

ILLINOIS NATURAL HISTORY SURVEY
 CENTER FOR AQUATIC ECOLOGY
 1990 CREEL SURVEY RESULTS

1990 POWERTON
 1426 ACRES
 REGION 1, DISTRICT 4

STRATIFICATION SUMMARY:

Day creel only.
 Results cover 03/15/1990 through 06/15/1990
 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: 170/279 = 60.9%

NUMBER OF INTERVIEWS: 1999

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	2692	2095-3290 (22%)	2	1-2 (22%)	18%
	HOLIDAY	5329	4130-6529 (23%)	4	3-5 (23%)	34%
	TOTAL	8022	6728-9316 (16%)	6	5-7 (16%)	28%
SHORE	WEEKDAY	8454	7543-9365 (11%)	6	5-7 (11%)	23%
	HOLIDAY	9577	8357-10797 (13%)	7	6-8 (13%)	39%
	TOTAL	18031	16547-19514 (8%)	13	12-14 (8%)	32%
BOAT & SHORE	WEEKDAY	11146	10057-12236 (10%)	8	7-9 (10%)	22%
	HOLIDAY	14906	13267-16546 (11%)	10	9-12 (11%)	37%
	TOTAL	26053	24084-28021 (8%)	18	17-20 (8%)	31%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
18077	15841-20313 (12%)	.566	.498-.633 (12%)	31.32	12.68	All species
3	0-10 (236%)	.000	.000-.000 (236%)	0.00	0.00	Bigmouth
buffalo						
79	27-132 (66%)	.002	.000-.003 (92%)	0.14	0.06	Black bullhead
2565	1421-3709 (45%)	.052	.033-.072 (38%)	4.44	1.80	Bluegill
119	39-199 (67%)	.003	.000-.006 (108%)	0.21	0.08	Carp
8028	7122-8934 (11%)	.287	.246-.328 (14%)	13.91	5.63	Channel catfish
6	0-23 (257%)	.000	.000-.001 (245%)	0.01	0.00	Flathead
catfish						
73	21-125 (72%)	.003	.001-.005 (71%)	0.13	0.05	Freshwater drum
1599	950-2247 (41%)	.031	.019-.044 (40%)	2.77	1.12	Green sunfish
8	0-22 (169%)	.000	.000-.000 (187%)	0.01	0.01	Largemouth bass
54	0-128 (136%)	.002	.000-.004 (133%)	0.09	0.04	Smallmouth
buffalo						
			**** NOT RECORDED ****			Sauger
7	0-23 (223%)	.000	.000-.001 (223%)	0.01	0.00	Striped bass
hybrid						
			**** NOT RECORDED ****			Smallmouth bass
3	0-9 (231%)	.000	.000-.000 (236%)	0.00	0.00	Walleye
5533	4286-6780 (23%)	.186	.134-.237 (28%)	9.59	3.88	White bass
			**** NOT RECORDED ****			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
7205	6349-8062 (12%)	.242	.208-.275 (14%)	12.49	0.399	All species
13	0-42 (231%)	.000	.000-.000 (231%)	0.02	6.305	Bigmouth
buffalo						
19	5-33 (74%)	.000	.000-.001 (106%)	0.03	0.241	Black bullhead
269	148-390 (45%)	.006	.003-.008 (42%)	0.47	0.105	Bluegill
80	14-147 (83%)	.002	.000-.005 (142%)	0.14	0.675	Carp
3779	3342-4217 (12%)	.133	.114-.151 (14%)	6.55	0.471	Channel catfish
55	0-195 (257%)	.002	.000-.007 (245%)	0.09	9.090	Flathead
catfish						
100	40-159 (60%)	.005	.001-.009 (83%)	0.17	1.365	Freshwater drum
145	83-207 (43%)	.003	.002-.004 (41%)	0.25	0.091	Green sunfish
14	0-37 (166%)	.000	.000-.000 (184%)	0.02	1.729	Largemouth bass
149	0-336 (126%)	.004	.000-.010 (125%)	0.26	2.756	Smallmouth
buffalo						
			**** NOT RECORDED ****			Sauger
7	0-22 (223%)	.000	.000-.001 (220%)	0.01	0.990	Striped bass
hybrid						
			**** NOT RECORDED ****			Smallmouth bass
1	0-4 (231%)	.000	.000-.000 (231%)	0.00	0.660	Walleye
2575	1970-3180 (23%)	.086	.059-.113 (31%)	4.46	0.465	White bass
			**** NOT RECORDED ****			Yellow bass

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

LB HARVESTED	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
15885	13997-17773 (12%)	.533	.459-.606 (14%)	11.14	0.879	All species
28	0-92 (231%)	.000	.000-.001 (231%)	0.02	13.900	Bigmouth
buffalo						
42	11-73 (74%)	.001	.000-.002 (106%)	0.03	0.531	Black bullhead
593	327-860 (45%)	.013	.007-.018 (42%)	0.42	0.231	Bluegill
177	30-324 (83%)	.004	.000-.011 (142%)	0.12	1.489	Carp
8332	7368-9296 (12%)	.292	.250-.334 (14%)	5.84	1.038	Channel catfish
120	0-429 (257%)	.005	.000-.017 (245%)	0.08	20.041	Flathead
catfish						
220	88-351 (60%)	.011	.002-.020 (83%)	0.15	3.008	Freshwater drum
320	184-456 (43%)	.006	.004-.009 (41%)	0.22	0.200	Green sunfish
30	0-81 (166%)	.000	.000-.001 (184%)	0.02	3.812	Largemouth bass
328	0-741 (126%)	.009	.000-.021 (125%)	0.23	6.076	Smallmouth
buffalo						
		****	NOT RECORDED ****			Sauger
15	0-49 (220%)	.000	.000-.001 (220%)	0.01	2.182	Striped bass
hybrid						
		****	NOT RECORDED ****			Smallmouth bass
3	0-10 (231%)	.000	.000-.000 (231%)	0.00	1.456	Walleye
5677	4343-7010 (23%)	.190	.130-.250 (31%)	3.98	1.026	White bass
		****	NOT RECORDED ****			Yellow bass

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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
57337	50341-64334 (12%)	1.746	1.545-1.947(11%)	99.36	40.21	All species
3	0-10 (236%)	.000	.000-.000 (236%)	0.00	0.00	Bigmouth
buffalo						
123	52-193 (57%)	.003	.001-.004 (76%)	0.21	0.09	Black bullhead
15633	11905-19362 (24%)	.363	.274-.452 (24%)	27.09	10.96	Bluegill
490	216-764 (56%)	.012	.002-.021 (82%)	0.85	0.34	Carp
19971	17733-22210 (11%)	.679	.557-.801 (18%)	34.61	14.01	Channel catfish
6	0-23 (257%)	.000	.000-.001 (245%)	0.01	0.00	Flathead
catfish						
202	105-298 (48%)	.007	.004-.011 (51%)	0.35	0.14	Freshwater drum
7390	4326-10454 (41%)	.231	.100-.362 (57%)	12.81	5.18	Green sunfish
61	24-98 (61%)	.002	.000-.004 (104%)	0.11	0.04	Largemouth bass
104	16-191 (84%)	.003	.000-.007 (91%)	0.18	0.07	Smallmouth
buffalo						
6	0-22 (257%)	.000	.000-.000 (245%)	0.01	0.00	Sauger
10	0-27 (161%)	.000	.000-.001 (195%)	0.02	0.01	Striped bass
hybrid						
672	390-953 (42%)	.024	.010-.039 (60%)	1.16	0.47	Smallmouth bass
240	0-911 (280%)	.012	.000-.049 (323%)	0.42	0.17	Walleye
12425	9901-14949 (20%)	.409	.320-.499 (22%)	21.53	8.71	White bass
2	0-6 (218%)	.000	.000-.000 (216%)	0.00	0.00	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
11548	10349-12747 (10%)	.381	.332-.430 (13%)	20.01	0.201	All species
13	0-42 (231%)	.000	.000-.000 (231%)	0.02	6.305	Bigmouth
buffalo						
27	8-46 (69%)	.001	.000-.001 (90%)	0.05	0.222	Black bullhead
786	582-990 (26%)	.018	.013-.023 (26%)	1.36	0.050	Bluegill
228	114-341 (50%)	.005	.001-.009 (78%)	0.39	0.466	Carp
5606	4957-6254 (12%)	.193	.158-.228 (18%)	9.71	0.281	Channel catfish
55	0-195 (257%)	.002	.000-.007 (245%)	0.09	9.090	Flathead
catfish						
199	114-284 (43%)	.007	.003-.012 (61%)	0.34	0.989	Freshwater drum
370	215-526 (42%)	.011	.005-.017 (55%)	0.64	0.050	Green sunfish
25	0-52 (106%)	.000	.000-.001 (91%)	0.04	0.416	Largemouth bass
265	46-483 (82%)	.010	.001-.019 (87%)	0.46	2.572	Smallmouth
buffalo						
16	0-56 (245%)	.000	.000-.001 (257%)	0.03	2.731	Sauger
9	0-25 (176%)	.000	.000-.001 (203%)	0.02	0.896	Striped bass
hybrid						
263	67-459 (75%)	.009	.003-.015 (69%)	0.46	0.392	Smallmouth bass
98	0-414 (323%)	.005	.000-.023 (357%)	0.17	0.410	Walleye
3589	2802-4375 (22%)	.119	.086-.152 (28%)	6.22	0.289	White bass
1	0-2 (216%)	.000	.000-.000 (216%)	0.00	0.540	Yellow bass

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

LB CAUGHT	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
25459	22816-28102 (10%)	.840	.732-.948 (13%)	17.85	0.444	All species
28	0-92 (231%)	.000	.000-.001 (231%)	0.02	13.900	Bigmouth
buffalo						
60	18-101 (69%)	.001	.000-.002 (90%)	0.04	0.490	Black bullhead
1733	1283-2182 (26%)	.040	.029-.050 (26%)	1.22	0.111	Bluegill
502	252-752 (50%)	.011	.003-.020 (78%)	0.35	1.027	Carp
12358	10929-13788 (12%)	.426	.349-.503 (18%)	8.67	0.619	Channel catfish
120	0-429 (257%)	.005	.000-.017 (245%)	0.08	20.041	Flathead
catfish						
438	251-625 (43%)	.016	.006-.026 (61%)	0.31	2.180	Freshwater drum
817	473-1160 (42%)	.024	.011-.037 (55%)	0.57	0.111	Green sunfish
55	0-114 (106%)	.001	.000-.001 (91%)	0.04	0.918	Largemouth bass
584	102-1066 (82%)	.022	.003-.041 (87%)	0.41	5.670	Smallmouth
buffalo						
36	0-129 (257%)	.001	.000-.002 (257%)	0.03	6.022	Sauger
20	0-54 (176%)	.000	.000-.002 (203%)	0.01	1.975	Striped bass
hybrid						
580	148-1013 (75%)	.020	.006-.033 (69%)	0.41	0.865	Smallmouth bass
216	0-913 (323%)	.011	.000-.050 (357%)	0.15	0.903	Walleye
7911	6177-9646 (22%)	.263	.189-.336 (28%)	5.55	0.637	White bass
1	0-4 (216%)	.000	.000-.000 (216%)	0.00	1.191	Yellow bass