

ILLINOIS NATURAL HISTORY SURVEY
 CENTER FOR AQUATIC ECOLOGY
 2003 CREEL SURVEY RESULTS

2003 SHELBYVILLE TAILWATER
 6 ACRES
 REGION 0, DISTRICT 0

STRATIFICATION SUMMARY:

Day creel only.
 Results cover 03/15/2003 through 10/31/2003
 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: 304/693 = 43.9%

NUMBER OF INTERVIEWS: 2471

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	912	579-1246 (37%)	163	103-222 (37%)	10%
	HOLIDAY	716	534-899 (25%)	128	95-160 (25%)	17%
	TOTAL	1629	1248-2009 (23%)	291	223-359 (23%)	13%
SHORE	WEEKDAY	11717	10522-12911 (10%)	2092	1879-2306 (10%)	17%
	HOLIDAY	11802	10497-13107 (11%)	2107	1875-2340 (11%)	33%
	TOTAL	23519	21750-25288 (8%)	4200	3884-4516 (8%)	25%
BOAT & SHORE	WEEKDAY	12629	11389-13869 (10%)	2255	2034-2477 (10%)	17%
	HOLIDAY	12518	11201-13835 (11%)	2235	2000-2471 (11%)	32%
	TOTAL	25147	23338-26957 (7%)	4491	4168-4814 (7%)	25%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
2096	1687-2506	(20%)	.052	.034-.070 (35%)	925.00	374.34	All species
438	202-674	(54%)	.013	.000-.027 (105%)	193.38	78.26	Bigmouth buffalo
32	0-103	(220%)	.000	.000-.001 (147%)	14.22	5.75	Black buffalo
8	0-27	(220%)	.000	.000-.000 (223%)	3.66	1.48	Black bullhead
3	0-11	(231%)	.000	.000-.000 (231%)	1.52	0.62	Black crappie
465	276-654	(41%)	.007	.004-.010 (43%)	205.00	82.96	Bluegill
5	0-16	(196%)	.000	.000-.000 (194%)	2.41	0.98	Bowfin
			****	NOT RECORDED ****			Unidentified buffalo
62	27-97	(57%)	.002	.000-.003 (75%)	27.37	11.08	Carp
140	60-220	(57%)	.004	.001-.006 (68%)	61.83	25.02	Channel catfish
145	80-210	(45%)	.004	.002-.006 (55%)	63.82	25.83	Flathead catfish
119	42-197	(65%)	.002	.001-.003 (66%)	52.62	21.30	Freshwater drum
			****	NOT RECORDED ****			Unidentified Gar
2	0-8	(278%)	.000	.000-.000 (278%)	0.88	0.36	Grass carp
12	0-30	(150%)	.000	.000-.001 (156%)	5.21	2.11	Green sunfish
7	0-22	(236%)	.000	.000-.000 (231%)	2.94	1.19	Gizzard shad
44	2-86	(95%)	.001	.000-.002 (107%)	19.38	7.84	Largemouth bass
			****	NOT RECORDED ****			Muskellunge
4	0-12	(220%)	.000	.000-.000 (220%)	1.69	0.68	Orangespotted sunfish
4	0-15	(278%)	.000	.000-.000 (318%)	1.70	0.69	Rock bass
4	0-11	(151%)	.000	.000-.000 (156%)	1.96	0.79	Smallmouth buffalo
25	0-85	(235%)	.000	.000-.001 (291%)	11.14	4.51	Sauger
15	0-41	(177%)	.000	.000-.001 (213%)	6.58	2.66	Shortnose gar
			****	NOT RECORDED ****			Shorthead redhorse
			****	NOT RECORDED ****			Smallmouth bass
72	13-132	(82%)	.001	.000-.002 (97%)	31.89	12.91	Striped bass
			****	NOT RECORDED ****			Sunfish spp. excl. bass
			****	NOT RECORDED ****			Tiger muskie
7	0-23	(223%)	.000	.000-.000 (223%)	3.13	1.27	Quillback
237	126-348	(47%)	.013	.001-.024 (94%)	104.52	42.30	Walleye
140	65-214	(53%)	.003	.001-.004 (59%)	61.60	24.93	White bass
105	46-164	(56%)	.002	.001-.004 (73%)	46.52	18.83	White crappie
			****	NOT RECORDED ****			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
2765	1802-3728	(35%)	.087	.050-.124 (43%)	1220.08	1.319	All species
875	373-1376	(57%)	.022	.008-.036 (64%)	385.92	1.996	Bigmouth buffalo
60	0-205	(240%)	.000	.000-.001 (164%)	26.60	1.871	Black buffalo
7	0-21	(220%)	.000	.000-.000 (220%)	2.87	0.785	Black bullhead
1	0-3	(236%)	.000	.000-.000 (231%)	0.35	0.227	Black crappie
32	20-44	(38%)	.000	.000-.001 (47%)	14.13	0.069	Bluegill
1	0-4	(228%)	.000	.000-.000 (225%)	0.51	0.212	Bowfin
			****	NOT RECORDED ****			Unidentified buffalo
53	23-83	(56%)	.001	.000-.002 (80%)	23.52	0.859	Carp
262	57-466	(78%)	.008	.001-.016 (91%)	115.51	1.868	Channel catfish
789	106-1472	(87%)	.025	.001-.050 (97%)	348.02	5.453	Flathead catfish
99	27-171	(73%)	.003	.000-.008 (124%)	43.65	0.829	Freshwater drum
			****	NOT RECORDED ****			Unidentified Gar
4	0-16	(278%)	.000	.000-.001 (318%)	1.87	2.118	Grass carp
1	0-3	(149%)	.000	.000-.000 (158%)	0.51	0.098	Green sunfish
0	0-0	(231%)	.000	.000-.000 (236%)	0.07	0.022	Gizzard shad
67	0-173	(159%)	.002	.000-.004 (159%)	29.35	1.515	Largemouth bass
			****	NOT RECORDED ****			Muskellunge
0	0-1	(220%)	.000	.000-.000 (220%)	0.20	0.118	Orangespotted sunfish
2	0-6	(278%)	.000	.000-.000 (318%)	0.67	0.393	Rock bass
7	0-18	(171%)	.000	.000-.000 (149%)	2.94	1.501	Smallmouth buffalo
94	0-237	(152%)	.001	.000-.004 (259%)	41.59	3.732	Sauger
17	0-52	(207%)	.000	.000-.001 (218%)	7.47	1.135	Shortnose gar
			****	NOT RECORDED ****			Shorthead redhorse
			****	NOT RECORDED ****			Smallmouth bass
19	1-38	(97%)	.000	.000-.000 (79%)	8.60	0.270	Striped bass
			****	NOT RECORDED ****			Sunfish spp. excl. bass
			****	NOT RECORDED ****			Tiger muskie
25	0-80	(223%)	.001	.000-.002 (220%)	10.95	3.494	Quillback
290	69-512	(76%)	.020	.000-.046 (134%)	128.17	1.226	Walleye
35	11-60	(70%)	.001	.000-.001 (94%)	15.61	0.253	White bass
25	11-39	(56%)	.001	.000-.001 (84%)	11.02	0.237	White crappie
			****	NOT RECORDED ****			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
6096	3972-8220	(35%)	.191	.109-.272 (43%)	1088.55	2.908	All species
1928	823-3034	(57%)	.049	.017-.080 (64%)	344.31	4.400	Bigmouth buffalo
133	0-452	(240%)	.001	.000-.002 (164%)	23.73	4.125	Black buffalo
14	0-46	(223%)	.000	.000-.001 (223%)	2.56	1.730	Black bullhead
2	0-6	(231%)	.000	.000-.000 (231%)	0.31	0.501	Black crappie
71	44-97	(38%)	.001	.001-.001 (47%)	12.61	0.152	Bluegill
3	0-8	(228%)	.000	.000-.000 (225%)	0.46	0.467	Bowfin
			****	NOT RECORDED ****			Unidentified buffalo
118	52-183	(56%)	.003	.001-.005 (80%)	20.99	1.895	Carp
577	127-1028	(78%)	.019	.002-.035 (91%)	103.06	4.119	Channel catfish
1739	233-3244	(87%)	.056	.002-.111 (97%)	310.50	12.023	Flathead catfish
218	59-377	(73%)	.007	.000-.017 (124%)	38.94	1.829	Freshwater drum
			****	NOT RECORDED ****			Unidentified Gar
9	0-35	(278%)	.000	.000-.001 (318%)	1.67	4.668	Grass carp
3	0-6	(149%)	.000	.000-.000 (158%)	0.46	0.216	Green sunfish
0	0-1	(236%)	.000	.000-.000 (236%)	0.06	0.049	Gizzard shad
147	0-380	(159%)	.004	.000-.010 (159%)	26.19	3.339	Largemouth bass
			****	NOT RECORDED ****			Muskellunge
1	0-3	(223%)	.000	.000-.000 (220%)	0.18	0.261	Orangespotted sunfish
3	0-13	(278%)	.000	.000-.000 (318%)	0.60	0.867	Rock bass
15	0-40	(171%)	.000	.000-.001 (149%)	2.62	3.309	Smallmouth buffalo
208	0-524	(152%)	.003	.000-.009 (259%)	37.10	8.227	Sauger
37	0-115	(207%)	.001	.000-.003 (218%)	6.66	2.501	Shortnose gar
			****	NOT RECORDED ****			Shorthead redhorse
			****	NOT RECORDED ****			Smallmouth bass
43	1-85	(97%)	.000	.000-.001 (79%)	7.67	0.594	Striped bass
			****	NOT RECORDED ****			Sunfish spp. excl. bass
			****	NOT RECORDED ****			Tiger muskie
55	0-175	(220%)	.001	.000-.004 (223%)	9.77	7.703	Quillback
640	153-1128	(76%)	.043	.000-.101 (134%)	114.35	2.703	Walleye
78	23-132	(70%)	.002	.000-.003 (94%)	13.93	0.559	White bass
55	24-86	(56%)	.001	.000-.002 (84%)	9.84	0.522	White crappie
			****	NOT RECORDED ****			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
10601	9318-11884 (12%)	.246	.211-.281 (14%)	4677.80	1893.08	All species
967	665-1268 (31%)	.026	.011-.040 (56%)	426.50	172.60	Bigmouth buffalo
40	0-112 (182%)	.001	.000-.001 (107%)	17.60	7.12	Black buffalo
8	0-27 (220%)	.000	.000-.000 (223%)	3.66	1.48	Black bullhead
51	0-115 (124%)	.001	.000-.003 (166%)	22.66	9.17	Black crappie
2047	1654-2440 (19%)	.032	.024-.040 (24%)	903.22	365.53	Bluegill
51	22-79 (57%)	.001	.000-.001 (77%)	22.36	9.05	Bowfin
74	0-275 (270%)	.000	.000-.002 (271%)	32.83	13.29	Unidentified buffalo
403	283-523 (30%)	.009	.006-.013 (35%)	177.85	71.98	Carp
184	100-268 (46%)	.005	.002-.007 (60%)	81.08	32.81	Channel catfish
204	133-274 (35%)	.005	.003-.008 (46%)	89.80	36.34	Flathead catfish
969	720-1219 (26%)	.015	.010-.019 (30%)	427.65	173.07	Freshwater drum
21	0-89 (318%)	.001	.000-.007 (430%)	9.41	3.81	Unidentified Gar
2	0-8 (278%)	.000	.000-.000 (278%)	0.88	0.36	Grass carp
119	26-213 (78%)	.002	.000-.003 (92%)	52.67	21.31	Green sunfish
18	0-40 (128%)	.000	.000-.001 (140%)	7.79	3.15	Gizzard shad
290	189-391 (35%)	.008	.004-.012 (54%)	128.12	51.85	Largemouth bass
1663	1226-2099 (26%)	.063	.043-.084 (32%)	733.59	296.88	Muskellunge
4	0-12 (220%)	.000	.000-.000 (220%)	1.69	0.68	Orangespotted sunfish
60	0-160 (169%)	.001	.000-.002 (147%)	26.32	10.65	Rock bass
20	0-45 (122%)	.000	.000-.001 (101%)	8.94	3.62	Smallmouth buffalo
85	0-190 (124%)	.002	.000-.005 (166%)	37.34	15.11	Sauger
938	666-1210 (29%)	.014	.009-.018 (31%)	413.84	167.48	Shortnose gar
3	0-8 (236%)	.000	.000-.000 (236%)	1.11	0.45	Shorthead redhorse
29	0-62 (117%)	.001	.000-.002 (130%)	12.65	5.12	Smallmouth bass
370	153-587 (59%)	.005	.002-.007 (55%)	163.36	66.11	Striped bass
18	0-43 (142%)	.000	.000-.000 (146%)	7.86	3.18	Sunfish spp. excl. bass
6	0-17 (164%)	.001	.000-.002 (171%)	2.81	1.14	Tiger muskie
7	0-23 (223%)	.000	.000-.000 (223%)	3.13	1.27	Quillback
645	333-957 (48%)	.023	.010-.036 (58%)	284.47	115.12	Walleye
822	477-1168 (42%)	.022	.010-.034 (55%)	362.82	146.83	White bass
477	249-705 (48%)	.008	.004-.011 (48%)	210.49	85.18	White crappie
2	0-6 (236%)	.000	.000-.000 (231%)	0.72	0.29	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
14755	1933-27577 (87%)	.459	.195-.722 (57%)	6510.72	1.392	All species
2477	1586-3367 (36%)	.059	.034-.083 (41%)	1092.91	2.562	Bigmouth buffalo
72	0-219 (205%)	.001	.000-.002 (105%)	31.67	1.799	Black buffalo
7	0-21 (220%)	.000	.000-.000 (220%)	2.87	0.785	Black bullhead
9	0-20 (128%)	.000	.000-.001 (178%)	3.77	0.167	Black crappie
107	84-130 (21%)	.002	.001-.002 (24%)	47.20	0.052	Bluegill
9	0-19 (96%)	.000	.000-.000 (155%)	4.16	0.186	Bowfin
		****	NOT RECORDED ****			Unidentified buffalo
299	195-403 (35%)	.008	.003-.013 (61%)	131.91	0.742	Carp
311	104-519 (67%)	.009	.001-.017 (84%)	137.37	1.694	Channel catfish
987	300-1673 (70%)	.031	.007-.056 (79%)	435.38	4.848	Flathead catfish
287	188-386 (35%)	.007	.002-.011 (67%)	126.68	0.296	Freshwater drum
		****	NOT RECORDED ****			Unidentified Gar
4	0-16 (278%)	.000	.000-.001 (318%)	1.87	2.118	Grass carp
6	1-11 (80%)	.000	.000-.000 (114%)	2.78	0.053	Green sunfish
1	0-1 (149%)	.000	.000-.000 (154%)	0.22	0.028	Gizzard shad
215	90-340 (58%)	.009	.002-.015 (73%)	94.84	0.740	Largemouth bass
5682	3940-7424 (31%)	.213	.141-.286 (34%)	2507.32	3.418	Muskellunge
0	0-1 (220%)	.000	.000-.000 (220%)	0.20	0.118	Orangespotted sunfish
4	0-8 (125%)	.000	.000-.000 (111%)	1.55	0.059	Rock bass
62	0-176 (186%)	.001	.000-.002 (147%)	27.23	3.046	Smallmouth buffalo
3008	0-15097 (402%)	.077	.000-.388 (407%)	1327.29	35.550	Sauger
440	286-594 (35%)	.007	.004-.011 (49%)	194.15	0.469	Shortnose gar
1	0-3 (236%)	.000	.000-.000 (236%)	0.41	0.370	Shorthead redhorse
8	0-19 (146%)	.000	.000-.000 (138%)	3.42	0.271	Smallmouth bass
74	26-123 (65%)	.001	.000-.003 (105%)	32.74	0.200	Striped bass
1	0-4 (183%)	.000	.000-.000 (185%)	0.62	0.079	Sunfish spp. excl. bass
37	0-92 (150%)	.004	.000-.010 (152%)	16.27	5.782	Tiger muskie
25	0-80 (223%)	.001	.000-.002 (220%)	10.95	3.494	Quillback
429	201-656 (53%)	.024	.000-.050 (110%)	189.16	0.665	Walleye
122	74-169 (39%)	.004	.001-.007 (65%)	53.70	0.148	White bass
72	36-108 (49%)	.001	.001-.002 (52%)	31.88	0.151	White crappie
0	0-1 (231%)	.000	.000-.000 (236%)	0.17	0.235	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
32530	4261-60798	(87%)	1.012	.431-1.593 (57%)	5808.85	3.068	All species
5461	3497-7424	(36%)	.129	.076-.183 (41%)	975.09	5.649	Bigmouth buffalo
158	0-483	(205%)	.002	.000-.004 (105%)	28.25	3.967	Black buffalo
14	0-46	(223%)	.000	.000-.001 (223%)	2.56	1.730	Black bullhead
19	0-43	(128%)	.000	.000-.001 (178%)	3.37	0.367	Black crappie
236	186-286	(21%)	.004	.003-.004 (24%)	42.11	0.115	Bluegill
21	1-41	(96%)	.000	.000-.001 (155%)	3.71	0.410	Bowfin
			****	NOT RECORDED ****			Unidentified buffalo
659	430-888	(35%)	.018	.007-.030 (61%)	117.69	1.635	Carp
686	228-1144	(67%)	.020	.003-.037 (84%)	122.56	3.735	Channel catfish
2175	661-3689	(70%)	.069	.015-.124 (79%)	388.45	10.689	Flathead catfish
633	414-852	(35%)	.015	.005-.025 (67%)	113.02	0.653	Freshwater drum
			****	NOT RECORDED ****			Unidentified Gar
9	0-35	(278%)	.000	.000-.001 (318%)	1.67	4.668	Grass carp
14	3-25	(80%)	.000	.000-.001 (114%)	2.48	0.116	Green sunfish
1	0-3	(149%)	.000	.000-.000 (154%)	0.20	0.063	Gizzard shad
474	198-750	(58%)	.019	.005-.033 (73%)	84.62	1.632	Largemouth bass
12527	8687-16368	(31%)	.470	.311-.630 (34%)	2237.03	7.535	Muskellunge
1	0-3	(223%)	.000	.000-.000 (220%)	0.18	0.261	Orangespotted sunfish
8	0-17	(125%)	.000	.000-.000 (111%)	1.39	0.130	Rock bass
136	0-389	(186%)	.002	.000-.005 (147%)	24.30	6.716	Smallmouth buffalo
6632	0-33282	(402%)	.169	.000-.855 (407%)	1184.20	78.375	Sauger
970	631-1309	(35%)	.016	.008-.023 (49%)	173.22	1.034	Shortnose gar
2	0-7	(231%)	.000	.000-.000 (231%)	0.37	0.816	Shorthead redhorse
17	0-42	(146%)	.000	.000-.001 (138%)	3.05	0.596	Smallmouth bass
164	57-271	(65%)	.003	.000-.006 (105%)	29.21	0.442	Striped bass
3	0-9	(183%)	.000	.000-.000 (185%)	0.55	0.174	Sunfish spp. excl. bass
81	0-203	(150%)	.009	.000-.022 (152%)	14.51	12.748	Tiger muskie
55	0-175	(220%)	.001	.000-.004 (223%)	9.77	7.703	Quillback
945	443-1447	(53%)	.052	.000-.109 (110%)	168.77	1.466	Walleye
268	163-374	(39%)	.009	.003-.015 (65%)	47.92	0.326	White bass
159	80-238	(49%)	.003	.001-.004 (52%)	28.44	0.334	White crappie
1	0-3	(231%)	.000	.000-.000 (236%)	0.15	0.519	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	3.2	2.1-4.3 (34%)	0.8	7.2	15
SHORE	1.4	1.2-1.7 (15%)	0.2	8.0	141
BOAT & SHORE	1.6	1.4-1.8 (14%)	0.2	8.0	156
MILES TRAVELED	69.6	64.9-74.3 (7%)	1	2000	2169
SUCCESS RATING (1-10)	3.8	3.6-3.9 (3%)	1	10	2166

*33 samples were from split interviews of completed trips.
6.4% of all 2442 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 2 out of 2442 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	18	30	6	1						
SHORE INTERVIEWS	818	915	351	194	59	30	5	6	3	6

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

1476 (60.4%)	ANY	All species
18 (0.7%)	BGB	Bigmouth buffalo
10 (0.4%)	BLG	Bluegill
1 (0.0%)	BUF	Unidentified buffalo
24 (1.0%)	CAP	Carp
1 (0.0%)	CAT	Unidentified catfish
259 (10.6%)	CCF	Channel catfish
27 (1.1%)	CRP	Crappie spp.
7 (0.3%)	FCF	Flathead catfish
2 (0.1%)	FRD	Freshwater drum
19 (0.8%)	LMB	Largemouth bass
359 (14.7%)	MUE	Muskellunge
1 (0.0%)	SHG	Shortnose gar
1 (0.0%)	SMB	Smallmouth bass
6 (0.2%)	STB	Striped bass
213 (8.7%)	WAE	Walleye
18 (0.7%)	WHB	White bass

