

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

2004 MERMET LAKE
 439 ACRES
 REGION 5, DISTRICT 22

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: 293/693 = 42.3%

NUMBER OF INTERVIEWS: 1908

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	7052	5842-8263 (17%)	16	13-19 (17%)	19%
	HOLIDAY	5144	2938-7349 (43%)	12	7-17 (43%)	45%
	TOTAL	12196	9905-14487 (19%)	28	23-33 (19%)	30%
SHORE	WEEKDAY	5811	4965-6656 (15%)	13	11-15 (15%)	26%
	HOLIDAY	3729	3107-4350 (17%)	8	7-10 (17%)	51%
	TOTAL	9539	8490-10589 (11%)	22	19-24 (11%)	35%
BOAT & SHORE	WEEKDAY	12863	11431-14295 (11%)	29	26-33 (11%)	22%
	HOLIDAY	8872	6710-11035 (24%)	20	15-25 (24%)	47%
	TOTAL	21736	19276-24195 (11%)	50	44-55 (11%)	32%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
15369	13223-17514 (14%)	.424	.368-.480 (13%)	86.51	35.01	All species
		****	NOT RECORDED			Bighead carp
1	0-4 (318%)	.000	.000-.000 (430%)	0.01	0.00	Black bullhead
4372	3189-5554 (27%)	.106	.079-.132 (25%)	24.61	9.96	Black crappie
3758	3061-4455 (19%)	.112	.089-.134 (20%)	21.15	8.56	Bluegill
		****	NOT RECORDED			Bowfin
		****	NOT RECORDED			Carp
2254	1794-2714 (20%)	.096	.072-.120 (25%)	12.69	5.13	Channel catfish
11	0-40 (257%)	.000	.000-.001 (245%)	0.06	0.03	Crappie spp.
18	2-34 (88%)	.000	.000-.001 (102%)	0.10	0.04	Flathead catfish
		****	NOT RECORDED			Green sunfish
		****	NOT RECORDED			Gizzard shad
356	95-616 (73%)	.007	.004-.011 (46%)	2.00	0.81	Largemouth bass
		****	NOT RECORDED			Longnose gar
12	0-31 (165%)	.000	.000-.001 (227%)	0.07	0.03	Longear sunfish
426	207-645 (51%)	.011	.005-.016 (55%)	2.40	0.97	Redear sunfish
		****	NOT RECORDED			Shortnose gar
		****	NOT RECORDED			Threadfin shad
50	14-86 (71%)	.002	.000-.005 (124%)	0.28	0.11	Warmouth
4062	2736-5387 (33%)	.087	.052-.122 (40%)	22.86	9.25	White crappie
50	11-89 (78%)	.003	.000-.006 (122%)	0.28	0.11	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
5598	4853-6343 (13%)	.158	.137-.179 (14%)	31.51	0.364	All species
		****	NOT RECORDED			Bighead carp
1	0-4 (430%)	.000	.000-.000 (430%)	0.00	0.785	Black bullhead
1398	1011-1785 (28%)	.033	.025-.042 (26%)	7.87	0.320	Black crappie
894	721-1067 (19%)	.026	.021-.031 (21%)	5.03	0.238	Bluegill
		****	NOT RECORDED			Bowfin
		****	NOT RECORDED			Carp
1676	1318-2033 (21%)	.063	.047-.078 (25%)	9.43	0.744	Channel catfish
2	0-8 (257%)	.000	.000-.000 (257%)	0.01	0.204	Crappie spp.
29	4-55 (88%)	.000	.000-.001 (99%)	0.16	1.631	Flathead catfish
		****	NOT RECORDED			Green sunfish
		****	NOT RECORDED			Gizzard shad
356	95-617 (73%)	.007	.004-.011 (46%)	2.00	1.000	Largemouth bass
		****	NOT RECORDED			Longnose gar
2	0-7 (183%)	.000	.000-.000 (236%)	0.01	0.198	Longear sunfish
137	69-205 (49%)	.003	.002-.005 (53%)	0.77	0.321	Redear sunfish
		****	NOT RECORDED			Shortnose gar
		****	NOT RECORDED			Threadfin shad
15	4-26 (71%)	.001	.000-.002 (146%)	0.09	0.303	Warmouth
1066	698-1434 (35%)	.022	.014-.030 (38%)	6.00	0.263	White crappie
22	5-38 (76%)	.001	.000-.002 (118%)	0.12	0.429	Yellow bullhead

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

LB HARVESTED	95% CI		LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
12342	10700-13983	(13%)	.348	.301-.395 (14%)	28.11	0.803	All species
			****	NOT RECORDED	****		Bighead carp
2	0-7	(318%)	.000	.000-.000 (318%)	0.00	1.730	Black bullhead
3082	2229-3936	(28%)	.074	.055-.092 (26%)	7.02	0.705	Black crappie
1971	1589-2353	(19%)	.057	.046-.069 (21%)	4.49	0.524	Bluegill
			****	NOT RECORDED	****		Bowfin
			****	NOT RECORDED	****		Carp
3695	2906-4483	(21%)	.139	.105-.173 (25%)	8.42	1.639	Channel catfish
5	0-17	(245%)	.000	.000-.000 (257%)	0.01	0.449	Crappie spp.
64	8-120	(88%)	.001	.000-.002 (99%)	0.15	3.595	Flathead catfish
			****	NOT RECORDED	****		Green sunfish
			****	NOT RECORDED	****		Gizzard shad
784	209-1360	(73%)	.017	.009-.024 (46%)	1.79	2.205	Largemouth bass
			****	NOT RECORDED	****		Longnose gar
5	0-14	(183%)	.000	.000-.001 (236%)	0.01	0.437	Longear sunfish
302	152-451	(49%)	.007	.004-.011 (53%)	0.69	0.708	Redear sunfish
			****	NOT RECORDED	****		Shortnose gar
			****	NOT RECORDED	****		Threadfin shad
33	10-57	(71%)	.002	.000-.005 (146%)	0.08	0.668	Warmouth
2351	1540-3162	(35%)	.049	.030-.067 (38%)	5.36	0.579	White crappie
47	12-83	(76%)	.002	.000-.005 (118%)	0.11	0.946	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
30777	26914-34639 (13%)	.826	.726-.926 (12%)	173.23	70.11	All species
5	0-15 (220%)	.000	.000-.001 (220%)	0.03	0.01	Bighead carp
1	0-4 (318%)	.000	.000-.000 (430%)	0.01	0.00	Black bullhead
5033	3736-6331 (26%)	.123	.093-.153 (24%)	28.33	11.47	Black crappie
15323	12896-17750 (16%)	.421	.349-.492 (17%)	86.25	34.90	Bluegill
40	22-58 (44%)	.001	.000-.002 (55%)	0.23	0.09	Bowfin
4	0-17 (318%)	.000	.000-.001 (430%)	0.02	0.01	Carp
2732	2225-3239 (19%)	.114	.087-.140 (23%)	15.38	6.22	Channel catfish
19	0-49 (161%)	.000	.000-.001 (174%)	0.11	0.04	Crappie spp.
18	2-34 (88%)	.000	.000-.001 (102%)	0.10	0.04	Flathead catfish
13	0-41 (211%)	.000	.000-.001 (209%)	0.07	0.03	Green sunfish
3	0-9 (182%)	.000	.000-.000 (186%)	0.02	0.01	Gizzard shad
1416	908-1923 (36%)	.030	.022-.037 (25%)	7.97	3.22	Largemouth bass
17	0-35 (110%)	.001	.000-.002 (144%)	0.09	0.04	Longnose gar
12	0-31 (165%)	.000	.000-.001 (227%)	0.07	0.03	Longear sunfish
466	243-688 (48%)	.011	.006-.017 (52%)	2.62	1.06	Redear sunfish
2	0-9 (245%)	.000	.000-.000 (236%)	0.01	0.01	Shortnose gar
3	0-13 (430%)	.000	.000-.000 (318%)	0.01	0.01	Threadfin shad
194	115-272 (41%)	.008	.004-.012 (53%)	1.09	0.44	Warmouth
5394	3774-7013 (30%)	.112	.077-.147 (32%)	30.36	12.29	White crappie
83	34-132 (59%)	.004	.001-.007 (85%)	0.47	0.19	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
7427	6541-8313 (12%)	.206	.182-.230 (12%)	41.81	0.241	All species
		****	NOT RECORDED ****			Bighead carp
1	0-4 (430%)	.000	.000-.000 (430%)	0.00	0.785	Black bullhead
1450	1057-1843 (27%)	.035	.027-.044 (25%)	8.16	0.288	Black crappie
1638	1368-1908 (16%)	.046	.038-.054 (18%)	9.22	0.107	Bluegill
7	4-11 (46%)	.000	.000-.000 (68%)	0.04	0.182	Bowfin
6	0-26 (318%)	.000	.000-.001 (318%)	0.03	1.541	Carp
1838	1467-2209 (20%)	.069	.053-.086 (23%)	10.34	0.673	Channel catfish
4	0-11 (154%)	.000	.000-.000 (161%)	0.02	0.234	Crappie spp.
29	4-55 (88%)	.000	.000-.001 (99%)	0.16	1.631	Flathead catfish
1	0-3 (211%)	.000	.000-.000 (209%)	0.01	0.073	Green sunfish
0	0-0 (203%)	.000	.000-.000 (182%)	0.00	0.031	Gizzard shad
1082	679-1485 (37%)	.023	.017-.029 (28%)	6.09	0.764	Largemouth bass
27	0-56 (109%)	.001	.000-.003 (147%)	0.15	1.591	Longnose gar
2	0-7 (183%)	.000	.000-.000 (236%)	0.01	0.198	Longear sunfish
142	73-210 (48%)	.003	.002-.005 (52%)	0.80	0.304	Redear sunfish
1	0-4 (245%)	.000	.000-.000 (236%)	0.01	0.409	Shortnose gar
		****	NOT RECORDED ****			Threadfin shad
32	19-46 (42%)	.002	.000-.003 (86%)	0.18	0.167	Warmouth
1135	751-1520 (34%)	.023	.015-.032 (36%)	6.39	0.211	White crappie
31	13-50 (60%)	.001	.000-.003 (89%)	0.17	0.374	Yellow bullhead

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

LB CAUGHT	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
16374	14421-18327 (12%)	.453	.400-.506 (12%)	37.30	0.532	All species
		****	NOT RECORDED	****		Bighead carp
2	0-7 (318%)	.000	.000-.000 (318%)	0.00	1.730	Black bullhead
3197	2330-4063 (27%)	.078	.059-.097 (25%)	7.28	0.635	Black crappie
3611	3017-4205 (16%)	.102	.084-.120 (18%)	8.23	0.236	Bluegill
16	9-24 (46%)	.000	.000-.001 (68%)	0.04	0.401	Bowfin
14	0-57 (318%)	.000	.000-.002 (318%)	0.03	3.398	Carp
4052	3234-4870 (20%)	.153	.117-.189 (23%)	9.23	1.483	Channel catfish
10	0-25 (154%)	.000	.000-.001 (161%)	0.02	0.515	Crappie spp.
64	8-120 (88%)	.001	.000-.002 (99%)	0.15	3.595	Flathead catfish
2	0-7 (211%)	.000	.000-.000 (209%)	0.00	0.160	Green sunfish
0	0-1 (203%)	.000	.000-.000 (182%)	0.00	0.068	Gizzard shad
2386	1498-3273 (37%)	.051	.036-.065 (28%)	5.43	1.685	Largemouth bass
59	0-124 (109%)	.002	.000-.006 (147%)	0.13	3.507	Longnose gar
5	0-14 (183%)	.000	.000-.001 (236%)	0.01	0.437	Longear sunfish
312	162-463 (48%)	.008	.004-.012 (52%)	0.71	0.670	Redear sunfish
2	0-8 (245%)	.000	.000-.000 (245%)	0.01	0.902	Shortnose gar
		****	NOT RECORDED	****		Threadfin shad
71	41-101 (42%)	.003	.000-.006 (86%)	0.16	0.368	Warmouth
2503	1655-3352 (34%)	.052	.033-.070 (36%)	5.70	0.464	White crappie
69	28-109 (60%)	.003	.000-.006 (89%)	0.16	0.825	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	4.3	4.1-4.5	(5%)	0.5	12.7	486
SHORE	2.2	2.1-2.3	(5%)	0.2	7.2	655
BOAT & SHORE	3.1	2.9-3.2	(4%)	0.2	12.7	1141
MILES TRAVELED	20.8	18.8-22.9	(10%)	1	1000	1333
SUCCESS RATING (1-10)	4.8	4.6-5.0	(4%)	1	10	1327

*485 samples were from split interviews of completed trips.
80.9% of all 1410 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 24 out of 1410 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	156	369	40	2						
SHORE INTERVIEWS	361	342	88	42	10					

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

293 (20.8%)	ANY	All species
41 (2.9%)	BLG	Bluegill
387 (27.4%)	CAT	Unidentified catfish
1 (0.1%)	CCF	Channel catfish
407 (28.9%)	CRP	Crappie spp.
280 (19.9%)	LMB	Largemouth bass

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

# OF FISH:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15+
Bighead carp																
HARVEST 2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1998	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black bullhead																
HARVEST 1999	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST 1700	93	64	27	35	20	10	9	5	5	4	2	-	2	4	20	
RELEASE 1888	69	9	15	2	6	5	-	1	1	1	1	1	1	-	-	
Bluegill																
HARVEST 1687	98	44	33	26	19	12	5	10	7	50	3	3	-	-	3	
RELEASE 1509	110	59	45	26	18	40	14	25	20	17	6	24	5	3	79	
Bowfin																
HARVEST 2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1970	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carp																
HARVEST 2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1998	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST 1659	169	74	36	12	15	32	3	-	-	-	-	-	-	-	-	-
RELEASE 1844	125	22	5	2	-	-	-	2	-	-	-	-	-	-	-	-
Crappie spp.																
HARVEST 1998	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1998	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flathead catfish																
HARVEST 1998	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Green sunfish																
HARVEST 2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1994	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gizzard shad																
HARVEST 2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1998	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST 1933	36	17	8	2	-	4	-	-	-	-	-	-	-	-	-	-
RELEASE 1717	145	54	37	13	17	2	6	7	1	-	-	-	1	-	-	

