

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

1999 HILLSBORO OLD CITY LAKE
 100 ACRES
 REGION 4, DISTRICT 15

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: 301/693 = 43.4%

NUMBER OF INTERVIEWS: 704

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	2143	1753-2533 (18%)	21	17-25 (18%)	19%
	HOLIDAY	2740	2322-3159 (15%)	27	23-31 (15%)	37%
	TOTAL	4883	4311-5455 (12%)	49	43-54 (12%)	29%
SHORE	WEEKDAY	1464	1114-1815 (24%)	15	11-18 (24%)	16%
	HOLIDAY	1505	1249-1762 (17%)	15	12-18 (17%)	34%
	TOTAL	2969	2535-3404 (15%)	30	25-34 (15%)	25%
BOAT & SHORE	WEEKDAY	3607	3083-4131 (15%)	36	31-41 (15%)	18%
	HOLIDAY	4246	3755-4736 (12%)	42	37-47 (12%)	36%
	TOTAL	7852	7134-8570 (9%)	78	71-85 (9%)	27%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
3213	2187-4239	(32%)	.259	.195-.322 (25%)	79.16	32.03	All species
19	0-49	(161%)	.001	.000-.002 (162%)	0.46	0.19	Black bullhead
25	0-83	(238%)	.001	.000-.004 (233%)	0.61	0.25	Black crappie
766	185-1346	(76%)	.057	.015-.099 (74%)	18.86	7.63	Bluegill
1466	1160-1772	(21%)	.155	.115-.195 (26%)	36.12	14.62	Channel catfish
			****	NOT RECORDED ****			Freshwater drum
61	19-102	(68%)	.005	.000-.012 (130%)	1.50	0.61	Largemouth bass
4	0-13	(245%)	.000	.000-.000 (245%)	0.09	0.04	Warmouth
742	0-1593	(115%)	.032	.000-.064 (100%)	18.27	7.39	White crappie
3	0-12	(318%)	.000	.000-.001 (318%)	0.07	0.03	Yellow bullhead
129	14-243	(89%)	.007	.000-.016 (115%)	3.17	1.28	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
983	742-1224	(24%)	.115	.064-.167 (45%)	24.22	0.306	All species
4	0-9	(147%)	.000	.000-.000 (148%)	0.09	0.211	Black bullhead
3	0-6	(127%)	.000	.000-.000 (126%)	0.07	0.117	Black crappie
50	0-104	(107%)	.004	.001-.007 (82%)	1.24	0.066	Bluegill
850	619-1080	(27%)	.107	.056-.159 (48%)	20.93	0.580	Channel catfish
			****	NOT RECORDED ****			Freshwater drum
30	4-55	(86%)	.001	.000-.003 (96%)	0.73	0.496	Largemouth bass
0	0-0	(236%)	.000	.000-.000 (245%)	0.00	0.037	Warmouth
36	0-74	(104%)	.002	.000-.005 (155%)	0.89	0.049	White crappie
0	0-1	(430%)	.000	.000-.000 (430%)	0.00	0.092	Yellow bullhead
10	0-22	(119%)	.001	.000-.002 (133%)	0.25	0.079	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
2167	1636-2698	(24%)	.254	.140-.369 (45%)	21.61	0.674	All species
8	0-21	(147%)	.000	.000-.001 (148%)	0.08	0.465	Black bullhead
6	0-14	(127%)	.000	.000-.001 (126%)	0.06	0.259	Black crappie
111	0-229	(107%)	.008	.001-.015 (82%)	1.11	0.145	Bluegill
1873	1364-2382	(27%)	.237	.123-.351 (48%)	18.68	1.278	Channel catfish
			****	NOT RECORDED ****			Freshwater drum
66	9-122	(86%)	.003	.000-.006 (96%)	0.65	1.094	Largemouth bass
0	0-1	(236%)	.000	.000-.000 (245%)	0.00	0.081	Warmouth
80	0-163	(104%)	.004	.000-.011 (155%)	0.80	0.108	White crappie
0	0-2	(318%)	.000	.000-.000 (318%)	0.00	0.203	Yellow bullhead
22	0-49	(119%)	.002	.000-.004 (133%)	0.22	0.174	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
8368	6867-9868	(18%)	.616	.509-.724 (17%)	206.15	83.43	All species
38	5-71	(87%)	.002	.000-.003 (83%)	0.94	0.38	Black bullhead
74	14-134	(81%)	.005	.000-.009 (101%)	1.83	0.74	Black crappie
1945	1124-2767	(42%)	.158	.087-.230 (45%)	47.93	19.40	Bluegill
2090	1683-2497	(19%)	.207	.156-.258 (25%)	51.49	20.84	Channel catfish
20	0-46	(131%)	.004	.000-.010 (198%)	0.49	0.20	Freshwater drum
1317	838-1796	(36%)	.092	.056-.127 (39%)	32.44	13.13	Largemouth bass
51	0-152	(200%)	.003	.000-.008 (221%)	1.25	0.51	Warmouth
2333	1312-3354	(44%)	.113	.058-.167 (48%)	57.47	23.26	White crappie
3	0-12	(318%)	.000	.000-.001 (318%)	0.07	0.03	Yellow bullhead
497	256-738	(48%)	.034	.013-.056 (63%)	12.25	4.96	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
1558	1249-1867	(20%)	.157	.105-.210 (33%)	38.38	0.186	All species
7	1-13	(90%)	.000	.000-.000 (93%)	0.16	0.174	Black bullhead
4	1-8	(87%)	.000	.000-.001 (117%)	0.11	0.060	Black crappie
87	33-141	(62%)	.007	.003-.010 (48%)	2.15	0.045	Bluegill
904	669-1139	(26%)	.112	.060-.164 (46%)	22.27	0.433	Channel catfish
19	0-47	(141%)	.003	.000-.007 (163%)	0.48	1.019	Freshwater drum
435	235-636	(46%)	.029	.016-.043 (45%)	10.72	0.331	Largemouth bass
3	0-9	(207%)	.000	.000-.001 (236%)	0.08	0.062	Warmouth
74	34-113	(54%)	.004	.001-.007 (79%)	1.81	0.032	White crappie
0	0-1	(430%)	.000	.000-.000 (430%)	0.00	0.092	Yellow bullhead
24	8-40	(68%)	.002	.000-.003 (75%)	0.59	0.048	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
3435	2754-4115	(20%)	.347	.231-.463 (33%)	34.24	0.410	All species
15	1-28	(90%)	.001	.000-.001 (93%)	0.15	0.384	Black bullhead
10	1-18	(87%)	.001	.000-.002 (117%)	0.10	0.132	Black crappie
193	73-312	(62%)	.015	.008-.022 (48%)	1.92	0.099	Bluegill
1993	1475-2512	(26%)	.247	.133-.362 (46%)	19.87	0.954	Channel catfish
43	0-103	(141%)	.006	.000-.015 (163%)	0.43	2.247	Freshwater drum
959	517-1401	(46%)	.065	.035-.094 (45%)	9.56	0.729	Largemouth bass
7	0-21	(207%)	.000	.000-.001 (236%)	0.07	0.136	Warmouth
162	75-250	(54%)	.009	.002-.016 (79%)	1.62	0.070	White crappie
0	0-2	(318%)	.000	.000-.000 (318%)	0.00	0.203	Yellow bullhead
53	17-89	(68%)	.004	.001-.007 (75%)	0.53	0.106	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	2.8	2.6-3.0	(7%)	0.2	7.8	233
SHORE	1.5	1.3-1.8	(15%)	0.2	4.7	74
BOAT & SHORE	2.5	2.3-2.7	(7%)	0.2	7.8	307
MILES TRAVELED	24.7	16.8-32.7	(32%)	1	2000	586
SUCCESS RATING (1-10)	3.4	3.2-3.6	(6%)	1	10	584

*77 samples were from split interviews of completed trips.

49.0% of all 627 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 6 out of 627 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	131	163	22	6						
SHORE INTERVIEWS	132	130	28	12	3					

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

32 (5.1%)	ANY	All species
43 (6.9%)	BLG	Bluegill
353 (56.3%)	CCF	Channel catfish
75 (12.0%)	CRP	Crappie spp.
124 (19.8%)	LMB	Largemouth bass

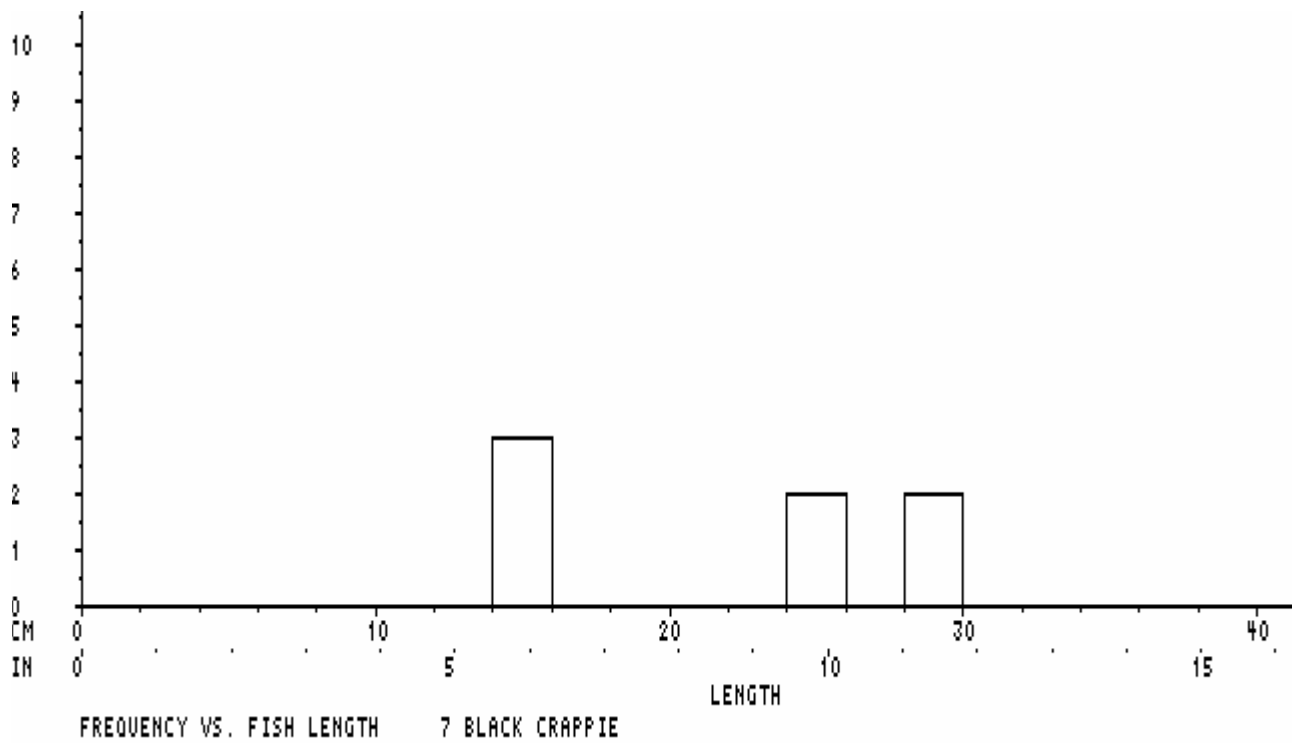


Figure 1. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

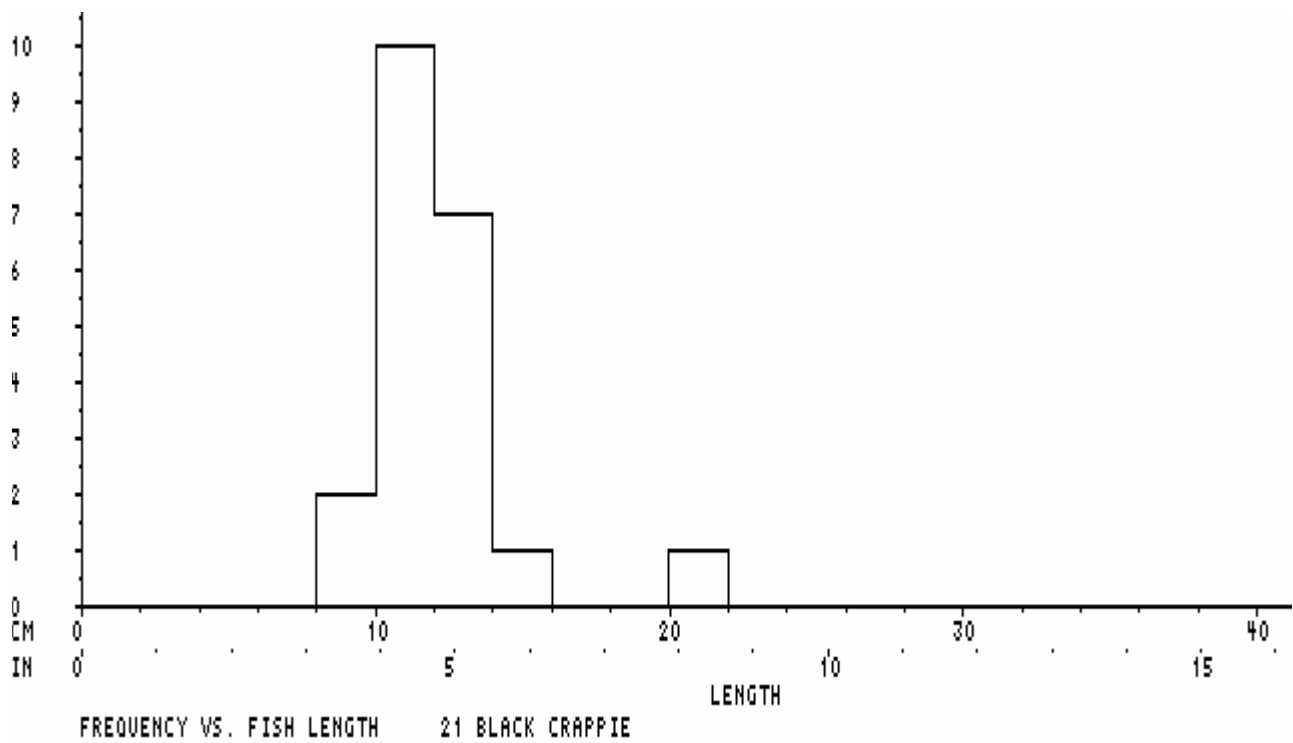


Figure 2. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

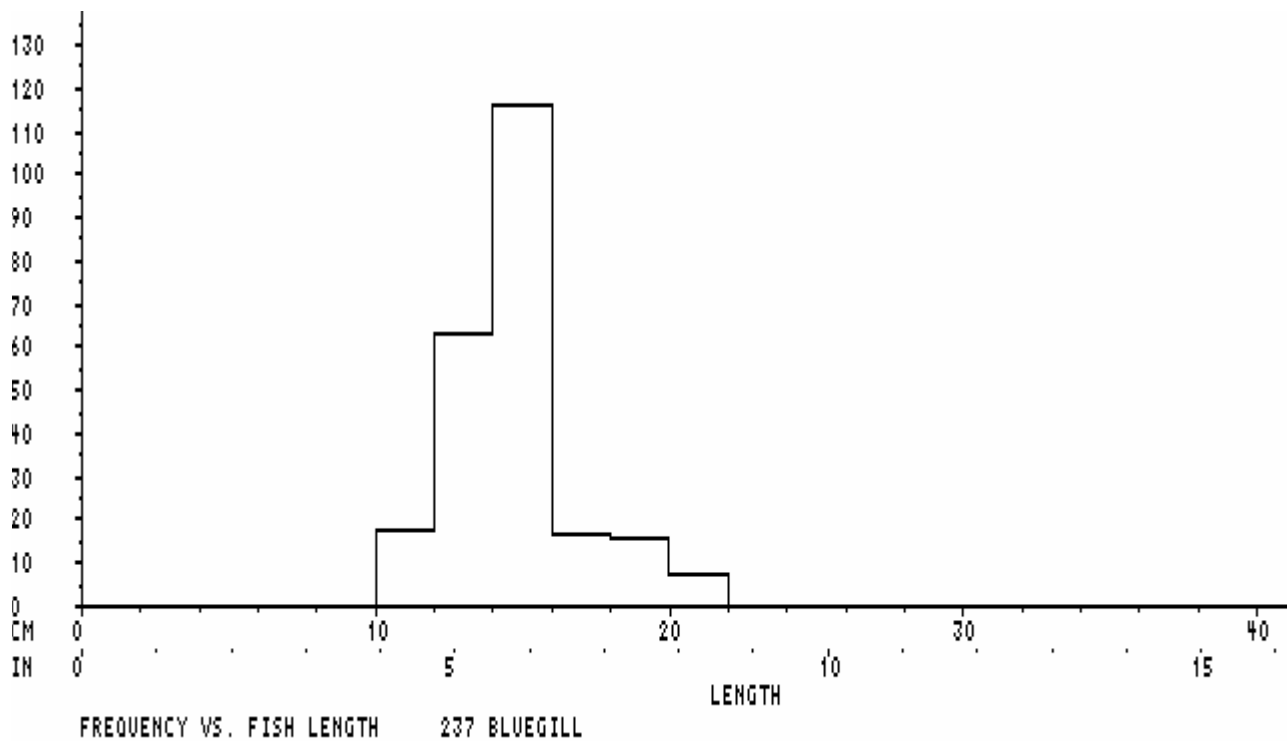


Figure 3. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

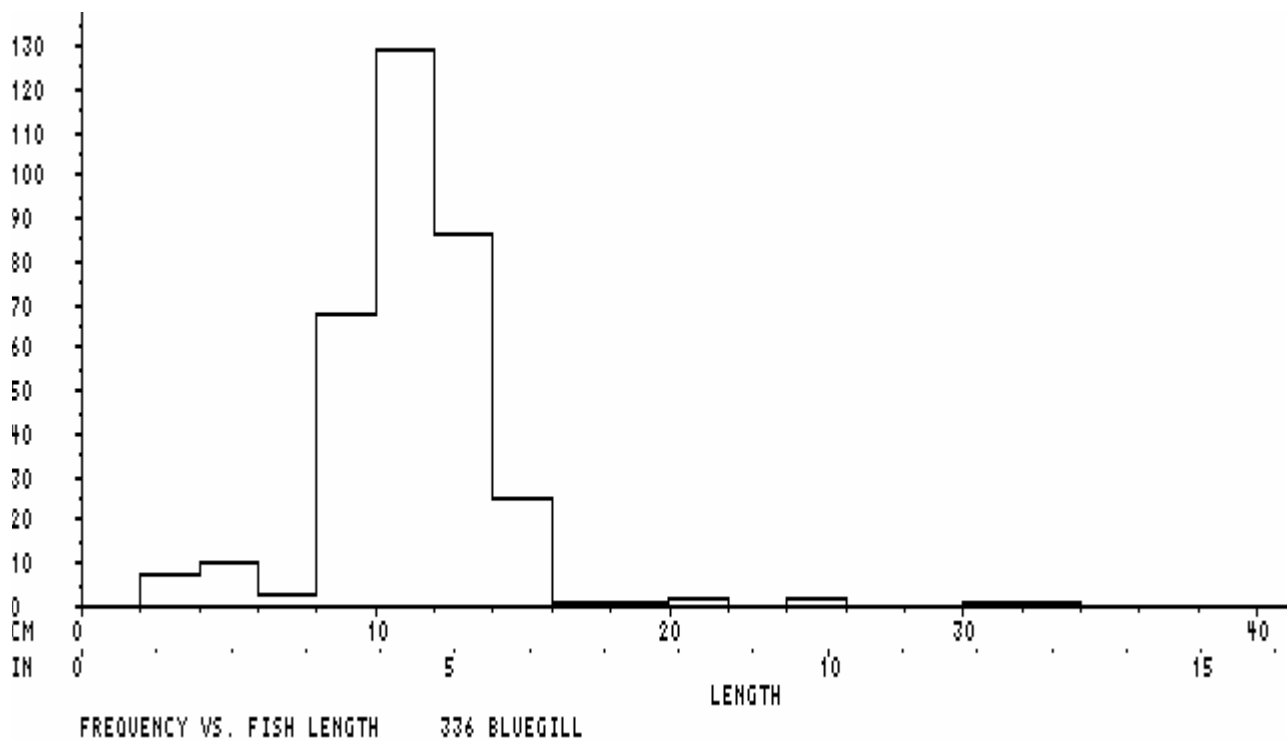


Figure 4. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

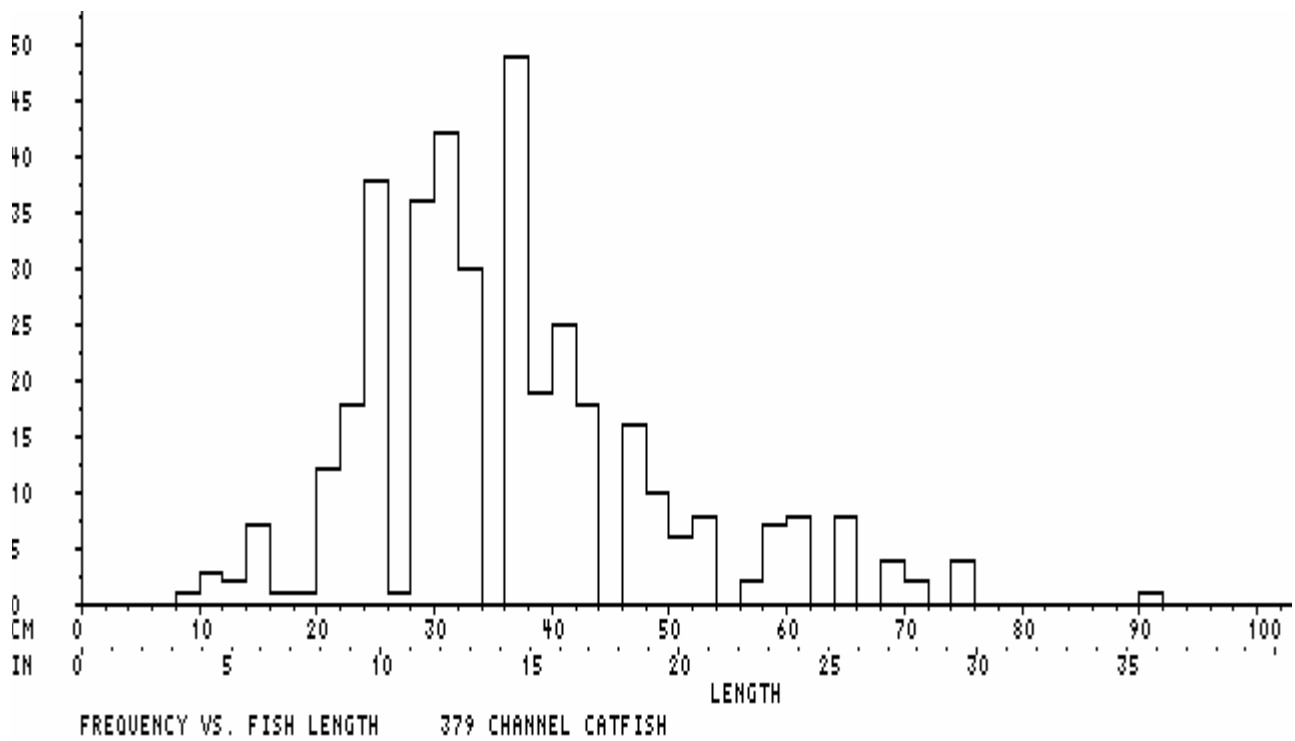


Figure 5. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

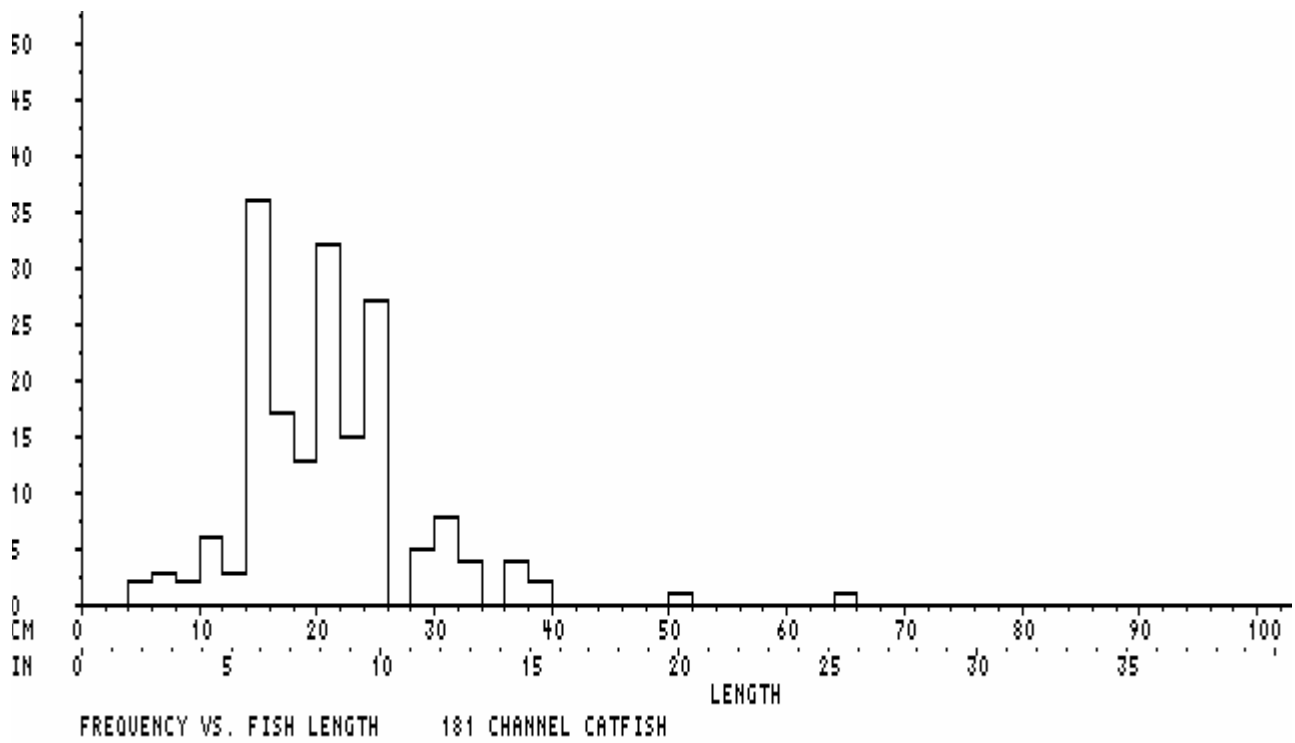


Figure 6. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

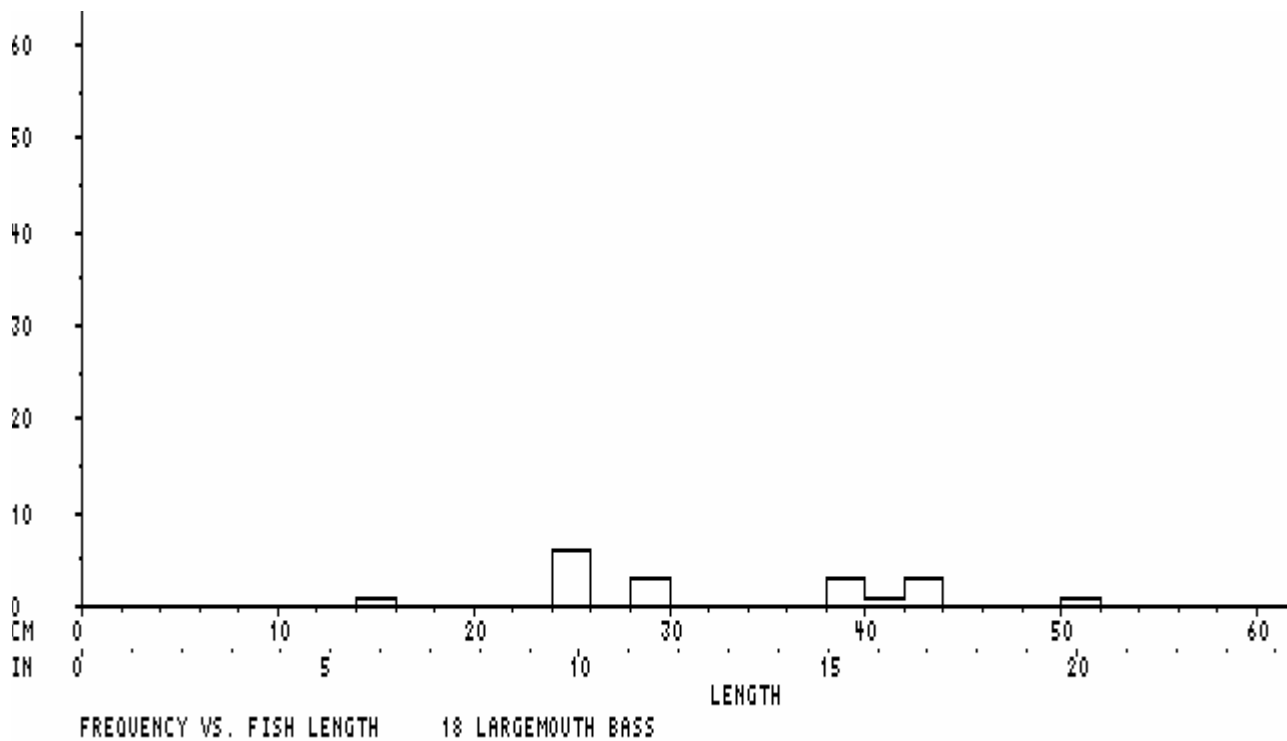


Figure 7. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

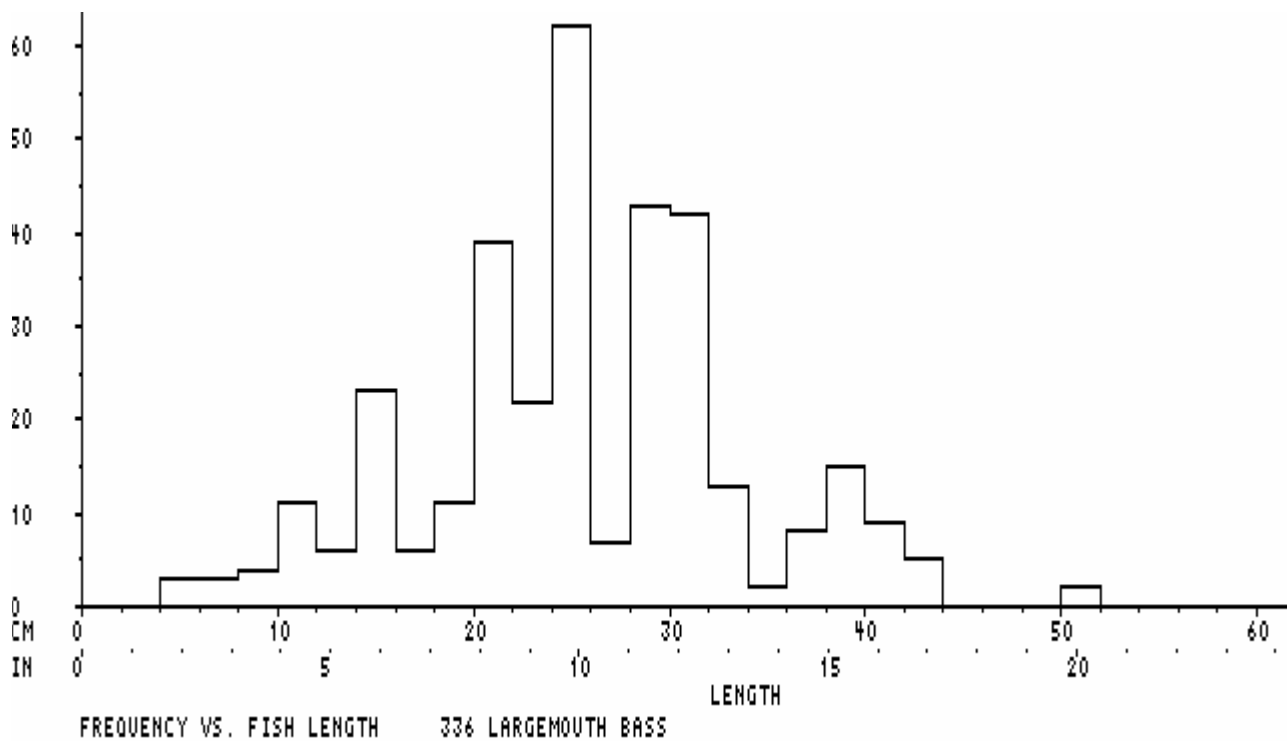


Figure 8. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers.

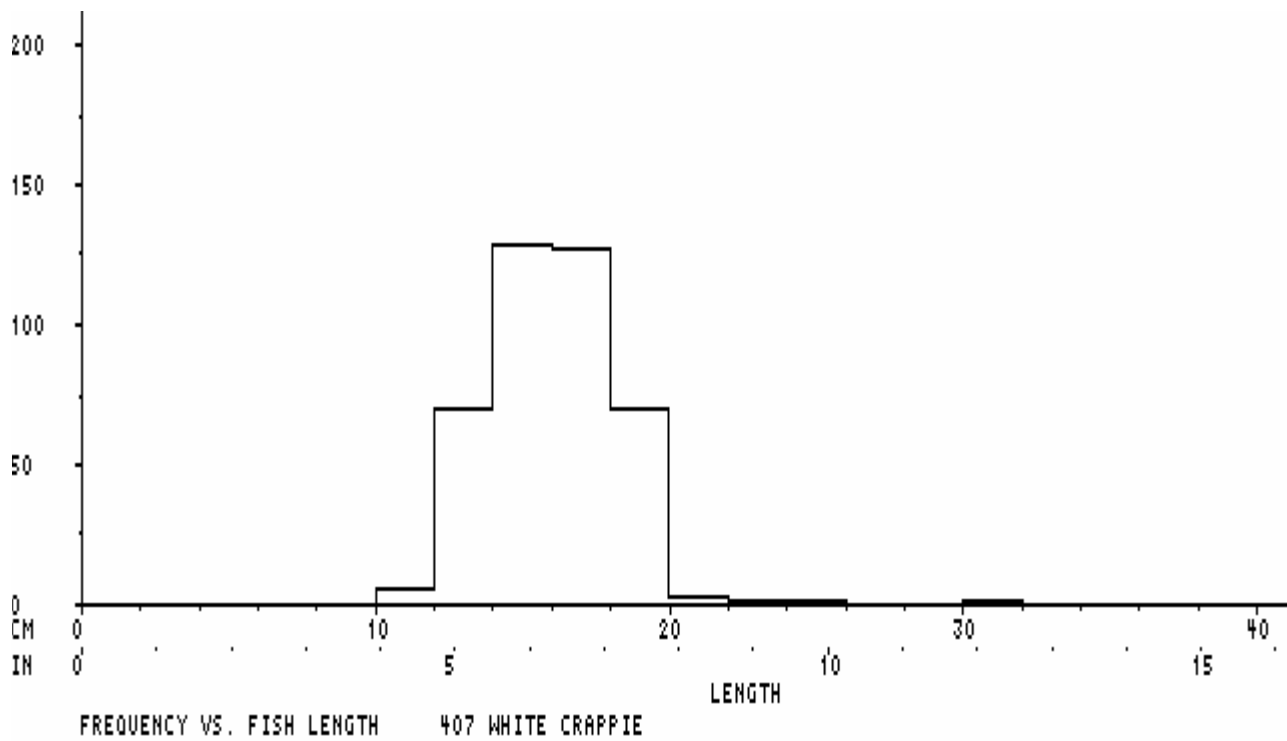


Figure 9. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

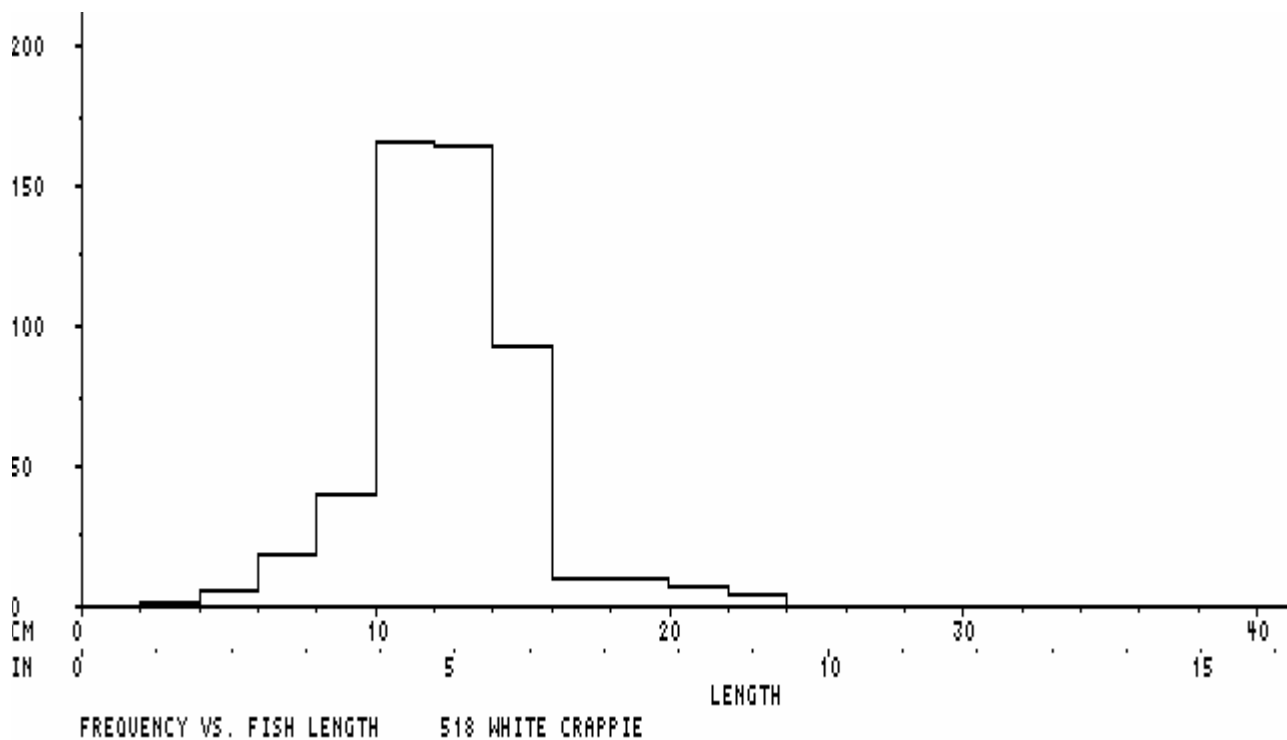


Figure 10. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.

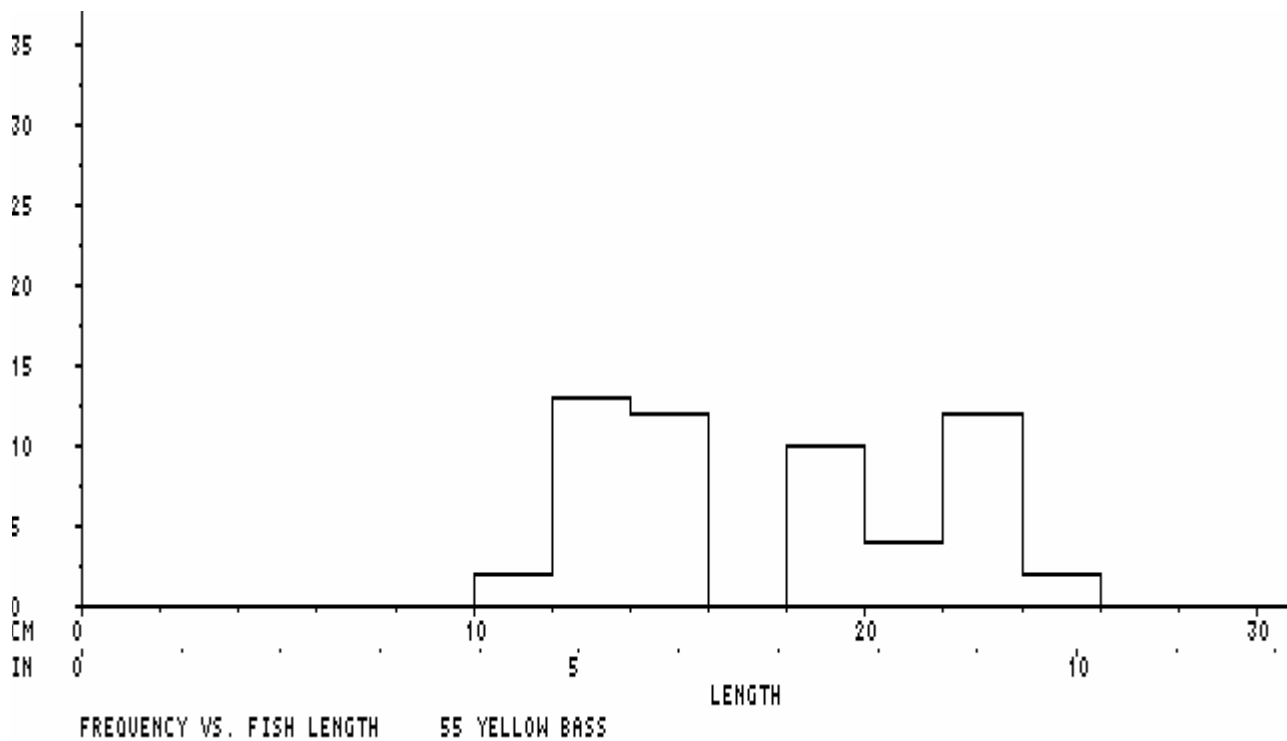


Figure 11. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass harvested by all anglers.

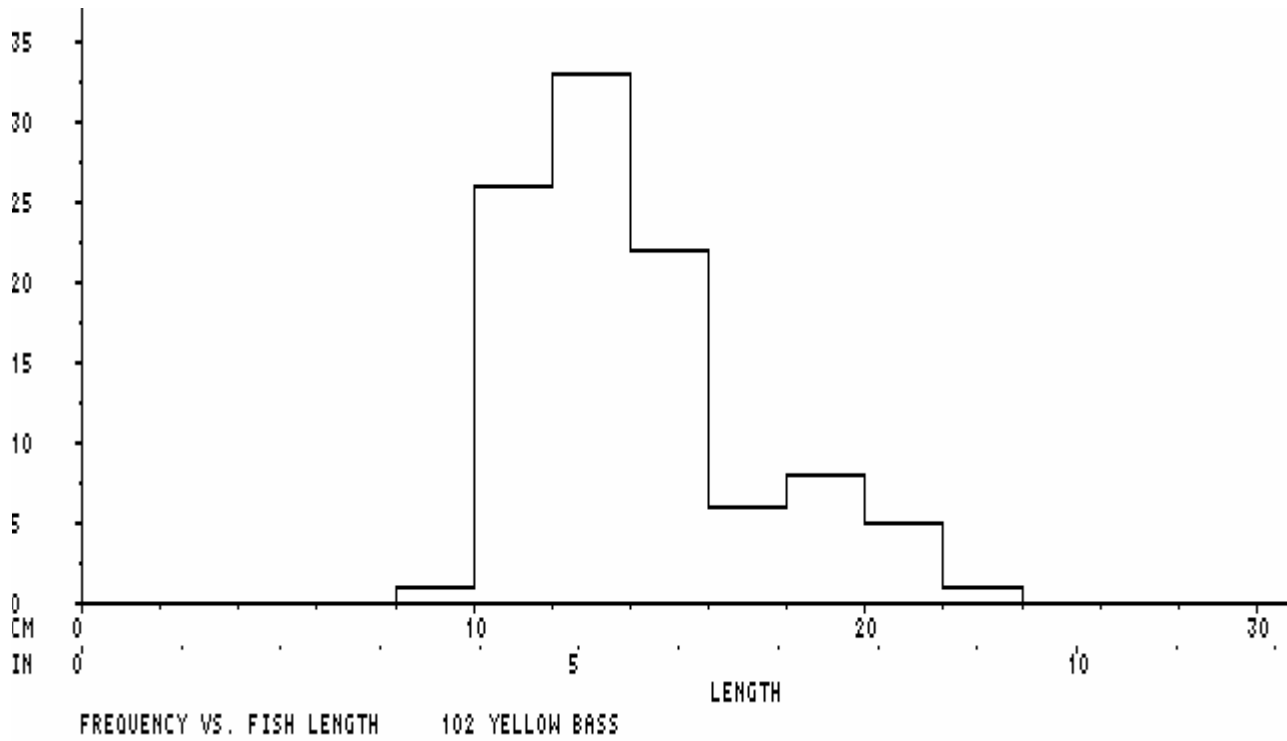


Figure 12. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass released by all anglers.