

ILLINOIS NATURAL HISTORY SURVEY  
 CENTER FOR AQUATIC ECOLOGY  
 2005 CREEL SURVEY RESULTS

**2005 SILOAM SPRINGS**  
 58 ACRES  
 REGION 4, DISTRICT 12

STRATIFICATION SUMMARY:

Day creel only.  
 Results cover 03/15/2005 through 10/31/2005  
 Year periods stratified.  
 Fishing modes (boat vs. shore) stratified.  
 Day types (weekday vs. weekend/holiday) stratified.  
 Day periods (morning, midday, and afternoon) stratified.

SAMPLING RATIO: 297/693 = 42.9%

NUMBER OF INTERVIEWS: 1128

Table 1. Total fishing effort, by fishing mode and day type.

FISHING MODE	DAYTYPE	ANGLER-HOURS	95% CI	HOURS/ACRE	95% CI	% EFF
BOAT	WEEKDAY	2657	2014-3301 ( 24%)	46	35-57 ( 24%)	18%
	HOLIDAY	4647	3867-5426 ( 17%)	80	67-94 ( 17%)	34%
	TOTAL	7304	6313-8295 ( 14%)	126	109-143 ( 14%)	28%
SHORE	WEEKDAY	4005	3224-4786 ( 20%)	69	56-83 ( 20%)	19%
	HOLIDAY	5992	3367-8618 ( 44%)	103	58-149 ( 44%)	22%
	TOTAL	9997	7486-12508 ( 25%)	172	129-216 ( 25%)	21%
BOAT & SHORE	WEEKDAY	6663	5670-7655 ( 15%)	115	98-132 ( 15%)	18%
	HOLIDAY	10639	8129-13149 ( 24%)	183	140-227 ( 24%)	27%
	TOTAL	17301	14713-19889 ( 15%)	298	254-343 ( 15%)	24%

Table 2. Total fishing harvest and harvest rates, in numbers of fish.

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
8245	6168-10322 ( 25%)	.317	.236-.397 ( 25%)	351.26	142.15	All species
1774	716-2831 ( 60%)	.109	.048-.171 ( 56%)	75.57	30.58	Bluegill
		****	NOT RECORDED ****			Black bass spp.
		****	NOT RECORDED ****			Carp
5	0-28 (430%)	.000	.000-.001 (430%)	0.22	0.09	Unidentified catfish
176	88-264 ( 50%)	.013	.001-.024 ( 95%)	7.52	3.04	Channel catfish
		****	NOT RECORDED ****			Crappie spp.
28	2-54 ( 94%)	.001	.000-.002 ( 91%)	1.20	0.48	Largemouth bass
5627	3870-7384 ( 31%)	.173	.123-.223 ( 29%)	239.73	97.02	Rainbow trout
97	0-197 (104%)	.004	.000-.008 (104%)	4.11	1.66	Redear sunfish
		****	NOT RECORDED ****			Sunfish spp.
5	0-18 (236%)	.000	.000-.001 (236%)	0.22	0.09	Warmouth
532	118-946 ( 78%)	.016	.007-.025 ( 56%)	22.68	9.18	White crappie

Table 3. Total fishing harvest and harvest rates, in kilograms.

KG HARVESTED	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
2672	1947-3396 ( 27%)	.092	.072-.111 ( 21%)	113.82	0.324	All species
282	131-433 ( 53%)	.017	.008-.026 ( 53%)	12.03	0.159	Bluegill
		****	NOT RECORDED ****			Black bass spp.
		****	NOT RECORDED ****			Carp
		****	NOT RECORDED ****			Unidentified catfish
59	29-89 ( 51%)	.003	.001-.005 ( 59%)	2.50	0.333	Channel catfish
		****	NOT RECORDED ****			Crappie spp.
19	2-35 ( 89%)	.001	.000-.002 (105%)	0.79	0.659	Largemouth bass
2225	1526-2923 ( 31%)	.068	.050-.086 ( 26%)	94.77	0.395	Rainbow trout
13	0-27 (108%)	.001	.000-.001 (118%)	0.55	0.135	Redear sunfish
		****	NOT RECORDED ****			Sunfish spp.
2	0-7 (245%)	.000	.000-.000 (245%)	0.09	0.383	Warmouth
73	14-131 ( 81%)	.002	.001-.004 ( 66%)	3.09	0.136	White crappie

Table 4. Total fishing harvest and harvest rates, in pounds.

LB HARVESTED	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
5890	4293-7487 ( 27%)	.203	.159-.246 ( 21%)	101.55	0.714	All species
622	290-955 ( 53%)	.038	.018-.058 ( 53%)	10.73	0.351	Bluegill
		****	NOT RECORDED ****			Black bass spp.
		****	NOT RECORDED ****			Carp
		****	NOT RECORDED ****			Unidentified catfish
130	64-196 ( 51%)	.007	.003-.011 ( 59%)	2.23	0.734	Channel catfish
		****	NOT RECORDED ****			Crappie spp.
41	5-77 ( 89%)	.002	.000-.004 (105%)	0.70	1.452	Largemouth bass
4904	3364-6445 ( 31%)	.149	.110-.189 ( 26%)	84.56	0.872	Rainbow trout
29	0-60 (108%)	.001	.000-.003 (118%)	0.49	0.297	Redear sunfish
		****	NOT RECORDED ****			Sunfish spp.
4	0-15 (245%)	.000	.000-.001 (236%)	0.08	0.844	Warmouth
160	31-289 ( 81%)	.005	.002-.008 ( 66%)	2.76	0.300	White crappie

Table 5. Total fishing catch and catch rates, in numbers of fish.  
Catch includes both harvested and released fish.

# CAUGHT	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
14626	12053-17199	( 18%)	.696	.557-.834 ( 20%)	623.13	252.18	All species
5340	3894-6786	( 27%)	.342	.230-.454 ( 33%)	227.52	92.08	Bluegill
33	0-175	(430%)	.000	.000-.002 (318%)	1.41	0.57	Black bass spp.
20	0-51	(158%)	.000	.000-.001 (231%)	0.83	0.34	Carp
12	0-47	(272%)	.001	.000-.002 (310%)	0.53	0.22	Unidentified catfish
334	171-497	( 49%)	.021	.007-.035 ( 65%)	14.24	5.76	Channel catfish
13	0-55	(318%)	.000	.000-.001 (318%)	0.56	0.23	Crappie spp.
1286	326-2245	( 75%)	.056	.039-.074 ( 31%)	54.78	22.17	Largemouth bass
6560	4779-8340	( 27%)	.207	.147-.266 ( 29%)	279.47	113.10	Rainbow trout
163	0-338	(107%)	.010	.000-.027 (170%)	6.96	2.82	Redear sunfish
20	0-51	(153%)	.001	.000-.002 (125%)	0.87	0.35	Sunfish spp.
8	0-26	(236%)	.000	.000-.002 (245%)	0.34	0.14	Warmouth
836	401-1271	( 52%)	.057	.006-.109 ( 90%)	35.62	14.42	White crappie

Table 6. Total fishing catch and catch rates, in kilograms.

KG CAUGHT	95% CI		KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
4008	3097-4918	( 23%)	.157	.131-.183 ( 17%)	170.75	0.274	All species
555	370-739	( 33%)	.036	.023-.048 ( 35%)	23.63	0.104	Bluegill
			****	NOT RECORDED ****			Black bass spp.
15	0-46	(204%)	.000	.000-.001 (204%)	0.64	0.771	Carp
			****	NOT RECORDED ****			Unidentified catfish
97	55-139	( 43%)	.005	.002-.008 ( 55%)	4.13	0.290	Channel catfish
1	0-6	(318%)	.000	.000-.000 (430%)	0.06	0.110	Crappie spp.
707	136-1278	( 81%)	.030	.020-.040 ( 34%)	30.10	0.550	Largemouth bass
2520	1793-3246	( 29%)	.079	.058-.100 ( 27%)	107.35	0.384	Rainbow trout
18	0-37	(105%)	.001	.000-.003 (157%)	0.78	0.112	Redear sunfish
0	0-1	(179%)	.000	.000-.000 (181%)	0.02	0.021	Sunfish spp.
3	0-9	(245%)	.000	.000-.001 (245%)	0.11	0.339	Warmouth
92	33-151	( 64%)	.006	.001-.010 ( 90%)	3.93	0.110	White crappie

Table 7. Total fishing catch and catch rates, in pounds.

LB CAUGHT	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
8836	6829-10843 ( 23%)	.345	.288-.402 ( 17%)	152.34	0.604	All species
1223	815-1630 ( 33%)	.079	.051-.107 ( 35%)	21.08	0.229	Bluegill
		****	NOT RECORDED ****			Black bass spp.
33	0-101 (204%)	.000	.000-.001 (204%)	0.57	1.700	Carp
		****	NOT RECORDED ****			Unidentified catfish
214	122-306 ( 43%)	.012	.005-.019 ( 55%)	3.69	0.639	Channel catfish
3	0-17 (430%)	.000	.000-.000 (430%)	0.06	0.242	Crappie spp.
1558	299-2817 ( 81%)	.065	.043-.087 ( 34%)	26.86	1.212	Largemouth bass
5555	3953-7157 ( 29%)	.173	.127-.220 ( 27%)	95.77	0.847	Rainbow trout
40	0-82 (105%)	.002	.000-.006 (157%)	0.69	0.247	Redear sunfish
1	0-3 (179%)	.000	.000-.000 (181%)	0.02	0.047	Sunfish spp.
6	0-20 (236%)	.000	.000-.001 (236%)	0.10	0.748	Warmouth
203	74-333 ( 64%)	.012	.001-.023 ( 90%)	3.50	0.243	White crappie

Table 8. Hours per completed trip and supplementary questions for all trips.

	MEAN	95% CI	MIN	MAX	#SAMPLES
HOURS PER COMPLETED TRIP*					
BOAT	3.6	3.4-3.8 ( 7%)	0.5	12.0	328
SHORE	2.4	2.2-2.5 ( 6%)	0.2	14.0	382
BOAT & SHORE	2.9	2.8-3.1 ( 5%)	0.2	14.0	710
MILES TRAVELED	51.6	44.9-58.2 ( 13%)	1	1995	812
SUCCESS RATING (1-10)	5.4	5.2-5.6 ( 4%)	1	10	803

\*262 samples were from split interviews of completed trips.  
83.2% of all 853 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 1 out of 853 interviews with illegal harvests.

Table 9. Frequency distribution of angler party size for all interviews.

PARTY SIZE:	1	2	3	4	5	6	7	8	9	10+
BOAT INTERVIEWS	134	148	36	14	4		1	1		
SHORE INTERVIEWS	260	156	48	23	11	9	2	3	2	1

Table 10. Number of interviews (and %) per species sought for all interviews.

278 ( 32.6%)	ANY	All species
86 ( 10.1%)	BLG	Bluegill
8 ( 0.9%)	BSS	Black bass spp.
4 ( 0.5%)	CAT	Unidentified catfish
48 ( 5.6%)	CCF	Channel catfish
9 ( 1.1%)	CRP	Crappie spp.
101 ( 11.8%)	LMB	Largemouth bass
292 ( 34.2%)	RBT	Rainbow trout
1 ( 0.1%)	SUN	Sunfish spp. excluding Crappie and Black Bass
26 ( 3.0%)	WHC	White crappie

2005 SILOAM SPRINGS

DAY CREEL

03/15/2005 - 10/31/2005

Table 11. Number of anglers with a given harvest & release for completed trips

# OF FISH:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25+
Bluegill																										
HARVEST	1250	36	5	3	9	1	6	2	4	-	1	-	-	2	-	-	-	-	2	-	-	-	1	2	-	5
RELEASE	1031	128	69	31	12	17	8	-	4	4	11	-	2	3	1	4	-	-	-	-	2	-	-	-	-	2
Black bass spp.																										
HARVEST	1329	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1328	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carp																										
HARVEST	1329	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1325	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified catfish																										
HARVEST	1328	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1325	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																										
HARVEST	1303	16	5	4	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1304	15	7	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																										
HARVEST	1320	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1172	108	19	6	4	3	6	3	3	-	2	-	-	-	-	-	1	-	-	-	-	1	-	-	-	1
Rainbow trout																										
HARVEST	1059	86	44	43	25	71	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1306	4	11	2	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	1	-	-
Redear sunfish																										
HARVEST	1323	1	2	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
RELEASE	1326	-	-	1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

2005 SILOAM SPRINGS

DAY CREEL

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Table 11 Cont. Number of anglers with a given harvest & release for completed trips

# OF FISH:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25+	
Sunfish spp. excluding Crappie and Black Bass																											
HARVEST	1329	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1326	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warmouth																											
HARVEST	1327	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1328	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																											
HARVEST	1283	21	8	5	6	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1286	22	9	10	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

