

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

1999 HOMER LAKE
 81 ACRES
 REGION 3, DISTRICT 10

STRATIFICATION SUMMARY:

Day creel only.
 Results cover 03/15/1999 through 10/31/1999
 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: 310/693 = 44.7%

NUMBER OF INTERVIEWS: 2145

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	2513	2012-3015 (20%)	31	25-37 (20%)	18%
	HOLIDAY	2969	2320-3618 (22%)	37	29-45 (22%)	45%
	TOTAL	5482	4690-6274 (14%)	68	58-77 (14%)	33%
SHORE	WEEKDAY	11133	10038-12228 (10%)	137	124-151 (10%)	16%
	HOLIDAY	10097	9157-11037 (9%)	125	113-136 (9%)	31%
	TOTAL	21230	19787-22673 (7%)	262	244-280 (7%)	23%
BOAT & SHORE	WEEKDAY	13647	12442-14851 (9%)	168	154-183 (9%)	16%
	HOLIDAY	13066	11944-14188 (9%)	161	147-175 (9%)	34%
	TOTAL	26713	25066-28359 (6%)	330	309-350 (6%)	25%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
9507	7652-11362	(20%)	.308	.245-.372 (21%)	290.02	117.37	All species
16	0-39	(143%)	.001	.000-.002 (148%)	0.49	0.20	Black bullhead
665	387-943	(42%)	.017	.008-.027 (54%)	20.29	8.21	Black crappie
852	393-1310	(54%)	.017	.001-.033 (92%)	25.98	10.51	Bluegill
15	0-36	(134%)	.000	.000-.001 (145%)	0.47	0.19	Carp
1027	769-1286	(25%)	.031	.020-.041 (34%)	31.34	12.68	Channel catfish
7	0-17	(151%)	.000	.000-.000 (150%)	0.21	0.09	Golden shiner
			****	NOT RECORDED ****			Grass pickerel
41	2-79	(94%)	.001	.000-.002 (99%)	1.25	0.50	Green sunfish
4	0-11	(223%)	.000	.000-.000 (223%)	0.11	0.04	Gizzard shad
144	43-245	(70%)	.004	.000-.007 (87%)	4.40	1.78	Largemouth bass
2	0-7	(278%)	.000	.000-.000 (278%)	0.05	0.02	Northern pike
24	0-62	(157%)	.000	.000-.001 (141%)	0.73	0.30	Redear sunfish
6710	5165-8256	(23%)	.237	.181-.293 (24%)	204.70	82.84	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
1444	1206-1681	(16%)	.052	.040-.064 (23%)	44.04	0.152	All species
8	0-22	(162%)	.000	.000-.001 (132%)	0.25	0.514	Black bullhead
110	68-151	(38%)	.003	.001-.005 (56%)	3.35	0.165	Black crappie
61	23-99	(62%)	.001	.000-.003 (94%)	1.86	0.072	Bluegill
5	0-11	(115%)	.000	.000-.000 (147%)	0.15	0.327	Carp
457	317-598	(31%)	.015	.008-.022 (44%)	13.95	0.445	Channel catfish
0	0-1	(211%)	.000	.000-.000 (209%)	0.01	0.052	Golden shiner
			****	NOT RECORDED ****			Grass pickerel
4	0-9	(104%)	.000	.000-.000 (120%)	0.14	0.111	Green sunfish
0	0-1	(223%)	.000	.000-.000 (226%)	0.01	0.074	Gizzard shad
108	50-166	(54%)	.003	.000-.006 (101%)	3.29	0.748	Largemouth bass
5	0-18	(257%)	.000	.000-.000 (257%)	0.15	4.930	Northern pike
6	0-15	(155%)	.000	.000-.000 (151%)	0.18	0.241	Redear sunfish
679	538-820	(21%)	.029	.020-.038 (32%)	20.71	0.101	White crappie

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

LB HARVESTED	95% CI		LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
3183	2659-3706	(16%)	.115	.088-.142 (23%)	39.29	0.335	All species
18	0-48	(162%)	.001	.000-.001 (132%)	0.22	1.133	Black bullhead
242	150-333	(38%)	.007	.003-.011 (56%)	2.98	0.364	Black crappie
134	51-218	(62%)	.003	.000-.006 (94%)	1.66	0.158	Bluegill
11	0-23	(115%)	.000	.000-.000 (147%)	0.13	0.721	Carp
1008	699-1318	(31%)	.033	.019-.048 (44%)	12.45	0.982	Channel catfish
1	0-2	(211%)	.000	.000-.000 (209%)	0.01	0.116	Golden shiner
			****	NOT RECORDED ****			Grass pickerel
10	0-20	(104%)	.000	.000-.001 (120%)	0.12	0.245	Green sunfish
0	0-2	(223%)	.000	.000-.000 (226%)	0.01	0.163	Gizzard shad
238	110-365	(54%)	.007	.000-.014 (101%)	2.93	1.650	Largemouth bass
11	0-39	(257%)	.000	.000-.001 (257%)	0.13	10.870	Northern pike
13	0-33	(155%)	.000	.000-.000 (151%)	0.16	0.531	Redear sunfish
1497	1186-1808	(21%)	.064	.043-.084 (32%)	18.48	0.223	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	
33945	30814-37076	(9%)	1.216	1.059-1.373	(13%)	1035.54	419.08	All species
113	53-173	(53%)	.004	.000-.007	(94%)	3.44	1.39	Black bullhead
748	466-1029	(38%)	.021	.010-.031	(50%)	22.81	9.23	Black crappie
11282	9933-12631	(12%)	.300	.248-.352	(17%)	344.18	139.29	Bluegill
119	43-194	(64%)	.004	.000-.008	(99%)	3.62	1.46	Carp
2358	1835-2881	(22%)	.083	.065-.102	(22%)	71.93	29.11	Channel catfish
208	76-339	(63%)	.008	.000-.021	(153%)	6.33	2.56	Golden shiner
3	0-9	(226%)	.000	.000-.000	(226%)	0.08	0.03	Grass pickerel
813	361-1265	(56%)	.025	.004-.046	(83%)	24.80	10.03	Green sunfish
115	0-261	(126%)	.008	.000-.019	(137%)	3.52	1.42	Gizzard shad
4167	3591-4742	(14%)	.203	.151-.256	(26%)	127.11	51.44	Largemouth bass
13	0-27	(112%)	.000	.000-.000	(107%)	0.39	0.16	Northern pike
86	0-194	(124%)	.003	.000-.006	(141%)	2.63	1.07	Redear sunfish
13922	11702-16141	(16%)	.557	.414-.699	(26%)	424.70	171.87	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	
4333	3886-4780	(10%)	.185	.157-.213	(15%)	132.18	0.128	All species
36	15-57	(58%)	.001	.000-.002	(74%)	1.10	0.321	Black bullhead
123	78-168	(36%)	.004	.001-.007	(70%)	3.75	0.164	Black crappie
724	633-816	(13%)	.020	.016-.024	(21%)	22.10	0.064	Bluegill
210	27-392	(87%)	.006	.001-.011	(88%)	6.40	1.778	Carp
769	595-944	(23%)	.031	.023-.040	(28%)	23.47	0.326	Channel catfish
10	4-16	(59%)	.000	.000-.001	(136%)	0.31	0.050	Golden shiner
0	0-0	(226%)	.000	.000-.000	(226%)	0.00	0.025	Grass pickerel
39	22-57	(45%)	.001	.000-.002	(59%)	1.19	0.048	Green sunfish
14	0-35	(152%)	.001	.000-.002	(174%)	0.42	0.120	Gizzard shad
1280	1060-1499	(17%)	.070	.047-.093	(33%)	39.04	0.307	Largemouth bass
6	0-19	(204%)	.000	.000-.000	(216%)	0.19	0.525	Northern pike
12	0-24	(98%)	.000	.000-.001	(105%)	0.37	0.141	Redear sunfish
1109	928-1291	(16%)	.050	.038-.062	(24%)	33.84	0.080	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
9553	8566-10539 (10%)	.408	.347-.470 (15%)	117.93	0.281	All species
79	33-125 (58%)	.002	.001-.004 (74%)	0.98	0.708	Black bullhead
271	172-370 (36%)	.009	.003-.016 (70%)	3.34	0.363	Black crappie
1597	1395-1798 (13%)	.043	.034-.053 (21%)	19.71	0.142	Bluegill
463	60-865 (87%)	.013	.002-.025 (88%)	5.71	3.920	Carp
1696	1312-2080 (23%)	.069	.050-.088 (28%)	20.94	0.720	Channel catfish
23	9-36 (59%)	.001	.000-.002 (136%)	0.28	0.110	Golden shiner
0	0-0 (223%)	.000	.000-.000 (226%)	0.00	0.055	Grass pickerel
86	47-125 (45%)	.002	.001-.003 (59%)	1.06	0.106	Green sunfish
30	0-77 (152%)	.002	.000-.005 (174%)	0.38	0.265	Gizzard shad
2822	2338-3305 (17%)	.154	.104-.205 (33%)	34.83	0.677	Largemouth bass
14	0-42 (204%)	.000	.000-.001 (216%)	0.17	1.157	Northern pike
27	1-53 (98%)	.001	.000-.001 (105%)	0.33	0.310	Redear sunfish
2445	2045-2845 (16%)	.111	.084-.137 (24%)	30.19	0.176	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	4.0	3.6-4.3	(9%)	0.9	8.0	164
SHORE	2.1	1.9-2.2	(7%)	0.5	7.1	281
BOAT & SHORE	2.8	2.6-2.9	(6%)	0.5	8.0	445
MILES TRAVELED	15.8	15.2-16.3	(3%)	1	180	1652
SUCCESS RATING (1-10)	3.2	3.0-3.3	(5%)	1	10	1131

*176 samples were from split interviews of completed trips.
22.7% of all 1959 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 44 out of 1959 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	177	227	30	2						
SHORE INTERVIEWS	503	642	253	87	26	8		2		2

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

715 (36.5%)	ANY	All species
2 (0.1%)	BLC	Black crappie
77 (3.9%)	BLG	Bluegill
31 (1.6%)	CAP	Carp
455 (23.2%)	CCF	Channel catfish
344 (17.6%)	CRP	Crappie spp.
333 (17.0%)	LMB	Largemouth 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	816	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	811	4	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST	808	3	2	1	1	-	1	-	-	-	-	-	-	-	-	-
RELEASE	815	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	794	17	4	-	-	-	-	-	-	-	1	-	-	-	-	-
RELEASE	597	110	46	27	10	7	8	6	2	-	2	-	1	-	-	-
Carp																
HARVEST	816	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	807	8	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	792	15	8	1	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	750	48	8	3	2	3	1	1	-	-	-	-	-	-	-	-
Green sunfish																
HARVEST	815	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	811	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gizzard shad																
HARVEST	816	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	810	4	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	811	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	595	131	44	16	13	7	2	3	-	1	3	-	-	-	-	1
Northern pike																
HARVEST	816	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	814	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redear sunfish																
HARVEST	815	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	815	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	775	9	3	5	11	2	-	2	-	1	-	-	1	-	-	7
RELEASE	702	49	17	5	11	-	8	5	6	1	5	-	2	2	-	3

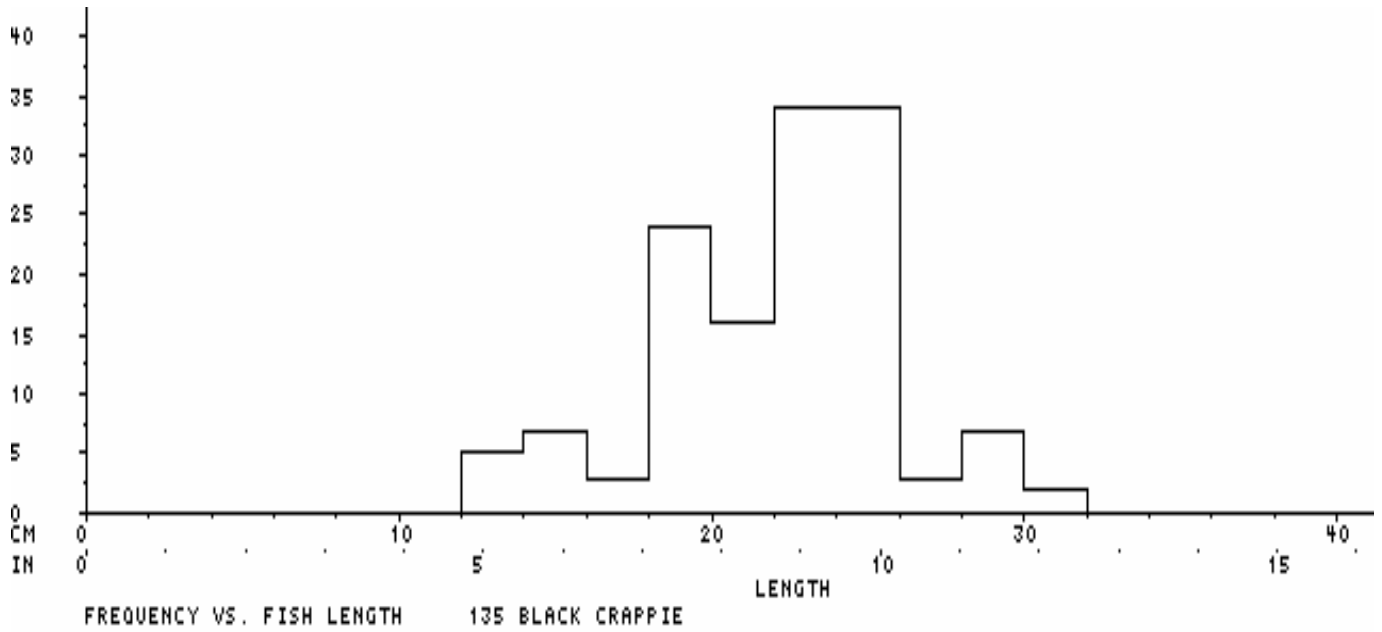


Figure 1. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

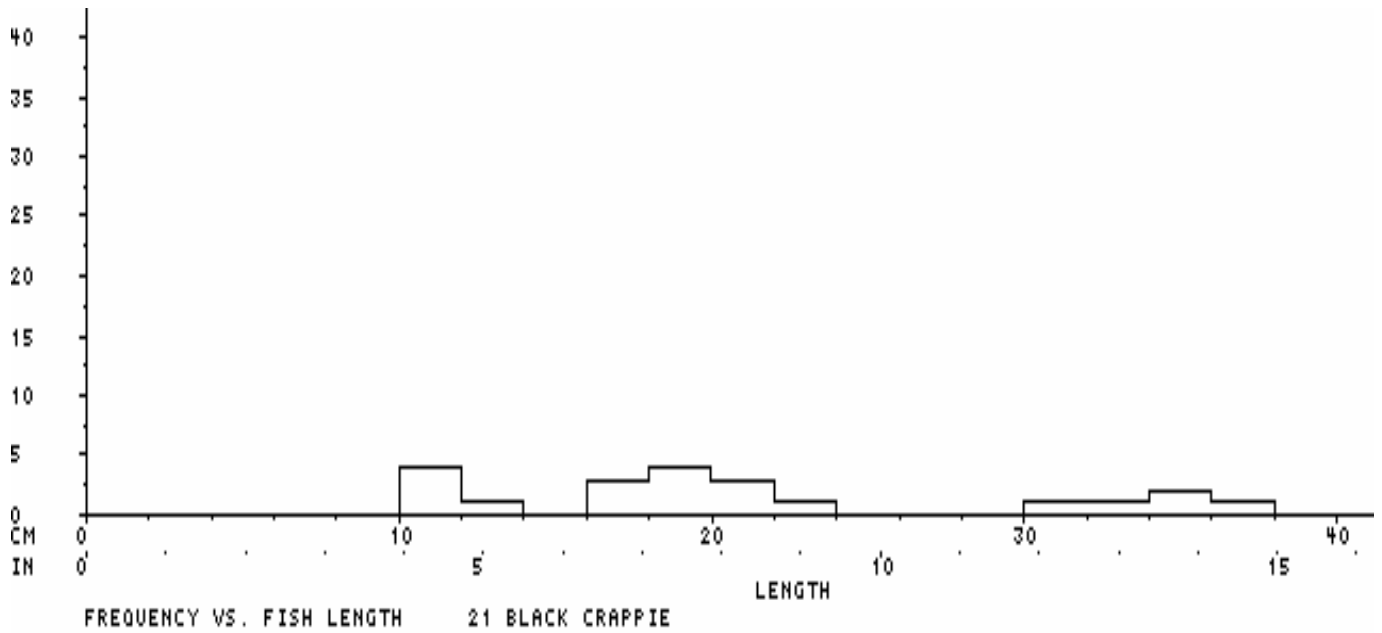


Figure 2. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

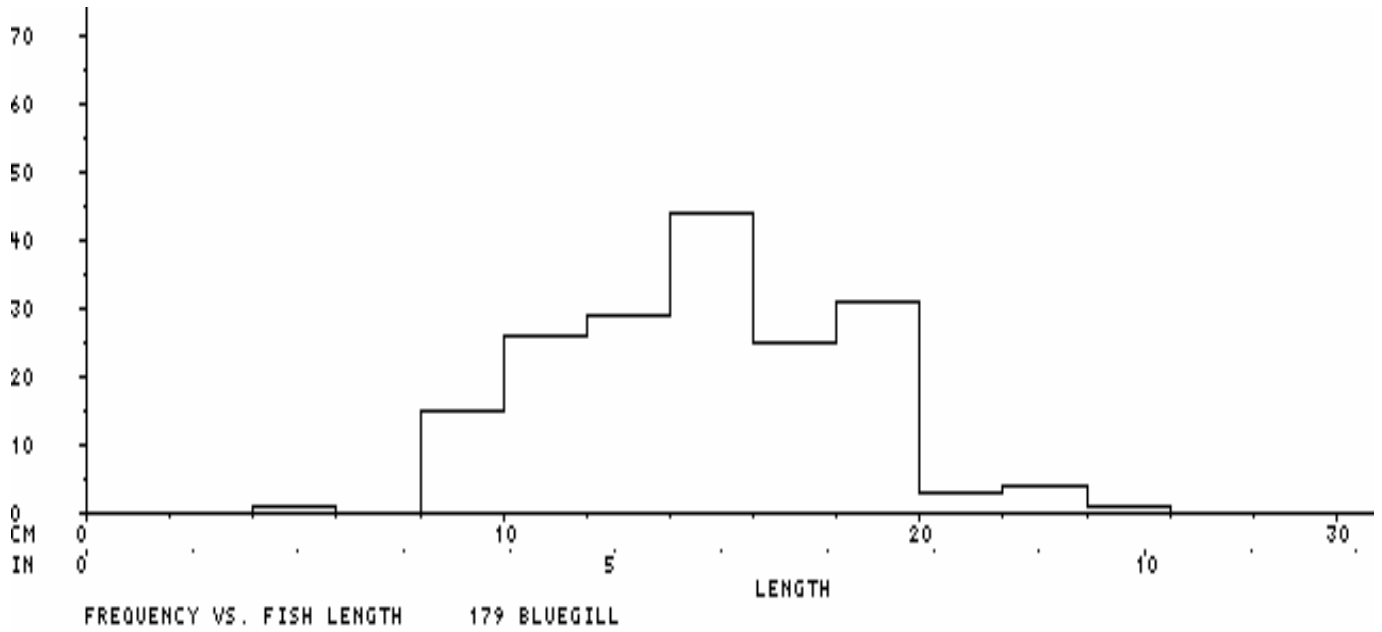


Figure 3. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

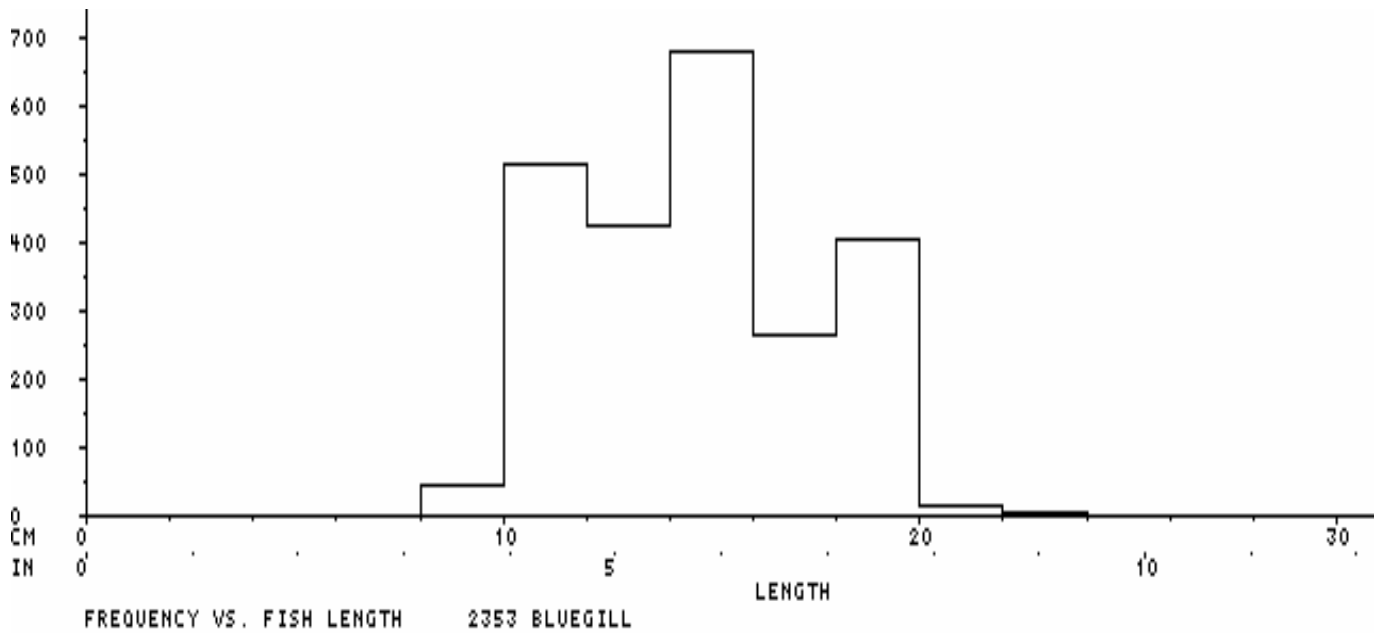


Figure 4. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers. Note the difference in scale from Figure 3.

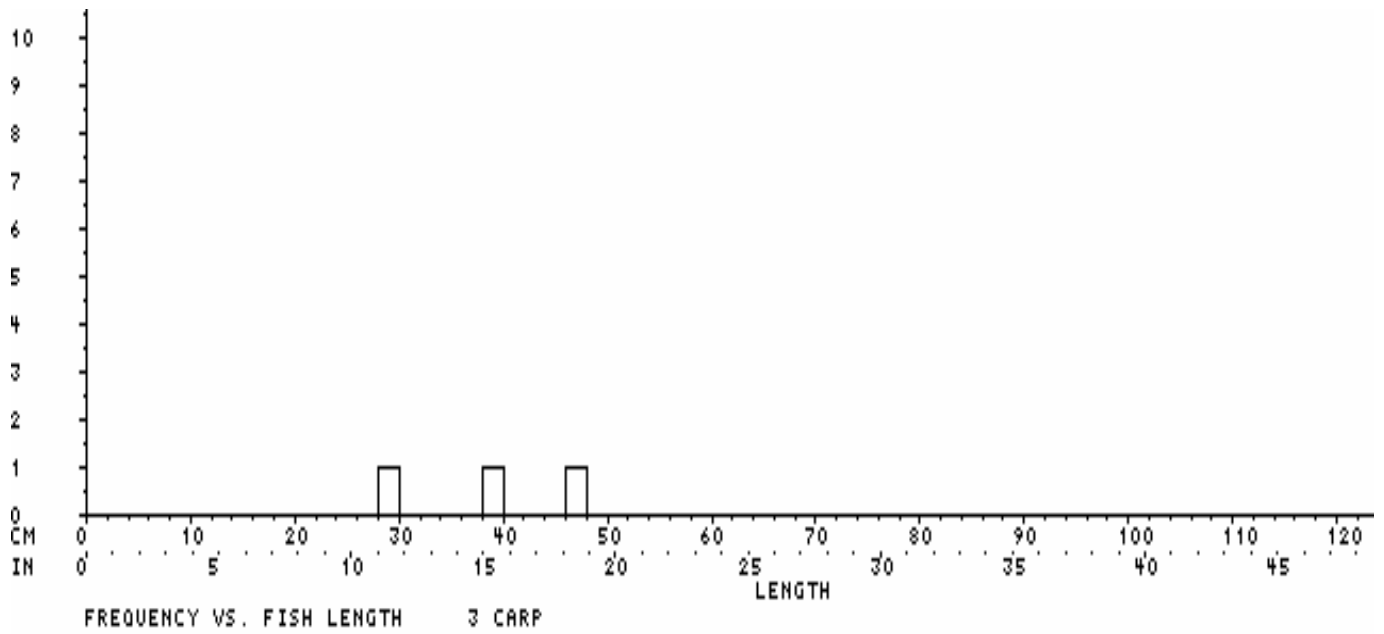


Figure 5. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp harvested by all anglers.

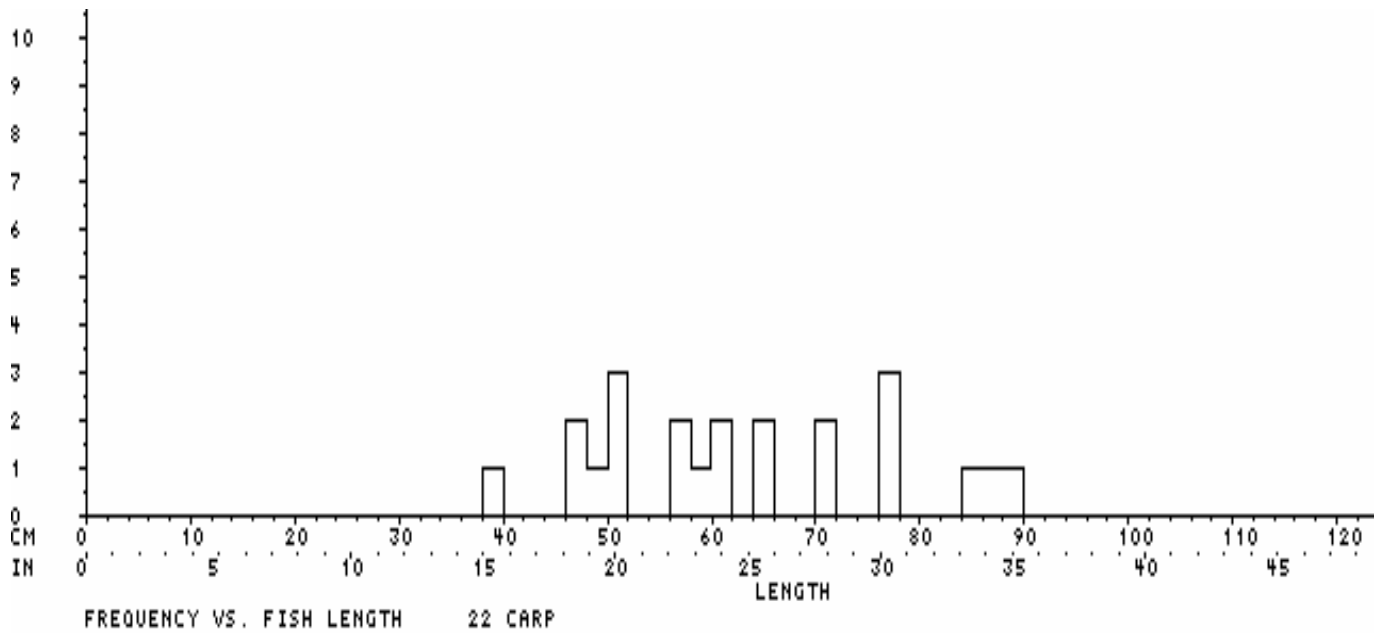


Figure 6. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp released by all anglers.

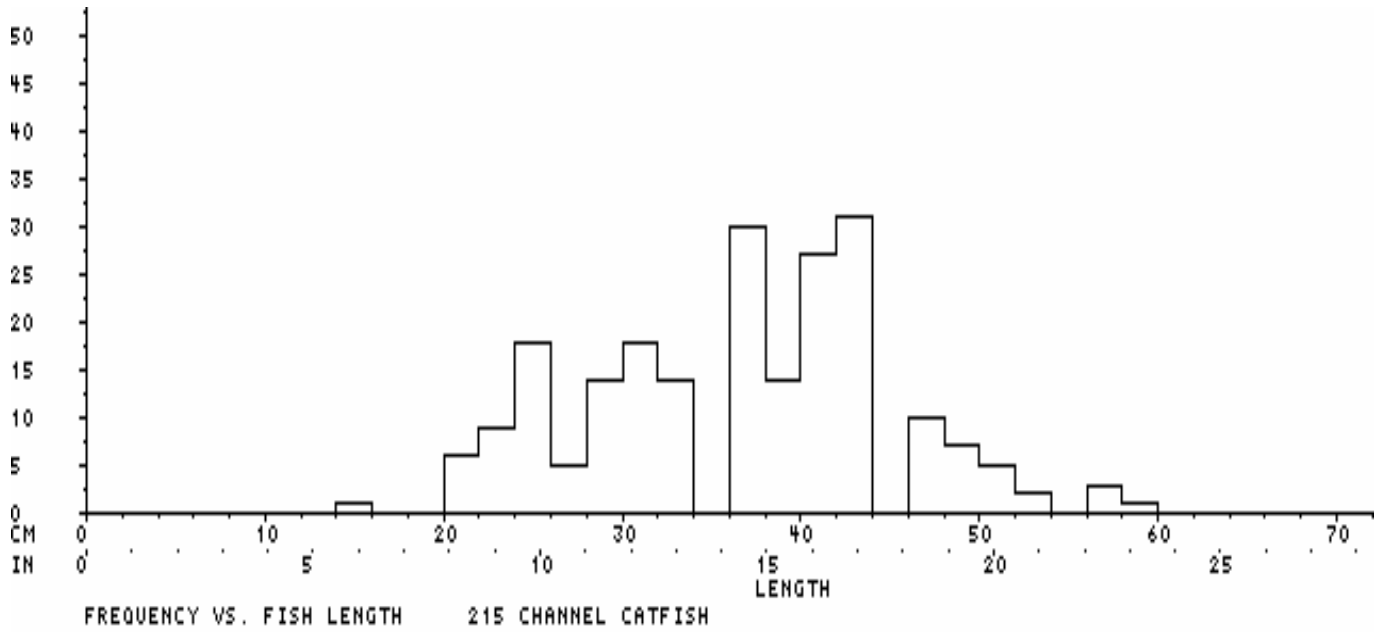


Figure 7. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

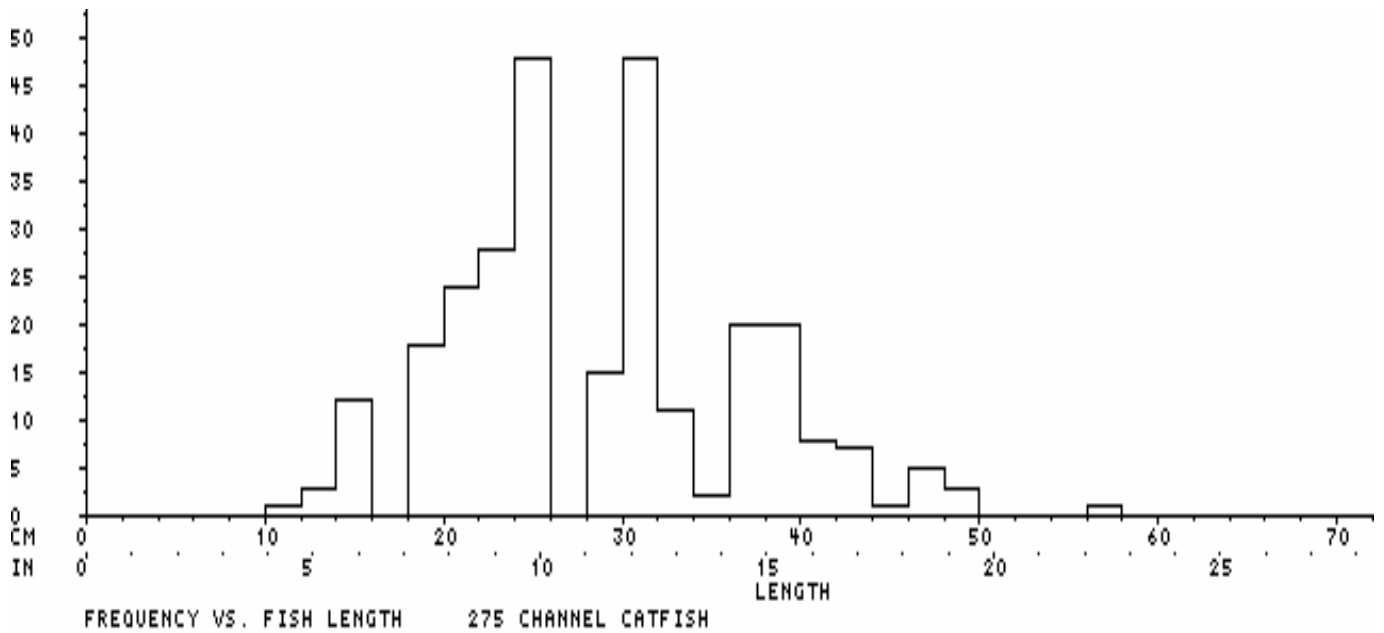


Figure 8. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

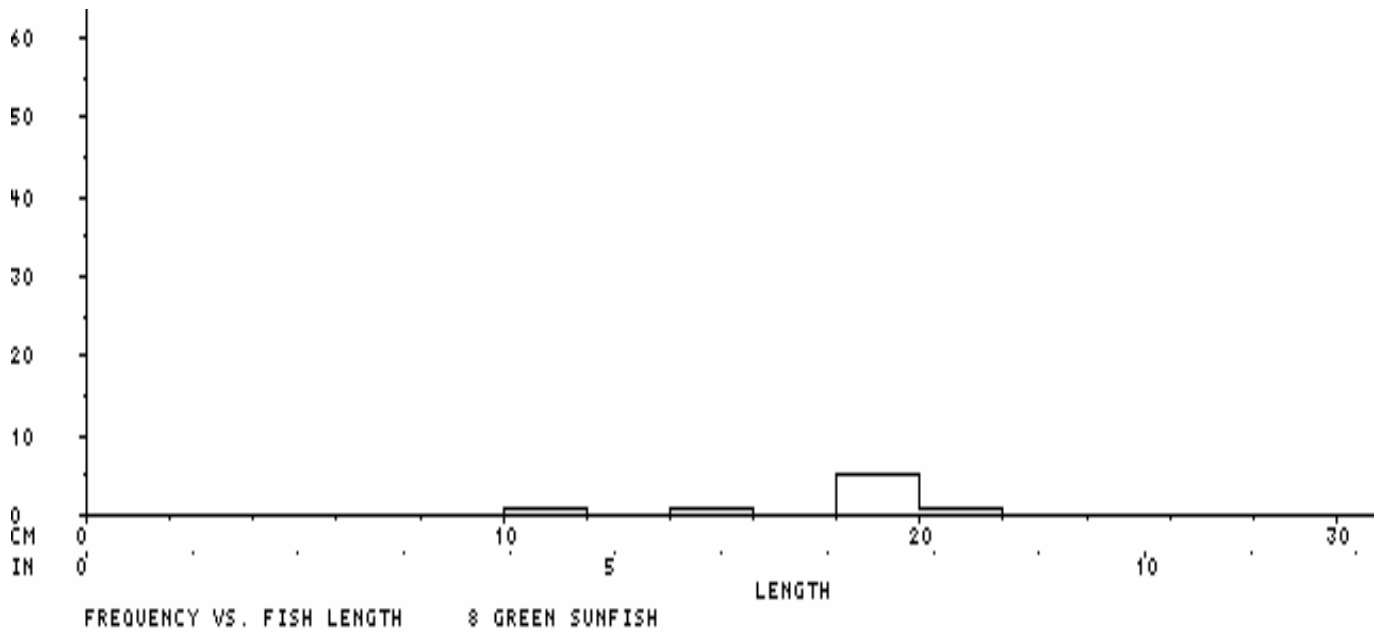


Figure 9. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of green sunfish harvested by all anglers.

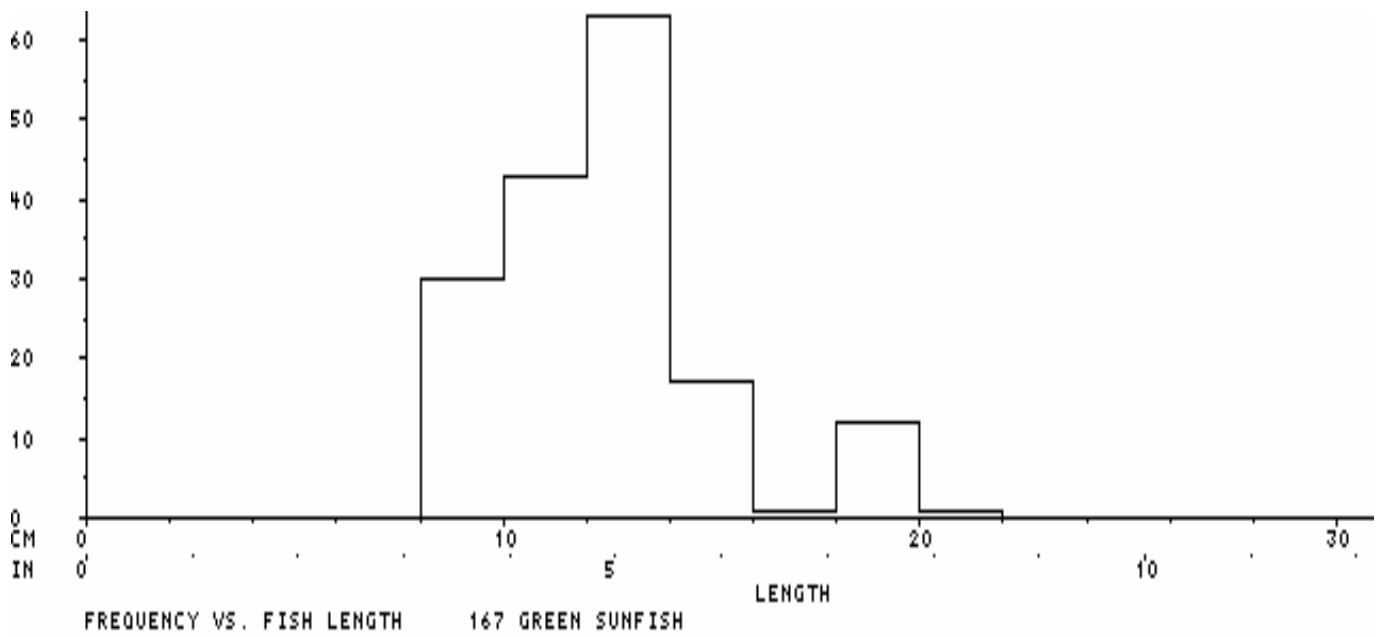


Figure 10. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of green sunfish released by all anglers.

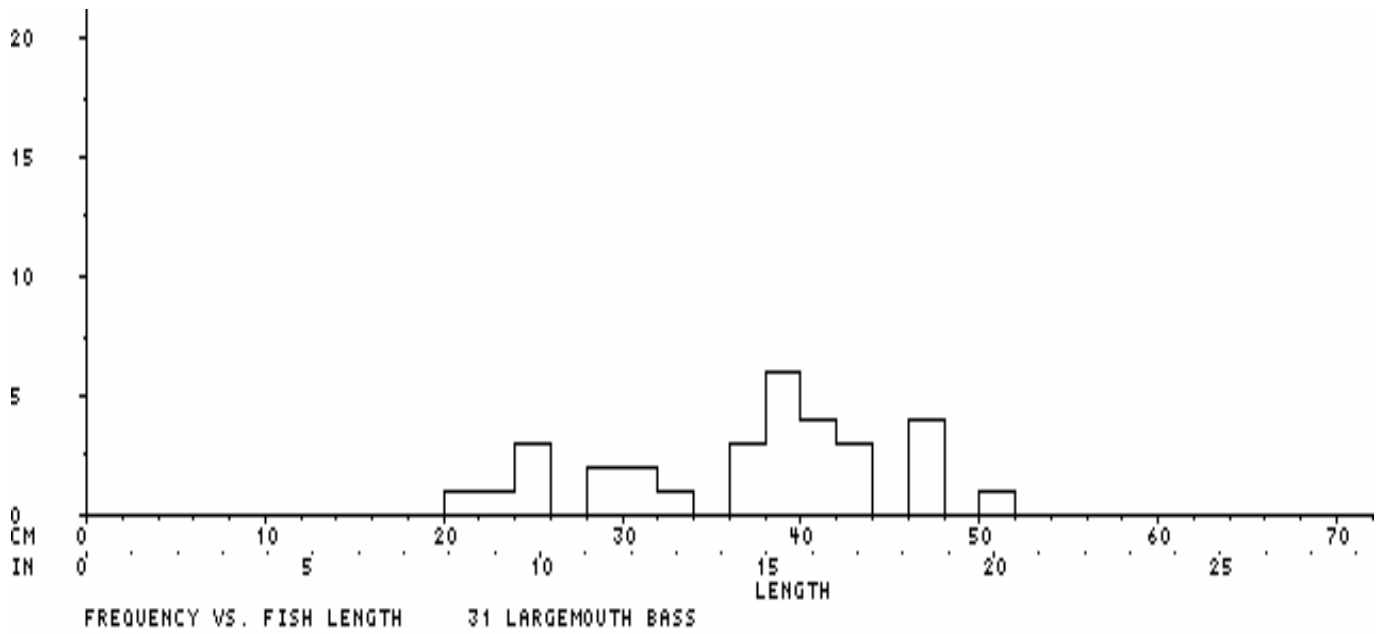


Figure 11. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

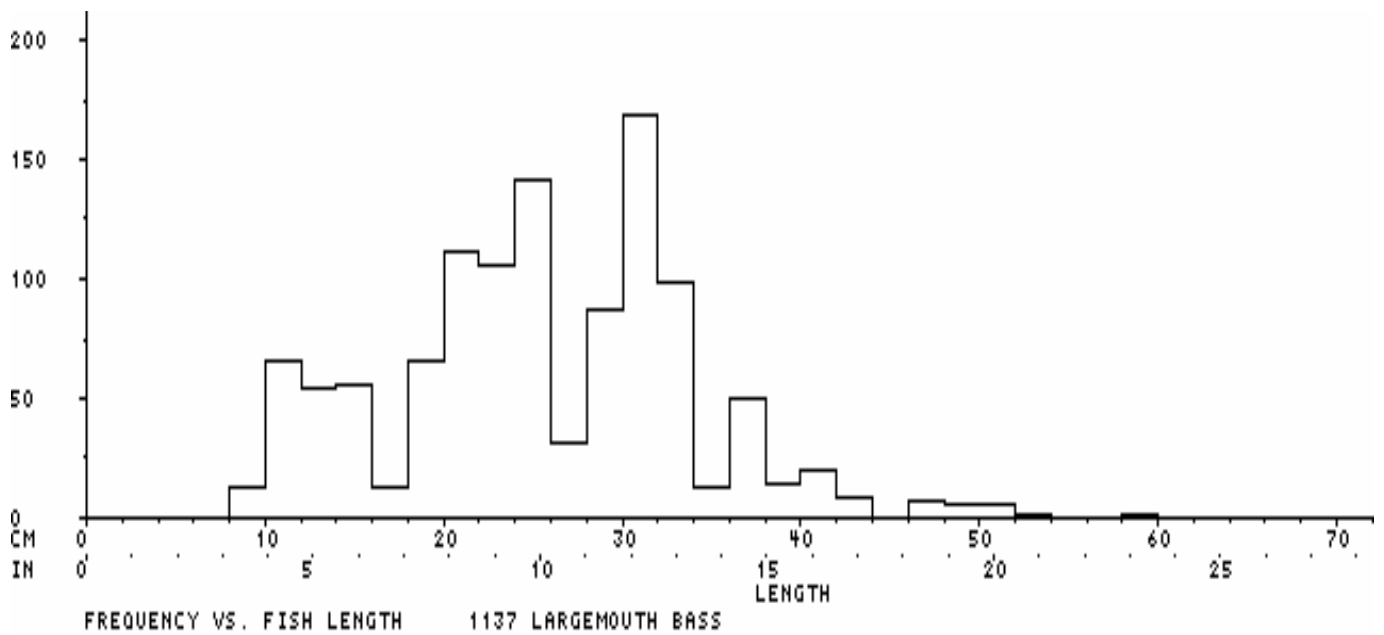


Figure 12. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 11.

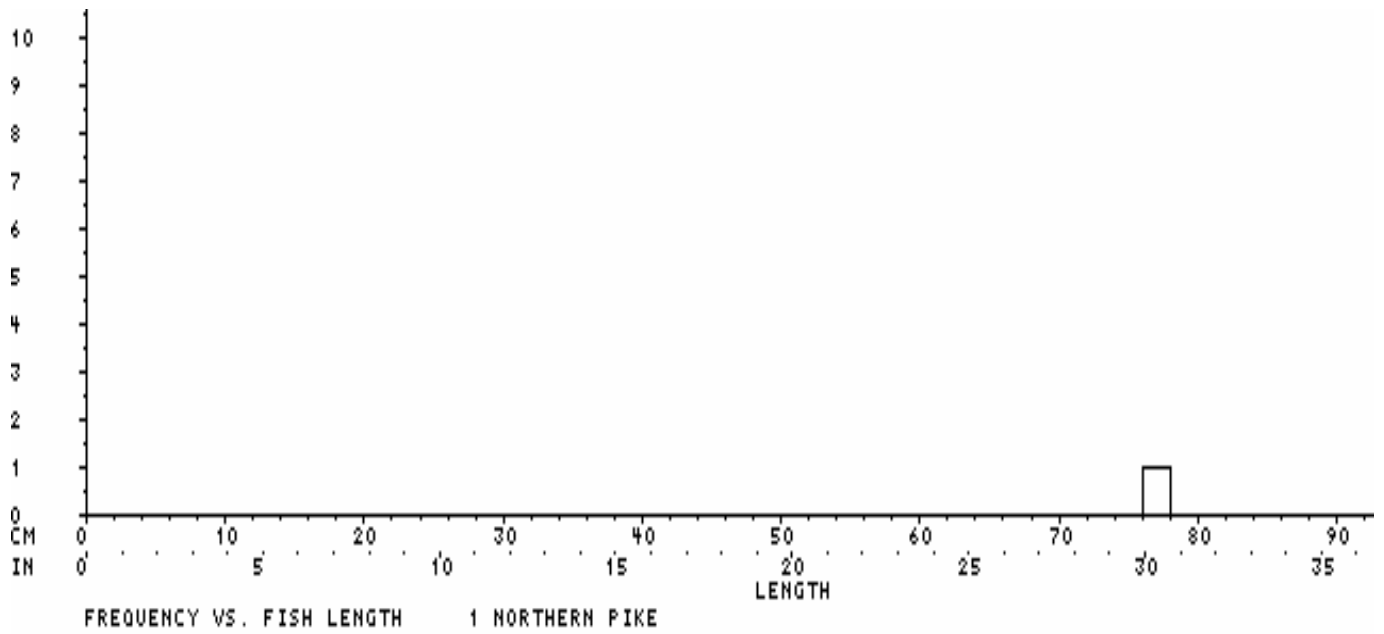


Figure 13. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of northern pike harvested by all anglers.

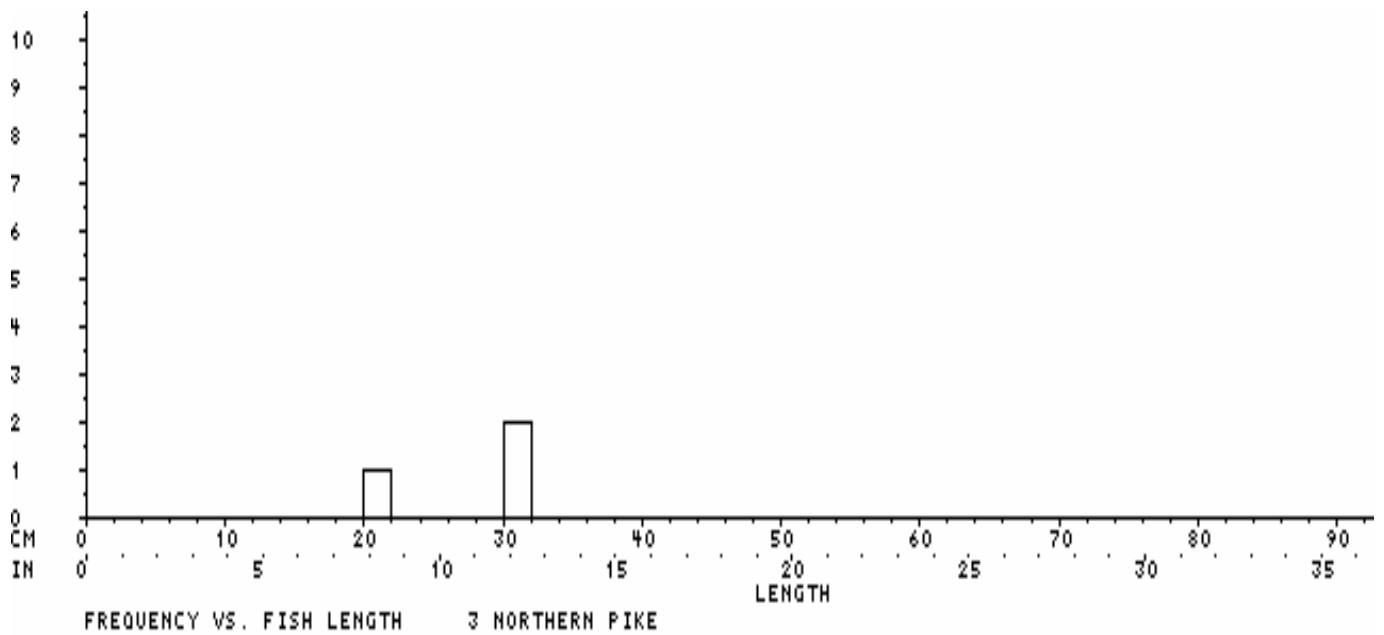


Figure 14. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of northern pike released by all anglers.

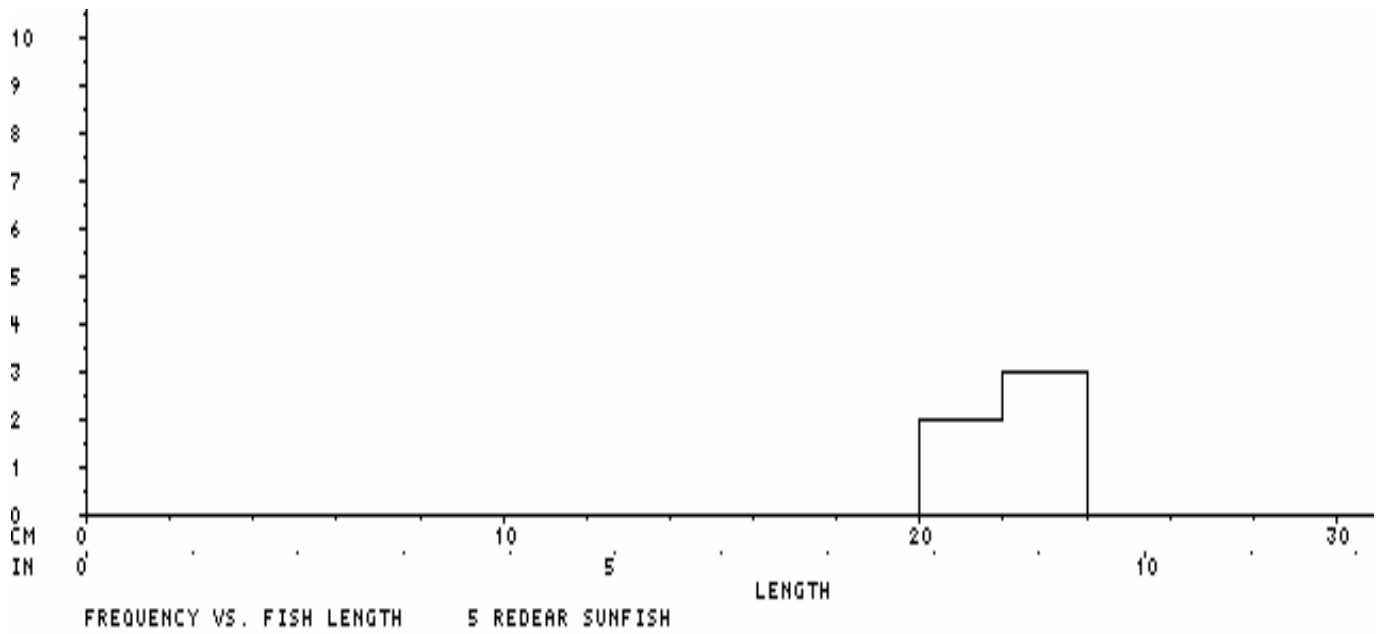


Figure 15. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of reard sunfish harvested by all anglers.

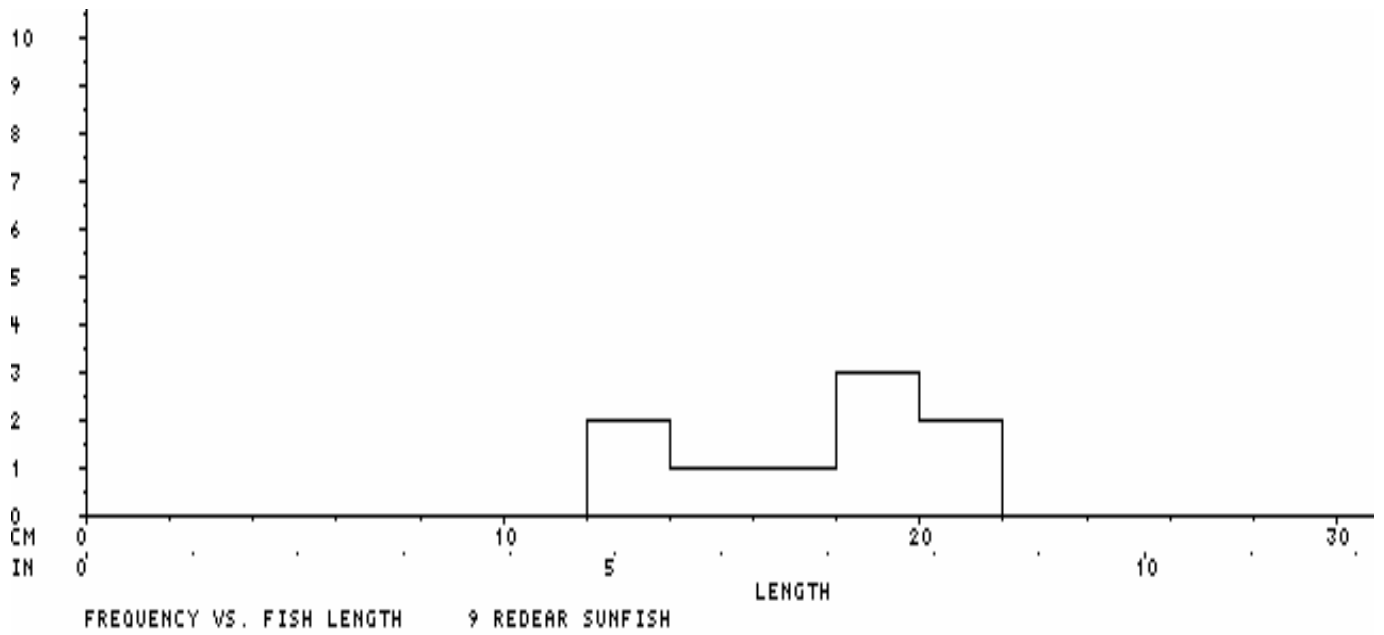


Figure 16. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of reard sunfish released by all anglers.

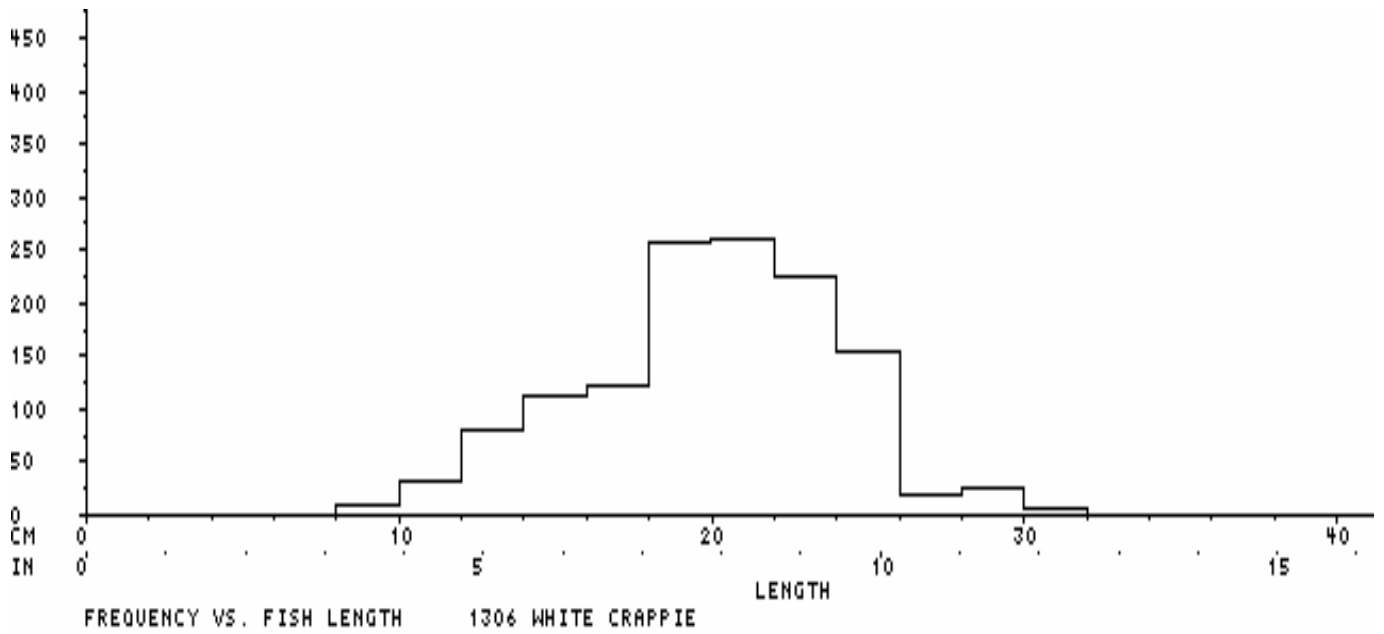


Figure 17. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

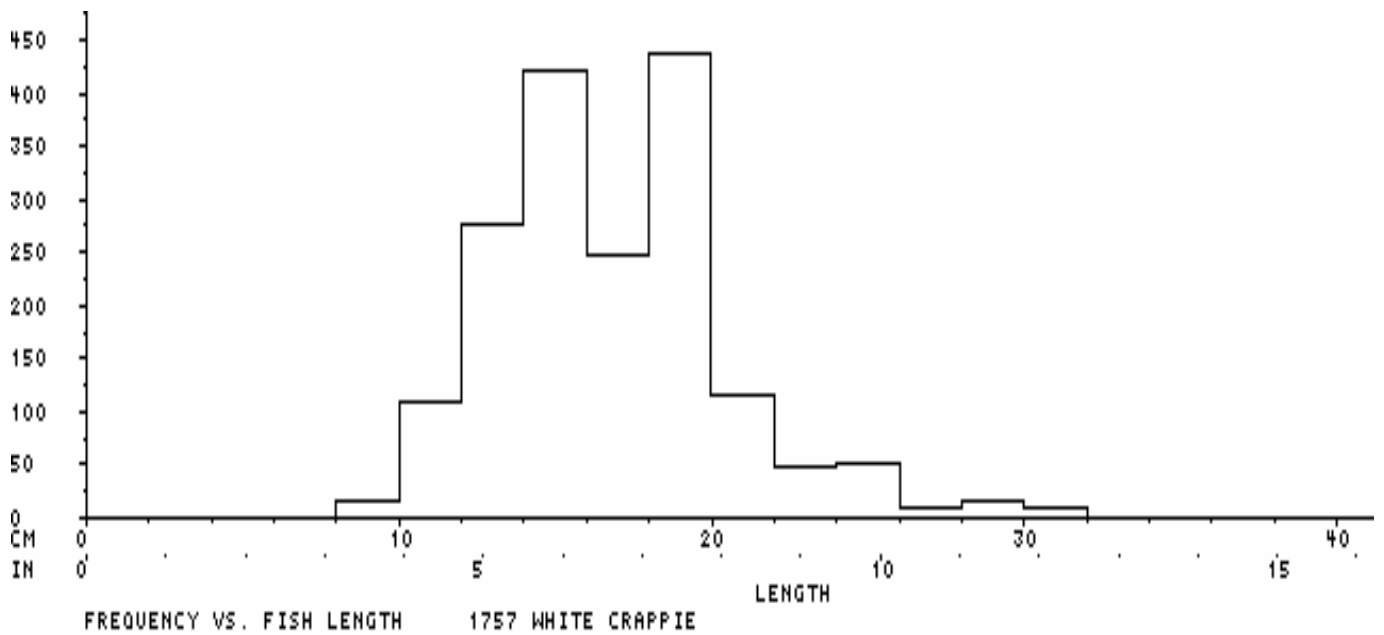


Figure 18. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.