

ILLINOIS NATURAL HISTORY SURVEY
 CENTER FOR AQUATIC ECOLOGY
 1999 CREEL SURVEY RESULTS

1999 NEWTON LAKE
 1750 ACRES
 REGION 5, DISTRICT 19

STRATIFICATION SUMMARY:

Day creel only.
 Results cover **01/01/1999 through 12/31/1999**
 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: 391/1095 = 35.7%

NUMBER OF INTERVIEWS: 5968

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	46257	41644-50870 (10%)	26	24-29 (10%)	15%
	HOLIDAY	48419	44178-52659 (9%)	28	25-30 (9%)	45%
	TOTAL	94675	88409-100942 (7%)	54	51-58 (7%)	30%
SHORE	WEEKDAY	5503	4429-6577 (20%)	3	3-4 (20%)	4%
	HOLIDAY	5849	5173-6525 (12%)	3	3-4 (12%)	5%
	TOTAL	11352	10083-12621 (11%)	6	6-7 (11%)	4%
BOAT & SHORE	WEEKDAY	51760	47023-56496 (9%)	30	27-32 (9%)	14%
	HOLIDAY	54267	49973-58562 (8%)	31	29-33 (8%)	41%
	TOTAL	106027	99634-112420 (6%)	61	57-64 (6%)	27%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
18607	13982-23231 (25%)	.160	.111-.210 (31%)	26.27	10.63	All species
		****	NOT RECORDED ****			Bluegill x Green
		****	NOT RECORDED ****			Black bullhead
23	0-82 (257%)	.000	.000-.000 (257%)	0.03	0.01	Black crappie
548	112-985 (80%)	.032	.000-.073 (130%)	0.77	0.31	Bluegill
12	0-27 (132%)	.000	.000-.000 (179%)	0.02	0.01	Carp
12023	9876-14171 (18%)	.101	.072-.130 (29%)	16.98	6.87	Channel catfish
		****	NOT RECORDED ****			Flathead catfish
68	0-145 (114%)	.000	.000-.001 (169%)	0.10	0.04	Green sunfish
3140	0-6866 (119%)	.012	.000-.025 (115%)	4.43	1.79	Gizzard shad
2100	1619-2581 (23%)	.011	.007-.015 (37%)	2.97	1.20	Largemouth bass
2	0-7 (223%)	.000	.000-.000 (223%)	0.00	0.00	Longear sunfish
		****	NOT RECORDED ****			Orangespotted sunfish
		****	NOT RECORDED ****			Pumpkinseed
		****	NOT RECORDED ****			Warmouth
455	0-992 (118%)	.002	.000-.003 (92%)	0.64	0.26	White bass
236	37-435 (84%)	.003	.000-.005 (87%)	0.33	0.13	White crappie

Table 3. Total fishing harvest and harvest rates, in kilograms.

KG HARVESTED	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
8650	7336-9964 (15%)	.057	.045-.070 (22%)	12.21	0.465	All species
		****	NOT RECORDED ****			Bluegill x Green
		****	NOT RECORDED ****			Black bullhead
7	0-26 (257%)	.000	.000-.000 (278%)	0.01	0.333	Black crappie
29	4-54 (86%)	.001	.000-.003 (148%)	0.04	0.053	Bluegill
10	0-23 (137%)	.000	.000-.000 (177%)	0.01	0.878	Carp
4924	3881-5966 (21%)	.037	.026-.048 (30%)	6.95	0.410	Channel catfish
		****	NOT RECORDED ****			Flathead catfish
8	0-17 (111%)	.000	.000-.000 (153%)	0.01	0.123	Green sunfish
19	0-44 (137%)	.000	.000-.000 (132%)	0.03	0.006	Gizzard shad
3403	2640-4166 (22%)	.018	.011-.025 (40%)	4.80	1.620	Largemouth bass
1	0-2 (226%)	.000	.000-.000 (223%)	0.00	0.252	Longear sunfish
		****	NOT RECORDED ****			Orangespotted sunfish
		****	NOT RECORDED ****			Pumpkinseed
		****	NOT RECORDED ****			Warmouth
187	0-420 (125%)	.001	.000-.001 (92%)	0.26	0.412	White bass
63	11-115 (82%)	.001	.000-.001 (86%)	0.09	0.267	White crappie

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

LB HARVESTED	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
19070	16173-21967 (15%)	.127	.099-.155 (22%)	10.90	1.025	All species
		****	NOT RECORDED ****			Bluegill x Green
		****	NOT RECORDED ****			Black bullhead
16	0-58 (257%)	.000	.000-.000 (257%)	0.01	0.733	Black crappie
64	9-120 (86%)	.003	.000-.006 (148%)	0.04	0.117	Bluegill
21	0-50 (137%)	.000	.000-.000 (177%)	0.01	1.935	Carp
10855	8557-13153 (21%)	.082	.057-.106 (30%)	6.20	0.903	Channel catfish
		****	NOT RECORDED ****			Flathead catfish
18	0-38 (111%)	.000	.000-.000 (153%)	0.01	0.271	Green sunfish
41	0-98 (137%)	.000	.000-.000 (132%)	0.02	0.013	Gizzard shad
7502	5820-9184 (22%)	.039	.024-.055 (40%)	4.29	3.572	Largemouth bass
1	0-4 (223%)	.000	.000-.000 (223%)	0.00	0.556	Longear sunfish
		****	NOT RECORDED ****			Orangespotted sunfish
		****	NOT RECORDED ****			Pumpkinseed
		****	NOT RECORDED ****			Warmouth
412	0-927 (125%)	.001	.000-.003 (92%)	0.24	0.908	White bass
139	24-253 (82%)	.002	.000-.003 (86%)	0.08	0.589	White crappie

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
97785	88385-107186 (10%)	.682	.535-.829 (22%)	138.07	55.88	All species
2	0-7 (223%)	.000	.000-.001 (220%)	0.00	0.00	Bluegill x Green
4	0-13 (212%)	.000	.000-.000 (212%)	0.01	0.00	Black bullhead
58	0-135 (132%)	.000	.000-.001 (113%)	0.08	0.03	Black crappie
4330	2995-5665 (31%)	.091	.000-.186 (104%)	6.11	2.47	Bluegill
38	8-67 (78%)	.000	.000-.000 (95%)	0.05	0.02	Carp
24879	21419-28338 (14%)	.181	.146-.216 (19%)	35.13	14.22	Channel catfish
2	0-8 (212%)	.000	.000-.000 (212%)	0.00	0.00	Flathead catfish
518	256-780 (51%)	.012	.001-.023 (89%)	0.73	0.30	Green sunfish
3404	0-7528 (121%)	.013	.000-.027 (117%)	4.81	1.95	Gizzard shad
61088	54847-67328 (10%)	.347	.231-.464 (33%)	86.26	34.91	Largemouth bass
2	0-7 (223%)	.000	.000-.000 (223%)	0.00	0.00	Longear sunfish
31	0-79 (152%)	.000	.000-.000 (152%)	0.04	0.02	Orangespotted sunfish
421	0-1088 (159%)	.002	.000-.007 (222%)	0.59	0.24	Pumpkinseed
139	5-273 (96%)	.001	.000-.002 (106%)	0.20	0.08	Warmouth
1529	241-2817 (84%)	.010	.000-.022 (116%)	2.16	0.87	White bass
1340	333-2347 (75%)	.024	.000-.053 (124%)	1.89	0.77	White crappie

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

KG CAUGHT	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
69113	60878-77347 (12%)	.352	.289-.415 (18%)	97.59	0.707	All species
0	0-0 (223%)	.000	.000-.000 (220%)	0.00	0.022	Bluegill x Green
0	0-0 (212%)	.000	.000-.000 (211%)	0.00	0.033	Black bullhead
9	0-28 (212%)	.000	.000-.000 (181%)	0.01	0.154	Black crappie
168	94-242 (44%)	.002	.000-.005 (95%)	0.24	0.039	Bluegill
33	6-60 (81%)	.000	.000-.000 (92%)	0.05	0.896	Carp
6583	5397-7769 (18%)	.046	.035-.057 (25%)	9.30	0.265	Channel catfish
0	0-1 (211%)	.000	.000-.000 (211%)	0.00	0.173	Flathead catfish
32	8-57 (76%)	.001	.000-.001 (102%)	0.05	0.062	Green sunfish
21	0-51 (143%)	.000	.000-.000 (138%)	0.03	0.006	Gizzard shad
61486	53363-69609 (13%)	.297	.236-.358 (21%)	86.82	1.007	Largemouth bass
1	0-2 (226%)	.000	.000-.000 (223%)	0.00	0.252	Longear sunfish
3	0-8 (152%)	.000	.000-.000 (152%)	0.00	0.107	Orangespotted sunfish
26	0-57 (118%)	.000	.000-.000 (129%)	0.04	0.062	Pumpkinseed
19	0-37 (98%)	.000	.000-.000 (95%)	0.03	0.136	Warmouth
538	0-1196 (122%)	.003	.001-.005 (77%)	0.76	0.352	White bass
193	63-323 (67%)	.003	.000-.006 (104%)	0.27	0.144	White crappie

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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
152367	134213-170521 (12%)	.776	.638-.914 (18%)	87.07	1.558	All species
0	0-0 (220%)	.000	.000-.000 (223%)	0.00	0.050	Bluegill x Green
0	0-1 (212%)	.000	.000-.000 (211%)	0.00	0.072	Black bullhead
20	0-62 (212%)	.000	.000-.000 (181%)	0.01	0.340	Black crappie
371	207-534 (44%)	.005	.000-.011 (95%)	0.21	0.086	Bluegill
73	14-133 (81%)	.000	.000-.000 (92%)	0.04	1.976	Carp
14514	11899-17129 (18%)	.101	.077-.126 (25%)	8.29	0.583	Channel catfish
1	0-2 (211%)	.000	.000-.000 (211%)	0.00	0.381	Flathead catfish
71	17-125 (76%)	.001	.000-.003 (102%)	0.04	0.138	Green sunfish
46	0-113 (143%)	.000	.000-.000 (138%)	0.03	0.014	Gizzard shad
135553	117645-153461 (13%)	.654	.520-.789 (21%)	77.46	2.219	Largemouth bass
1	0-4 (223%)	.000	.000-.000 (223%)	0.00	0.556	Longear sunfish
7	0-18 (152%)	.000	.000-.000 (152%)	0.00	0.236	Orangespotted sunfish
58	0-126 (118%)	.000	.000-.001 (129%)	0.03	0.137	Pumpkinseed
41	1-82 (98%)	.000	.000-.000 (95%)	0.02	0.299	Warmouth
1186	0-2637 (122%)	.006	.001-.011 (77%)	0.68	0.776	White bass
425	138-711 (67%)	.007	.000-.014 (104%)	0.24	0.317	White crappie

Table 8. Hours per completed trip and supplementary questions for all trips.

	MEAN	95% CI		MIN	MAX	#SAMPLES
HOURS PER COMPLETED TRIP*						
BOAT	5.7	5.6-5.8	(2%)	0.1	21.0	2940
SHORE	2.9	2.4-3.4	(17%)	0.7	8.3	34
BOAT & SHORE	5.6	5.5-5.7	(2%)	0.1	21.0	2974
MILES TRAVELED	60.4	56.3-64.5	(7%)	1	5000	3026
SUCCESS RATING (1-10)	4.6	4.5-4.7	(2%)	1	10	3006

*2378 samples were from split interviews of completed trips.
 95.6% of all 3111 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 0 out of 3111 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	865	1878	215	31	2					
SHORE INTERVIEWS	50	29	23	14	3		1			

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

154 (5.0%)	ANY	All species
6 (0.2%)	BLG	Bluegill
378 (12.2%)	CCF	Channel catfish
6 (0.2%)	CRP	Crappie spp.
2 (0.1%)	GZS	Gizzard shad
2559 (82.3%)	LMB	Largemouth bass
6 (0.2%)	WHB	White bass

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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+
Black bullhead																
HARVEST	5377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	5375	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST	5377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	5373	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Bluegill																
HARVEST	5361	4	6	-	-	-	2	-	-	4	-	-	-	-	-	-
RELEASE	5096	164	26	25	7	11	13	3	1	-	8	-	5	2	2	14
Carp																
HARVEST	5372	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	5365	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	4788	78	96	54	61	59	32	39	19	9	39	9	8	13	14	59
RELEASE	4328	336	168	125	45	75	61	17	28	22	67	11	15	15	8	56
Flathead catfish																
HARVEST	5377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	5375	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Green sunfish																
HARVEST	5366	8	1	2	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	5314	52	6	2	2	-	-	-	-	-	-	-	-	-	-	1
Gizzard shad																
HARVEST	5370	-	-	-	-	-	-	-	-	-	-	-	-	4	-	3
RELEASE	5372	4	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Largemouth bass																
HARVEST	4986	264	63	49	3	2	1	1	-	-	8	-	-	-	-	-
RELEASE	1325	810	735	552	423	391	247	168	173	101	89	47	56	46	29	185
Longear sunfish																
HARVEST	5375	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	5377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orangespotted sunfish																
HARVEST	5377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	5372	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pumpkinseed																
HARVEST	5377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	5366	-	2	3	2	2	-	-	-	-	2	-	-	-	-	-

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01/01/1999 - 12/31/1999

Table 11 (continued). 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+
Warmouth																
HARVEST	5377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	5359	8	4	4	-	2	-	-	-	-	-	-	-	-	-	-
White bass																
HARVEST	5359	7	2	-	-	2	-	2	-	-	-	-	-	-	-	5
RELEASE	5259	80	21	-	1	-	2	-	6	2	1	-	1	2	-	2
White crappie																
HARVEST	5357	8	4	2	-	-	-	-	-	-	6	-	-	-	-	-
RELEASE	5318	38	-	4	2	-	2	3	2	-	-	-	-	1	-	7

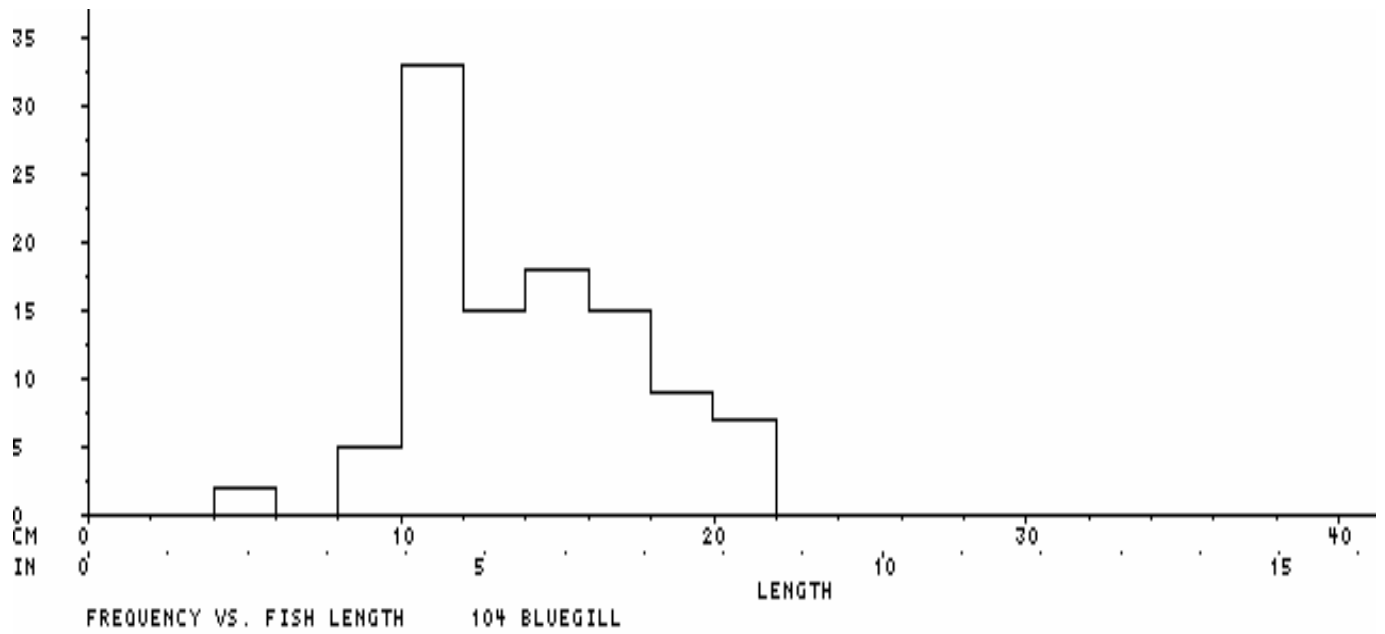


Figure 1. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of bluegill harvested by all anglers.

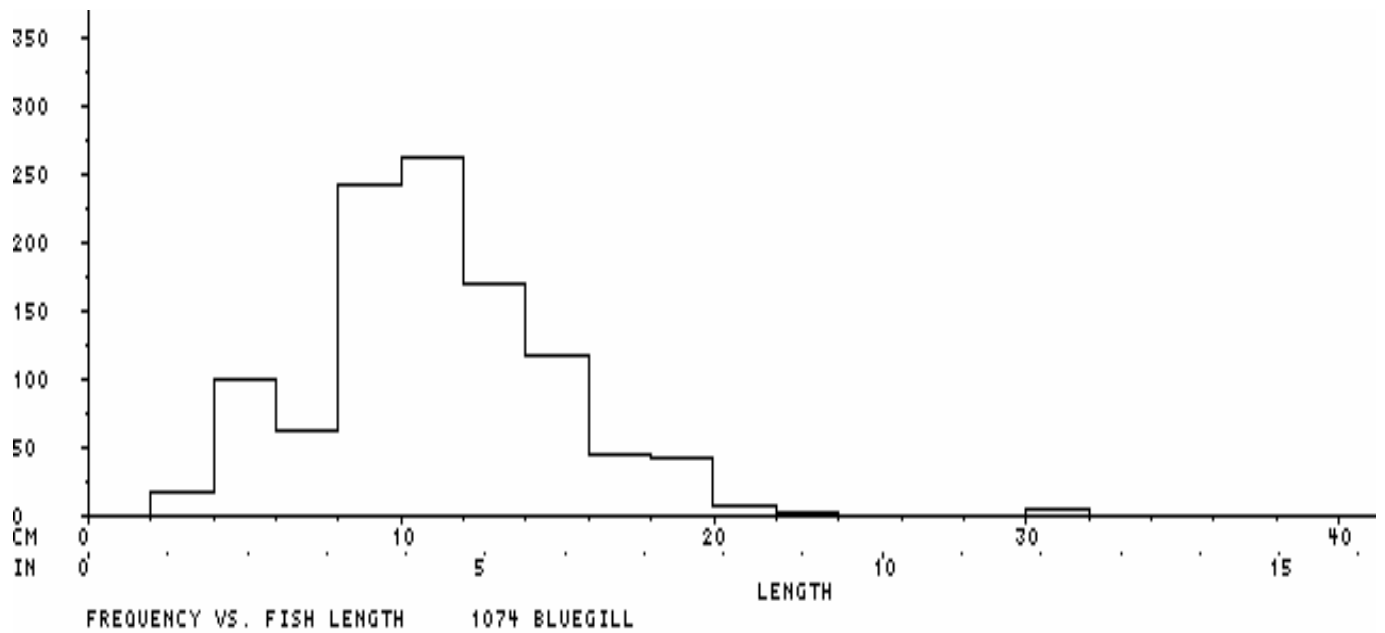


Figure 2. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of bluegill released by all anglers. Note the difference in scale from Figure 1.

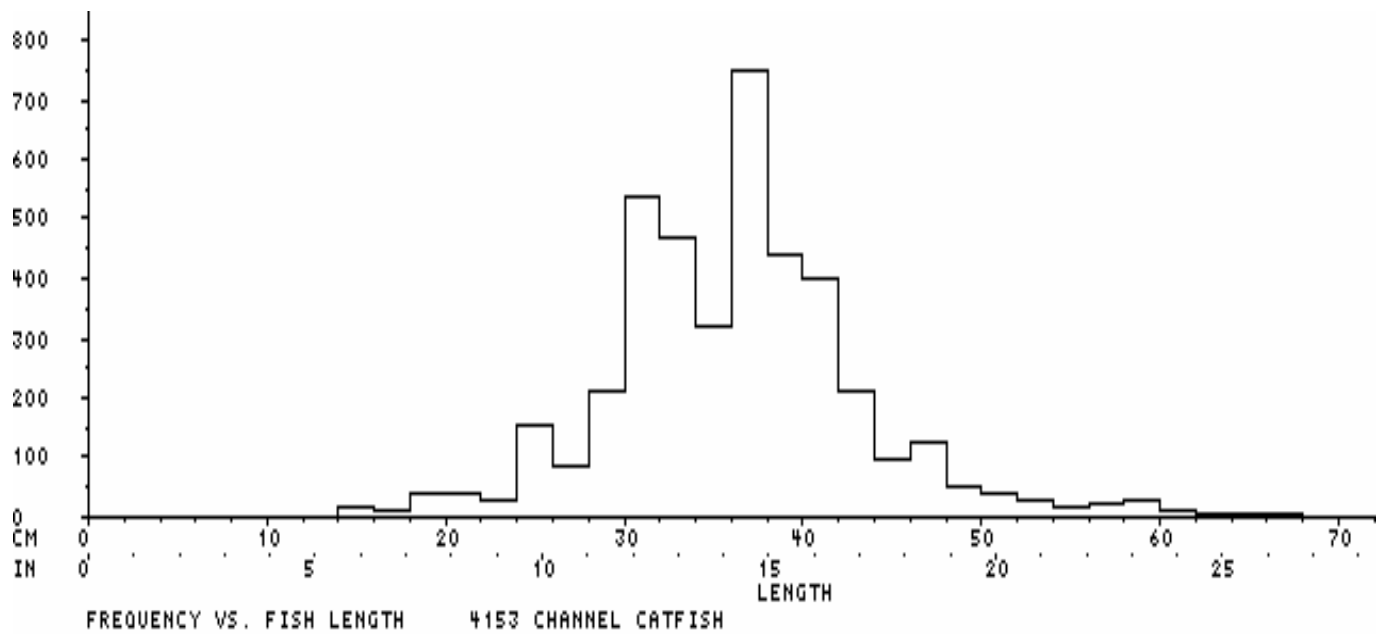


Figure 3. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of channel catfish harvested by all anglers.

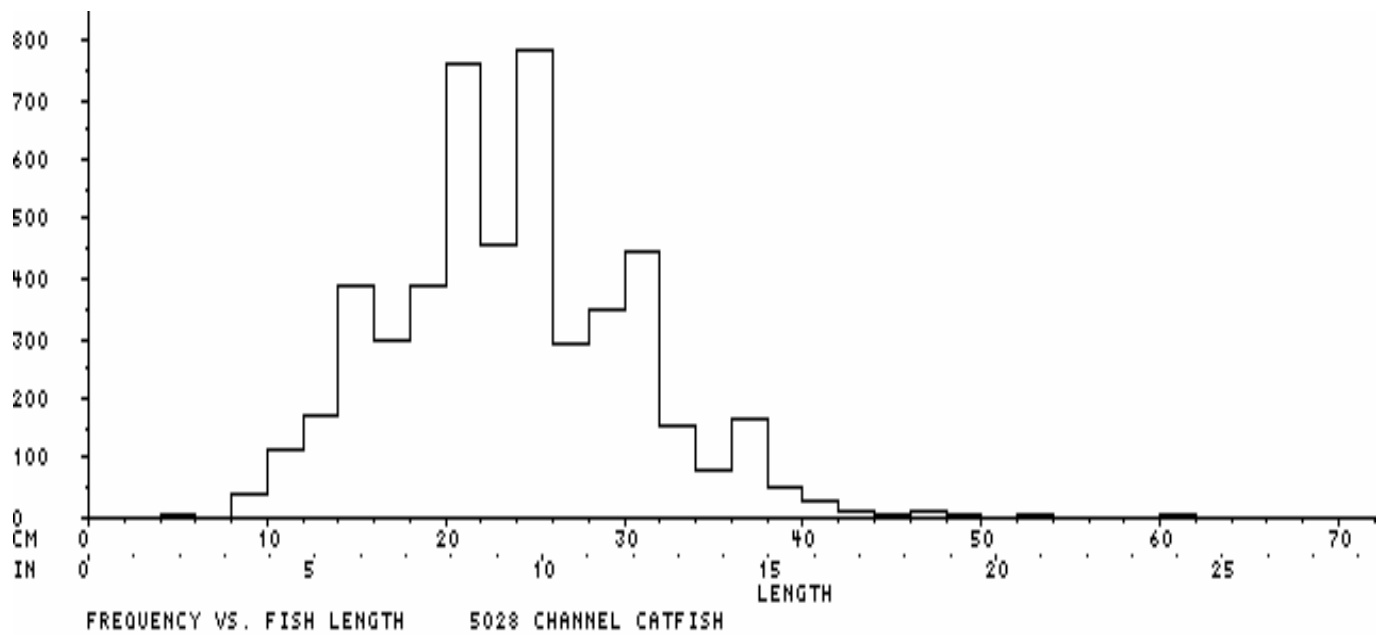


Figure 4. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of channel catfish released by all anglers.

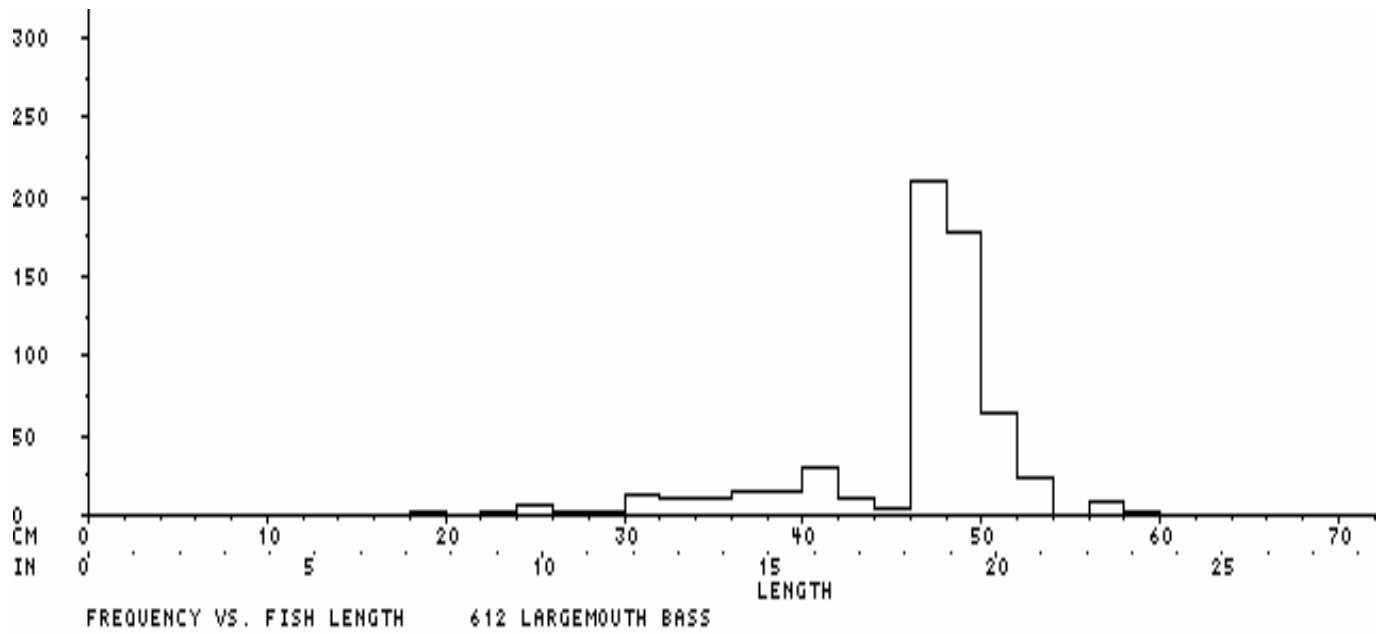


Figure 5. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of largemouth bass harvested by all anglers.

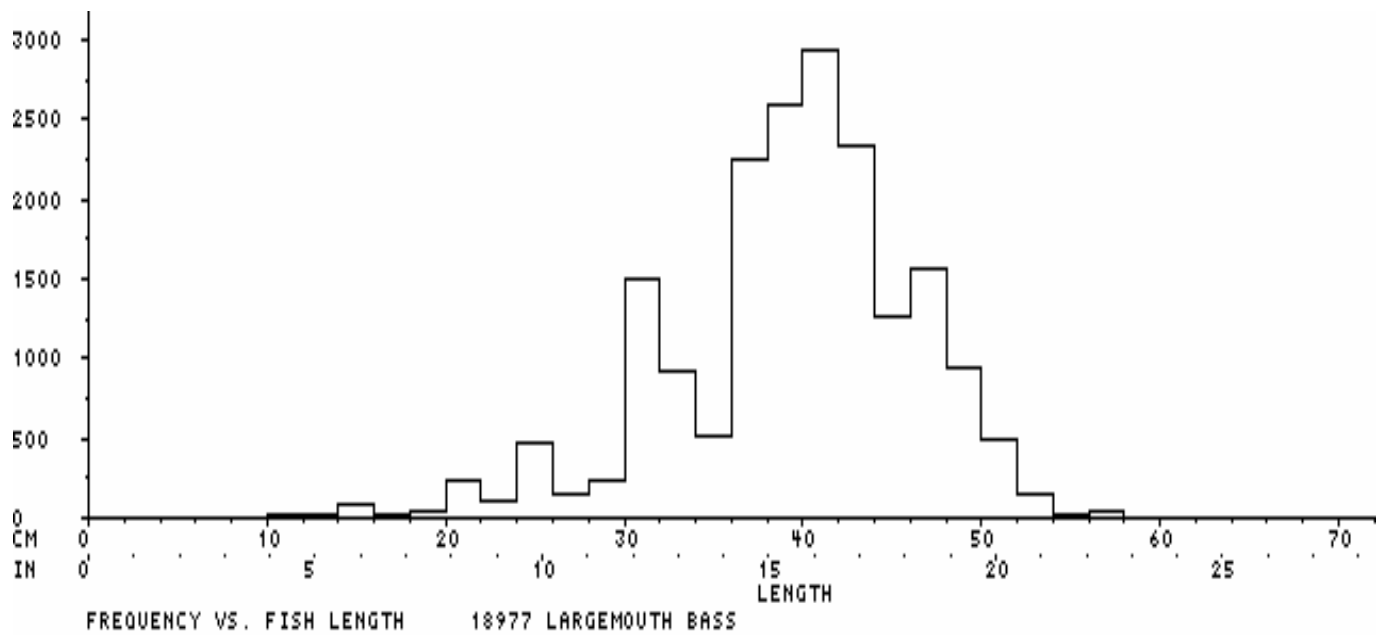


Figure 6. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 5.

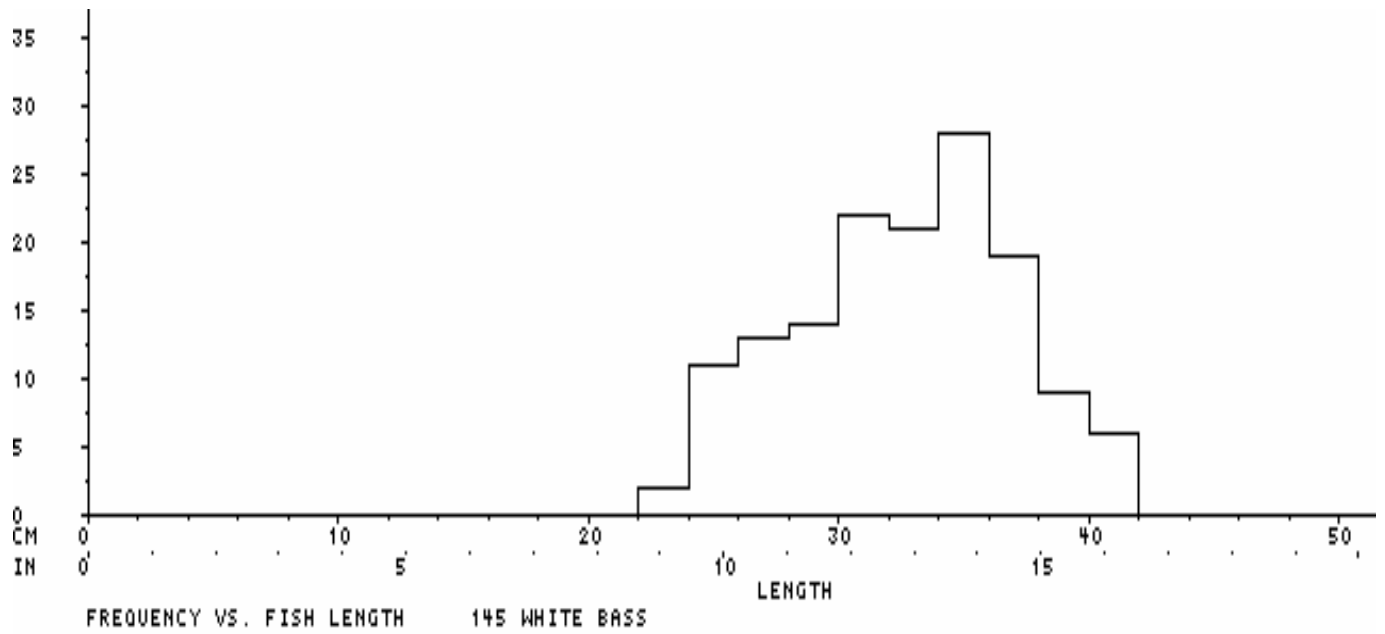


Figure 7. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of white bass harvested by all anglers.

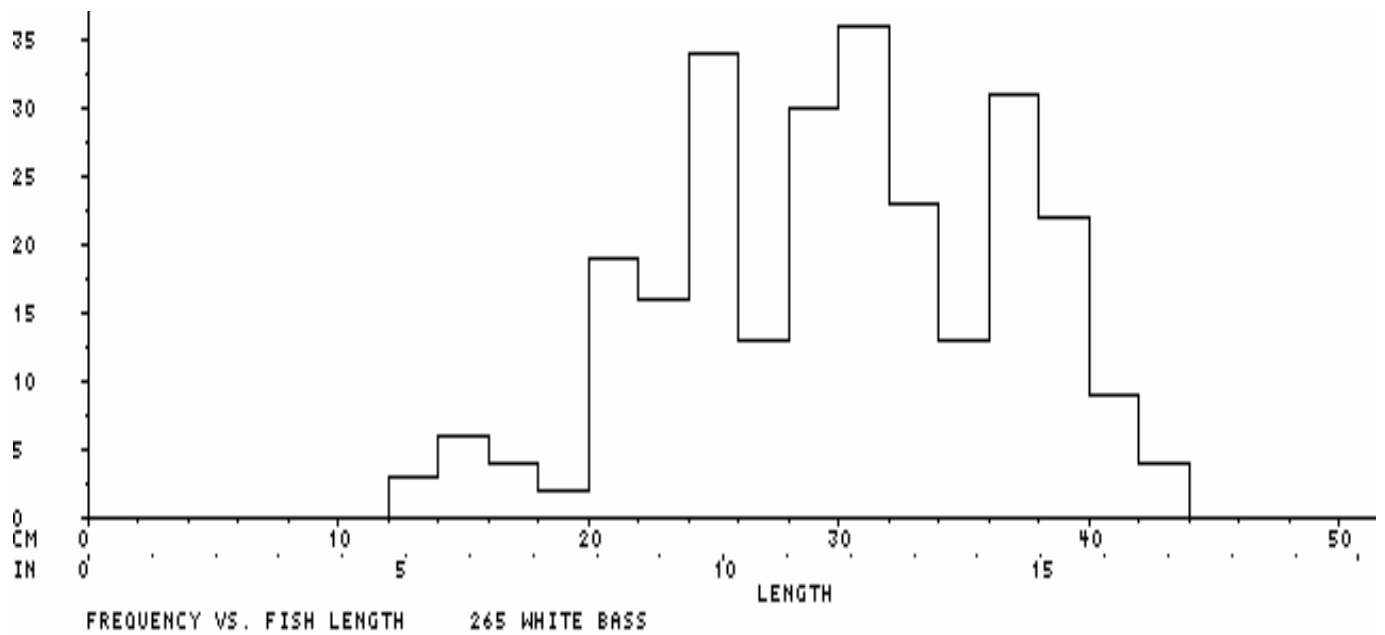


Figure 8. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of white bass released by all anglers.

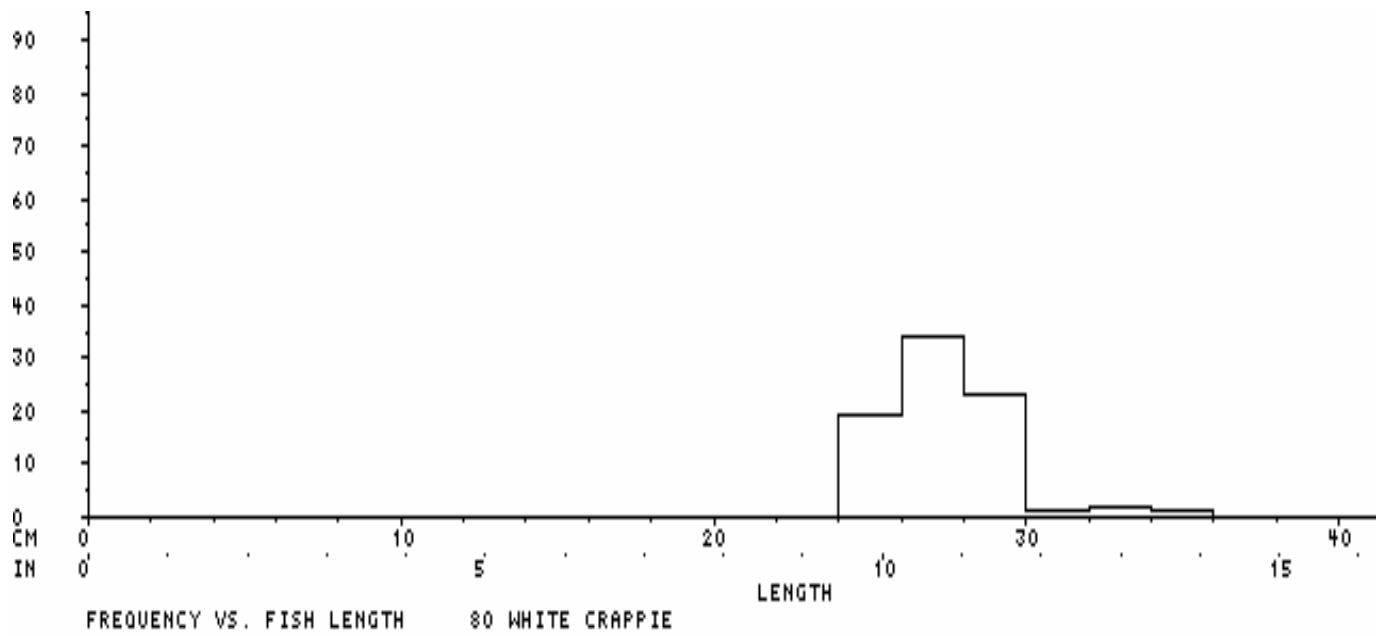


Figure 9. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of white crappie harvested by all anglers.

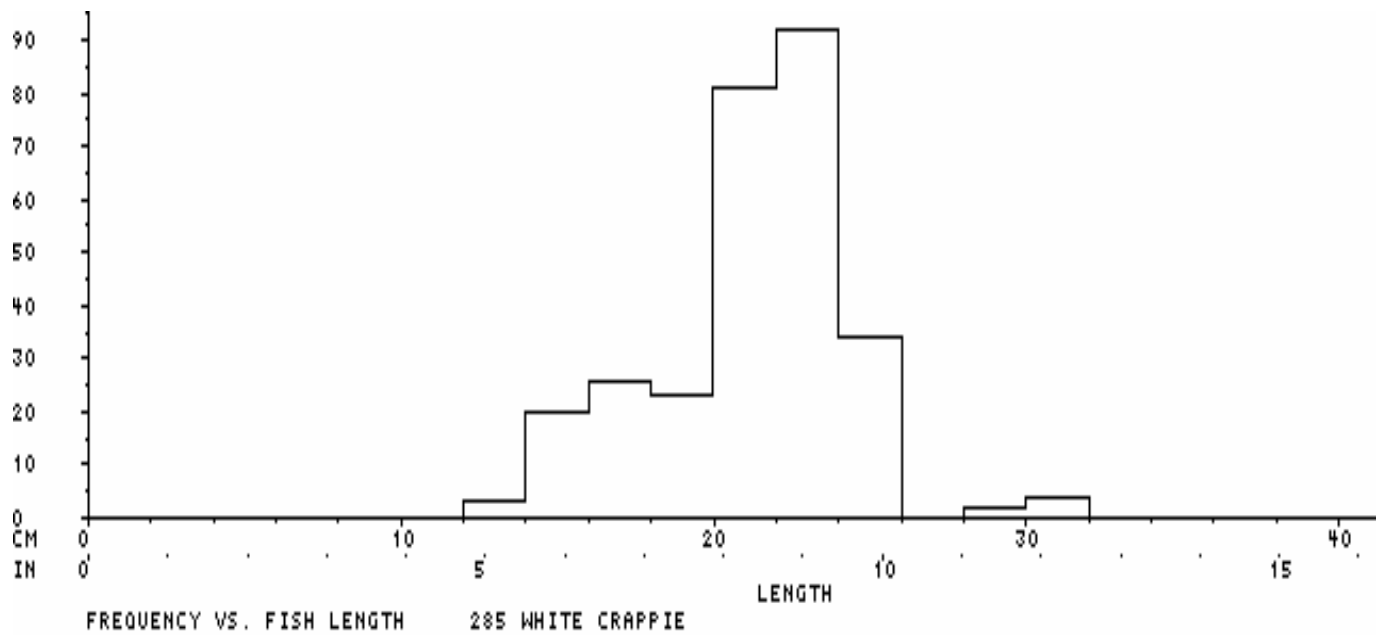


Figure 10. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of white crappie released by all anglers.

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1999 NEWTON LAKE
 1750 ACRES
 REGION 5, DISTRICT 19

STRATIFICATION SUMMARY:

Day creel only.
 Results cover **01/01/1999 through 06/15/1999**
 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: 179/498 = 35.9%

NUMBER OF INTERVIEWS: 3818

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	30672	26454-34890 (14%)	18	15-20 (14%)	15%
	HOLIDAY	30727	26850-34604 (13%)	18	15-20 (13%)	47%
	TOTAL	61399	55669-67128 (9%)	35	32-38 (9%)	31%
SHORE	WEEKDAY	3163	2339-3987 (26%)	2	1-2 (26%)	3%
	HOLIDAY	3558	3075-4040 (14%)	2	2-2 (14%)	5%
	TOTAL	6721	5792-7650 (14%)	4	3-4 (14%)	4%
BOAT & SHORE	WEEKDAY	33835	29550-38119 (13%)	19	17-22 (13%)	14%
	HOLIDAY	34285	30380-38190 (11%)	20	17-22 (11%)	43%
	TOTAL	68119	62322-73917 (9%)	39	36-42 (9%)	28%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
9549	7725-11372 (19%)	.126	.071-.181 (44%)	13.48	5.46	All species
309	0-685 (122%)	.007	.000-.019 (163%)	0.44	0.18	Bluegill
4	0-11 (192%)	.000	.000-.000 (224%)	0.01	0.00	Carp
7056	5418-8695 (23%)	.098	.040-.156 (60%)	9.96	4.03	Channel catfish
66	0-143 (117%)	.001	.000-.003 (172%)	0.09	0.04	Green sunfish
		****	NOT RECORDED ****			Gizzard shad
1713	1263-2163 (26%)	.017	.009-.025 (49%)	2.42	0.98	Largemouth bass
		****	NOT RECORDED ****			Orangespotted sunfish
		****	NOT RECORDED ****			Pumpkinseed
		****	NOT RECORDED ****			Warmouth
401	0-921 (130%)	.003	.000-.006 (114%)	0.57	0.23	White bass

Table 3. Total fishing harvest and harvest rates, in kilograms.

KG HARVESTED	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
6083	4968-7199 (18%)	.073	.049-.097 (33%)	8.59	0.637	All species
20	0-43 (109%)	.000	.000-.001 (151%)	0.03	0.066	Bluegill
2	0-6 (170%)	.000	.000-.000 (197%)	0.00	0.707	Carp
3023	2109-3936 (30%)	.042	.022-.063 (49%)	4.27	0.428	Channel catfish
8	0-17 (113%)	.000	.000-.000 (155%)	0.01	0.124	Green sunfish
		****	NOT RECORDED ****			Gizzard shad
2859	2124-3594 (26%)	.029	.014-.045 (51%)	4.04	1.670	Largemouth bass
		****	NOT RECORDED ****			Orangespotted sunfish
		****	NOT RECORDED ****			Pumpkinseed
		****	NOT RECORDED ****			Warmouth
171	0-401 (135%)	.001	.000-.002 (108%)	0.24	0.427	White bass

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

LB HARVESTED	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
13411	10952-15871 (18%)	.162	.108-.215 (33%)	7.66	1.405	All species
45	0-94 (109%)	.001	.000-.003 (151%)	0.03	0.146	Bluegill
5	0-13 (170%)	.000	.000-.000 (197%)	0.00	1.558	Carp
6664	4650-8678 (30%)	.093	.048-.138 (49%)	3.81	0.944	Channel catfish
18	0-38 (113%)	.000	.000-.001 (155%)	0.01	0.274	Green sunfish
		****	NOT RECORDED ****			Gizzard shad
6303	4682-7923 (26%)	.065	.032-.098 (51%)	3.60	3.681	Largemouth bass
		****	NOT RECORDED ****			Orangespotted sunfish
		****	NOT RECORDED ****			Pumpkinseed
		****	NOT RECORDED ****			Warmouth
377	0-884 (135%)	.003	.000-.005 (108%)	0.22	0.942	White 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
61376	54268-68485 (12%)	.586	.480-.692 (18%)	86.66	35.07	All species
2115	1187-3044 (44%)	.035	.016-.054 (55%)	2.99	1.21	Bluegill
29	2-55 (94%)	.000	.000-.000 (120%)	0.04	0.02	Carp
14214	11775-16653 (17%)	.183	.128-.237 (30%)	20.07	8.12	Channel catfish
159	70-249 (56%)	.002	.000-.004 (100%)	0.22	0.09	Green sunfish
2	0-6 (318%)	.000	.000-.000 (430%)	0.00	0.00	Gizzard shad
43216	37337-49094 (14%)	.353	.253-.453 (28%)	61.02	24.69	Largemouth bass
31	0-79 (152%)	.000	.000-.001 (152%)	0.04	0.02	Orangespotted sunfish
196	0-468 (139%)	.002	.000-.004 (153%)	0.28	0.11	Pumpkinseed
131	0-264 (102%)	.001	.000-.003 (105%)	0.18	0.07	Warmouth
1284	0-2648 (106%)	.010	.002-.017 (83%)	1.81	0.73	White bass

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

KG CAUGHT	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
51207	43102-59311 (16%)	.435	.326-.545 (25%)	72.30	0.834	All species
111	38-184 (66%)	.001	.001-.002 (65%)	0.16	0.053	Bluegill
25	0-49 (100%)	.000	.000-.000 (110%)	0.03	0.879	Carp
3892	2929-4856 (25%)	.051	.029-.072 (42%)	5.50	0.274	Channel catfish
15	6-25 (63%)	.000	.000-.000 (116%)	0.02	0.095	Green sunfish
0	0-0 (318%)	.000	.000-.000 (318%)	0.00	0.056	Gizzard shad
46665	38800-54529 (17%)	.379	.272-.486 (28%)	65.89	1.080	Largemouth bass
3	0-8 (152%)	.000	.000-.000 (152%)	0.00	0.107	Orangespotted sunfish
19	0-45 (143%)	.000	.000-.000 (149%)	0.03	0.096	Pumpkinseed
18	0-37 (101%)	.000	.000-.000 (110%)	0.03	0.140	Warmouth
458	0-1110 (142%)	.003	.000-.006 (98%)	0.65	0.357	White bass

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

LB CAUGHT	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
112891	95023-130759 (16%)	.959	.718-1.201 (25%)	64.51	1.839	All species
245	83-406 (66%)	.003	.001-.005 (65%)	0.14	0.116	Bluegill
54	0-108 (100%)	.000	.000-.001 (110%)	0.03	1.937	Carp
8581	6457-10706 (25%)	.112	.065-.158 (42%)	4.90	0.604	Channel catfish
33	12-54 (63%)	.000	.000-.001 (116%)	0.02	0.209	Green sunfish
0	0-1 (430%)	.000	.000-.000 (430%)	0.00	0.124	Gizzard shad
102878	85540-120217 (17%)	.836	.600-1.072 (28%)	58.79	2.381	Largemouth bass
7	0-18 (152%)	.000	.000-.000 (152%)	0.00	0.236	Orangespotted sunfish
41	0-100 (143%)	.000	.000-.001 (149%)	0.02	0.212	Pumpkinseed
40	0-81 (101%)	.000	.000-.001 (110%)	0.02	0.309	Warmouth
1010	0-2447 (142%)	.007	.000-.014 (98%)	0.58	0.787	White bass

ILLINOIS NATURAL HISTORY SURVEY
 CENTER FOR AQUATIC ECOLOGY
 1999 CREEL SURVEY RESULTS

1999 NEWTON LAKE
 1750 ACRES
 REGION 5, DISTRICT 19

STRATIFICATION SUMMARY:

Day creel only.
 Results cover **06/16/1999 through 12/31/1999**
 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: 212/597 = 35.5%

NUMBER OF INTERVIEWS: 2150

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	15585	13718-17452 (12%)	9	8-10 (12%)	14%
	HOLIDAY	17692	15974-19409 (10%)	10	9-11 (10%)	42%
	TOTAL	33277	30739-35814 (8%)	19	18-20 (8%)	29%
SHORE	WEEKDAY	2340	1532-3148 (35%)	1	1-2 (35%)	5%
	HOLIDAY	2291	1799-2784 (22%)	1	1-2 (22%)	4%
	TOTAL	4631	3721-5541 (20%)	3	2-3 (20%)	4%
BOAT & SHORE	WEEKDAY	17925	15907-19943 (11%)	10	9-11 (11%)	13%
	HOLIDAY	19983	18196-21770 (9%)	11	10-12 (9%)	37%
	TOTAL	37908	35212-40603 (7%)	22	20-23 (7%)	26%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
9058	4808-13308 (47%)	.189	.104-.273 (45%)	12.79	5.18	All species
		****	NOT RECORDED ****			Bluegill x Green
		****	NOT RECORDED ****			Black bullhead
23	0-82 (257%)	.000	.000-.001 (278%)	0.03	0.01	Black crappie
239	0-524 (119%)	.052	.000-.127 (144%)	0.34	0.14	Bluegill
8	0-23 (185%)	.000	.000-.000 (198%)	0.01	0.00	Carp
4967	3579-6355 (28%)	.103	.063-.144 (39%)	7.01	2.84	Channel catfish
		****	NOT RECORDED ****			Flathead catfish
2	0-6 (223%)	.000	.000-.000 (220%)	0.00	0.00	Green sunfish
3140	0-6866 (119%)	.021	.000-.046 (115%)	4.43	1.79	Gizzard shad
387	196-579 (49%)	.006	.002-.010 (63%)	0.55	0.22	Largemouth bass
2	0-7 (223%)	.000	.000-.000 (226%)	0.00	0.00	Longear sunfish
		****	NOT RECORDED ****			Pumpkinseed
		****	NOT RECORDED ****			Warmouth
54	0-180 (231%)	.001	.000-.002 (238%)	0.08	0.03	White bass
236	37-435 (84%)	.005	.001-.010 (87%)	0.33	0.13	White crappie

Table 3. Total fishing harvest and harvest rates, in kilograms.

KG HARVESTED	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
2567	1873-3261 (27%)	.044	.031-.058 (31%)	3.62	0.283	All species
		****	NOT RECORDED ****			Bluegill x Green
		****	NOT RECORDED ****			Black bullhead
7	0-26 (257%)	.000	.000-.000 (278%)	0.01	0.333	Black crappie
9	0-22 (154%)	.002	.000-.005 (177%)	0.01	0.036	Bluegill
8	0-20 (171%)	.000	.000-.000 (189%)	0.01	1.077	Carp
1901	1269-2533 (33%)	.033	.020-.045 (38%)	2.68	0.383	Channel catfish
		****	NOT RECORDED ****			Flathead catfish
0	0-0 (223%)	.000	.000-.000 (223%)	0.00	0.136	Green sunfish
19	0-44 (137%)	.000	.000-.000 (132%)	0.03	0.006	Gizzard shad
544	303-785 (44%)	.008	.003-.013 (61%)	0.77	1.406	Largemouth bass
1	0-2 (226%)	.000	.000-.000 (223%)	0.00	0.252	Longear sunfish
		****	NOT RECORDED ****			Pumpkinseed
		****	NOT RECORDED ****			Warmouth
16	0-53 (226%)	.000	.000-.001 (236%)	0.02	0.299	White bass
63	11-115 (82%)	.001	.000-.002 (86%)	0.09	0.267	White crappie

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

LB HARVESTED	95% CI		LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
5659	4128-7189	(27%)	.097	.067-.127 (31%)	3.23	0.625	All species
			****	NOT RECORDED ****			Bluegill x Green
			****	NOT RECORDED ****			Black bullhead
16	0-58	(257%)	.000	.000-.000 (278%)	0.01	0.733	Black crappie
19	0-48	(154%)	.004	.000-.011 (177%)	0.01	0.080	Bluegill
17	0-45	(171%)	.000	.000-.000 (189%)	0.01	2.373	Carp
4191	2798-5584	(33%)	.072	.044-.100 (38%)	2.39	0.844	Channel catfish
			****	NOT RECORDED ****			Flathead catfish
0	0-1	(223%)	.000	.000-.000 (220%)	0.00	0.300	Green sunfish
41	0-98	(137%)	.000	.000-.001 (132%)	0.02	0.013	Gizzard shad
1199	668-1731	(44%)	.018	.007-.028 (61%)	0.69	3.099	Largemouth bass
1	0-4	(223%)	.000	.000-.000 (223%)	0.00	0.556	Longear sunfish
			****	NOT RECORDED ****			Pumpkinseed
			****	NOT RECORDED ****			Warmouth
36	0-116	(226%)	.000	.000-.001 (236%)	0.02	0.658	White bass
139	24-253	(82%)	.003	.000-.005 (86%)	0.08	0.589	White crappie

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
36409	29895-42922 (18%)	.762	.502-1.023 (34%)	51.41	20.81	All species
2	0-7 (223%)	.001	.000-.002 (220%)	0.00	0.00	Bluegill x Green
4	0-13 (212%)	.000	.000-.000 (212%)	0.01	0.00	Black bullhead
58	0-135 (132%)	.001	.000-.001 (113%)	0.08	0.03	Black crappie
2214	1255-3173 (43%)	.138	.000-.312 (126%)	3.13	1.27	Bluegill
9	0-24 (158%)	.000	.000-.000 (181%)	0.01	0.01	Carp
10665	8211-13118 (23%)	.179	.129-.229 (28%)	15.06	6.09	Channel catfish
2	0-8 (212%)	.000	.000-.000 (212%)	0.00	0.00	Flathead catfish
359	111-607 (69%)	.021	.001-.040 (96%)	0.51	0.21	Green sunfish
3402	0-7526 (121%)	.023	.000-.050 (117%)	4.80	1.94	Gizzard shad
17872	15536-20208 (13%)	.342	.131-.554 (62%)	25.24	10.21	Largemouth bass
2	0-7 (223%)	.000	.000-.000 (226%)	0.00	0.00	Longear sunfish
225	0-941 (318%)	.003	.000-.012 (318%)	0.32	0.13	Pumpkinseed
8	0-20 (151%)	.001	.000-.003 (213%)	0.01	0.00	Warmouth
245	27-463 (89%)	.011	.000-.034 (218%)	0.35	0.14	White bass
1340	333-2347 (75%)	.044	.000-.097 (124%)	1.89	0.77	White crappie

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

KG CAUGHT	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
17906	15393-20419 (14%)	.283	.185-.381 (35%)	25.28	0.492	All species
0	0-0 (223%)	.000	.000-.000 (223%)	0.00	0.022	Bluegill x Green
0	0-0 (212%)	.000	.000-.000 (211%)	0.00	0.033	Black bullhead
9	0-28 (212%)	.000	.000-.000 (181%)	0.01	0.154	Black crappie
57	32-82 (44%)	.003	.000-.007 (130%)	0.08	0.026	Bluegill
9	0-22 (152%)	.000	.000-.000 (176%)	0.01	0.951	Carp
2691	1913-3469 (29%)	.042	.029-.056 (32%)	3.80	0.252	Channel catfish
0	0-1 (211%)	.000	.000-.000 (211%)	0.00	0.173	Flathead catfish
17	0-41 (136%)	.001	.000-.002 (114%)	0.02	0.048	Green sunfish
21	0-51 (143%)	.000	.000-.000 (138%)	0.03	0.006	Gizzard shad
14821	12619-17023 (15%)	.228	.135-.321 (41%)	20.93	0.829	Largemouth bass
1	0-2 (226%)	.000	.000-.000 (223%)	0.00	0.252	Longear sunfish
7	0-40 (430%)	.000	.000-.000 (430%)	0.01	0.033	Pumpkinseed
1	0-1 (151%)	.000	.000-.000 (213%)	0.00	0.063	Warmouth
80	19-140 (76%)	.002	.000-.006 (176%)	0.11	0.326	White bass
193	63-323 (67%)	.006	.000-.011 (104%)	0.27	0.144	White crappie

1999 NEWTON LAKE

DAY CREEL

06/16/1999 - 12/31/1999

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

LB CAUGHT	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
39476	33936-45016 (14%)	.623	.407-.839 (35%)	22.56	1.084	All species
0	0-0 (220%)	.000	.000-.000 (220%)	0.00	0.050	Bluegill x Green
0	0-1 (212%)	.000	.000-.000 (211%)	0.00	0.072	Black bullhead
20	0-62 (212%)	.000	.000-.000 (181%)	0.01	0.340	Black crappie
126	70-182 (44%)	.007	.000-.016 (130%)	0.07	0.057	Bluegill
19	0-48 (152%)	.000	.000-.000 (176%)	0.01	2.097	Carp
5933	4217-7648 (29%)	.093	.063-.123 (32%)	3.39	0.556	Channel catfish
1	0-2 (211%)	.000	.000-.000 (212%)	0.00	0.381	Flathead catfish
38	0-89 (136%)	.002	.000-.004 (114%)	0.02	0.106	Green sunfish
46	0-113 (143%)	.000	.000-.001 (138%)	0.03	0.014	Gizzard shad
32675	27821-37529 (15%)	.502	.297-.708 (41%)	18.67	1.828	Largemouth bass
1	0-4 (223%)	.000	.000-.000 (223%)	0.00	0.556	Longear sunfish
16	0-69 (318%)	.000	.000-.001 (430%)	0.01	0.073	Pumpkinseed
1	0-3 (151%)	.000	.000-.000 (213%)	0.00	0.140	Warmouth
175	42-309 (76%)	.005	.000-.014 (176%)	0.10	0.719	White bass
425	138-711 (67%)	.012	.000-.025 (104%)	0.24	0.317	White crappie