

ILLINOIS NATURAL HISTORY SURVEY
 CENTER FOR AQUATIC ECOLOGY
 2002 CREEL SURVEY RESULTS

2002 ARGYLE LAKE
 93 ACRES
 REGION 1, DISTRICT 3

STRATIFICATION SUMMARY:

Day creel only.
 Results cover 03/15/2002 through 09/30/2002
 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: 249/600 = 41.5%

NUMBER OF INTERVIEWS: 696

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	4630	3756-5505 (19%)	50	41-59 (19%)	15%
	HOLIDAY	4470	3893-5048 (13%)	48	42-54 (13%)	23%
	TOTAL	9101	8053-10149 (12%)	98	87-109 (12%)	19%
SHORE	WEEKDAY	2724	2183-3264 (20%)	29	24-35 (20%)	12%
	HOLIDAY	2412	2007-2817 (17%)	26	22-30 (17%)	27%
	TOTAL	5135	4460-5811 (13%)	55	48-63 (13%)	19%
BOAT & SHORE	WEEKDAY	7354	6326-8382 (14%)	79	68-90 (14%)	14%
	HOLIDAY	6882	6177-7588 (10%)	74	67-82 (10%)	24%
	TOTAL	14236	12989-15483 (9%)	154	140-167 (9%)	19%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
5188	3481-6895	(33%)	.258	.197-.319 (24%)	138.30	55.97	All species
2	0-6	(278%)	.000	.000-.001 (257%)	0.04	0.02	Bluegill x Green su
12	0-45	(278%)	.010	.000-.038 (278%)	0.32	0.13	Black bullhead
1428	31-2824	(98%)	.043	.005-.081 (89%)	38.05	15.40	Black crappie
1051	689-1413	(34%)	.053	.030-.076 (44%)	28.01	11.34	Bluegill
15	0-37	(154%)	.000	.000-.001 (146%)	0.39	0.16	Bluegill x Redear s
945	681-1210	(28%)	.062	.042-.083 (33%)	25.20	10.20	Channel catfish
			****	NOT RECORDED ****			Freshwater drum
			****	NOT RECORDED ****			Grass carp
38	0-81	(114%)	.002	.000-.003 (101%)	1.01	0.41	Green sunfish
242	117-367	(52%)	.009	.004-.014 (52%)	6.46	2.61	Largemouth bass
			****	NOT RECORDED ****			Muskellunge
254	64-445	(75%)	.025	.004-.046 (85%)	6.77	2.74	Rainbow trout
26	0-55	(114%)	.002	.000-.005 (228%)	0.68	0.28	Redear sunfish
			****	NOT RECORDED ****			Smallmouth bass
987	452-1523	(54%)	.046	.012-.080 (74%)	26.32	10.65	White crappie
166	62-270	(63%)	.005	.002-.008 (57%)	4.42	1.79	Walleye x Sauger hy
23	1-46	(96%)	.001	.000-.003 (143%)	0.62	0.25	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
1583	1148-2019	(28%)	.082	.059-.105 (28%)	42.21	0.305	All species
0	0-1	(257%)	.000	.000-.000 (257%)	0.01	0.160	Bluegill x Green su
8	0-30	(278%)	.007	.000-.025 (278%)	0.21	0.654	Black bullhead
317	0-661	(108%)	.010	.000-.019 (101%)	8.45	0.222	Black crappie
82	51-114	(38%)	.004	.002-.006 (48%)	2.19	0.078	Bluegill
2	0-6	(149%)	.000	.000-.000 (147%)	0.06	0.164	Bluegill x Redear s
491	346-636	(30%)	.030	.021-.039 (30%)	13.09	0.520	Channel catfish
			****	NOT RECORDED ****			Freshwater drum
			****	NOT RECORDED ****			Grass carp
4	0-8	(111%)	.000	.000-.000 (134%)	0.10	0.100	Green sunfish
245	98-393	(60%)	.009	.004-.014 (56%)	6.54	1.013	Largemouth bass
			****	NOT RECORDED ****			Muskellunge
85	21-150	(75%)	.009	.001-.018 (94%)	2.28	0.336	Rainbow trout
2	0-5	(110%)	.000	.000-.000 (198%)	0.06	0.088	Redear sunfish
			****	NOT RECORDED ****			Smallmouth bass
180	80-279	(55%)	.008	.002-.015 (76%)	4.79	0.182	White crappie
155	27-283	(83%)	.004	.001-.008 (71%)	4.13	0.934	Walleye x Sauger hy
11	0-22	(101%)	.001	.000-.001 (135%)	0.30	0.479	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
3491	2530-4451	(28%)	.181	.131-.231 (28%)	37.66	0.673	All species
1	0-2	(257%)	.000	.000-.000 (257%)	0.01	0.353	Bluegill x Green su
17	0-65	(278%)	.014	.000-.054 (278%)	0.19	1.441	Black bullhead
699	0-1456	(108%)	.021	.000-.042 (101%)	7.54	0.490	Black crappie
181	111-250	(38%)	.009	.005-.013 (48%)	1.95	0.172	Bluegill
5	0-13	(149%)	.000	.000-.000 (147%)	0.06	0.361	Bluegill x Redear s
1083	763-1403	(30%)	.066	.046-.086 (30%)	11.68	1.145	Channel catfish
			****	NOT RECORDED ****			Freshwater drum
			****	NOT RECORDED ****			Grass carp
8	0-18	(111%)	.000	.000-.001 (134%)	0.09	0.220	Green sunfish
541	216-866	(60%)	.020	.009-.031 (56%)	5.83	2.233	Largemouth bass
			****	NOT RECORDED ****			Muskellunge
188	47-330	(75%)	.020	.001-.039 (94%)	2.03	0.742	Rainbow trout
5	0-10	(110%)	.000	.000-.001 (198%)	0.05	0.194	Redear sunfish
			****	NOT RECORDED ****			Smallmouth bass
396	177-615	(55%)	.019	.004-.033 (76%)	4.27	0.401	White crappie
341	60-623	(83%)	.010	.003-.017 (71%)	3.68	2.058	Walleye x Sauger hy
25	0-50	(101%)	.001	.000-.003 (135%)	0.27	1.056	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
22416	17585-27247 (22%)	1.040	.852-1.228 (18%)	597.52	241.81	All species
6	0-17 (173%)	.001	.000-.001 (154%)	0.16	0.07	Bluegill x Green su
12	0-45 (278%)	.010	.000-.038 (278%)	0.32	0.13	Black bullhead
2441	851-4032 (65%)	.081	.032-.130 (60%)	65.07	26.33	Black crappie
9615	6190-13040 (36%)	.499	.347-.650 (30%)	256.29	103.72	Bluegill
15	0-37 (154%)	.000	.000-.001 (146%)	0.39	0.16	Bluegill x Redear s
1273	934-1613 (27%)	.081	.058-.103 (28%)	33.94	13.74	Channel catfish
3	0-9 (245%)	.000	.000-.000 (236%)	0.07	0.03	Freshwater drum
2	0-8 (226%)	.001	.000-.002 (231%)	0.06	0.02	Grass carp
505	0-1421 (182%)	.020	.000-.041 (105%)	13.46	5.45	Green sunfish
3517	2144-4891 (39%)	.140	.089-.191 (36%)	93.75	37.94	Largemouth bass
18	0-36 (106%)	.001	.000-.001 (101%)	0.47	0.19	Muskellunge
321	125-518 (61%)	.029	.008-.050 (73%)	8.57	3.47	Rainbow trout
130	0-496 (280%)	.005	.000-.020 (289%)	3.47	1.41	Redear sunfish
9	0-28 (199%)	.001	.000-.002 (328%)	0.25	0.10	Smallmouth bass
4220	2431-6009 (42%)	.164	.100-.228 (39%)	112.48	45.52	White crappie
300	117-484 (61%)	.008	.003-.013 (59%)	8.01	3.24	Walleye x Sauger hy
28	5-52 (82%)	.001	.000-.003 (131%)	0.76	0.31	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
3967	3167-4767 (20%)	.182	.150-.215 (18%)	105.74	0.177	All species
0	0-1 (189%)	.000	.000-.000 (226%)	0.01	0.061	Bluegill x Green su
8	0-30 (278%)	.007	.000-.025 (278%)	0.21	0.654	Black bullhead
389	37-740 (90%)	.012	.002-.022 (81%)	10.36	0.159	Black crappie
252	185-319 (27%)	.012	.009-.016 (27%)	6.71	0.026	Bluegill
2	0-6 (149%)	.000	.000-.000 (147%)	0.06	0.164	Bluegill x Redear s
568	401-735 (29%)	.034	.024-.044 (28%)	15.15	0.446	Channel catfish
1	0-3 (245%)	.000	.000-.000 (236%)	0.02	0.322	Freshwater drum
0	0-0 (231%)	.000	.000-.000 (231%)	0.00	0.057	Grass carp
32	0-92 (188%)	.001	.000-.002 (126%)	0.85	0.063	Green sunfish
1958	1361-2555 (31%)	.082	.058-.106 (29%)	52.19	0.557	Largemouth bass
28	0-67 (143%)	.001	.000-.002 (127%)	0.73	1.562	Muskellunge
113	47-179 (59%)	.010	.002-.019 (81%)	3.00	0.351	Rainbow trout
9	0-23 (167%)	.000	.000-.001 (259%)	0.23	0.066	Redear sunfish
1	0-3 (200%)	.000	.000-.000 (182%)	0.03	0.116	Smallmouth bass
415	248-581 (40%)	.017	.010-.024 (41%)	11.06	0.098	White crappie
180	48-311 (73%)	.005	.002-.008 (63%)	4.79	0.598	Walleye x Sauger hy
13	2-24 (87%)	.001	.000-.001 (127%)	0.34	0.445	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
8746	6982-10509 (20%)	.402	.331-.473 (18%)	94.34	0.390	All species
1	0-2 (189%)	.000	.000-.000 (226%)	0.01	0.134	Bluegill x Green su
17	0-65 (278%)	.014	.000-.054 (278%)	0.19	1.441	Black bullhead
857	81-1632 (90%)	.027	.005-.049 (81%)	9.24	0.351	Black crappie
555	407-702 (27%)	.027	.020-.034 (27%)	5.98	0.058	Bluegill
5	0-13 (149%)	.000	.000-.000 (147%)	0.06	0.361	Bluegill x Redear s
1253	884-1621 (29%)	.075	.054-.096 (28%)	13.51	0.984	Channel catfish
2	0-6 (236%)	.000	.000-.000 (236%)	0.02	0.710	Freshwater drum
0	0-1 (231%)	.000	.000-.000 (231%)	0.00	0.127	Grass carp
71	0-204 (188%)	.002	.000-.005 (126%)	0.76	0.140	Green sunfish
4316	2999-5634 (31%)	.181	.128-.233 (29%)	46.56	1.227	Largemouth bass
61	0-147 (143%)	.002	.000-.004 (127%)	0.66	3.443	Muskellunge
248	103-394 (59%)	.023	.004-.042 (81%)	2.68	0.773	Rainbow trout
19	0-51 (167%)	.001	.000-.002 (259%)	0.20	0.145	Redear sunfish
2	0-7 (200%)	.000	.000-.000 (182%)	0.03	0.256	Smallmouth bass
915	548-1282 (40%)	.037	.022-.052 (41%)	9.87	0.217	White crappie
396	106-685 (73%)	.011	.004-.019 (63%)	4.27	1.318	Walleye x Sauger hy
28	4-52 (87%)	.001	.000-.003 (127%)	0.30	0.981	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	3.8	3.4-4.3 (12%)	1.0	10.8	91
SHORE	2.5	2.1-2.8 (15%)	0.5	7.0	50
BOAT & SHORE	3.4	3.0-3.7 (10%)	0.5	10.8	141
MILES TRAVELED	35.0	30.9-39.0 (12%)	1	500	538
SUCCESS RATING (1-10)	4.3	4.1-4.5 (5%)	1	10	536

*42 samples were from split interviews of completed trips.
21.7% of all 650 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 10 out of 650 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	101	226	45	7						
SHORE INTERVIEWS	133	79	29	15	11	2	1	1		

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

338 (52.0%)	ANY	All species
4 (0.6%)	BLC	Black crappie
16 (2.5%)	BLG	Bluegill
2 (0.3%)	CAP	Carp
59 (9.1%)	CCF	Channel catfish
76 (11.7%)	CRP	Crappie spp.
3 (0.5%)	GSF	Green sunfish
119 (18.3%)	LMB	Largemouth bass
22 (3.4%)	RBT	Rainbow trout
5 (0.8%)	WHC	White crappie
6 (0.9%)	WSH	Walleye x Sauger hybrid (Saugeye)

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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+
Bluegill x Green sunfish hybrid																
HARVEST	252	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	251	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Black bullhead																
HARVEST	251	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	252	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST	225	14	3	-	4	6	-	-	-	-	-	-	-	-	-	-
RELEASE	230	10	8	2	-	2	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	206	21	14	8	1	-	-	-	-	-	2	-	-	-	-	-
RELEASE	170	8	23	8	5	11	8	4	5	-	1	-	1	2	-	6
Channel catfish																
HARVEST	193	36	15	4	4	-	-	-	-	-	-	-	-	-	-	-
RELEASE	238	8	2	2	-	-	-	-	2	-	-	-	-	-	-	-
Freshwater drum																
HARVEST	252	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	251	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Green sunfish																
HARVEST	249	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	249	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	241	6	4	1	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	196	28	12	10	4	1	-	1	-	-	-	-	-	-	-	-
Muskellunge																
HARVEST	252	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	248	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rainbow trout																
HARVEST	243	3	3	-	-	3	-	-	-	-	-	-	-	-	-	-
RELEASE	246	5	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Redear sunfish																
HARVEST	250	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	252	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	204	20	11	6	2	8	-	-	-	-	1	-	-	-	-	-
RELEASE	194	14	15	7	13	2	-	1	3	-	3	-	-	-	-	-
Walleye x Sauger hybrid (Saugeye)																

