

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

2004 LAKE LE-AQUA-NA  
 43 ACRES  
 REGION 1, DISTRICT 1

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: 294/693 = 42.4%

NUMBER OF INTERVIEWS: 2068

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	1804	1373-2236 ( 24%)	42	32-52 ( 24%)	18%
	HOLIDAY	2696	2376-3016 ( 12%)	62	55-69 ( 12%)	38%
	TOTAL	4501	3963-5038 ( 12%)	104	91-116 ( 12%)	30%
SHORE	WEEKDAY	8405	7447-9363 ( 11%)	194	172-216 ( 11%)	19%
	HOLIDAY	8528	7598-9459 ( 11%)	197	175-218 ( 11%)	37%
	TOTAL	16933	15598-18269 ( 8%)	390	359-421 ( 8%)	28%
BOAT & SHORE	WEEKDAY	10209	9158-11260 ( 10%)	235	211-259 ( 10%)	19%
	HOLIDAY	11225	10241-12209 ( 9%)	259	236-281 ( 9%)	37%
	TOTAL	21434	19994-22873 ( 7%)	494	461-527 ( 7%)	29%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
15260	13419-17102 ( 12%)	.480	.412-.547 ( 14%)	868.85	351.62	All species
103	61-144 ( 40%)	.002	.001-.003 ( 52%)	5.84	2.36	Black bullhead
6867	5725-8008 ( 17%)	.236	.191-.281 ( 19%)	390.97	158.22	Black crappie
6708	5635-7782 ( 16%)	.186	.146-.226 ( 21%)	381.95	154.57	Bluegill
1	0-5 (216%)	.000	.000-.000 (216%)	0.08	0.03	Carp
1125	908-1341 ( 19%)	.044	.028-.060 ( 37%)	64.03	25.91	Channel catfish
		****	NOT RECORDED ****			Crappie spp.
3	0-11 (278%)	.000	.000-.000 (278%)	0.16	0.07	Golden shiner
22	3-41 ( 85%)	.000	.000-.000 (113%)	1.27	0.51	Green sunfish
		****	NOT RECORDED ****			Gizzard shad
180	116-243 ( 35%)	.005	.002-.008 ( 53%)	10.22	4.14	Largemouth bass
2	0-6 (257%)	.000	.000-.000 (257%)	0.10	0.04	Northern pike
		****	NOT RECORDED ****			Smallmouth bass
4	0-11 (157%)	.002	.000-.007 (230%)	0.25	0.10	Walleye
245	158-333 ( 36%)	.004	.002-.005 ( 40%)	13.98	5.66	Warmouth

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

KG HARVESTED	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
2208	1906-2511 ( 14%)	.078	.057-.100 ( 28%)	125.74	0.145	All species
55	32-78 ( 42%)	.001	.000-.001 ( 48%)	3.13	0.536	Black bullhead
647	539-756 ( 17%)	.023	.018-.027 ( 19%)	36.86	0.094	Black crappie
567	480-654 ( 15%)	.015	.012-.019 ( 20%)	32.30	0.085	Bluegill
0	0-2 (214%)	.000	.000-.000 (214%)	0.03	0.341	Carp
784	549-1019 ( 30%)	.028	.016-.039 ( 41%)	44.62	0.697	Channel catfish
		****	NOT RECORDED ****			Crappie spp.
0	0-1 (278%)	.000	.000-.000 (278%)	0.02	0.134	Golden shiner
2	0-3 ( 83%)	.000	.000-.000 (104%)	0.10	0.075	Green sunfish
		****	NOT RECORDED ****			Gizzard shad
110	68-153 ( 39%)	.003	.001-.006 ( 63%)	6.27	0.613	Largemouth bass
1	0-5 (257%)	.000	.000-.000 (257%)	0.08	0.821	Northern pike
		****	NOT RECORDED ****			Smallmouth bass
16	0-42 (156%)	.008	.000-.025 (228%)	0.93	3.737	Walleye
25	14-35 ( 44%)	.000	.000-.001 ( 46%)	1.40	0.100	Warmouth

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

LB HARVESTED	95% CI		LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
4869	4202-5535	( 14%)	.172	.125-.220 ( 28%)	112.18	0.319	All species
121	71-172	( 42%)	.002	.001-.003 ( 48%)	2.79	1.182	Black bullhead
1427	1188-1666	( 17%)	.050	.041-.060 ( 19%)	32.88	0.208	Black crappie
1251	1059-1443	( 15%)	.034	.027-.041 ( 20%)	28.82	0.186	Bluegill
1	0-3	(216%)	.000	.000-.000 (214%)	0.03	0.751	Carp
1728	1210-2246	( 30%)	.061	.036-.086 ( 41%)	39.81	1.536	Channel catfish
			****	NOT RECORDED ****			Crappie spp.
1	0-3	(278%)	.000	.000-.000 (278%)	0.02	0.295	Golden shiner
4	1-7	( 83%)	.000	.000-.000 (104%)	0.08	0.166	Green sunfish
			****	NOT RECORDED ****			Gizzard shad
243	149-336	( 39%)	.007	.003-.012 ( 63%)	5.59	1.352	Largemouth bass
3	0-11	(257%)	.000	.000-.000 (245%)	0.07	1.810	Northern pike
			****	NOT RECORDED ****			Smallmouth bass
36	0-92	(156%)	.017	.000-.055 (228%)	0.83	8.239	Walleye
54	30-78	( 44%)	.001	.000-.001 ( 46%)	1.25	0.220	Warmouth

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
32861	29647-36076 ( 10%)	1.119	.965-1.273 ( 14%)	1870.97	757.17	All species
141	96-185 ( 32%)	.002	.001-.003 ( 40%)	8.01	3.24	Black bullhead
11598	10041-13154 ( 13%)	.426	.359-.492 ( 16%)	660.32	267.23	Black crappie
14429	12564-16294 ( 13%)	.467	.325-.609 ( 30%)	821.53	332.47	Bluegill
13	0-29 (127%)	.000	.000-.001 (181%)	0.73	0.30	Carp
1592	1339-1844 ( 16%)	.060	.043-.077 ( 28%)	90.63	36.68	Channel catfish
5	0-18 (236%)	.000	.000-.000 (245%)	0.30	0.12	Crappie spp.
14	0-29 (117%)	.000	.000-.001 (138%)	0.77	0.31	Golden shiner
22	3-41 ( 85%)	.000	.000-.000 (113%)	1.27	0.51	Green sunfish
4	0-13 (208%)	.001	.000-.002 (208%)	0.24	0.10	Gizzard shad
4392	3763-5021 ( 14%)	.143	.118-.167 ( 17%)	250.05	101.20	Largemouth bass
133	86-179 ( 35%)	.006	.001-.011 ( 87%)	7.56	3.06	Northern pike
5	0-15 (169%)	.000	.000-.000 (163%)	0.31	0.13	Smallmouth bass
31	12-51 ( 61%)	.003	.000-.008 (195%)	1.79	0.72	Walleye
482	308-656 ( 36%)	.011	.006-.015 ( 41%)	27.45	11.11	Warmouth

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

KG CAUGHT	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
3937	3531-4343 ( 10%)	.145	.122-.169 ( 16%)	224.17	0.120	All species
69	45-92 ( 34%)	.001	.001-.002 ( 40%)	3.91	0.489	Black bullhead
994	856-1132 ( 14%)	.037	.031-.043 ( 16%)	56.58	0.086	Black crappie
822	712-933 ( 13%)	.026	.016-.036 ( 38%)	46.83	0.057	Bluegill
5	0-12 (118%)	.000	.000-.000 (160%)	0.30	0.418	Carp
890	654-1127 ( 27%)	.032	.020-.043 ( 36%)	50.69	0.559	Channel catfish
0	0-0 (236%)	.000	.000-.000 (245%)	0.00	0.009	Crappie spp.
1	0-2 (138%)	.000	.000-.000 (159%)	0.05	0.065	Golden shiner
2	0-3 ( 83%)	.000	.000-.000 (104%)	0.10	0.075	Green sunfish
1	0-2 (208%)	.000	.000-.000 (209%)	0.03	0.126	Gizzard shad
1025	861-1189 ( 16%)	.038	.029-.047 ( 23%)	58.34	0.233	Largemouth bass
63	35-92 ( 45%)	.002	.001-.004 ( 62%)	3.61	0.478	Northern pike
1	0-5 (275%)	.000	.000-.000 (301%)	0.08	0.246	Smallmouth bass
25	0-51 (104%)	.008	.000-.025 (224%)	1.42	0.792	Walleye
39	22-56 ( 43%)	.001	.000-.001 ( 50%)	2.24	0.081	Warmouth

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

LB CAUGHT	95% CI		LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
8680	7785-9575	( 10%)	.321	.269-.372 ( 16%)	200.00	0.264	All species
152	100-203	( 34%)	.003	.002-.004 ( 40%)	3.49	1.077	Black bullhead
2191	1886-2496	( 14%)	.082	.069-.095 ( 16%)	50.48	0.189	Black crappie
1813	1570-2056	( 13%)	.058	.036-.080 ( 38%)	41.78	0.126	Bluegill
12	0-26	(118%)	.000	.000-.000 (160%)	0.27	0.921	Carp
1963	1441-2484	( 27%)	.070	.045-.094 ( 36%)	45.22	1.233	Channel catfish
0	0-0	(236%)	.000	.000-.000 (245%)	0.00	0.019	Crappie spp.
2	0-5	(138%)	.000	.000-.000 (159%)	0.04	0.144	Golden shiner
4	1-7	( 83%)	.000	.000-.000 (104%)	0.08	0.166	Green sunfish
1	0-4	(208%)	.000	.000-.000 (209%)	0.03	0.278	Gizzard shad
2259	1897-2620	( 16%)	.084	.065-.103 ( 23%)	52.05	0.514	Largemouth bass
140	77-202	( 45%)	.005	.002-.008 ( 62%)	3.22	1.054	Northern pike
3	0-11	(275%)	.000	.000-.001 (301%)	0.07	0.543	Smallmouth bass
55	0-112	(104%)	.017	.000-.055 (224%)	1.26	1.745	Walleye
87	49-124	( 43%)	.002	.001-.003 ( 50%)	1.99	0.180	Warmouth

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

	MEAN	95% CI		MIN	MAX	#SAMPLES
HOURS PER COMPLETED TRIP*						
BOAT	3.5	3.2-3.7	( 8%)	0.5	10.0	180
SHORE	1.7	1.6-1.8	( 7%)	0.3	6.2	283
BOAT & SHORE	2.4	2.2-2.5	( 6%)	0.3	10.0	463
MILES TRAVELED	31.9	30.2-33.5	( 5%)	1	600	1685
SUCCESS RATING (1-10)	3.1	3.0-3.2	( 3%)	1	10	1649

\*165 samples were from split interviews of completed trips.  
24.3% of all 1903 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 25 out of 1903 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	55	109	34	15	1					
SHORE INTERVIEWS	625	669	256	82	42	8	3	1		3

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

437 ( 23.0%)	ANY	All species
1 ( 0.1%)	BLB	Black bullhead
7 ( 0.4%)	BLC	Black crappie
303 ( 15.9%)	BLG	Bluegill
361 ( 19.0%)	CCF	Channel catfish
475 ( 25.0%)	CRP	Crappie spp.
273 ( 14.3%)	LMB	Largemouth bass
25 ( 1.3%)	NOP	Northern pike
10 ( 0.5%)	SUN	Sunfish spp. excluding Crappie and Black Bass
11 ( 0.6%)	WAE	Walleye

