

ILLINOIS NATURAL HISTORY SURVEY  
 CENTER FOR AQUATIC ECOLOGY  
 2004 CREEL SURVEY RESULTS

2004 LAKE MURPHYSBORO  
 140 ACRES  
 REGION 5, DISTRICT 21

STRATIFICATION SUMMARY:

Day creel only.  
 Results cover 03/15/2004 through 10/31/2004  
 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: 306/693 = 44.2%

NUMBER OF INTERVIEWS: 1288

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	4950	4205-5696 ( 15%)	35	30-41 ( 15%)	21%
	HOLIDAY	3160	2676-3643 ( 15%)	23	19-26 ( 15%)	40%
	TOTAL	8110	7221-8999 ( 11%)	58	52-64 ( 11%)	28%
SHORE	WEEKDAY	3331	2734-3927 ( 18%)	24	20-28 ( 18%)	21%
	HOLIDAY	3146	2720-3573 ( 14%)	22	19-26 ( 14%)	50%
	TOTAL	6477	5744-7210 ( 11%)	46	41-51 ( 11%)	35%
BOAT & SHORE	WEEKDAY	8281	7326-9236 ( 12%)	59	52-66 ( 12%)	21%
	HOLIDAY	6306	5662-6951 ( 10%)	45	40-50 ( 10%)	45%
	TOTAL	14587	13435-15739 ( 8%)	104	96-112 ( 8%)	31%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
23438	19257-27618 ( 18%)	1.472	1.176-1.768 ( 20%)	413.67	167.41	All species
1031	470-1593 ( 54%)	.058	.026-.090 ( 55%)	18.21	7.37	Black crappie
4420	3293-5547 ( 25%)	.268	.181-.356 ( 32%)	78.02	31.57	Bluegill
		****	NOT RECORDED ****			Bowfin
		****	NOT RECORDED ****			Brown bullhead
1089	813-1366 ( 25%)	.078	.050-.106 ( 36%)	19.23	7.78	Channel catfish
		****	NOT RECORDED ****			Green sunfish
107	0-342 (220%)	.002	.000-.007 (220%)	1.88	0.76	Gizzard shad
479	308-651 ( 36%)	.033	.017-.050 ( 51%)	8.46	3.42	Largemouth bass
77	31-123 ( 60%)	.004	.001-.007 ( 74%)	1.35	0.55	Redear sunfish
66	30-102 ( 54%)	.004	.001-.008 ( 80%)	1.17	0.47	Warmouth
		****	NOT RECORDED ****			White bass
15968	12237-19698 ( 23%)	1.018	.752-1.283 ( 26%)	281.83	114.05	White crappie
200	0-458 (129%)	.006	.000-.013 (115%)	3.53	1.43	Yellow bullhead

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

KG HARVESTED	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
3828	3183-4473 ( 17%)	.245	.195-.295 ( 20%)	67.56	0.163	All species
146	82-210 ( 44%)	.009	.004-.013 ( 55%)	2.58	0.142	Black crappie
325	236-415 ( 27%)	.019	.013-.025 ( 33%)	5.74	0.074	Bluegill
		****	NOT RECORDED ****			Bowfin
		****	NOT RECORDED ****			Brown bullhead
691	510-873 ( 26%)	.048	.031-.065 ( 36%)	12.20	0.635	Channel catfish
		****	NOT RECORDED ****			Green sunfish
0	0-0 (220%)	.000	.000-.000 (223%)	0.00	0.001	Gizzard shad
340	212-469 ( 38%)	.023	.011-.035 ( 53%)	6.01	0.710	Largemouth bass
8	3-13 ( 60%)	.000	.000-.001 ( 70%)	0.14	0.102	Redear sunfish
9	4-15 ( 57%)	.001	.000-.001 ( 86%)	0.16	0.140	Warmouth
		****	NOT RECORDED ****			White bass
2241	1688-2793 ( 25%)	.144	.100-.187 ( 30%)	39.55	0.140	White crappie
67	0-139 (108%)	.002	.000-.004 (100%)	1.18	0.334	Yellow bullhead

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

LB HARVESTED	95% CI		LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
8439	7017-9860	( 17%)	.540	.430-.650 ( 20%)	60.28	0.360	All species
322	180-463	( 44%)	.019	.009-.029 ( 55%)	2.30	0.312	Black crappie
717	521-914	( 27%)	.041	.028-.055 ( 33%)	5.12	0.162	Bluegill
			****	NOT RECORDED ****			Bowfin
			****	NOT RECORDED ****			Brown bullhead
1524	1123-1924	( 26%)	.106	.068-.144 ( 36%)	10.89	1.399	Channel catfish
			****	NOT RECORDED ****			Green sunfish
0	0-1	(220%)	.000	.000-.000 (220%)	0.00	0.002	Gizzard shad
750	467-1034	( 38%)	.051	.024-.078 ( 53%)	5.36	1.566	Largemouth bass
17	7-28	( 60%)	.001	.000-.001 ( 70%)	0.12	0.225	Redear sunfish
20	9-32	( 57%)	.001	.000-.002 ( 86%)	0.15	0.308	Warmouth
			****	NOT RECORDED ****			White bass
4940	3722-6157	( 25%)	.316	.221-.411 ( 30%)	35.28	0.309	White crappie
147	0-307	(108%)	.004	.000-.009 (100%)	1.05	0.737	Yellow bullhead

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
37691	32439-42943 ( 14%)	2.208	1.867-2.550 ( 15%)	665.25	269.22	All species
1807	839-2776 ( 54%)	.085	.047-.122 ( 44%)	31.90	12.91	Black crappie
10279	8425-12133 ( 18%)	.532	.425-.640 ( 20%)	181.43	73.42	Bluegill
6	0-15 (156%)	.000	.000-.000 (162%)	0.11	0.04	Bowfin
17	0-37 (119%)	.002	.000-.006 (180%)	0.30	0.12	Brown bullhead
2102	1633-2570 ( 22%)	.139	.102-.176 ( 27%)	37.09	15.01	Channel catfish
2	0-8 (430%)	.000	.000-.000 (318%)	0.03	0.01	Green sunfish
114	0-349 (207%)	.003	.000-.007 (191%)	2.01	0.81	Gizzard shad
2544	1933-3156 ( 24%)	.130	.096-.165 ( 26%)	44.91	18.17	Largemouth bass
142	77-207 ( 46%)	.008	.003-.012 ( 56%)	2.51	1.01	Redear sunfish
158	88-228 ( 44%)	.009	.004-.013 ( 49%)	2.79	1.13	Warmouth
6	0-25 (318%)	.000	.000-.001 (318%)	0.10	0.04	White bass
20234	15931-24536 ( 21%)	1.290	.987-1.594 ( 23%)	357.12	144.53	White crappie
281	11-551 ( 96%)	.010	.002-.017 ( 77%)	4.96	2.01	Yellow bullhead

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

KG CAUGHT	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
5084	4354-5814 ( 14%)	.311	.257-.364 ( 17%)	89.73	0.135	All species
192	105-278 ( 45%)	.010	.005-.015 ( 47%)	3.38	0.106	Black crappie
501	399-603 ( 20%)	.027	.020-.033 ( 25%)	8.84	0.049	Bluegill
1	0-3 (159%)	.000	.000-.000 (158%)	0.02	0.178	Bowfin
2	0-4 (147%)	.000	.000-.000 (151%)	0.03	0.092	Brown bullhead
1007	760-1254 ( 25%)	.066	.046-.087 ( 30%)	17.77	0.479	Channel catfish
0	0-1 (318%)	.000	.000-.000 (318%)	0.00	0.127	Green sunfish
0	0-1 (172%)	.000	.000-.000 (197%)	0.01	0.003	Gizzard shad
777	571-983 ( 26%)	.041	.028-.055 ( 33%)	13.71	0.305	Largemouth bass
13	6-19 ( 49%)	.001	.000-.001 ( 58%)	0.22	0.089	Redear sunfish
17	10-24 ( 41%)	.001	.000-.002 ( 71%)	0.29	0.105	Warmouth
0	0-1 (318%)	.000	.000-.000 (318%)	0.01	0.052	White bass
2479	1891-3066 ( 24%)	.161	.115-.206 ( 28%)	43.75	0.123	White crappie
96	17-175 ( 83%)	.003	.001-.005 ( 71%)	1.69	0.341	Yellow bullhead

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

LB CAUGHT	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
11207	9598-12817 ( 14%)	.685	.567-.803 ( 17%)	80.05	0.297	All species
422	232-613 ( 45%)	.023	.012-.033 ( 47%)	3.02	0.234	Black crappie
1104	880-1329 ( 20%)	.059	.044-.073 ( 25%)	7.89	0.107	Bluegill
2	0-6 (159%)	.000	.000-.000 (158%)	0.02	0.392	Bowfin
3	0-8 (147%)	.000	.000-.001 (151%)	0.02	0.202	Brown bullhead
2220	1676-2764 ( 25%)	.146	.102-.191 ( 30%)	15.86	1.056	Channel catfish
0	0-2 (430%)	.000	.000-.000 (430%)	0.00	0.280	Green sunfish
1	0-2 (172%)	.000	.000-.000 (197%)	0.01	0.007	Gizzard shad
1713	1260-2166 ( 26%)	.091	.061-.122 ( 33%)	12.24	0.673	Largemouth bass
28	14-41 ( 49%)	.002	.001-.003 ( 58%)	0.20	0.196	Redear sunfish
37	22-52 ( 41%)	.002	.001-.004 ( 71%)	0.26	0.232	Warmouth
1	0-3 (278%)	.000	.000-.000 (278%)	0.00	0.114	White bass
5464	4169-6760 ( 24%)	.354	.254-.455 ( 28%)	39.03	0.270	White crappie
211	36-385 ( 83%)	.007	.002-.012 ( 71%)	1.51	0.751	Yellow bullhead

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

	MEAN	95% CI		MIN	MAX	#SAMPLES
HOURS PER COMPLETED TRIP*						
BOAT	3.2	2.8-3.6	( 12%)	0.5	10.0	110
SHORE	1.6	1.4-1.9	( 17%)	0.2	6.2	72
BOAT & SHORE	2.6	2.3-2.8	( 11%)	0.2	10.0	182
MILES TRAVELED	42.3	35.9-48.8	( 15%)	1	1300	966
SUCCESS RATING (1-10)	4.2	4.0-4.3	( 4%)	1	10	966

\*72 samples were from split interviews of completed trips.  
15.0% of all 1215 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 0 out of 1215 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	212	332	54	14		2	1			
SHORE INTERVIEWS	213	220	81	58	9	12	6			1

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

536 ( 44.1%)	ANY	All species
71 ( 5.8%)	BLG	Bluegill
117 ( 9.6%)	CCF	Channel catfish
302 ( 24.9%)	CRP	Crappie spp.
186 ( 15.3%)	LMB	Largemouth bass
2 ( 0.2%)	RSF	Redear sunfish
1 ( 0.1%)	SHG	Shortnose gar

