

ILLINOIS NATURAL HISTORY SURVEY
 CENTER FOR AQUATIC ECOLOGY
 2003 CREEL SURVEY RESULTS

2003 PIERCE LAKE
 147 ACRES
 REGION 1, DISTRICT 1

STRATIFICATION SUMMARY:

Day creel only.
 Results cover 03/15/2003 through 10/31/2003
 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: 240/693 = 34.6%

NUMBER OF INTERVIEWS: 2229

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	16574	14953-18195 (10%)	113	102-124 (10%)	7%
	HOLIDAY	17816	16097-19535 (10%)	121	110-133 (10%)	9%
	TOTAL	34390	32027-36753 (7%)	234	218-250 (7%)	8%
SHORE	WEEKDAY	22603	20922-24284 (7%)	154	142-165 (7%)	8%
	HOLIDAY	20821	19050-22592 (9%)	142	130-154 (9%)	11%
	TOTAL	43424	40982-45866 (6%)	296	279-312 (6%)	9%
BOAT & SHORE	WEEKDAY	39177	36841-41512 (6%)	267	251-283 (6%)	7%
	HOLIDAY	38637	36169-41105 (6%)	263	246-280 (6%)	10%
	TOTAL	77814	74416-81212 (4%)	530	507-553 (4%)	9%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
48387	44600-52175 (8%)	.583	.269-.897 (54%)	813.92	329.39	All species
574	359-789 (37%)	.006	.004-.007 (34%)	9.66	3.91	Black bullhead
14811	12571-17051 (15%)	.250	.000-.558 (124%)	249.14	100.83	Black crappie
1465	1062-1867 (28%)	.020	.013-.027 (36%)	24.64	9.97	Bluegill
		****	NOT RECORDED ****			Bullhead spp.
4342	3440-5243 (21%)	.042	.025-.059 (41%)	73.03	29.56	Carp
6089	5032-7146 (17%)	.053	.045-.061 (15%)	102.42	41.45	Channel catfish
		****	NOT RECORDED ****			Freshwater drum
		****	NOT RECORDED ****			Golden shiner
534	299-770 (44%)	.005	.001-.010 (79%)	8.99	3.64	Green sunfish
493	242-743 (51%)	.005	.001-.008 (76%)	8.29	3.35	Gizzard shad
2716	2103-3329 (23%)	.028	.022-.035 (24%)	45.69	18.49	Largemouth bass
		****	NOT RECORDED ****			Muskellunge
161	0-336 (109%)	.002	.000-.004 (105%)	2.71	1.10	Northern pike
32	0-70 (116%)	.000	.000-.000 (105%)	0.55	0.22	Pumpkinseed
500	286-714 (43%)	.005	.002-.007 (49%)	8.41	3.40	Redear sunfish
648	425-870 (34%)	.008	.004-.012 (51%)	10.89	4.41	Smallmouth bass
6239	4619-7858 (26%)	.070	.025-.115 (65%)	104.94	42.47	Walleye
		****	NOT RECORDED ****			White bass
9302	7831-10773 (16%)	.083	.073-.094 (13%)	156.46	63.32	White crappie
295	102-488 (65%)	.005	.000-.012 (153%)	4.96	2.01	Yellow bullhead
178	7-349 (96%)	.002	.000-.005 (135%)	2.99	1.21	Yellow perch
10	0-131 (1271%)	.000	.000-.002 (1271%)	0.16	0.06	Yellow bass

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

KG HARVESTED	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
13337	11543-15131 (13%)	.159	.105-.213 (34%)	224.34	0.276	All species
104	66-142 (37%)	.001	.001-.001 (42%)	1.74	0.180	Black bullhead
1626	1375-1878 (15%)	.029	.000-.065 (119%)	27.36	0.110	Black crappie
116	82-150 (29%)	.002	.001-.003 (42%)	1.95	0.079	Bluegill
		****	NOT RECORDED ****			Bullhead spp.
1305	983-1627 (25%)	.013	.007-.019 (47%)	21.95	0.301	Carp
1887	1494-2280 (21%)	.017	.014-.021 (21%)	31.74	0.310	Channel catfish
		****	NOT RECORDED ****			Freshwater drum
		****	NOT RECORDED ****			Golden shiner
59	32-87 (46%)	.001	.000-.001 (65%)	1.00	0.111	Green sunfish
69	34-105 (51%)	.001	.000-.001 (76%)	1.16	0.140	Gizzard shad
2402	1861-2944 (23%)	.025	.019-.031 (24%)	40.41	0.884	Largemouth bass
		****	NOT RECORDED ****			Muskellunge
308	0-634 (106%)	.004	.000-.007 (102%)	5.18	1.913	Northern pike
2	0-5 (122%)	.000	.000-.000 (104%)	0.04	0.071	Pumpkinseed
85	47-123 (44%)	.001	.000-.001 (53%)	1.43	0.170	Redear sunfish
485	319-651 (34%)	.006	.003-.010 (56%)	8.16	0.749	Smallmouth bass
3830	2075-5584 (46%)	.049	.000-.105 (114%)	64.42	0.614	Walleye
		****	NOT RECORDED ****			White bass
959	801-1118 (17%)	.009	.007-.010 (14%)	16.14	0.103	White crappie
52	11-93 (78%)	.001	.000-.002 (156%)	0.88	0.177	Yellow bullhead
45	1-89 (98%)	.001	.000-.001 (142%)	0.76	0.253	Yellow perch
1	1-1 (0%)	.000	.000-.000 (0%)	0.02	0.150	Yellow bass

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

LB HARVESTED	95% CI		LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
29403	25448-33358	(13%)	.350	.231-.470 (34%)	200.16	0.608	All species
228	144-312	(37%)	.002	.001-.003 (42%)	1.55	0.398	Black bullhead
3585	3030-4140	(15%)	.065	.000-.143 (119%)	24.41	0.242	Black crappie
256	181-331	(29%)	.004	.002-.006 (42%)	1.74	0.175	Bluegill
			****	NOT RECORDED ****			Bullhead spp.
2877	2167-3588	(25%)	.029	.015-.043 (47%)	19.59	0.663	Carp
4160	3293-5027	(21%)	.038	.030-.046 (21%)	28.32	0.683	Channel catfish
			****	NOT RECORDED ****			Freshwater drum
			****	NOT RECORDED ****			Golden shiner
131	71-191	(46%)	.001	.000-.002 (65%)	0.89	0.245	Green sunfish
153	74-231	(51%)	.001	.000-.002 (76%)	1.04	0.310	Gizzard shad
5296	4103-6489	(23%)	.055	.042-.069 (24%)	36.05	1.950	Largemouth bass
			****	NOT RECORDED ****			Muskellunge
679	0-1397	(106%)	.008	.000-.017 (102%)	4.62	4.217	Northern pike
5	0-11	(122%)	.000	.000-.000 (104%)	0.03	0.156	Pumpkinseed
187	104-271	(44%)	.002	.001-.003 (53%)	1.28	0.375	Redear sunfish
1069	704-1434	(34%)	.014	.006-.022 (56%)	7.28	1.651	Smallmouth bass
8443	4575-12310	(46%)	.108	.000-.231 (114%)	57.47	1.353	Walleye
			****	NOT RECORDED ****			White bass
2115	1766-2464	(17%)	.019	.016-.022 (14%)	14.40	0.227	White crappie
115	25-205	(78%)	.002	.000-.005 (156%)	0.78	0.390	Yellow bullhead
99	2-196	(98%)	.001	.000-.003 (142%)	0.68	0.558	Yellow perch
3	3-3	(0%)	.000	.000-.000 (0%)	0.02	0.332	Yellow bass

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
111456	99126-123786 (11%)	1.535	1.070-2.001 (30%)	1874.79	758.72	All species
1070	721-1418 (33%)	.009	.006-.012 (29%)	18.00	7.28	Black bullhead
34557	30914-38200 (11%)	.535	.207-.863 (61%)	581.28	235.24	Black crappie
25045	12924-37165 (48%)	.382	.037-.726 (90%)	421.28	170.49	Bluegill
7	7-7 (0%)	.000	.000-.000 (0%)	0.12	0.05	Bullhead spp.
5691	4631-6750 (19%)	.054	.037-.072 (32%)	95.72	38.74	Carp
6858	5747-7970 (16%)	.067	.054-.079 (19%)	115.36	46.69	Channel catfish
23	0-314 (1271%)	.000	.000-.004 (1271%)	0.39	0.16	Freshwater drum
16	0-52 (231%)	.000	.000-.000 (236%)	0.26	0.11	Golden shiner
981	264-1698 (73%)	.014	.000-.032 (134%)	16.50	6.68	Green sunfish
867	532-1201 (39%)	.007	.004-.011 (52%)	14.58	5.90	Gizzard shad
8276	6999-9553 (15%)	.176	.000-.709 (304%)	139.21	56.34	Largemouth bass
1541	872-2210 (43%)	.013	.008-.017 (38%)	25.92	10.49	Muskellunge
441	124-758 (72%)	.004	.001-.006 (71%)	7.42	3.00	Northern pike
137	47-227 (66%)	.001	.000-.001 (75%)	2.31	0.93	Pumpkinseed
522	307-737 (41%)	.005	.002-.007 (48%)	8.78	3.55	Redear sunfish
2826	2301-3351 (19%)	.030	.023-.037 (22%)	47.53	19.24	Smallmouth bass
12120	9590-14650 (21%)	.134	.094-.174 (30%)	203.87	82.51	Walleye
11	0-151 (1271%)	.000	.000-.006 (1271%)	0.19	0.07	White bass
9915	8411-11419 (15%)	.098	.084-.112 (15%)	166.78	67.49	White crappie
366	169-563 (54%)	.005	.000-.012 (143%)	6.16	2.49	Yellow bullhead
178	7-349 (96%)	.002	.000-.005 (135%)	2.99	1.21	Yellow perch
10	0-131 (1271%)	.000	.000-.002 (1271%)	0.16	0.06	Yellow bass

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

KG CAUGHT	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
20860	18260-23459 (12%)	.273	.196-.350 (28%)	350.88	0.187	All species
158	113-203 (28%)	.001	.001-.002 (32%)	2.66	0.148	Black bullhead
2690	2313-3067 (14%)	.052	.006-.099 (88%)	45.25	0.078	Black crappie
1237	432-2042 (65%)	.022	.000-.045 (107%)	20.81	0.049	Bluegill
1	1-1 (0%)	.000	.000-.000 (0%)	0.01	0.081	Bullhead spp.
1667	1280-2054 (23%)	.016	.010-.023 (39%)	28.04	0.293	Carp
1998	1601-2395 (20%)	.019	.015-.024 (22%)	33.61	0.291	Channel catfish
1	1-1 (0%)	.000	.000-.000 (0%)	0.03	0.065	Freshwater drum
0	0-0 (231%)	.000	.000-.000 (236%)	0.00	0.008	Golden shiner
74	44-104 (41%)	.001	.000-.001 (56%)	1.24	0.075	Green sunfish
92	55-129 (41%)	.001	.000-.001 (61%)	1.55	0.106	Gizzard shad
3718	3083-4353 (17%)	.056	.036-.076 (36%)	62.54	0.449	Largemouth bass
1839	1072-2607 (42%)	.016	.009-.024 (44%)	30.94	1.194	Muskellunge
539	143-935 (74%)	.005	.001-.009 (80%)	9.06	1.222	Northern pike
8	2-13 (68%)	.000	.000-.000 (92%)	0.13	0.057	Pumpkinseed
87	49-124 (43%)	.001	.000-.001 (53%)	1.46	0.166	Redear sunfish
953	751-1154 (21%)	.011	.007-.015 (34%)	16.02	0.337	Smallmouth bass
4691	2923-6459 (38%)	.059	.003-.115 (95%)	78.91	0.387	Walleye
2	2-2 (0%)	.000	.000-.001 (1271%)	0.04	0.190	White bass
999	839-1159 (16%)	.010	.008-.011 (14%)	16.80	0.101	White crappie
60	19-101 (69%)	.001	.000-.002 (150%)	1.01	0.164	Yellow bullhead
45	1-89 (98%)	.001	.000-.001 (142%)	0.76	0.253	Yellow perch
1	1-1 (0%)	.000	.000-.000 (0%)	0.02	0.150	Yellow bass

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

LB CAUGHT	95% CI		LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
45988	40257-51718	(12%)	.601	.432-.771 (28%)	313.05	0.413	All species
349	249-448	(28%)	.003	.002-.004 (32%)	2.37	0.326	Black bullhead
5931	5100-6762	(14%)	.116	.014-.217 (88%)	40.37	0.172	Black crappie
2727	952-4502	(65%)	.048	.000-.100 (107%)	18.56	0.109	Bluegill
1	0-18	(1271%)	.000	.000-.000 (1271%)	0.01	0.179	Bullhead spp.
3675	2822-4528	(23%)	.036	.022-.050 (39%)	25.01	0.646	Carp
4405	3529-5281	(20%)	.043	.033-.052 (22%)	29.99	0.642	Channel catfish
3	3-3	(0%)	.000	.000-.001 (1271%)	0.02	0.144	Freshwater drum
0	0-1	(231%)	.000	.000-.000 (236%)	0.00	0.017	Golden shiner
163	96-230	(41%)	.002	.001-.003 (56%)	1.11	0.166	Green sunfish
203	120-285	(41%)	.002	.001-.003 (61%)	1.38	0.234	Gizzard shad
8196	6796-9597	(17%)	.123	.078-.168 (36%)	55.80	0.990	Largemouth bass
4055	2363-5748	(42%)	.036	.020-.052 (44%)	27.61	2.632	Muskellunge
1188	315-2061	(74%)	.011	.002-.020 (80%)	8.08	2.694	Northern pike
17	5-29	(68%)	.000	.000-.000 (92%)	0.12	0.126	Pumpkinseed
191	108-274	(43%)	.002	.001-.003 (53%)	1.30	0.366	Redear sunfish
2100	1657-2543	(21%)	.024	.016-.032 (34%)	14.30	0.743	Smallmouth bass
10342	6444-14240	(38%)	.130	.007-.254 (95%)	70.40	0.853	Walleye
5	5-5	(0%)	.000	.000-.002 (1271%)	0.03	0.419	White bass
2202	1849-2556	(16%)	.021	.018-.024 (14%)	14.99	0.222	White crappie
133	41-224	(69%)	.002	.000-.005 (150%)	0.90	0.362	Yellow bullhead
99	2-196	(98%)	.001	.000-.003 (142%)	0.68	0.558	Yellow perch
3	3-3	(0%)	.000	.000-.000 (0%)	0.02	0.332	Yellow bass

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

	MEAN	95% CI	MIN	MAX	#SAMPLES
HOURS PER COMPLETED TRIP*					
BOAT	3.3	3.1-3.4 (5%)	0.3	7.0	413
SHORE	2.4	2.2-2.7 (9%)	0.7	4.8	183
BOAT & SHORE	3.0	2.9-3.1 (4%)	0.3	7.0	596
MILES TRAVELED	10.3	8.8-11.7 (14%)	1	1000	1689
SUCCESS RATING (1-10)	3.1	3.0-3.2 (3%)	1	10	1681

*261 samples were from split interviews of completed trips.
30.4% of all 1962 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 89 out of 1962 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	184	335	24	2						
SHORE INTERVIEWS	809	402	129	60	17					

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

827 (42.2%)	ANY	All species
1 (0.1%)	BLC	Black crappie
17 (0.9%)	BLG	Bluegill
206 (10.5%)	BSS	Black bass spp.
37 (1.9%)	CAP	Carp
161 (8.2%)	CCF	Channel catfish
437 (22.3%)	CRP	Crappie spp.
45 (2.3%)	LMB	Largemouth bass
90 (4.6%)	MUE	Muskellunge
3 (0.2%)	NOP	Northern pike
1 (0.1%)	SMB	Smallmouth bass
2 (0.1%)	SUN	Sunfish spp. excluding Crappie and Black Bass
135 (6.9%)	WAE	Walleye

