

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

1999 FORBES LAKE
 558 ACRES
 REGION 5, DISTRICT 18

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: 317/693 = 45.7%

NUMBER OF INTERVIEWS: 1730

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	19511	16789-22234 (14%)	35	30-40 (14%)	9%
	HOLIDAY	18436	16134-20738 (12%)	33	29-37 (12%)	20%
	TOTAL	37947	34382-41512 (9%)	68	62-74 (9%)	14%
SHORE	WEEKDAY	4668	3792-5545 (19%)	8	7-10 (19%)	5%
	HOLIDAY	4521	3657-5385 (19%)	8	7-10 (19%)	12%
	TOTAL	9189	7958-10420 (13%)	16	14-19 (13%)	9%
BOAT & SHORE	WEEKDAY	24179	21319-27040 (12%)	43	38-48 (12%)	8%
	HOLIDAY	22957	20498-25416 (11%)	41	37-46 (11%)	19%
	TOTAL	47136	43364-50908 (8%)	84	78-91 (8%)	13%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
18869	14741-22998 (22%)	.374	.224-.524 (40%)	83.56	33.82	All species
13	0-34 (165%)	.000	.000-.001 (198%)	0.06	0.02	Black bullhead
		****	NOT RECORDED ****			Black crappie
1835	1026-2644 (44%)	.047	.010-.084 (79%)	8.13	3.29	Bluegill
222	0-532 (139%)	.005	.000-.013 (141%)	0.98	0.40	Carp
965	582-1348 (40%)	.016	.009-.023 (43%)	4.27	1.73	Channel catfish
8	0-26 (223%)	.000	.000-.000 (223%)	0.04	0.01	Green sunfish
1466	966-1966 (34%)	.010	.007-.014 (36%)	6.49	2.63	Largemouth bass
84	0-264 (214%)	.001	.000-.003 (214%)	0.37	0.15	Longear sunfish
173	0-426 (147%)	.003	.000-.007 (123%)	0.77	0.31	Redear sunfish
		****	NOT RECORDED ****			Sauger
14	0-35 (151%)	.000	.000-.000 (150%)	0.06	0.03	Striped bass hybrid
		****	NOT RECORDED ****			Tiger muskie
10	0-32 (223%)	.000	.000-.000 (220%)	0.04	0.02	Walleye
4	0-13 (236%)	.000	.000-.000 (245%)	0.02	0.01	Warmouth
13971	10078-17864 (28%)	.288	.137-.439 (52%)	61.87	25.04	White crappie
12	0-52 (318%)	.002	.000-.008 (318%)	0.06	0.02	White sucker
92	0-293 (220%)	.001	.000-.003 (229%)	0.41	0.16	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
5062	3964-6160 (22%)	.096	.046-.146 (52%)	22.42	0.268	All species
12	0-32 (182%)	.000	.000-.001 (206%)	0.05	0.960	Black bullhead
		****	NOT RECORDED ****			Black crappie
244	124-364 (49%)	.005	.002-.008 (68%)	1.08	0.133	Bluegill
39	0-93 (135%)	.001	.000-.002 (128%)	0.17	0.177	Carp
825	228-1423 (72%)	.014	.003-.024 (77%)	3.65	0.856	Channel catfish
1	0-5 (223%)	.000	.000-.000 (223%)	0.01	0.179	Green sunfish
1458	941-1975 (35%)	.011	.007-.016 (40%)	6.46	0.995	Largemouth bass
6	0-20 (214%)	.000	.000-.000 (214%)	0.03	0.076	Longear sunfish
13	0-28 (116%)	.000	.000-.000 (106%)	0.06	0.075	Redear sunfish
		****	NOT RECORDED ****			Sauger
36	0-90 (151%)	.000	.000-.001 (150%)	0.16	2.553	Striped bass hybrid
		****	NOT RECORDED ****			Tiger muskie
19	0-61 (220%)	.000	.000-.001 (220%)	0.08	2.107	Walleye
1	0-2 (245%)	.000	.000-.000 (236%)	0.00	0.166	Warmouth
2255	1537-2973 (32%)	.050	.011-.090 (78%)	9.99	0.161	White crappie
95	0-397 (318%)	.014	.000-.057 (318%)	0.42	7.906	White sucker
59	0-181 (209%)	.001	.000-.002 (224%)	0.26	0.643	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
11160	8740-13581	(22%)	.212	.102-.323 (52%)	20.00	0.591	All species
25	0-72	(182%)	.001	.000-.003 (206%)	0.05	2.116	Black bullhead
			****	NOT RECORDED	****		Black crappie
537	273-801	(49%)	.011	.004-.019 (68%)	0.96	0.293	Bluegill
87	0-204	(135%)	.002	.000-.004 (128%)	0.16	0.390	Carp
1819	502-3136	(72%)	.030	.007-.053 (77%)	3.26	1.887	Channel catfish
3	0-10	(220%)	.000	.000-.000 (220%)	0.01	0.395	Green sunfish
3214	2074-4355	(35%)	.025	.015-.034 (40%)	5.76	2.193	Largemouth bass
14	0-44	(216%)	.000	.000-.001 (216%)	0.03	0.167	Longear sunfish
28	0-61	(116%)	.000	.000-.001 (106%)	0.05	0.165	Redear sunfish
			****	NOT RECORDED	****		Sauger
79	0-198	(151%)	.001	.000-.002 (150%)	0.14	5.629	Striped bass hybrid
			****	NOT RECORDED	****		Tiger muskie
42	0-135	(223%)	.000	.000-.002 (223%)	0.07	4.644	Walleye
1	0-5	(245%)	.000	.000-.000 (245%)	0.00	0.367	Warmouth
4972	3389-6554	(32%)	.111	.024-.198 (78%)	8.91	0.356	White crappie
209	0-1109	(430%)	.030	.000-.126 (318%)	0.37	17.430	White sucker
129	0-399	(209%)	.001	.000-.005 (224%)	0.23	1.418	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
83491	71140-95842 (15%)	1.379	1.130-1.627 (18%)	369.72	149.63	All species
18	0-41 (130%)	.000	.000-.001 (169%)	0.08	0.03	Black bullhead
68	0-179 (164%)	.000	.000-.001 (198%)	0.30	0.12	Black crappie
25097	17901-32294 (29%)	.470	.322-.618 (32%)	111.14	44.98	Bluegill
283	0-598 (111%)	.008	.000-.016 (104%)	1.25	0.51	Carp
1990	1262-2718 (37%)	.035	.020-.050 (43%)	8.81	3.57	Channel catfish
8	0-26 (223%)	.000	.000-.000 (223%)	0.04	0.01	Green sunfish
27271	21634-32907 (21%)	.329	.250-.409 (24%)	120.76	48.87	Largemouth bass
84	0-264 (214%)	.001	.000-.003 (214%)	0.37	0.15	Longear sunfish
1284	0-3411 (166%)	.016	.000-.042 (159%)	5.69	2.30	Redear sunfish
3	0-8 (216%)	.000	.000-.000 (216%)	0.01	0.00	Sauger
648	0-1411 (118%)	.010	.000-.024 (131%)	2.87	1.16	Striped bass hybrid
9	0-23 (167%)	.000	.000-.000 (205%)	0.04	0.02	Tiger muskie
31	0-78 (149%)	.001	.000-.002 (192%)	0.14	0.06	Walleye
164	9-320 (95%)	.002	.000-.004 (122%)	0.73	0.29	Warmouth
26428	20500-32356 (22%)	.503	.336-.669 (33%)	117.03	47.36	White crappie
12	0-52 (318%)	.002	.000-.008 (318%)	0.06	0.02	White sucker
92	0-293 (220%)	.001	.000-.003 (229%)	0.41	0.16	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
16290	13556-19024 (17%)	.234	.179-.288 (23%)	72.14	0.195	All species
12	0-33 (170%)	.000	.000-.001 (200%)	0.05	0.729	Black bullhead
3	0-8 (154%)	.000	.000-.000 (170%)	0.01	0.046	Black crappie
1639	1050-2229 (36%)	.028	.018-.038 (36%)	7.26	0.065	Bluegill
43	0-96 (126%)	.001	.000-.002 (112%)	0.19	0.150	Carp
1064	426-1703 (60%)	.016	.005-.027 (67%)	4.71	0.535	Channel catfish
1	0-5 (223%)	.000	.000-.000 (223%)	0.01	0.179	Green sunfish
10184	7860-12507 (23%)	.110	.089-.132 (19%)	45.10	0.373	Largemouth bass
6	0-20 (214%)	.000	.000-.000 (214%)	0.03	0.076	Longear sunfish
110	0-295 (167%)	.001	.000-.004 (166%)	0.49	0.086	Redear sunfish
23	0-71 (216%)	.000	.000-.001 (216%)	0.10	11.298	Sauger
126	3-250 (98%)	.002	.000-.004 (107%)	0.56	0.195	Striped bass hybrid
15	0-43 (190%)	.000	.000-.000 (158%)	0.07	1.841	Tiger muskie
24	0-66 (180%)	.000	.000-.001 (167%)	0.10	0.760	Walleye
11	2-20 (79%)	.000	.000-.000 (96%)	0.05	0.070	Warmouth
2874	2097-3652 (27%)	.060	.019-.100 (67%)	12.73	0.109	White crappie
95	0-397 (318%)	.014	.000-.057 (318%)	0.42	7.906	White sucker
59	0-181 (209%)	.001	.000-.002 (224%)	0.26	0.643	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
35914	29886-41941 (17%)	.515	.395-.636 (23%)	64.36	0.430	All species
27	0-74 (170%)	.001	.000-.003 (200%)	0.05	1.606	Black bullhead
7	0-17 (154%)	.000	.000-.000 (170%)	0.01	0.101	Black crappie
3614	2314-4914 (36%)	.061	.039-.083 (36%)	6.48	0.144	Bluegill
94	0-212 (126%)	.002	.000-.004 (112%)	0.17	0.332	Carp
2347	938-3755 (60%)	.036	.012-.060 (67%)	4.21	1.180	Channel catfish
3	0-10 (220%)	.000	.000-.000 (220%)	0.01	0.395	Green sunfish
22451	17329-27573 (23%)	.244	.196-.291 (19%)	40.24	0.823	Largemouth bass
14	0-44 (216%)	.000	.000-.001 (216%)	0.03	0.167	Longear sunfish
244	0-651 (167%)	.003	.000-.008 (166%)	0.44	0.190	Redear sunfish
50	0-157 (214%)	.000	.000-.001 (216%)	0.09	24.908	Sauger
278	6-550 (98%)	.004	.000-.009 (107%)	0.50	0.429	Striped bass hybrid
32	0-94 (190%)	.000	.000-.001 (158%)	0.06	4.059	Tiger muskie
52	0-145 (180%)	.001	.000-.002 (167%)	0.09	1.676	Walleye
25	5-45 (79%)	.000	.000-.000 (96%)	0.05	0.154	Warmouth
6337	4623-8051 (27%)	.131	.043-.220 (67%)	11.36	0.240	White crappie
209	0-1109 (430%)	.030	.000-.126 (318%)	0.37	17.430	White sucker
129	0-399 (209%)	.001	.000-.005 (224%)	0.23	1.418	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	4.1	3.8-4.4	(7%)	0.3	11.1	256
SHORE	2.2	1.9-2.6	(17%)	0.5	4.5	24
BOAT & SHORE	4.0	3.7-4.3	(7%)	0.3	11.1	280
MILES TRAVELED	48.4	44.1-52.6	(9%)	1	1650	1172
SUCCESS RATING (1-10)	3.5	3.3-3.6	(4%)	1	10	1166

*174 samples were from split interviews of completed trips.
18.1% of all 1546 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 10 out of 1546 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	355	810	112	25	3					
SHORE INTERVIEWS	94	90	35	15	5	2				

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

113 (7.3%)	ANY	All species
4 (0.3%)	BLC	Black crappie
119 (7.7%)	BLG	Bluegill
4 (0.3%)	CAP	Carp
1 (0.1%)	CAT	Unidentified catfish
71 (4.6%)	CCF	Channel catfish
6 (0.4%)	CRP	Crappie spp.
960 (62.1%)	LMB	Largemouth bass
2 (0.1%)	SBH	Striped bass hybrid (Wiper)
2 (0.1%)	TGM	Tiger muskie
264 (17.1%)	WHC	White crappie

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	494	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	494	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST	496	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Bluegill																
HARVEST	485	-	2	5	-	4	-	-	-	-	-	-	-	-	-	-
RELEASE	424	15	12	9	5	7	3	3	-	2	6	-	1	2	2	5
Carp																
HARVEST	494	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
RELEASE	494	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-
Channel catfish																
HARVEST	466	26	2	-	-	-	2	-	-	-	-	-	-	-	-	-
RELEASE	488	4	1	-	-	-	-	-	2	-	-	-	1	-	-	-
Largemouth bass																
HARVEST	469	24	3	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	168	80	79	62	35	12	17	11	10	6	2	-	1	2	2	9
Redear sunfish																
HARVEST	493	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	496	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sauger																
HARVEST	496	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	494	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Striped bass hybrid (Wiper)																
HARVEST	495	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	490	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Tiger muskie																
HARVEST	496	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	494	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warmouth																
HARVEST	494	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	494	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	447	2	6	4	5	8	6	2	1	-	-	-	-	-	-	15
RELEASE	419	28	3	4	2	9	7	3	2	1	4	1	2	-	-	11

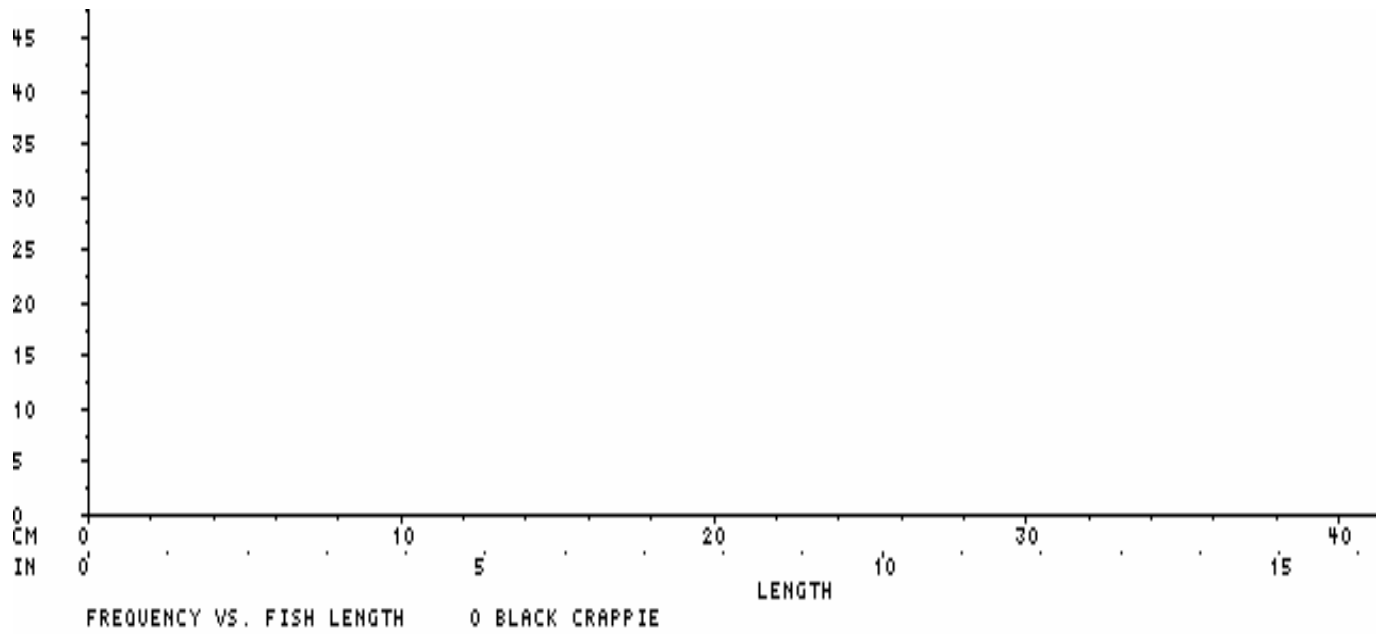


Figure 1. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

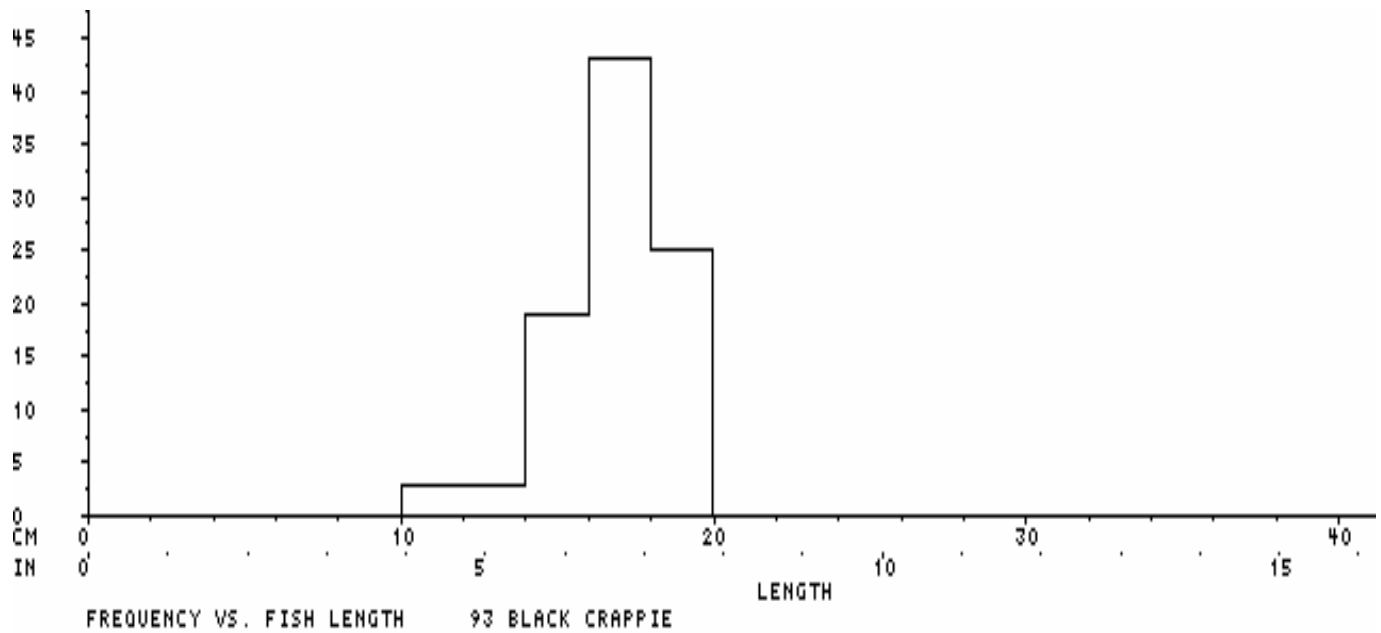


Figure 2. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

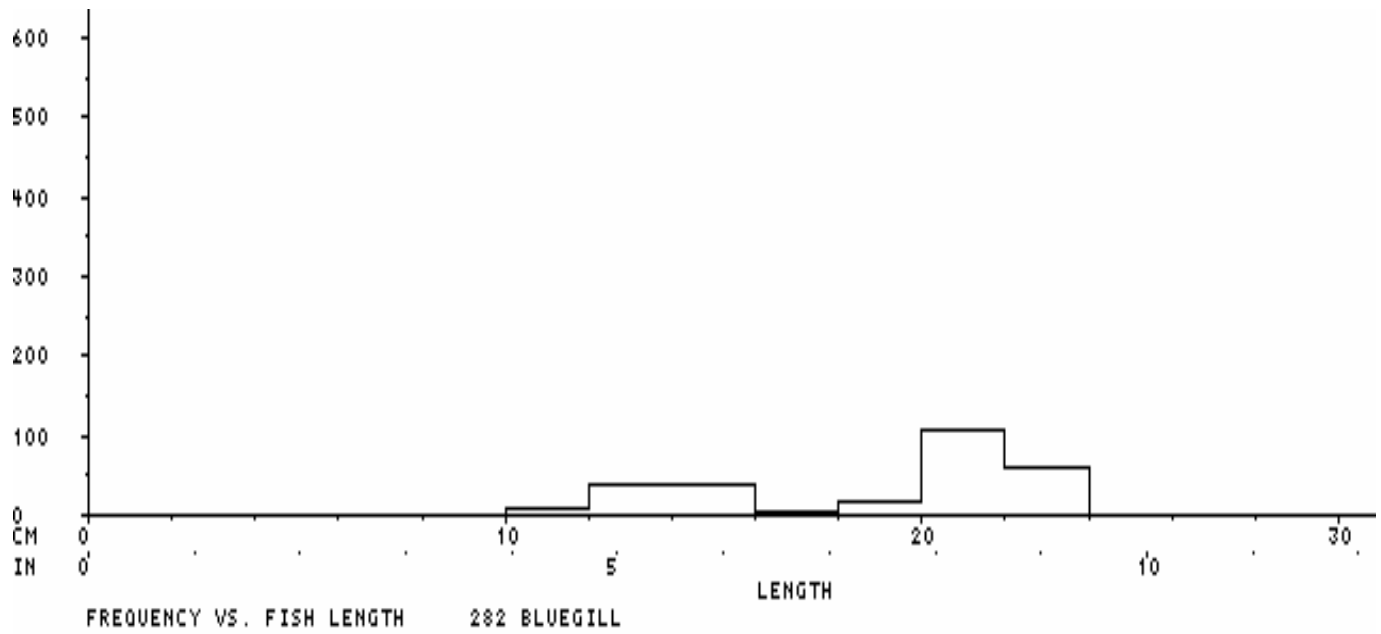


Figure 3. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

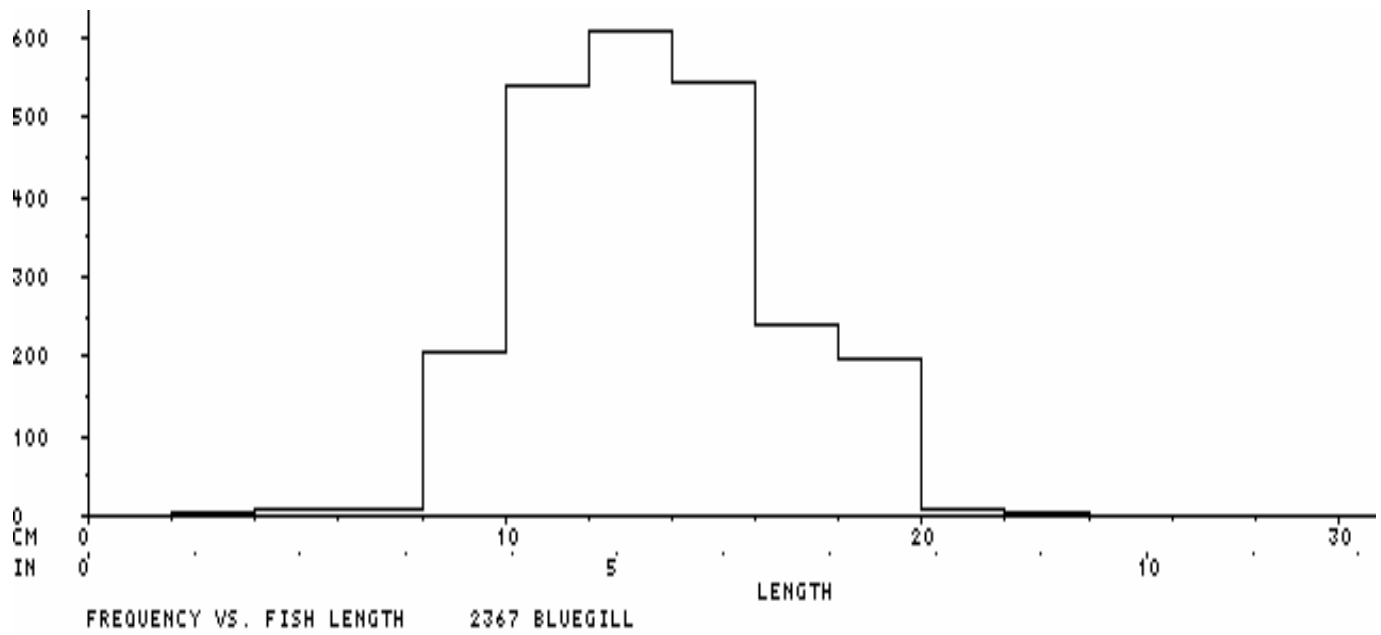


Figure 4. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

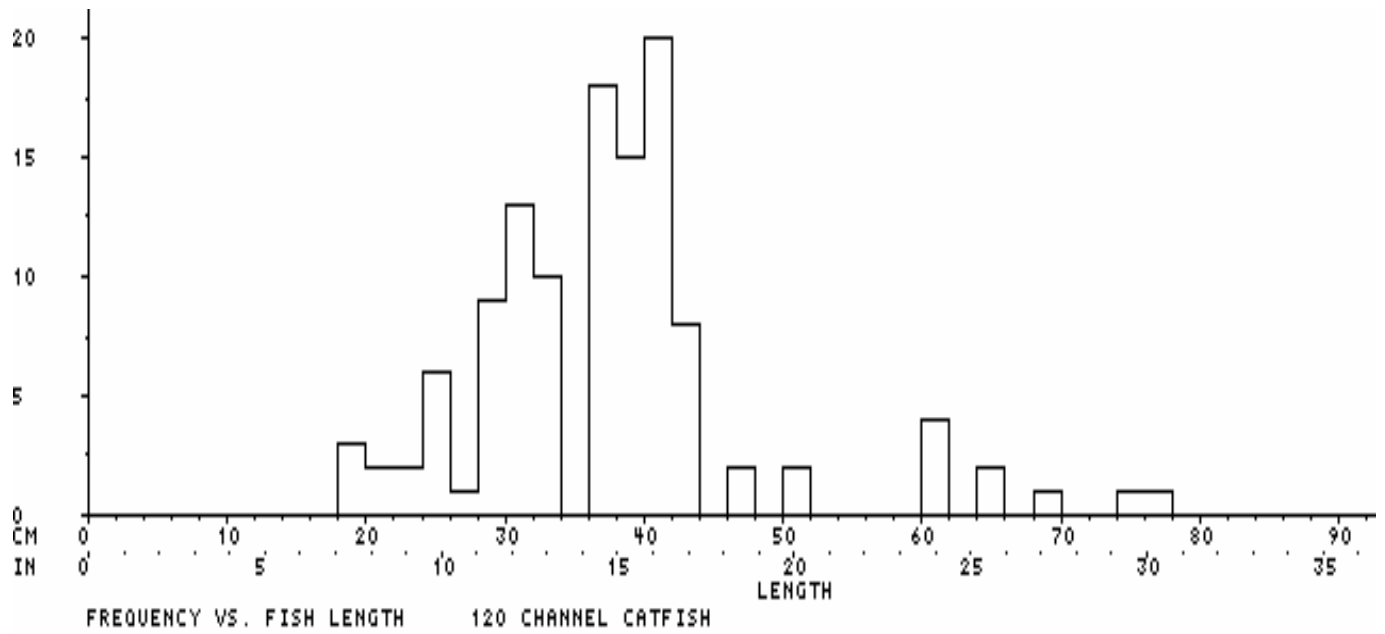


Figure 5. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

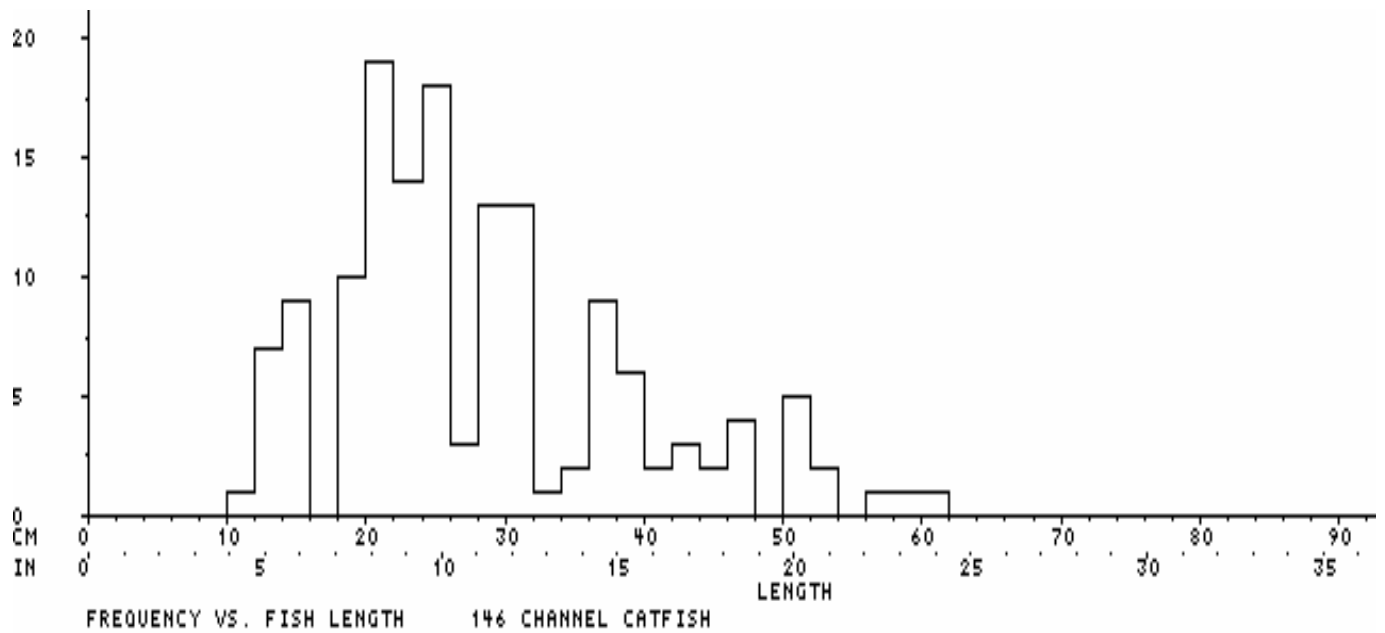


Figure 6. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

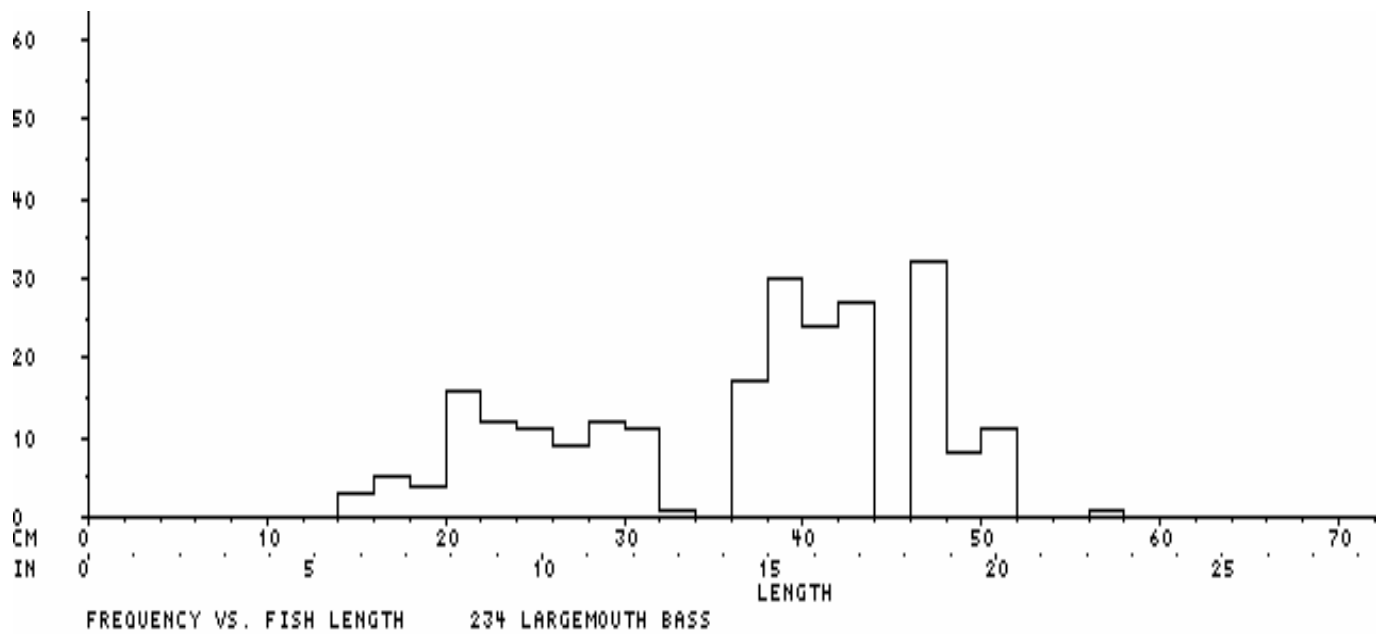


Figure 7. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

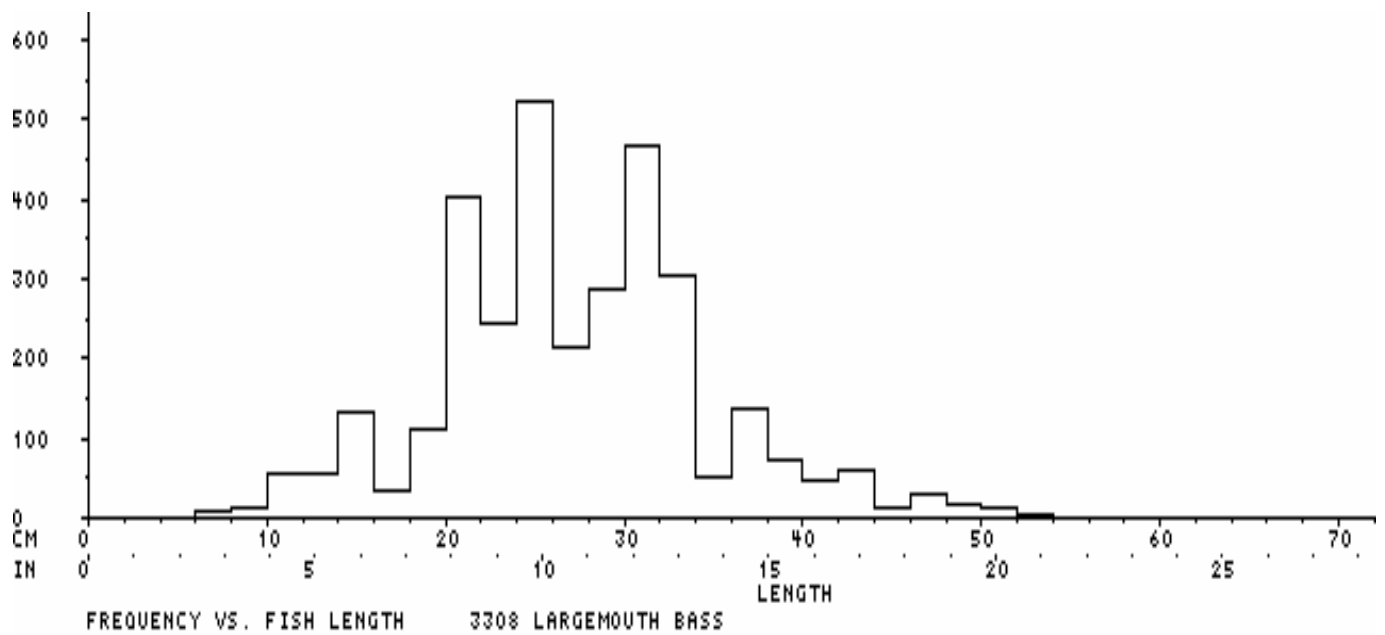


Figure 8. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 7.

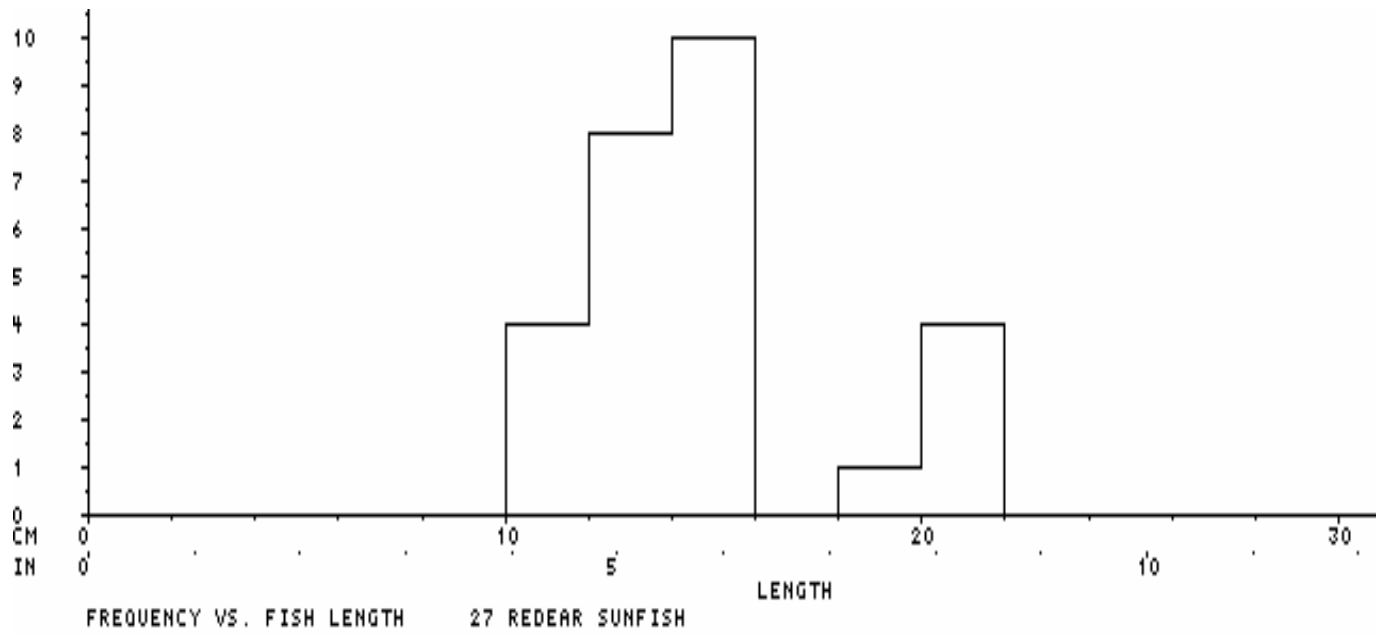


Figure 9. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of redeer sunfish harvested by all anglers.

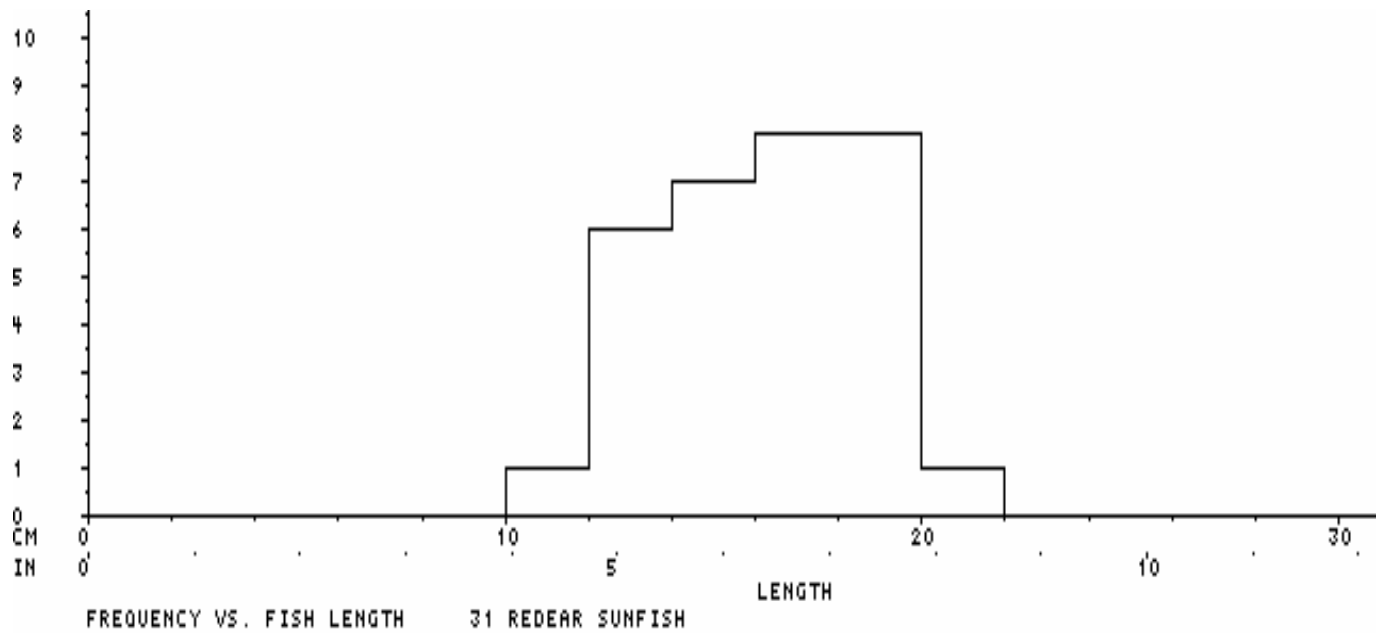


Figure 10. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of redeer sunfish released by all anglers.

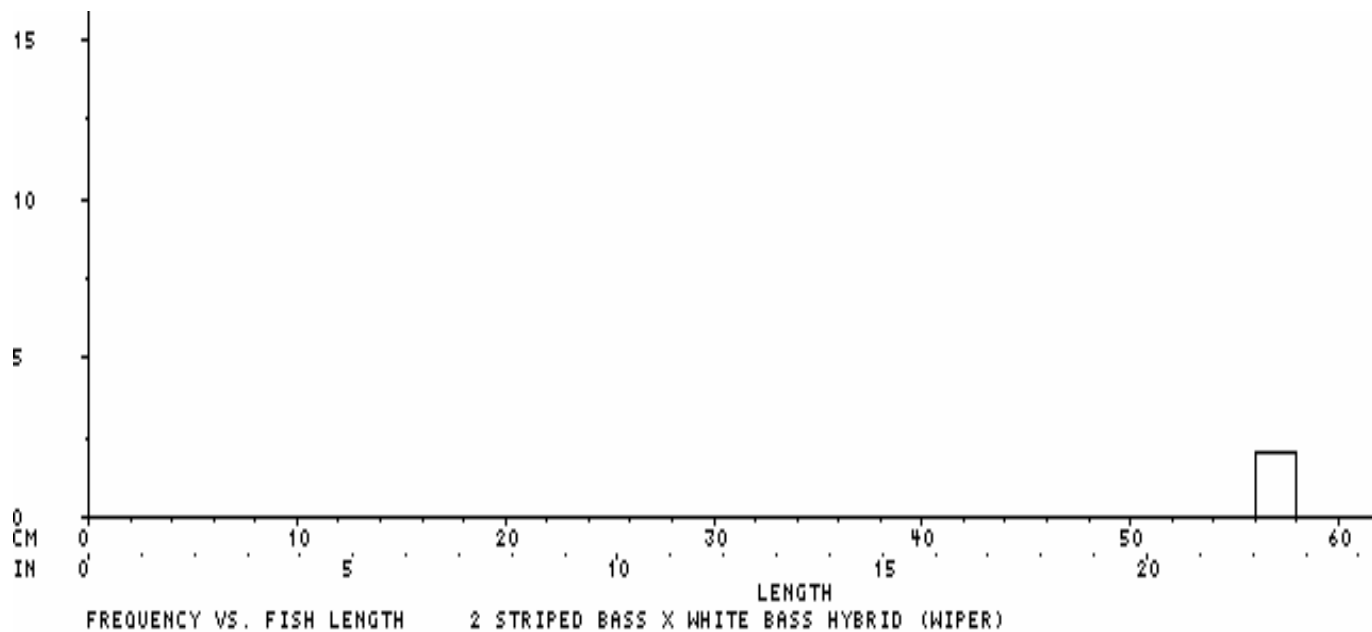


Figure 11. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of hybrid striped bass harvested by all anglers.

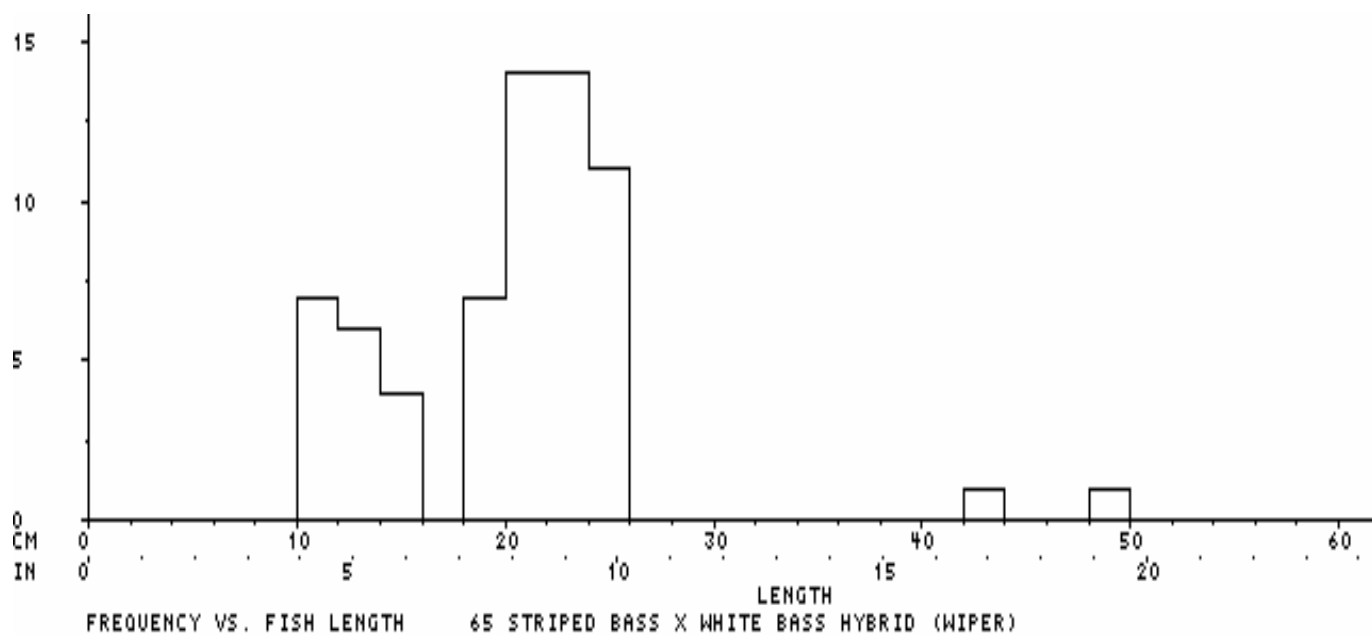


Figure 12. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of hybrid striped bass released by all anglers.

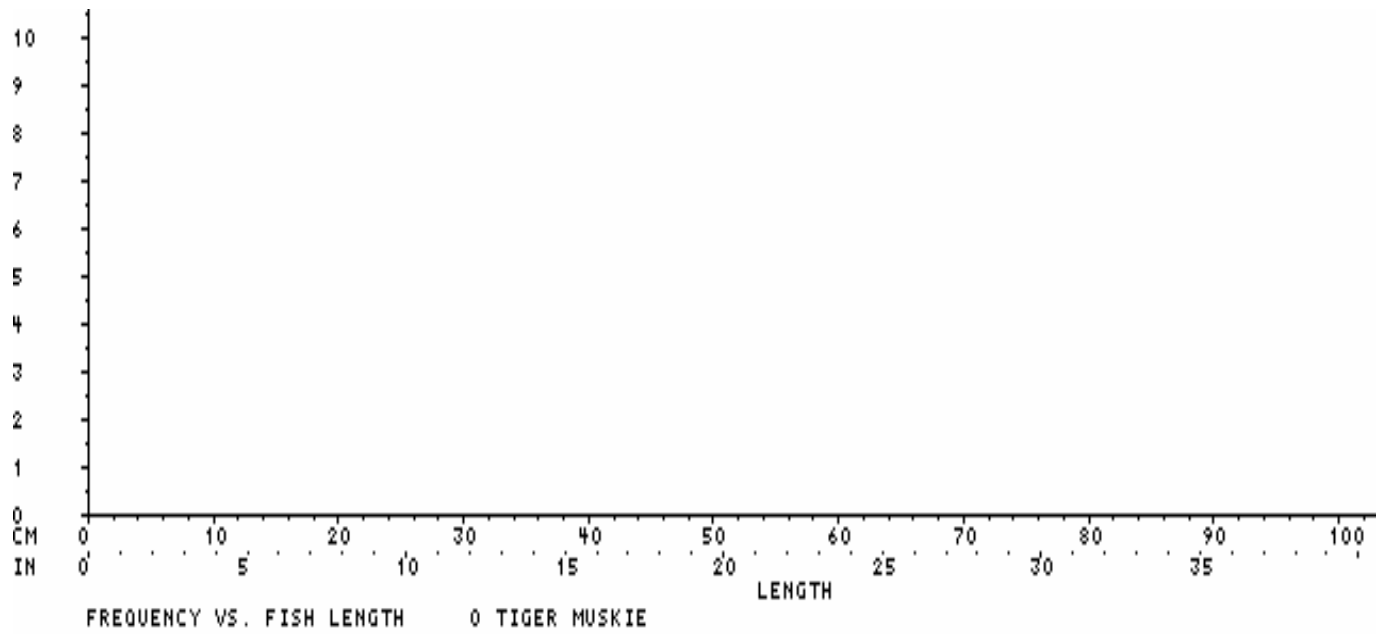


Figure 13. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of tiger muskie harvested by all anglers.

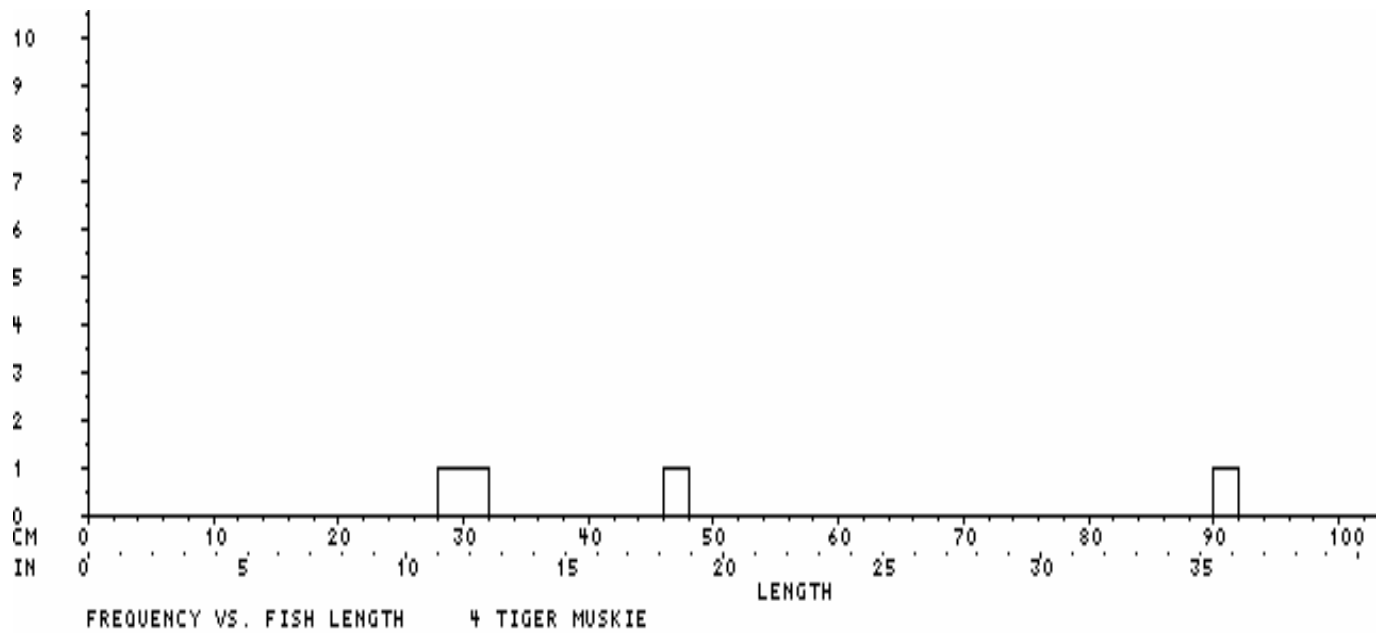


Figure 14. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of tiger muskie released by all anglers.

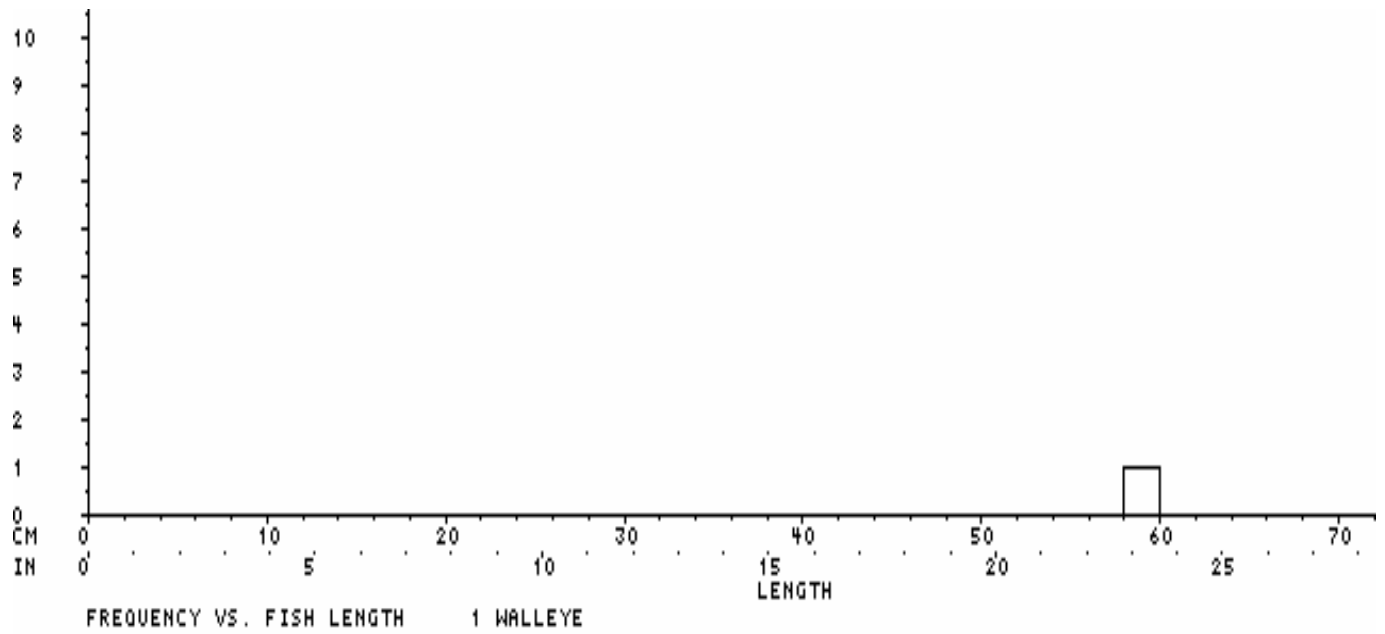


Figure 15. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of walleye harvested by all anglers.

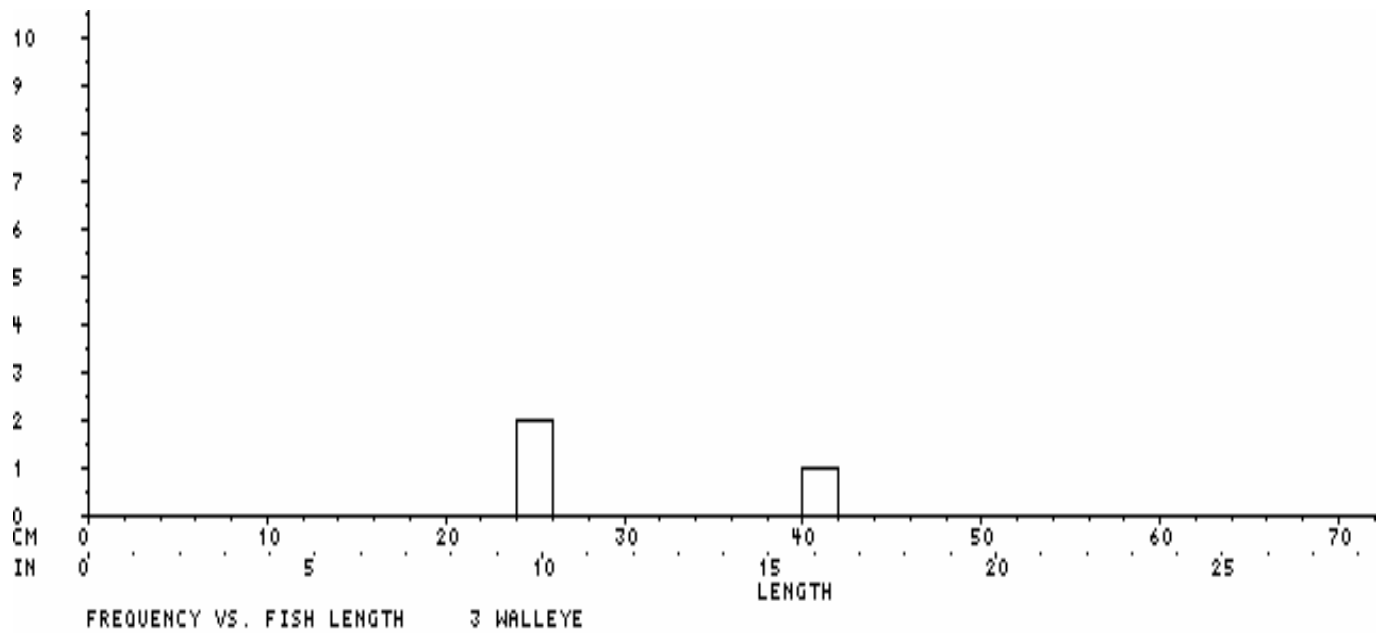


Figure 16. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of walleye released by all anglers.

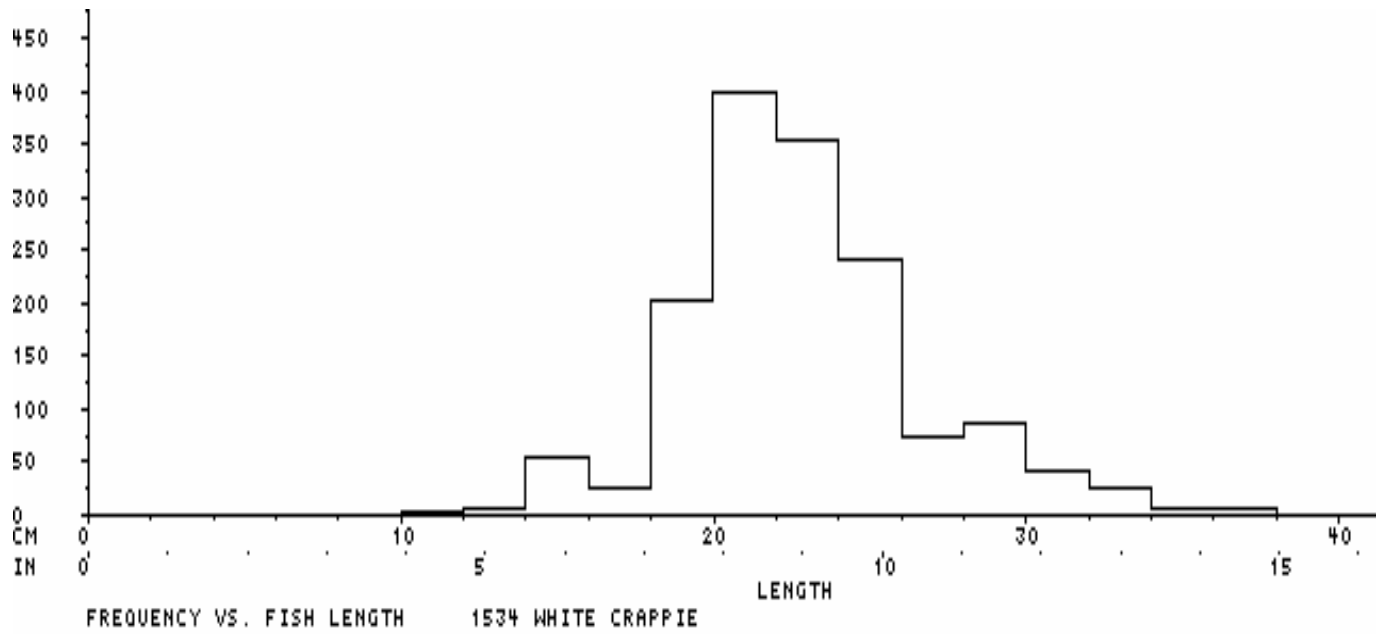


Figure 17. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

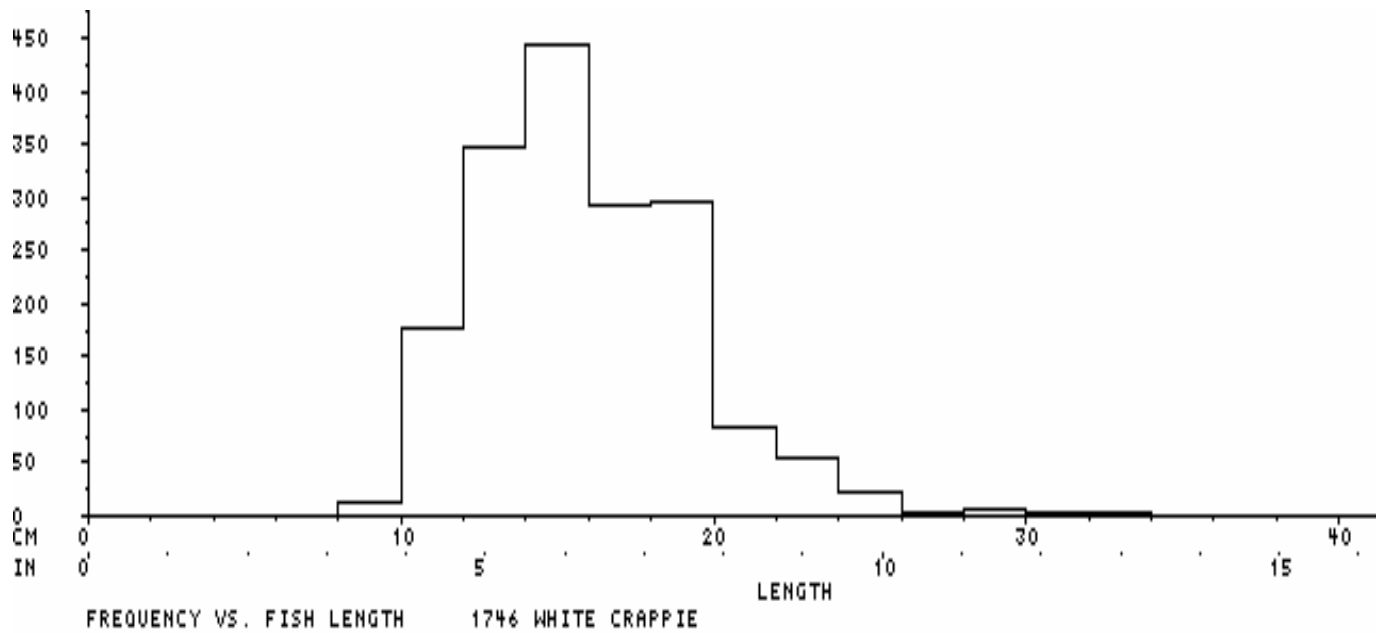


Figure 18. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.