

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

2004 BUSSE LAKE
 146 ACRES
 REGION 2, DISTRICT 8

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.
 Yearperiod 8 coalesced with yearperiod 9.

SAMPLING RATIO: 260/693 = 37.5%

NUMBER OF INTERVIEWS: 2248

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	1781	1378-2183 (23%)	12	9-15 (23%)	11%
	HOLIDAY	2056	1526-2587 (26%)	14	10-18 (26%)	34%
	TOTAL	3837	3197-4477 (17%)	26	22-31 (17%)	23%
SHORE	WEEKDAY	12184	10989-13379 (10%)	83	75-92 (10%)	16%
	HOLIDAY	11604	10081-13127 (13%)	79	69-90 (13%)	31%
	TOTAL	23788	21961-25614 (8%)	163	150-175 (8%)	23%
BOAT & SHORE	WEEKDAY	13965	12704-15225 (9%)	96	87-104 (9%)	15%
	HOLIDAY	13660	12085-15235 (12%)	94	83-104 (12%)	31%
	TOTAL	27625	25699-29551 (7%)	189	176-202 (7%)	23%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
7875	6145-9606	(22%)	.193	.131-.255 (32%)	133.29	53.94	All species
47	0-108	(130%)	.001	.000-.002 (105%)	0.80	0.32	Black bullhead
4442	3042-5842	(32%)	.100	.067-.134 (34%)	75.18	30.43	Black crappie
1405	756-2055	(46%)	.031	.002-.060 (94%)	23.78	9.63	Bluegill
			****	NOT RECORDED	****		Bullhead spp.
69	23-114	(66%)	.001	.000-.002 (69%)	1.16	0.47	Carp
961	687-1235	(29%)	.024	.016-.032 (34%)	16.26	6.58	Channel catfish
			****	NOT RECORDED	****		Crappie spp.
			****	NOT RECORDED	****		Green sunfish
51	8-93	(84%)	.001	.000-.002 (92%)	0.86	0.35	Largemouth bass
			****	NOT RECORDED	****		Rock bass
			****	NOT RECORDED	****		Redear sunfish
118	0-246	(108%)	.003	.000-.006 (87%)	1.99	0.81	Walleye
			****	NOT RECORDED	****		Warmouth
480	0-1447	(202%)	.023	.000-.095 (307%)	8.12	3.29	White crappie
112	0-241	(115%)	.002	.000-.004 (81%)	1.90	0.77	Yellow bullhead
1	0-4	(231%)	.000	.000-.000 (231%)	0.02	0.01	Yellow perch
190	0-465	(145%)	.006	.000-.017 (206%)	3.21	1.30	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
1246	1018-1474	(18%)	.030	.023-.037 (22%)	21.09	0.158	All species
3	0-8	(138%)	.000	.000-.000 (110%)	0.06	0.070	Black bullhead
416	288-545	(31%)	.010	.006-.013 (35%)	7.04	0.094	Black crappie
100	65-135	(35%)	.002	.001-.004 (69%)	1.69	0.071	Bluegill
			****	NOT RECORDED	****		Bullhead spp.
100	0-309	(207%)	.001	.000-.004 (149%)	1.70	1.463	Carp
358	250-465	(30%)	.009	.006-.012 (33%)	6.05	0.372	Channel catfish
			****	NOT RECORDED	****		Crappie spp.
			****	NOT RECORDED	****		Green sunfish
50	9-90	(81%)	.001	.000-.002 (88%)	0.84	0.978	Largemouth bass
			****	NOT RECORDED	****		Rock bass
			****	NOT RECORDED	****		Redear sunfish
147	0-446	(204%)	.004	.000-.008 (91%)	2.48	1.245	Walleye
			****	NOT RECORDED	****		Warmouth
44	0-133	(200%)	.002	.000-.007 (223%)	0.75	0.092	White crappie
12	2-23	(82%)	.000	.000-.001 (105%)	0.21	0.111	Yellow bullhead
0	0-1	(231%)	.000	.000-.000 (231%)	0.00	0.167	Yellow perch
15	0-31	(104%)	.000	.000-.001 (137%)	0.26	0.080	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
2747	2245-3249	(18%)	.066	.052-.081 (22%)	18.81	0.349	All species
7	0-17	(138%)	.000	.000-.000 (110%)	0.05	0.154	Black bullhead
918	634-1201	(31%)	.021	.014-.029 (35%)	6.28	0.207	Black crappie
220	142-298	(35%)	.005	.001-.008 (69%)	1.51	0.157	Bluegill
			****	NOT RECORDED	****		Bullhead spp.
221	0-681	(207%)	.003	.000-.008 (149%)	1.52	3.225	Carp
788	551-1026	(30%)	.020	.013-.026 (33%)	5.40	0.821	Channel catfish
			****	NOT RECORDED	****		Crappie spp.
			****	NOT RECORDED	****		Green sunfish
109	21-198	(81%)	.002	.000-.004 (88%)	0.75	2.156	Largemouth bass
			****	NOT RECORDED	****		Rock bass
			****	NOT RECORDED	****		Redear sunfish
323	0-984	(204%)	.009	.001-.017 (91%)	2.21	2.744	Walleye
			****	NOT RECORDED	****		Warmouth
98	0-293	(200%)	.005	.000-.015 (223%)	0.67	0.204	White crappie
27	5-50	(82%)	.001	.000-.002 (105%)	0.19	0.244	Yellow bullhead
0	0-1	(231%)	.000	.000-.000 (231%)	0.00	0.368	Yellow perch
33	0-68	(104%)	.001	.000-.002 (137%)	0.23	0.176	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
35534	29767-41301 (16%)	.958	.774-1.142 (19%)	601.40	243.38	All species
183	72-293 (60%)	.004	.001-.008 (85%)	3.09	1.25	Black bullhead
11694	8737-14651 (25%)	.303	.207-.398 (32%)	197.92	80.10	Black crappie
15256	11146-19365 (27%)	.379	.251-.508 (34%)	258.20	104.49	Bluegill
8	0-35 (318%)	.000	.000-.001 (430%)	0.14	0.06	Bullhead spp.
115	55-175 (52%)	.003	.001-.004 (71%)	1.95	0.79	Carp
1910	1476-2344 (23%)	.054	.032-.076 (40%)	32.32	13.08	Channel catfish
2	0-9 (430%)	.000	.000-.000 (430%)	0.03	0.01	Crappie spp.
237	0-615 (160%)	.004	.000-.010 (163%)	4.01	1.62	Green sunfish
2322	1206-3438 (48%)	.089	.045-.134 (50%)	39.30	15.90	Largemouth bass
2	0-9 (430%)	.000	.000-.000 (430%)	0.03	0.01	Rock bass
4	0-11 (153%)	.000	.000-.000 (200%)	0.07	0.03	Redear sunfish
2304	1896-2711 (18%)	.077	.057-.096 (26%)	38.99	15.78	Walleye
11	0-36 (231%)	.000	.000-.001 (231%)	0.19	0.08	Warmouth
724	0-1689 (133%)	.028	.000-.104 (279%)	12.26	4.96	White crappie
178	46-311 (74%)	.005	.002-.007 (54%)	3.02	1.22	Yellow bullhead
52	0-204 (295%)	.001	.000-.002 (154%)	0.88	0.35	Yellow perch
533	15-1051 (97%)	.012	.000-.028 (127%)	9.02	3.65	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
5033	3982-6085 (21%)	.149	.118-.180 (21%)	85.19	0.142	All species
16	7-25 (56%)	.000	.000-.001 (82%)	0.27	0.088	Black bullhead
947	723-1171 (24%)	.026	.017-.035 (34%)	16.03	0.081	Black crappie
988	698-1278 (29%)	.026	.016-.036 (39%)	16.72	0.065	Bluegill
0	0-2 (318%)	.000	.000-.000 (318%)	0.01	0.049	Bullhead spp.
163	4-322 (97%)	.004	.000-.008 (99%)	2.76	1.418	Carp
625	460-789 (26%)	.015	.011-.019 (26%)	10.58	0.327	Channel catfish
0	0-1 (430%)	.000	.000-.000 (430%)	0.00	0.071	Crappie spp.
4	0-11 (149%)	.000	.000-.000 (148%)	0.08	0.019	Green sunfish
1255	0-2671 (113%)	.042	.011-.073 (75%)	21.24	0.540	Largemouth bass
0	0-1 (318%)	.000	.000-.000 (318%)	0.00	0.097	Rock bass
0	0-1 (193%)	.000	.000-.000 (156%)	0.01	0.073	Redear sunfish
923	679-1167 (26%)	.032	.020-.043 (36%)	15.62	0.401	Walleye
0	0-1 (236%)	.000	.000-.000 (231%)	0.00	0.015	Warmouth
58	0-129 (123%)	.002	.000-.007 (205%)	0.98	0.080	White crappie
18	8-29 (59%)	.001	.000-.001 (74%)	0.31	0.103	Yellow bullhead
2	0-6 (127%)	.000	.000-.000 (146%)	0.04	0.048	Yellow perch
32	9-54 (71%)	.001	.000-.001 (87%)	0.54	0.059	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
11097	8779-13415 (21%)	.328	.259-.397 (21%)	76.00	0.312	All species
35	16-55 (56%)	.001	.000-.001 (82%)	0.24	0.194	Black bullhead
2088	1595-2582 (24%)	.057	.038-.077 (34%)	14.30	0.179	Black crappie
2178	1540-2817 (29%)	.057	.034-.079 (39%)	14.92	0.143	Bluegill
1	0-5 (430%)	.000	.000-.000 (430%)	0.01	0.107	Bullhead spp.
359	9-709 (97%)	.008	.000-.017 (99%)	2.46	3.127	Carp
1378	1015-1740 (26%)	.034	.025-.043 (26%)	9.44	0.721	Channel catfish
0	0-1 (318%)	.000	.000-.000 (318%)	0.00	0.157	Crappie spp.
10	0-25 (149%)	.000	.000-.000 (148%)	0.07	0.042	Green sunfish
2767	0-5888 (113%)	.093	.023-.162 (75%)	18.95	1.192	Largemouth bass
0	0-1 (318%)	.000	.000-.000 (430%)	0.00	0.213	Rock bass
1	0-2 (193%)	.000	.000-.000 (156%)	0.00	0.161	Redear sunfish
2035	1497-2573 (26%)	.070	.045-.095 (36%)	13.94	0.883	Walleye
0	0-1 (231%)	.000	.000-.000 (236%)	0.00	0.034	Warmouth
127	0-284 (123%)	.005	.000-.015 (205%)	0.87	0.176	White crappie
40	17-64 (59%)	.001	.000-.002 (74%)	0.28	0.227	Yellow bullhead
5	0-12 (127%)	.000	.000-.000 (146%)	0.04	0.105	Yellow perch
70	20-120 (71%)	.002	.000-.003 (87%)	0.48	0.131	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	4.0	3.7-4.3	(8%)	0.5	9.0	128
SHORE	2.2	2.1-2.3	(5%)	0.2	9.0	456
BOAT & SHORE	2.6	2.5-2.7	(5%)	0.2	9.0	584
MILES TRAVELED	11.3	10.9-11.6	(3%)	1	60	1803
SUCCESS RATING (1-10)	3.5	3.4-3.7	(4%)	1	10	1784

*154 samples were from split interviews of completed trips.
27.9% of all 2092 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 53 out of 2092 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	63	81	2	2						
SHORE INTERVIEWS	1211	536	130	52	10	3	1	1		

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

620 (29.6%)	ANY	All species
72 (3.4%)	BLC	Black crappie
65 (3.1%)	BLG	Bluegill
1 (0.0%)	BSS	Black bass spp.
83 (4.0%)	CAP	Carp
176 (8.4%)	CCF	Channel catfish
243 (11.6%)	CRP	Crappie spp.
233 (11.1%)	LMB	Largemouth bass
1 (0.0%)	NOP	Northern pike
1 (0.0%)	SUN	Sunfish spp. excluding Crappie and Black Bass
584 (27.9%)	WAE	Walleye
13 (0.6%)	WHC	White crappie

