

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

2003 LAKE MINGO
 172 ACRES
 REGION 3, DISTRICT 10

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: 303/693 = 43.7%

NUMBER OF INTERVIEWS: 2665

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	10086	8079-12094 (20%)	59	47-70 (20%)	20%
	HOLIDAY	11632	10308-12956 (11%)	68	60-75 (11%)	45%
	TOTAL	21718	19397-24039 (11%)	126	113-140 (11%)	34%
SHORE	WEEKDAY	9261	8421-10100 (9%)	54	49-59 (9%)	14%
	HOLIDAY	6194	5569-6820 (10%)	36	32-40 (10%)	26%
	TOTAL	15455	14408-16502 (7%)	90	84-96 (7%)	19%
BOAT & SHORE	WEEKDAY	19347	17264-21430 (11%)	112	100-125 (11%)	17%
	HOLIDAY	17826	16362-19290 (8%)	104	95-112 (8%)	39%
	TOTAL	37173	34627-39719 (7%)	216	201-231 (7%)	27%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
23967	20513-27421 (14%)	.612	.548-.675 (10%)	344.32	139.34	All species
		****	NOT RECORDED			Black bullhead
1414	1079-1750 (24%)	.034	.019-.050 (44%)	20.32	8.22	Black crappie
9181	6821-11540 (26%)	.192	.167-.217 (13%)	131.89	53.38	Bluegill
		****	NOT RECORDED			Carp
2346	2023-2668 (14%)	.061	.050-.072 (18%)	33.70	13.64	Channel catfish
		****	NOT RECORDED			Golden shiner
54	17-92 (68%)	.001	.000-.001 (78%)	0.78	0.32	Green sunfish
340	219-461 (36%)	.008	.005-.011 (39%)	4.88	1.97	Largemouth bass
190	123-257 (35%)	.004	.002-.006 (43%)	2.73	1.11	Longear sunfish
		****	NOT RECORDED			Muskellunge
9	0-25 (173%)	.000	.000-.000 (167%)	0.13	0.05	Northern pike
188	120-256 (36%)	.004	.002-.006 (50%)	2.70	1.09	Redear sunfish
7	0-22 (231%)	.000	.000-.000 (231%)	0.09	0.04	Smallmouth bass
9201	7943-10458 (14%)	.276	.229-.322 (17%)	132.18	53.49	White crappie
45	0-97 (115%)	.001	.000-.002 (112%)	0.65	0.26	Yellow bullhead
9	0-21 (129%)	.000	.000-.000 (169%)	0.13	0.05	Yellow perch
983	755-1211 (23%)	.031	.022-.040 (28%)	14.12	5.71	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
3526	3136-3915 (11%)	.090	.081-.099 (10%)	50.65	0.147	All species
		****	NOT RECORDED			Black bullhead
218	166-271 (24%)	.005	.003-.007 (43%)	3.14	0.154	Black crappie
680	504-856 (26%)	.014	.012-.016 (13%)	9.77	0.074	Bluegill
		****	NOT RECORDED			Carp
1251	1066-1436 (15%)	.033	.027-.039 (18%)	17.98	0.533	Channel catfish
		****	NOT RECORDED			Golden shiner
4	1-6 (65%)	.000	.000-.000 (71%)	0.05	0.067	Green sunfish
211	52-370 (75%)	.004	.002-.007 (62%)	3.03	0.621	Largemouth bass
16	11-22 (34%)	.000	.000-.000 (41%)	0.23	0.084	Longear sunfish
		****	NOT RECORDED			Muskellunge
3	0-9 (180%)	.000	.000-.000 (162%)	0.04	0.344	Northern pike
25	16-34 (37%)	.001	.000-.001 (56%)	0.36	0.133	Redear sunfish
5	0-16 (231%)	.000	.000-.000 (231%)	0.07	0.759	Smallmouth bass
1046	900-1191 (14%)	.031	.025-.036 (18%)	15.02	0.114	White crappie
6	0-12 (109%)	.000	.000-.000 (111%)	0.09	0.132	Yellow bullhead
1	0-1 (132%)	.000	.000-.000 (167%)	0.01	0.060	Yellow perch
60	47-73 (22%)	.002	.001-.002 (28%)	0.86	0.061	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
7773	6914-8631	(11%)	.199	.178-.219 (10%)	45.19	0.324	All species
			****	NOT RECORDED	****		Black bullhead
482	366-598	(24%)	.011	.006-.016 (43%)	2.80	0.341	Black crappie
1499	1111-1887	(26%)	.031	.027-.035 (13%)	8.72	0.163	Bluegill
			****	NOT RECORDED	****		Carp
2759	2351-3166	(15%)	.073	.060-.086 (18%)	16.04	1.176	Channel catfish
			****	NOT RECORDED	****		Golden shiner
8	3-13	(65%)	.000	.000-.000 (71%)	0.05	0.148	Green sunfish
465	115-815	(75%)	.009	.004-.015 (62%)	2.70	1.369	Largemouth bass
35	23-48	(34%)	.001	.000-.001 (41%)	0.21	0.186	Longear sunfish
			****	NOT RECORDED	****		Muskellunge
7	0-19	(180%)	.000	.000-.000 (162%)	0.04	0.758	Northern pike
55	35-75	(37%)	.001	.001-.002 (56%)	0.32	0.292	Redear sunfish
11	0-36	(231%)	.000	.000-.000 (231%)	0.06	1.673	Smallmouth bass
2305	1985-2626	(14%)	.068	.056-.080 (18%)	13.40	0.251	White crappie
13	0-27	(109%)	.000	.000-.001 (111%)	0.08	0.291	Yellow bullhead
1	0-3	(132%)	.000	.000-.000 (167%)	0.01	0.132	Yellow perch
132	103-162	(22%)	.004	.003-.005 (28%)	0.77	0.135	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
59485	52429-66540 (12%)	1.523	1.408-1.638 (8%)	854.57	345.84	All species
2	0-8 (318%)	.000	.000-.000 (318%)	0.03	0.01	Black bullhead
1795	1338-2252 (25%)	.044	.021-.067 (53%)	25.79	10.44	Black crappie
21817	17598-26035 (19%)	.457	.413-.501 (10%)	313.42	126.84	Bluegill
6	0-18 (220%)	.000	.000-.001 (223%)	0.08	0.03	Carp
4706	4209-5202 (11%)	.127	.110-.144 (13%)	67.60	27.36	Channel catfish
2	0-8 (209%)	.000	.000-.000 (208%)	0.04	0.01	Golden shiner
54	17-92 (68%)	.001	.000-.001 (78%)	0.78	0.32	Green sunfish
11451	10301-12600 (10%)	.296	.271-.321 (8%)	164.50	66.57	Largemouth bass
190	123-257 (35%)	.004	.002-.006 (43%)	2.73	1.11	Longear sunfish
173	117-230 (33%)	.006	.003-.010 (52%)	2.49	1.01	Muskellunge
27	8-45 (69%)	.000	.000-.001 (98%)	0.38	0.15	Northern pike
189	122-257 (36%)	.004	.002-.006 (50%)	2.72	1.10	Redear sunfish
7	0-22 (231%)	.000	.000-.000 (231%)	0.09	0.04	Smallmouth bass
15173	13006-17341 (14%)	.462	.383-.542 (17%)	217.98	88.22	White crappie
291	202-381 (31%)	.010	.007-.014 (34%)	4.18	1.69	Yellow bullhead
134	86-181 (36%)	.003	.001-.005 (67%)	1.92	0.78	Yellow perch
3468	3048-3889 (12%)	.107	.085-.129 (21%)	49.83	20.17	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
7813	7104-8521 (9%)	.199	.186-.213 (7%)	112.24	0.131	All species
0	0-1 (278%)	.000	.000-.000 (318%)	0.00	0.127	Black bullhead
254	191-317 (25%)	.006	.003-.009 (46%)	3.65	0.142	Black crappie
1129	899-1359 (20%)	.023	.021-.026 (10%)	16.23	0.052	Bluegill
4	0-14 (220%)	.000	.000-.000 (223%)	0.06	0.775	Carp
1441	1249-1633 (13%)	.038	.032-.044 (16%)	20.70	0.306	Channel catfish
0	0-0 (209%)	.000	.000-.000 (209%)	0.00	0.014	Golden shiner
4	1-6 (65%)	.000	.000-.000 (71%)	0.05	0.067	Green sunfish
3257	2871-3643 (12%)	.080	.070-.090 (13%)	46.79	0.284	Largemouth bass
16	11-22 (34%)	.000	.000-.000 (41%)	0.23	0.084	Longear sunfish
55	32-77 (41%)	.002	.001-.003 (51%)	0.79	0.317	Muskellunge
8	2-15 (75%)	.000	.000-.000 (105%)	0.12	0.319	Northern pike
25	16-34 (36%)	.001	.000-.001 (56%)	0.36	0.133	Redear sunfish
5	0-16 (231%)	.000	.000-.000 (231%)	0.07	0.759	Smallmouth bass
1418	1226-1610 (14%)	.043	.035-.050 (18%)	20.37	0.093	White crappie
27	18-36 (33%)	.001	.001-.001 (33%)	0.39	0.094	Yellow bullhead
4	2-5 (37%)	.000	.000-.000 (96%)	0.06	0.030	Yellow perch
164	144-185 (12%)	.005	.004-.006 (17%)	2.36	0.047	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
17224	15663-18785 (9%)	.439	.409-.469 (7%)	100.14	0.290	All species
1	0-2 (278%)	.000	.000-.000 (318%)	0.00	0.279	Black bullhead
560	422-699 (25%)	.013	.007-.019 (46%)	3.26	0.312	Black crappie
2490	1983-2997 (20%)	.051	.046-.057 (10%)	14.48	0.114	Bluegill
9	0-30 (223%)	.000	.000-.001 (223%)	0.05	1.710	Carp
3177	2754-3600 (13%)	.084	.071-.098 (16%)	18.47	0.675	Channel catfish
0	0-0 (209%)	.000	.000-.000 (208%)	0.00	0.031	Golden shiner
8	3-13 (65%)	.000	.000-.000 (71%)	0.05	0.148	Green sunfish
7180	6329-8031 (12%)	.177	.154-.199 (13%)	41.74	0.627	Largemouth bass
35	23-48 (34%)	.001	.000-.001 (41%)	0.21	0.186	Longear sunfish
121	71-170 (41%)	.004	.002-.006 (51%)	0.70	0.698	Muskellunge
19	5-33 (75%)	.000	.000-.001 (105%)	0.11	0.703	Northern pike
56	35-76 (36%)	.001	.001-.002 (56%)	0.32	0.293	Redear sunfish
11	0-36 (231%)	.000	.000-.000 (231%)	0.06	1.673	Smallmouth bass
3126	2702-3550 (14%)	.094	.077-.110 (18%)	18.18	0.206	White crappie
60	41-80 (33%)	.002	.001-.003 (33%)	0.35	0.207	Yellow bullhead
9	5-12 (37%)	.000	.000-.000 (96%)	0.05	0.065	Yellow perch
362	317-407 (12%)	.011	.009-.013 (17%)	2.11	0.104	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	4.2	4.1-4.3	(3%)	1.0	11.2	765
SHORE	1.6	1.4-1.8	(14%)	0.5	3.2	44
BOAT & SHORE	4.1	3.9-4.2	(3%)	0.5	11.2	809
MILES TRAVELED	14.8	13.8-15.9	(7%)	1	800	2073
SUCCESS RATING (1-10)	3.3	3.2-3.4	(3%)	1	10	2073

*392 samples were from split interviews of completed trips.
36.0% of all 2248 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 26 out of 2248 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	275	812	54	7	1					
SHORE INTERVIEWS	362	646	70	19	1	1				

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

787 (35.0%)	ANY	All species
140 (6.2%)	BLG	Bluegill
501 (22.3%)	CCF	Channel catfish
195 (8.7%)	CRP	Crappie spp.
625 (27.8%)	LMB	Largemouth bass

2003 LAKE MINGO

DAY CREEL

03/15/2003 - 10/31/2003

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

Smallmouth bass

HARVEST	1458	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1459	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

White crappie

HARVEST	1166	21	21	46	32	42	17	27	13	3	21	-	11	10	4	25
RELEASE	1139	46	18	79	30	95	15	7	12	2	9	2	1	2	-	2

Yellow bullhead

HARVEST	1451	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1425	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Yellow perch

HARVEST	1455	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1418	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Yellow bass

HARVEST	1424	23	11	1	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1118	152	108	48	20	4	4	2	2	1	-	-	-	-	-	-