	0.37	54.0	18.1	
	>12	0.22	0.19	0.17	0.20	0.23	0.42	0.24			0.24	0.53	0.45	0.56	0.29	95.1	24.1	
Milford	>8	0.19	0.40	0.41	0.28	0.55	0.38	0.35							0.38			
	>12	0.18	0.26	0.27	0.18	0.32	0.23	0.24				0.63			0.25			
Norton	>8	1.09	0.89	1.03	1.07	0.97	0.64	0.77							0.91			
	>12	0.93	0.73	0.84	1.01	0.88	0.61	0.72							0.81			
Perry ***	>8	0.25	0.25	0.37	0.28	0.40	0.25						0.43	0.16	0.28	0.29	-0.7	77.2
	>12	0.20	0.21	0.33	0.21	0.33	0.22						0.43	0.13	0.27	0.25	10.7	108.8
Pomona	>8			0.48		0.13							0.27		0.23		-25.6	
	>12			0.31		0.13							0.27		0.21		-17.0	
Toronto	>8																	
	>12																	
Tuttle Creek	>8	0.36	0.19												0.26			
	>12	0.36	0.18												0.25			
Webster	>8	0.50	0.48	0.34	0.38	0.21	0.40	0.33							0.36			
	>12	0.47	0.44	0.30	0.34	0.14	0.39	0.32							0.32			
Wilson ***	>8	0.26	0.21	0.25	0.35	0.36	0.84	0.48	0.30	0.77	1.08	0.18		1.03	0.42	144.2		
	>12	0.23	0.17	0.19	0.29	0.33	0.58	0.42	0.24	0.57	0.88	0.18		0.88	0.35	150.6		

*** 2009 catch rates based on two tournaments or less.

Table 5. Summary of length frequencies, stock indices, and catches of black bass in tournaments on Kansas Lakes in 2009.

Length (inches)	Percent of Catch			Total
	Ft Scott City Lake	Lake Miola	Mean	
8	9	4	6	
9	13	3	8	
10	12	5	9	
11	4	3	3	
12	21	23	22	
13	13	23	18	
14	13	33	23	
15	6	4	5	
16	3	0	2	
17	2	1	2	
18	2	1	2	
19	0	1	1	
20	0	0	0	
21	0	0	0	
22	0	0	0	
23	0	0	0	
24	0	0	0	
25	0	0	0	
Total Bass (all sizes)	327	79	203	406
Total Anglers	37	16	27	53
Angler Hours	278	112	195	390
Number of Tournaments	2	1	2	3
Percent of Catch				
Bass 8-12 inches	39	14	26	
Bass 12-15 inches	47	78	63	
Bass 15-20 inches	14	8	11	
Bass 20-25 inches	0	0	0	
Catch By Size Category *				
Bass 8-12 inches/hour	0.51	0.07	0.29	
Bass 12-15 inches/hour	0.71	0.41	0.56	
Bass 15-20 inches/hour	0.24	0.04	0.14	
Bass 20-25 inches/hour	0.00	0.00	0.00	
Bass > 8 inches / hour	1.46	0.52	0.99	
Bass > 12 inches / hour	0.95	0.45	0.70	
Wt. of bass >12 in. (lbs.)	316	102	209.05	418
Mean wt. of bass >12 inches	1.58	1.50	1.54	
Number of bass > 12 inches	200	68	134.00	268
Number of bass > 20 inches	1	0		1
Hours per bass > 20 inches	152	0		
Wt. of largest bass (lbs.)	3.8	3.0	3.4	

* Geometric mean catches were weighted according to the number of tournaments at each reservoir. Hourly catches of bass > 8 or > 12 inches may not equal the sum of catches of included length groups because each catch statistic was calculated independently as a mean of replicate tournaments on each reservoir.

Appendix H. Summary of length frequencies, stock indices, and catches of black bass in tournaments on Fort Scott City Lake in 2009.

REPLICATE TOURNAMENTS																						SUM	N	MEAN	STD	CV	Total Wt	% of catch
LENGTH (inches)	SIZE CLASS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20							
8	Stock	19	10																			29	2	14.50	6.36	43.89	8.68	8.87
9		13	31																			44	2	22.00	12.73	57.85	18.78	13.46
10		23	17																			40	2	20.00	4.24	21.21	23.49	12.23
11		9	5																			14	2	7.00	2.83	40.41	10.99	4.28
12	Quality	39	31																			70	2	35.00	5.66	16.16	71.71	21.41
13		20	21																			41	2	20.50	0.71	3.45	53.69	12.54
14		31	12																			43	2	21.50	13.44	62.49	70.73	13.15
15	Preferred	13	7																			20	2	10.00	4.24	42.43	40.70	6.12
16		6	5																			11	2	5.50	0.71	12.86	27.33	3.36
17		4	2																			6	2	3.00	1.41	47.14	17.99	1.83
18		7																				7	1	7.00	#DIV/0!	#DIV/0!	25.05	2.14
19			1																			1	1	1.00	#DIV/0!	#DIV/0!	4.23	0.31
20	Memorable		1																			1	1	1.00	#DIV/0!	#DIV/0!	4.97	0.31
21																						0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
22																						0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
23																						0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
24																						0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
25	Trophy																					0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
Total Bass (all sizes)		184	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	327	11	29.73	66.77	224.61		
Total Anglers		18	19																			37	2	18.50	0.71	3.82		
Angler Hours		126	152																			278	2	139.00	18.38	13.23		
Month		9	9																			18	2	9.00	0.00	0.00		
Structural Indices																						Pooled index		Mean index	STD	CV		
RSD S-Q		35																				39	1	34.78	#DIV/0!	#DIV/0!		
RSD Q-P		49																				47	1	48.91	#DIV/0!	#DIV/0!		
RSD P-M		16																				14	1	16.30	#DIV/0!	#DIV/0!		
RSD M-T		0																				0	1	0.00	#DIV/0!	#DIV/0!		
Catch By Size Category																						Pooled catch		Geo mean catch	STD	CV		
S-Q bass/hr		0.51																				0.46	1	0.51	#DIV/0!	#DIV/0!		
Q-P bass/hr		0.71																				0.55	1	0.71	#DIV/0!	#DIV/0!		
P-M bass/hr		0.24																				0.16	1	0.24	#DIV/0!	#DIV/0!		
M-T bass/hr		0.00																				0.00	1	0.00	#DIV/0!	#DIV/0!		
Bass > 8 in/hr		1.46																				1.18	1	1.46	#DIV/0!	#DIV/0!		
Bass >=12 in/hr		0.95																				0.72	1	0.95	#DIV/0!	#DIV/0!		
Bass >=20 in			1																			no. >12"=	200	1	1.00		316.4	mean wt
Hours per bass >=20 in			152.00																						1	152.00		
Wt. of largest bass (lbs.)		3.01	4.57																						2	3.79		4.57
Log (Catch)																												
S-Q bass/hr		0.18																								0.18		
Q-P bass/hr		0.23																								0.23		
P-M bass/hr		0.09																								0.09		
M-T bass/hr		0.00																								0.00		
Bass > 8 in/hr		0.39																								0.39		
Bass > 12 in/hr		0.29																								0.29		

Appendix 1. Summary of length frequencies, stock indices, and catches of black bass in tournaments on Lake Miola in 2009.

REPLICATE TOURNAMENTS																						SUM	N	MEAN	STD	CV	Total Wt	% of catch
LENGTH (inches)	SIZE CLASS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20							
8	Stock	3																				3	1	3.00	#DIV/0!	#DIV/0!	0.90	3.80
9		2																				2	1	2.00	#DIV/0!	#DIV/0!	0.85	2.53
10		4																				4	1	4.00	#DIV/0!	#DIV/0!	2.35	5.06
11		2																				2	1	2.00	#DIV/0!	#DIV/0!	1.57	2.53
12	Quality	18																				18	1	18.00	#DIV/0!	#DIV/0!	18.44	22.78
13		18																				18	1	18.00	#DIV/0!	#DIV/0!	23.57	22.78
14		26																				26	1	26.00	#DIV/0!	#DIV/0!	42.77	32.91
15	Preferred	3																				3	1	3.00	#DIV/0!	#DIV/0!	6.11	3.80
16																						0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
17		1																				1	1	1.00	#DIV/0!	#DIV/0!	3.00	1.27
18		1																				1	1	1.00	#DIV/0!	#DIV/0!	3.58	1.27
19		1																				1	1	1.00	#DIV/0!	#DIV/0!	4.23	1.27
20	Memorable																					0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
21																						0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
22																						0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
23																						0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
24																						0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
25	Trophy																					0	0	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00
Total Bass (all sizes)		79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	11	7.18	23.82	331.66		
Total Anglers		16																				0	0	#DIV/0!	#DIV/0!	#DIV/0!		
Angler Hours		112																				0	0	#DIV/0!	#DIV/0!	#DIV/0!		
Month		10																				0	0	#DIV/0!	#DIV/0!	#DIV/0!		
Structural Indices																						Pooled index		Mean index	STD	CV		
RSD S-Q		14																				14	1	13.92	#DIV/0!	#DIV/0!		
RSD Q-P		78																				78	1	78.48	#DIV/0!	#DIV/0!		
RSD P-M		8																				8	1	7.59	#DIV/0!	#DIV/0!		
RSD M-T		0																				0	1	0.00	#DIV/0!	#DIV/0!		
Catch By Size Category																						Pooled catch		Geo mean catch	STD	CV		
S-Q bass/hr		0.07																				#DIV/0!	1	0.07	#DIV/0!	#DIV/0!		
Q-P bass/hr		0.41																				#DIV/0!	1	0.41	#DIV/0!	#DIV/0!		
P-M bass/hr		0.04																				#DIV/0!	1	0.04	#DIV/0!	#DIV/0!		
M-T bass/hr		0.00																				#DIV/0!	1	0.00	#DIV/0!	#DIV/0!		
Bass > 8 in/hr		0.52																				#DIV/0!	1	0.52	#DIV/0!	#DIV/0!		
Bass >=12 in/hr		0.45																				#DIV/0!	1	0.45	#DIV/0!	#DIV/0!		
Bass >=20 in		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	no. >12"=	68		Mean	101.7	mean wt	
Hours per bass >=20 in		#DIV/0!																				0		#DIV/0!				
Wt. of largest bass (lbs.)		3																				1		3.00			3	
Log (Catch)																												
S-Q bass/hr		0.03																							0.03			
Q-P bass/hr		0.15																							0.15			
P-M bass/hr		0.02																							0.02			
M-T bass/hr		0.00																							0.00			
Bass > 8 in/hr		0.18																							0.18			
Bass > 12 in/hr		0.16																							0.16			