KANSAS BLACK BASS TOURNAMENT MONITORING

2006 ANNUAL REPORT

Kansas Department of Wildlife and Parks
Mike Hayden
Secretary

Prepared by
Jim Stephen
Fisheries Research
P.O. Box 1525
Emporia, Kansas 66801

Joe Kramer, Director
Fisheries and Wildlife Division

Doug Nygren, Chief
Fisheries Section

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INTRODUCTION

This report summarizes catches of black bass (*Micropterus* spp.) species from angling tournaments conducted in 2006 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 reservoirs. These catch statistics supplement the Department of Wildlife and Park's sampling data and both 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 individual reservoirs or lakes where the number of events reported were few.

RESULTS AND DISCUSSION

Replication of events at individual impoundments is key to the reliability of any reported catch statistic. Therefore, recognize the catch statistics provided in this report may be skewed based on minimal efforts reported for particular impoundments.

In 2006, 8 Kansas bass clubs reported the catches of black bass from 42 tournaments (Table 1). Of the data used in this report, thirty-nine of the reported tournaments were held on federal reservoirs; the other 3 were held at one of our State Fishing Lakes.

Reservoir Statistics

The number of tournament events reported in 2006 was 3% higher than the previous year (Table 2). The reported numbers of angler days and angler hours fished in black bass tournaments in 2006 were 66 % lower than the 12-year means but 1 % higher than in 2005. The numbers and total weight of bass $\geq$ 12 inches caught were 39 and 28 % higher than in 2005, and were 46 and

51 % lower than the 12-year means. The 2006 hourly catch rate of bass ≥ 12 in was 41 % higher than the previous year and 45 % higher than the 12-year mean.

The 2006 catch of 53 bass ≥ 20 in was 18 % lower than the 2005 catch, and 68 % lower than the 12-year mean. The mean number of hours (96) necessary in 2006 to catch a bass ≥ 20 in was similar to the previous year, but 12 % less than the 12-year mean. The largest bass reported in tournament fishing in 2006 was 6.9 pounds.

An accepted standard of quality largemouth bass fishing is a catch rate of 0.2 bass ≥ 12 in per hour. In 2006, four of five reservoirs had catch rates that exceeded the standard, but only Big Hll and Cedar Bluff have five events or more events (Table 3). The highest catch of bass ≥ 12 in per hour with a minimum of five events occurred at Cedar Bluff (0.51).

Heaviest mean weight for bass ≥ 12 in taken from reservoirs with a minimum of five events was 2.1 pounds (Cedar Bluff) (Table 3). Big Hill had the highest reported catch (44) of bass ≥ 20 inches. Big Hill required 74 angler hours per fish ≥ 20 in.

A cursory estimate of the current condition of a given reservoir's largemouth bass fishery can be made by comparing the number of bass caught per hour in the present year to the historic mean catch rate for that reservoir (Table 4). The percent deviation indicates whether catches are above or below (+ or -) for each impoundment and describes the magnitude. Above average percentages may suggest the presence of strong year classes. Those deviations plus or minus 10% of the mean could indicate steady-state populations; reservoirs that produce catch rates of -25%, or lower, than their historical average may signal a decline in reproduction or recruitment.

State, County and City Lake Statistics

The catch data reported from tournaments held at small lakes 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. Three bass tournaments were reported for one lake in 2005 and catch data from this impoundment are summarized in Table 5.

Table 1. List of bass clubs contributing black bass catch data from tournament events in 2006 to the Kansas Department of Wildlife and Parks.

Bass Club
American Bass Anglers
Big Hill Bass Masters
Boothill Bass Club
Cherryvale Bassmasters
Fishin' with Friends
Hays Bass Angler Association
Kansas Bass Chapter Federation
Twin Rivers Bass Club

Table 2. Annual tournament statistics on black bass in Kansas reservoirs, as reported by Kansas bass clubs, 1995-2006.

Statistic	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	12-year mean	2006 % deviation from mean
Tournaments reported	153	148	170	160	174	149	88	65	53	32	38	39	106	-63
Total Angler days	3,750	3,139	3,240	3,488	3,442	3,238	2,129	1,609	1,557	572	782	776	2,310	-66
Total Angler hours	29,998	25,115	25,920	27,902	27,532	25,902	17,029	12,874	12,456	4,572	6,252	6,206	18,480	-66
Bass over 12 inches	6,145	5,467	6,684	7,291	9,106	9,141	7,832	5,202	4,667	1,649	2,240	3,104	5,711	-46
Pounds of bass over 12 inches	12,308	11,350	14,091	15,768	19,111	18,976	15,545	10,247	9,308	3,340	4,509	5,788	11,695	-51
Mean pounds per bass over 12 inches	1.9	2.0	2.1	2.2	2.1	2.2	2.1	2.3	2.1	2.1	2.0	1.79	2.1	-13
Bass over 12 inches per hour	0.45	0.28	0.31	0.28	0.31	0.34	0.36	0.31	0.26	0.26	0.34	0.48	0.33	45
Pounds of bass > 12 inches per hour	0.41	0.45	0.54	0.57	0.69	0.73	0.91	1.25	1.33	0.73	0.72	0.93	0.77	20
Bass over 20 inches	171	159	222	210	279	292	170	137	142	61	65	53	163	-68
Hours per bass over 20 inches	175	158	117	133	99	89	100	94	88	68	96	96	109	-12
Largest bass (lbs)	9.5	7.4	8.1	7.7	8.2	8.8	8.8	7.3	7.7	8.2	6.3	6.9	8	-13

Table 3. Summary of length frequencies, stock indices, and catches of black bass in tournaments on Kansas Reservoirs in 2006.

Length (inches)	Percent of Catch						
	Big Hill	Cedar Bluff	Melvern	Milford	Wilson	Mean	Total
8	1	1	12	9	6	6	
9	3	1	1	15	1	4	
10	4	3	10	10	7	7	
11	5	3	5	8	3	5	
12	10	6	23	14	17	14	
13	16	10	18	12	17	15	
14	20	19	15	16	26	19	
15	18	27	6	10	18	16	
16	10	16	7	3	4	8	
17	6	6	2	1	0	3	
18	4	4	1	1	0	2	
19	1	2	0	0	0	1	
20	2	2	0	0	0	1	
21	1	1	0	0	0	0	
22	0	0	0	0	0	0	
23	0	0	1	0	0	0	
24	0	0	0	0	0	0	
25							
Total Bass (all sizes)	1435	245	152	1416	215	693	3463
Total Anglers	333	145	80	274	29	172	861
Angler Hours	2764	442	610	2192	198	1241	6206
Number of Tournaments	20	9	3	4	3	8	39
Percent of Catch							
Bass 8-12 inches	12	7	2	43	18	16	
Bass 12-15 inches	46	35	57	42	60	48	
Bass 15-20 inches	38	56	16	15	22	29	
Bass 20-25 inches	3	2	1	0	0	1	
Catch By Size Category *							
Bass 8-12 inches/hour	0.08	0.04	0.03	0.27	0.19	0.12	
Bass 12-15 inches/hour	0.25	0.21	0.15	0.26	0.64	0.30	
Bass 15-20 inches/hour	0.21	0.30	0.04	0.09	0.24	0.18	
Bass 20-25 inches/hour	0.02	0.01	0.00	0.00	0.00	0.01	
Bass > 8 inches / hour	0.55	0.56	0.21	0.63	1.08	0.61	
Bass > 12 inches / hour	0.46	0.51	0.18	0.35	0.88	0.48	
Wt. of bass >12 in. (lbs.)	2559	484	177	1323	280	964.72	5788
Mean wt. of bass >12 inches	2.03	2.13	1.6	1.6	1.6	1.79	
Number of bass > 12 inches	1260	227	111	812	177	517.40	3104
Number of bass > 20 inches	47	4	0	2	0		53
Hours per bass > 20 inches	65	58		300		96	
Wt. of largest bass (lbs.)	6.2	5.9	4.6	6.9	3.3	5.4	

*** 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.**

Table 4. Trends in catch per hour for two length groups of black bass from Kansas reservoir black bass angling tournaments, 1995-2006

Reservoir	Length Group (inches)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Geo-metric mean	2006 % deviation from mean	2006 % deviation from 2005
Big Hill	>8	0.39	0.47	0.38	0.33	0.41	0.46	0.55	0.50	0.39	0.44	0.48	0.55	0.44	24.7	14.6
	>12	0.26	0.33	0.29	0.25	0.33	0.35	0.53	0.52	0.36	0.37	0.39	0.46	0.34	34.5	17.9
Cedar Bluff	>8	1.08	0.66	0.46	0.47	0.51	0.58	0.74	0.37	0.33	0.70	0.33	0.56	0.53	5.4	69.7
	>12	0.75	0.49	0.42	0.35	0.44	0.59	0.74	0.37	0.30	0.66	0.30	0.51	0.47	9.3	70.0
Clinton	>8	0.22	0.16	0.17	0.29	0.26	0.24	0.09	0.12	0.26				0.19		
	>12	0.19	0.13	0.14	0.25	0.21	0.20	0.06	0.06	0.25				0.15		
Council Grove	>8	0.09	0.31	0.17	0.67									0.22		
	>12	0.07	0.22	0.13	0.52									0.17		
El Dorado	>8	0.12	0.16	0.36	0.54	0.14	0.14			0.08	0.54			0.20		
	>12	0.11	0.14	0.28	0.34	0.11	0.10			0.08	0.33			0.16		
Fall River	>8			0.06										0.06		
	>12			0.04										0.04		
Glen Elder	>8	0.52	0.31		0.11									0.32		
	>12	0.45	0.30		0.08									0.28		
Hillsdale	>8	0.11	0.12	0.11	0.15	0.16	0.14	0.22	0.12		0.08			0.13		
	>12	0.10	0.12	0.10	0.15	0.17	0.14	0.19	0.10		0.05			0.12		
Kanopolis	>8				0.10									0.10		
	>12				0.04									0.04		
Kirwin	>8	0.82	0.79	0.79	0.43	0.43	0.62	0.59	0.15	0.23				0.49		
	>12	0.76	0.76	0.70	0.39	0.39	0.60	0.58	0.14	0.23				0.45		
La Cygne	>8	0.46	0.29	0.37	0.22	0.34	0.35	0.38	0.11	0.13				0.23		
	>12	0.36	0.23	0.30	0.18	0.26	0.26	0.22	0.10	0.13				0.19		
Marion	>8															
	>12															
Melvern	>8	0.03	0.09	0.22	0.31	0.25	0.24	0.26	0.67	0.37			0.37	0.18		
	>12	0.02	0.08	0.22	0.19	0.17	0.20	0.23	0.42	0.24			0.24	0.13		
Milford	>8	0.14	0.12	0.19	0.40	0.41	0.28	0.55	0.38	0.35			0.63	0.27	131.3	
	>12	0.12	0.10	0.18	0.26	0.27	0.18	0.32	0.23	0.24			0.35	0.20	77.9	
Norton	>8	1.27	1.07	1.09	0.89	1.03	1.07	0.97	0.64	0.77				1.00		
	>12	0.67	0.80	0.93	0.73	0.84	1.01	0.88	0.61	0.72				0.72		
Perry	>8	0.16	0.11	0.25	0.25	0.37	0.28	0.40	0.25					0.23		
	>12	0.13	0.09	0.20	0.21	0.33	0.21	0.33	0.22					0.19		
Pomona	>8	0.07	0.10			0.48		0.13						0.11		
	>12	0.07	0.08			0.31		0.13						0.09		
Toronto	>8															
	>12															
Tuttle Creek	>8	0.10	0.20	0.36	0.19									0.18		
	>12	0.09	0.15	0.36	0.18									0.16		
Webster	>8	1.67	0.49	0.50	0.48	0.34	0.38	0.21	0.40	0.33				0.45		
	>12	0.82	0.43	0.47	0.44	0.30	0.34	0.14	0.39	0.32				0.37		
Wilson***	>8	0.37	0.27	0.26	0.21	0.25	0.35	0.36	0.84	0.48	0.30	0.77	1.08	0.38	183.2	40.3
	>12	0.30	0.23	0.23	0.17	0.19	0.29	0.33	0.58	0.42	0.24	0.57	0.88	0.31	184.5	54.4

*** 2006 catch rates based on three tournaments or less.

Table 5. Summary of length frequencies, stock indices, and catches of black bass in tournaments on Kansas Lakes in 2006.

Length (inches)	Percent of Catch Clark SFL	Total
8	1	
9	1	
10	3	
11	0	
12	14	
13	22	
14	23	
15	13	
16	10	
17	4	
18	4	
19	4	
20	2	
21	1	
22	0	
23	0	
24	0	
25	0	
Total Bass (all sizes)	**106**	**106**
Total Anglers	**24**	**24**
Angler Hours	**142**	**142**
Number of Tournaments	**3**	**3**
Percent of Catch		
Bass 8-12 inches	**25**	
Bass 12-15 inches	**28**	
Bass 15-20 inches	**48**	
Bass 20-25 inches	**2**	
Catch By Size Category		
Bass 8-12 inches/hour	**0.19**	
Bass 12-15 inches/hour	**0.26**	
Bass 15-20 inches/hour	**0.28**	
Bass 20-25 inches/hour	**0.01**	
Bass > 8 inches / hour	**0.74**	
Bass > 12 inches / hour	**0.54**	
Number of bass > 12 inches	**83**	**83**
Bass > 20 in	**2**	
Hours per bass >=20 in	**5**	
Wt. of largest bass (lbs.)	**6.9**	