

ILLINOIS NATURAL HISTORY SURVEY
 DIVISION OF ECOLOGY & CONSERVATION SCIENCE
 2006 CREEL SURVEY RESULTS

2006 HEIDECHE LAKE
 1955 ACRES
 REGION 2, DISTRICT 9

STRATIFICATION SUMMARY:

Day creel only.
 Results cover 04/01/2006 through 10/09/2006
 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: 261/576 = 45.3%

NUMBER OF INTERVIEWS: 3494

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	39242	35092-43393 (11%)	20	18-22 (11%)	8%
	HOLIDAY	43948	39267-48630 (11%)	22	20-25 (11%)	12%
	TOTAL	83191	76934-89447 (8%)	43	39-46 (8%)	10%
SHORE	WEEKDAY	15796	14266-17327 (10%)	8	7-9 (10%)	14%
	HOLIDAY	21051	19049-23052 (10%)	11	10-12 (10%)	17%
	TOTAL	36847	34328-39367 (7%)	19	18-20 (7%)	16%
BOAT & SHORE	WEEKDAY	55039	50615-59462 (8%)	28	26-30 (8%)	10%
	HOLIDAY	64999	59908-70091 (8%)	33	31-36 (8%)	14%
	TOTAL	120038	113293-126782(6%)	61	58-65 (6%)	12%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
10804	9043-12565 (16%)	.102	.082-.121 (19%)	13.66	5.53	All species
		****	NOT RECORDED			Blue catfish
114	0-371 (225%)	.001	.000-.002 (213%)	0.14	0.06	Bluegill x Green su
18	0-42 (132%)	.000	.000-.000 (147%)	0.02	0.01	Black crappie
340	125-554 (63%)	.003	.001-.006 (66%)	0.43	0.17	Bluegill
22	0-59 (165%)	.000	.000-.000 (138%)	0.03	0.01	Carp
5	0-16 (226%)	.000	.000-.000 (226%)	0.01	0.00	Unidentified catfis
1928	1159-2696 (40%)	.024	.015-.032 (35%)	2.44	0.99	Channel catfish
		****	NOT RECORDED			Crappie spp.
		****	NOT RECORDED			Flathead catfish
59	3-116 (95%)	.001	.000-.001 (103%)	0.08	0.03	Freshwater drum
33	0-102 (214%)	.000	.000-.001 (214%)	0.04	0.02	Green sunfish
		****	NOT RECORDED			Gizzard shad
25	0-55 (119%)	.000	.000-.000 (127%)	0.03	0.01	Largemouth bass
8	0-21 (153%)	.000	.000-.000 (186%)	0.01	0.00	Muskellunge
		****	NOT RECORDED			Rock bass
4515	3466-5565 (23%)	.037	.027-.047 (26%)	5.71	2.31	Striped bass x Whit
141	3-279 (98%)	.001	.000-.003 (157%)	0.18	0.07	Smallmouth bass
415	143-688 (66%)	.004	.001-.007 (66%)	0.53	0.21	Striped bass
		****	NOT RECORDED			Tiger muskie
1690	1176-2203 (30%)	.012	.008-.016 (34%)	2.14	0.86	Walleye
509	132-885 (74%)	.009	.000-.018 (104%)	0.64	0.26	White bass
20	0-60 (208%)	.000	.000-.000 (192%)	0.02	0.01	White crappie
49	0-104 (113%)	.001	.000-.002 (150%)	0.06	0.02	Yellow bullhead
913	533-1293 (42%)	.009	.006-.013 (41%)	1.15	0.47	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
10733	8772-12694 (18%)	.092	.076-.109 (18%)	13.57	0.993	All species
		****	NOT RECORDED ****			Blue catfish
6	0-20 (225%)	.000	.000-.000 (212%)	0.01	0.053	Bluegill x Green su
12	0-30 (155%)	.000	.000-.000 (184%)	0.01	0.660	Black crappie
27	11-42 (59%)	.000	.000-.000 (68%)	0.03	0.078	Bluegill
49	0-118 (142%)	.000	.000-.001 (126%)	0.06	2.209	Carp
		****	NOT RECORDED ****			Unidentified catfis
3313	2173-4453 (34%)	.035	.024-.046 (32%)	4.19	1.719	Channel catfish
		****	NOT RECORDED ****			Crappie spp.
		****	NOT RECORDED ****			Flathead catfish
67	10-124 (85%)	.001	.000-.001 (91%)	0.09	1.133	Freshwater drum
5	0-14 (213%)	.000	.000-.000 (213%)	0.01	0.140	Green sunfish
		****	NOT RECORDED ****			Gizzard shad
36	0-84 (133%)	.000	.000-.000 (148%)	0.05	1.429	Largemouth bass
36	0-93 (156%)	.000	.000-.001 (189%)	0.05	4.394	Muskellunge
		****	NOT RECORDED ****			Rock bass
4556	3224-5888 (29%)	.036	.026-.045 (27%)	5.76	1.009	Striped bass x Whit
178	3-353 (98%)	.001	.000-.003 (137%)	0.23	1.263	Smallmouth bass
228	77-379 (66%)	.002	.000-.005 (110%)	0.29	0.549	Striped bass
		****	NOT RECORDED ****			Tiger muskie
1852	1236-2468 (33%)	.013	.008-.017 (36%)	2.34	1.096	Walleye
161	27-296 (84%)	.002	.001-.003 (66%)	0.20	0.317	White bass
6	0-18 (208%)	.000	.000-.000 (192%)	0.01	0.304	White crappie
11	0-24 (116%)	.000	.000-.001 (154%)	0.01	0.224	Yellow bullhead
190	105-275 (45%)	.002	.001-.002 (45%)	0.24	0.208	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
23662	19338-27985 (18%)	.204	.167-.240 (18%)	12.10	2.190	All species
			**** NOT RECORDED ****			Blue catfish
13	0-44 (225%)	.000	.000-.000 (212%)	0.01	0.118	Bluegill x Green su
26	0-67 (155%)	.000	.000-.000 (184%)	0.01	1.454	Black crappie
59	24-93 (59%)	.001	.000-.001 (68%)	0.03	0.172	Bluegill
108	0-261 (142%)	.001	.000-.001 (126%)	0.06	4.870	Carp
			**** NOT RECORDED ****			Unidentified catfis
7304	4790-9817 (34%)	.077	.052-.102 (32%)	3.74	3.789	Channel catfish
			**** NOT RECORDED ****			Crappie spp.
			**** NOT RECORDED ****			Flathead catfish
148	23-274 (85%)	.002	.000-.003 (91%)	0.08	2.497	Freshwater drum
10	0-32 (213%)	.000	.000-.000 (213%)	0.01	0.310	Green sunfish
			**** NOT RECORDED ****			Gizzard shad
79	0-185 (133%)	.000	.000-.001 (148%)	0.04	3.150	Largemouth bass
80	0-205 (156%)	.001	.000-.002 (189%)	0.04	9.686	Muskellunge
			**** NOT RECORDED ****			Rock bass
10045	7108-12982 (29%)	.078	.057-.100 (27%)	5.14	2.225	Striped bass x Whit
393	7-778 (98%)	.003	.000-.007 (137%)	0.20	2.784	Smallmouth bass
503	171-835 (66%)	.005	.000-.011 (110%)	0.26	1.210	Striped bass
			**** NOT RECORDED ****			Tiger muskie
4082	2724-5440 (33%)	.028	.018-.038 (36%)	2.09	2.416	Walleye
355	58-652 (84%)	.003	.001-.006 (66%)	0.18	0.699	White bass
13	0-40 (208%)	.000	.000-.000 (192%)	0.01	0.669	White crappie
24	0-52 (116%)	.000	.000-.001 (154%)	0.01	0.493	Yellow bullhead
419	231-607 (45%)	.004	.002-.005 (45%)	0.21	0.459	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
56572	50538-62605 (11%)	.482	.412-.551 (14%)	71.50	28.94	All species
14	0-45 (223%)	.000	.000-.000 (220%)	0.02	0.01	Blue catfish
121	0-379 (212%)	.001	.000-.002 (195%)	0.15	0.06	Bluegill x Green su
18	0-42 (132%)	.000	.000-.000 (147%)	0.02	0.01	Black crappie
1049	751-1346 (28%)	.014	.009-.019 (35%)	1.33	0.54	Bluegill
242	15-468 (94%)	.002	.000-.004 (80%)	0.31	0.12	Carp
583	0-2071 (255%)	.006	.000-.022 (256%)	0.74	0.30	Unidentified catfis
4296	3150-5442 (27%)	.053	.039-.067 (26%)	5.43	2.20	Channel catfish
4	0-13 (223%)	.000	.000-.001 (223%)	0.00	0.00	Crappie spp.
46	0-119 (160%)	.000	.000-.000 (187%)	0.06	0.02	Flathead catfish
1763	437-3089 (75%)	.014	.007-.021 (48%)	2.23	0.90	Freshwater drum
74	0-171 (132%)	.000	.000-.001 (124%)	0.09	0.04	Green sunfish
18	0-47 (163%)	.000	.000-.000 (170%)	0.02	0.01	Gizzard shad
663	373-953 (44%)	.006	.003-.009 (52%)	0.84	0.34	Largemouth bass
948	0-2132 (125%)	.005	.000-.009 (91%)	1.20	0.48	Muskellunge
43	0-132 (205%)	.000	.000-.001 (166%)	0.05	0.02	Rock bass
13049	10978-15121 (16%)	.091	.076-.106 (16%)	16.49	6.67	Striped bass x Whit
6162	4391-7933 (29%)	.043	.034-.053 (22%)	7.79	3.15	Smallmouth bass
2607	1945-3269 (25%)	.039	.028-.050 (28%)	3.30	1.33	Striped bass
26	0-63 (142%)	.000	.000-.000 (175%)	0.03	0.01	Tiger muskie
19130	16162-22099 (16%)	.114	.094-.133 (17%)	24.18	9.79	Walleye
2981	2129-3832 (29%)	.055	.022-.087 (60%)	3.77	1.52	White bass
260	0-878 (238%)	.002	.000-.007 (250%)	0.33	0.13	White crappie
86	14-157 (84%)	.001	.000-.003 (113%)	0.11	0.04	Yellow bullhead
2390	1539-3241 (36%)	.034	.009-.060 (74%)	3.02	1.22	Yellow bass

2006 HEIDECHE LAKE

DAY CREEL

04/01/2006 - 10/09/2006

Table 6. Total fishing catch and catch rates, in kilograms.

KG CAUGHT	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
37628	30978-44278 (18%)	.268	.235-.301 (12%)	47.56	0.665	All species
16	0-53 (220%)	.000	.000-.000 (223%)	0.02	1.185	Blue catfish
7	0-21 (196%)	.000	.000-.000 (182%)	0.01	0.058	Bluegill x Green su
12	0-30 (155%)	.000	.000-.000 (184%)	0.01	0.660	Black crappie
74	46-102 (38%)	.001	.000-.001 (37%)	0.09	0.071	Bluegill
894	0-1860 (108%)	.008	.002-.015 (78%)	1.13	3.700	Carp
		****	NOT RECORDED ****			Unidentified catfis
5697	4328-7067 (24%)	.057	.044-.071 (24%)	7.20	1.326	Channel catfish
2	0-8 (223%)	.000	.000-.000 (223%)	0.00	0.609	Crappie spp.
269	0-939 (249%)	.001	.000-.004 (253%)	0.34	5.905	Flathead catfish
1853	371-3334 (80%)	.014	.006-.021 (53%)	2.34	1.051	Freshwater drum
12	0-27 (131%)	.000	.000-.000 (125%)	0.01	0.158	Green sunfish
31	0-78 (153%)	.000	.000-.001 (211%)	0.04	1.738	Gizzard shad
616	308-924 (50%)	.005	.002-.007 (48%)	0.78	0.929	Largemouth bass
3679	0-9270 (152%)	.016	.000-.035 (122%)	4.65	3.882	Muskellunge
3	0-9 (205%)	.000	.000-.000 (166%)	0.00	0.072	Rock bass
10967	8748-13187 (20%)	.076	.060-.091 (21%)	13.86	0.840	Striped bass x Whit
4097	2981-5213 (27%)	.026	.020-.032 (25%)	5.18	0.665	Smallmouth bass
698	487-909 (30%)	.008	.005-.012 (38%)	0.88	0.268	Striped bass
38	0-124 (224%)	.000	.000-.001 (254%)	0.05	1.470	Tiger muskie
7744	6438-9050 (17%)	.046	.038-.055 (19%)	9.79	0.405	Walleye
419	252-586 (40%)	.004	.003-.006 (44%)	0.53	0.141	White bass
39	0-123 (220%)	.000	.000-.001 (241%)	0.05	0.149	White crappie
17	3-31 (81%)	.000	.000-.001 (125%)	0.02	0.199	Yellow bullhead
442	271-613 (39%)	.004	.002-.005 (38%)	0.56	0.185	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
82955	68295-97616 (18%)	.591	.518-.664 (12%)	42.43	1.466	All species
36	0-117 (223%)	.000	.000-.001 (220%)	0.02	2.612	Blue catfish
16	0-46 (196%)	.000	.000-.000 (182%)	0.01	0.128	Bluegill x Green su
26	0-67 (155%)	.000	.000-.000 (184%)	0.01	1.454	Black crappie
163	101-226 (38%)	.002	.001-.002 (37%)	0.08	0.156	Bluegill
1971	0-4101 (108%)	.018	.004-.032 (78%)	1.01	8.156	Carp
		****	NOT RECORDED ****			Unidentified catfis
12560	9541-15580 (24%)	.126	.096-.156 (24%)	6.42	2.924	Channel catfish
5	0-17 (220%)	.000	.000-.001 (220%)	0.00	1.343	Crappie spp.
594	0-2071 (249%)	.002	.000-.008 (253%)	0.30	13.018	Flathead catfish
4084	818-7351 (80%)	.030	.014-.046 (53%)	2.09	2.316	Freshwater drum
26	0-59 (131%)	.000	.000-.000 (125%)	0.01	0.349	Green sunfish
68	0-172 (153%)	.001	.000-.002 (211%)	0.03	3.831	Gizzard shad
1358	679-2038 (50%)	.010	.005-.015 (48%)	0.69	2.048	Largemouth bass
8112	0-20436 (152%)	.035	.000-.078 (122%)	4.15	8.558	Muskellunge
7	0-21 (205%)	.000	.000-.000 (166%)	0.00	0.158	Rock bass
24179	19285-29072 (20%)	.167	.132-.202 (21%)	12.37	1.853	Striped bass x Whit
9032	6572-11493 (27%)	.057	.043-.071 (25%)	4.62	1.466	Smallmouth bass
1540	1075-2005 (30%)	.019	.012-.026 (38%)	0.79	0.591	Striped bass
84	0-273 (224%)	.001	.000-.003 (254%)	0.04	3.240	Tiger muskie
17073	14194-19952 (17%)	.102	.083-.122 (19%)	8.73	0.892	Walleye
924	556-1292 (40%)	.010	.006-.014 (44%)	0.47	0.310	White bass
85	0-272 (220%)	.001	.000-.002 (241%)	0.04	0.327	White crappie
38	7-68 (81%)	.001	.000-.001 (125%)	0.02	0.438	Yellow bullhead
974	598-1351 (39%)	.008	.005-.011 (38%)	0.50	0.408	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	4.3	4.1-4.4 (3%)	0.2	12.8	1095
SHORE	2.9	2.7-3.1 (7%)	0.2	10.2	394
BOAT & SHORE	3.9	3.8-4.0 (3%)	0.2	12.8	1489
MILES TRAVELED	29.6	28.8-30.3 (3%)	1	115	2309
SUCCESS RATING (1-10)	5.9	5.8-6.0 (2%)	1	10	2294

*877 samples were from split interviews of completed trips.
57.5% of all 2589 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 12 out of 2589 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	372	544	157	30	3					
SHORE INTERVIEWS	606	566	201	78	20	6	4	2		

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

1723 (66.6%)	ANY	All species
1 (0.0%)	BLG	Bluegill
4 (0.2%)	BSS	Black bass spp.
148 (5.7%)	CAT	Unidentified catfish
3 (0.1%)	CCF	Channel catfish
2 (0.1%)	CRP	Crappie spp.
1 (0.0%)	GSF	Green sunfish
13 (0.5%)	LMB	Largemouth bass
9 (0.3%)	MUE	Muskellunge
126 (4.9%)	SBH	Striped bass x White bass hybrid (Wiper)
124 (4.8%)	SMB	Smallmouth bass
46 (1.8%)	STB	Striped bass
384 (14.8%)	WAE	Walleye
2 (0.1%)	WHB	White bass
3 (0.1%)	YLB	Yellow bass

2006 HEIDECHE LAKE

DAY CREEL

04/01/2006 - 10/09/2006

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+
Blue catfish																
HARVEST	2810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2808	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bluegill x Green sunfish hybrid																
HARVEST	2808	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2809	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST	2806	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2809	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Bluegill																
HARVEST	2781	24	-	3	-	-	-	2	-	-	-	-	-	-	-	-
RELEASE	2730	62	8	8	2	-	-	-	-	-	-	-	-	-	-	-
Carp																
HARVEST	2810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2796	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unidentified catfish																
HARVEST	2810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2808	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Channel catfish																
HARVEST	2661	115	23	5	3	-	3	-	-	-	-	-	-	-	-	-
RELEASE	2576	186	32	9	4	1	1	-	-	-	1	-	-	-	-	-
Crappie spp.																
HARVEST	2810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2808	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flathead catfish																
HARVEST	2810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2803	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Freshwater drum																
HARVEST	2807	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2674	123	9	2	-	1	1	-	-	-	-	-	-	-	-	-
Gizzard shad																
HARVEST	2810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2808	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	2806	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2737	61	10	-	-	-	-	1	-	-	-	-	1	-	-	-

Table 11.(Cont.) 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+
Muskellunge																
HARVEST	2807	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2752	54	3	-	-	-	1	-	-	-	-	-	-	-	-	-
Rock bass																
HARVEST	2810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Striped bass x White bass hybrid (Wiper)																
HARVEST	2607	125	50	13	10	1	1	2	-	-	1	-	-	-	-	-
RELEASE	2352	244	110	55	15	20	4	-	2	-	4	1	-	-	-	3
Smallmouth bass																
HARVEST	2800	7	3	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2424	278	44	39	9	3	5	-	2	-	5	-	-	-	1	-
Striped bass																
HARVEST	2794	8	4	2	1	1	-	-	-	-	-	-	-	-	-	-
RELEASE	2625	145	28	9	-	1	2	-	-	-	-	-	-	-	-	-
Tiger muskie																
HARVEST	2810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2808	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Walleye																
HARVEST	2664	114	23	9	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2160	321	136	72	30	23	24	6	12	4	11	1	3	2	-	5
White bass																
HARVEST	2798	7	3	2	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2664	89	22	25	3	-	5	1	1	-	-	-	-	-	-	-
White crappie																
HARVEST	2808	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow bullhead																
HARVEST	2806	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	2803	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow bass																
HARVEST	2776	21	9	1	-	2	-	-	-	-	1	-	-	-	-	-
RELEASE	2762	30	5	5	1	1	1	-	2	-	2	-	-	-	1	-