

ILLINOIS NATURAL HISTORY SURVEY  
 CENTER FOR AQUATIC ECOLOGY  
 1997 CREEL SURVEY RESULTS

**1997 MERMET LAKE**  
 439 ACRES  
 REGION 5, DISTRICT 22

STRATIFICATION SUMMARY:

Day creel only.  
 Results cover 03/15/1997 through 10/17/1997

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: 301/651 = 46.2%

NUMBER OF INTERVIEWS: 2415

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	10390	8394-12385 ( 19%)	24	19-28 ( 19%)	15%
	HOLIDAY	8420	6693-10147 ( 21%)	19	15-23 ( 21%)	32%
	TOTAL	18810	16326-21294 ( 13%)	43	37-49 ( 13%)	23%
SHORE	WEEKDAY	9678	8032-11323 ( 17%)	22	18-26 ( 17%)	14%
	HOLIDAY	6950	5827-8072 ( 16%)	16	13-18 ( 16%)	28%
	TOTAL	16627	14679-18576 ( 12%)	38	33-42 ( 12%)	20%
BOAT & SHORE	WEEKDAY	20068	17644-22491 ( 12%)	46	40-51 ( 12%)	15%
	HOLIDAY	15370	13425-17315 ( 13%)	35	31-39 ( 13%)	30%
	TOTAL	35437	32437-38437 ( 8%)	81	74-88 ( 8%)	21%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
5309	4559-6059	( 14%)	.163	.140-.187 ( 15%)	29.88	12.09	All species
4	0-15	(223%)	.000	.000-.001 (220%)	0.03	0.01	Black bullhead
123	0-578	(368%)	.001	.000-.004 (368%)	0.69	0.28	Black crappie
1192	856-1528	( 28%)	.034	.023-.045 ( 33%)	6.71	2.71	Bluegill
1	0-7	(430%)	.000	.000-.000 (318%)	0.01	0.00	Bowfin
58	7-109	( 88%)	.002	.000-.003 ( 90%)	0.33	0.13	Brown bullhead
12	0-43	(257%)	.000	.000-.000 (245%)	0.07	0.03	Carp
2523	2104-2941	( 17%)	.089	.073-.105 ( 18%)	14.20	5.75	Channel catfish
321	118-523	( 63%)	.008	.004-.012 ( 51%)	1.81	0.73	Largemouth bass
2	0-13	(430%)	.000	.000-.000 (430%)	0.01	0.01	Orangespotted sunfi
124	53-195	( 57%)	.003	.000-.006 ( 92%)	0.70	0.28	Redear sunfish
			****	NOT RECORDED ****			Spotted gar
169	0-348	(106%)	.005	.001-.010 ( 81%)	0.95	0.39	Warmouth
702	412-992	( 41%)	.016	.010-.021 ( 36%)	3.95	1.60	White crappie
76	26-126	( 65%)	.005	.000-.013 (158%)	0.43	0.17	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
3447	2896-3998	( 16%)	.119	.098-.139 ( 17%)	19.40	0.649	All species
1	0-2	(220%)	.000	.000-.000 (223%)	0.00	0.127	Black bullhead
19	0-90	(374%)	.000	.000-.001 (374%)	0.11	0.155	Black crappie
135	93-178	( 31%)	.004	.002-.005 ( 34%)	0.76	0.113	Bluegill
0	0-2	(430%)	.000	.000-.000 (430%)	0.00	0.362	Bowfin
17	1-33	( 94%)	.001	.000-.001 (101%)	0.10	0.294	Brown bullhead
9	0-32	(245%)	.000	.000-.000 (245%)	0.05	0.775	Carp
2643	2178-3108	( 18%)	.097	.078-.116 ( 20%)	14.88	1.048	Channel catfish
403	102-704	( 75%)	.010	.004-.016 ( 57%)	2.27	1.255	Largemouth bass
0	0-0	(318%)	.000	.000-.000 (430%)	0.00	0.023	Orangespotted sunfi
37	4-70	( 90%)	.001	.000-.003 (192%)	0.21	0.295	Redear sunfish
			****	NOT RECORDED ****			Spotted gar
32	2-62	( 93%)	.001	.000-.002 ( 74%)	0.18	0.189	Warmouth
114	43-185	( 62%)	.003	.001-.004 ( 48%)	0.64	0.162	White crappie
37	6-69	( 84%)	.003	.000-.007 (167%)	0.21	0.489	Yellow bullhead

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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
7599	6384-8815	( 16%)	.262	.216-.307 ( 17%)	17.31	1.431	All species
1	0-4	(223%)	.000	.000-.000 (220%)	0.00	0.279	Black bullhead
42	0-199	(374%)	.000	.000-.001 (374%)	0.10	0.341	Black crappie
298	205-391	( 31%)	.008	.005-.011 ( 34%)	0.68	0.250	Bluegill
1	0-5	(430%)	.000	.000-.000 (318%)	0.00	0.798	Bowfin
38	2-73	( 94%)	.001	.000-.003 (101%)	0.09	0.649	Brown bullhead
20	0-73	(257%)	.000	.000-.001 (257%)	0.05	1.710	Carp
5826	4801-6852	( 18%)	.213	.171-.255 ( 20%)	13.27	2.310	Channel catfish
888	225-1551	( 75%)	.022	.010-.035 ( 57%)	2.02	2.768	Largemouth bass
0	0-1	(430%)	.000	.000-.000 (430%)	0.00	0.052	Orangespotted sunfi
81	8-153	( 90%)	.003	.000-.008 (192%)	0.18	0.650	Redear sunfish
			****	NOT RECORDED ****			Spotted gar
71	5-136	( 93%)	.002	.001-.004 ( 74%)	0.16	0.417	Warmouth
251	94-407	( 62%)	.006	.003-.008 ( 48%)	0.57	0.357	White crappie
82	13-151	( 84%)	.006	.000-.015 (167%)	0.19	1.077	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
8572	7294-9850	( 15%)	.243	.213-.274	( 12%)	48.25	19.53	All species
39	6-72	( 84%)	.002	.000-.003	( 81%)	0.22	0.09	Black bullhead
132	0-588	(344%)	.001	.000-.004	(353%)	0.75	0.30	Black crappie
1808	1408-2207	( 22%)	.050	.038-.062	( 24%)	10.18	4.12	Bluegill
76	18-134	( 76%)	.002	.000-.004	( 83%)	0.43	0.17	Bowfin
96	37-156	( 62%)	.003	.001-.006	( 80%)	0.54	0.22	Brown bullhead
12	0-43	(257%)	.000	.000-.000	(245%)	0.07	0.03	Carp
2899	2443-3355	( 16%)	.101	.084-.118	( 17%)	16.32	6.60	Channel catfish
1501	1072-1930	( 29%)	.035	.023-.047	( 34%)	8.45	3.42	Largemouth bass
15	0-36	(140%)	.000	.000-.001	(196%)	0.08	0.03	Orangespotted sunfi
171	89-252	( 48%)	.004	.001-.006	( 79%)	0.96	0.39	Redear sunfish
43	14-71	( 68%)	.002	.000-.003	( 86%)	0.24	0.10	Spotted gar
276	91-461	( 67%)	.008	.003-.013	( 61%)	1.55	0.63	Warmouth
1351	540-2162	( 60%)	.029	.018-.040	( 39%)	7.61	3.08	White crappie
152	87-217	( 43%)	.007	.000-.016	(113%)	0.86	0.35	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
4926	4189-5663	( 15%)	.156	.131-.181	( 16%)	27.73	0.575	All species
11	0-21	(100%)	.000	.000-.001	(116%)	0.06	0.272	Black bullhead
20	0-91	(365%)	.000	.000-.001	(368%)	0.11	0.147	Black crappie
170	125-214	( 26%)	.005	.003-.006	( 28%)	0.95	0.094	Bluegill
26	0-64	(148%)	.001	.000-.002	(162%)	0.14	0.337	Bowfin
36	0-72	( 99%)	.002	.000-.004	(142%)	0.20	0.374	Brown bullhead
9	0-32	(245%)	.000	.000-.000	(245%)	0.05	0.775	Carp
2780	2300-3260	( 17%)	.101	.081-.120	( 19%)	15.65	0.959	Channel catfish
1177	705-1649	( 40%)	.024	.015-.032	( 35%)	6.63	0.784	Largemouth bass
2	0-5	(190%)	.000	.000-.000	(144%)	0.01	0.104	Orangespotted sunfi
44	12-77	( 73%)	.001	.000-.004	(178%)	0.25	0.261	Redear sunfish
413	122-704	( 70%)	.015	.000-.030	(102%)	2.33	9.721	Spotted gar
39	9-69	( 77%)	.001	.000-.002	( 66%)	0.22	0.141	Warmouth
148	64-232	( 57%)	.003	.002-.005	( 44%)	0.83	0.110	White crappie
52	20-84	( 62%)	.003	.000-.007	(144%)	0.29	0.339	Yellow bullhead

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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
10860	9236-12485	( 15%)	.343	.288-.398 ( 16%)	24.74	1.267	All species
24	0-47	(100%)	.001	.000-.002 (116%)	0.05	0.600	Black bullhead
43	0-200	(365%)	.000	.000-.001 (368%)	0.10	0.325	Black crappie
374	276-472	( 26%)	.010	.008-.013 ( 28%)	0.85	0.207	Bluegill
57	0-140	(148%)	.001	.000-.003 (162%)	0.13	0.744	Bowfin
80	1-159	( 99%)	.004	.000-.009 (142%)	0.18	0.825	Brown bullhead
20	0-73	(257%)	.000	.000-.001 (257%)	0.05	1.710	Carp
6129	5071-7186	( 17%)	.222	.179-.264 ( 19%)	13.96	2.114	Channel catfish
2596	1555-3636	( 40%)	.052	.034-.070 ( 35%)	5.91	1.729	Largemouth bass
3	0-10	(190%)	.000	.000-.000 (144%)	0.01	0.229	Orangespotted sunfi
98	27-169	( 73%)	.003	.000-.008 (178%)	0.22	0.575	Redear sunfish
911	269-1553	( 70%)	.033	.000-.066 (102%)	2.08	21.432	Spotted gar
85	20-151	( 77%)	.003	.001-.004 ( 66%)	0.19	0.310	Warmouth
327	142-512	( 57%)	.008	.004-.011 ( 44%)	0.74	0.242	White crappie
114	43-185	( 62%)	.007	.000-.016 (144%)	0.26	0.748	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	4.7	4.5-5.0	( 6%)	0.2	10.6	409
SHORE	2.4	1.7-3.2	( 29%)	0.2	8.0	33
BOAT & SHORE	4.6	4.3-4.8	( 6%)	0.2	10.6	442
MILES TRAVELED	36.1	32.7-39.5	( 9%)	1	800	1833
SUCCESS RATING (1-10)	4.3	4.1-4.4	( 3%)	1	10	1823

\*261 samples were from split interviews of completed trips.  
20.8% of all 2124 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 2 out of 2124 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	312	505	59	8						
SHORE INTERVIEWS	461	511	169	65	21	10	2	1		

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

330 ( 15.5%)	ANY	All species
253 ( 11.9%)	BLG	Bluegill
1 ( 0.0%)	CAP	Carp
930 ( 43.8%)	CCF	Channel catfish
4 ( 0.2%)	CRP	Crappie spp.
421 ( 19.8%)	LMB	Largemouth bass
2 ( 0.1%)	RSF	Redear sunfish
5 ( 0.2%)	SUN	Sunfish spp. excluding Crappie and Black Bass
178 ( 8.4%)	WHC	White crappie

