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**DATABASE MANAGEMENT AND ANALYSIS OF FISHERIES
IN ILLINOIS**

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DATABASE MANAGEMENT AND ANALYSIS OF FISHERIES IN ILLINOIS

F-69-R-13

Annual Report, Segment 13

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EXECUTIVE SUMMARY

The goal of Project F-69-R is to provide researchers and managers with the information necessary to manage, sustain, and improve the health of fisheries resources in Illinois lakes and streams. As such, there were three primary objectives identified during Segment 13: (1) conduct annual creel surveys on selected lakes; (2) provide programming support for the Fisheries Analysis System (FAS), administered by the Illinois Department of Natural Resources (IDNR) Watershed Management Section; (3) incorporate FAS databases to aid in the analysis of ongoing research projects and pertinent management questions.

Creel surveys were conducted on 16 lakes in Illinois during Segment 13, bringing the total to 243 total creel surveys on Illinois lakes since 1987. Fifteen of these lakes were funded by Project F-69-R with additional financial support from IDNR Division of Fisheries. Newton Lake, in Jasper County, was funded by Ameren Services through 7 February 2000. Thirteen of these lakes are experimental lakes of Project F-128-R *Quality Management of Bluegill: Factors Affecting Population Size Structure*.

Software support for FAS continued in Segment 13, and most of the programming efforts were directed at completing the FAS-CREEL software. Beginning with Segment 13, all creel data entry and analysis was performed using the upgraded FAS-CREEL software

operating on a PC platform. All historical creel survey data from Segments 1-12 were transferred to ASCII text files and are currently being imported into Paradox databases. Completion of the PC-based Paradox creel databases will occur in Segment 14.

Efforts to incorporate creel survey data into existing and ongoing research projects were carried out in Segment 13. Creel survey estimates were used to evaluate quality and stunted bluegill populations in Illinois lakes based on size indices of adult fish (Aday et al. 1999). Other creel survey data, such as angler effort and harvest data, the percentage of anglers targeting bluegill, and the average size of caught and harvested bluegill were additionally used to assess the characteristics of the study lakes in Project F-128-R.

Finally, data from FAS-CREEL and FAS-LAKES will be used to identify relationships between fall population surveys and creel surveys on lakes in the following year. Preliminary results suggest relationships between population estimates of CPUE (an index of abundance), relative weight, and proportional stock density, and the fishery estimates of catch per angler-hour and total catch per acre. Corresponding models will aid fishery managers in assessing the quality of a fishery, based primarily upon fall population surveys. An abstract was submitted to the American Fisheries Society, and research results will be presented during Segment 14.

JOB 101.1 ANGLER SURVEYS

OBJECTIVE

Conduct annual creel surveys on selected lakes within Illinois (including one of the four large reservoirs each year). Manage (i.e., coordinate and supervise personnel, analyze and report data) the creel surveys conducted on these lakes, as well as the four to five annual creel surveys supported by F-29-D.

PROCEDURES

Creel surveys were conducted on the following lakes during Segment 13: Forbes, Glendale, Hillsboro Old City, Homer, Jacksonville, McLeansboro, Mingo, Newton, Pana, Paris East, Paris West, Pierce, Rend Lake, Round, Spring Lake North, and Walton Park (Appendix B). A creel survey on Sterling Lake was initiated in March 1999, but was discontinued in July when it was discovered that the clerk was falsifying data.

Lakes were chosen to be surveyed based upon (1) needs identified by IDNR-Fisheries biologists, (2) the recognized value of long-term data on select lakes, and (3) study lakes related to projects F-128-R *Quality Management of Bluegill* and F-135-R *Factors Influencing Largemouth Bass Recruitment: Implications for the Illinois Management and Stocking Program*.

FINDINGS

Results of the creel surveys are presented in Appendix B.

Fishing pressure ranged from 3,172 angler-hours on Walton Park Lake to 166,946 angler-hours on Rend Lake. Rend Lake also had the lowest fishing pressure per acre at 10 angler-hours/acre. Pierce Lake had the highest fishing pressure per acre at 407 angler-hours/acre, as well as the third highest total fishing pressure (59,791 angler-hours) behind Rend Lake and Newton Lake (106,027 angler-hours). Walton Park Lake, in addition to the lowest total angler angler-hours, had the lowest harvest levels at 60 fish and 77 pounds. The highest harvest levels were out of Rend Lake (163,482 fish; 112,097 pounds), Spring Lake North (25,853 fish; 7,540 pounds), Forbes Lake (18,869 fish; 11,160 pounds), and Newton Lake (18,607 fish; 19,070 pounds).

Estimated catch rates (# caught per angler-hour) for largemouth bass, bluegill, and channel catfish were highly variable across lakes. Catch rates for largemouth bass were lowest in Walton Park Lake (0.041) and Round Lake (0.043) and were highest in Lake Jacksonville (0.619) and Spring Lake North (0.436). Spring Lake North appears to be a very good fishery (total number of fish caught) for both largemouth bass and bluegill, where the catch rate for bluegill (1.948) was highest of any lakes creeled in 1999. Lowest

catch rates for bluegill were found in Rend Lake (0.044) and Newton Lake (0.091). Catch rates for channel catfish were consistently lower than catch rates for largemouth bass or bluegill, and were lowest in Round Lake (0.009) and Spring Lake North (0.011), and highest in Paris West Lake (0.217) and Hillsboro Old City Lake (0.207).

RECOMMENDATIONS

Project staff met with IDNR Division of Fisheries staff to discuss the needs of further using creel survey data for lake management objectives. Project F-69-R has helped to generate a 13-year statewide database of standardized creel surveys. It is recommended that the historical creel database be analyzed to produce statewide benchmark averages of fishing effort and catch rates in order to help the IDNR Division of Fisheries gauge their management success. This analysis should be carried out in Segment 14 and made available to IDNR Division of Fisheries during 2000.

Further efforts should be made to analyze the historical database in order to answer important research and management questions. Predictive models describing the dynamics of individual lake fisheries should be developed to aid in lake management, particularly in years when a lake is not creeled. Efforts are underway in Segment 14 to analyze the FAS-LAKES database and FAS-

CREEL database concurrently, in order to understand relationships between fall population assessment data collected in each fall season and angler catch rate data collected in the following year. Significant relationships that can be used as predictive tools will be presented at the Annual Meeting of the American Fisheries Society during Segment 14.

Further efforts should be made to report lake-specific long-term trends of fishing effort, catch, and catch rates. Multiple creel surveys have been conducted on many lakes in Illinois. Annual results should be compared to historical estimates in order to identify trends and interpret fishery dynamics.

No fisheries management program can forego information resulting from the interaction between the angler and the resource. Information from fish populations are important for indicating trends in abundance and recruitment, but cannot serve alone as criteria for evaluating successful management in the absence of yield, catch, and effort data. The continuation of lake creel surveys, therefore, is an essential part of this project. Continuation of lake creels is also critical for evaluating the success of experimental bluegill harvest regulations under Project F-128-R (Aday et al. 1999), and for evaluation of largemouth bass stocking under Project F-135-R.

FACTORS AFFECTING SMALLMOUTH BASS SPAWNING SUCCESS

Angling pressure and nesting success of smallmouth bass have been examined on Jordan Creek, Vermilion County Illinois since 1997. We have monitored angling pressure by talking with private landowners to determine if anyone was fishing the creek during evening hours when we were not present. Some of the landowners had family and friends who would fish the creek, however they all implied all fishing was only catch and release. We only encountered one individual fishing, therefore we conclude there is not much angling pressure on Jordan Creek.

Our second objective was to monitor nesting success of smallmouth bass males in Jordan Creek. Observation of nesting smallmouth began in mid April and continued until all spawning activity had concluded. We determined the start of spawning to be May 1, 1999 (when we first detected eggs in a nest) this year, however nesting began 5-7 days later than in our first two years (April 26, 1997 and April 24, 1998). We recorded five spawning bouts in 1999 with 129 nesting smallmouth observed. This is higher when compared to the 56 nests detected in 1997 and 22 detected in 1998, however only 19.40% of the males were successful in raising their fry to the free-swimming stage in 1999 (26.79% in 1997 and 4.5% in 1998). During 1997 and 1998 there were also multiple spawning bouts that had occurred, however only the males that nested in the last bout

successfully raised their fry. In 1999, we found multiple males during each bout that were able to stay with their fry until they became free-swimming. We found varying sized of young of the year in the fall and proposed that the larger fry were from the early spawned nests, however we would need to conduct genetic testing on the fry to make a positive determination.

A total of 52 nesting males were captured throughout the entire spawning season, and twenty-three of those males were recaptures. Those males were originally captured and tagged during one of the three spawning seasons or during the fall sampling for young of the year abundance. Some of the males captured during the first spawning bout and were also recaptured during one of the following bouts. Preliminary data shows a high degree of nest site fidelity within years and across multiple years. Males that have been recaptured are within the same pool or are one pool away from where they spawned the previous year. Future genetic testing of nesting males and fry will allow us to determine if the young of the year are from multiple nests or are all from one. We will also be able to determine if future spawning males are returning to natal nest sites or if they are randomly selecting their nest sites.

JOB 101.2 FISHERIES DATABASE ENHANCEMENT

OBJECTIVE

Support the creel database software developed for Paradox. Support the Fisheries Analysis System (FAS), including the streams database and their associated applications. Solve the impending Y2000 problems as they arise, update documentation for the creel programs, and establish a creel web server.

PROCEDURES

Improvements were made to the FAS-LAKES and FAS-STREAMS software during Segment 13 as problems were identified and as upgrades were deemed necessary. The majority of FAS support was directed at the completion of FAS-CREEL during Segment 13. The upgraded creel analysis software was made operational during Segment 13. Further enhancements were made during Segment 14, and a current version of the software was delivered in May, 2000, to FAS personnel in the Watershed Management Section of the Illinois Department of Natural Resources. Creel survey data collected during Segment 13 were entered and analyzed on upgraded creel analysis software operating on a PC platform. Data collected during Segments 1-12 were entered and analyzed on original creel analysis software on an Apple IIe platform. During Segment 13, historical creel survey data collected

in Segments 1-12 were transferred to ASCII text files and imported into Paradox databases to be compatible with current creel survey data. One database was created for creel survey data collected during a calendar year, so that the current creel survey database resides in annual databases dating from 1987 to 1999. The complete 1987-1999 databases were delivered in May, 2000, to FAS personnel in the Watershed Management Section. During Segment 13, current and relevant documentation was drafted for the data entry routines of the upgraded creel analysis software. Complete documentation of the upgraded creel analysis software was delivered in June, 2000, to FAS personnel, and will be described in the annual report for Segment 14.

A web server was developed during Segment 13 to provide online summary databases and individual lake reports capable of being downloaded by Division of Fisheries personnel and the angling public. Currently the web site contains a summary of creel surveys conducted on Illinois lakes from 1987 to 1999, sorted by lake name and by county. Additional information on creel survey personnel and contact information is presented. Individual lake reports from creel surveys conducted during Segment 13 (Appendix B) will be made available online during Segment 14. Initial efforts towards summary database development will be made during Segment 14. Once completed, the summary database will provide annual estimates of fishery effort and catch, and will facilitate analysis of temporal trends and statewide

comparisons. The summary database will be made available online for use by IDNR Division of Fisheries and INHS personnel.

RECOMMENDATIONS

Project F-69-R staff have been collaborating with IDNR Watershed Management Section staff to identify the programming needs for FAS software during Segments 14 and 15.

FAS-CREEL

The creel software should be converted to a Windows program. Full integration of FAS-CREEL with FAS-LAKES and FAS-STREAMS requires common fields that can be identified during queries. FAS-CREEL should adopt the standard lake identifications used in FAS-LAKES. Data entry errors were a cause for concern during Segment 13. Most errors were identified and corrected during data entry, although many additional errors were identified and corrected with the aid of a data-checking program written outside of FAS-CREEL. Improvements should be made to FAS-CREEL to enhance built-in data error identification and correction. Database structure and an initial user's manual were reported in Perea et al. (1999). During Segment 14, an FAS-CREEL user's manual should be published and distributed to IDNR Division of Fisheries and Watershed Management Section personnel, and should update and build upon Bayley et al. (1990a; 1990b).

FAS-LAKES

The FAS-LAKES data entry should be rewritten as a Windows program. Further upgrades to the analysis program (FISHTAB) should be made to incorporate needs identified by IDNR Division of Fisheries personnel and to fully integrate it into Windows.

FAS-STREAMS

The IBI (Index of Biotic Integrity) program needs to be updated to incorporate the improvements identified by the IDNR Watershed Management Section (Roy Smogor, personal comm.). These improvements include updated metrics, accommodation of mixed gear samples, and the addition of direct data entry of fish abundance. Further, the IBI program should be operating system independent and database independent, so that users can run the program on a PC, Apple, or Unix platform and view program outputs with a variety of database types. FAS-STREAMS data entry should be rewritten as a Windows program, with enhanced selection options. FISHTAB upgrades are described in the FAS-LAKES section above.

FORTH GRAPHICS

All three components of the FAS software utilize FORTH Graphics for graphical displays of output, including length frequency histograms. FORTH Graphics needs to be rewritten as a Windows program, so that graphics are displayed in individual windows rather than commanding the entire screen.

Job 101.3. Coordination with Ongoing Fisheries Research Projects

OBJECTIVE

Use the existing creel and FAS databases to provide supportive information to help define fish populations in study lakes associated with ongoing bluegill and largemouth bass projects. Analyze the impact of two strategies for changing population size structure of fish populations through experimental harvest regulations and predator/habitat manipulations. Assess the feasibility and logistical requirements of conducting a creel survey on one or more of the state's major river fisheries (e.g., Rock, Kankakee, or Kaskaskia Rivers).

PROCEDURES

PROJECT F-128-R

Creel survey data collected from Project F-69-R played an important role in Project F-128-R. Creel survey estimates were used to evaluate quality and stunted bluegill populations in Illinois lakes based on size indices of adult fish (Aday et al. 1999). Other creel survey data, such as angler effort and harvest data, the percentage of anglers targeting bluegill, and the average size of caught and harvested bluegill were additionally used to assess the characteristics of the study lakes in Project F-128-R. Because of

the nature of creel data, a unique size index, Proportion of Quality Creeled Fish (PCF.180) was developed for use in Project F-128-R. This index is calculated as the total number of caught fish greater than or equal to 180mm divided by the total number of caught fish (Aday et al. 1999).

PROJECT F-135-R

Evaluation of fish stocking programs in Illinois lakes was identified as an important objective of Project F-69-R. Currently, stocking evaluations are made by IDNR Division of Fisheries personnel, based in part on results of creel survey data collected from Project F-69-R. These evaluations are generally lake-specific, and little has been done to evaluate stocking on a statewide level. As stocking evaluations are a primary goal of Project F-135-R *Factors Influencing Largemouth Bass Recruitment: Implications for the Illinois Management and Stocking Program*, we expect to contribute the analysis of creel survey data towards largemouth bass stocking evaluations. Creel surveys on two study lakes in Project F-135-R are being conducted during Segment 14 of Project F-69-R.

RIDGE LAKE CREEL CENSUS

Further studies are planned to take advantage of on-going and long-term creel census data collected at Ridge Lake Biological Station near Charleston, Illinois. Complete creel census data, in which total effort, catch, and harvest are known rather than

estimated, will be used to evaluate and improve the statistical methods used in the calculation of creel surveys from project F-69-R.

LARGE RIVER CREEL SURVEY

During Segment 13, the LaGrange Pool of the Illinois River, approximately an 80-mile section, was considered for the site of a potential creel survey in 2001 or 2002. The objectives of such a survey would be to estimate fishing pressure, catch, and species composition exploited by the recreational fishery. This site was chosen based on needs identified by stream biologists in IDNR-Fisheries and at the INHS Havana Field Station. Particularly, the LaGrange Pool is believed to receive heavy fishing pressure for walleye and channel catfish in the main channel, and largemouth bass in the side channels and backwater sloughs. The LaGrange Pool is also the subject of long-term population and habitat data, collected as part of the Long-Term Resource Monitoring Program (LTRM). The addition of creel survey data to the population data has the potential to yield inferences about the fishery based on trends identified during LTRM monitoring, and could potentially be applied to other sections of the Illinois River.

FINDINGS

PROJECT F-128-R

Preliminary analysis of creel survey data collected during

Segment 13 showed that quality bluegill lakes produced a significantly better fishery than stunted lakes in terms of total number caught, total biomass caught, average size caught, and size distribution of caught fish (using PCF.180). No significant differences were found for regional or lake size comparisons for any of the above variables (Aday et al. 1999). Thirteen study lakes in Project F-128-R will be creeled during Segment 14, including first-time creel surveys on eight lakes.

LARGE RIVER CREEL SURVEY

Because of the size and logistical complexity of the surveying the main channel, side channels, and backwater sloughs, a roving-access design was chosen as the most appropriate creel survey design. Effort will be estimated from aerial counts of boat and shore anglers. Catch rates will be estimated from a bus route access design that will target the major fishing sites and boat ramps throughout the Pool. Total catch will be estimated as the product of fishing effort and catch rate (catch-per-unit-effort). The cost of conducting such a creel survey from March through October will be approximately \$75,000. For such a survey to be feasible, coordination of funds from various interest groups will likely be necessary. Public interest is high in the Illinois River for fish and wildlife, navigation, and recreation, and a creel survey is likely to be met with considerable favor. Possible interest groups

to consider include the IDNR Division of Fisheries, the U.S. Army Corps of Engineers, and the Nature Conservancy. A formal proposal to conduct a pilot creel survey of the LaGrange Pool in 2001 will be submitted to the IDNR Division of Fisheries during Segment 14.

RECOMMENDATIONS

Creel surveys are an essential component of Projects F-128-R and F-135-R, and should continue to be carried out under Project F-69-R in order to maintain standardized methods and allow historical and future fishery estimates to be directly comparable. Known fishery totals from the Ridge Lake creel census should be used to test the statistical methods used in the F-69-R creel surveys. Further, tests of current methods should follow the current scientific literature, especially as new insights have been made into catch rate estimation (Pollock et al. 1997). If improvements to the current creel estimation methods are deemed necessary, the historical creel survey data must be estimated using the new methods in order to allow future and historical fishery estimates to be comparable (Lockwood et al. 1999).

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APPENDIX A. INTERPRETIVE GUIDE TO UNDERSTANDING CREEL SURVEY RESULTS

The following guide is intended to be included with every distribution of the creel survey results. It has been updated from an earlier guide published by Steve Sobaski (IDNR - Watershed Management Section, personal communication).

What's Included in the INHS Interim and Final Creel Reports

To help you interpret the Interim and Final Creel Reports from the Illinois Natural History Survey, we've included this guide to explain the contents of various pages. You will also find a copy of the *Statistical Design and Calculation of Each Creel*, Appendix A. of the 1990 Illinois Natural History Survey report 90/10: Creel Survey Manual for the District Fisheries Analysis System (FAS): A Package for Fisheries Management and Research. This appendix describes how the creel data are collected, their subdivision for analysis by five different categories: specifically the Year Period, Lake Section, Day Period (Morning, Midday, Afternoon), Day Type (Weekday vs. Weekend/Holidays), and Fishing Mode (Boat vs. Shore) that the data were collected from (in other words, the stratification scheme applied to the creel data), and the statistical methodology used to calculate the estimated total hours of fishing, harvest, and catch.

Each creel report is composed of the following information (in this chronological order):

STRATIFICATION SUMMARY

Information presented here is intended to provide some background as to the pre- and post-stratification methods used in analysis. Creel surveys will be either day or night surveys, and this will be indicated first. Reported next will be the range of sampling dates for which estimates are made. No attempt is made to extrapolate estimates out to months in which no data are collected, unless otherwise noted.

SAMPLING RATIO

The SAMPLING RATIO value, listed directly below STRATIFICATION SUMMARY, is the ratio of the number of Day Periods sampled divided by the total number of day periods included in the estimates. In short, the SAMPLING RATIO gives an index of the intensity of the sampling schedule. For example, suppose 128 Day Periods were sampled between 3/15 and 6/15. To calculate the SAMPLING RATIO, the total number of Day Periods sampled is divided by the total number of possible Day Periods occurring during that span of dates. In this example, there are 93 days

within the span of 3/15 to 6/15, thus 3 x 93 or 279 day periods.
The Sampling Ratio = $(128/279) \times 100\%$, or 45.8%.

NUMBER OF INTERVIEWS

This is the total number of all angler interviews conducted during the season.

PART ONE: EFFORT, HARVEST, AND CATCH ESTIMATES

TABLE 1. TOTAL FISHING EFFORT

This table reports the estimated total angler-hours of fishing by all anglers. Unless otherwise noted, reports will always apply to all pole and line fishing activity on the entire lake.

As described in *The Statistical Design and Calculation of Each Creel*, the effort estimate, i.e. the estimated total angler-hours of fishing, is calculated separately for boat and shore anglers as well as for all anglers for each Day Period sampled. These estimates are based on the instantaneous counts of anglers and are scaled up by the effective hours available for fishing for that time of day and year, rather than on the hours of fishing reported in angler interviews. An estimated average

effort is then calculated for each combination (i.e. stratum) of Year Period, Lake Section, Day Period, Day Type, and Fishing Mode by averaging the total hours of fishing from all days sampled within the stratum. Stratum averages are scaled up over all possible days in the stratum to provide an estimated stratum total effort. Finally, each stratum total effort is added together to give the separate estimates of total hours of fishing for boat and shore anglers for the lake and time period of interest.

A weighted estimate of the total hours of fishing for anglers is calculated using a stratified approach. Rather than combining the boat and shore instantaneous counts for each sample and ignoring any potential difference in the day-to-day variability of boat versus shore fishing, the stratified approach first calculates separate estimates of total effort for boat and for shore anglers for the entire period being reported. These totals and their variances are then combined to give the overall total estimated hours of fishing.

The **FISHING MODE** column will usually include BOAT, SHORE, and BOAT & SHORE. Estimates are made separately for boat and for shore fishing, and these estimates are later combined into an

overall total estimate of both boat and shore.

The **DAY TYPE** column shows estimates for WEEKDAY and HOLIDAY.

The WEEKDAY estimates only include Monday through Friday fishing, excluding holidays that fall on weekdays. The HOLIDAY estimates include all holidays and all weekend days (Saturdays and Sundays). Days that are considered holidays for the purposes of this creel only include: New Year's Day, Martin Luther King Jr.'s Birthday Observed, Presidents' Day, Memorial Day Observed, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day.

Estimates of the total hours of fishing (the **ANGLER-HOURS** column) by BOAT anglers, SHORE anglers, and BOAT & SHORE anglers are reported in separate blocks in the table. The strata total estimates for each type of angler are further subdivided by Day Type (WEEKDAY versus HOLIDAY).

The **95% CI** columns follow estimated totals, such as ANGLER HOURS in TABLE 1, and in TABLES 3-8. These report the 95% confidence interval for the estimated totals. In other words, 95% of the time we'd expect the true total to fall within that given range. In cases where the lower limit of the confidence interval is a

negative number, a value of zero is shown in the table. The percentage listed in () after the confidence interval is another indicator of the precision of the estimate. This percentage is calculated as: $(\text{Upper value of the 95\% CI} - \text{Estimated Total}) / \text{Estimated Total}$. The larger this percentage is, the less accurate the estimate. For example, if the Total Angler Hours Estimate is 30,293, with an upper 95% confidence interval of 34,952, the precision percentage is calculated as $(34,952 - 30,293) / 30,293$ or 15.38%. The percentage is rounded to the nearest integer for the tabular output.

The **HOURS/ACRE** column gives the Hours of Fishing per acre of lake surface area. This is calculated by dividing the ANGLER HOURS value in each row by the acreage value shown at the top of the page.

The **% EFF INTVD** column, located on the right margin of the effort table, is the percentage of the estimated total effort actually accounted for by angler interviews. This number is calculated by summing the total hours of fishing reported by anglers from each stratum (i.e. Day Period, Year Period, Day Type, and Fishing Mode combination) and dividing it by the estimated total fishing effort (calculated from the

instantaneous counts) for that period. For instance, a total of 120 hours of weekday fishing might be reported by BOAT anglers for Day Period 1 (Sunrise to 10:00 A.M.) between 6/01/94 and 6/15/94. The estimated total BOAT effort, however, based on the average BOAT angler instantaneous counts of Day Period 1 extrapolated by the 11 weekdays within 6/01/94 and 6/15/94, turns out to be 360 hours. The % EFF INTVD value for this stratum would be: (120 angler-hours from interviews) / (360 angler-hours from instantaneous counts) x 100 = 33.33%. Like SAMPLING RATIO, this number gives an indication of the effectiveness of the sampling intensity. A higher % EFF INTVD value indicates a more complete job of obtaining information on all of the angling activity for that type of angler. If you sampled every day within a stratum and interviewed every angler (in other words conducted a census rather than a survey), this percentage would approach or possibly exceed 100%.

TABLE 2. TOTAL FISHING HARVEST AND HARVEST RATES, IN NUMBERS OF FISH

The # HARVESTED column is the estimated total number of fish harvested for the season, by species. The top number in this column will always contain the estimated total number of all fish harvested for the season, as indicated by "All species"

under the SPECIES column header. For any given species, a "**** NOT RECORDED ****" entry indicates that no harvested fish were recorded from the angler interviews, and therefore no estimate of the total harvest could be made.

The **95% CI** column next to the # HARVESTED column contains the 95% confidence interval estimate of the # HARVESTED value. The lower confidence limit is shown on the left and is separated by a dash from the upper confidence limit shown on the right. In cases where the lower limit of the confidence interval is a negative number, a value of zero is shown in the table. A negative or zero value for the lower 95% confidence interval is usually the result of very few fish of a particular species being sampled in the angler interviews. Next to the upper confidence limit, in parentheses, is an additional estimate of the precision of the # HARVESTED estimate, and is calculated as:

$$((\text{Upper } 95\% \text{ CI} - \# \text{ HARVESTED}) / \# \text{ HARVESTED}) \times 100\%$$

The **#/HOUR** estimate is the population harvest rate, and is defined as the number of fish harvested per angler-hour of fishing. Note that angler-hours are the same units as are reported in TABLE 1. Also, note that this is not an estimate of

the average harvest rate per angler. Rate estimates with a value of .000 have a harvest rate that is less than 0.001 but greater than zero. A zero rate is not recorded.

The **95% CI** column next to the **#/HOUR** column is the 95% Confidence Interval estimate of the **#/HOUR** estimate, and is calculated similarly to the methods described earlier.

The **#/HA** column is the estimated total number of fish harvested per hectare of lake surface area. One hectare is equivalent to 2.4711 acres.

The **#/ACRE** column is the estimated total number of fish harvested per acre of lake surface area. Lake surface area is reported at the top of Page 1.

The **SPECIES** column lists all species recorded in angler interviews. Note that this is different from the original Apple II/e creel analysis reports. These original reports were memory-limited to only 9 species per table. Additional species were either included in an additional table or were listed under "MSC" (Miscellaneous species) in the harvest table. Beginning with the 1999 creel analysis reports, all species recorded in

angler interviews will be listed in Table 2 through Table 7. Any species that does not appear in these tables was not recorded in angler interviews, and therefore no estimate could be made of the harvest or catch for that species.

TABLE 3. TOTAL FISHING HARVEST AND HARVEST RATES, IN KILOGRAMS.

Table 3 contains the estimated total fishing harvest and harvest rates in kilograms, and is structurally similar to TABLE 2. See TABLE 2 for a further discussion of the estimates under the 95% CI and SPECIES headers. Unique features of TABLE 3 are discussed below.

The **KG HARVESTED** column contains the estimated total harvest biomass, in kilograms.

The **KG/HOUR** column is the estimated total harvest biomass per angler-hour of fishing effort.

The **KG/HA** column is the estimated total harvest biomass per hectare of lake surface area.

The **AVE KG** column is the estimated average weight per harvested

fish, in kilograms. Note that TABLES 3,4,6,and 7 do not contain a per acre estimate of harvest or catch.

TABLE 4. TOTAL FISHING HARVEST AND HARVEST RATES, IN POUNDS.

TABLE 4 is structurally similar to TABLE 3, except that all biomass estimates are reported in pounds rather than in kilograms. For a discussion of the organization of TABLE 4, see the discussion for TABLE 2 and TABLE 3.

TABLES 5-7. TOTAL FISHING CATCH AND CATCH RATES

TABLES 5-7 are structurally similar to TABLES 2-4, respectively, except that all harvest estimates are replaced with catch estimates. Catch estimates contain estimates of both harvested fish and released fish. For a discussion of the organization of TABLES 5-7, see the discussions for TABLES 2-4, respectively.

A NOTE ON BIOMASS ESTIMATES

Rather than measuring fish weights directly during interviews, weights are estimated based on the standard length to weight

relationship:

$$Weight = a * TotalLength^b$$

These length-weight relationships were developed for each species from IDNR population survey data stored in the Illinois STATE FAS database, or from fisheries literature. Average fish weights reported in the AVG KG and AVG LB are calculated by dividing the estimated total biomass caught (e.g. KG CAUGHT) by the estimated total number caught (e.g. # CAUGHT) for each species.

PART TWO: SUPPLEMENTAL INTERVIEW INFORMATION

The pages following the effort, harvest, and catch tables summarize various data collected during angler interviews. Numbers reported here differ from those of the previous tables since these numbers are unweighted averages based solely on interview data rather than estimated totals for an entire year. Rather than stratifying these data as is done for the effort, harvest, and catch estimates, these tables take all interview data, combine it regardless of when it was collected during the survey and report simple averages.

TABLE 8. TRIP LENGTH, DISTANCE TRAVELED, AND SUCCESS RATING

TABLE 8 contains summary statistics for fishing trip length, distance traveled from home to the fishing site, and fishing success rating. Fishing trip length is identified by the header HOURS PER COMPLETED TRIP, and is defined as the number of decimal hours between the start and end of an angler's fishing trip on a given day. MILES TRAVELED is defined as the number of miles that an angler traveled from home to arrive at the fishing site. SUCCESS RATING is an angler's interpretation of his or her fishing success during the trip for which he or she was interviewed. The angler can provide an answer on a scale from 1 to 10, with 10 being the most successful. While this rating is subjected to each individual angler's interpretation, anglers are asked not to consider social or other factors influencing their fishing experience, and to focus only on their catch.

The **MEAN** is calculated as a simple, unweighted, and unstratified average.

The **95% CI** column is the 95% confidence interval of the MEAN.

(For a discussion of the 95% CI, see the discussion of TABLE 1.)

The **MIN** and **MAX** columns represent the range of values reported in the interviews, or the minimum value and maximum value, respectively.

The **#SAMPLES** column contains the sample size, or number of interviews, used in the calculations.

Two footnotes appear at the bottom of TABLE 8. The first footnote indicates the number of split interviews used in the calculation of HOURS PER COMPLETED TRIP. A split interview is defined as an interview that falls over two or three Day Periods (Morning, Midday, and Afternoon). For example, a fishing trip that began at 7:00am and ended at 12:00pm falls over both the Morning Day Period and the Midday Day Period. The second footnote indicates the percentage of all interviews that were completed trip interviews. All other interviews are considered incomplete, and are defined as interviews of anglers that are still actively fishing at the time of the interview.

ILLEGAL HARVEST

Illegally harvested fish are defined as fish that are in the possession of the angler at the time of the interview that have been harvested in violation of (1) the Illinois Fishing Information regulation booklet, published by the Illinois Department of Natural Resources, or (2) any additional site-specific regulations not outlined in the regulation booklet. Creel clerks witnessing harvest violations do not notify the angler, nor do they notify the authorities. The ILLEGAL HARVEST information reported here is simply a tally of the number of interviews that had illegally harvested fish at the time of the interview.

TABLE 9. FREQUENCY DISTRIBUTION OF ANGLER PARTY SIZE

An angler party is defined as a group of anglers fishing together and combined into a single angler interview. For example, two anglers fishing in the same boat are often interviewed together as an angler party size of 2. TABLE 9 shows the frequency distribution of angler party sizes for boat and shore interviews.

TABLE 10. TARGETED SPECIES

TABLE 10 is a tally of all species that anglers are targeting, along with a percentage of the total in parentheses. During an interview, anglers are asked what species they are trying to catch, or are *targeting*. Anglers can respond by saying they are targeting a specific species (i.e. bluegill), a family of species (i.e. sunfish), or any fish at all.

TABLE 11. CATCH FREQUENCY DISTRIBUTION

TABLE 11 is a frequency distribution of anglers reporting a given number of harvested and released fish, by species, for completed trip interviews only. It examines each interview for the number of fish of a single species or species group reported as harvested and released. It then calculates the average harvest and catch per angler by dividing the total number harvested and the total released for that species by the number of anglers in the party. The table reports the number of anglers, broken down by their catch rate. An example of this table, for walleye reported as harvested in 500 completed trip

interviews might be:

# OF FISH:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15+
------------	---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	-----

Walleye

HARVEST	651	50	7	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	578	101	26	3	-	-	-	-	-	-	-	-	-	-	-	-

The 500 completed trip interviews actually cover the catch of 708 anglers in this case, since a number of angler parties had more than one angler. Of these 708 anglers, 651 anglers reported no walleye harvested on their trip (or averaged less than 1 walleye per angler per angler party), 50 anglers were in parties that harvested an average of 1 walleye/angler, and 7 anglers were in parties that harvested an average of 2 walleye/angler. No anglers were in parties that harvested more than 2 walleye/angler. Each zero value is represented by a dash.

PART THREE: LENGTH-FREQUENCY HISTOGRAMS

The final pages of the creel report show length-frequency histograms

for harvested and released fish, for the major game species only. Fish reported in each chart include all interviews, not just completed trip interviews. The frequency of fish reported for each centimeter total length group are the actual totals of fish reported in interviews rather than estimated totals as are reported in TABLES 2-7. Two charts are reported per species; the first chart displays harvested fish, while the second chart displays released fish.

APPENDIX B. 1999 CREEL SURVEY RESULTS

The following pages contain the final results from the full 1999 day creel surveys conducted on Illinois lakes, including 11 lakes funded by Project F-69-R-13, 4 lakes funded by IDNR Division of Fisheries, and 1 lake funded by Ameren Services Company. Results are presented alphabetically by lake name for the following lakes:

<u>Lake Name</u>	<u>Region</u>	<u>District</u>
Forbes Lake	5	18
Lake Glendale	5	20
Hillsboro Old City Lake	4	15
Homer Lake	3	10
Lake Jacksonville	4	12
Lake McLeansboro	5	20
Lake Mingo	3	10
Newton Lake	5	19
Pana Lake	3	9
Paris East Lake	3	11
Paris West Lake	3	11
Pierce Lake	1	1
Rend Lake		
Round Lake	2	7
Spring Lake North	1	5
Walton Park Lake	4	15

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

1999 FORBES LAKE

DAY CREEL

03/15/1999 - 10/31/1999

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+
Yellow bullhead																
HARVEST	494	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	496	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

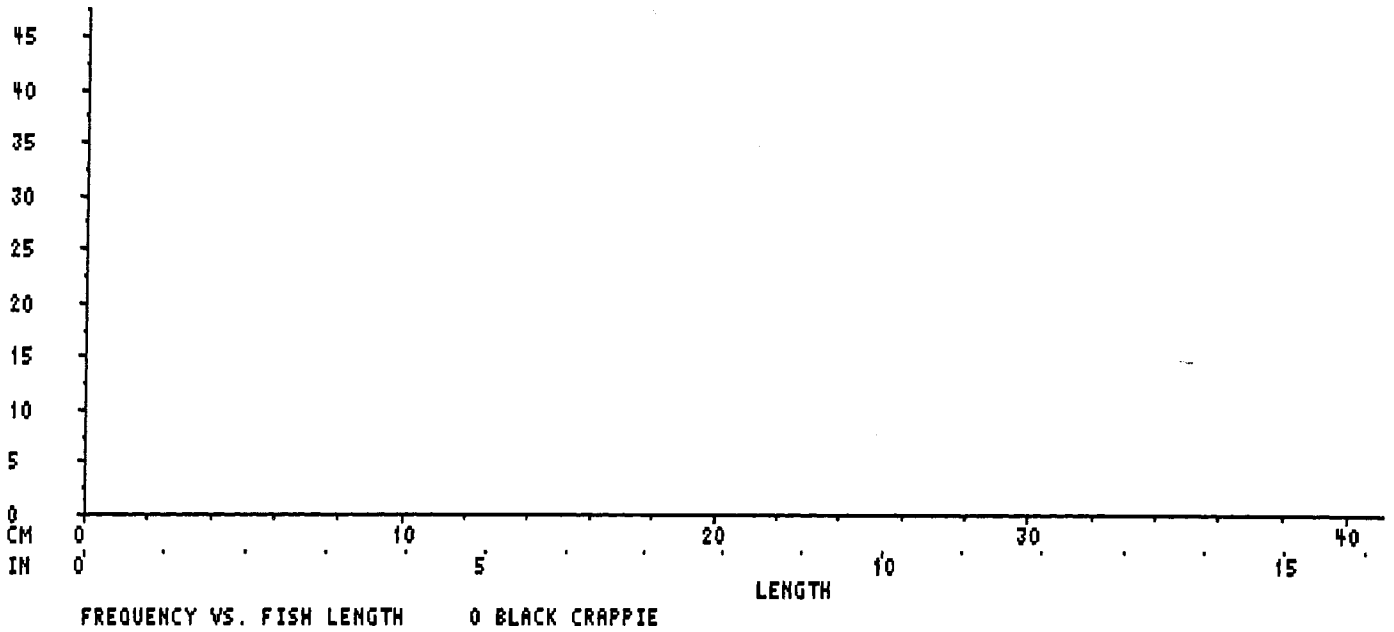


Figure 1. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

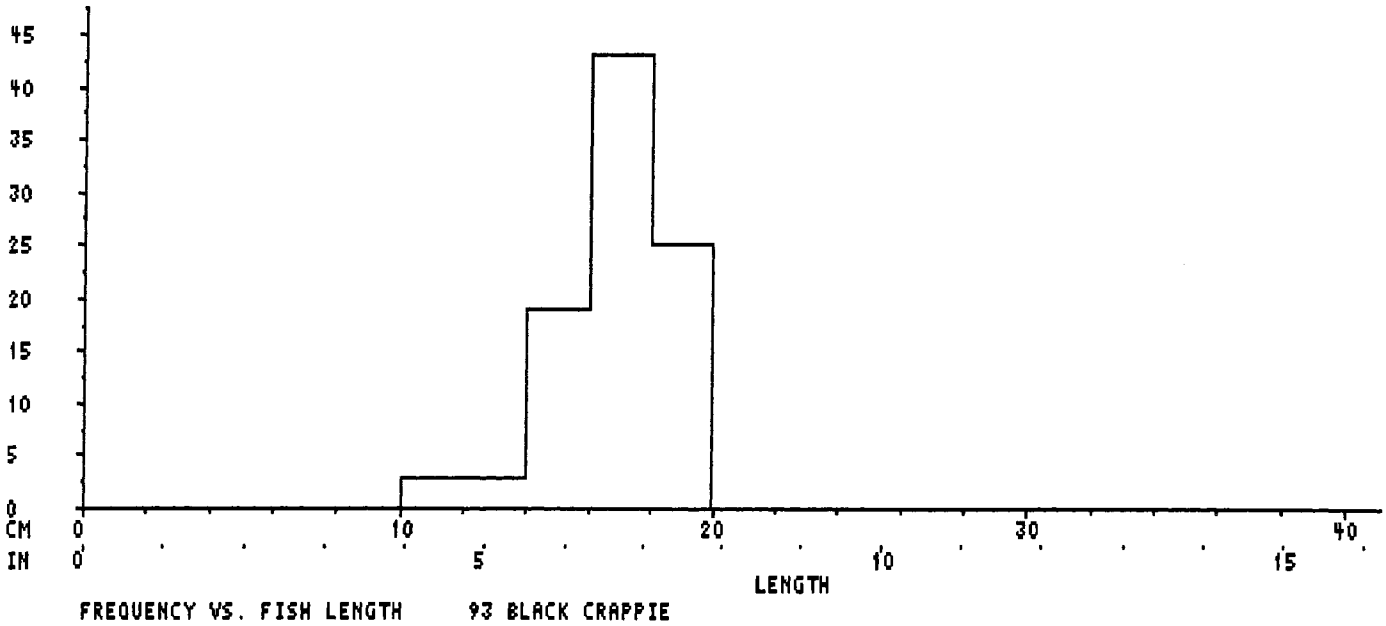


Figure 2. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

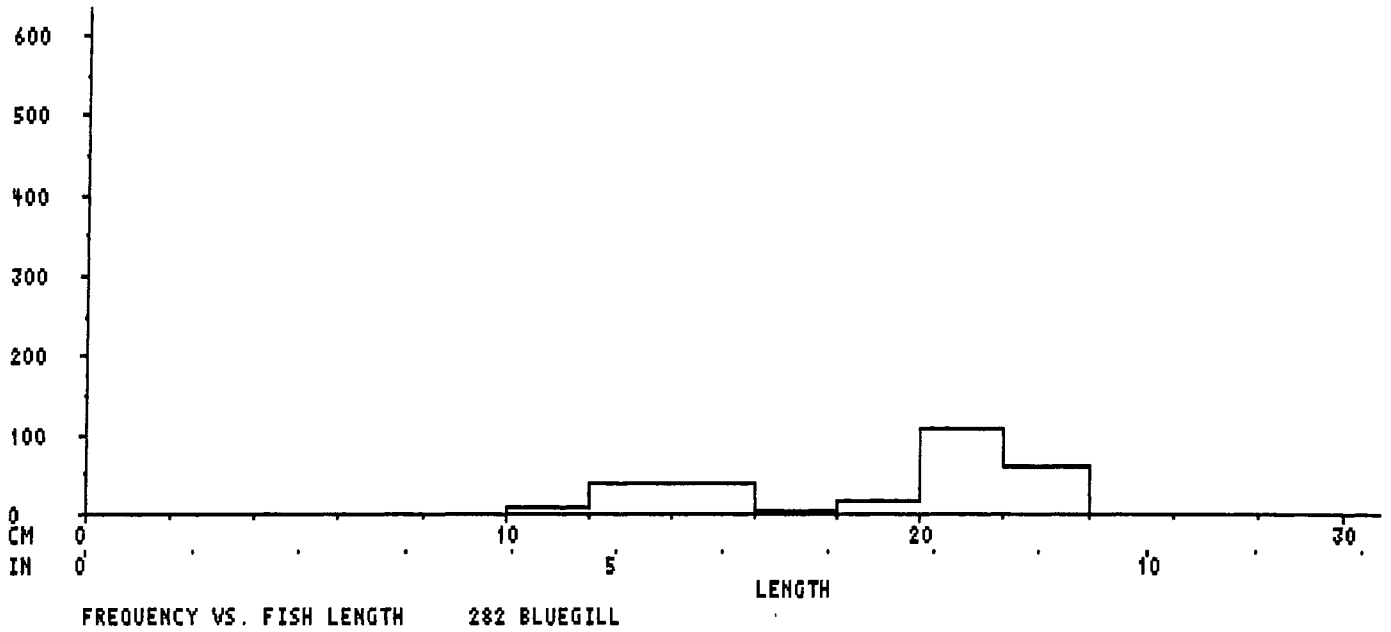


Figure 3. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

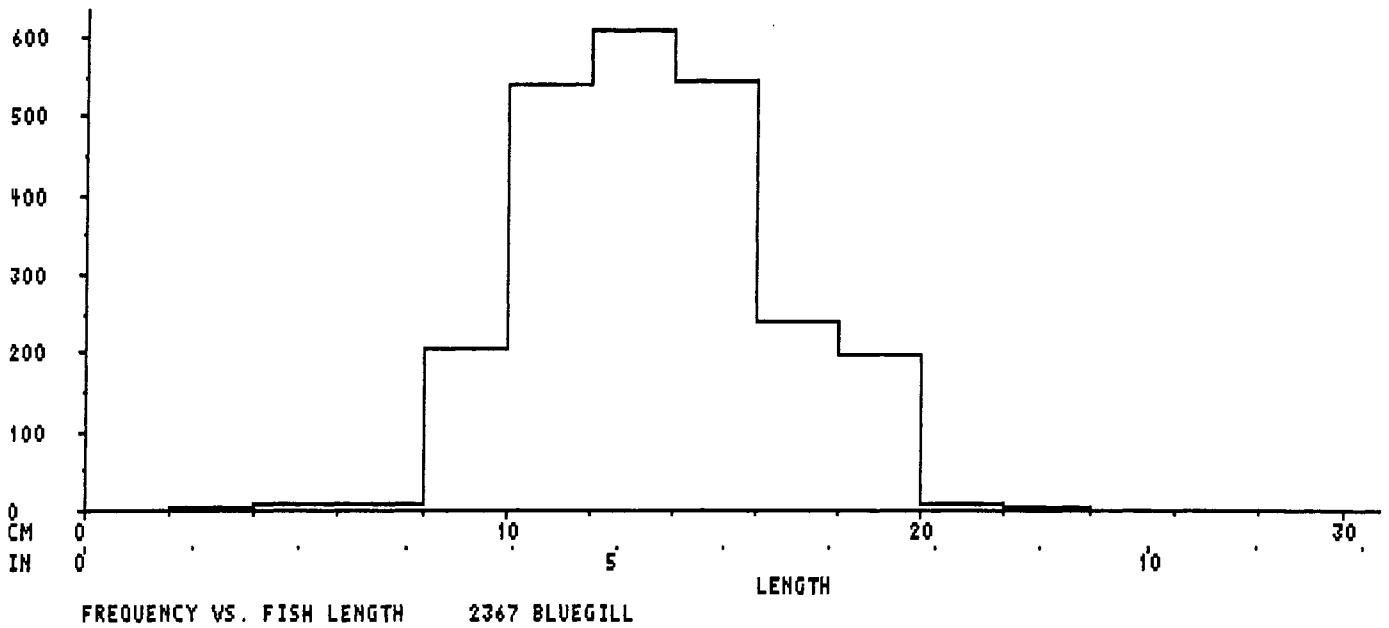


Figure 4. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

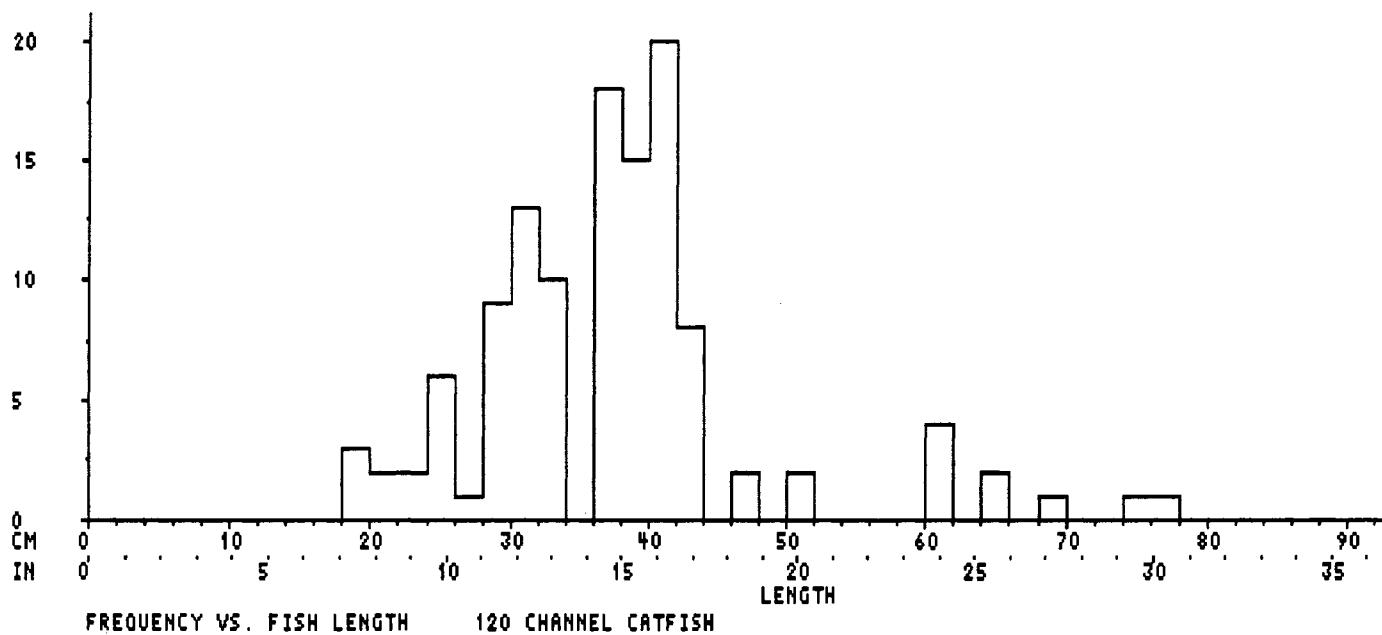


Figure 5. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

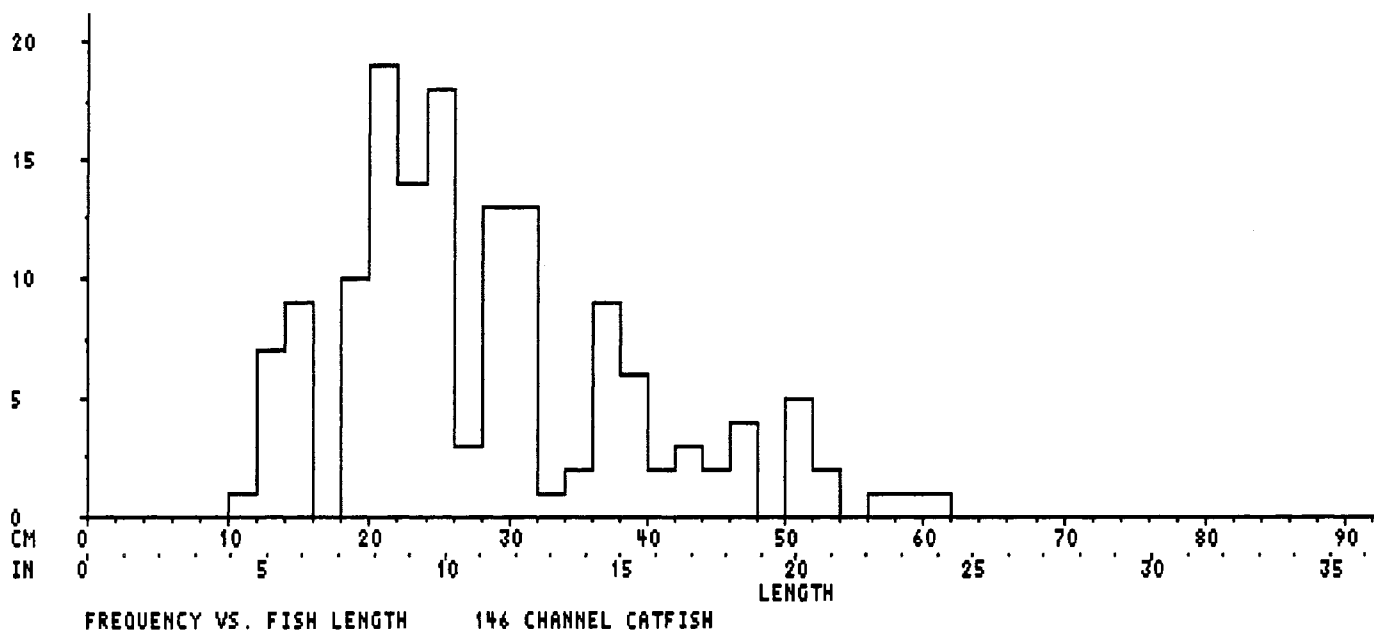


Figure 6. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

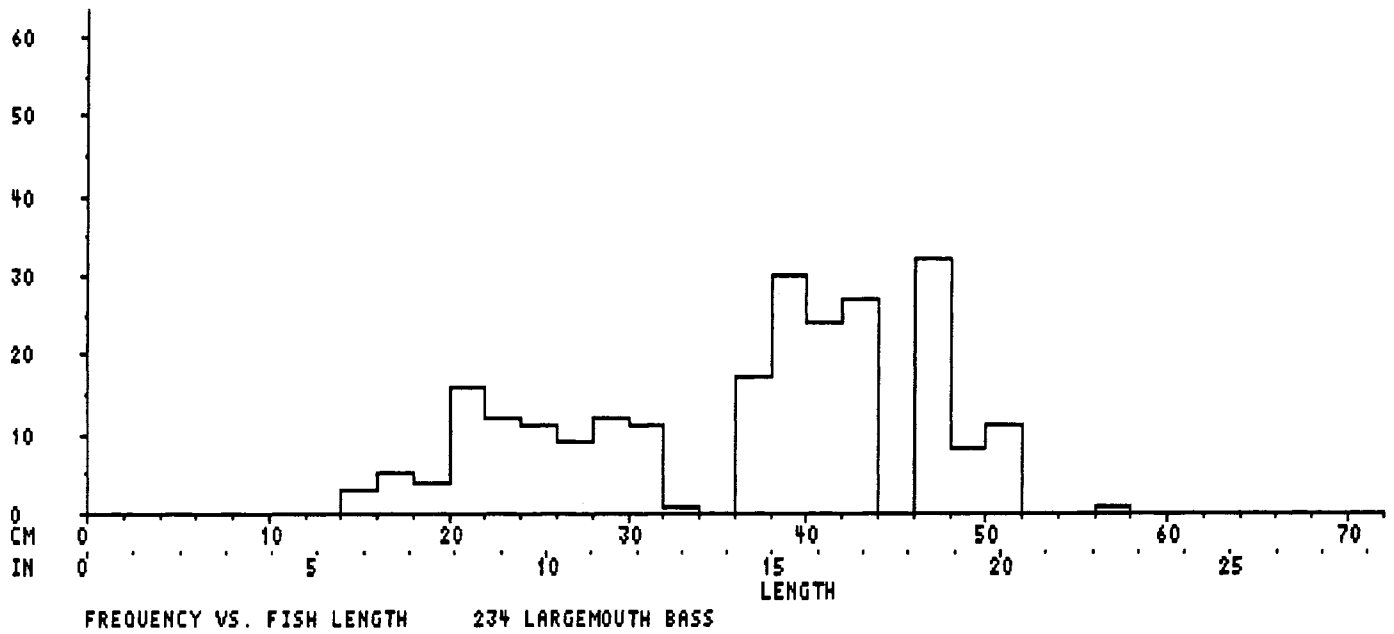


Figure 7. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

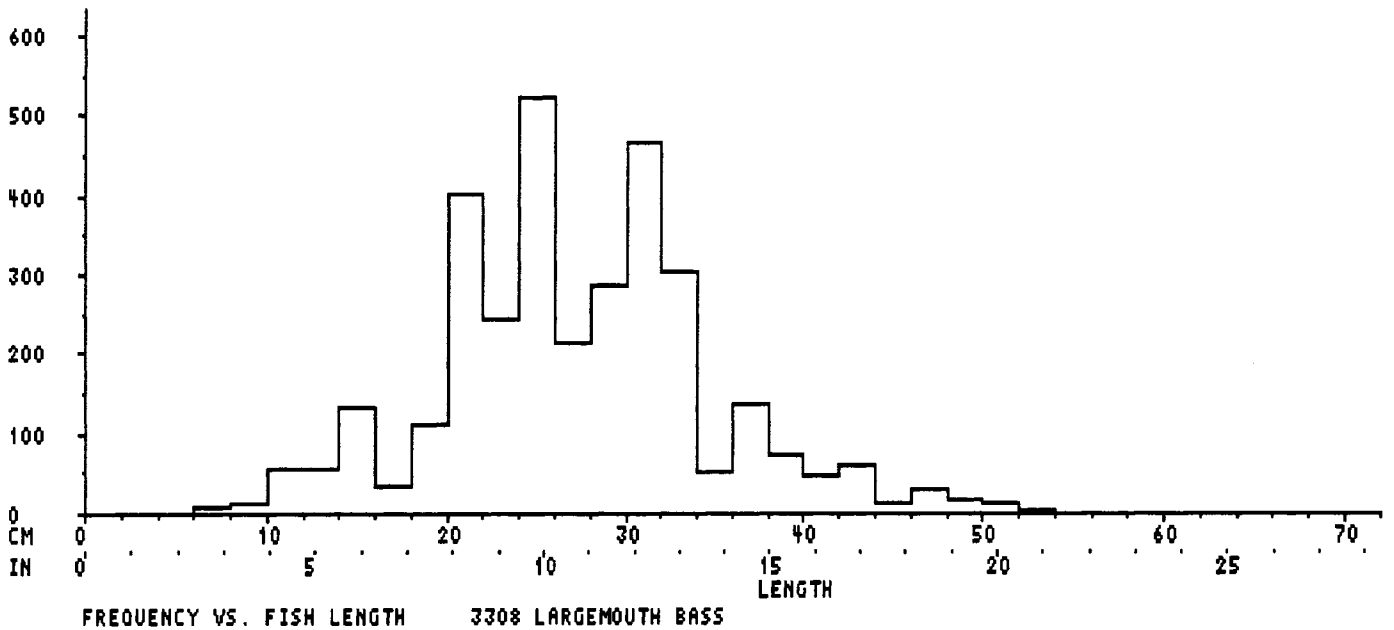


Figure 8. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 7.

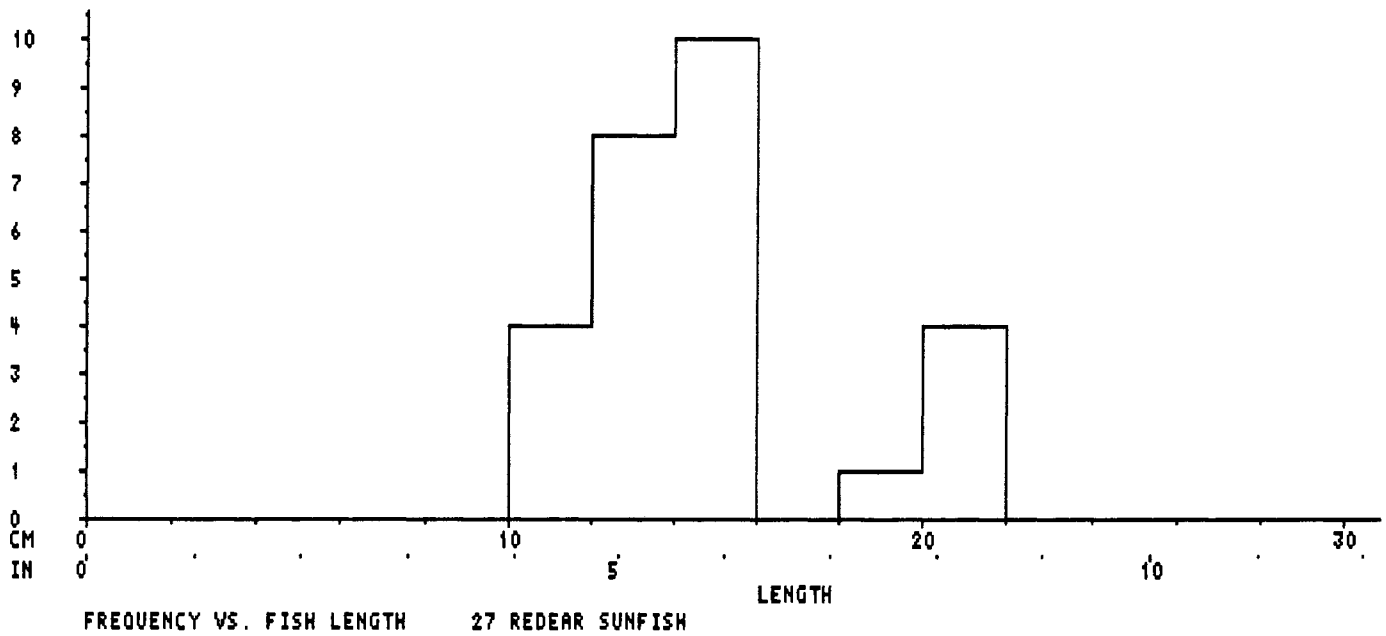


Figure 9. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of redear sunfish harvested by all anglers.

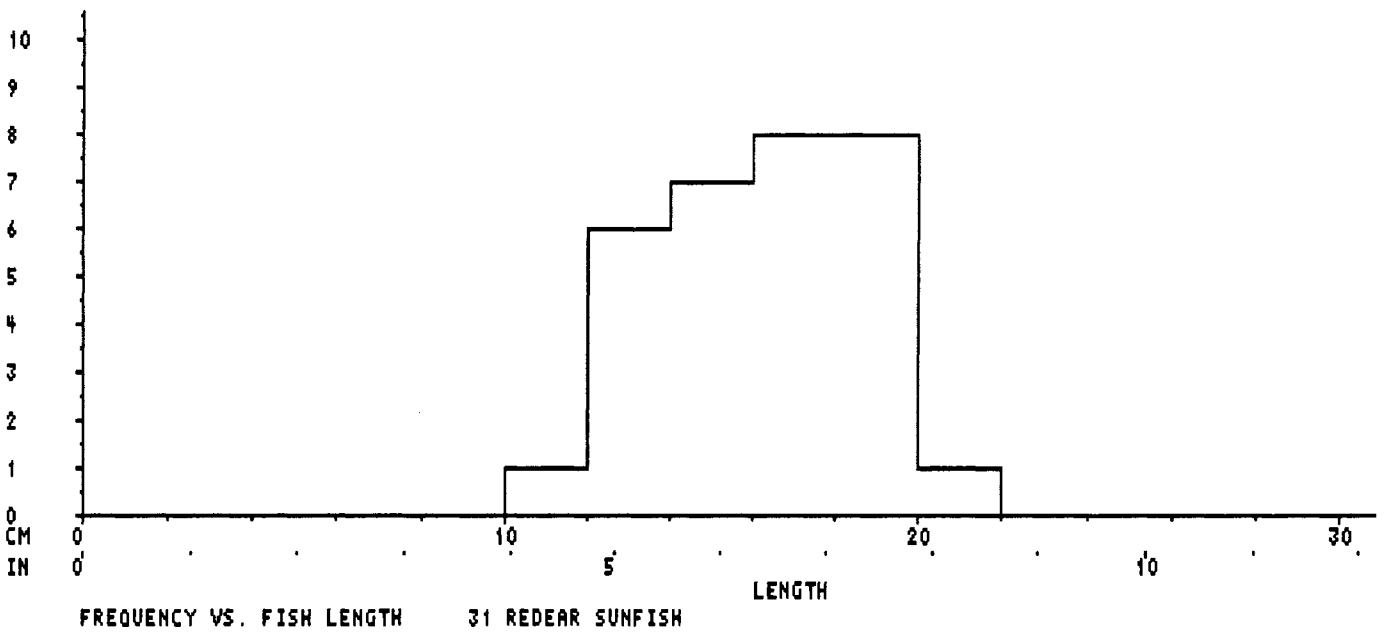


Figure 10. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of redear sunfish released by all anglers.

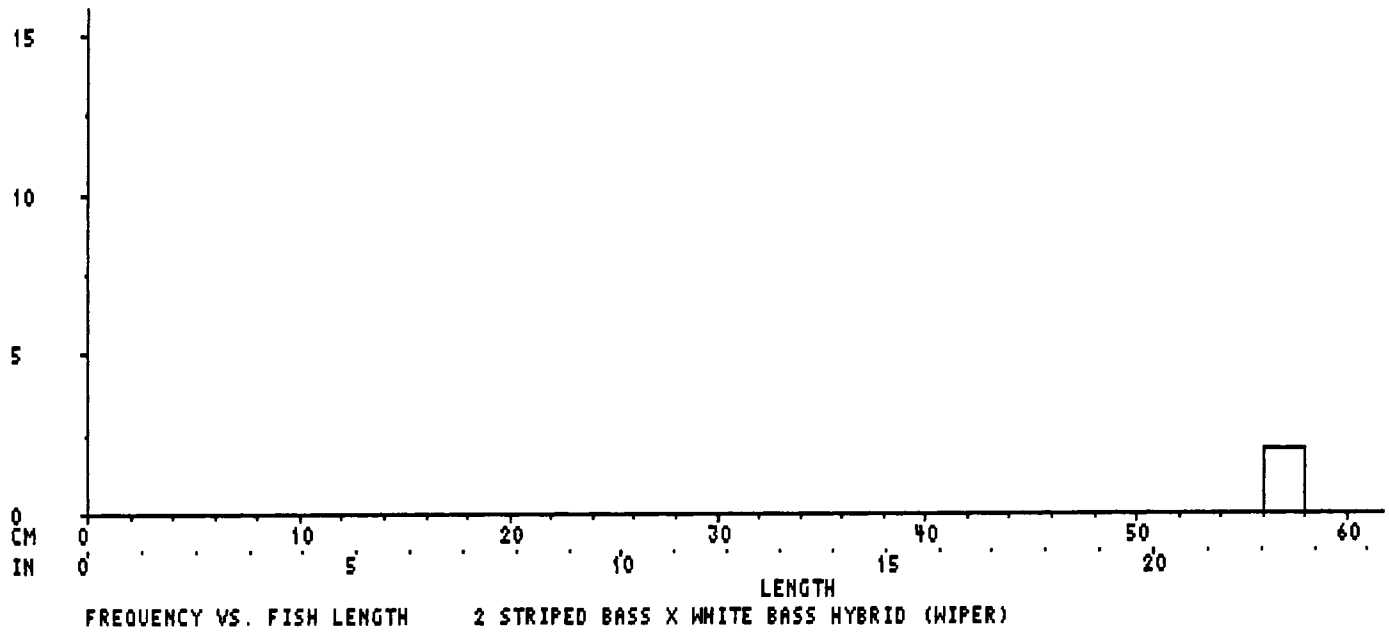


Figure 11. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of hybrid striped bass harvested by all anglers.

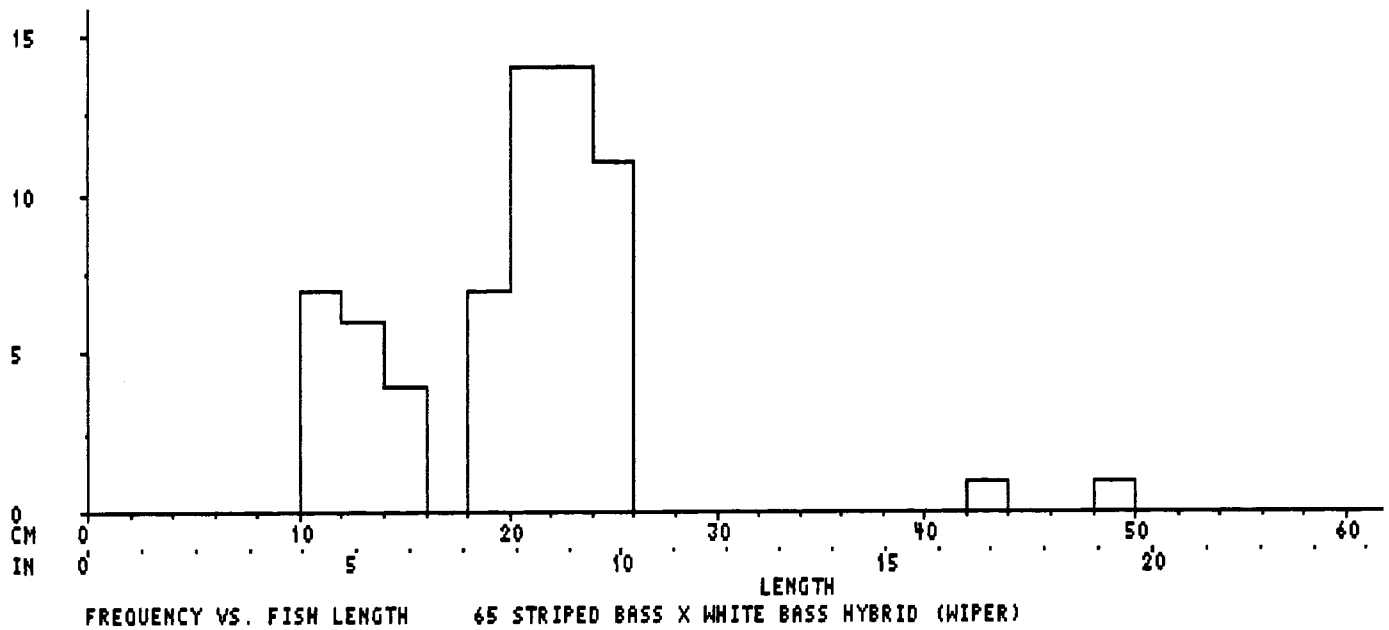


Figure 12. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of hybrid striped bass released by all anglers.

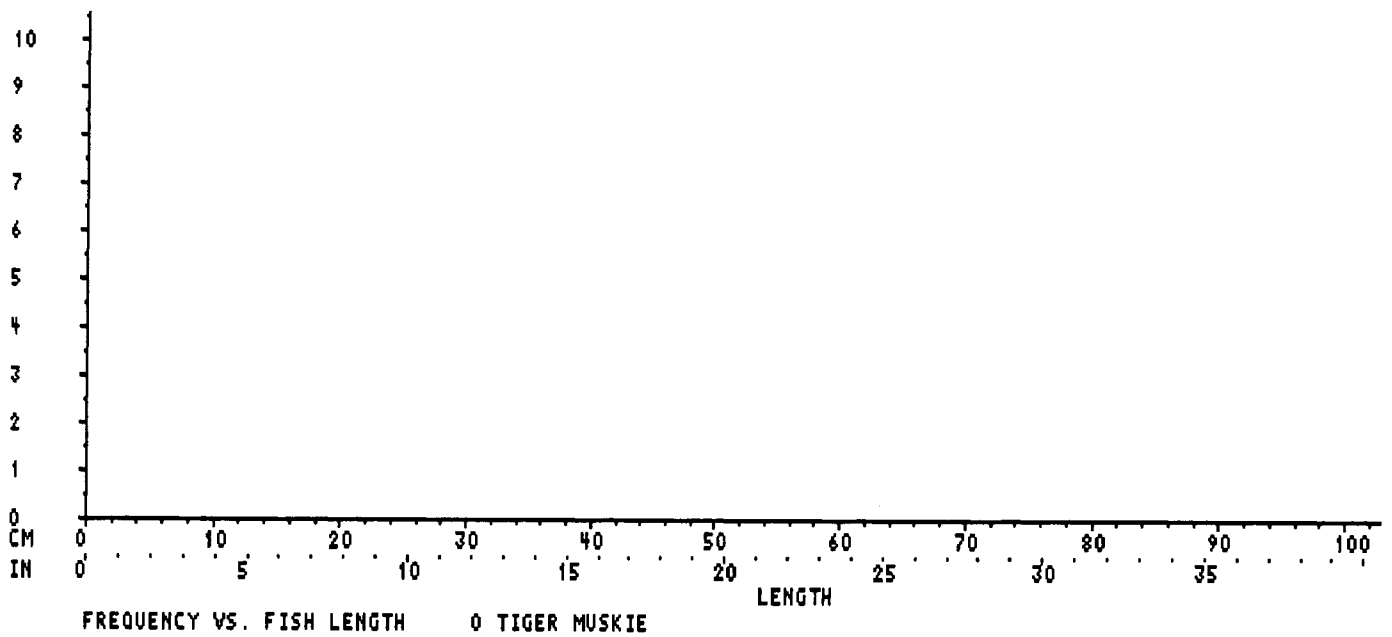


Figure 13. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of tiger muskie harvested by all anglers.

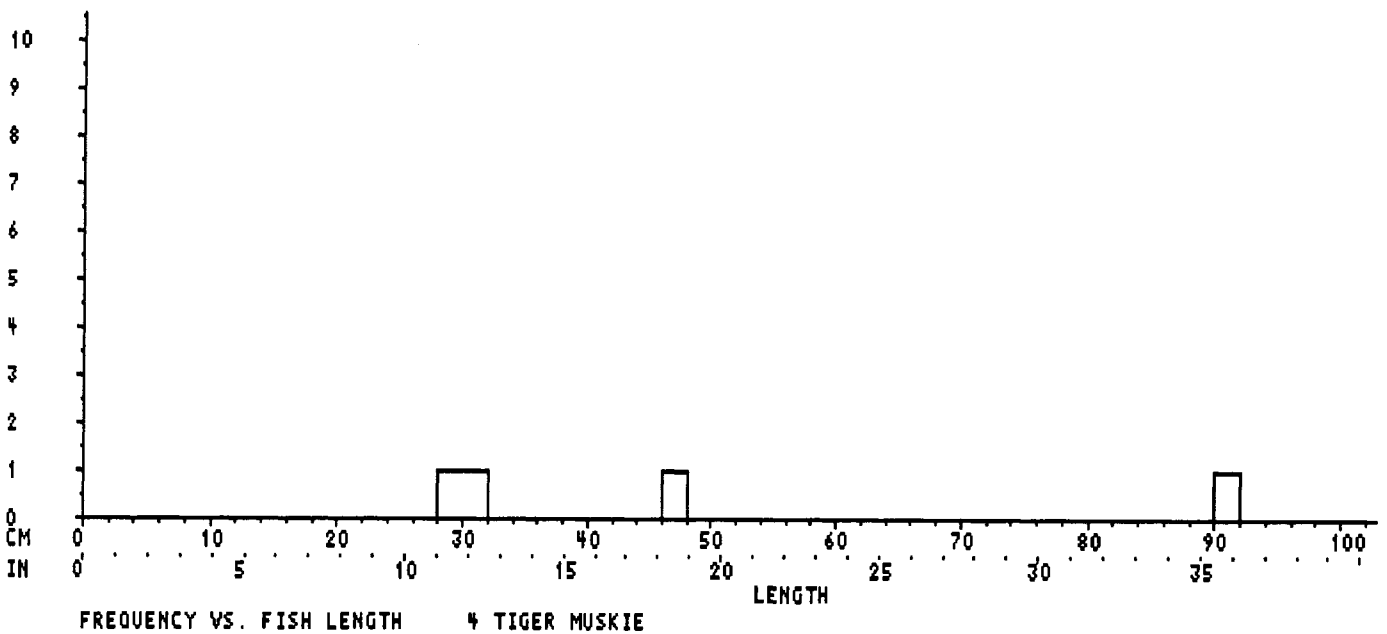


Figure 14. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of tiger muskie released by all anglers.

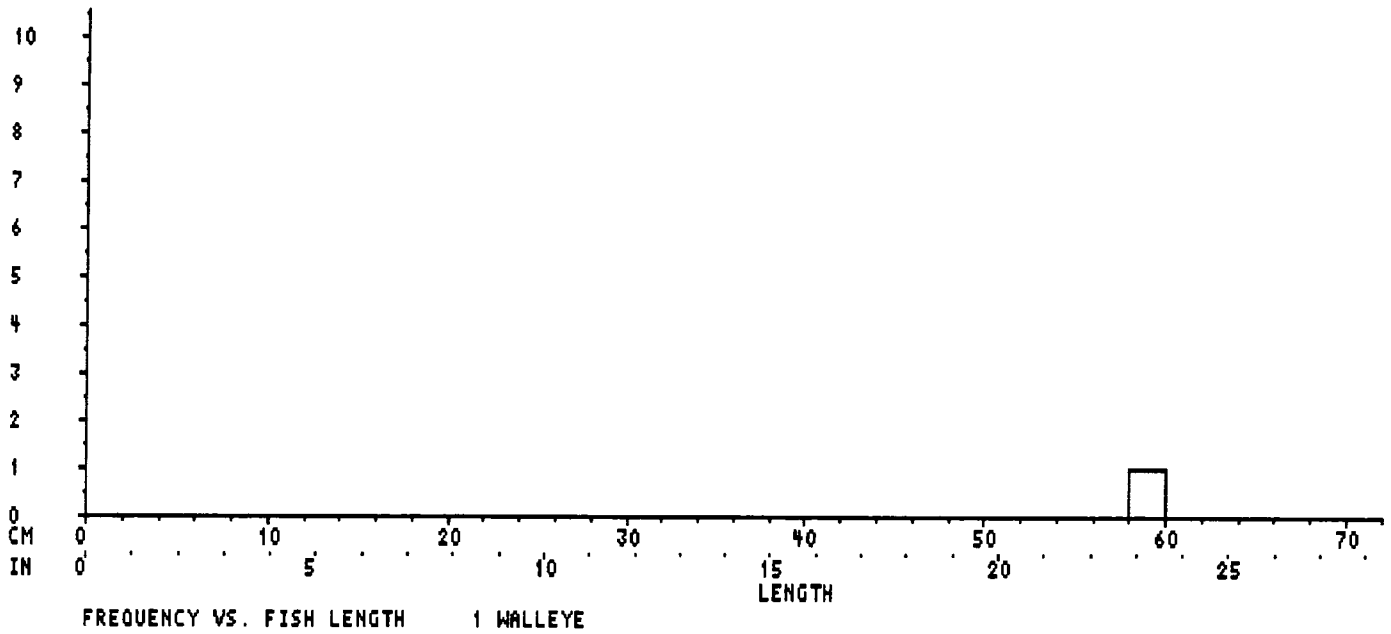


Figure 15. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of walleye harvested by all anglers.

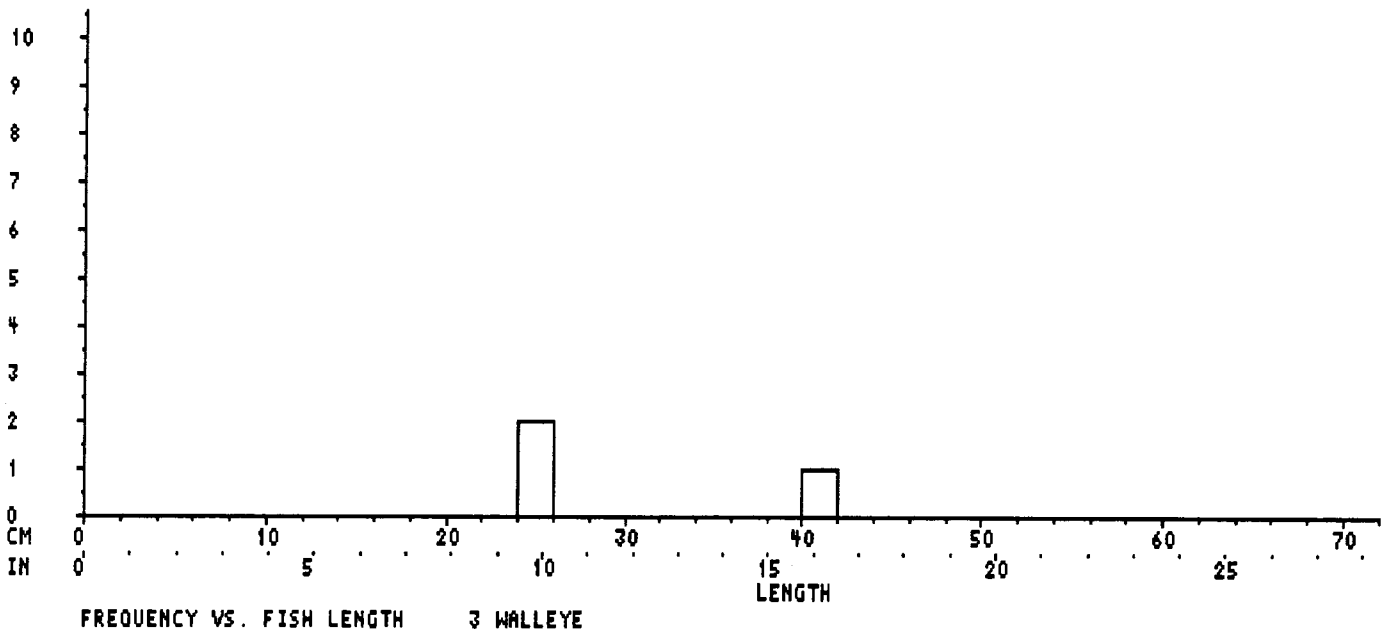


Figure 16. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of walleye released by all anglers.

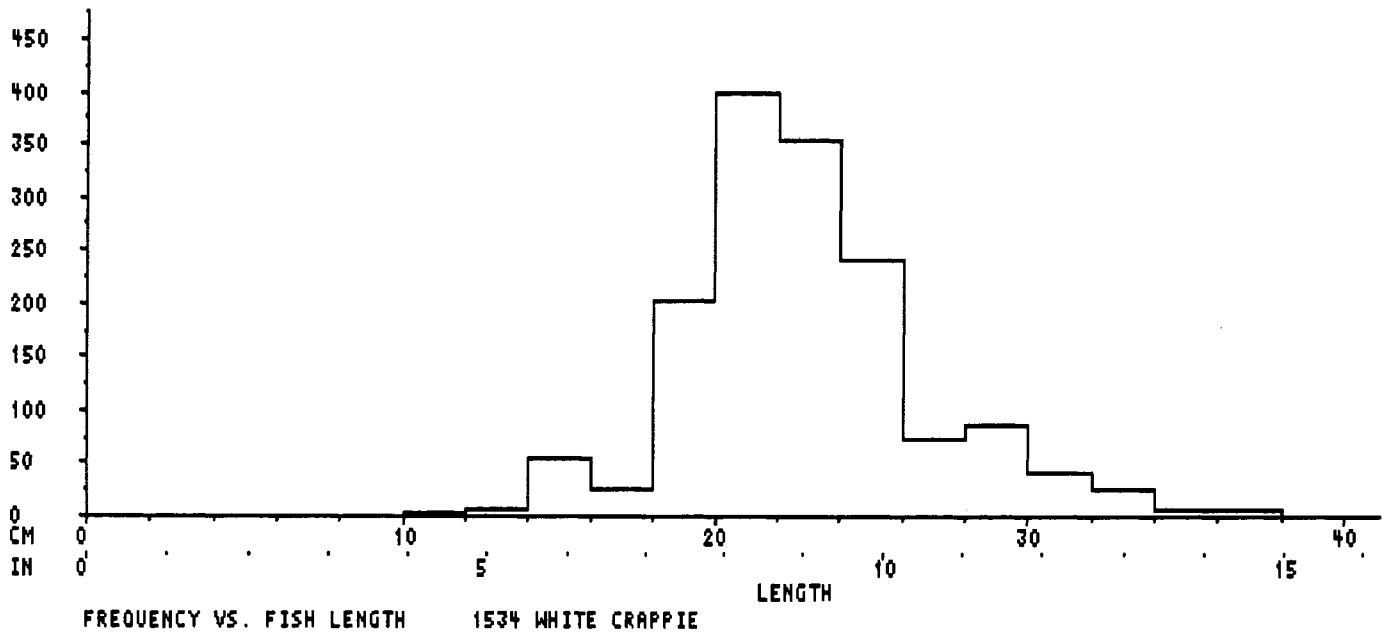


Figure 17. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

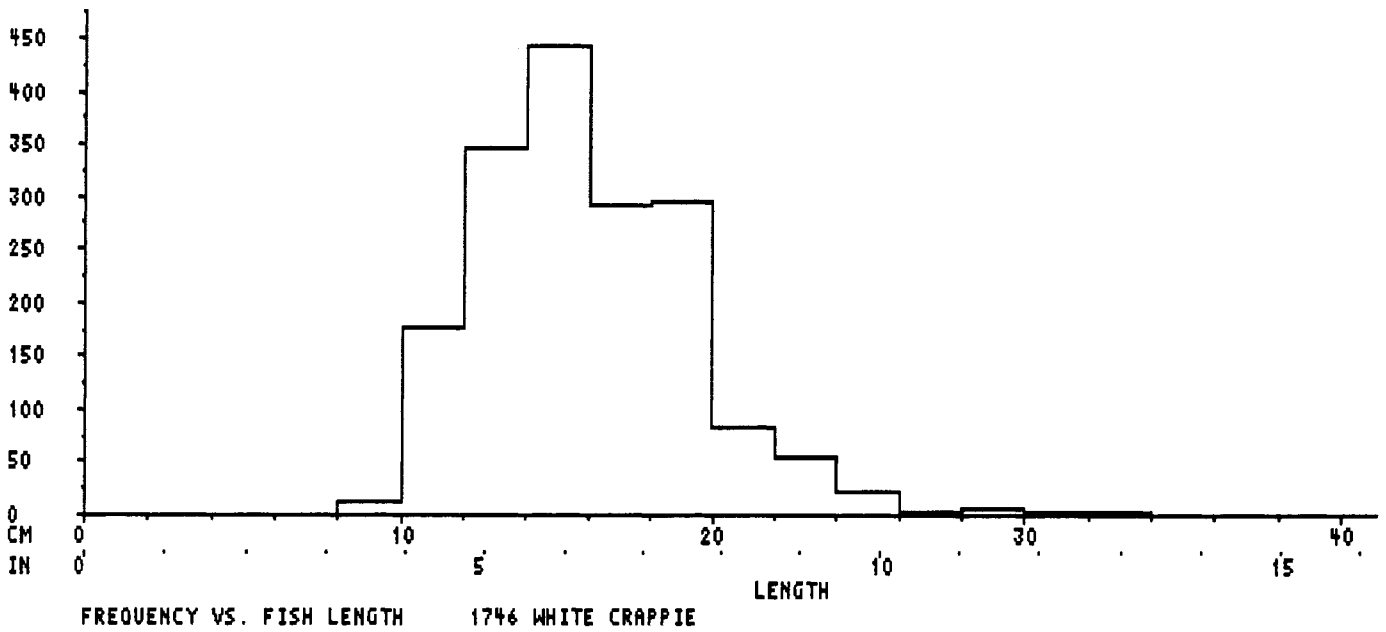


Figure 18. Forbes Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.

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

1999 LAKE GLENDALE
 80 ACRES
 REGION 5, DISTRICT 20

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: 306/693 = 44.2%

NUMBER OF INTERVIEWS: 866

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	1536	1183-1889 (23%)	19	15-24 (23%)	24%
	HOLIDAY	1223	983-1463 (20%)	15	12-18 (20%)	56%
	TOTAL	2759	2332-3186 (15%)	34	29-40 (15%)	38%
SHORE	WEEKDAY	2772	2410-3135 (13%)	35	30-39 (13%)	23%
	HOLIDAY	2053	1676-2430 (18%)	26	21-30 (18%)	54%
	TOTAL	4825	4317-5334 (11%)	60	54-67 (11%)	36%
BOAT & SHORE	WEEKDAY	4308	3803-4814 (12%)	54	48-60 (12%)	24%
	HOLIDAY	3276	2846-3706 (13%)	41	36-46 (13%)	55%
	TOTAL	7584	6920-8248 (9%)	95	87-103 (9%)	37%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
4916	4011-5820	(18%)	.510	.317-.702 (38%)	151.83	61.45	All species
322	68-576	(79%)	.060	.000-.129 (114%)	9.94	4.02	Black crappie
2953	2331-3574	(21%)	.308	.199-.416 (35%)	91.20	36.91	Bluegill
897	639-1154	(29%)	.072	.051-.094 (29%)	27.69	11.21	Channel catfish
314	202-426	(36%)	.031	.010-.053 (68%)	9.69	3.92	Green sunfish
71	30-112	(57%)	.009	.001-.018 (94%)	2.19	0.89	Largemouth bass
82	41-122	(50%)	.007	.003-.010 (56%)	2.52	1.02	Redear sunfish
225	141-309	(37%)	.020	.010-.029 (48%)	6.95	2.81	Warmouth
53	14-92	(73%)	.003	.001-.005 (78%)	1.64	0.66	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
1021	784-1258	(23%)	.094	.070-.119 (25%)	31.54	0.208	All species
65	0-137	(111%)	.012	.000-.026 (109%)	2.00	0.202	Black crappie
256	201-312	(22%)	.024	.018-.031 (27%)	7.92	0.087	Bluegill
569	382-755	(33%)	.047	.032-.062 (32%)	17.56	0.634	Channel catfish
26	17-36	(37%)	.002	.001-.004 (53%)	0.81	0.084	Green sunfish
34	16-52	(53%)	.003	.001-.005 (71%)	1.05	0.477	Largemouth bass
11	5-16	(48%)	.001	.000-.001 (58%)	0.33	0.131	Redear sunfish
32	20-43	(36%)	.003	.001-.004 (48%)	0.98	0.141	Warmouth
29	7-50	(76%)	.001	.000-.003 (87%)	0.88	0.540	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
2251	1729-2773	(23%)	.208	.155-.261 (25%)	28.14	0.458	All species
143	0-302	(111%)	.027	.000-.057 (109%)	1.79	0.446	Black crappie
565	443-688	(22%)	.053	.039-.067 (27%)	7.07	0.192	Bluegill
1253	842-1665	(33%)	.104	.071-.138 (32%)	15.67	1.399	Channel catfish
58	36-80	(37%)	.005	.002-.008 (53%)	0.73	0.185	Green sunfish
75	35-114	(53%)	.007	.002-.012 (71%)	0.93	1.052	Largemouth bass
23	12-35	(48%)	.002	.001-.003 (58%)	0.29	0.289	Redear sunfish
70	45-95	(36%)	.006	.003-.009 (48%)	0.87	0.311	Warmouth
63	15-111	(76%)	.003	.000-.006 (87%)	0.79	1.190	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	
14568	11981-17155	(18%)	1.556	1.073-2.039	(31%)	449.98	182.10	All species
382	119-646	(69%)	.066	.002-.131	(97%)	11.81	4.78	Black crappie
8306	6484-10128	(22%)	.828	.571-1.086	(31%)	256.54	103.82	Bluegill
1377	976-1778	(29%)	.116	.080-.152	(31%)	42.53	17.21	Channel catfish
997	704-1289	(29%)	.100	.065-.135	(35%)	30.78	12.46	Green sunfish
2900	2370-3429	(18%)	.381	.247-.515	(35%)	89.57	36.25	Largemouth bass
94	48-140	(49%)	.008	.004-.013	(55%)	2.91	1.18	Redear sunfish
442	312-572	(29%)	.052	.026-.078	(51%)	13.66	5.53	Warmouth
71	28-113	(60%)	.004	.002-.006	(57%)	2.19	0.89	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	
1994	1655-2333	(17%)	.212	.171-.253	(19%)	61.58	0.137	All species
68	0-140	(106%)	.013	.000-.026	(107%)	2.10	0.178	Black crappie
400	321-478	(20%)	.038	.029-.047	(23%)	12.35	0.048	Bluegill
662	456-869	(31%)	.056	.039-.073	(30%)	20.46	0.481	Channel catfish
41	30-53	(29%)	.004	.003-.005	(35%)	1.28	0.042	Green sunfish
724	556-892	(23%)	.092	.066-.119	(29%)	22.37	0.250	Largemouth bass
12	6-18	(47%)	.001	.001-.002	(55%)	0.37	0.128	Redear sunfish
51	37-65	(28%)	.005	.004-.007	(35%)	1.58	0.116	Warmouth
35	11-58	(68%)	.002	.001-.003	(73%)	1.07	0.495	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	
4395	3648-5142	(17%)	.467	.378-.557	(19%)	54.94	0.302	All species
150	0-310	(106%)	.028	.000-.058	(107%)	1.87	0.393	Black crappie
881	708-1055	(20%)	.084	.065-.103	(23%)	11.02	0.106	Bluegill
1460	1005-1916	(31%)	.124	.087-.162	(30%)	18.26	1.061	Channel catfish
91	65-118	(29%)	.009	.006-.012	(35%)	1.14	0.092	Green sunfish
1596	1226-1967	(23%)	.204	.145-.263	(29%)	19.96	0.551	Largemouth bass
27	14-39	(47%)	.003	.001-.004	(55%)	0.33	0.282	Redear sunfish
113	82-144	(28%)	.012	.008-.016	(35%)	1.41	0.255	Warmouth
76	24-129	(68%)	.004	.001-.007	(73%)	0.96	1.092	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	3.3	3.0-3.6 (10%)	0.7	9.2	149
SHORE	1.9	1.8-2.1 (7%)	0.1	9.6	402
BOAT & SHORE	2.3	2.2-2.4 (6%)	0.1	9.6	551
MILES TRAVELED	21.2	17.9-24.4 (15%)	1	380	624
SUCCESS RATING (1-10)	5.2	4.9-5.4 (6%)	1	10	620

*198 samples were from split interviews of completed trips.
83.1% of all 663 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 4 out of 663 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	52	112	18	7						
SHORE INTERVIEWS	237	132	54	31	10	3	2	2		2

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

397 (59.9%)	ANY	All species
1 (0.2%)	BLC	Black crappie
16 (2.4%)	BLG	Bluegill
82 (12.4%)	CAT	Unidentified catfish
1 (0.2%)	CCF	Channel catfish
5 (0.8%)	CRP	Crappie spp.
159 (24.0%)	LMB	Largemouth bass
2 (0.3%)	SUN	Sunfish spp. excluding Crappie and Black Bass

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 crappie																
HARVEST	989	32	5	6	3	-	-	-	-	1	-	-	-	-	-	1
RELEASE	1010	25	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	770	85	46	32	32	21	14	6	3	2	3	3	-	6	2	12
RELEASE	743	108	37	29	14	8	17	6	11	2	4	3	15	7	5	28
Channel catfish																
HARVEST	894	79	25	15	12	8	4	-	-	-	-	-	-	-	-	-
RELEASE	955	55	9	3	5	-	2	2	4	-	2	-	-	-	-	-
Green sunfish																
HARVEST	954	46	24	10	1	1	-	1	-	-	-	-	-	-	-	-
RELEASE	932	47	22	13	4	-	9	-	5	1	-	1	2	1	-	-
Largemouth bass																
HARVEST	1006	28	2	1	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	656	179	77	48	31	8	13	-	6	3	3	2	3	-	2	6
Redear sunfish																
HARVEST	1011	19	4	2	-	1	-	-	-	-	-	-	-	-	-	-
RELEASE	1034	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Warmouth																
HARVEST	980	40	15	1	-	-	-	-	-	-	1	-	-	-	-	-
RELEASE	991	32	6	5	-	-	1	1	-	-	-	-	1	-	-	-
Yellow bullhead																
HARVEST	1026	7	2	2	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1032	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-

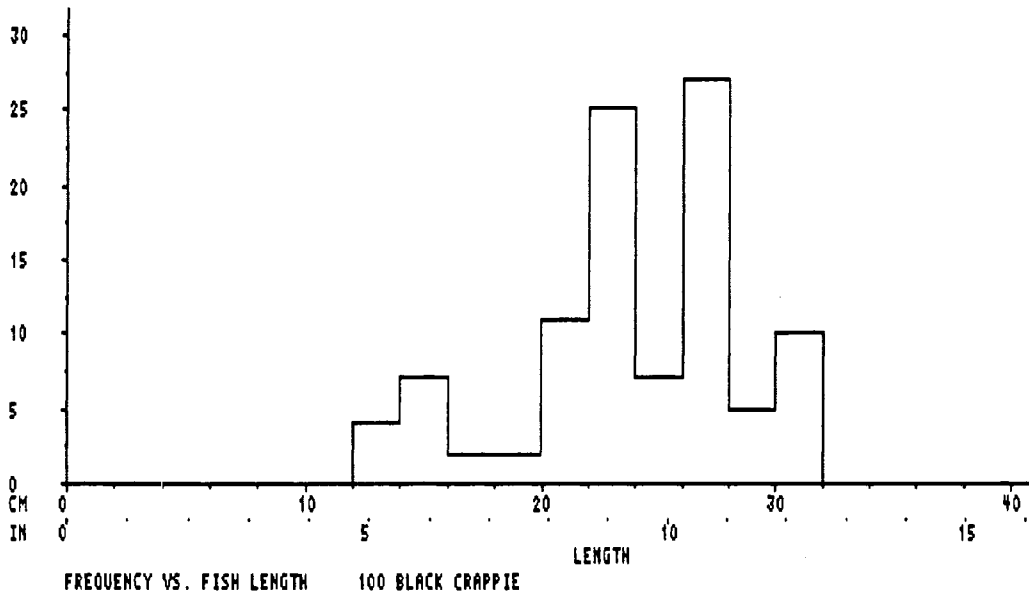


Figure 1. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

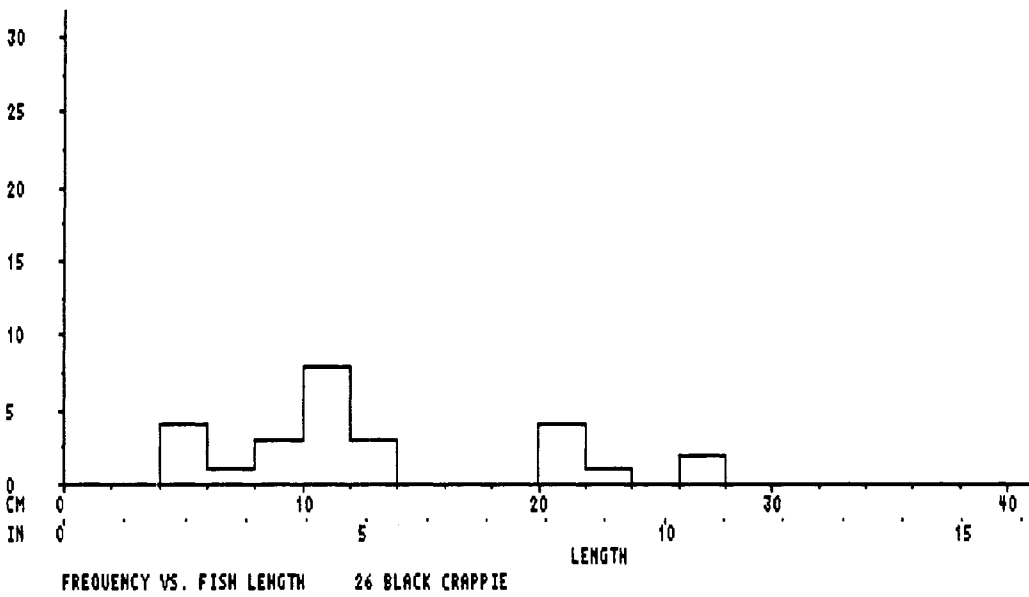


Figure 2. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

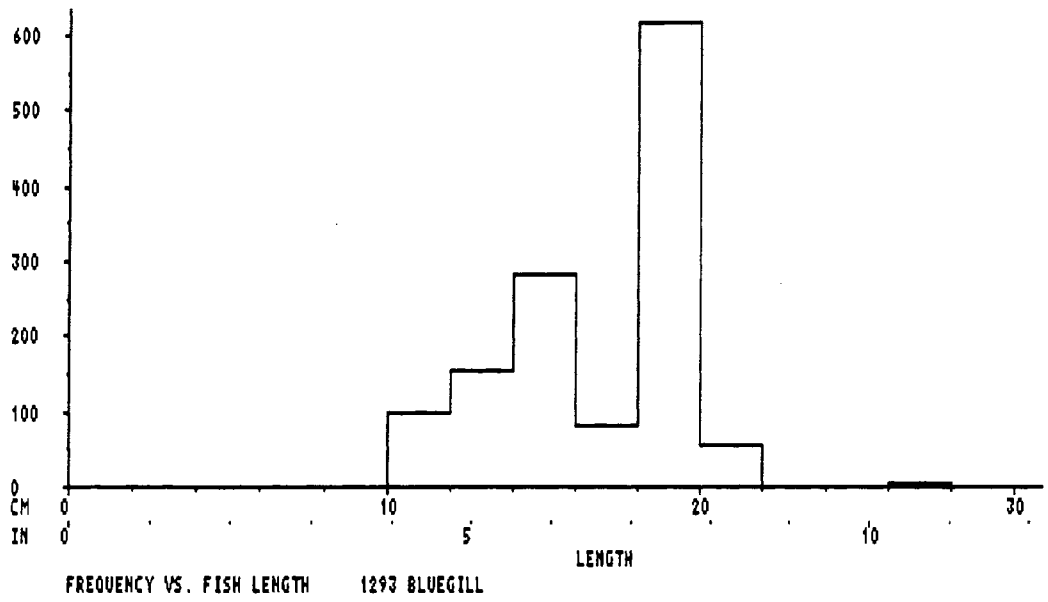


Figure 3. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

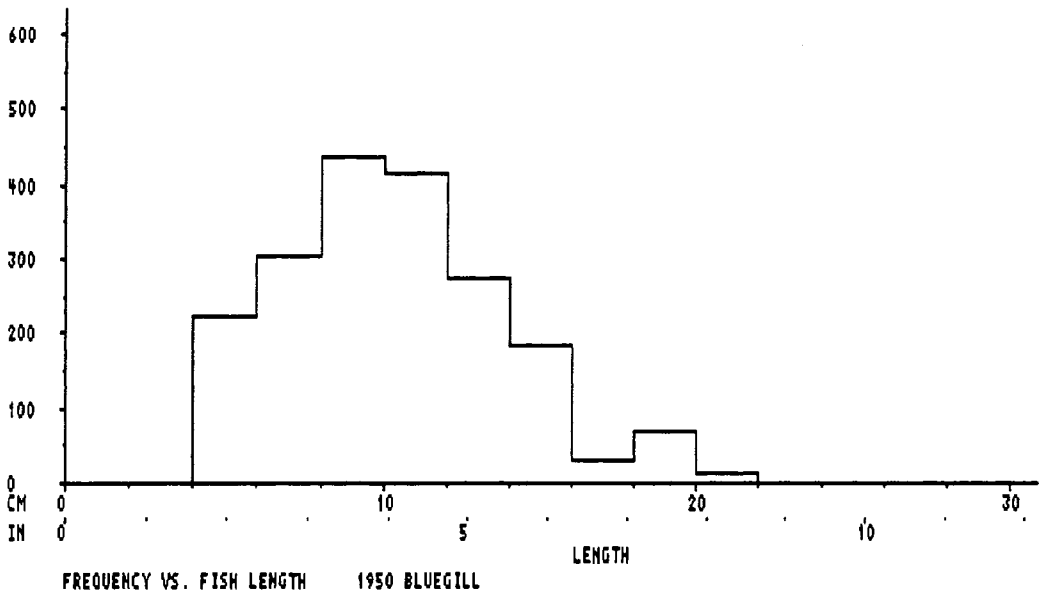


Figure 4. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

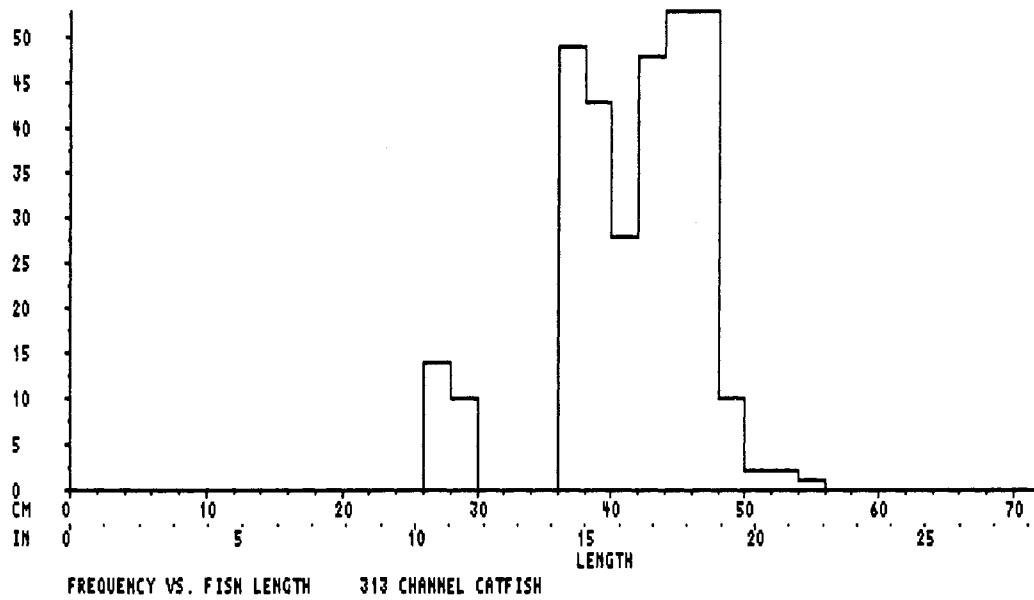


Figure 5. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

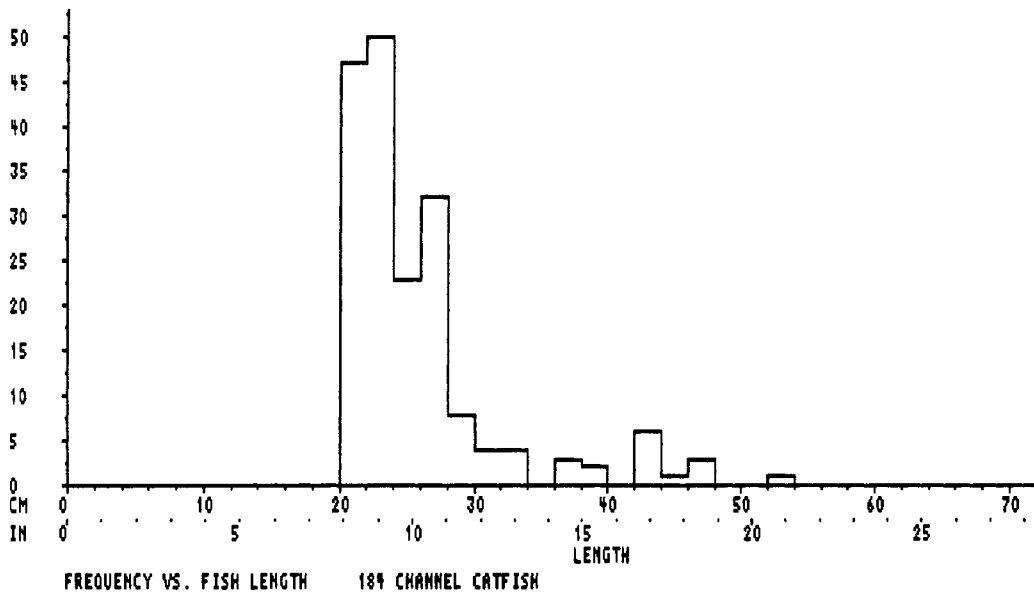


Figure 6. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

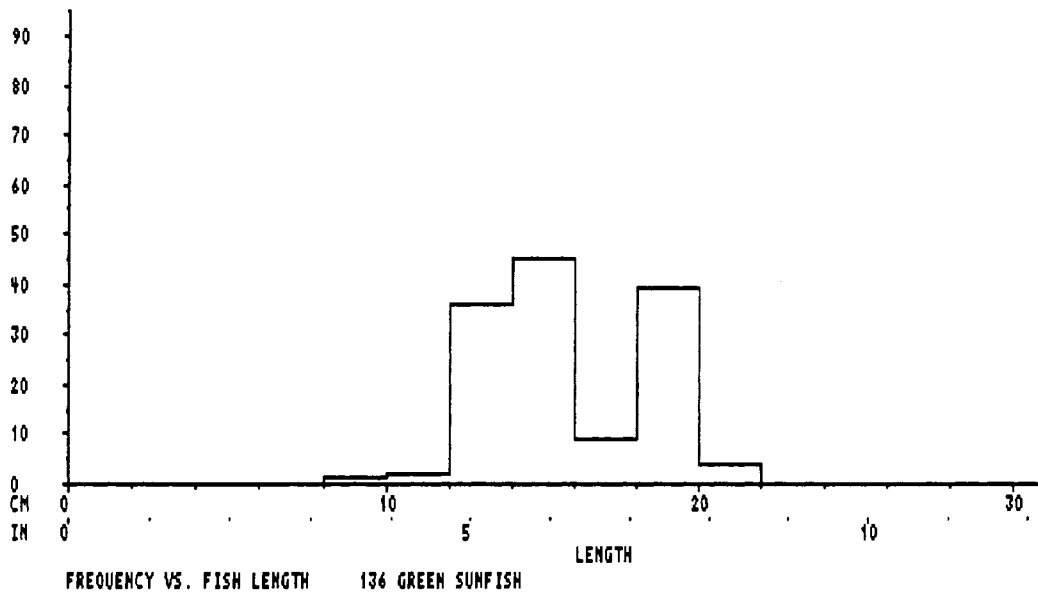


Figure 7. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of green sunfish harvested by all anglers.

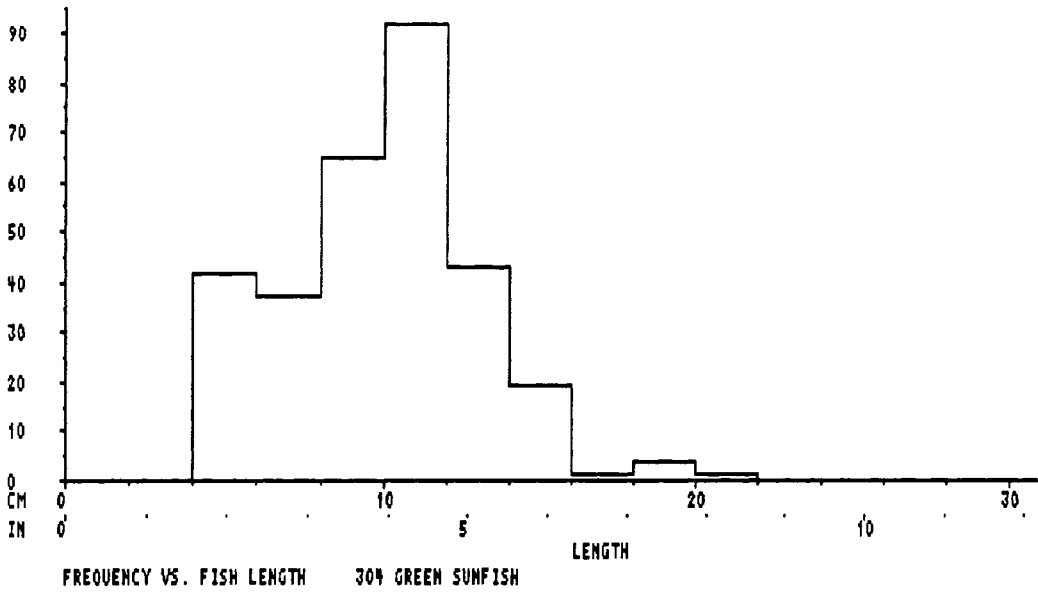


Figure 8. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of green sunfish released by all anglers.

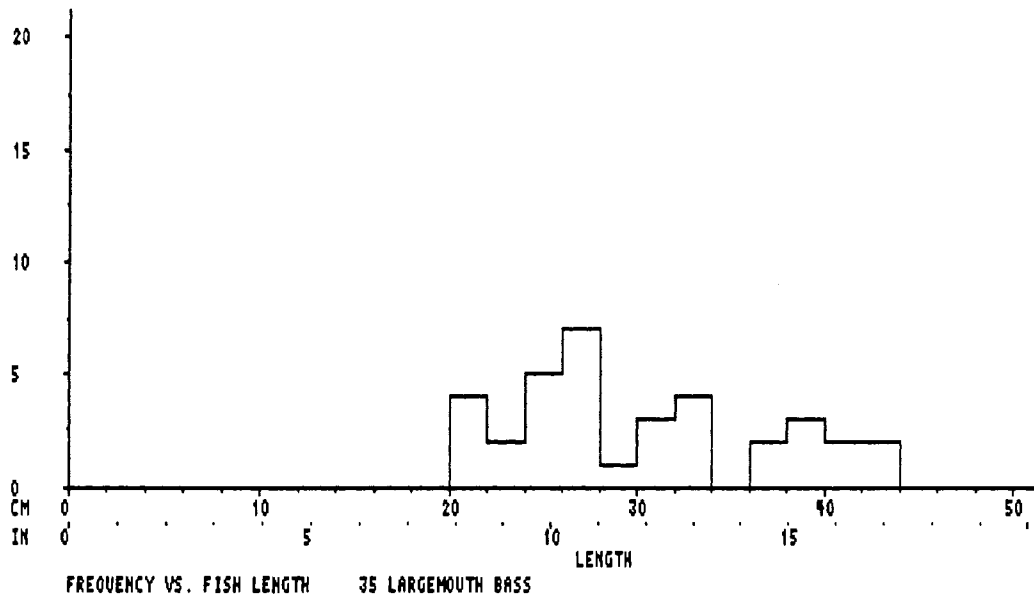


Figure 9. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

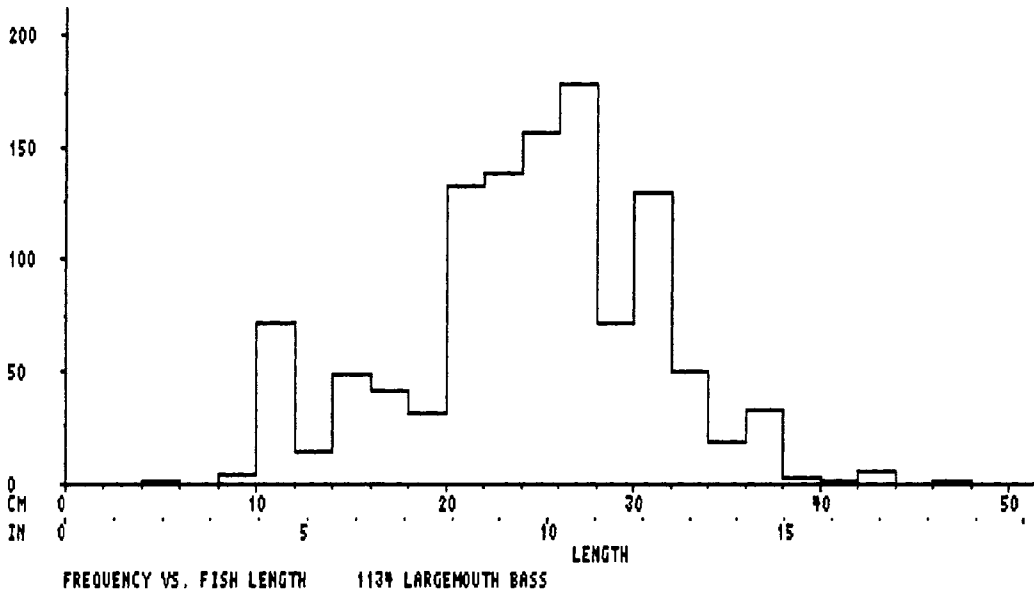


Figure 10. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 9.

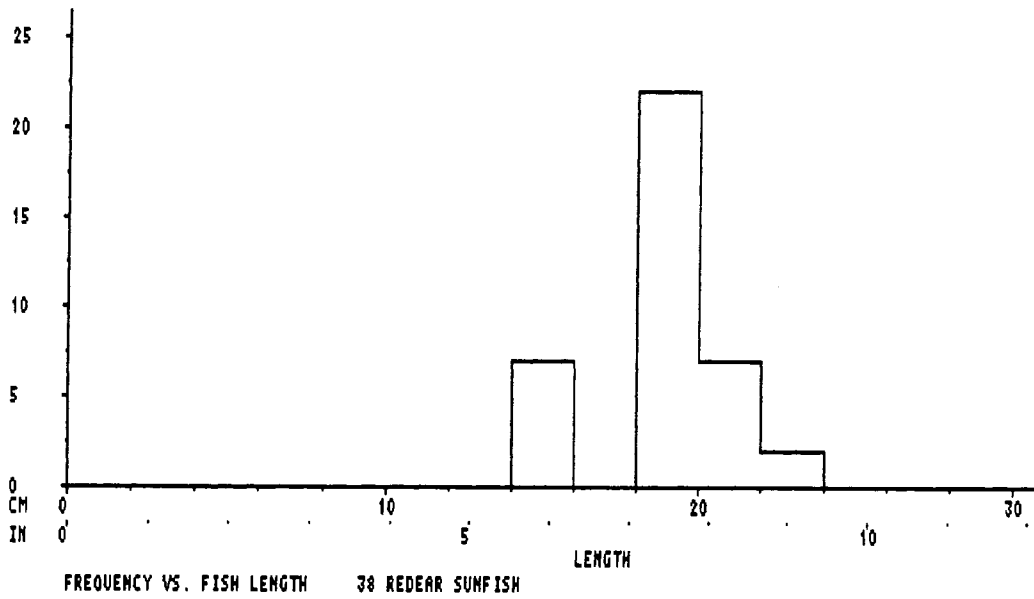


Figure 11. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of reedear sunfish harvested by all anglers.

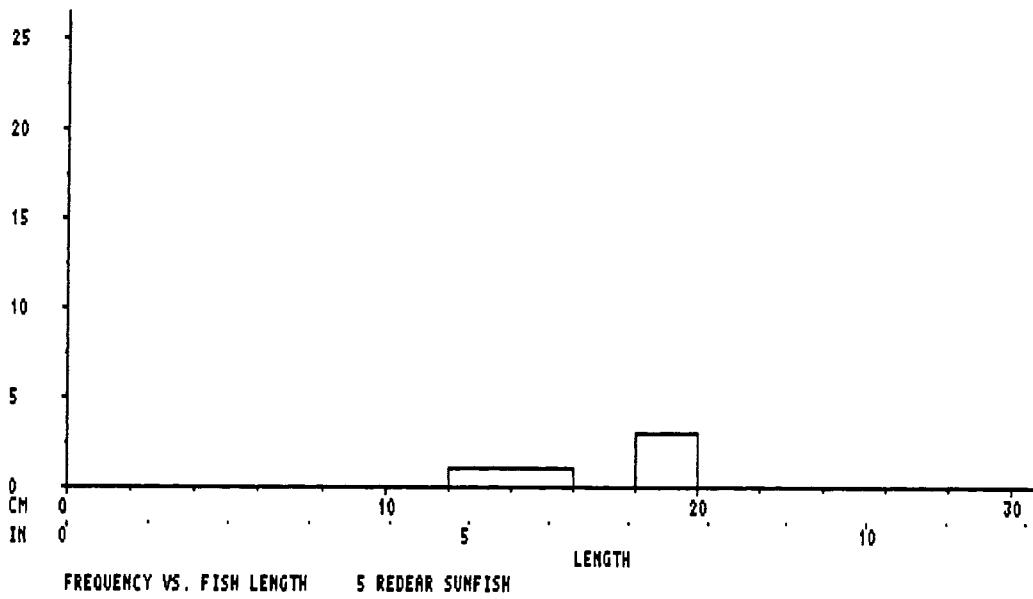


Figure 12. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of reedear sunfish released by all anglers.

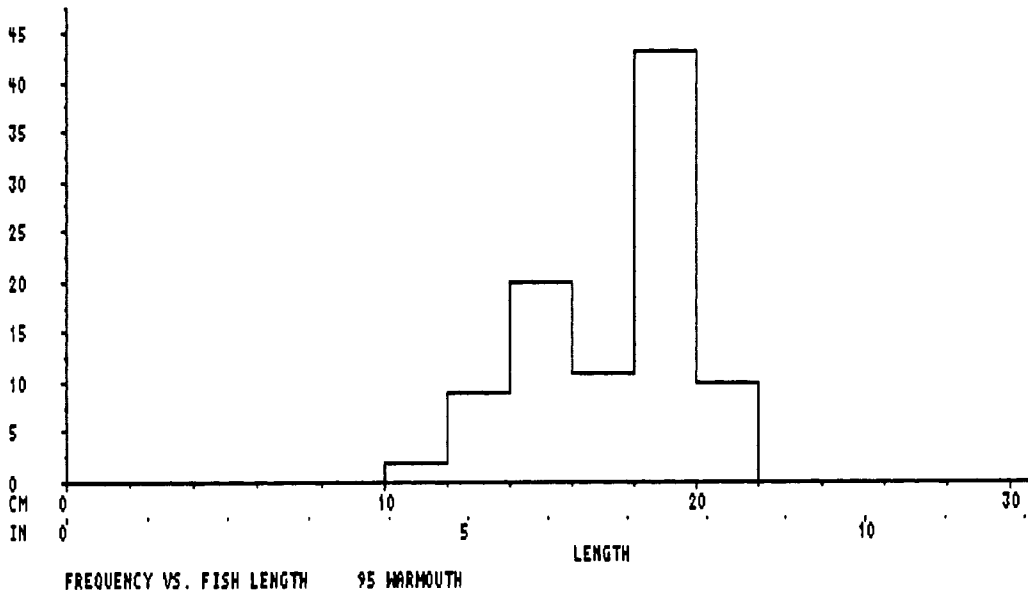


Figure 13. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of warmouth harvested by all anglers.

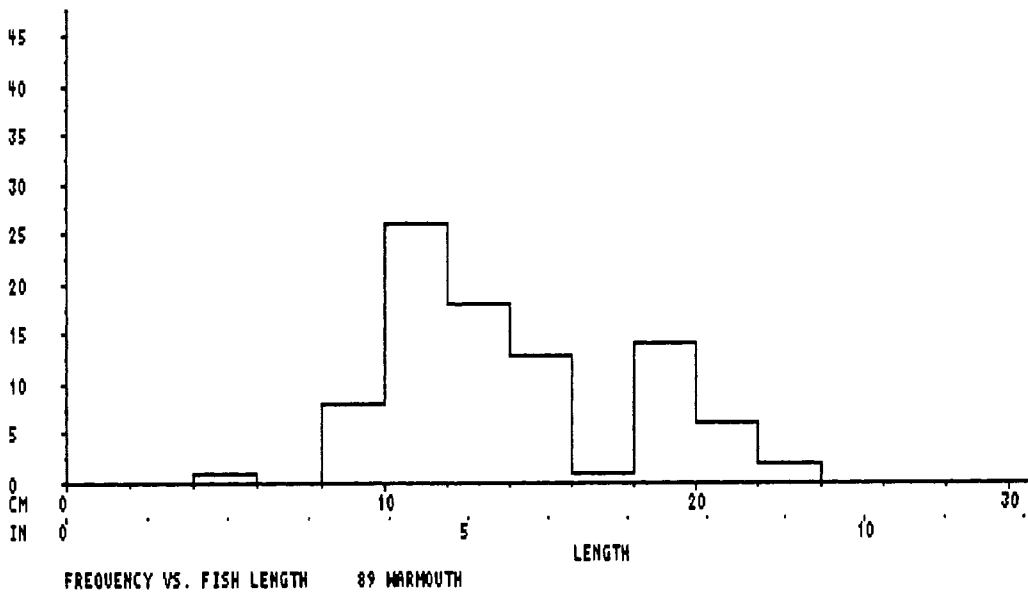


Figure 14. Lake Glendale 1999 day creel 3/15 through 10/31. Length-frequency histogram of warmouth released by all anglers.

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

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	513	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	510	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST	510	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	501	7	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	483	12	3	2	-	1	-	2	6	-	-	-	-	-	-	5
RELEASE	444	22	23	13	-	2	2	-	2	4	2	-	-	-	-	-
Channel catfish																
HARVEST	401	49	32	12	9	7	3	-	1	-	-	-	-	-	-	-
RELEASE	456	38	9	1	4	4	2	-	-	-	-	-	-	-	-	-
Freshwater drum																
HARVEST	514	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	511	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	509	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	370	79	28	21	10	1	1	1	-	1	2	-	-	-	-	-
Warmouth																
HARVEST	514	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	511	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	491	-	2	7	4	-	-	-	4	-	-	-	-	-	2	4
RELEASE	447	21	15	8	5	4	2	-	2	-	-	-	2	-	-	8
Yellow bullhead																
HARVEST	512	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	514	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow bass																
HARVEST	503	6	2	-	2	-	-	-	-	-	-	1	-	-	-	-
RELEASE	478	22	7	4	1	2	-	-	-	-	-	-	-	-	-	-

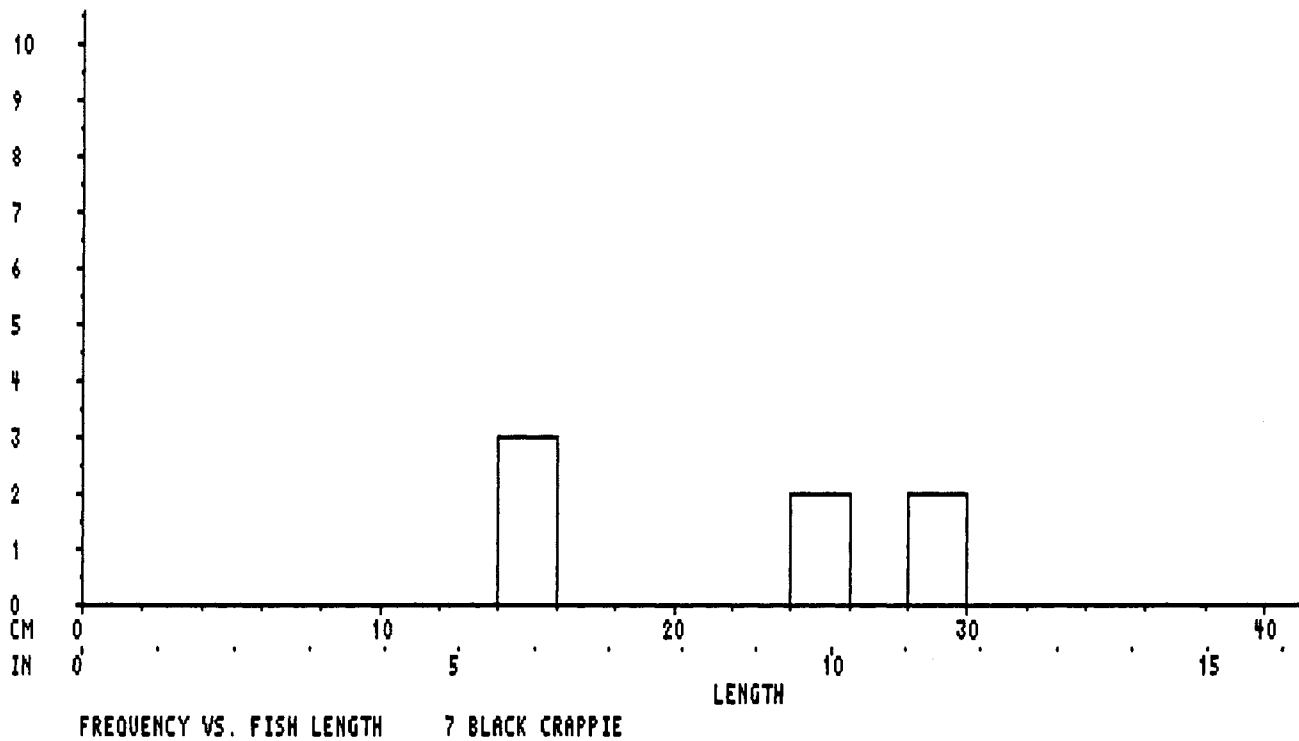


Figure 1. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

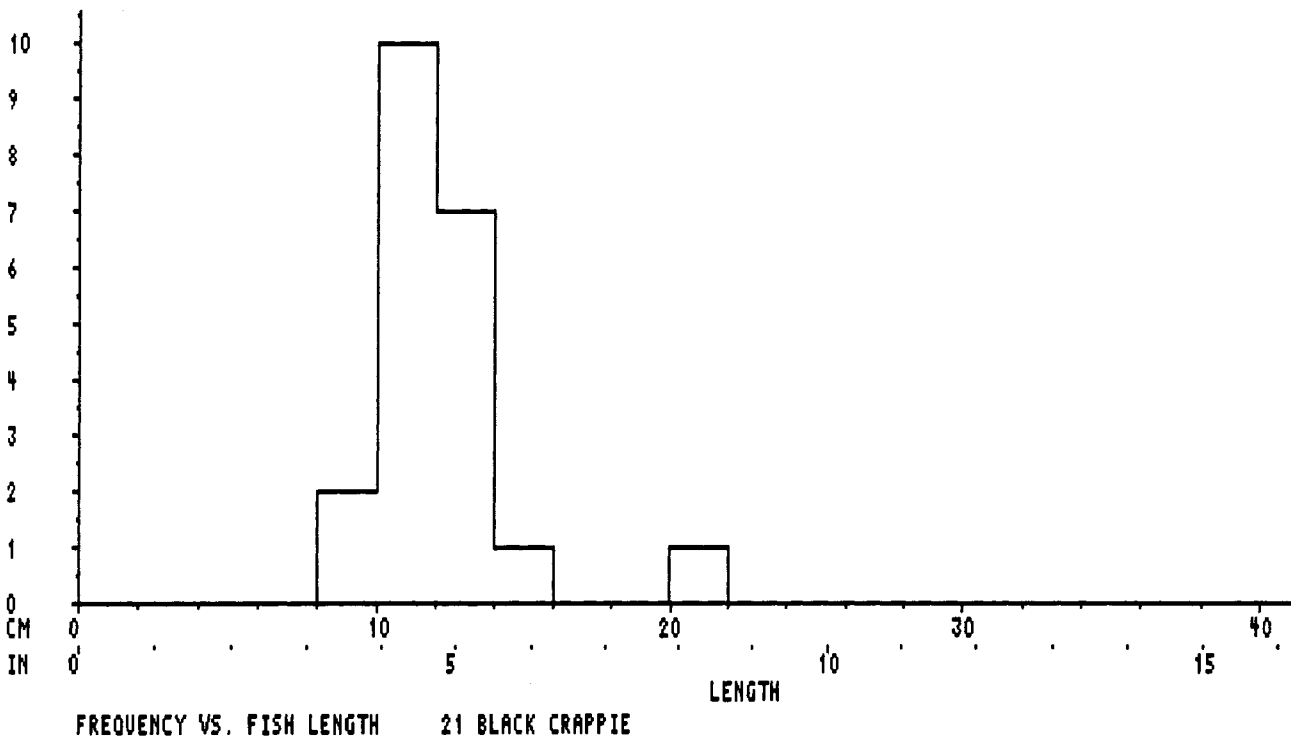


Figure 2. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

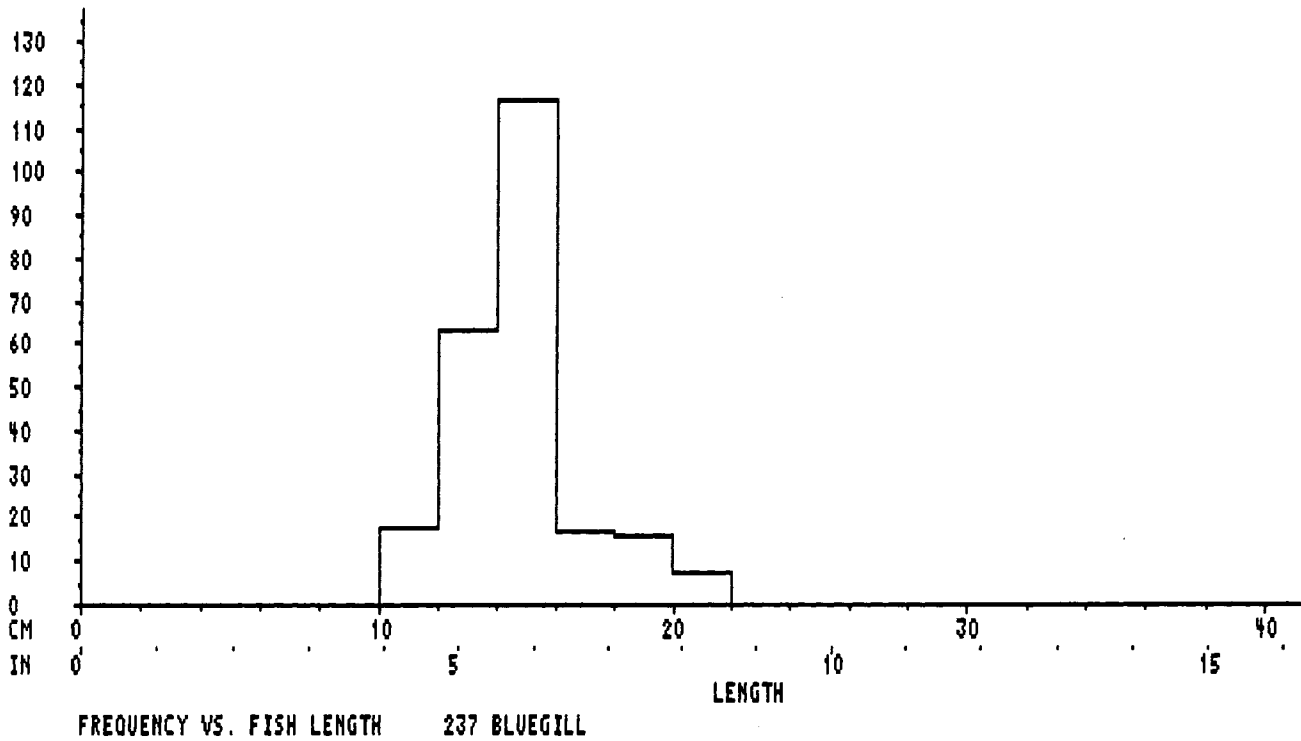


Figure 3. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

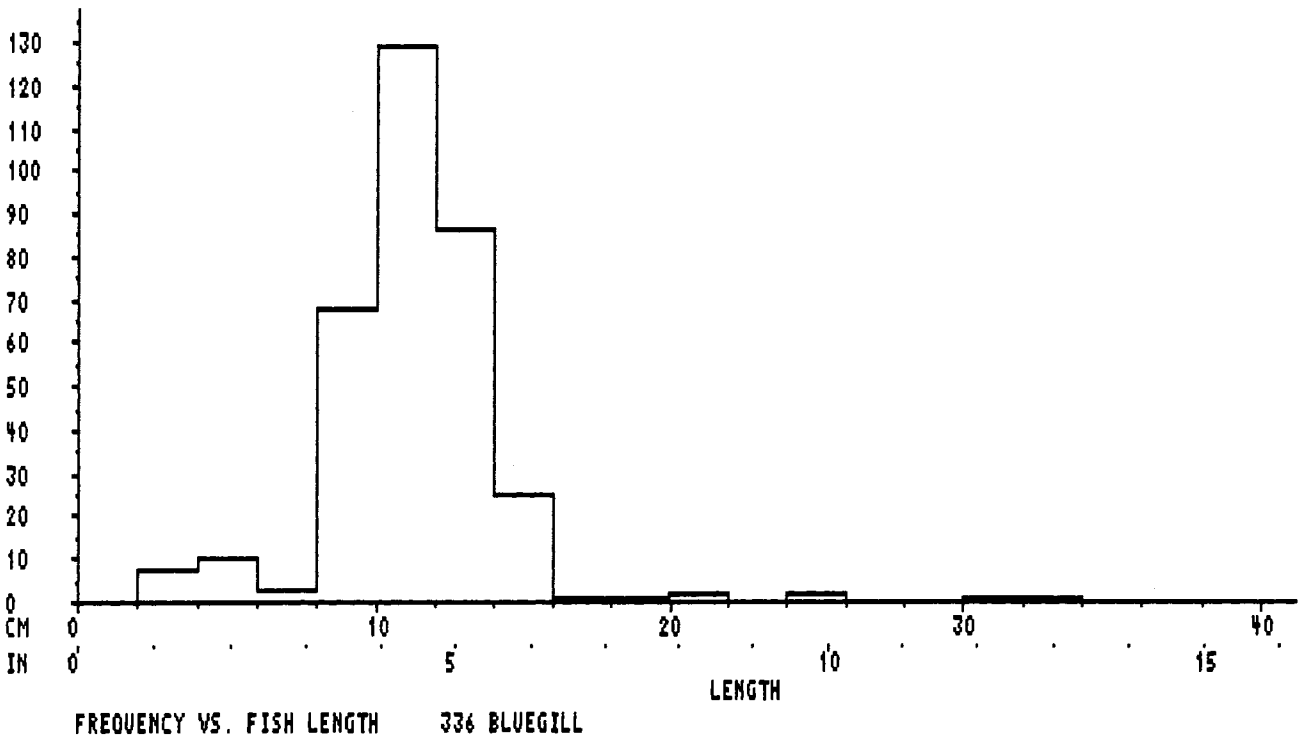
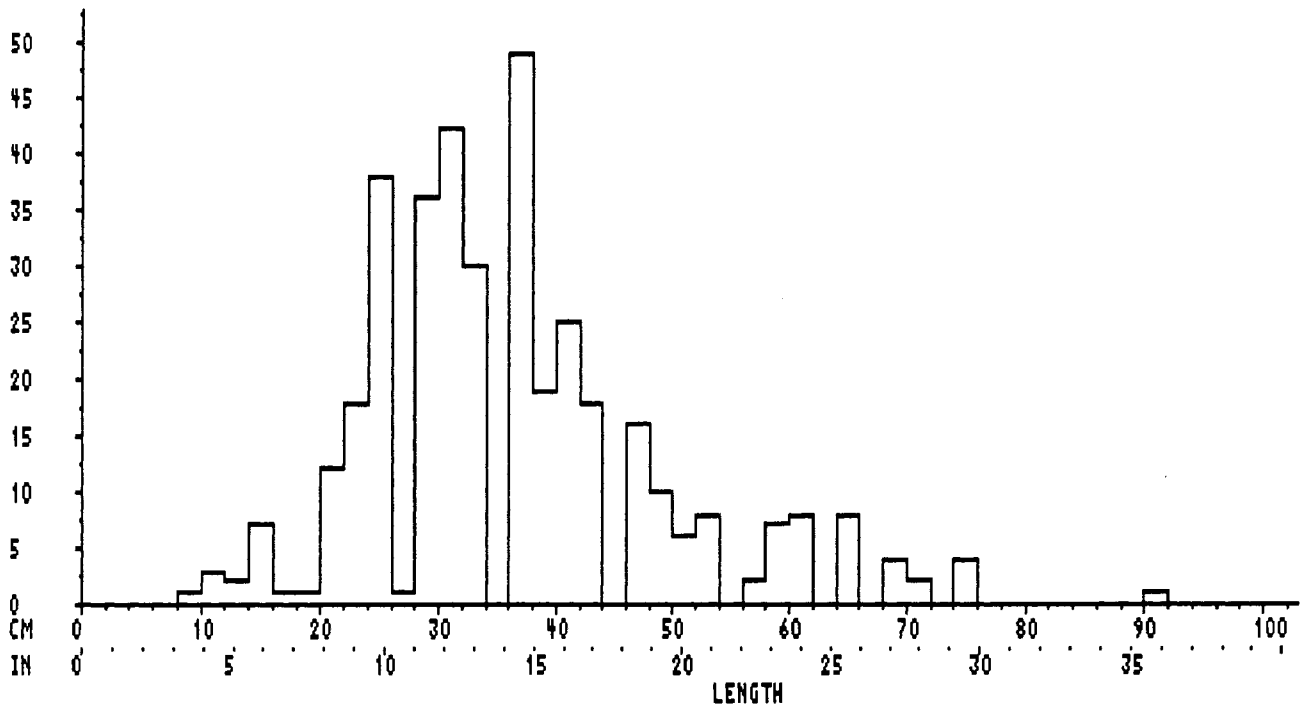
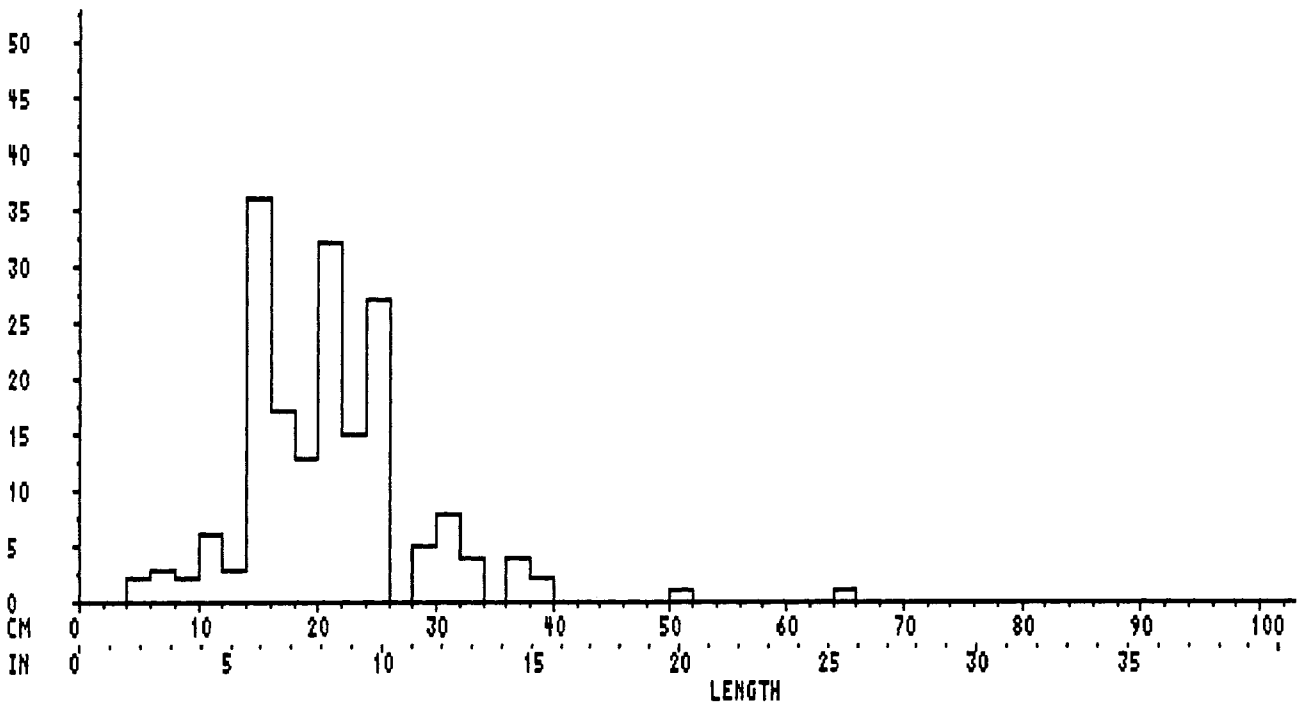


Figure 4. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.



FREQUENCY VS. FISH LENGTH 379 CHANNEL CATFISH

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



FREQUENCY VS. FISH LENGTH 181 CHANNEL CATFISH

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

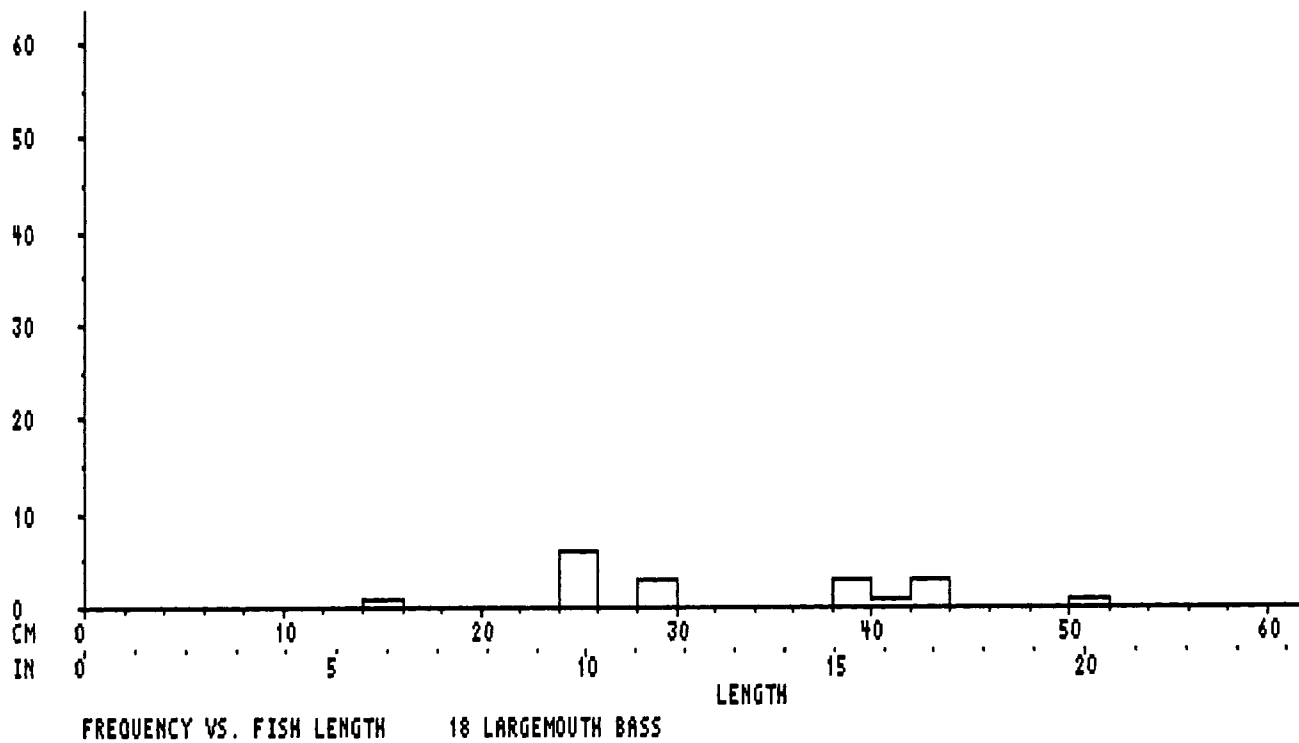


Figure 7. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

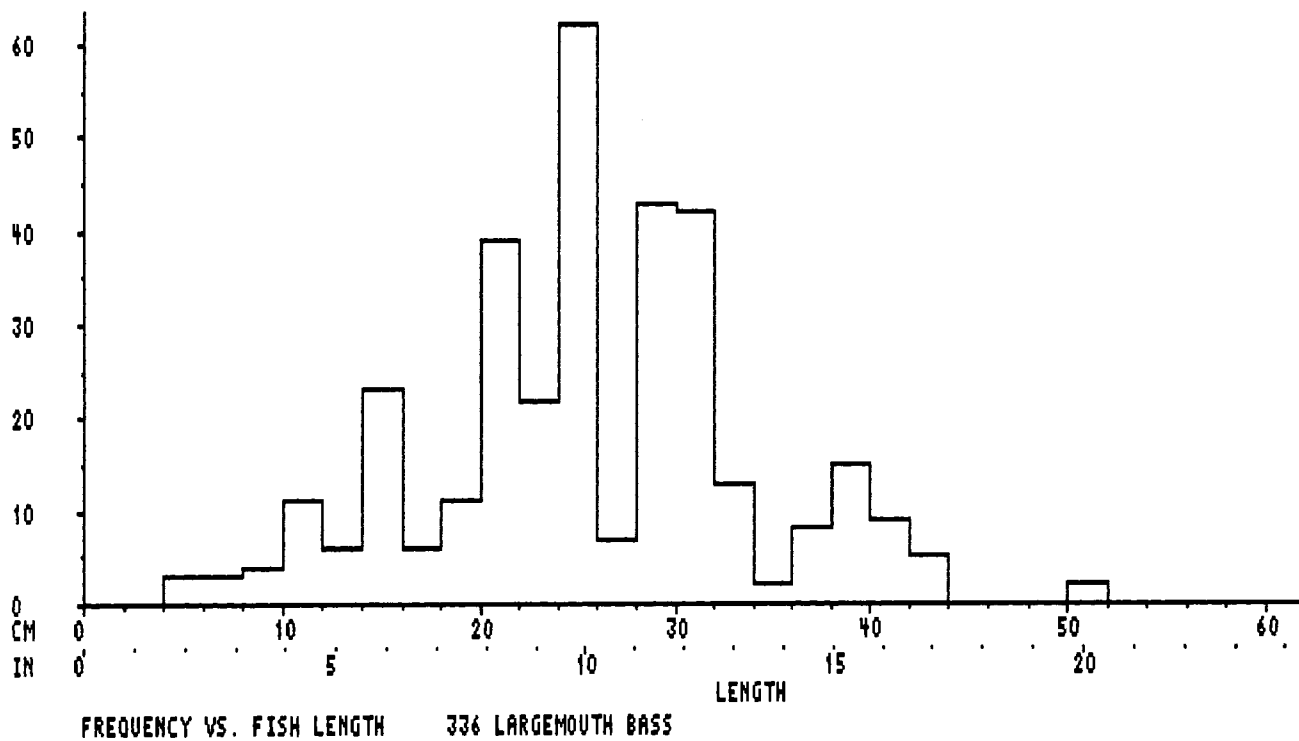


Figure 8. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers.

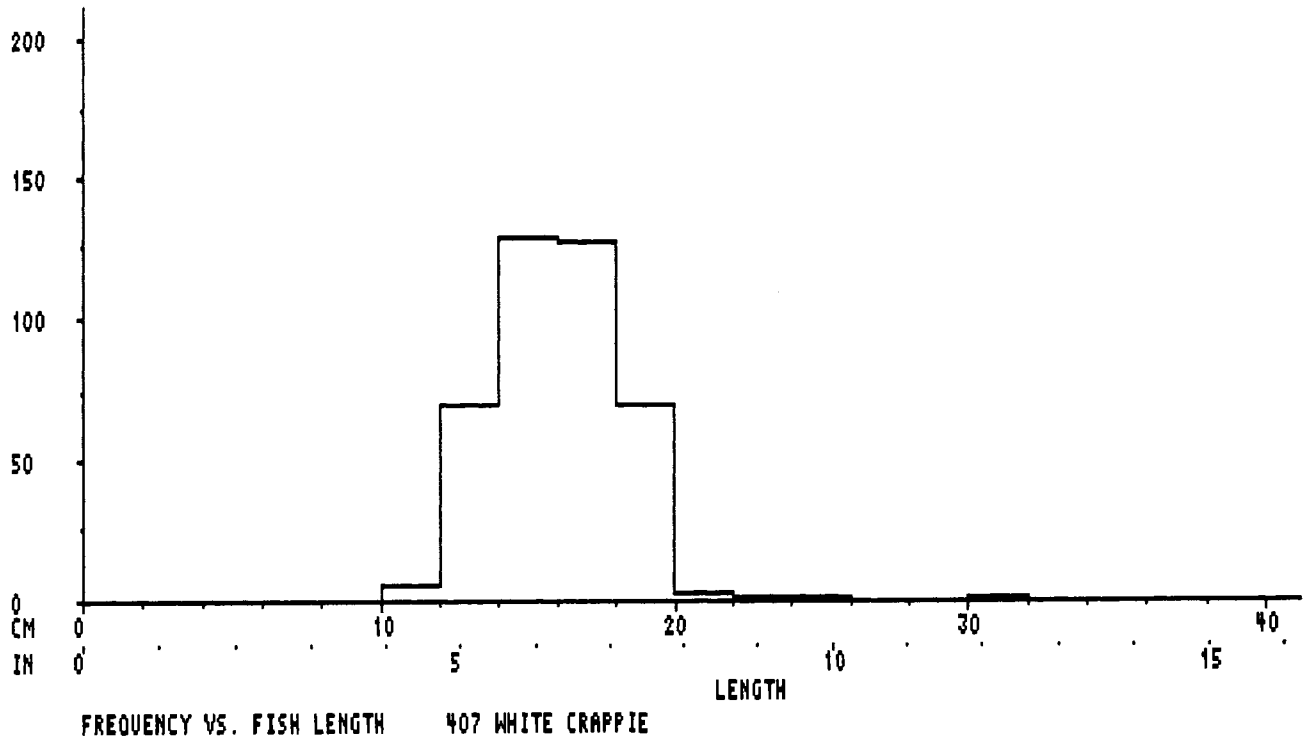


Figure 9. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

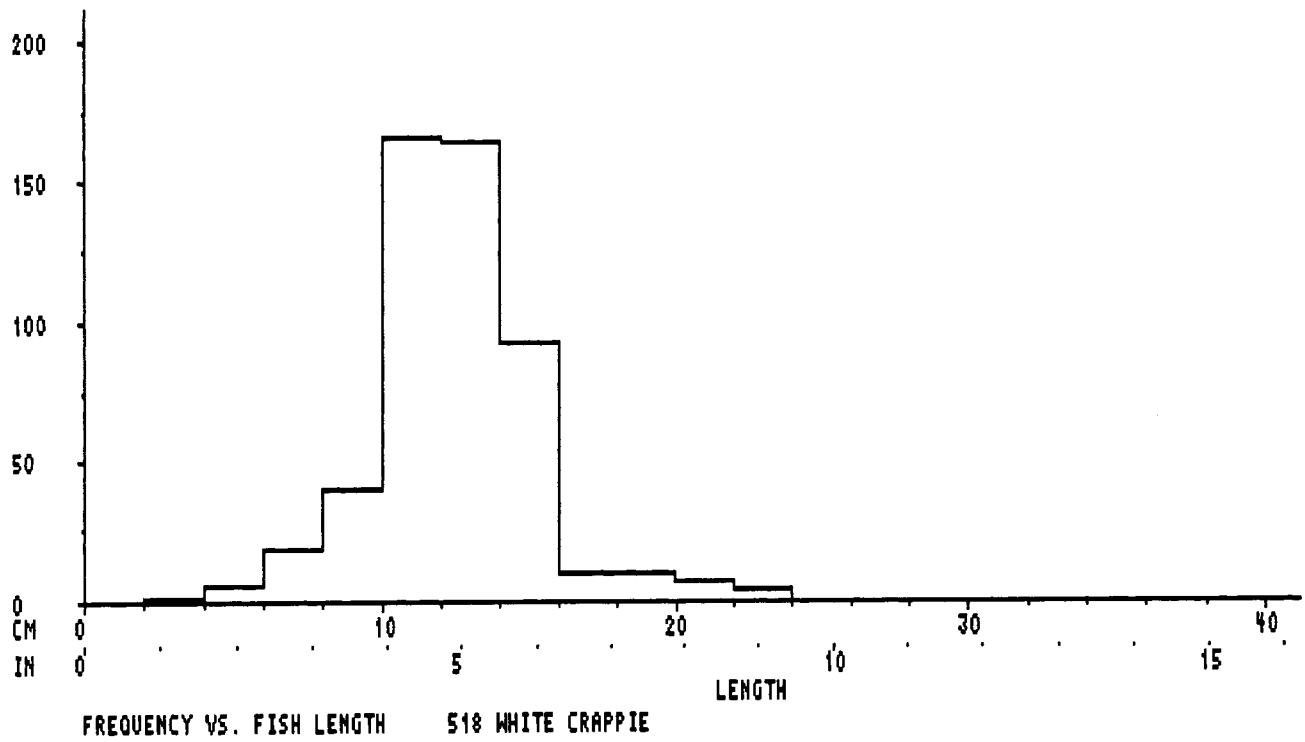


Figure 10. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.

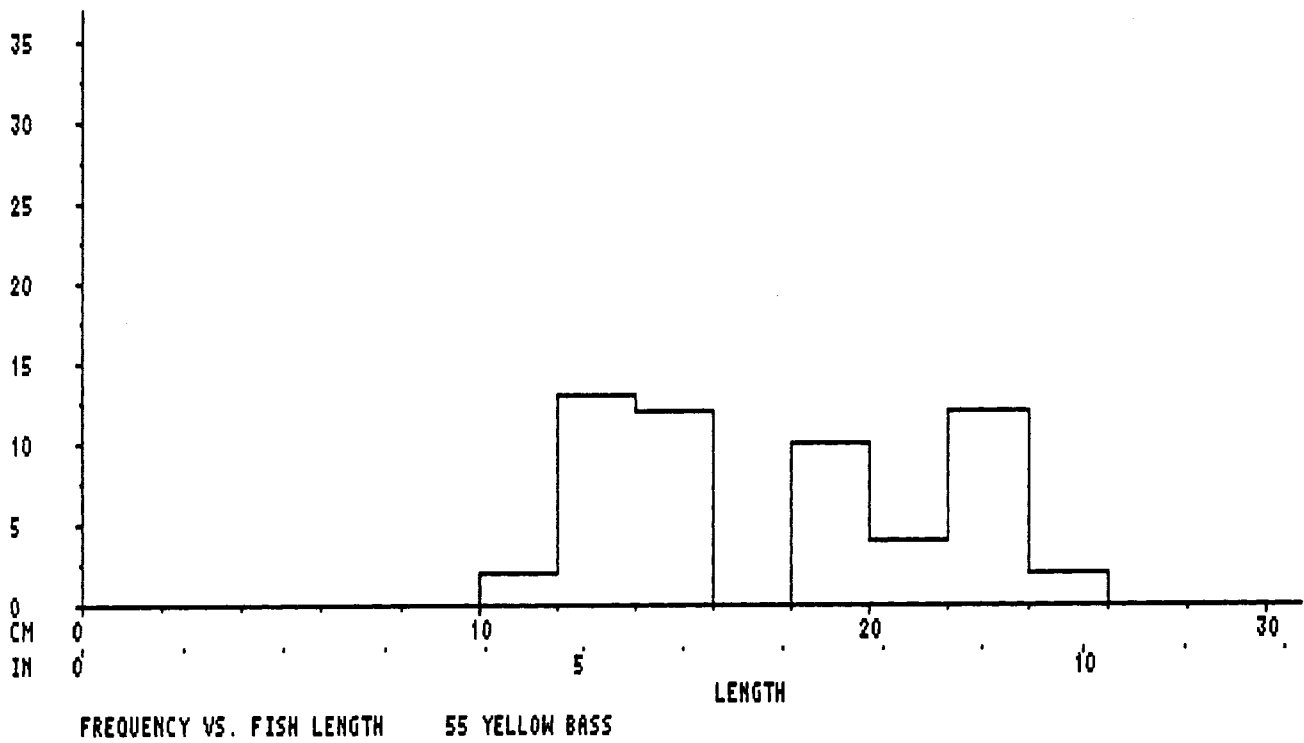


Figure 11. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass harvested by all anglers.

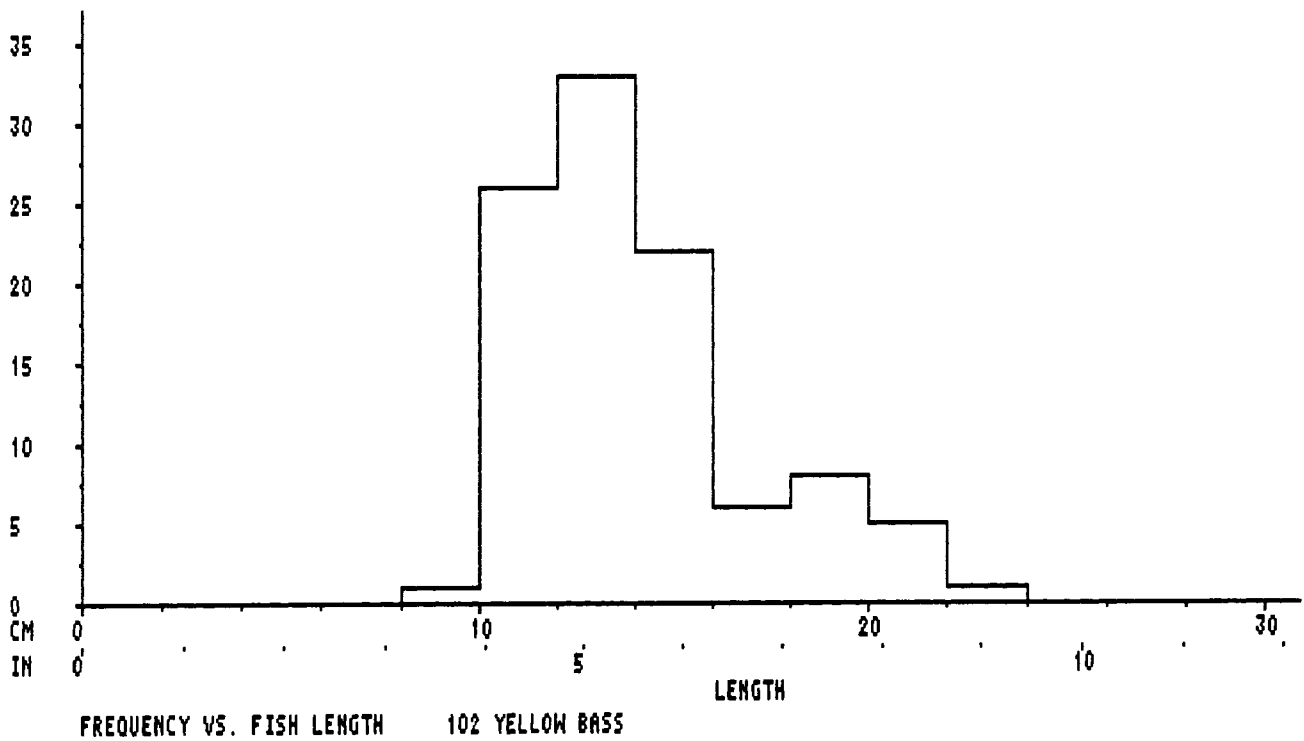


Figure 12. Hillsboro Old City Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass released by all anglers.

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

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

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

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

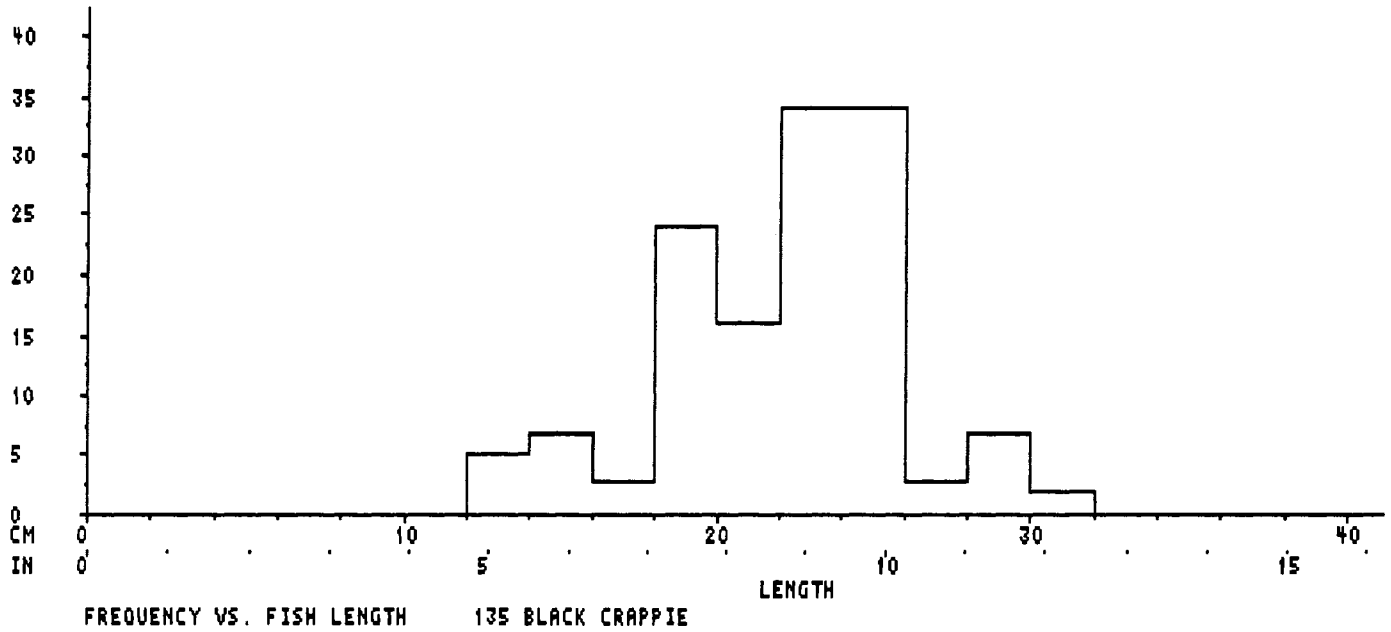


Figure 1. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

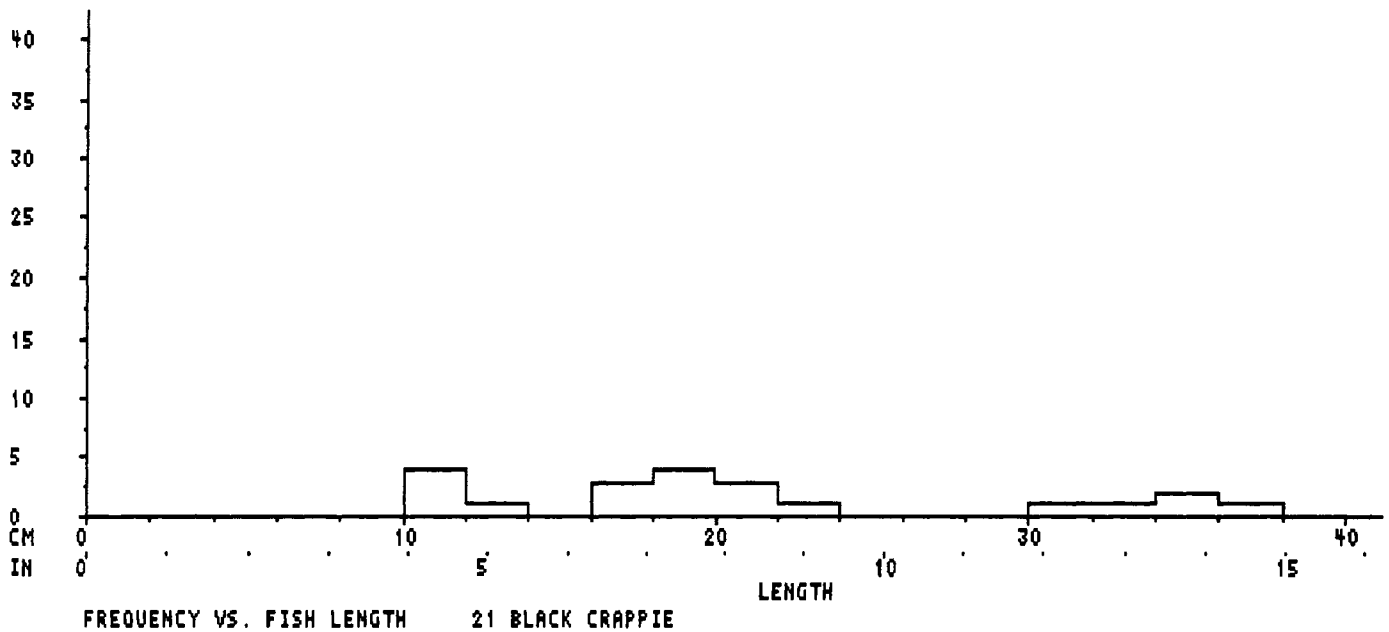


Figure 2. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

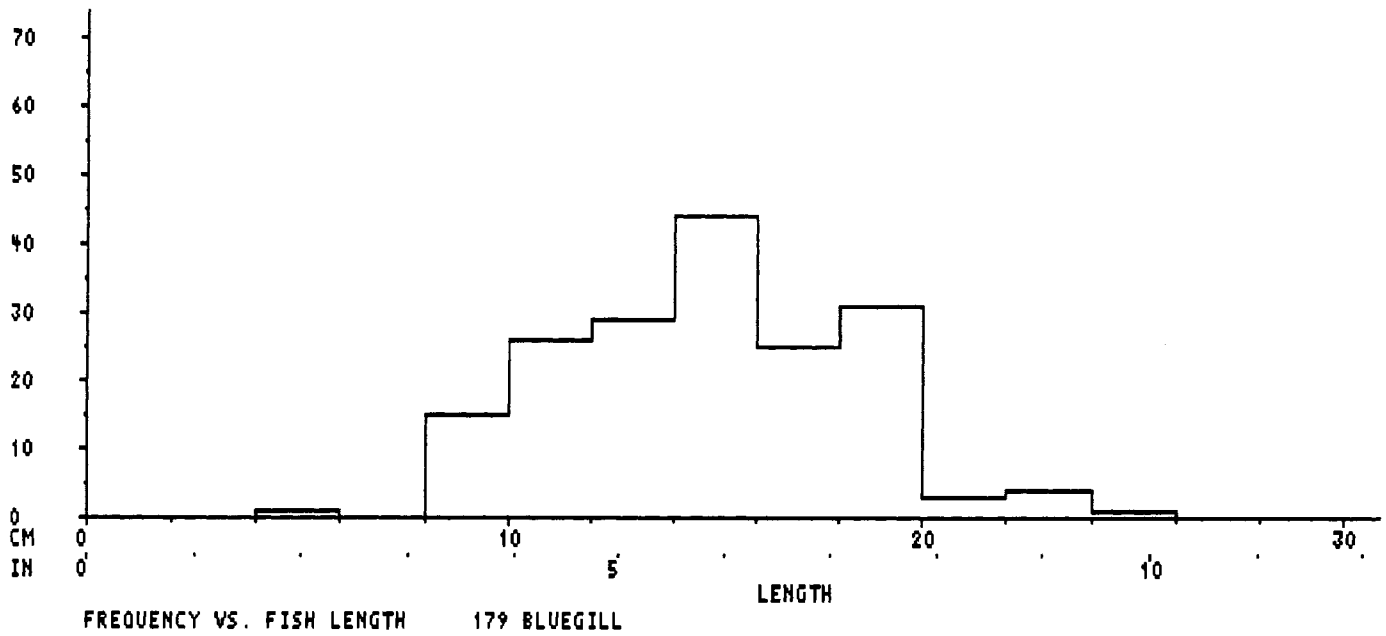


Figure 3. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

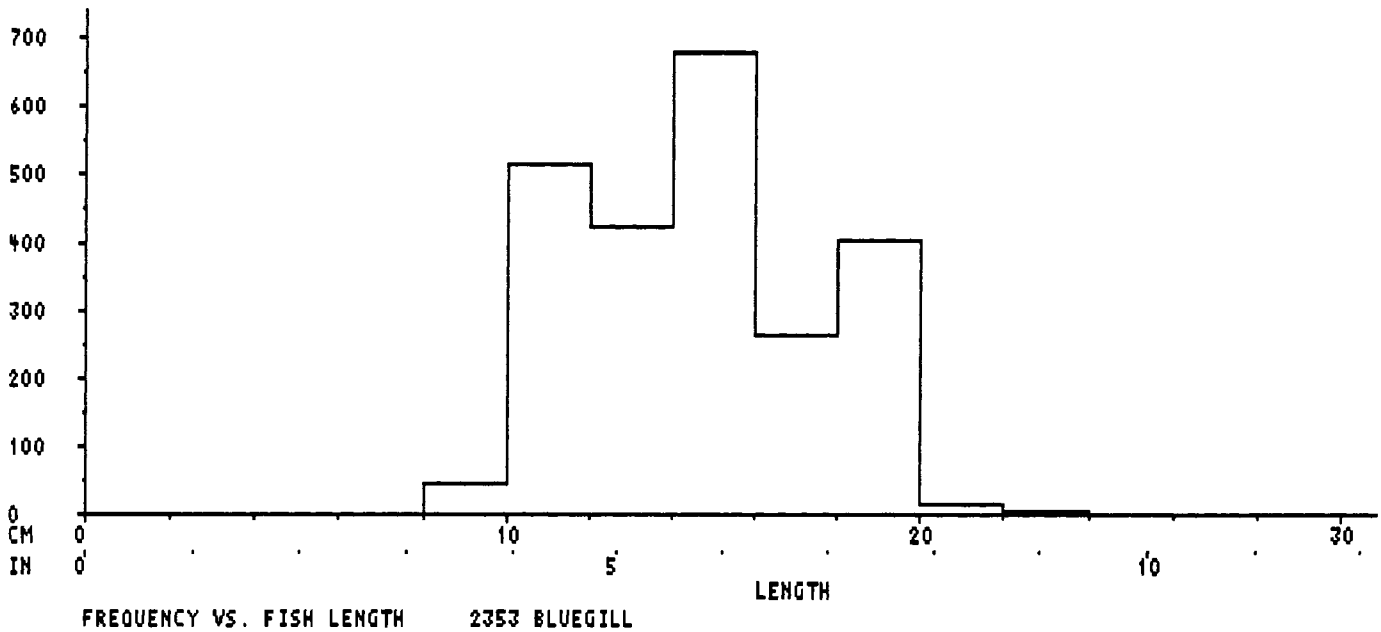


Figure 4. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers. Note the difference in scale from Figure 3.

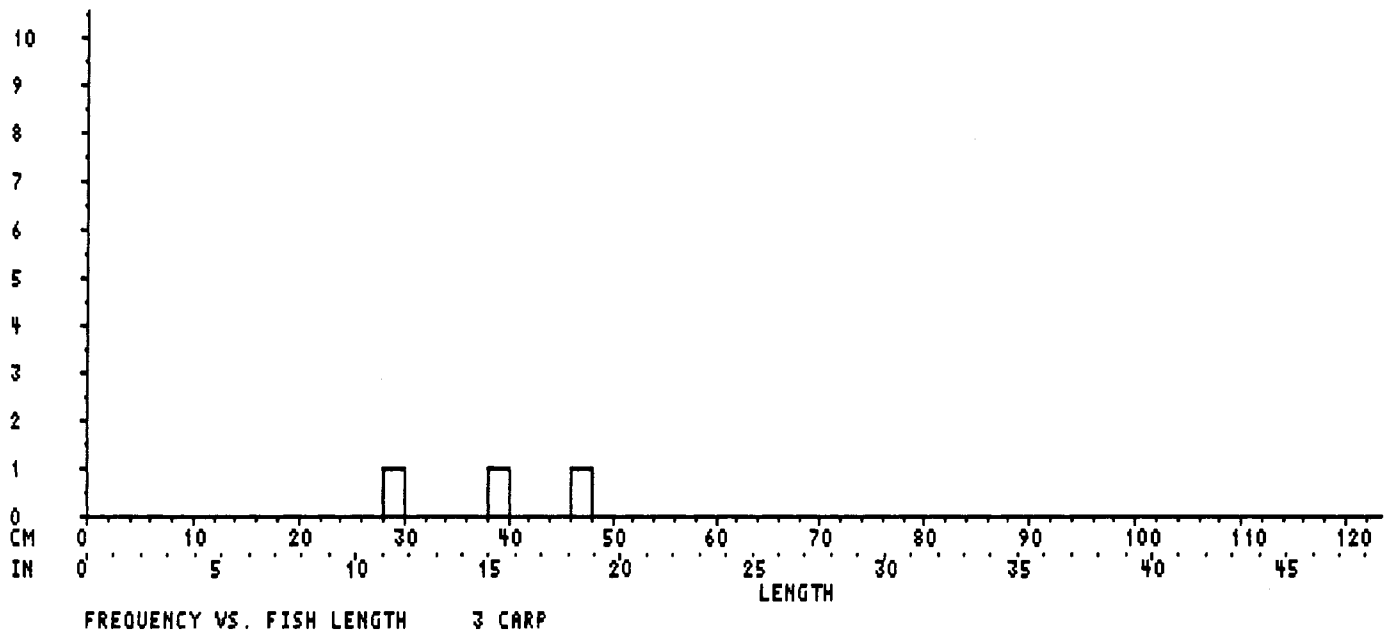


Figure 5. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp harvested by all anglers.

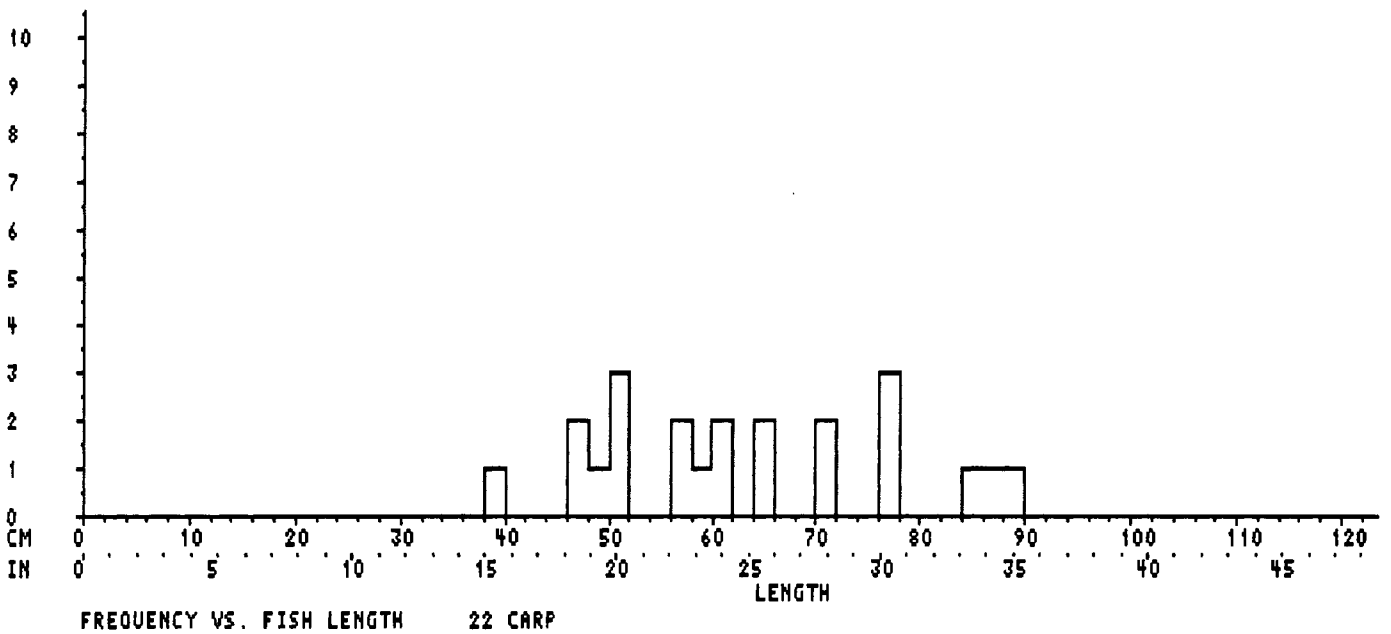


Figure 6. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp released by all anglers.

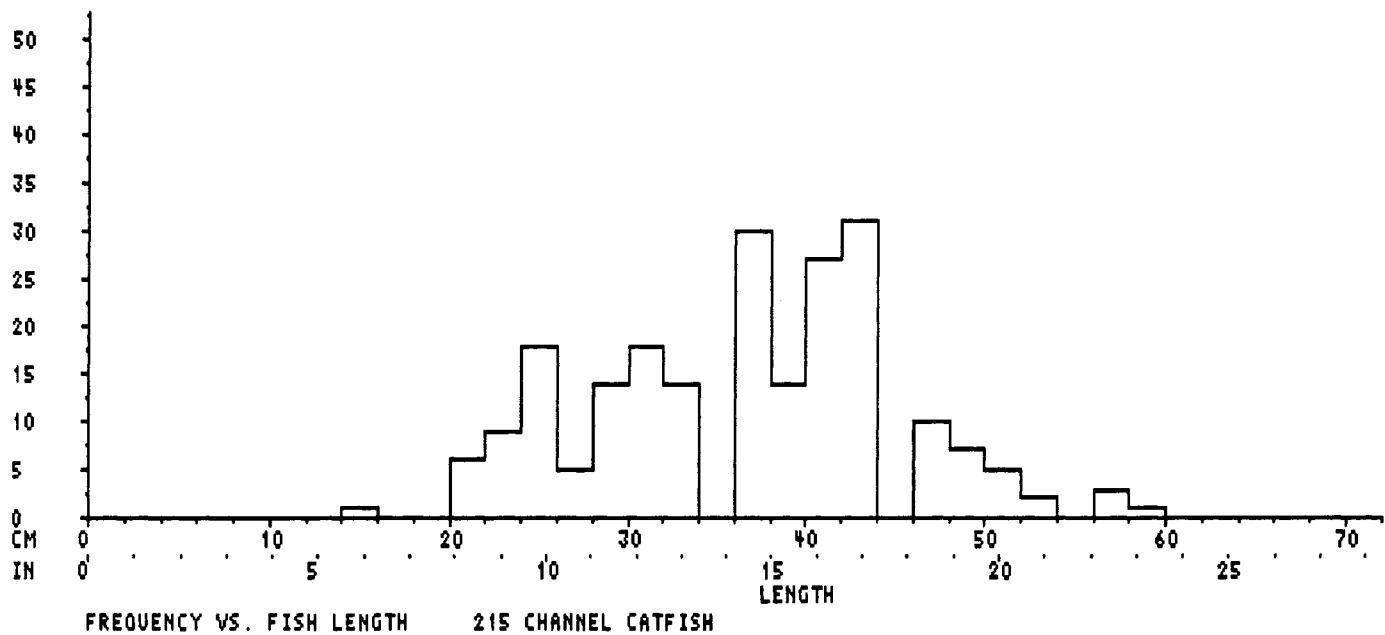


Figure 7. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

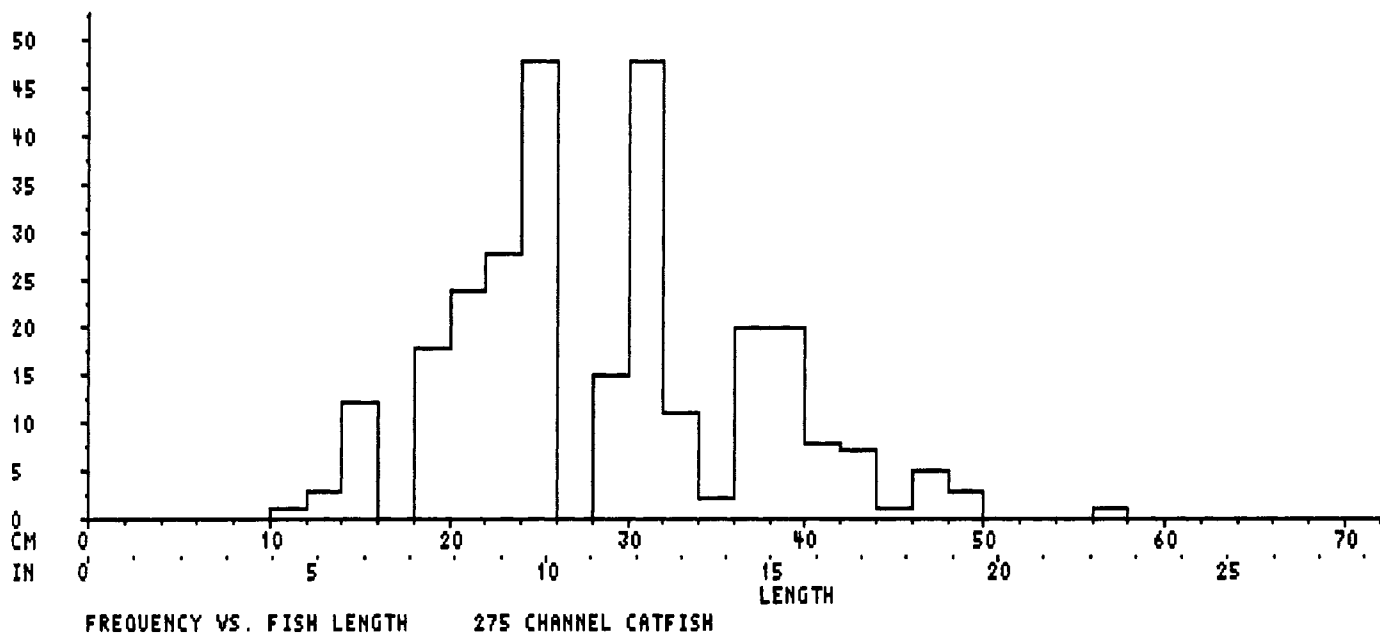


Figure 8. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.



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

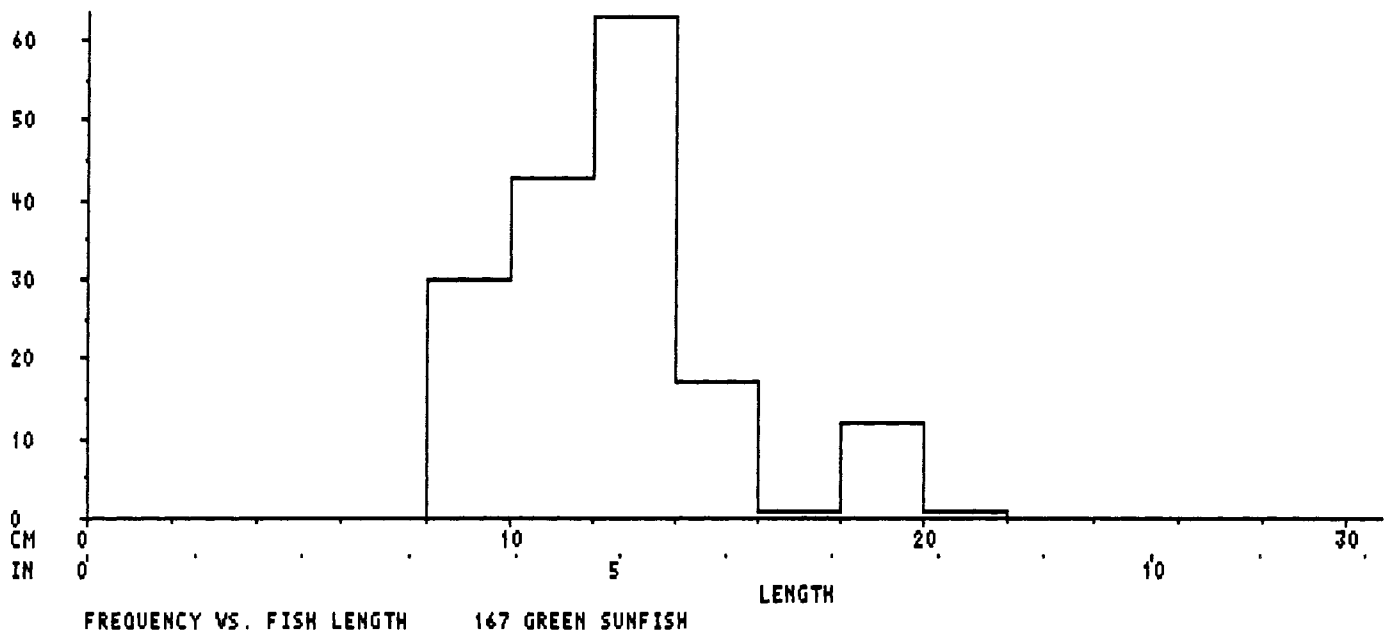


Figure 10. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of green sunfish released by all anglers.

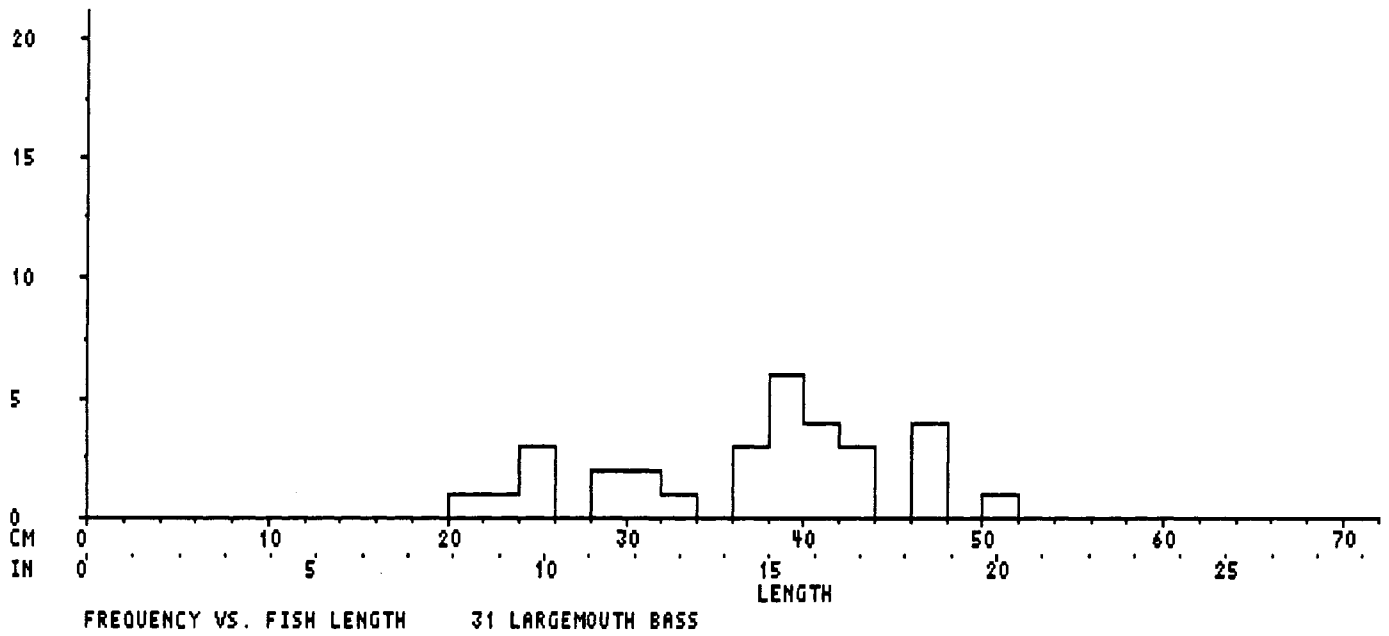


Figure 11. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

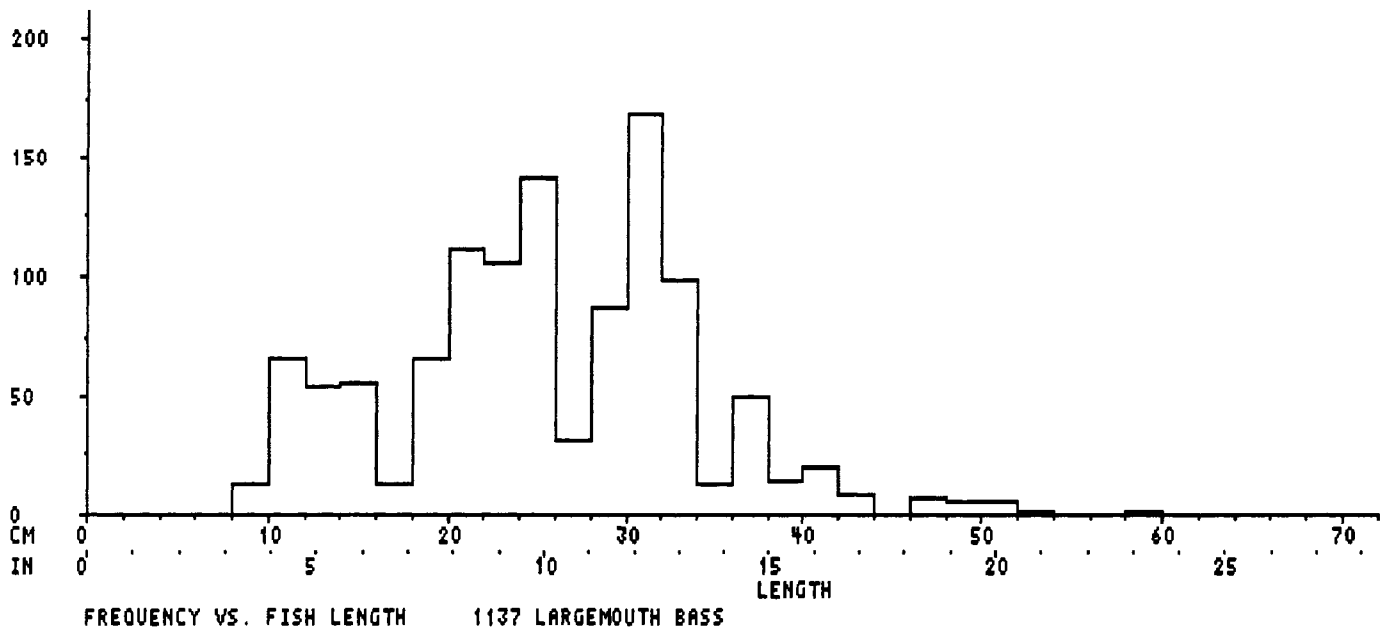


Figure 12. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 11.

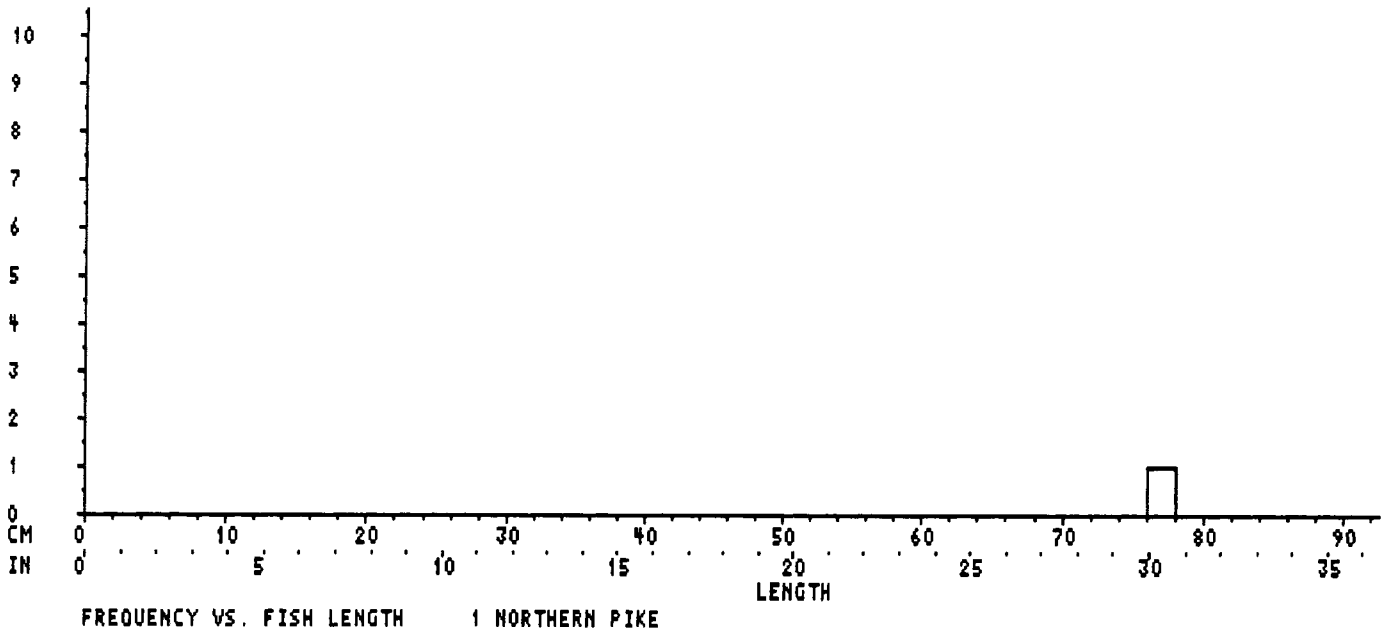


Figure 13. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of northern pike harvested by all anglers.

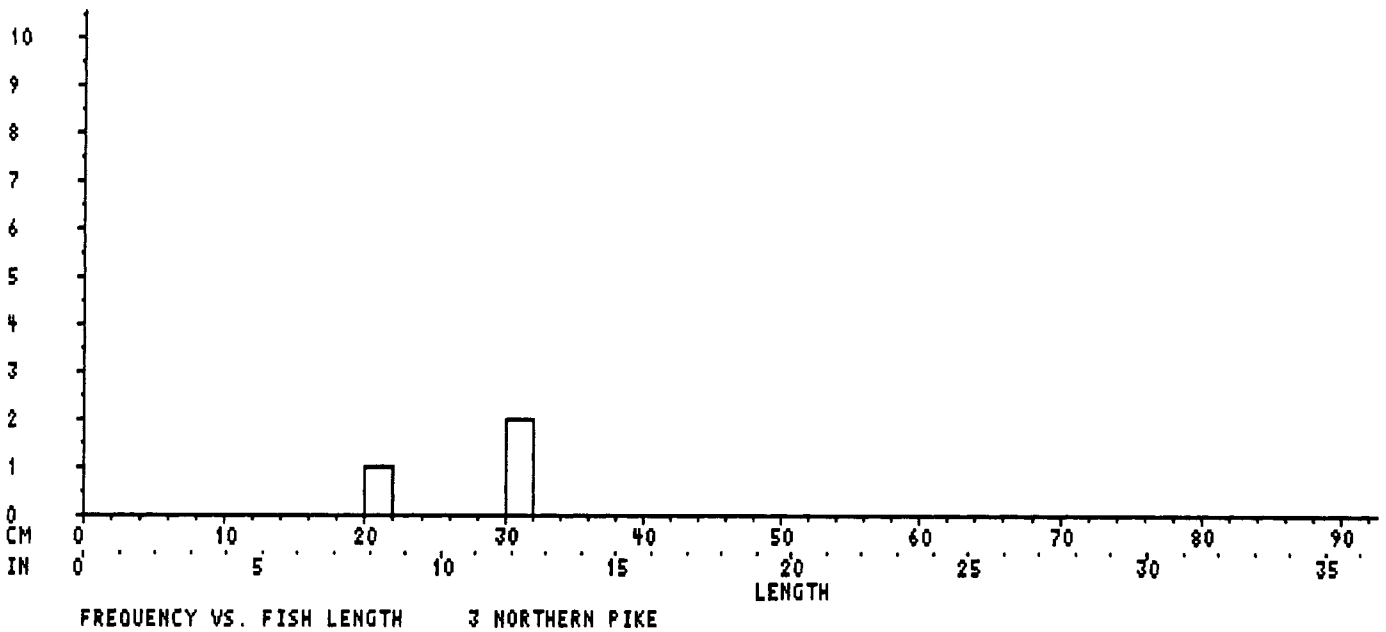


Figure 14. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of northern pike released by all anglers.

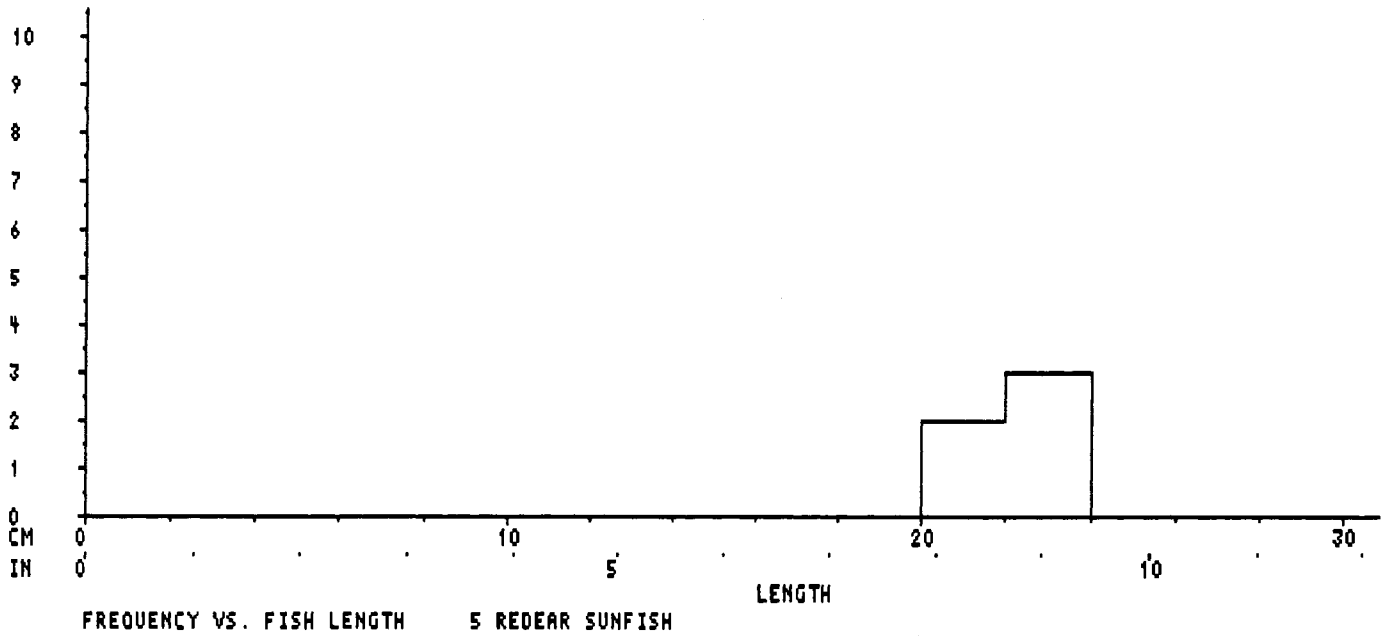


Figure 15. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of reedear sunfish harvested by all anglers.

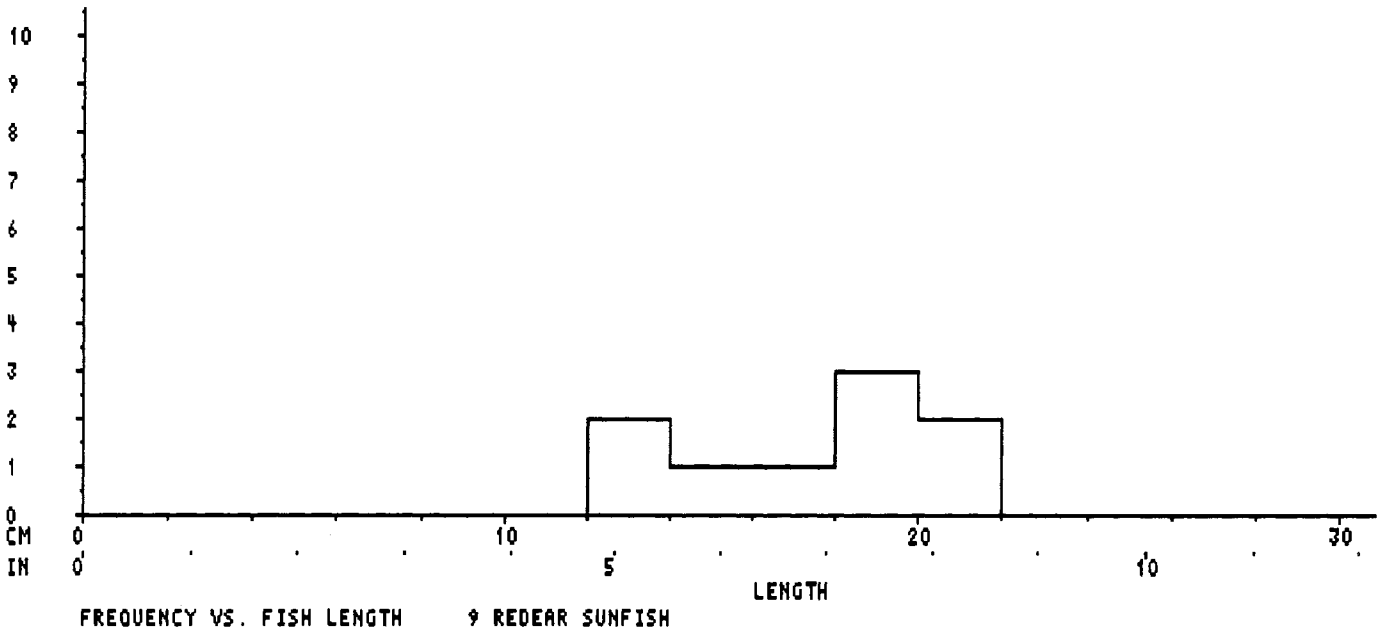


Figure 16. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of reedear sunfish released by all anglers.

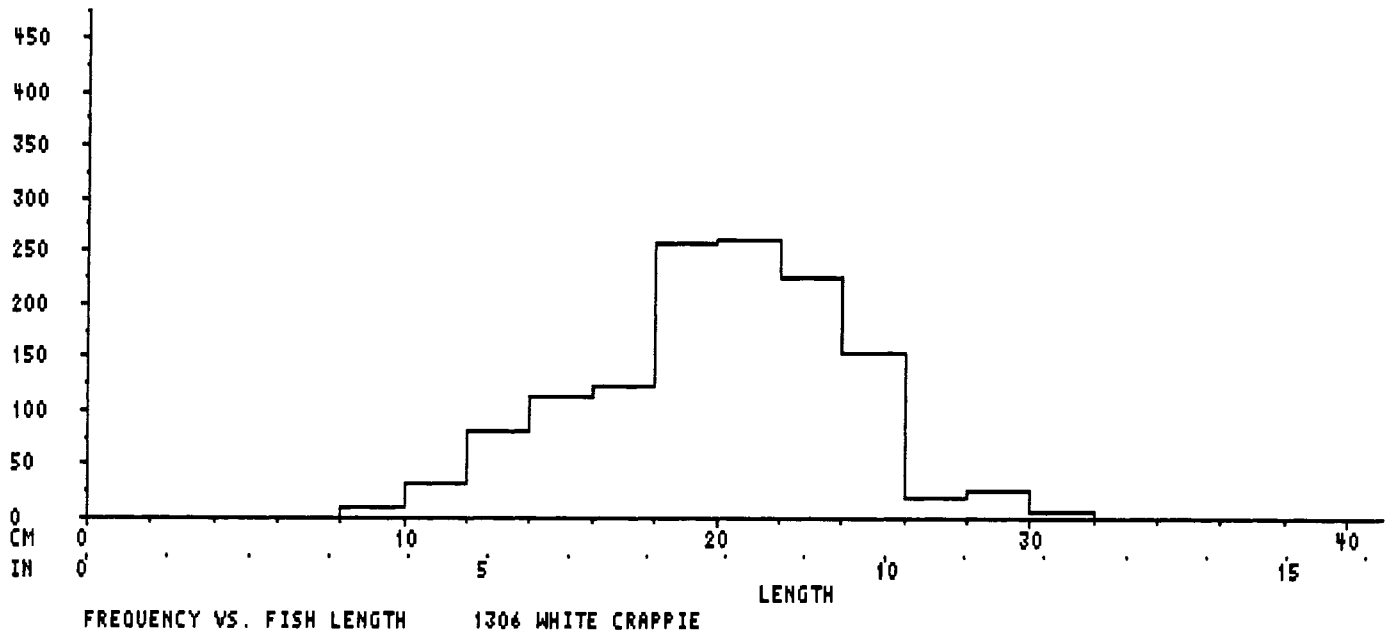


Figure 17. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

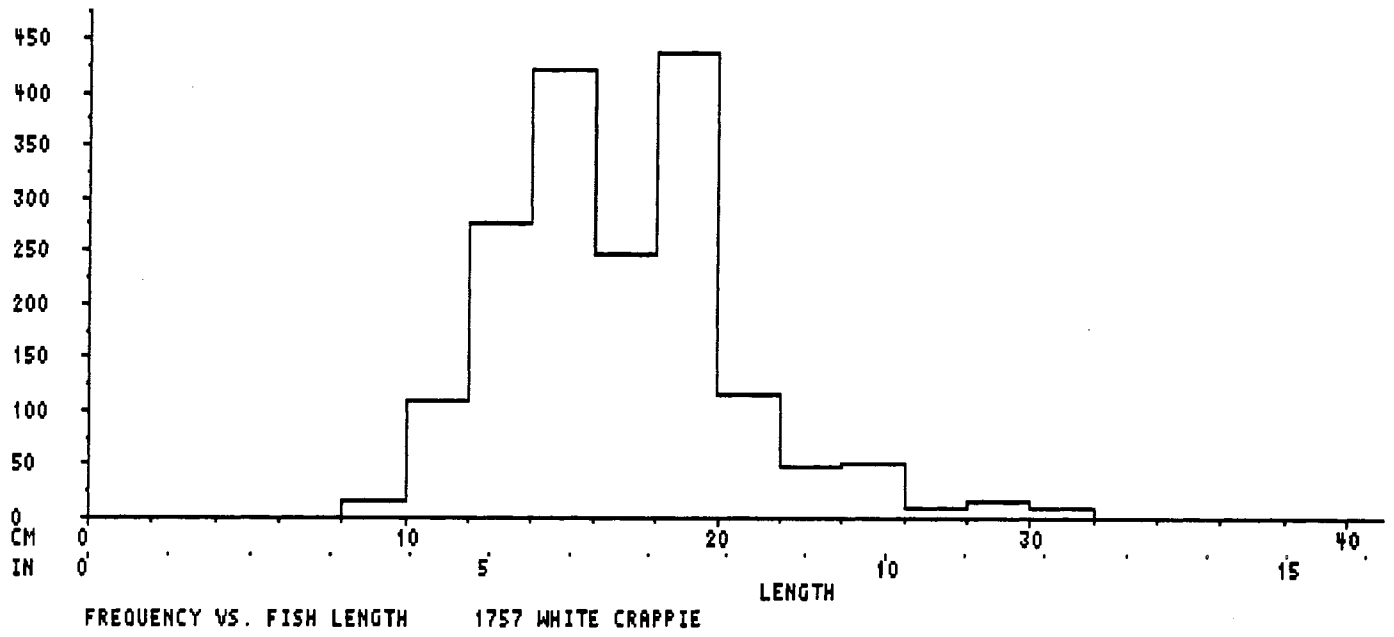


Figure 18. Homer Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.

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

1999 LAKE JACKSONVILLE
 442 ACRES
 REGION 4, DISTRICT 12

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: 294/693 = 42.4%

NUMBER OF INTERVIEWS: 1605

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	6392	5424-7360 (15%)	14	12-17 (15%)	14%
	HOLIDAY	9835	8220-11450 (16%)	22	19-26 (16%)	33%
	TOTAL	16227	14344-18110 (12%)	37	32-41 (12%)	26%
SHORE	WEEKDAY	2809	2238-3380 (20%)	6	5-8 (20%)	10%
	HOLIDAY	2374	1952-2796 (18%)	5	4-6 (18%)	24%
	TOTAL	5183	4473-5893 (14%)	12	10-13 (14%)	16%
BOAT & SHORE	WEEKDAY	9202	8078-10325 (12%)	21	18-23 (12%)	13%
	HOLIDAY	12209	10540-13878 (14%)	28	24-31 (14%)	31%
	TOTAL	21411	19398-23423 (9%)	48	44-53 (9%)	23%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
3073	2291-3854	(25%)	.111	.084-.139 (24%)	17.18	6.95	All species
169	49-289	(71%)	.007	.002-.011 (63%)	0.94	0.38	Black bullhead
273	24-523	(91%)	.008	.001-.015 (88%)	1.53	0.62	Bluegill
44	0-149	(241%)	.002	.000-.006 (257%)	0.24	0.10	Carp
1173	637-1710	(46%)	.050	.033-.068 (35%)	6.56	2.65	Channel catfish
9	0-25	(187%)	.000	.000-.001 (157%)	0.05	0.02	Green sunfish
294	133-454	(55%)	.011	.003-.018 (69%)	1.64	0.66	Largemouth bass
			****	NOT RECORDED ****			Redear sunfish
38	0-98	(156%)	.000	.000-.001 (122%)	0.21	0.09	Striped bass hybrid
1041	662-1420	(36%)	.030	.014-.046 (53%)	5.82	2.36	White crappie
			****	NOT RECORDED ****			Yellow bullhead
32	0-70	(119%)	.003	.000-.008 (192%)	0.18	0.07	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
1602	1154-2049	(28%)	.060	.041-.079 (31%)	8.95	0.521	All species
101	30-171	(70%)	.004	.001-.006 (65%)	0.56	0.599	Black bullhead
18	0-40	(118%)	.001	.000-.001 (104%)	0.10	0.067	Bluegill
92	0-373	(307%)	.004	.000-.017 (310%)	0.51	2.134	Carp
637	329-945	(48%)	.027	.016-.038 (40%)	3.56	0.543	Channel catfish
1	0-2	(156%)	.000	.000-.000 (184%)	0.00	0.085	Green sunfish
266	144-388	(46%)	.011	.004-.017 (60%)	1.49	0.909	Largemouth bass
			****	NOT RECORDED ****			Redear sunfish
82	0-193	(135%)	.001	.000-.001 (112%)	0.46	2.157	Striped bass hybrid
396	212-581	(47%)	.012	.003-.022 (76%)	2.22	0.381	White crappie
			****	NOT RECORDED ****			Yellow bullhead
9	0-20	(119%)	.001	.000-.002 (191%)	0.05	0.299	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
3531	2545-4517	(28%)	.132	.091-.173 (31%)	7.99	1.149	All species
222	66-378	(70%)	.009	.003-.014 (65%)	0.50	1.321	Black bullhead
40	0-87	(118%)	.001	.000-.002 (104%)	0.09	0.147	Bluegill
202	0-822	(307%)	.009	.000-.037 (310%)	0.46	4.705	Carp
1404	724-2083	(48%)	.060	.036-.084 (40%)	3.18	1.197	Channel catfish
1	0-4	(156%)	.000	.000-.000 (184%)	0.00	0.186	Green sunfish
587	318-856	(46%)	.023	.009-.037 (60%)	1.33	2.003	Largemouth bass
			****	NOT RECORDED ****			Redear sunfish
181	0-425	(135%)	.001	.000-.003 (112%)	0.41	4.756	Striped bass hybrid
874	467-1280	(47%)	.027	.007-.048 (76%)	1.98	0.839	White crappie
			****	NOT RECORDED ****			Yellow bullhead
20	0-45	(119%)	.002	.000-.005 (191%)	0.05	0.660	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
30711	26550-34872 (14%)	1.199	1.012-1.386 (16%)	171.69	69.48	All species
357	151-564 (58%)	.016	.007-.024 (52%)	2.00	0.81	Black bullhead
5138	2220-8055 (57%)	.304	.148-.459 (51%)	28.72	11.62	Bluegill
106	0-252 (139%)	.005	.000-.011 (142%)	0.59	0.24	Carp
2244	1401-3087 (38%)	.102	.066-.138 (35%)	12.54	5.08	Channel catfish
264	23-506 (91%)	.008	.001-.015 (85%)	1.48	0.60	Green sunfish
19048	16314-21783 (14%)	.619	.528-.709 (15%)	106.49	43.10	Largemouth bass
2	0-7 (236%)	.000	.000-.000 (236%)	0.01	0.00	Redear sunfish
93	0-201 (115%)	.005	.000-.015 (198%)	0.52	0.21	Striped bass hybrid
3014	2216-3811 (26%)	.107	.052-.162 (52%)	16.85	6.82	White crappie
17	0-46 (167%)	.001	.000-.002 (174%)	0.10	0.04	Yellow bullhead
427	221-633 (48%)	.034	.009-.058 (73%)	2.39	0.97	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
13396	11673-15120 (13%)	.448	.389-.507 (13%)	74.89	0.436	All species
165	63-266 (61%)	.006	.003-.009 (46%)	0.92	0.461	Black bullhead
203	101-304 (50%)	.011	.006-.016 (47%)	1.13	0.039	Bluegill
137	0-464 (239%)	.006	.000-.021 (247%)	0.77	1.304	Carp
837	502-1173 (40%)	.036	.024-.048 (34%)	4.68	0.373	Channel catfish
20	0-40 (102%)	.001	.000-.001 (97%)	0.11	0.075	Green sunfish
11300	9669-12931 (14%)	.363	.307-.418 (15%)	63.17	0.593	Largemouth bass
0	0-0 (236%)	.000	.000-.000 (245%)	0.00	0.053	Redear sunfish
128	5-252 (96%)	.002	.000-.005 (129%)	0.72	1.381	Striped bass hybrid
556	358-754 (36%)	.018	.007-.029 (63%)	3.11	0.185	White crappie
1	0-3 (187%)	.000	.000-.000 (206%)	0.01	0.055	Yellow bullhead
50	24-75 (51%)	.004	.002-.007 (59%)	0.28	0.117	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
29534	25734-33334	(13%)	.987	.857-1.117	(13%)	66.82	0.962 All species
363	140-586	(61%)	.014	.007-.020	(46%)	0.82	1.016 Black bullhead
447	222-671	(50%)	.025	.013-.036	(47%)	1.01	0.087 Bluegill
302	0-1022	(239%)	.013	.000-.045	(247%)	0.68	2.875 Carp
1846	1106-2585	(40%)	.080	.053-.107	(34%)	4.18	0.823 Channel catfish
44	0-88	(102%)	.002	.000-.003	(97%)	0.10	0.166 Green sunfish
24913	21317-28508	(14%)	.800	.677-.922	(15%)	56.36	1.308 Largemouth bass
0	0-1	(245%)	.000	.000-.000	(236%)	0.00	0.117 Redear sunfish
283	10-556	(96%)	.005	.000-.012	(129%)	0.64	3.044 Striped bass hybrid
1226	789-1662	(36%)	.040	.015-.065	(63%)	2.77	0.407 White crappie
2	0-6	(187%)	.000	.000-.000	(206%)	0.00	0.120 Yellow bullhead
110	54-165	(51%)	.009	.004-.015	(59%)	0.25	0.257 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	4.7	4.2-5.2	(11%)	0.5	8.2	99
SHORE	1.4	1.1-1.8	(24%)	0.2	3.4	17
BOAT & SHORE	4.2	3.7-4.7	(12%)	0.2	8.2	116
MILES TRAVELED	22.2	20.3-24.1	(8%)	1	300	1366
SUCCESS RATING (1-10)	4.0	3.9-4.2	(4%)	1	10	1327

*61 samples were from split interviews of completed trips.

7.5% of all 1543 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 15 out of 1543 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	529	617	52	6	2					
SHORE INTERVIEWS	154	113	45	21	2	2				

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

144 (9.3%)	ANY	All species
8 (0.5%)	BLG	Bluegill
1 (0.1%)	CAP	Carp
208 (13.5%)	CCF	Channel catfish
135 (8.7%)	CRP	Crappie spp.
1045 (67.7%)	LMB	Largemouth bass
1 (0.1%)	SBH	Striped bass hybrid (Wiper)
1 (0.1%)	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	193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	190	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Channel catfish																
HARVEST	179	3	-	1	4	2	4	-	-	-	-	-	-	-	-	-
RELEASE	176	9	2	-	1	-	-	-	-	-	-	-	-	-	-	5
Green sunfish																
HARVEST	193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	191	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	191	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	63	38	15	14	21	4	7	9	11	2	-	2	2	-	-	5
Striped bass hybrid (Wiper)																
HARVEST	193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	189	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	181	3	-	1	1	-	3	2	2	-	-	-	-	-	-	-
RELEASE	178	6	2	1	1	2	-	-	-	-	-	-	-	-	-	3
Yellow bass																
HARVEST	193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	190	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-

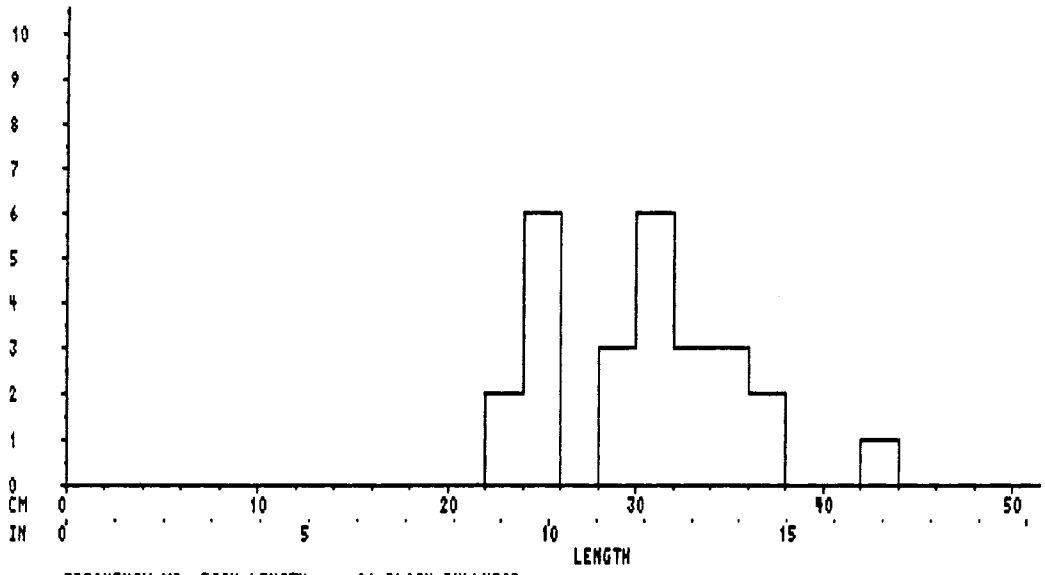


Figure 1. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of black bullhead harvested by all anglers.

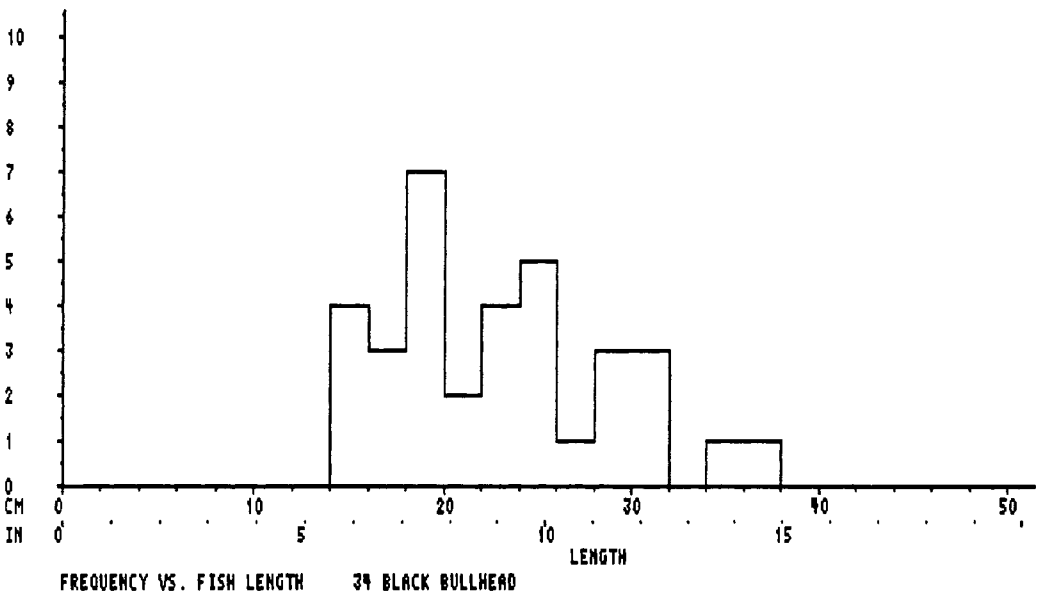


Figure 2. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of black bullhead released by all anglers.

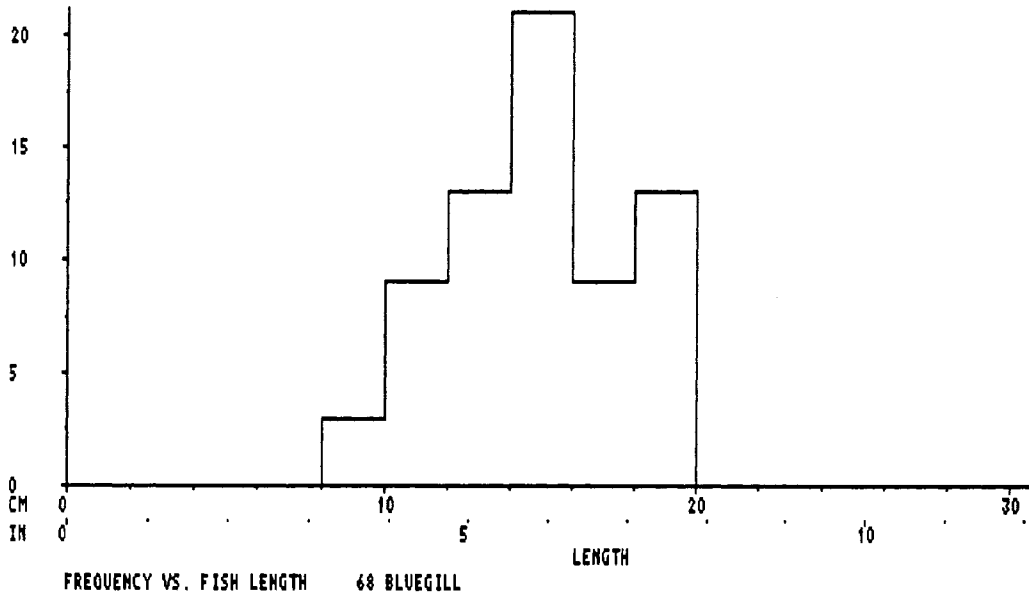


Figure 3. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

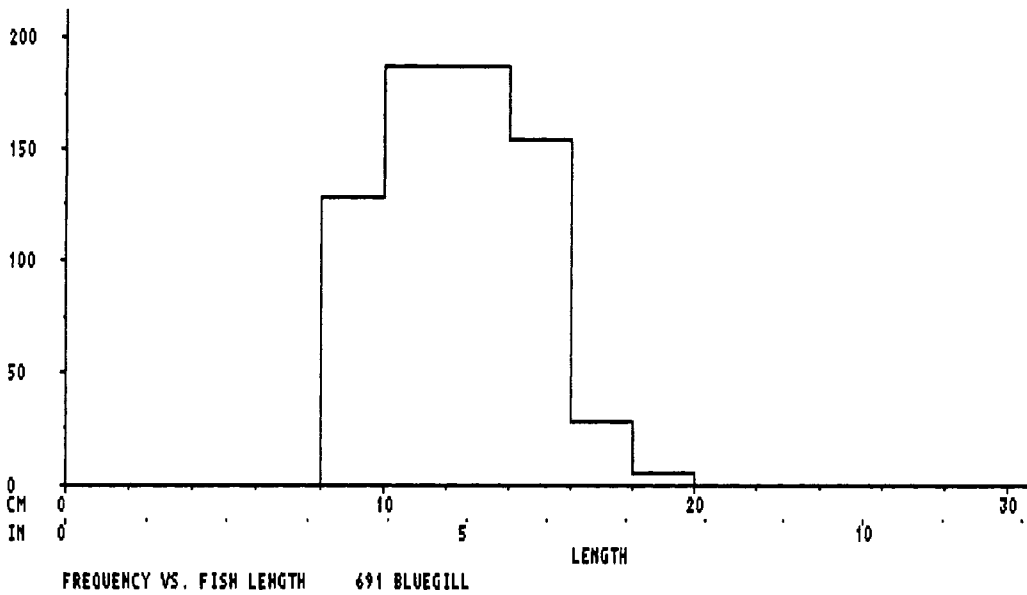


Figure 4. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

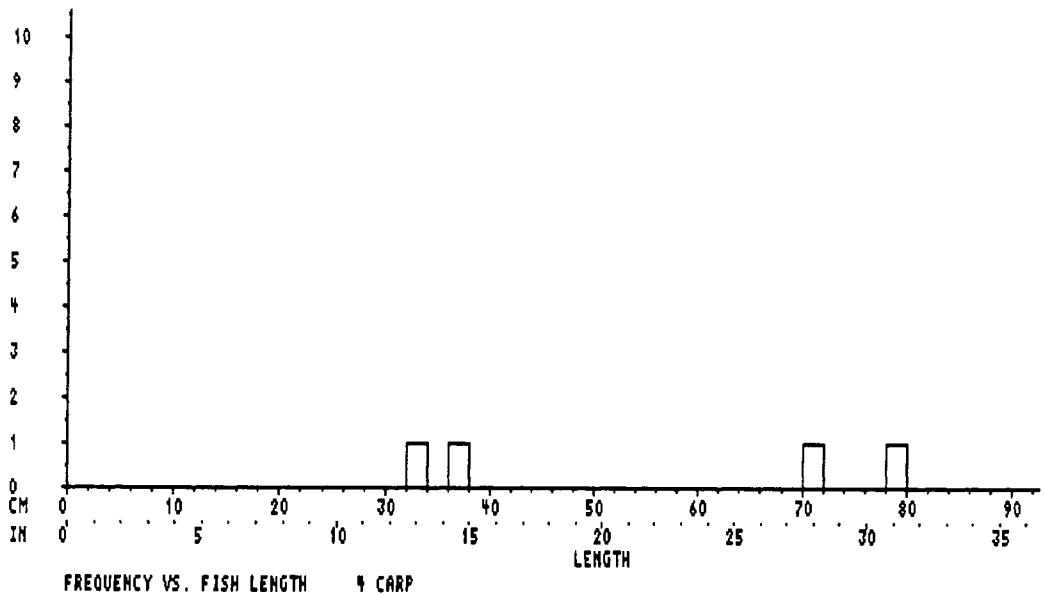


Figure 5. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp harvested by all anglers.

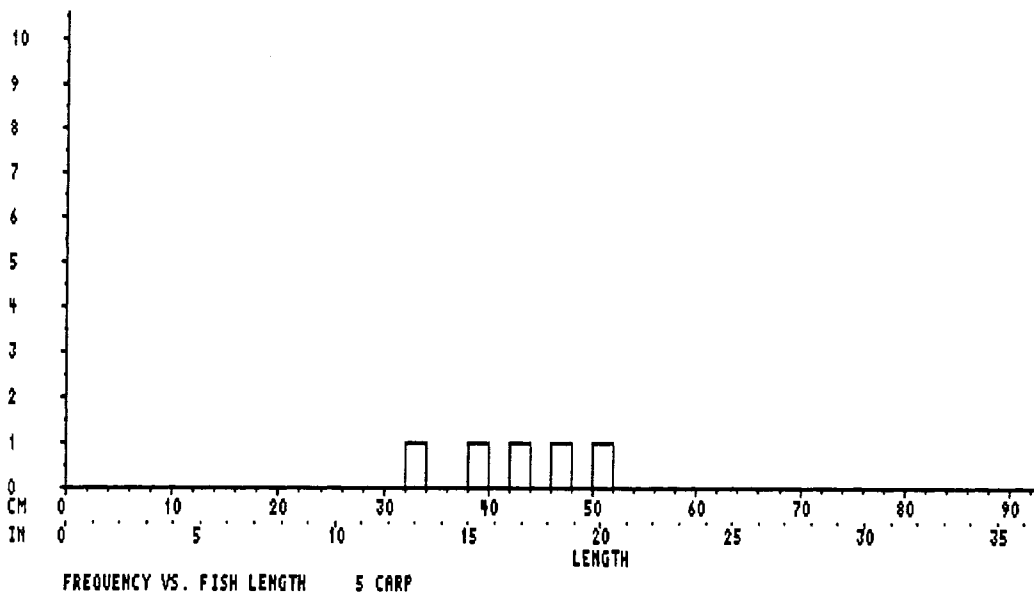


Figure 6. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp released by all anglers.

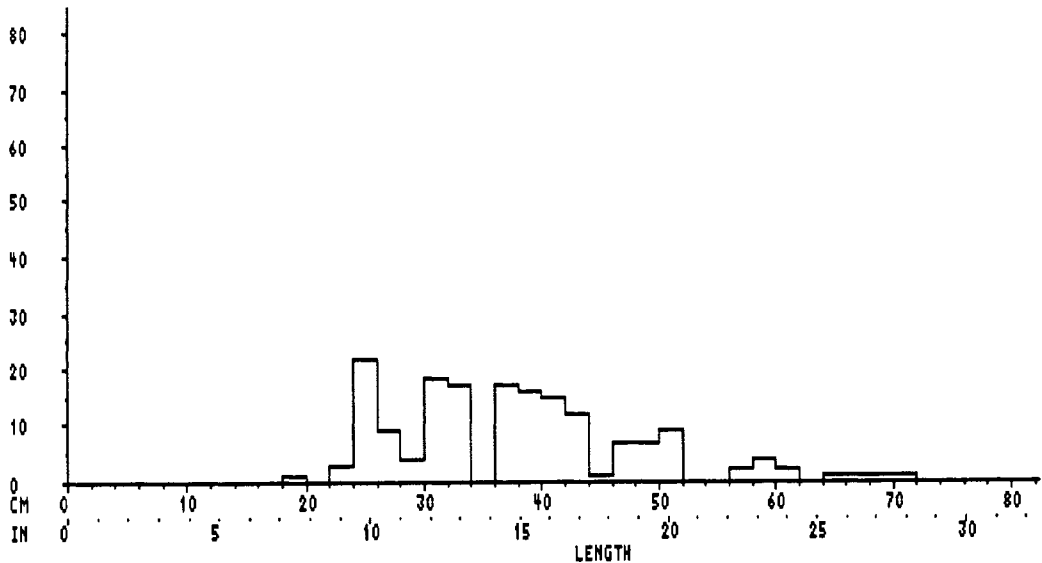


Figure 7. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

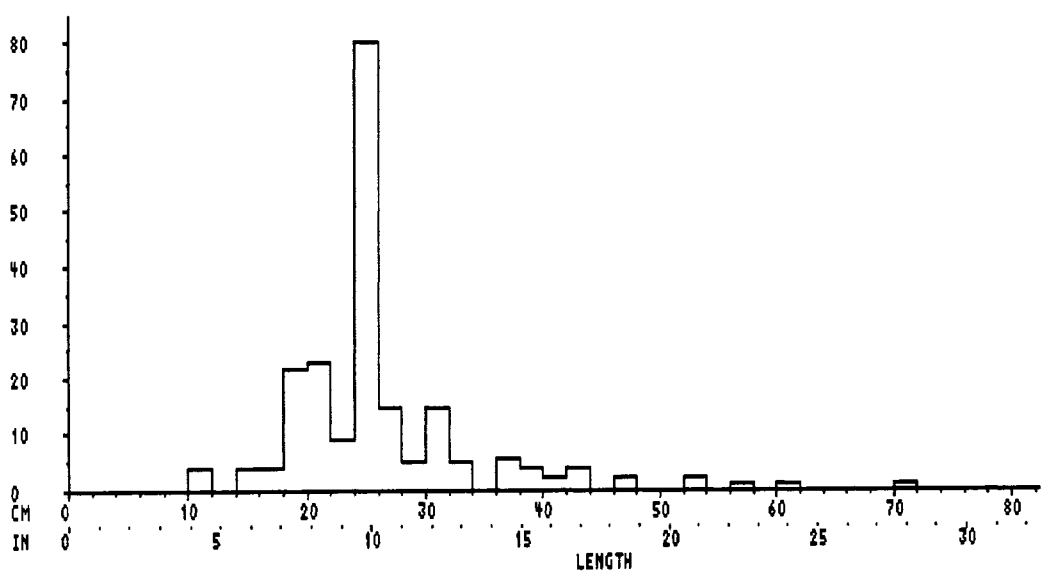


Figure 8. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

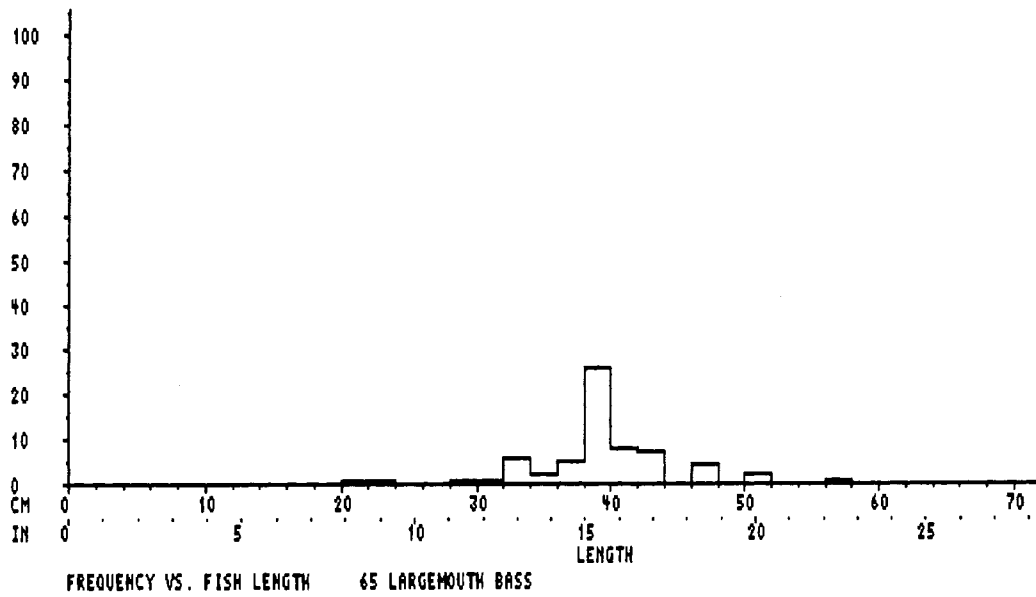


Figure 9. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

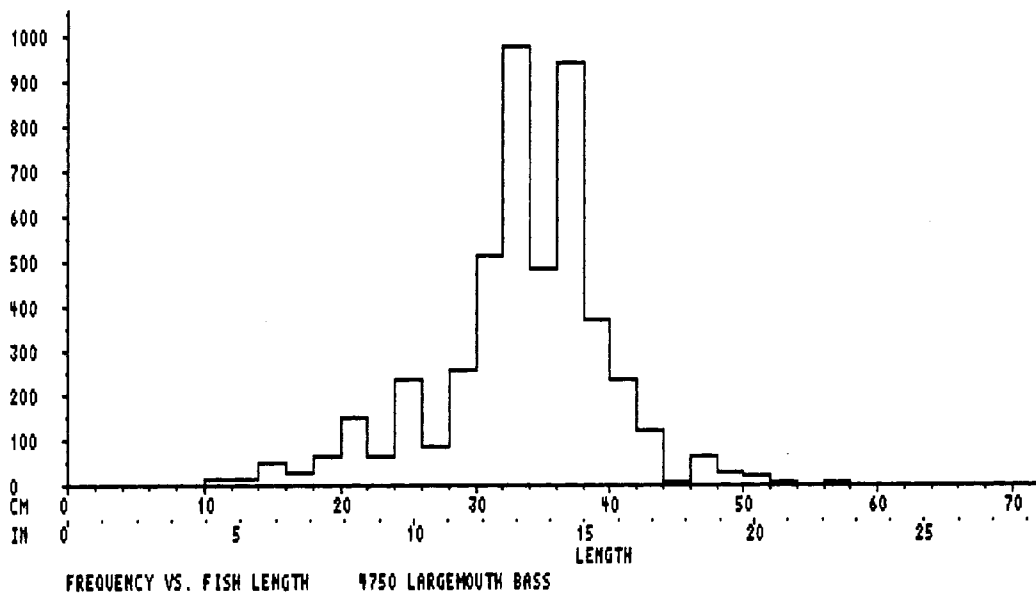


Figure 10. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 9.

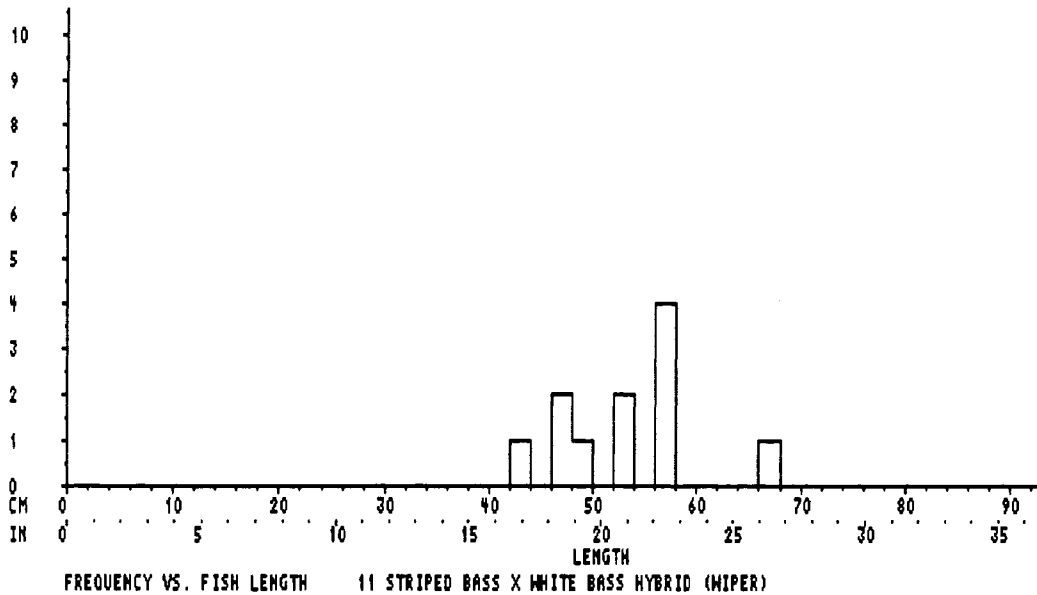


Figure 11. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of hybrid striped bass harvested by all anglers.

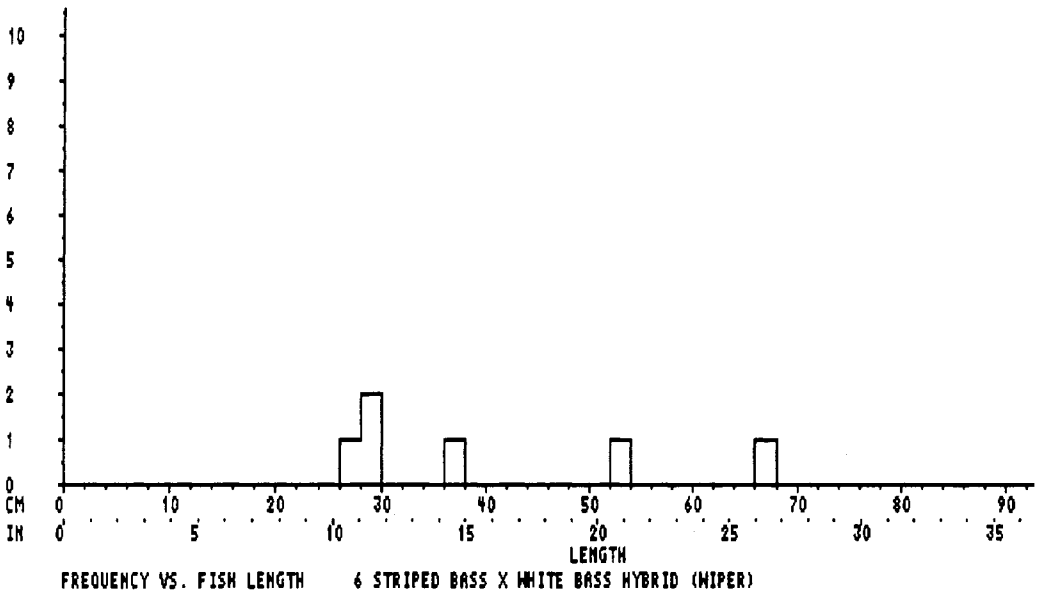


Figure 12. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of hybrid striped bass released by all anglers.

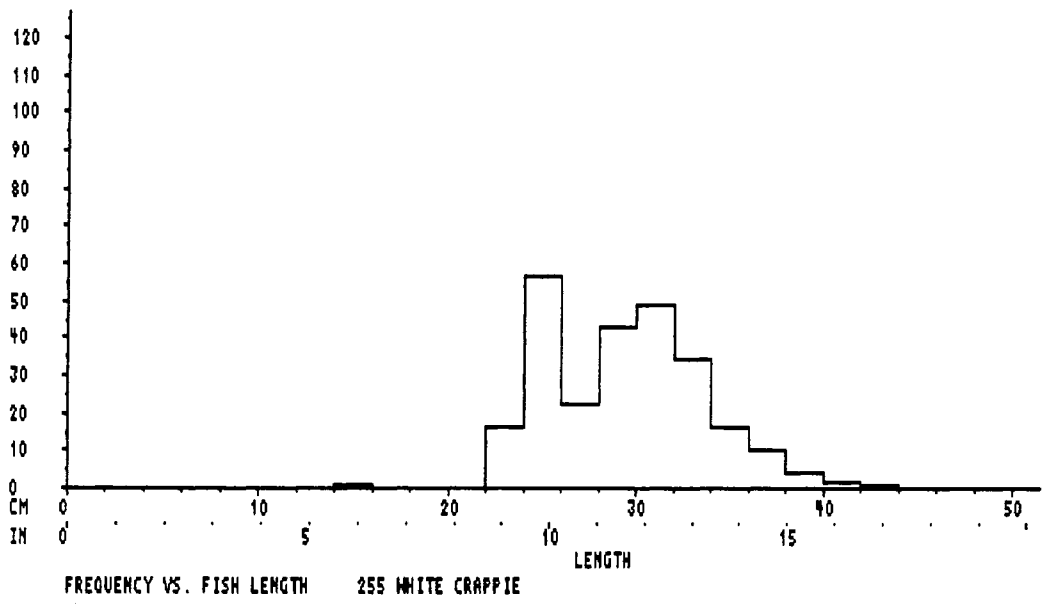


Figure 13. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

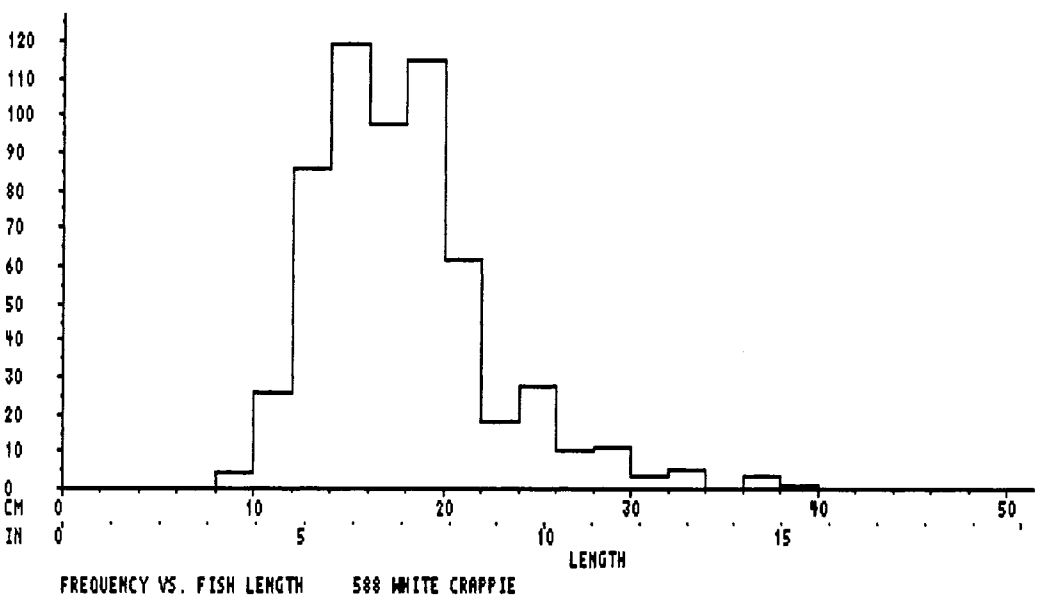


Figure 14. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.

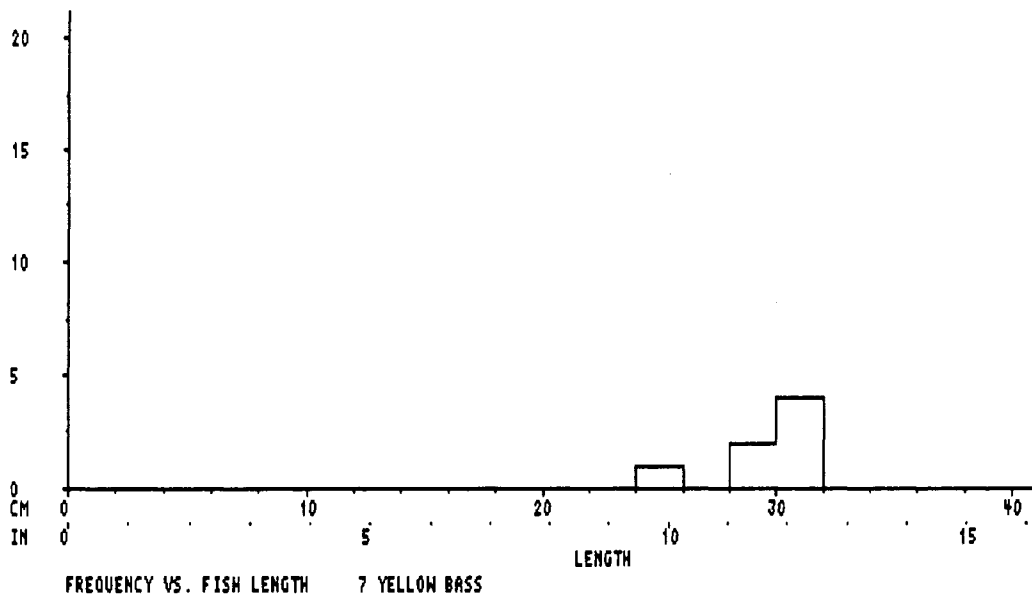


Figure 15. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass harvested by all anglers.

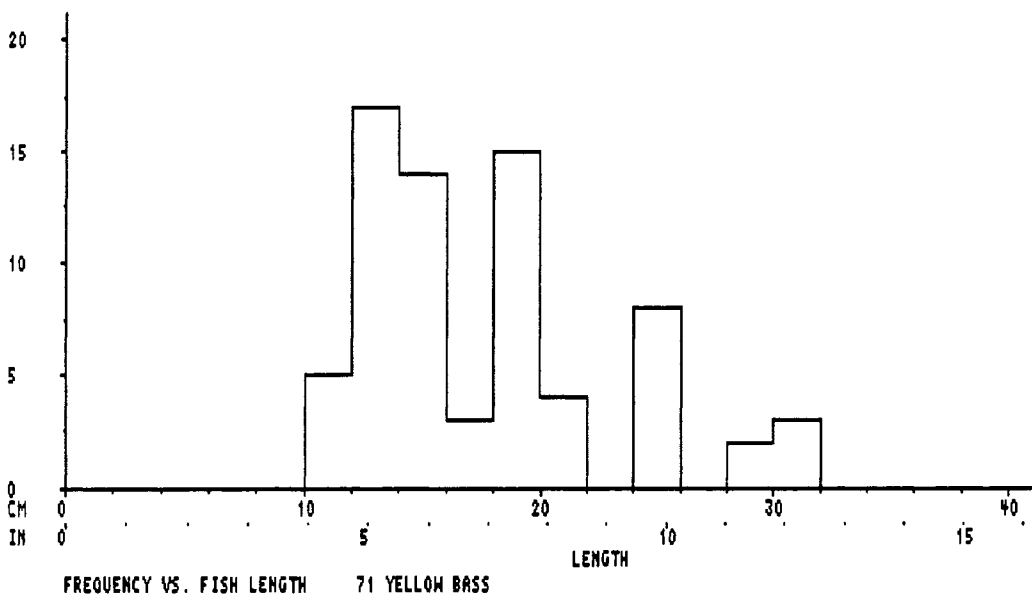


Figure 16. Lake Jacksonville 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass released by all anglers.

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

1999 LAKE MCLEANSBORO
 75 ACRES
 REGION 5, DISTRICT 20

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: 380

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	617	402-831 (35%)	8	5-11 (35%)	26%
	HOLIDAY	1323	590-2057 (55%)	18	8-27 (55%)	47%
	TOTAL	1940	1181-2699 (39%)	26	16-36 (39%)	40%
SHORE	WEEKDAY	1521	1078-1963 (29%)	20	14-26 (29%)	17%
	HOLIDAY	1074	791-1357 (26%)	14	11-18 (26%)	27%
	TOTAL	2595	2086-3104 (20%)	35	28-41 (20%)	21%
BOAT & SHORE	WEEKDAY	2137	1659-2615 (22%)	28	22-35 (22%)	19%
	HOLIDAY	2398	1620-3175 (32%)	32	22-42 (32%)	38%
	TOTAL	4535	3671-5398 (19%)	60	49-72 (19%)	29%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
2108	1591-2626	(25%)	.212	.157-.268 (26%)	69.46	28.11	All species
			****	NOT RECORDED			Black crappie
550	233-868	(58%)	.055	.017-.093 (69%)	18.13	7.34	Bluegill
1008	730-1286	(28%)	.114	.079-.150 (31%)	33.21	13.44	Channel catfish
6	0-15	(154%)	.001	.000-.002 (186%)	0.20	0.08	Flathead catfish
2	0-7	(236%)	.001	.000-.002 (236%)	0.07	0.03	Grass carp
48	0-100	(110%)	.006	.000-.015 (160%)	1.57	0.64	Largemouth bass
62	9-115	(85%)	.005	.001-.010 (80%)	2.04	0.83	Redear sunfish
413	106-720	(74%)	.022	.007-.037 (69%)	13.60	5.50	White crappie
20	0-56	(187%)	.009	.000-.026 (198%)	0.65	0.26	Yellow bullhead
			****	NOT RECORDED			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
727	541-914	(26%)	.087	.058-.115 (33%)	23.97	0.345	All species
			****	NOT RECORDED			Black crappie
52	24-80	(54%)	.006	.001-.010 (77%)	1.71	0.094	Bluegill
436	305-566	(30%)	.050	.031-.070 (39%)	14.35	0.432	Channel catfish
62	0-163	(162%)	.009	.000-.026 (192%)	2.04	10.324	Flathead catfish
17	0-59	(245%)	.006	.000-.021 (245%)	0.57	8.600	Grass carp
55	2-107	(97%)	.006	.000-.015 (137%)	1.80	1.161	Largemouth bass
14	2-26	(84%)	.001	.000-.002 (78%)	0.46	0.228	Redear sunfish
84	6-163	(93%)	.004	.001-.007 (81%)	2.77	0.204	White crappie
8	0-24	(182%)	.004	.000-.011 (196%)	0.28	0.440	Yellow bullhead
			****	NOT RECORDED			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
1604	1193-2014	(26%)	.191	.127-.255 (33%)	21.38	0.761	All species
			****	NOT RECORDED			Black crappie
114	53-176	(54%)	.012	.003-.022 (77%)	1.52	0.208	Bluegill
960	673-1247	(30%)	.111	.068-.154 (39%)	12.80	0.953	Channel catfish
137	0-358	(162%)	.020	.000-.058 (192%)	1.82	22.760	Flathead catfish
38	0-131	(245%)	.014	.000-.046 (236%)	0.51	18.959	Grass carp
120	4-237	(97%)	.014	.000-.033 (137%)	1.60	2.559	Largemouth bass
31	5-56	(84%)	.003	.001-.005 (78%)	0.41	0.502	Redear sunfish
185	12-359	(93%)	.009	.002-.016 (81%)	2.47	0.450	White crappie
18	0-52	(182%)	.008	.000-.024 (196%)	0.25	0.970	Yellow bullhead
			****	NOT RECORDED			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
3931	2714-5148	(31%)	.363	.275-.450 (24%)	129.53	52.42	All species
61	0-225	(271%)	.009	.000-.036 (317%)	2.00	0.81	Black crappie
790	412-1168	(48%)	.094	.044-.145 (53%)	26.03	10.53	Bluegill
1169	873-1465	(25%)	.138	.100-.176 (28%)	38.52	15.59	Channel catfish
6	0-15	(154%)	.001	.000-.002 (186%)	0.20	0.08	Flathead catfish
2	0-7	(236%)	.001	.000-.002 (236%)	0.07	0.03	Grass carp
436	265-607	(39%)	.047	.029-.065 (39%)	14.36	5.81	Largemouth bass
71	17-125	(76%)	.007	.002-.012 (71%)	2.35	0.95	Redear sunfish
1335	229-2442	(83%)	.054	.016-.091 (70%)	43.99	17.80	White crappie
23	0-60	(160%)	.010	.000-.027 (183%)	0.77	0.31	Yellow bullhead
38	0-125	(226%)	.003	.000-.009 (226%)	1.26	0.51	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
1277	995-1559	(22%)	.141	.105-.177 (26%)	42.07	0.325	All species
27	0-106	(297%)	.004	.000-.018 (318%)	0.88	0.447	Black crappie
67	36-98	(46%)	.008	.003-.012 (60%)	2.20	0.085	Bluegill
478	344-612	(28%)	.056	.037-.075 (34%)	15.75	0.409	Channel catfish
62	0-163	(162%)	.009	.000-.026 (192%)	2.04	10.324	Flathead catfish
17	0-59	(245%)	.006	.000-.021 (245%)	0.57	8.600	Grass carp
410	244-577	(41%)	.044	.025-.064 (45%)	13.52	0.944	Largemouth bass
17	5-30	(71%)	.002	.000-.004 (87%)	0.57	0.246	Redear sunfish
185	30-339	(84%)	.007	.002-.011 (67%)	6.09	0.138	White crappie
10	0-25	(159%)	.004	.000-.011 (183%)	0.32	0.422	Yellow bullhead
4	0-12	(223%)	.000	.000-.001 (226%)	0.12	0.099	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
2815	2193-3438	(22%)	.310	.230-.389 (26%)	37.54	0.716	All species
59	0-235	(297%)	.009	.000-.039 (318%)	0.79	0.985	Black crappie
147	79-215	(46%)	.017	.007-.027 (60%)	1.96	0.186	Bluegill
1054	758-1350	(28%)	.123	.081-.165 (34%)	14.06	0.902	Channel catfish
137	0-358	(162%)	.020	.000-.058 (192%)	1.82	22.760	Flathead catfish
38	0-131	(245%)	.014	.000-.046 (236%)	0.51	18.959	Grass carp
905	538-1272	(41%)	.098	.054-.142 (45%)	12.07	2.080	Largemouth bass
38	11-66	(71%)	.005	.001-.009 (87%)	0.51	0.542	Redear sunfish
407	67-748	(84%)	.015	.005-.025 (67%)	5.43	0.305	White crappie
21	0-55	(159%)	.009	.000-.025 (183%)	0.29	0.930	Yellow bullhead
8	0-27	(226%)	.001	.000-.002 (226%)	0.11	0.219	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	4.1	3.8-4.5 (8%)	1.0	8.0	127
SHORE	2.5	2.3-2.7 (8%)	0.5	8.0	125
BOAT & SHORE	3.3	3.1-3.5 (7%)	0.5	8.0	252
MILES TRAVELED	6.3	4.6-8.0 (27%)	1	200	251
SUCCESS RATING (1-10)	5.3	5.0-5.6 (5%)	1	10	279

*72 samples were from split interviews of completed trips.
81.8% of all 308 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 0 out of 308 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	78	53	6							
SHORE INTERVIEWS	110	57	4							

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

2 (0.6%)	ANY	All species
1 (0.3%)	BLC	Black crappie
30 (9.7%)	BLG	Bluegill
144 (46.8%)	CCF	Channel catfish
31 (10.1%)	CRP	Crappie spp.
3 (1.0%)	FCF	Flathead catfish
62 (20.1%)	LMB	Largemouth bass
6 (1.9%)	RSF	Redear sunfish
29 (9.4%)	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 crappie																
HARVEST	349	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	346	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	327	1	4	6	-	1	-	-	1	-	7	-	-	2	-	-
RELEASE	337	2	4	-	-	2	-	-	3	-	-	-	1	-	-	-
Channel catfish																
HARVEST	253	24	18	21	16	4	10	1	1	-	1	-	-	-	-	-
RELEASE	326	13	3	3	2	-	-	1	-	-	-	-	-	-	-	1
Flathead catfish																
HARVEST	347	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	349	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grass carp																
HARVEST	348	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	349	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	338	8	-	2	-	-	1	-	-	-	-	-	-	-	-	-
RELEASE	302	10	11	8	13	3	-	1	-	1	-	-	-	-	-	-
Redear sunfish																
HARVEST	338	4	2	2	-	-	2	-	-	-	1	-	-	-	-	-
RELEASE	347	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	329	-	2	-	2	-	2	-	2	2	3	-	-	-	-	7
RELEASE	304	3	21	2	4	4	-	-	1	-	-	-	-	-	-	10
Yellow bullhead																
HARVEST	348	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
RELEASE	347	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow bass																
HARVEST	349	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	347	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-

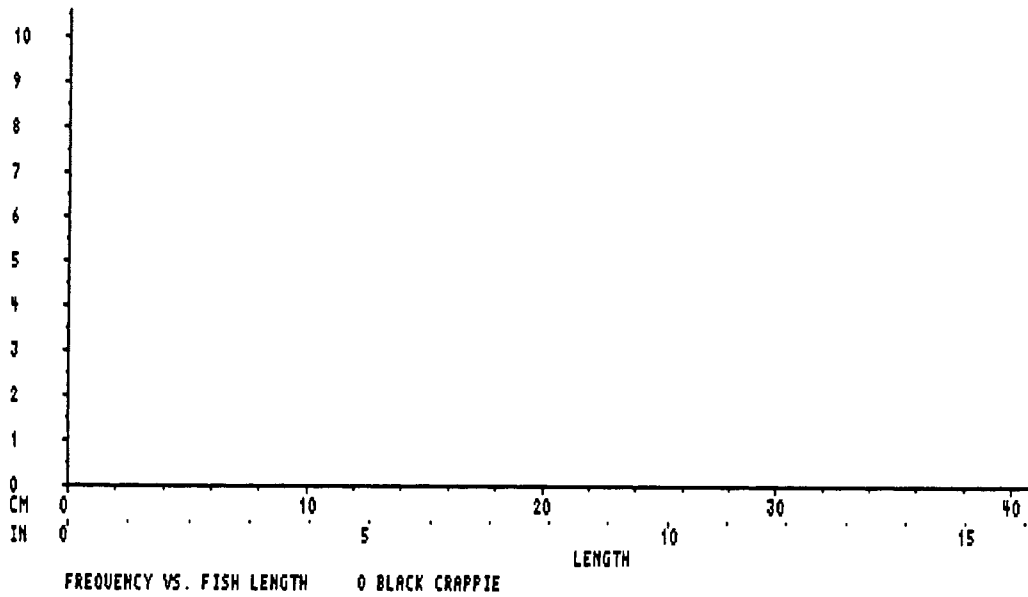


Figure 1. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

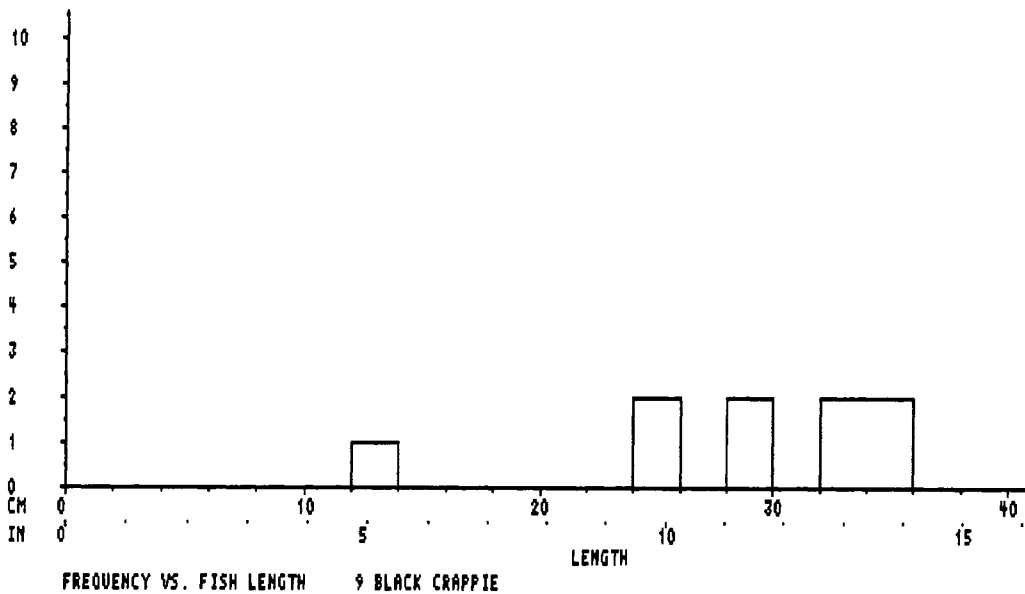


Figure 2. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

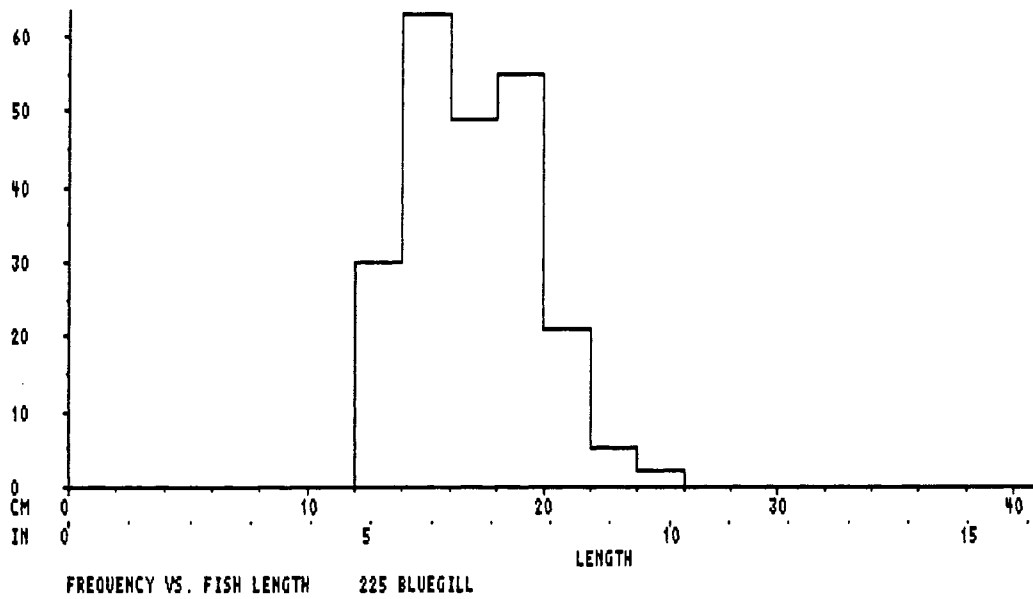


Figure 3. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

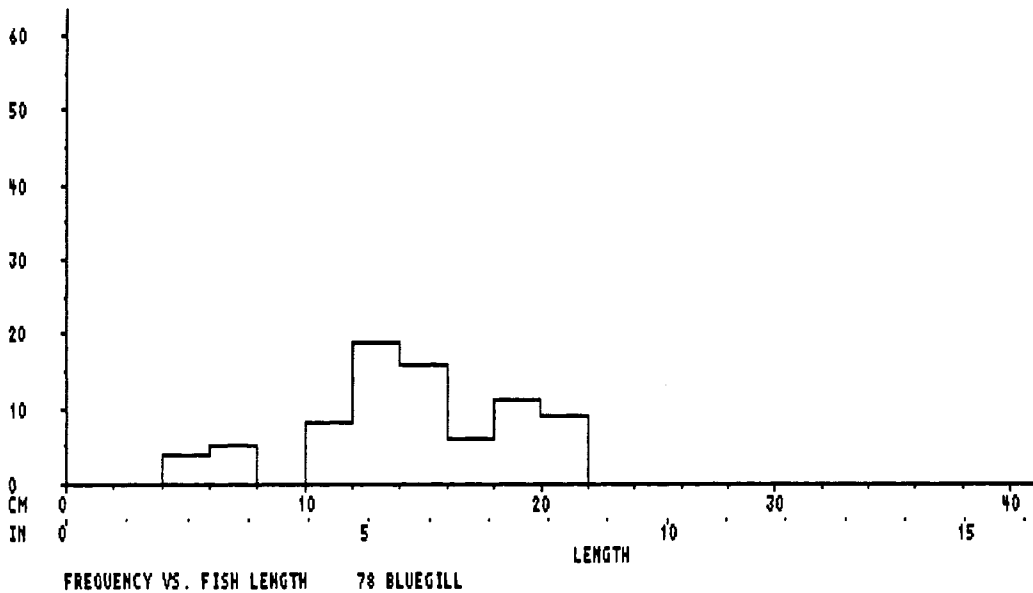


Figure 4. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

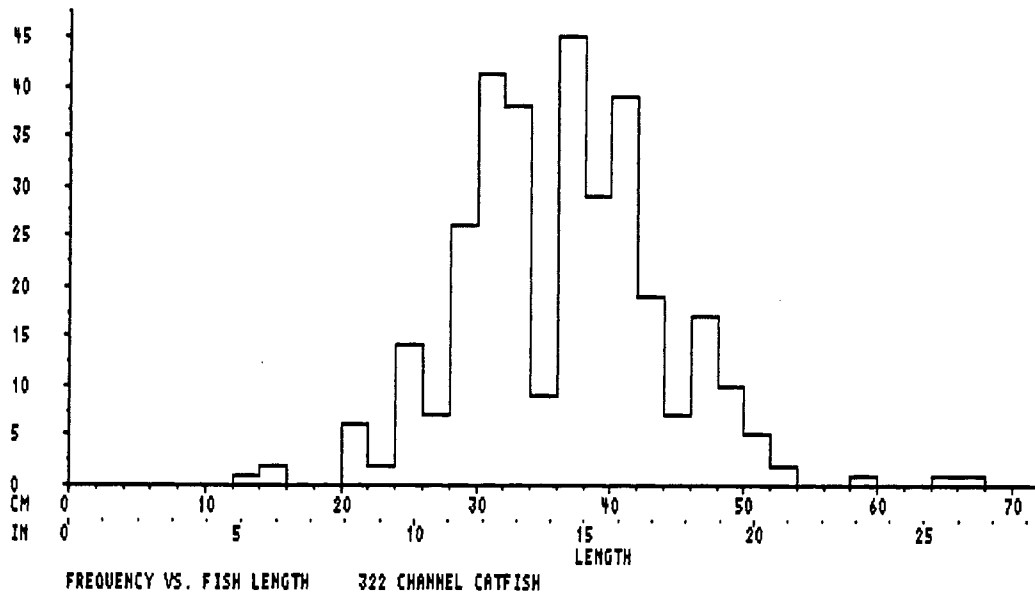


Figure 5. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

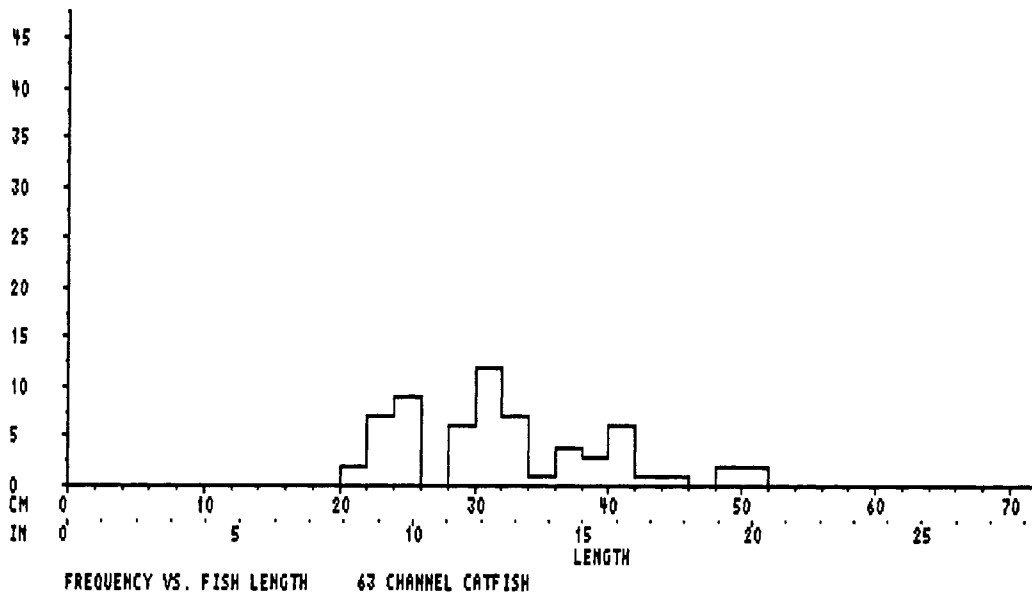


Figure 6. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

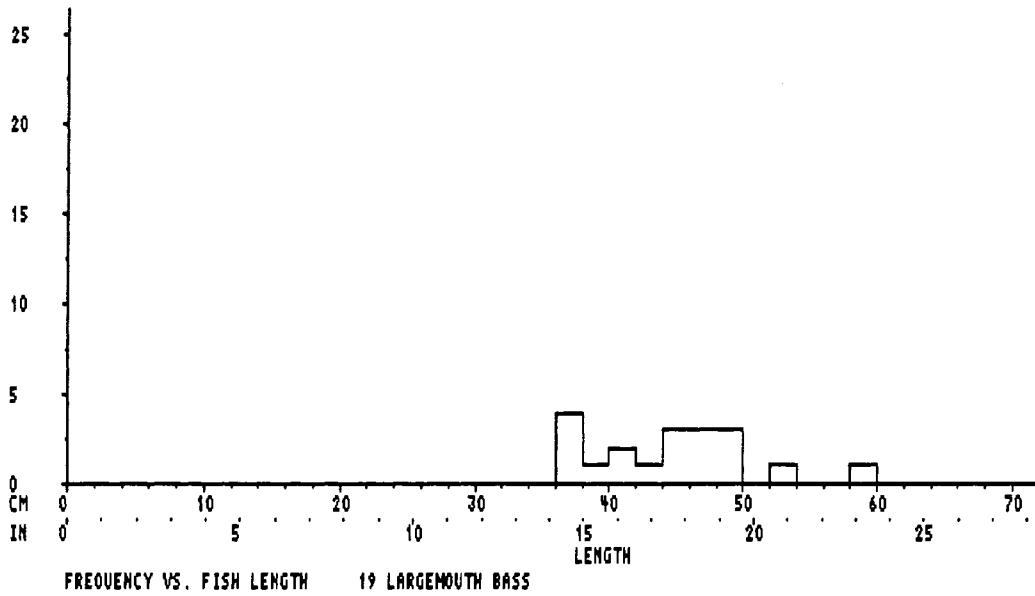


Figure 7. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

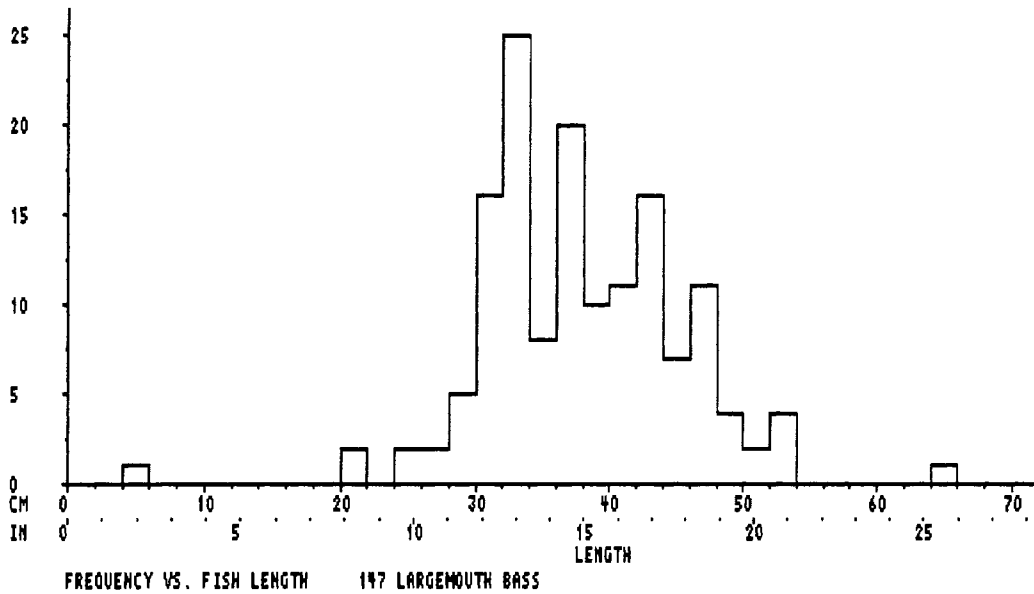


Figure 8. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers.

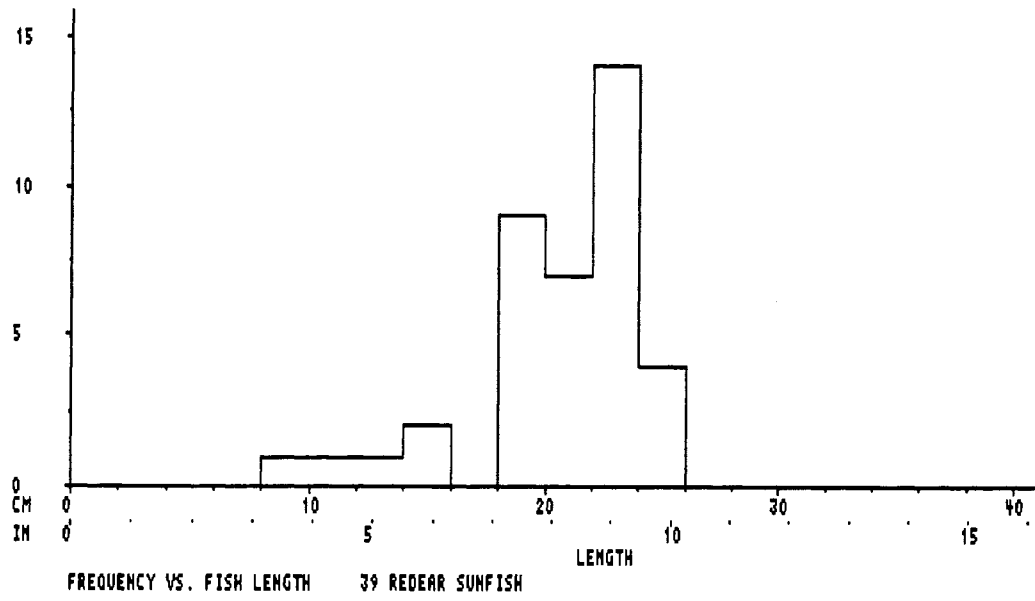


Figure 9. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of redear sunfish harvested by all anglers.

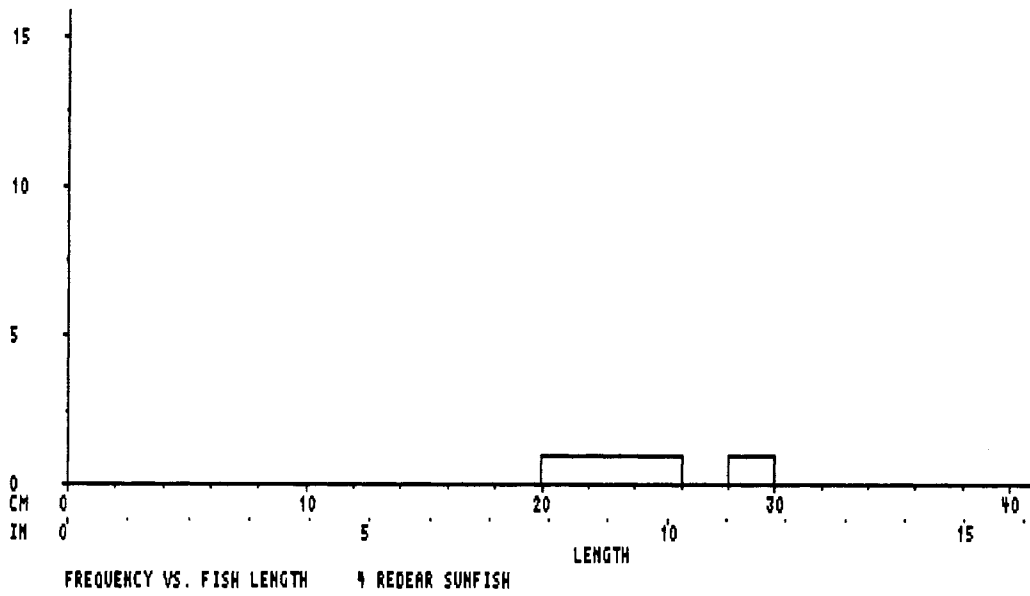


Figure 10. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of redear sunfish released by all anglers.

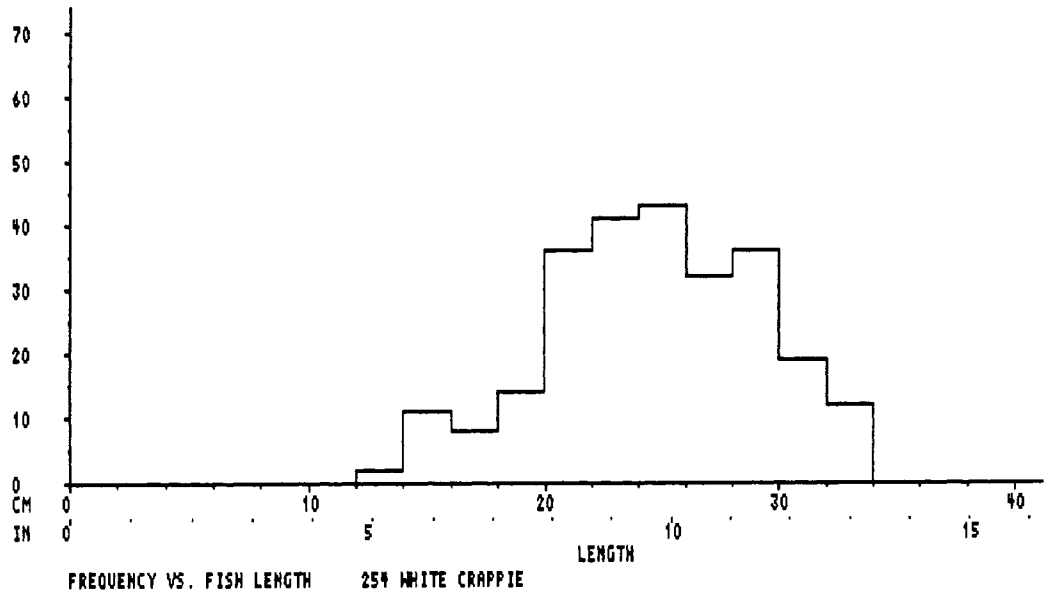


Figure 11. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

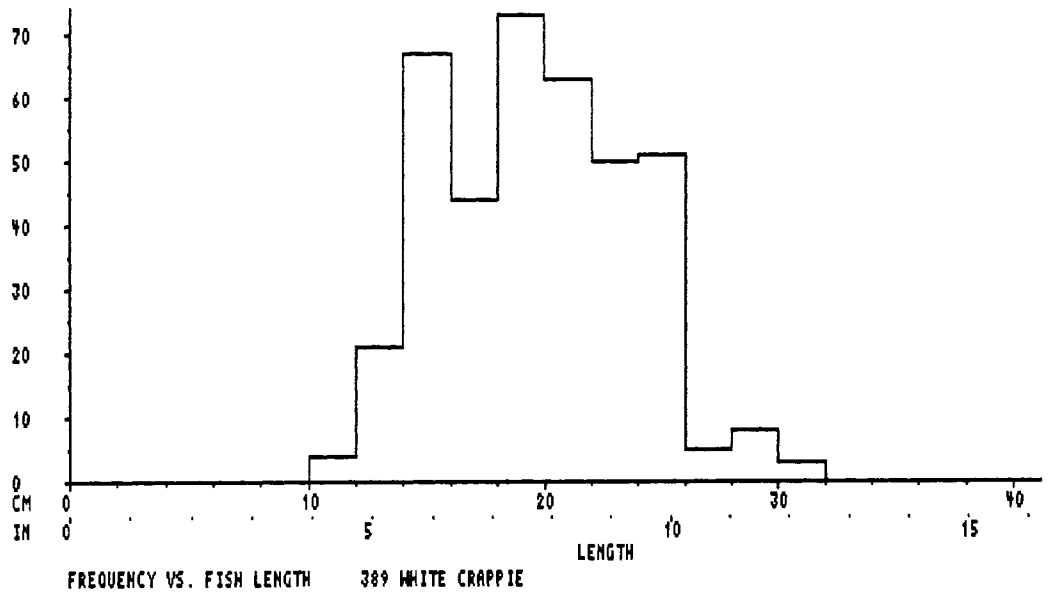


Figure 12. Lake McLeansboro 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.

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

1999 LAKE MINGO
 172 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: 308/693 = 44.4%

NUMBER OF INTERVIEWS: 2201

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	10748	7985-13510 (26%)	62	46-79 (26%)	19%
	HOLIDAY	10531	9555-11507 (9%)	61	56-67 (9%)	50%
	TOTAL	21278	18370-24187 (14%)	124	107-141 (14%)	34%
SHORE	WEEKDAY	7631	6963-8299 (9%)	44	40-48 (9%)	15%
	HOLIDAY	5286	4772-5800 (10%)	31	28-34 (10%)	31%
	TOTAL	12917	12074-13760 (7%)	75	70-80 (7%)	22%
BOAT & SHORE	WEEKDAY	18379	15545-21212 (15%)	107	90-123 (15%)	17%
	HOLIDAY	15817	14713-16920 (7%)	92	86-98 (7%)	43%
	TOTAL	34195	31184-37207 (9%)	199	181-216 (9%)	29%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
12651	11432-13871 (10%)	.346	.309-.383 (11%)	181.75	73.56	All species
4	0-11 (220%)	.000	.000-.000 (220%)	0.05	0.02	Black bullhead
84	18-151 (79%)	.001	.000-.002 (93%)	1.21	0.49	Black crappie
6132	5446-6817 (11%)	.151	.133-.170 (12%)	88.09	35.65	Bluegill
		****	NOT RECORDED ****			Carp
1931	1630-2232 (16%)	.050	.041-.060 (19%)	27.74	11.23	Channel catfish
2	0-5 (226%)	.000	.000-.000 (223%)	0.02	0.01	Golden shiner
135	70-200 (48%)	.006	.002-.010 (74%)	1.94	0.78	Green sunfish
856	646-1067 (25%)	.026	.019-.033 (27%)	12.30	4.98	Largemouth bass
		****	NOT RECORDED ****			Logperch
784	583-985 (26%)	.013	.010-.017 (25%)	11.27	4.56	Redear sunfish
2253	1868-2639 (17%)	.079	.057-.101 (28%)	32.37	13.10	White crappie
16	0-32 (102%)	.000	.000-.000 (113%)	0.23	0.09	Yellow perch
455	360-549 (21%)	.019	.013-.025 (32%)	6.53	2.64	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
2560	2281-2838 (11%)	.067	.060-.075 (11%)	36.77	0.202	All species
1	0-2 (220%)	.000	.000-.000 (220%)	0.01	0.208	Black bullhead
13	3-23 (80%)	.000	.000-.000 (95%)	0.18	0.151	Black crappie
408	362-455 (11%)	.010	.009-.011 (13%)	5.87	0.067	Bluegill
		****	NOT RECORDED ****			Carp
1222	1009-1435 (17%)	.029	.024-.034 (18%)	17.56	0.633	Channel catfish
0	0-0 (223%)	.000	.000-.000 (223%)	0.00	0.124	Golden shiner
7	4-10 (47%)	.000	.000-.001 (75%)	0.10	0.051	Green sunfish
407	324-490 (20%)	.013	.008-.017 (34%)	5.84	0.475	Largemouth bass
		****	NOT RECORDED ****			Logperch
134	95-172 (29%)	.002	.002-.003 (27%)	1.92	0.170	Redear sunfish
311	258-365 (17%)	.010	.008-.013 (28%)	4.47	0.138	White crappie
1	0-3 (103%)	.000	.000-.000 (110%)	0.02	0.086	Yellow perch
56	44-67 (21%)	.002	.002-.003 (31%)	0.80	0.123	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
5643	5029-6258	(11%)	.148	.131-.165 (11%)	32.81	0.446	All species
1	0-4	(218%)	.000	.000-.000 (218%)	0.01	0.458	Black bullhead
28	6-50	(80%)	.000	.000-.001 (95%)	0.16	0.332	Black crappie
900	798-1003	(11%)	.022	.019-.025 (13%)	5.24	0.147	Bluegill
			****	NOT RECORDED	****		Carp
2695	2225-3164	(17%)	.064	.052-.076 (18%)	15.67	1.396	Channel catfish
0	0-1	(226%)	.000	.000-.000 (226%)	0.00	0.274	Golden shiner
15	8-22	(47%)	.001	.000-.001 (75%)	0.09	0.112	Green sunfish
897	714-1079	(20%)	.028	.018-.037 (34%)	5.21	1.047	Largemouth bass
			****	NOT RECORDED	****		Logperch
295	210-380	(29%)	.005	.004-.006 (27%)	1.71	0.376	Redear sunfish
687	568-805	(17%)	.023	.017-.029 (28%)	3.99	0.305	White crappie
3	0-6	(103%)	.000	.000-.000 (110%)	0.02	0.190	Yellow perch
123	97-148	(21%)	.005	.004-.007 (31%)	0.71	0.270	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
41285	37779-44791 (8%)	1.047	.970-1.125 (7%)	593.11	240.03	All species
284	208-359 (27%)	.009	.005-.013 (44%)	4.07	1.65	Black bullhead
160	34-286 (79%)	.002	.000-.004 (89%)	2.30	0.93	Black crappie
16020	14445-17596 (10%)	.393	.356-.429 (9%)	230.15	93.14	Bluegill
22	4-41 (83%)	.000	.000-.001 (107%)	0.32	0.13	Carp
2501	2092-2909 (16%)	.062	.049-.076 (21%)	35.93	14.54	Channel catfish
77	38-117 (51%)	.002	.001-.003 (62%)	1.11	0.45	Golden shiner
648	511-784 (21%)	.018	.013-.023 (29%)	9.31	3.77	Green sunfish
14187	12647-15728 (11%)	.334	.308-.360 (8%)	203.82	82.49	Largemouth bass
40	0-95 (141%)	.001	.000-.002 (134%)	0.57	0.23	Logperch
829	621-1037 (25%)	.014	.010-.017 (24%)	11.91	4.82	Redear sunfish
5627	4722-6531 (16%)	.181	.137-.225 (24%)	80.83	32.71	White crappie
86	18-153 (78%)	.002	.000-.005 (96%)	1.23	0.50	Yellow perch
805	596-1014 (26%)	.029	.021-.037 (27%)	11.57	4.68	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
7473	6578-8368 (12%)	.170	.158-.182 (7%)	107.36	0.181	All species
48	35-62 (28%)	.002	.001-.002 (53%)	0.69	0.170	Black bullhead
20	4-36 (79%)	.000	.000-.000 (90%)	0.29	0.126	Black crappie
847	765-929 (10%)	.021	.019-.023 (9%)	12.17	0.053	Bluegill
12	1-24 (92%)	.000	.000-.000 (129%)	0.18	0.561	Carp
1338	1106-1570 (17%)	.031	.025-.037 (19%)	19.22	0.535	Channel catfish
5	2-8 (53%)	.000	.000-.000 (66%)	0.07	0.066	Golden shiner
30	24-37 (21%)	.001	.001-.001 (30%)	0.43	0.047	Green sunfish
4341	3619-5063 (17%)	.090	.080-.100 (11%)	62.36	0.306	Largemouth bass
4	0-9 (128%)	.000	.000-.000 (131%)	0.06	0.102	Logperch
137	98-176 (28%)	.002	.002-.003 (27%)	1.97	0.166	Redear sunfish
594	497-690 (16%)	.019	.014-.023 (24%)	8.53	0.106	White crappie
5	1-9 (82%)	.000	.000-.000 (84%)	0.07	0.060	Yellow perch
91	67-115 (26%)	.003	.002-.004 (27%)	1.31	0.113	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
16475	14502-18449 (12%)	.375	.348-.402 (7%)	95.79	0.399	All species
106	76-136 (28%)	.003	.002-.005 (53%)	0.62	0.375	Black bullhead
44	9-79 (79%)	.001	.000-.001 (90%)	0.26	0.278	Black crappie
1867	1686-2048 (10%)	.047	.042-.051 (9%)	10.85	0.117	Bluegill
27	2-52 (92%)	.000	.000-.001 (129%)	0.16	1.237	Carp
2950	2438-3462 (17%)	.069	.056-.082 (19%)	17.15	1.180	Channel catfish
11	5-17 (53%)	.000	.000-.000 (66%)	0.07	0.146	Golden shiner
67	53-81 (21%)	.002	.001-.002 (30%)	0.39	0.103	Green sunfish
9570	7979-11162 (17%)	.199	.177-.220 (11%)	55.64	0.675	Largemouth bass
9	0-20 (128%)	.000	.000-.000 (131%)	0.05	0.226	Logperch
302	216-389 (28%)	.005	.004-.006 (27%)	1.76	0.365	Redear sunfish
1309	1095-1522 (16%)	.041	.031-.052 (24%)	7.61	0.233	White crappie
11	2-20 (82%)	.000	.000-.000 (84%)	0.07	0.132	Yellow perch
201	149-254 (26%)	.007	.005-.009 (27%)	1.17	0.250	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	4.4	4.3-4.5 (3%)	1.0	11.8	747
SHORE	1.8	1.3-2.2 (27%)	0.8	4.0	21
BOAT & SHORE	4.3	4.2-4.5 (3%)	0.8	11.8	768
MILES TRAVELED	15.0	13.8-16.2 (8%)	1	685	1741
SUCCESS RATING (1-10)	3.5	3.4-3.6 (3%)	1	10	1741

*364 samples were from split interviews of completed trips.

41.9% of all 1831 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 53 out of 1831 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	231	587	130	13		1				
SHORE INTERVIEWS	261	500	70	36	1	1				

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

580 (31.7%)	ANY	All species
172 (9.4%)	BLG	Bluegill
474 (25.9%)	CCF	Channel catfish
80 (4.4%)	CRP	Crappie spp.
509 (27.8%)	LMB	Largemouth bass
16 (0.9%)	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	1441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1374	66	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST	1430	-	6	2	2	-	1	-	-	-	-	-	-	-	-	-
RELEASE	1431	5	2	2	-	1	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	1079	63	94	98	70	23	5	3	1	2	-	2	1	-	-	-
RELEASE	969	93	67	121	56	56	33	23	14	1	5	2	-	-	-	1
Carp																
HARVEST	1441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1434	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	1193	166	58	15	7	1	1	-	-	-	-	-	-	-	-	-
RELEASE	1334	64	27	10	5	1	-	-	-	-	-	-	-	-	-	-
Golden shiner																
HARVEST	1441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1402	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Green sunfish																
HARVEST	1439	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1326	108	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	1350	72	18	1	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	297	294	340	226	130	89	31	10	12	-	6	-	2	1	1	2
Logperch																
HARVEST	1441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1433	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern pike																
HARVEST	1441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redear sunfish																
HARVEST	1263	132	44	1	-	1	-	-	-	-	-	-	-	-	-	-
RELEASE	1439	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	1225	61	56	59	25	3	1	-	7	-	1	2	1	-	-	-
RELEASE	1147	60	68	53	56	36	8	2	5	2	4	-	-	-	-	-

1999 LAKE MINGO

DAY CREEL

03/15/1999 - 10/31/1999

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+
Yellow perch																
HARVEST	1433	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1426	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow bass																
HARVEST	1357	78	5	1	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1398	37	1	4	-	-	-	-	1	-	-	-	-	-	-	-

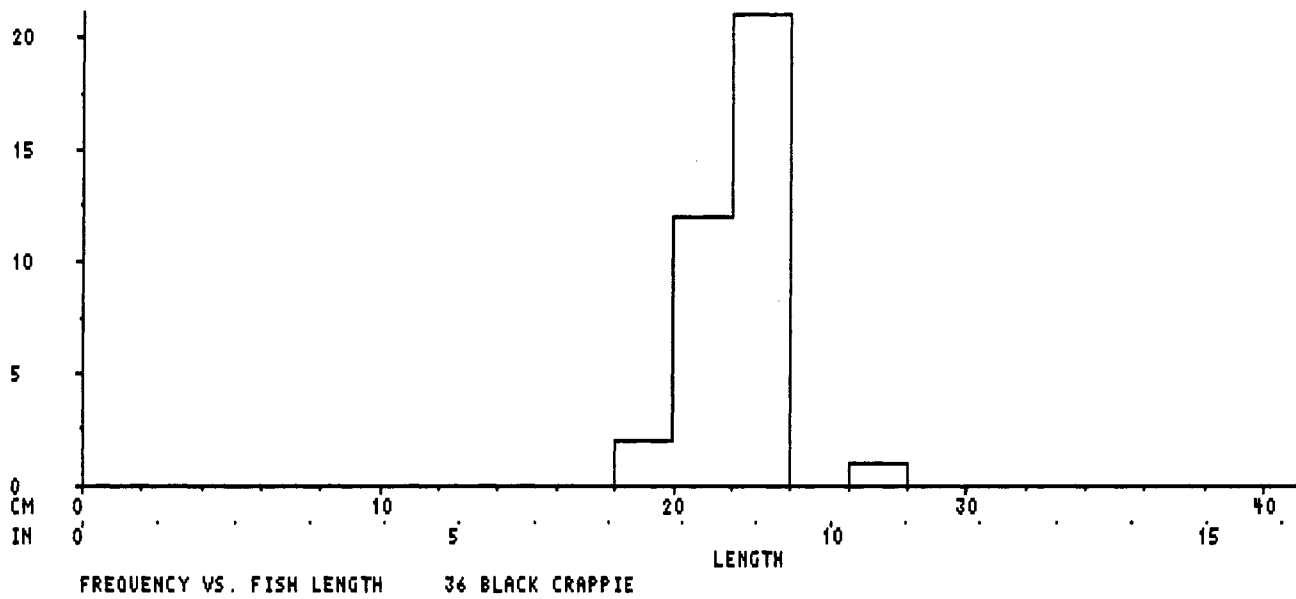


Figure 1. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

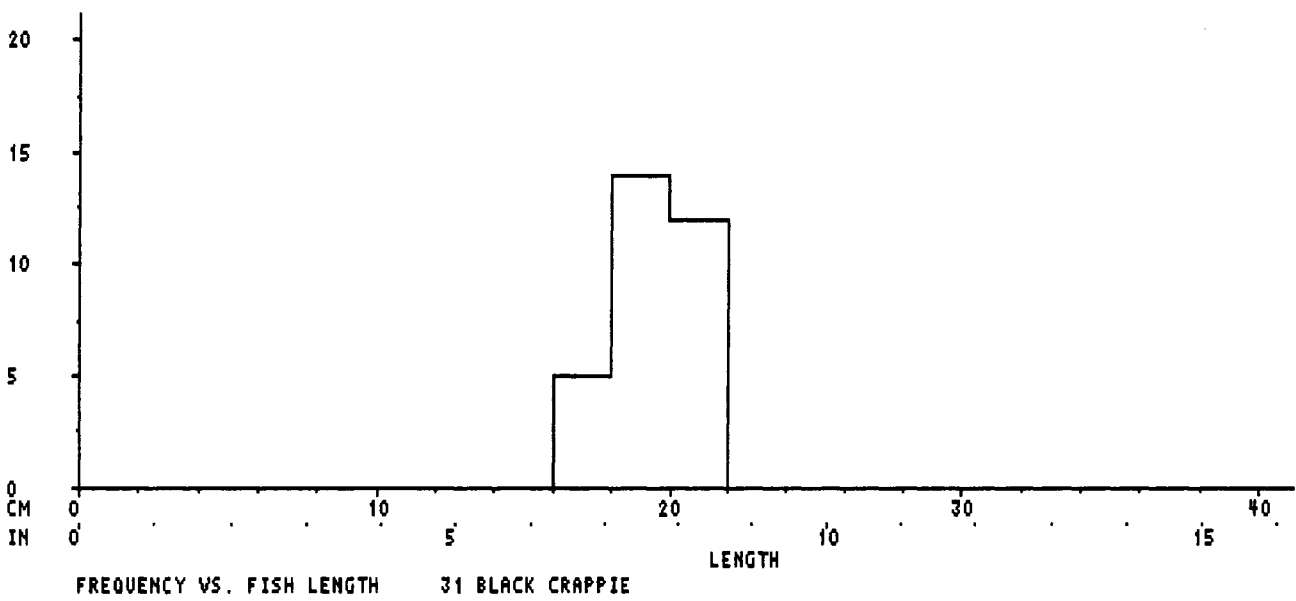


Figure 2. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

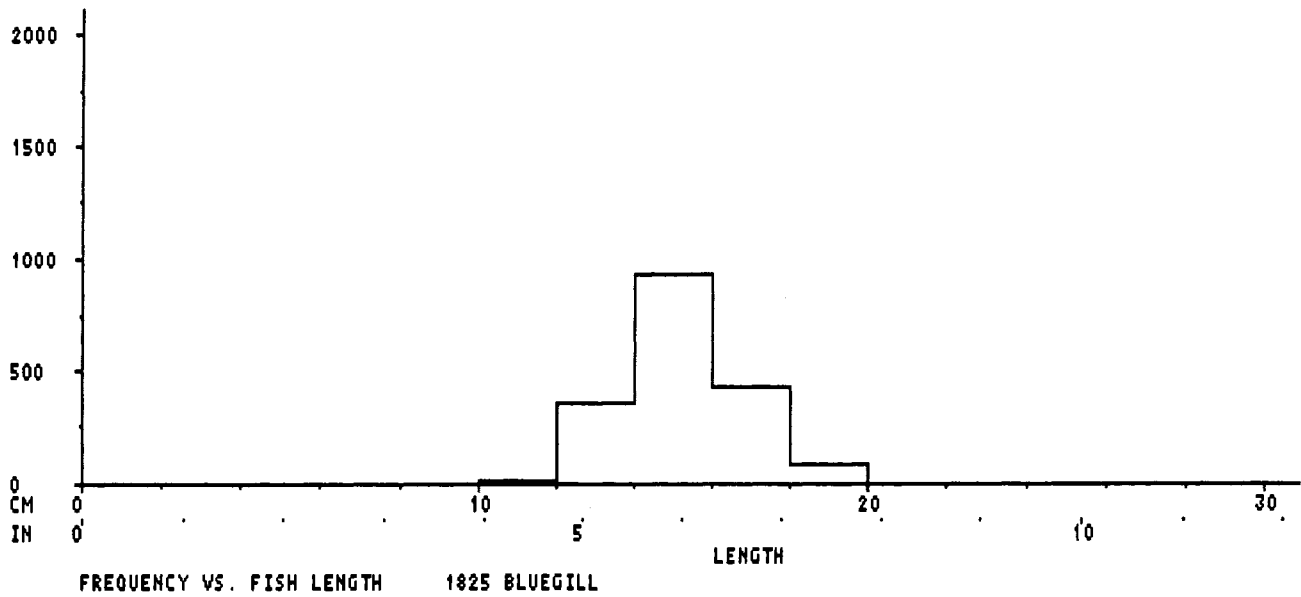


Figure 3. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

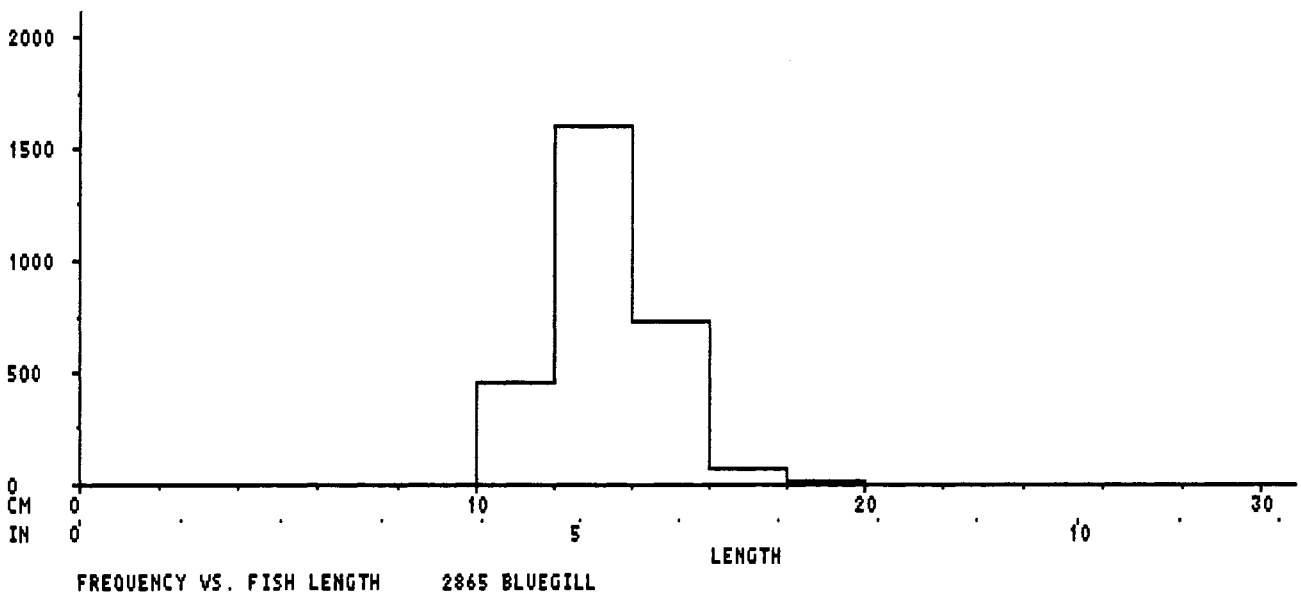


Figure 4. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

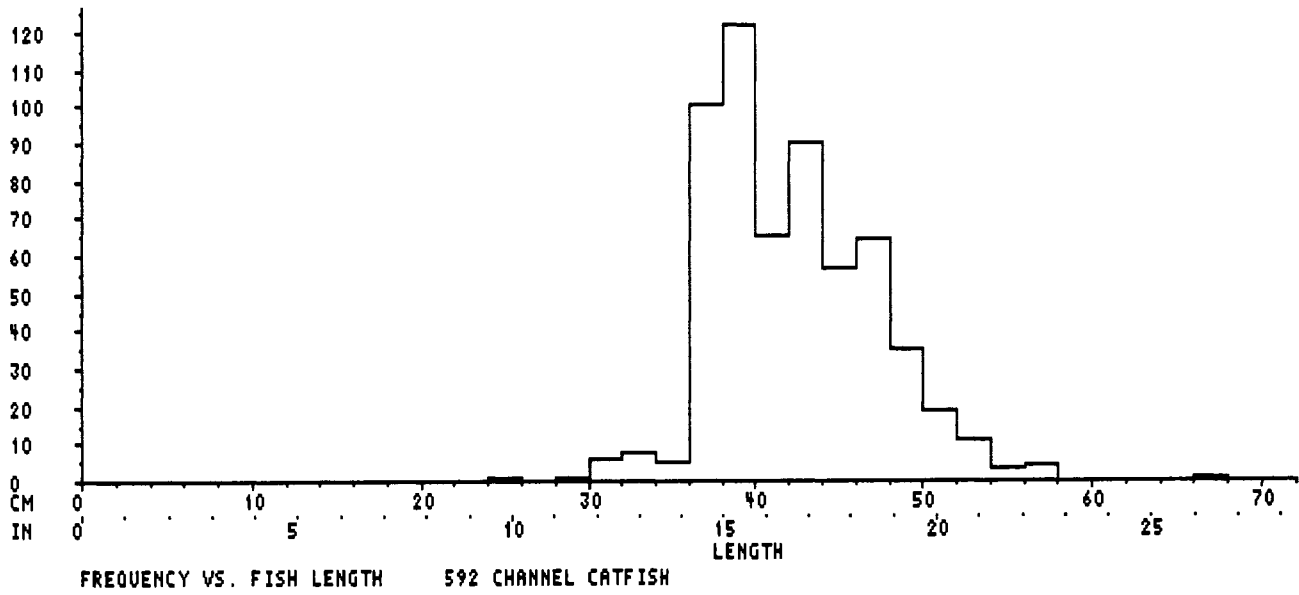


Figure 5. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

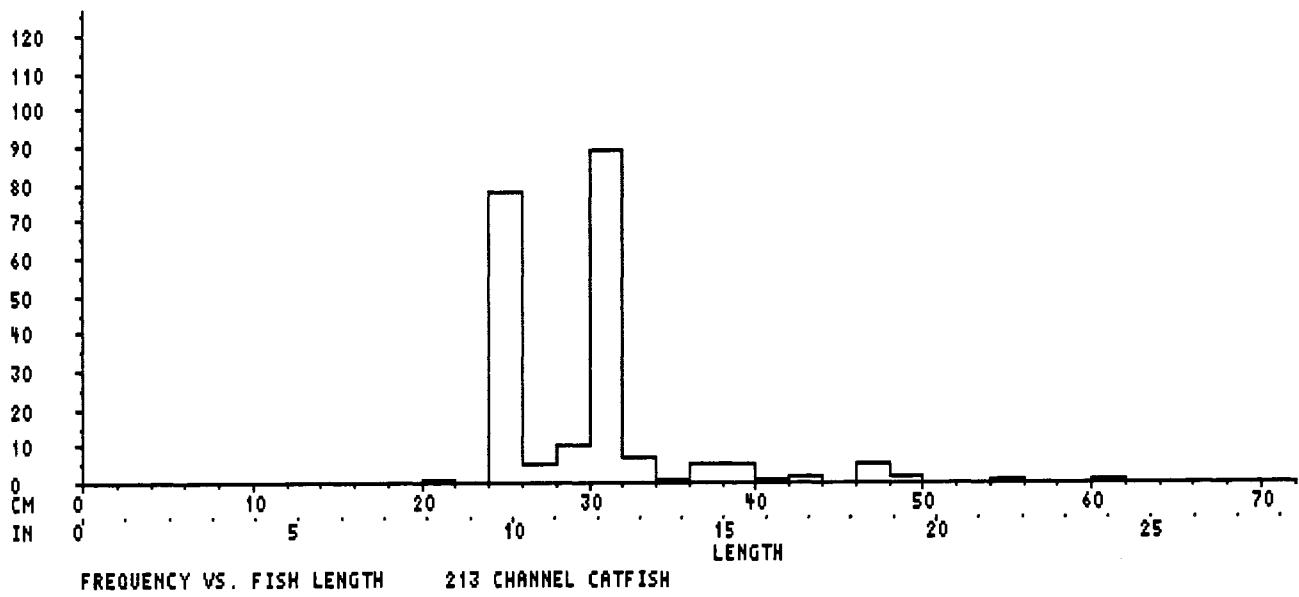


Figure 6. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

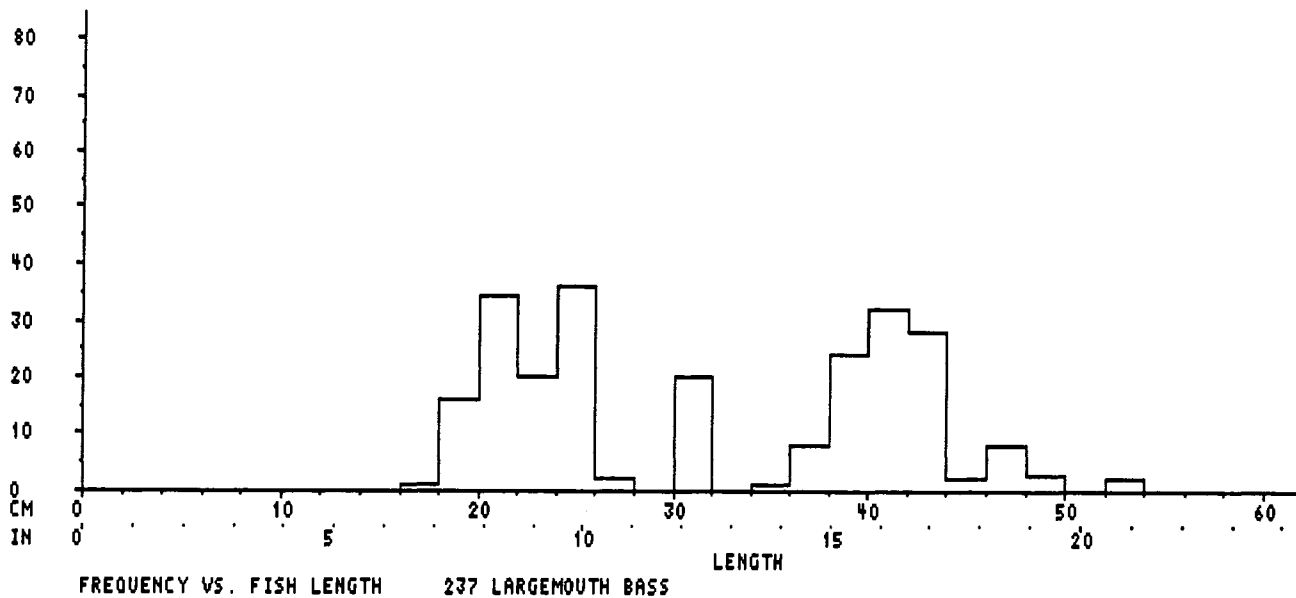


Figure 7. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

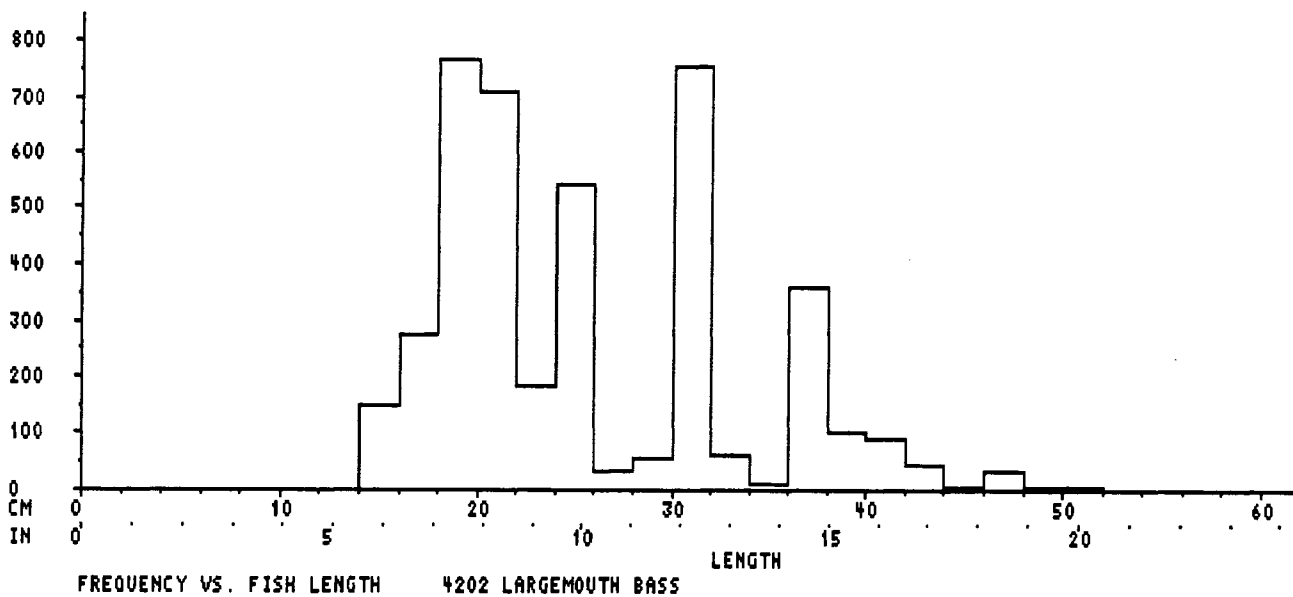


Figure 8. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 7.

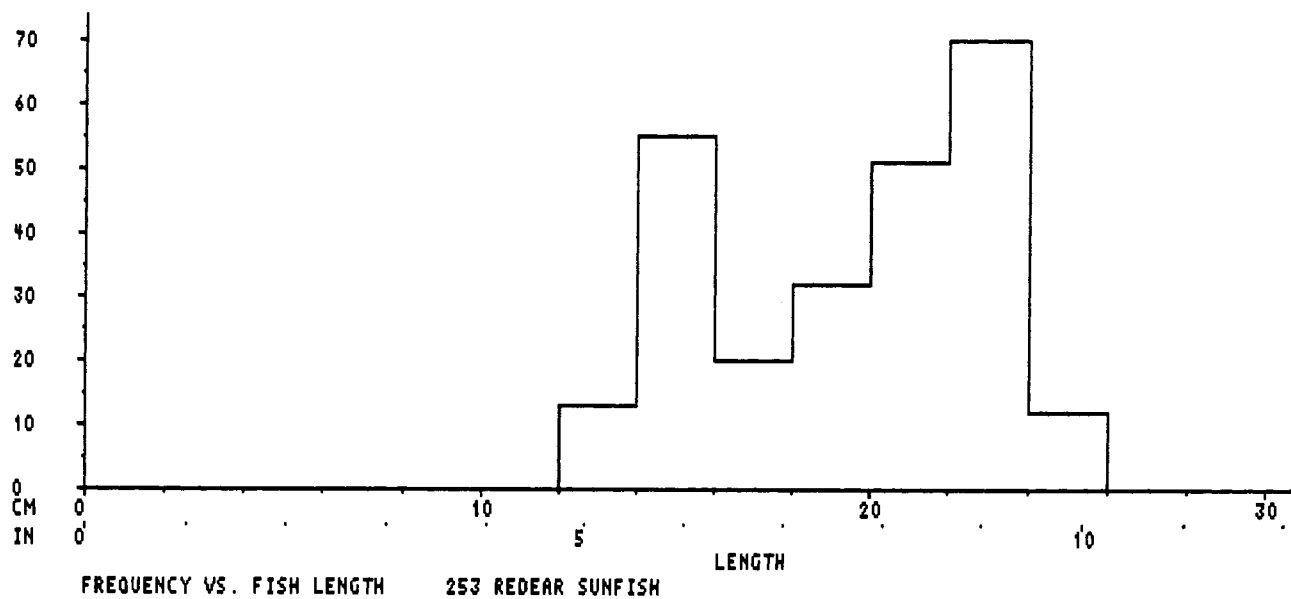


Figure 9. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of redeer sunfish harvested by all anglers.

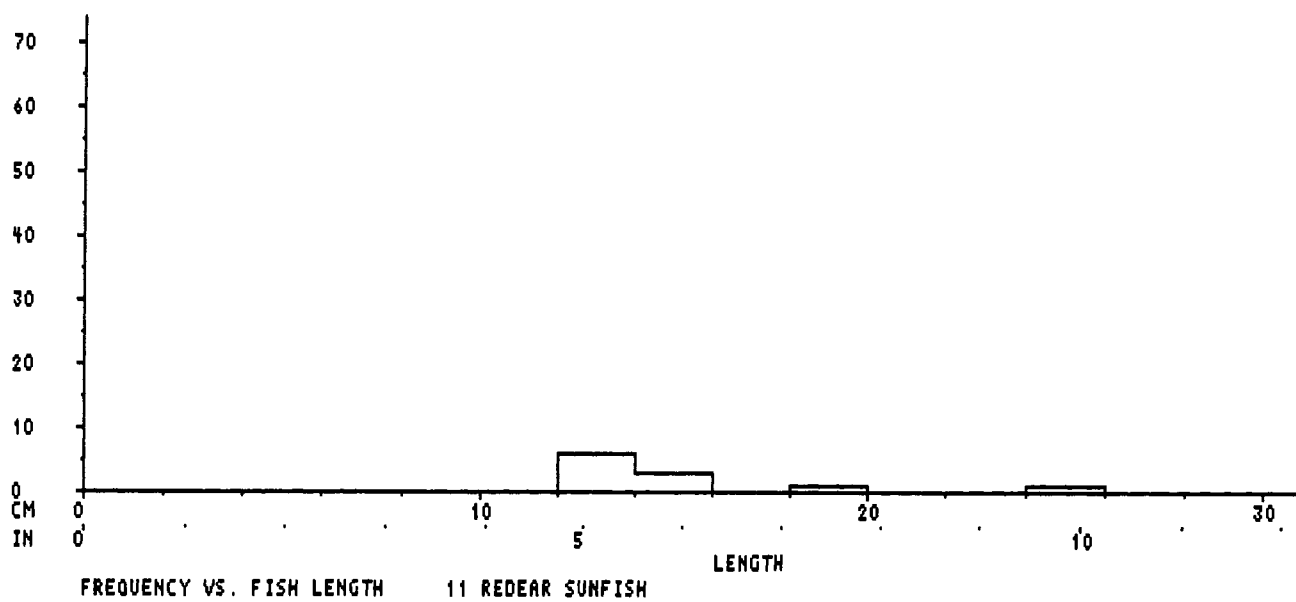


Figure 10. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of redeer sunfish released by all anglers.

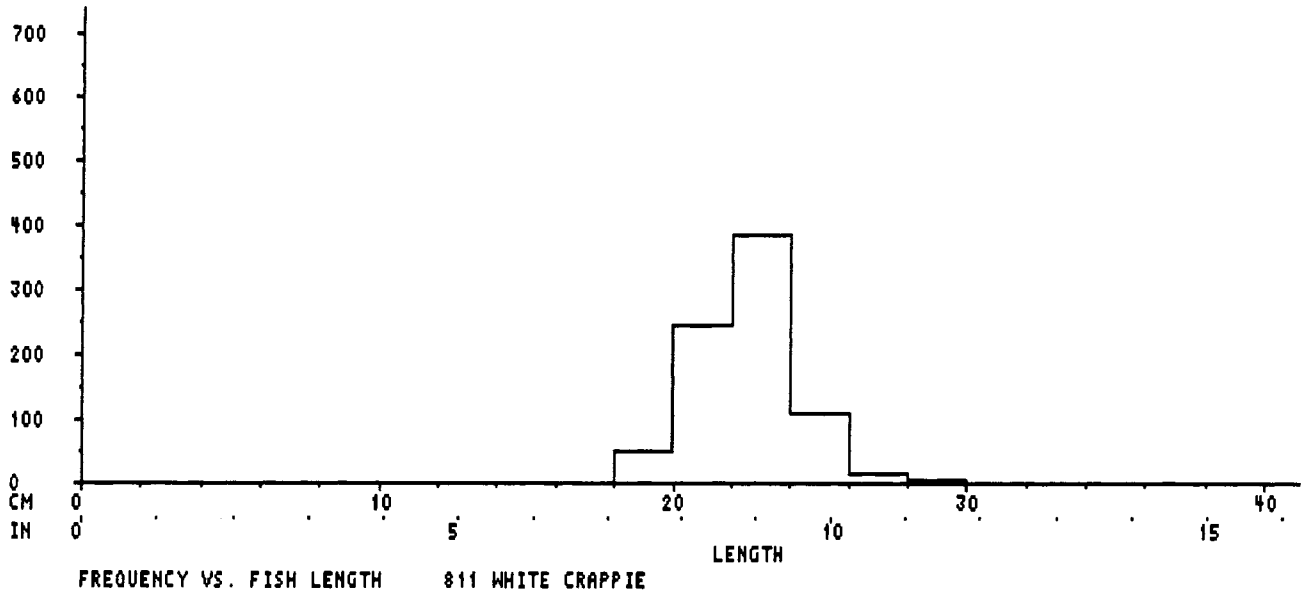


Figure 11. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

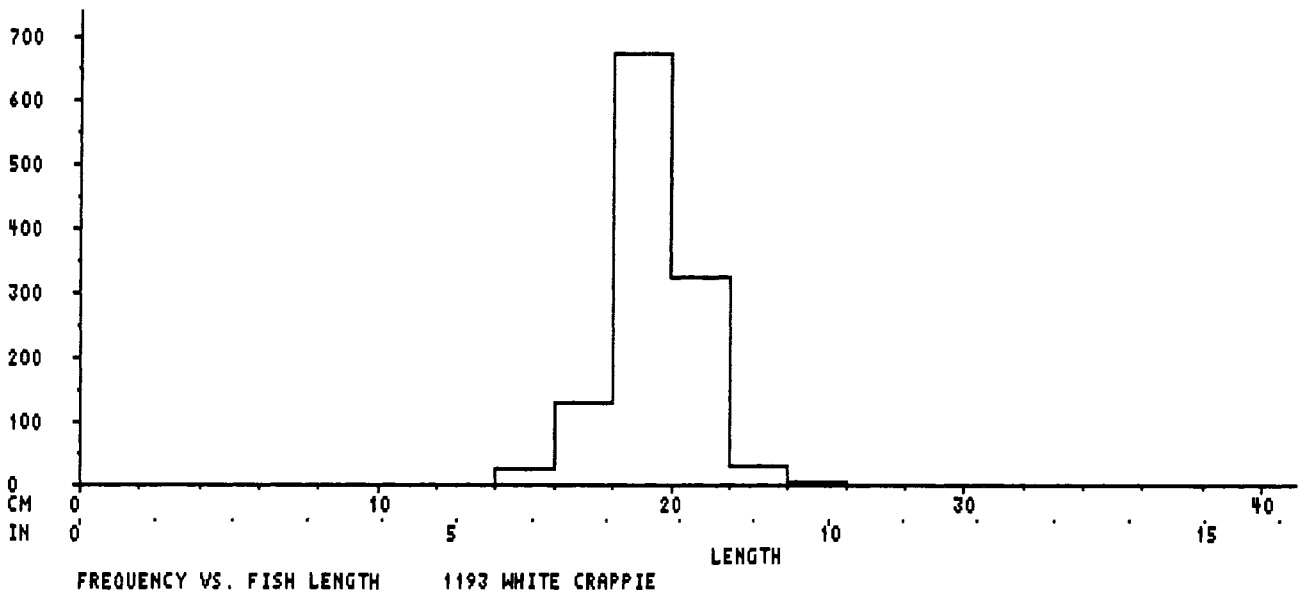


Figure 12. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.

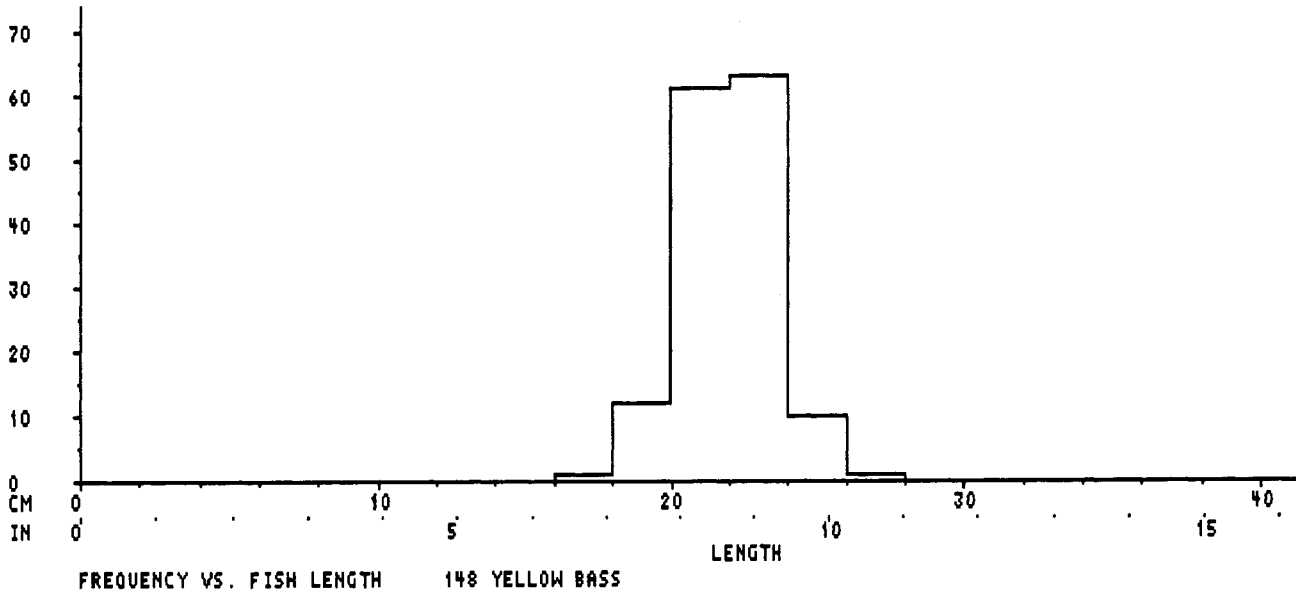


Figure 13. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass harvested by all anglers.

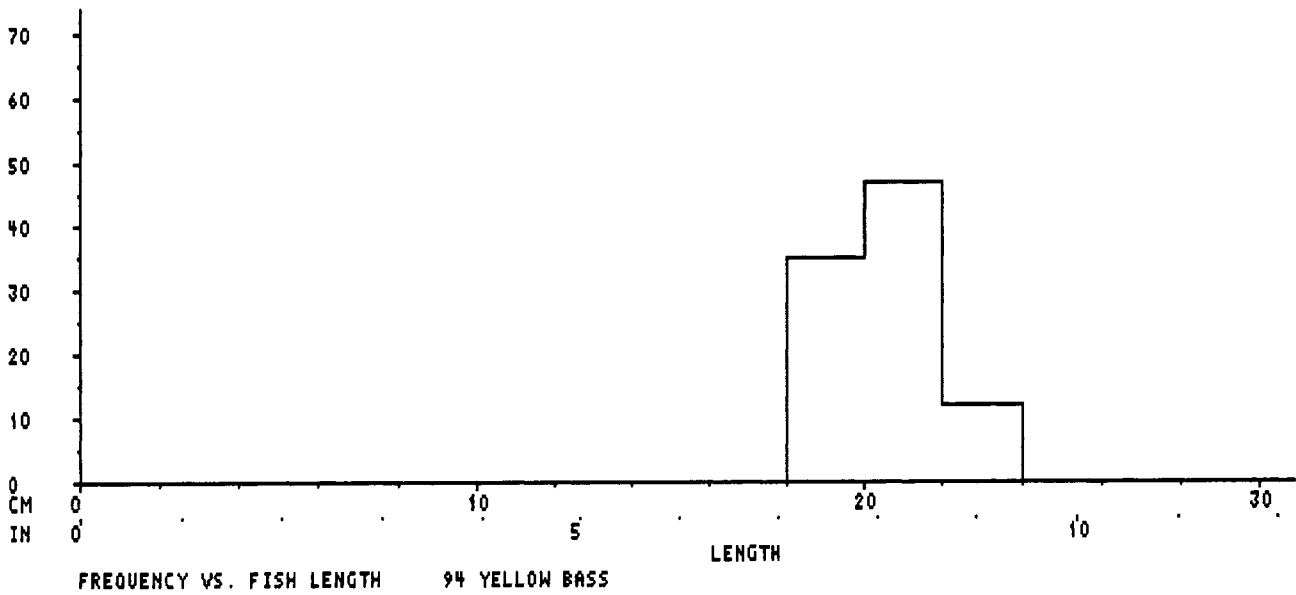


Figure 14. Lake Mingo 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass released by all anglers.

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

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

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	-	-	-	-	-

1999 NEWTON LAKE

DAY CREEL

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

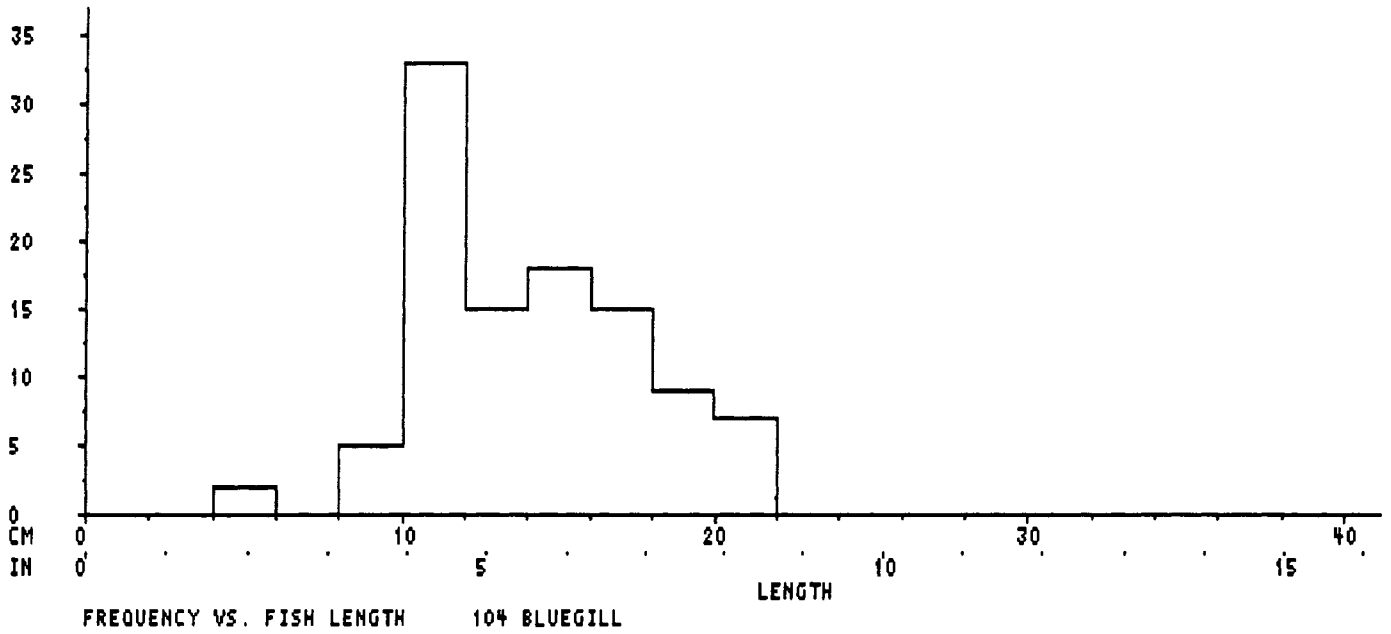


Figure 1. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of bluegill harvested by all anglers.

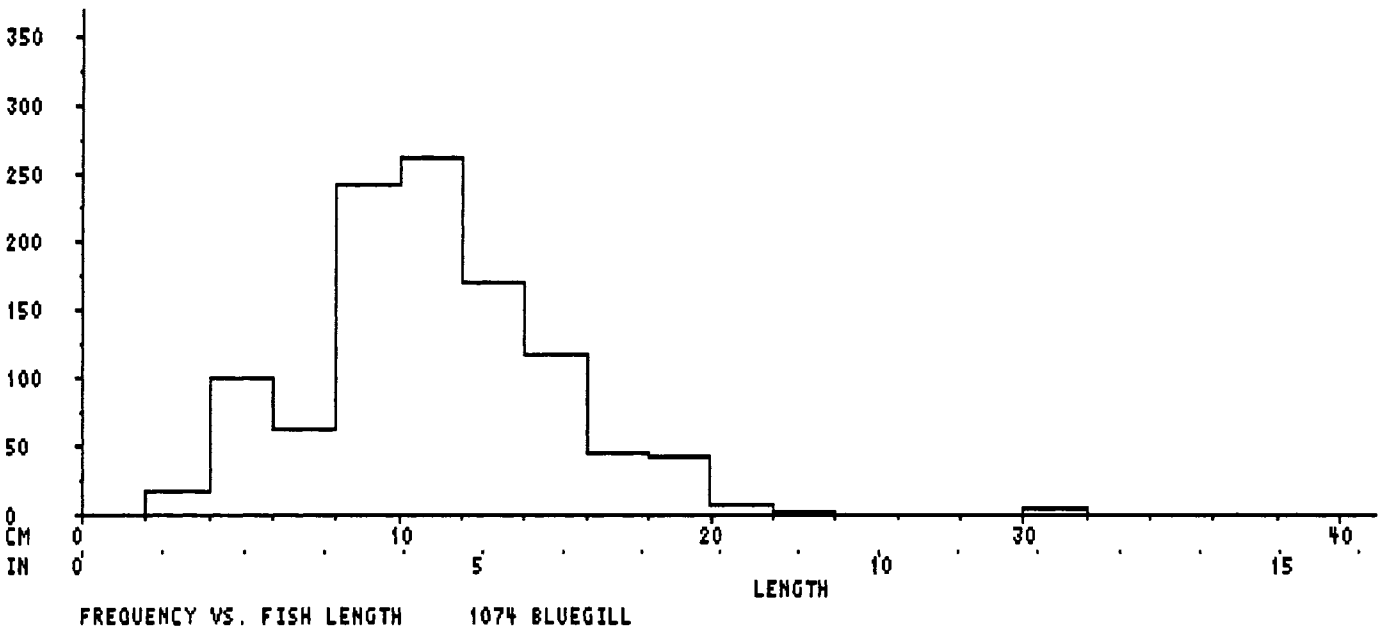


Figure 2. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of bluegill released by all anglers. Note the difference in scale from Figure 1.

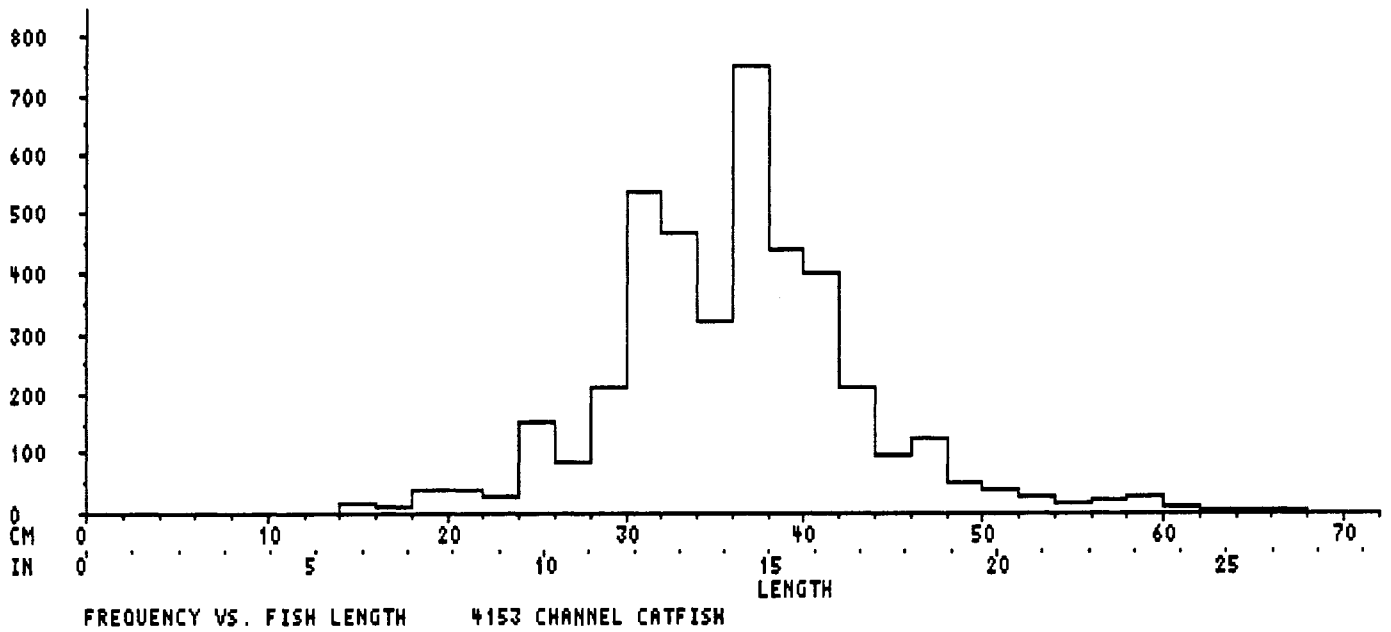


Figure 3. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of channel catfish harvested by all anglers.

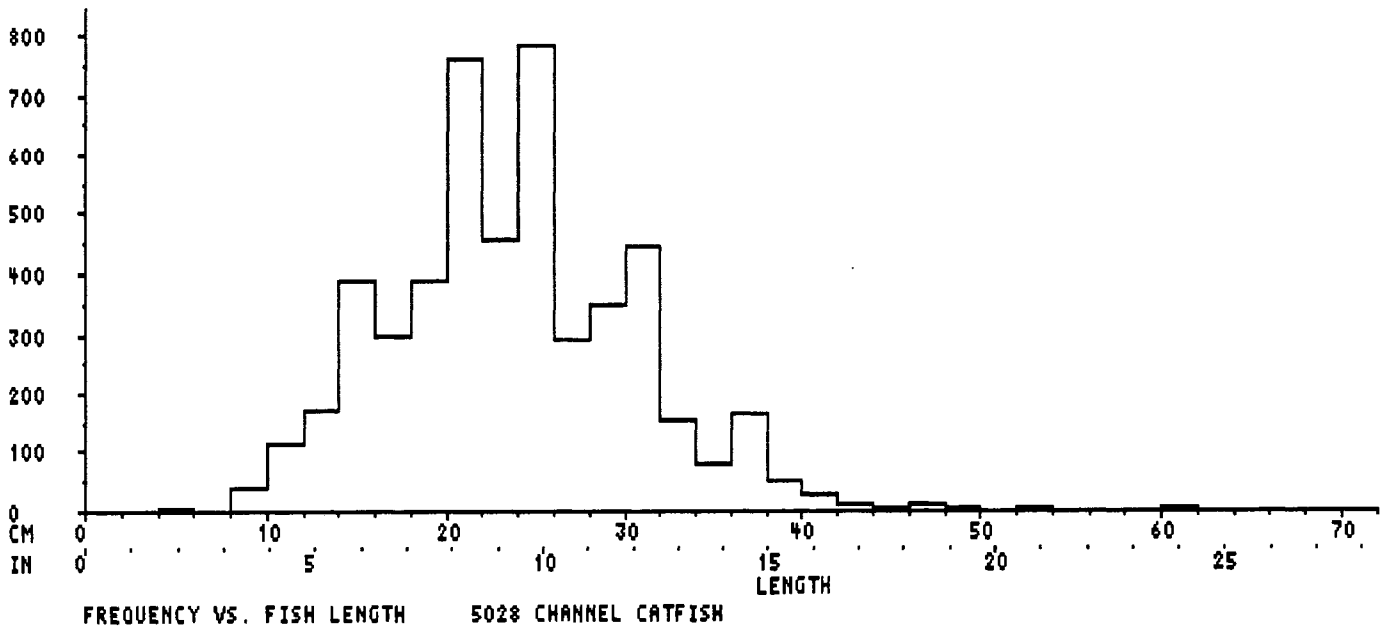


Figure 4. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of channel catfish released by all anglers.

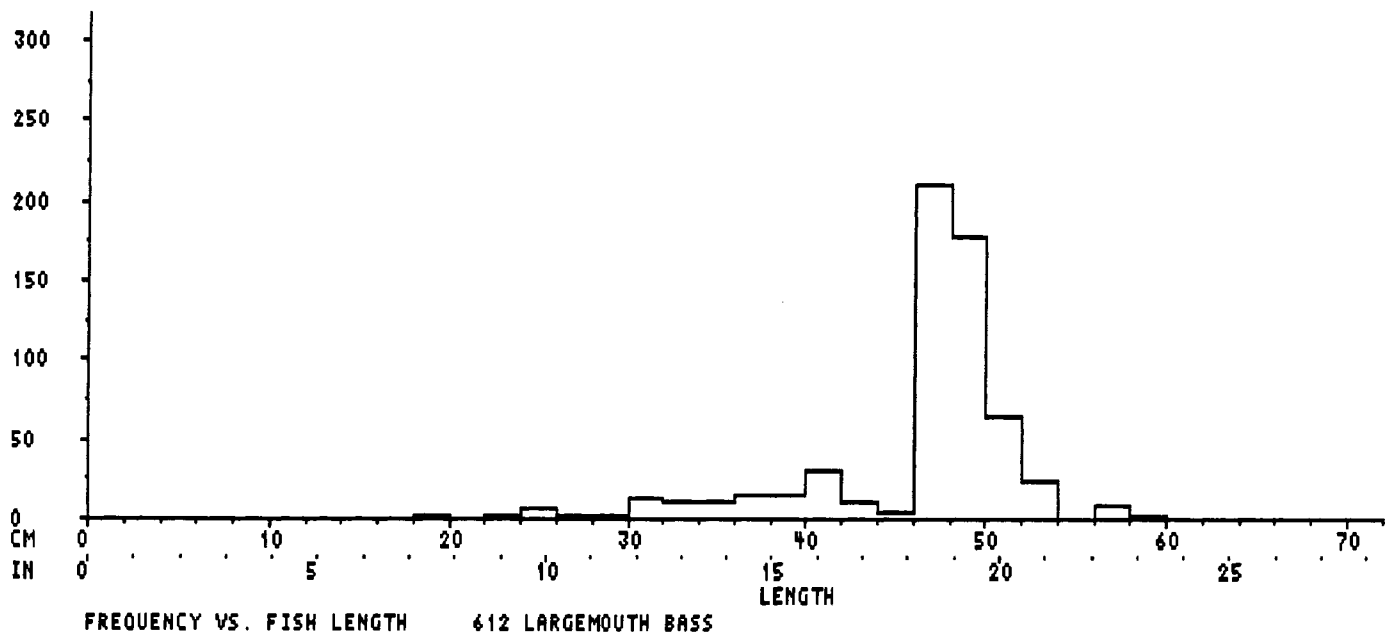


Figure 5. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of largemouth bass harvested by all anglers.

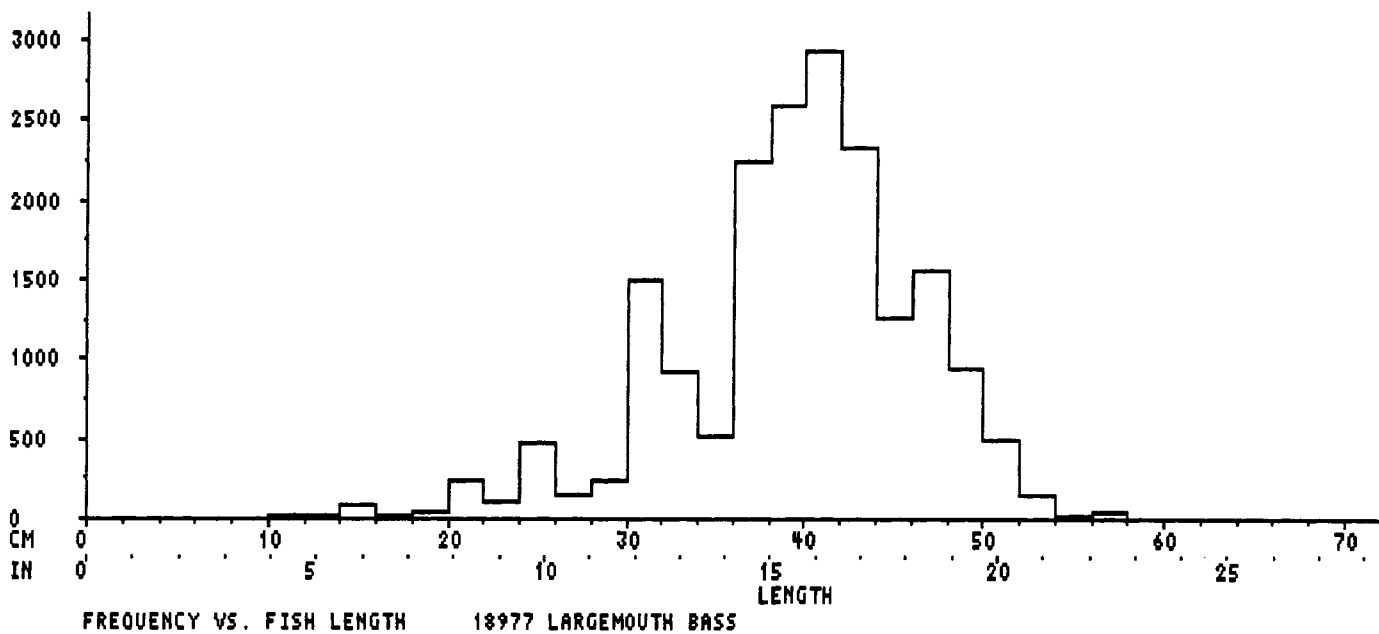


Figure 6. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 5.

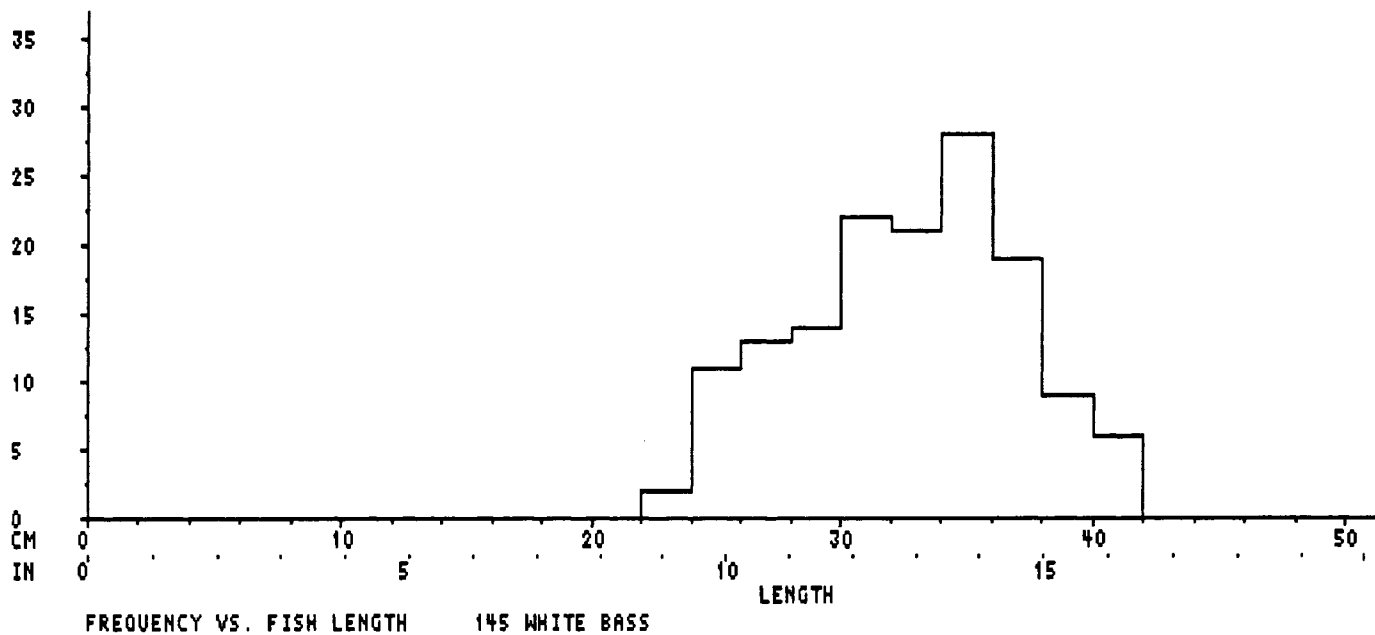


Figure 7. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of white bass harvested by all anglers.

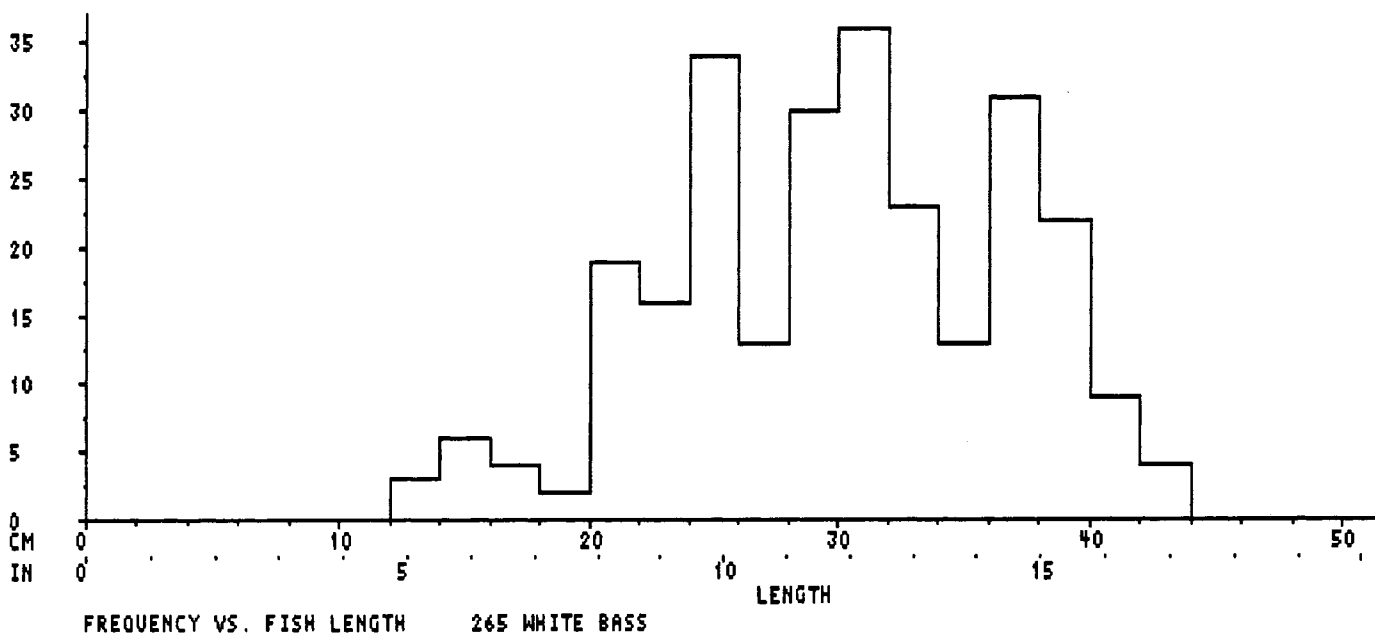


Figure 8. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of white bass released by all anglers.

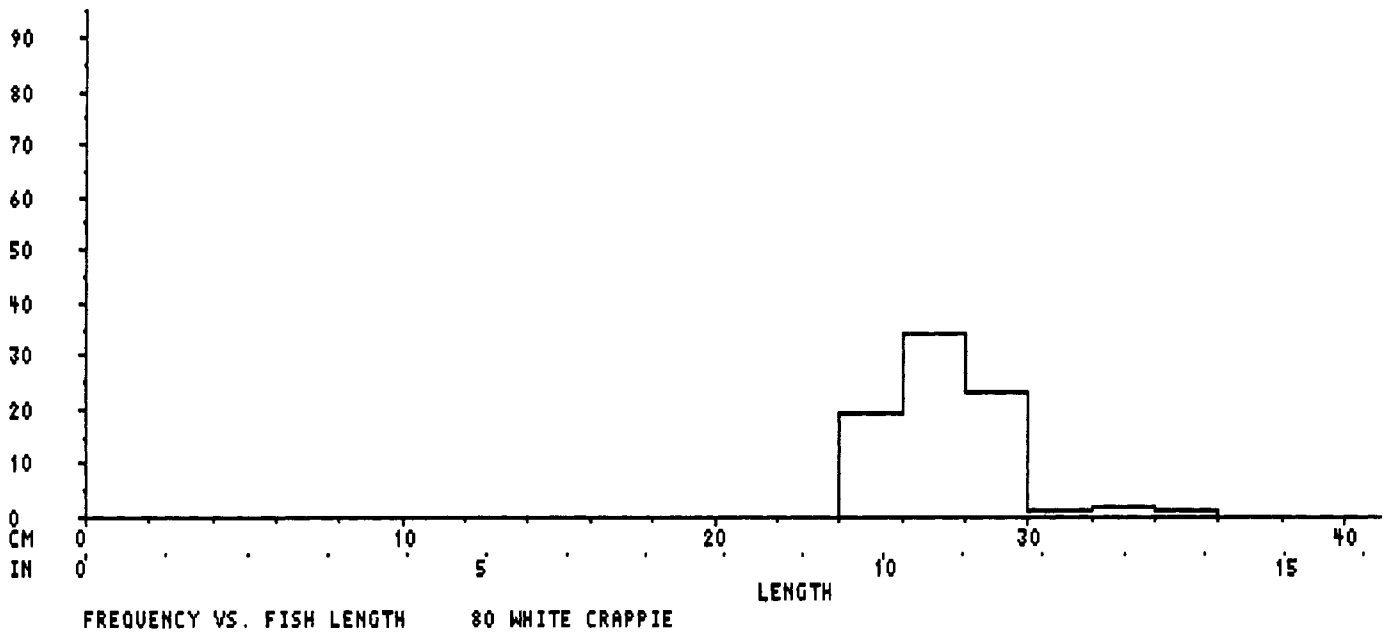


Figure 9. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of white crappie harvested by all anglers.

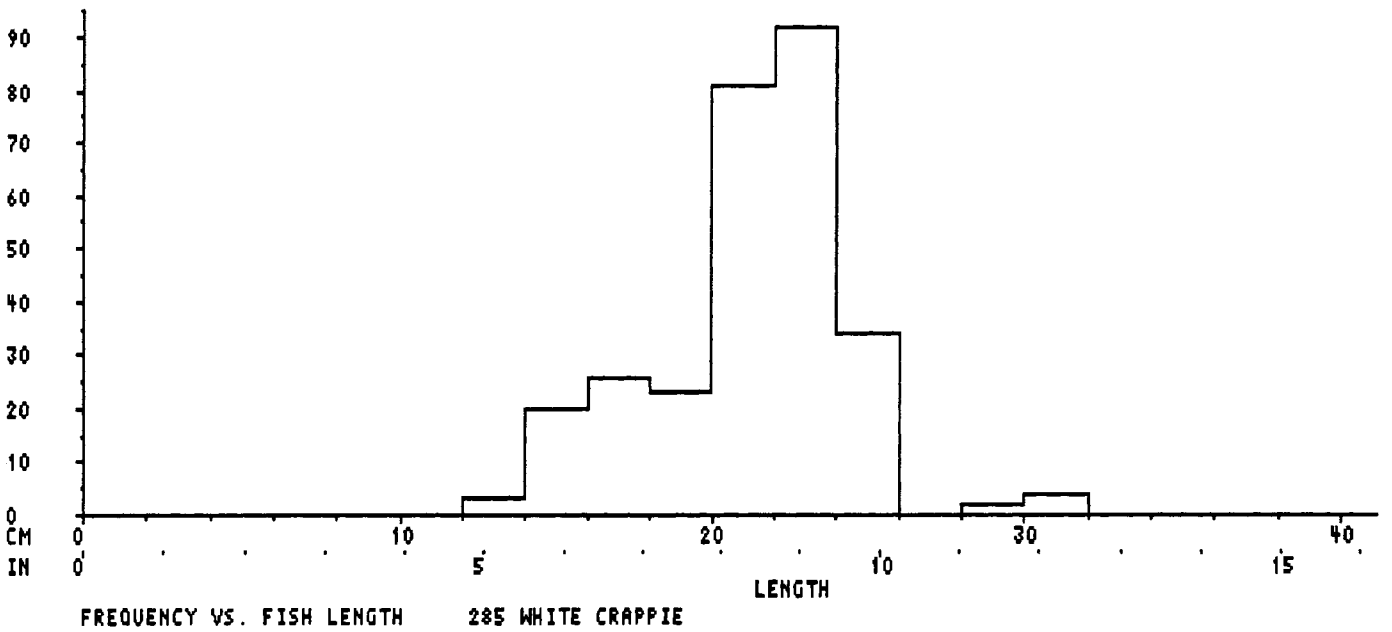


Figure 10. Newton Lake 1999 day creel 1/01 through 12/31. Length-frequency histogram of white crappie released by all anglers.

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

1999 PANA LAKE
 205 ACRES
 REGION 3, DISTRICT 9

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.
 Yearperiod 3 coalesced with yearperiod 4.

SAMPLING RATIO: 272/693 = 39.2%

NUMBER OF INTERVIEWS: 1273

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	4092	3553-4630 (13%)	20	17-23 (13%)	21%
	HOLIDAY	5601	4762-6440 (15%)	27	23-31 (15%)	42%
	TOTAL	9693	8731-10655 (10%)	47	43-52 (10%)	33%
SHORE	WEEKDAY	2275	1726-2824 (24%)	11	8-14 (24%)	17%
	HOLIDAY	2065	1724-2406 (17%)	10	8-12 (17%)	41%
	TOTAL	4340	3708-4972 (15%)	21	18-24 (15%)	28%
BOAT & SHORE	WEEKDAY	6366	5633-7100 (12%)	31	27-35 (12%)	20%
	HOLIDAY	7666	6799-8533 (11%)	37	33-42 (11%)	42%
	TOTAL	14033	12897-15168 (8%)	68	63-74 (8%)	32%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
5156	4305-6007	(17%)	.363	.307-.418 (15%)	62.15	25.15	All species
703	17-1389	(98%)	.034	.011-.057 (69%)	8.47	3.43	Black crappie
286	161-411	(44%)	.011	.002-.020 (79%)	3.45	1.40	Bluegill
3	0-9	(257%)	.000	.000-.000 (257%)	0.03	0.01	Carp
650	441-860	(32%)	.052	.031-.074 (41%)	7.84	3.17	Channel catfish
			****	NOT RECORDED ****			Freshwater drum
19	1-36	(93%)	.000	.000-.001 (104%)	0.22	0.09	Green sunfish
312	234-389	(25%)	.016	.010-.021 (34%)	3.76	1.52	Largemouth bass
1	0-7	(430%)	.000	.000-.000 (430%)	0.02	0.01	Tiger muskie
			****	NOT RECORDED ****			Warmouth
3087	2618-3556	(15%)	.245	.202-.289 (18%)	37.21	15.06	White crappie
33	6-60	(81%)	.001	.000-.002 (88%)	0.40	0.16	Yellow bullhead
62	13-112	(80%)	.002	.000-.005 (111%)	0.75	0.30	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
1655	1427-1883	(14%)	.120	.103-.138 (14%)	19.95	0.321	All species
146	27-265	(82%)	.007	.003-.012 (55%)	1.76	0.208	Black crappie
16	8-23	(47%)	.001	.000-.001 (99%)	0.19	0.055	Bluegill
7	0-25	(245%)	.000	.000-.000 (257%)	0.09	3.647	Carp
314	216-412	(31%)	.026	.017-.035 (35%)	3.78	0.483	Channel catfish
			****	NOT RECORDED ****			Freshwater drum
1	0-2	(118%)	.000	.000-.000 (102%)	0.01	0.047	Green sunfish
317	227-407	(28%)	.017	.010-.023 (38%)	3.82	1.020	Largemouth bass
2	0-8	(318%)	.000	.000-.000 (318%)	0.02	1.851	Tiger muskie
			****	NOT RECORDED ****			Warmouth
848	714-982	(16%)	.069	.057-.081 (18%)	10.22	0.275	White crappie
2	0-4	(89%)	.000	.000-.000 (85%)	0.02	0.060	Yellow bullhead
3	0-5	(86%)	.000	.000-.000 (126%)	0.03	0.043	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
3649	3146-4152	(14%)	.266	.228-.304 (14%)	17.80	0.708	All species
321	59-584	(82%)	.016	.007-.026 (55%)	1.57	0.458	Black crappie
35	19-51	(47%)	.002	.000-.003 (99%)	0.17	0.122	Bluegill
16	0-57	(257%)	.000	.000-.001 (257%)	0.08	8.041	Carp
692	476-908	(31%)	.058	.038-.078 (35%)	3.37	1.064	Channel catfish
			****	NOT RECORDED ****			Freshwater drum
2	0-4	(118%)	.000	.000-.000 (102%)	0.01	0.103	Green sunfish
699	500-898	(28%)	.037	.023-.051 (38%)	3.41	2.248	Largemouth bass
4	0-17	(318%)	.000	.000-.001 (430%)	0.02	4.082	Tiger muskie
			****	NOT RECORDED ****			Warmouth
1869	1573-2165	(16%)	.152	.125-.179 (18%)	9.12	0.606	White crappie
4	0-8	(89%)	.000	.000-.000 (85%)	0.02	0.132	Yellow bullhead
6	1-11	(86%)	.000	.000-.000 (126%)	0.03	0.095	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
28518	25611-31425 (10%)	2.220	2.011-2.430 (9%)	343.75	139.11	All species
1615	549-2682 (66%)	.079	.042-.116 (47%)	19.47	7.88	Black crappie
2471	2037-2905 (18%)	.226	.174-.279 (23%)	29.78	12.05	Bluegill
43	17-68 (60%)	.003	.001-.005 (68%)	0.51	0.21	Carp
2163	1658-2668 (23%)	.191	.128-.255 (33%)	26.08	10.55	Channel catfish
1	0-4 (318%)	.000	.000-.000 (318%)	0.01	0.00	Freshwater drum
38	8-68 (78%)	.002	.000-.004 (112%)	0.46	0.19	Green sunfish
4901	4330-5472 (12%)	.281	.241-.321 (14%)	59.08	23.91	Largemouth bass
177	121-233 (32%)	.016	.005-.028 (71%)	2.13	0.86	Tiger muskie
354	282-425 (20%)	.021	.009-.033 (58%)	4.26	1.72	Warmouth
14561	12572-16551 (14%)	1.192	1.029-1.356 (14%)	175.52	71.03	White crappie
128	63-193 (51%)	.009	.002-.016 (76%)	1.54	0.62	Yellow bullhead
2066	1472-2660 (29%)	.199	.139-.258 (30%)	24.91	10.08	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
5890	5357-6423 (9%)	.418	.352-.484 (16%)	71.00	0.207	All species
209	56-362 (73%)	.010	.005-.016 (50%)	2.52	0.129	Black crappie
118	97-140 (18%)	.011	.008-.014 (28%)	1.43	0.048	Bluegill
67	10-123 (84%)	.003	.001-.006 (66%)	0.81	1.592	Carp
540	415-664 (23%)	.047	.034-.060 (27%)	6.51	0.250	Channel catfish
1	0-4 (430%)	.000	.000-.000 (430%)	0.01	0.678	Freshwater drum
2	0-3 (85%)	.000	.000-.000 (106%)	0.02	0.044	Green sunfish
2706	2369-3042 (12%)	.166	.118-.215 (29%)	32.61	0.552	Largemouth bass
365	245-484 (33%)	.028	.008-.048 (72%)	4.40	2.073	Tiger muskie
77	58-97 (25%)	.005	.001-.009 (81%)	0.93	0.219	Warmouth
1714	1482-1946 (14%)	.139	.119-.159 (14%)	20.66	0.118	White crappie
13	5-21 (62%)	.001	.000-.002 (94%)	0.16	0.102	Yellow bullhead
79	58-100 (26%)	.008	.005-.010 (30%)	0.95	0.038	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
12985	11810-14161	(9%)	.922	.776-1.067	(16%)	63.34	0.455 All species
460	122-798	(73%)	.023	.012-.034	(50%)	2.25	0.285 Black crappie
261	213-308	(18%)	.023	.017-.030	(28%)	1.27	0.106 Bluegill
147	23-272	(84%)	.007	.003-.012	(66%)	0.72	3.510 Carp
1190	916-1465	(23%)	.103	.075-.131	(27%)	5.81	0.550 Channel catfish
1	0-8	(430%)	.000	.000-.000	(318%)	0.01	1.495 Freshwater drum
4	1-7	(85%)	.000	.000-.000	(106%)	0.02	0.098 Green sunfish
5965	5223-6707	(12%)	.367	.260-.474	(29%)	29.10	1.217 Largemouth bass
804	540-1068	(33%)	.062	.017-.107	(72%)	3.92	4.569 Tiger muskie
170	127-213	(25%)	.011	.002-.019	(81%)	0.83	0.482 Warmouth
3779	3268-4291	(14%)	.306	.263-.350	(14%)	18.44	0.260 White crappie
29	11-46	(62%)	.002	.000-.004	(94%)	0.14	0.225 Yellow bullhead
174	129-220	(26%)	.017	.012-.022	(30%)	0.85	0.084 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	3.3	3.1-3.6	(9%)	0.2	15.0	244
SHORE	2.1	1.8-2.5	(17%)	0.5	6.0	54
BOAT & SHORE	3.1	2.9-3.4	(8%)	0.2	15.0	298
MILES TRAVELED	44.3	39.8-48.9	(10%)	1	209	1042
SUCCESS RATING (1-10)	4.2	4.0-4.4	(4%)	1	10	1026

*81 samples were from split interviews of completed trips.
25.0% of all 1190 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 29 out of 1190 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	358	416	21	12	7	1	2			
SHORE INTERVIEWS	223	108	26	11	2	2		1		

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

402 (33.8%)	ANY	All species
22 (1.8%)	BLC	Black crappie
1 (0.1%)	BLG	Bluegill
49 (4.1%)	CCF	Channel catfish
5 (0.4%)	CRP	Crappie spp.
541 (45.5%)	LMB	Largemouth bass
2 (0.2%)	MUE	Muskellunge
5 (0.4%)	TGM	Tiger muskie
163 (13.7%)	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 crappie																
HARVEST	463	-	3	-	-	2	-	-	-	-	-	-	-	-	-	-
RELEASE	464	-	-	-	1	-	-	-	-	-	2	-	1	-	-	-
Bluegill																
HARVEST	457	3	4	4	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	393	34	20	10	2	5	1	-	1	-	1	1	-	-	-	-
Carp																
HARVEST	468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	466	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	444	21	2	1	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	429	20	10	4	3	1	1	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	437	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	174	90	68	48	34	17	13	4	10	5	-	-	2	2	-	1
Tiger muskie																
HARVEST	468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	417	49	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Warmouth																
HARVEST	468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	395	70	3	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	389	45	20	9	2	1	1	-	-	-	-	-	-	-	-	1
RELEASE	343	34	6	37	7	9	5	-	9	-	6	-	1	4	-	7
Yellow bullhead																
HARVEST	468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	465	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-
Yellow bass																
HARVEST	454	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	417	32	14	2	3	-	-	-	-	-	-	-	-	-	-	-

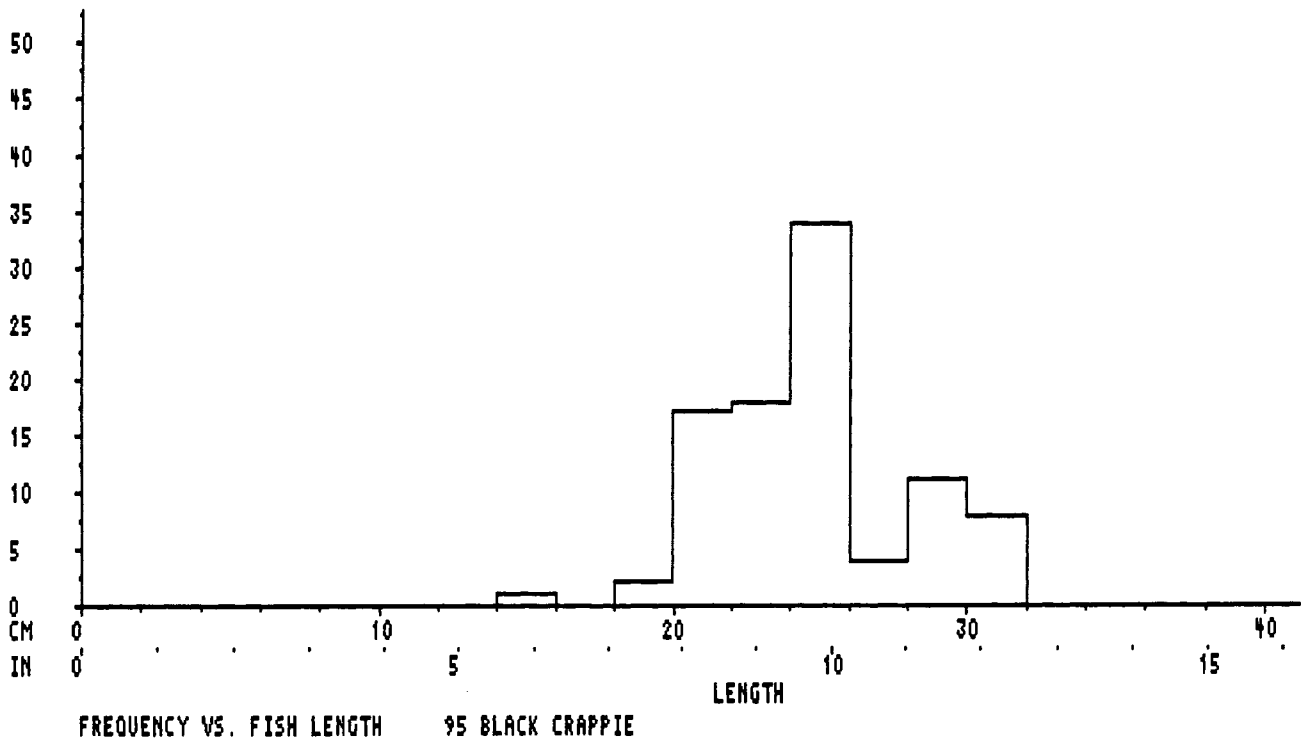


Figure 1. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

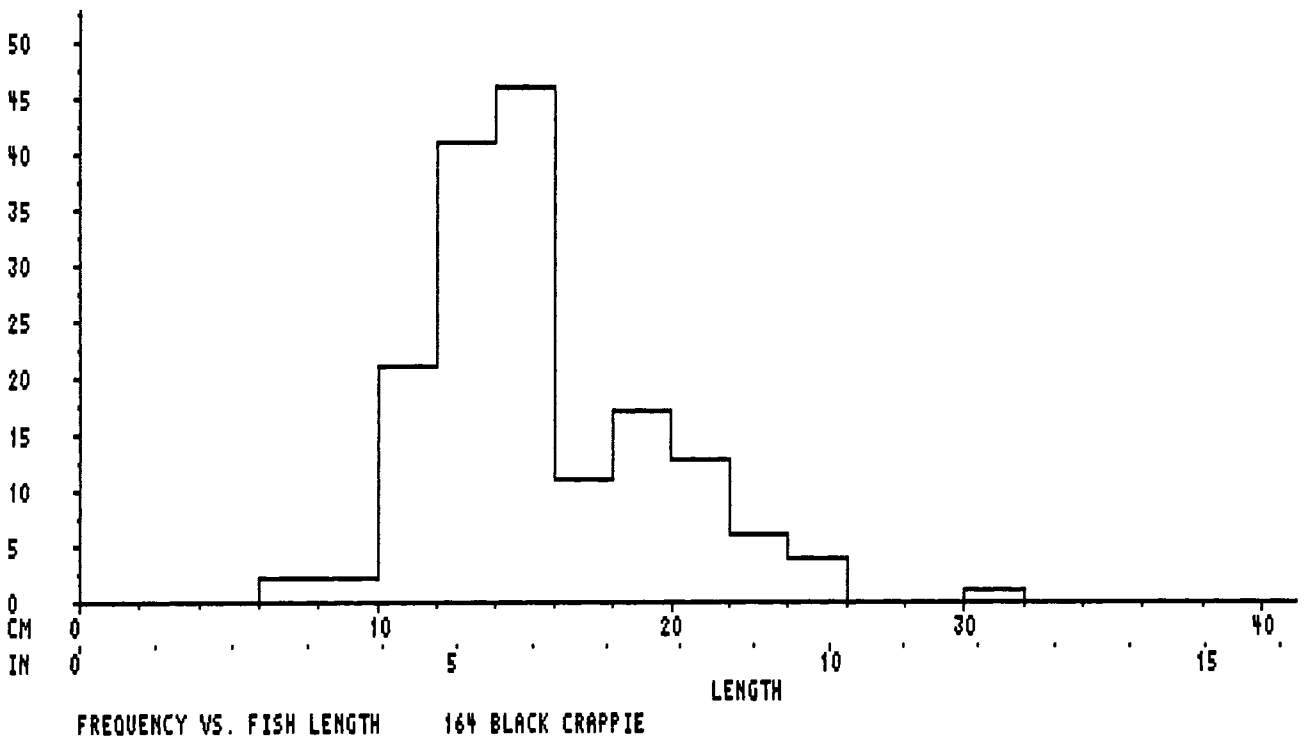


Figure 2. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

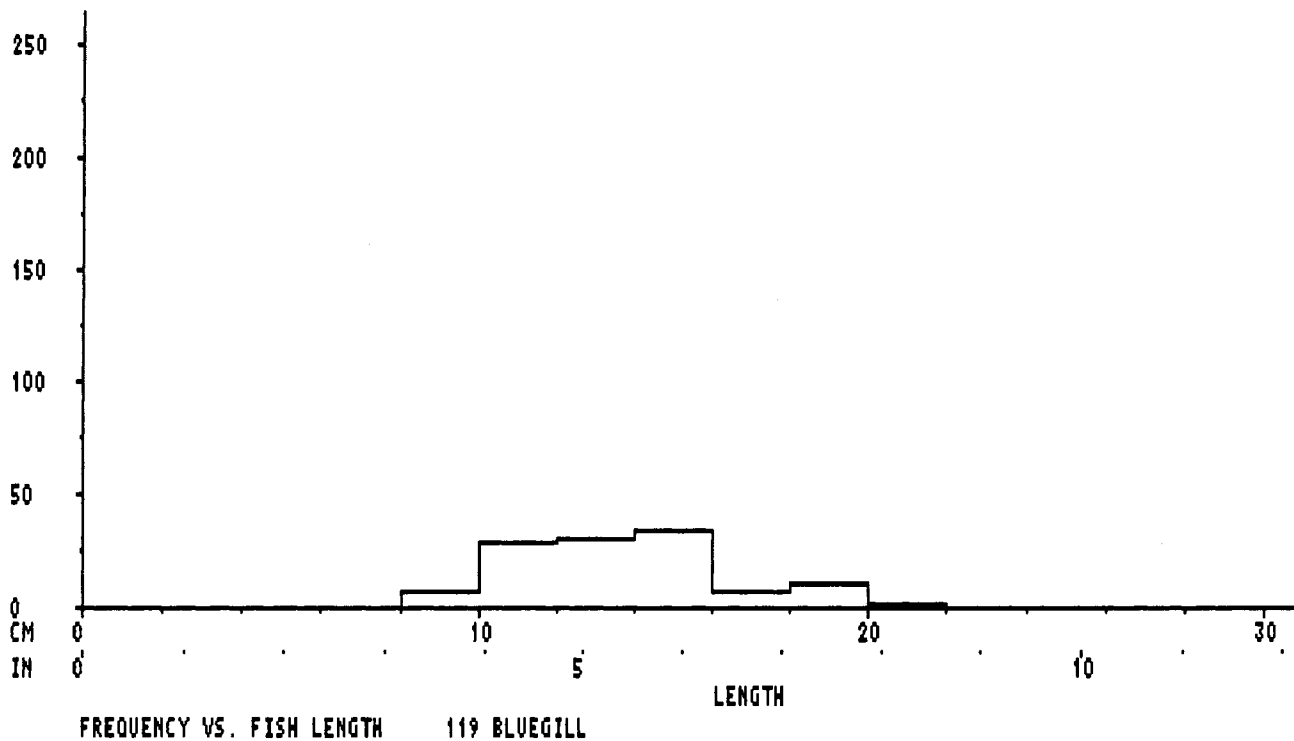


Figure 3. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

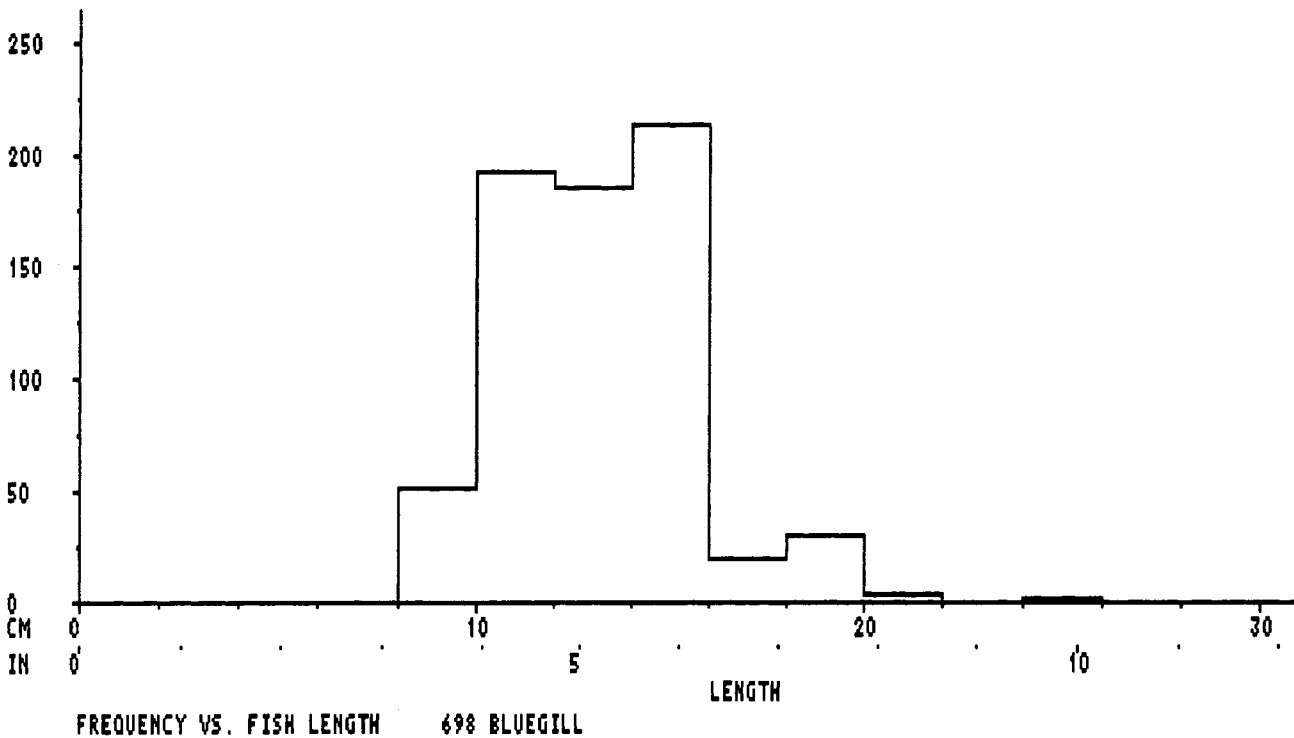


Figure 4. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

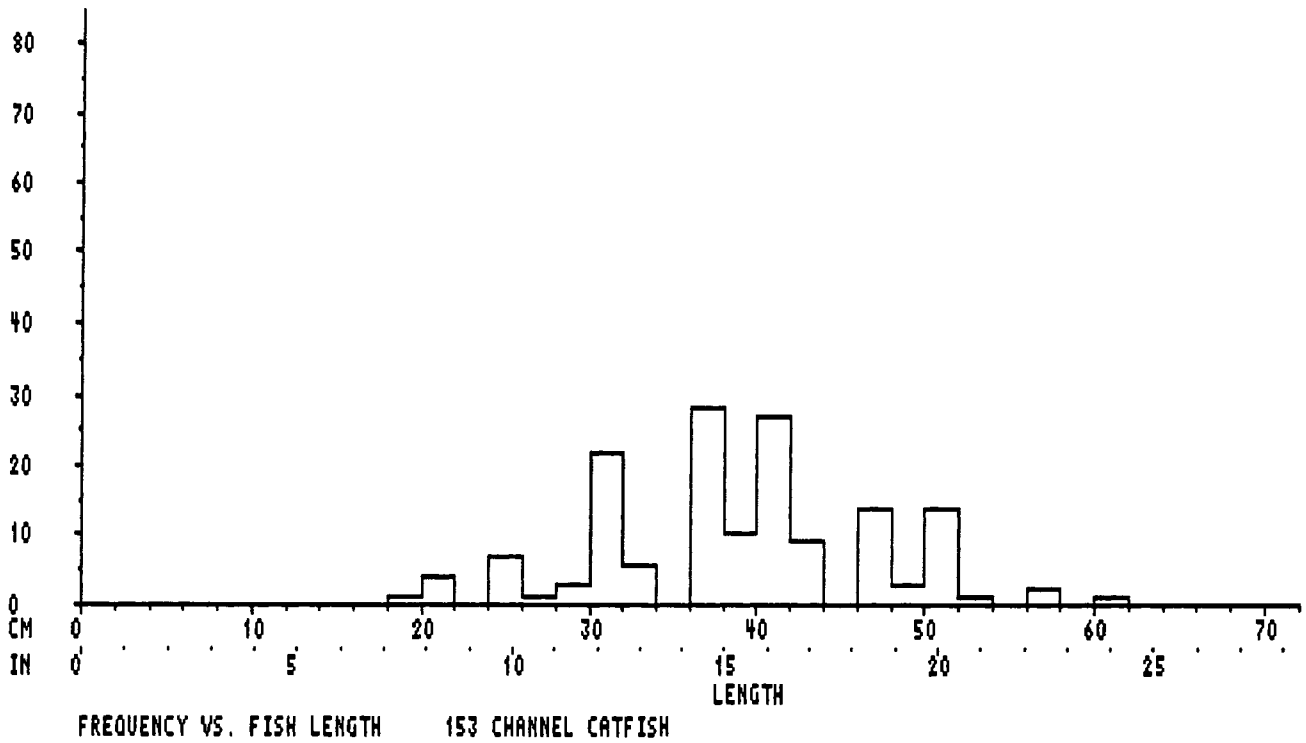


Figure 5. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

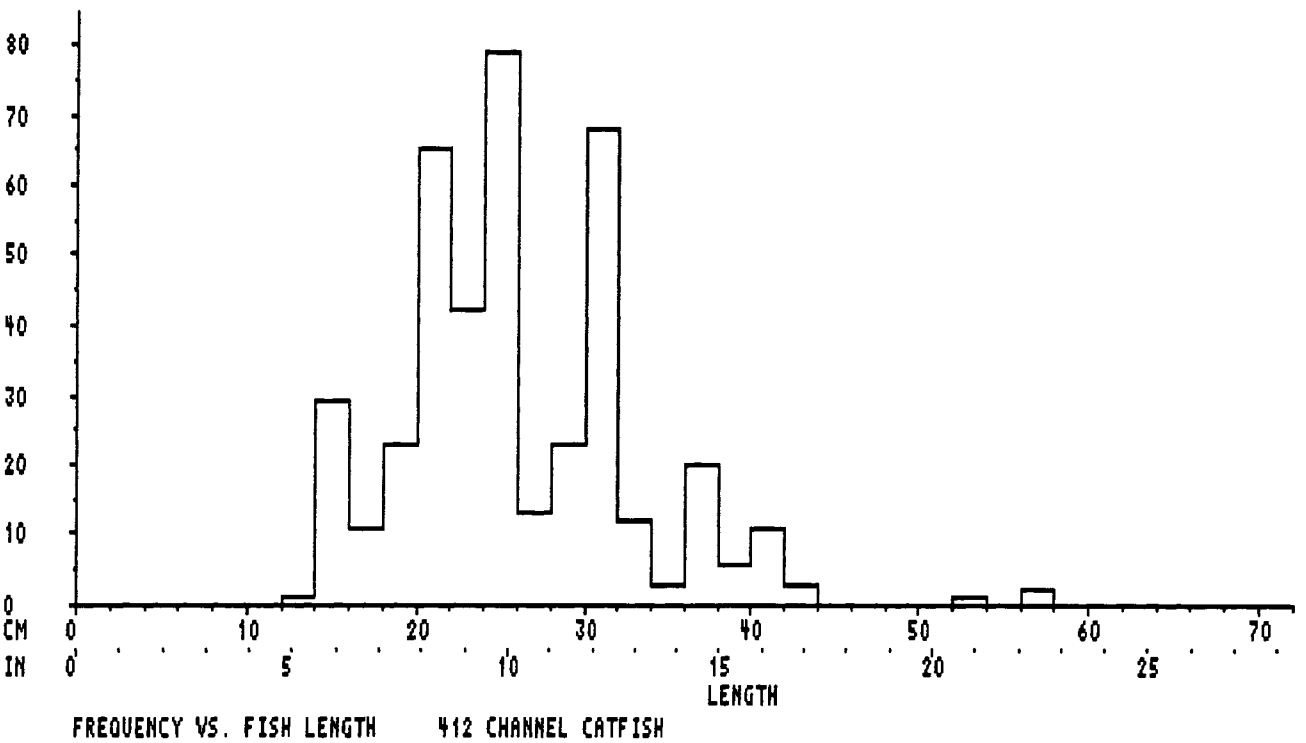


Figure 6. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

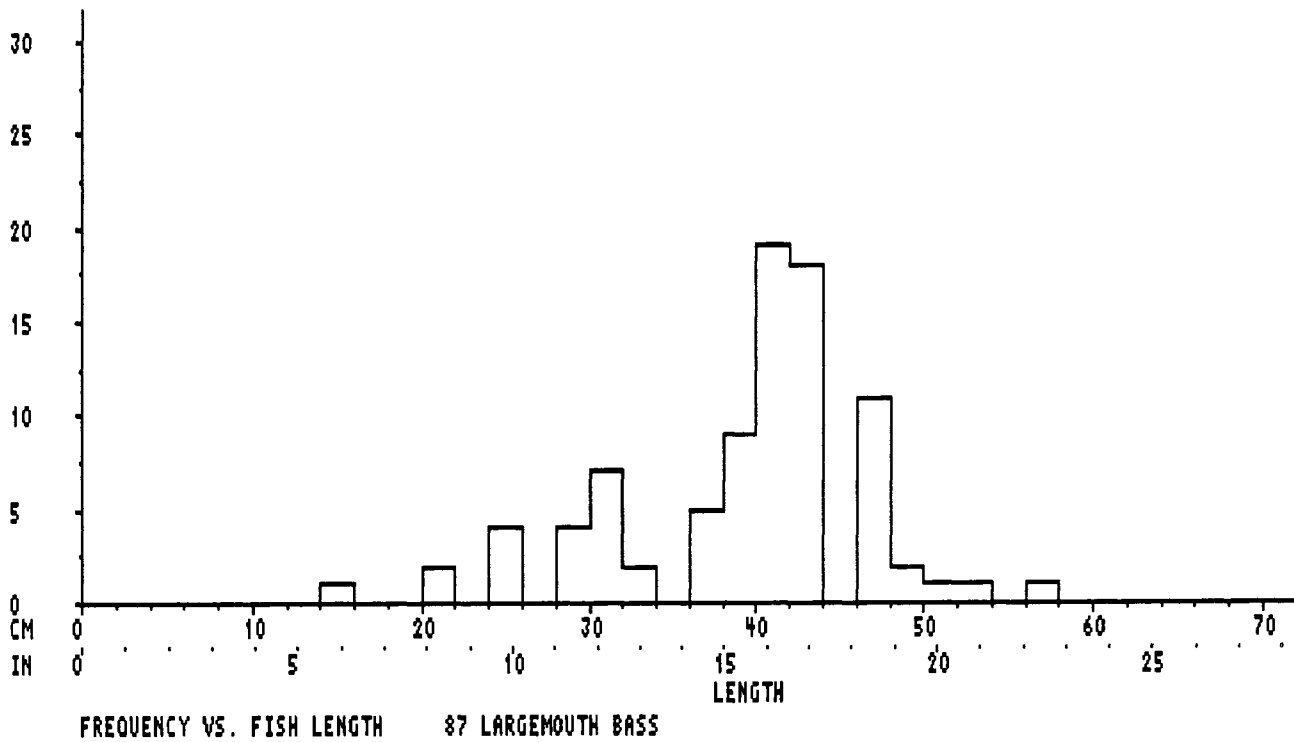


Figure 7. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

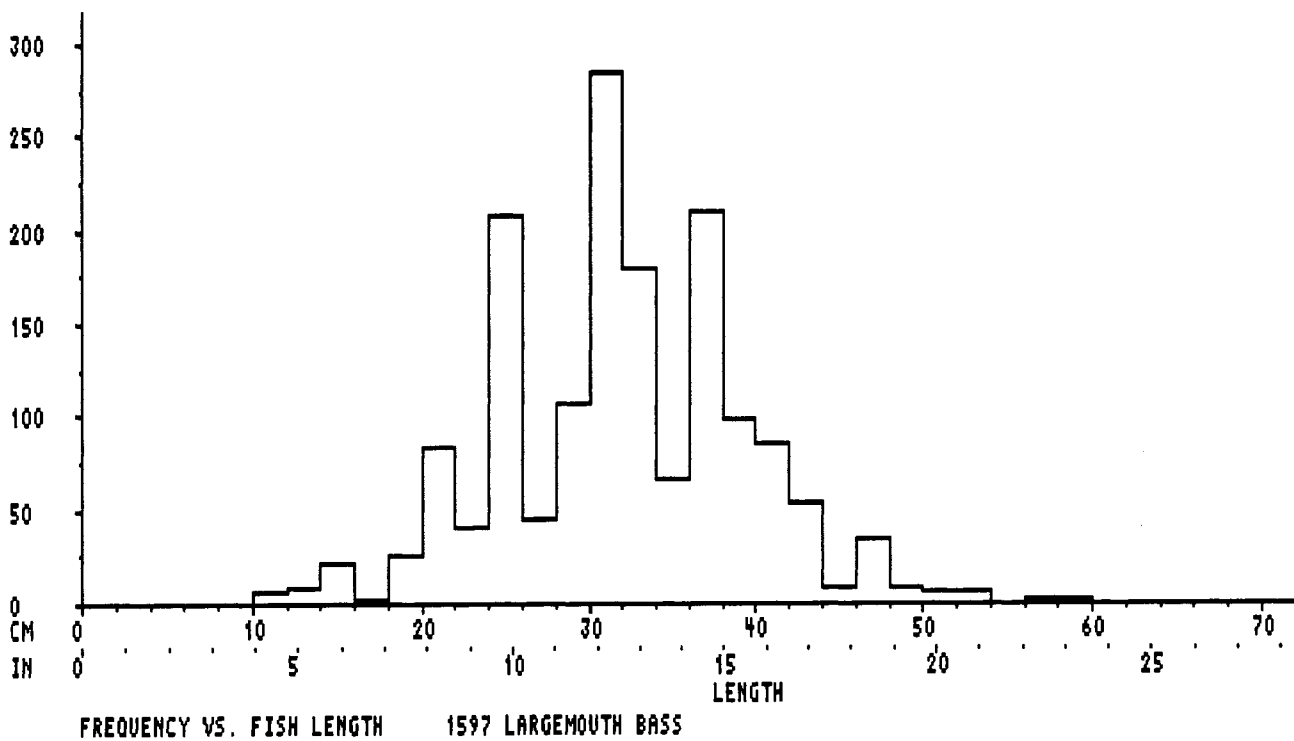


Figure 8. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 7.

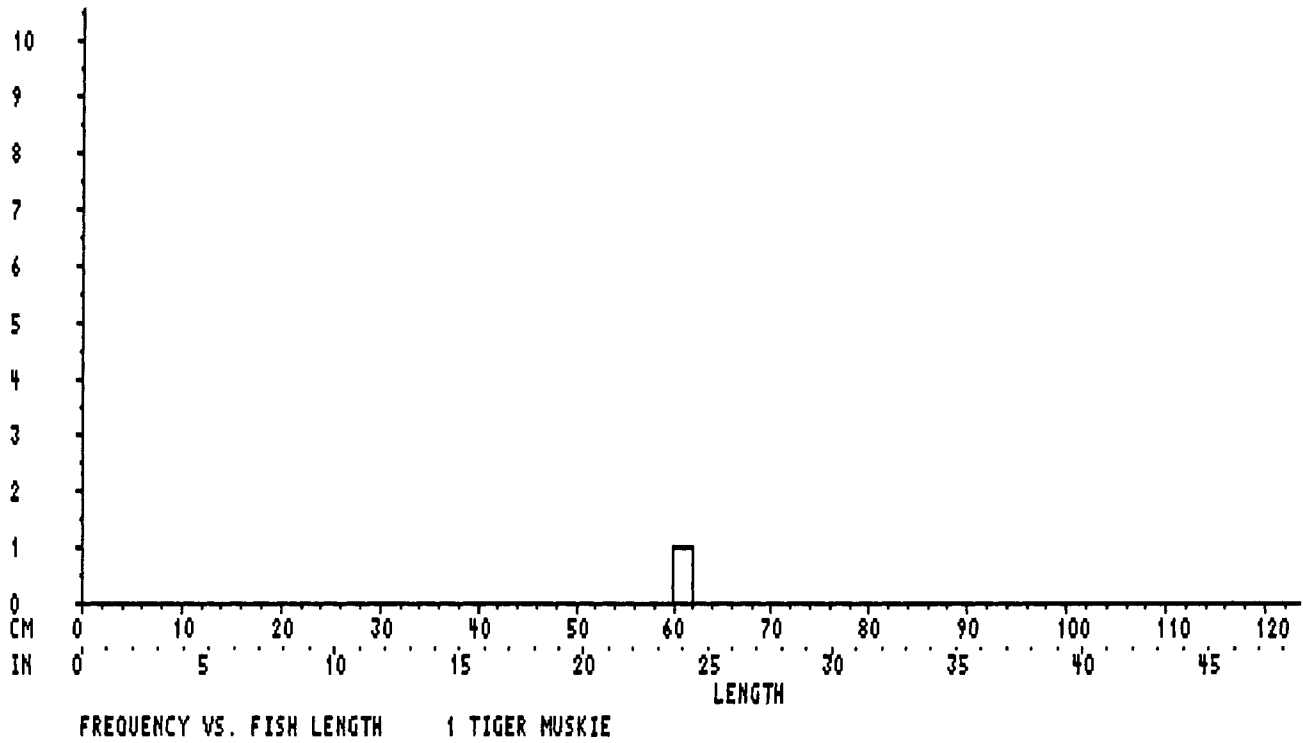


Figure 9. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of tiger muskie harvested by all anglers.

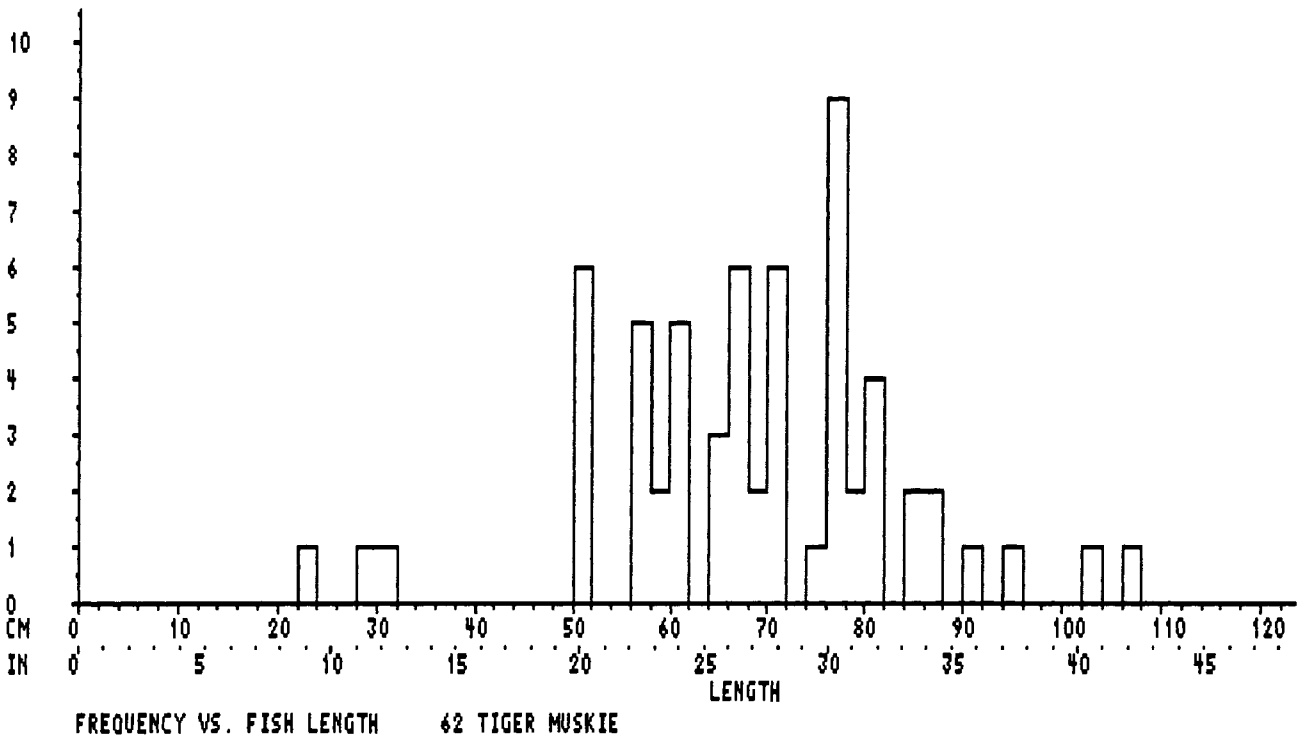


Figure 10. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of tiger muskie released by all anglers.

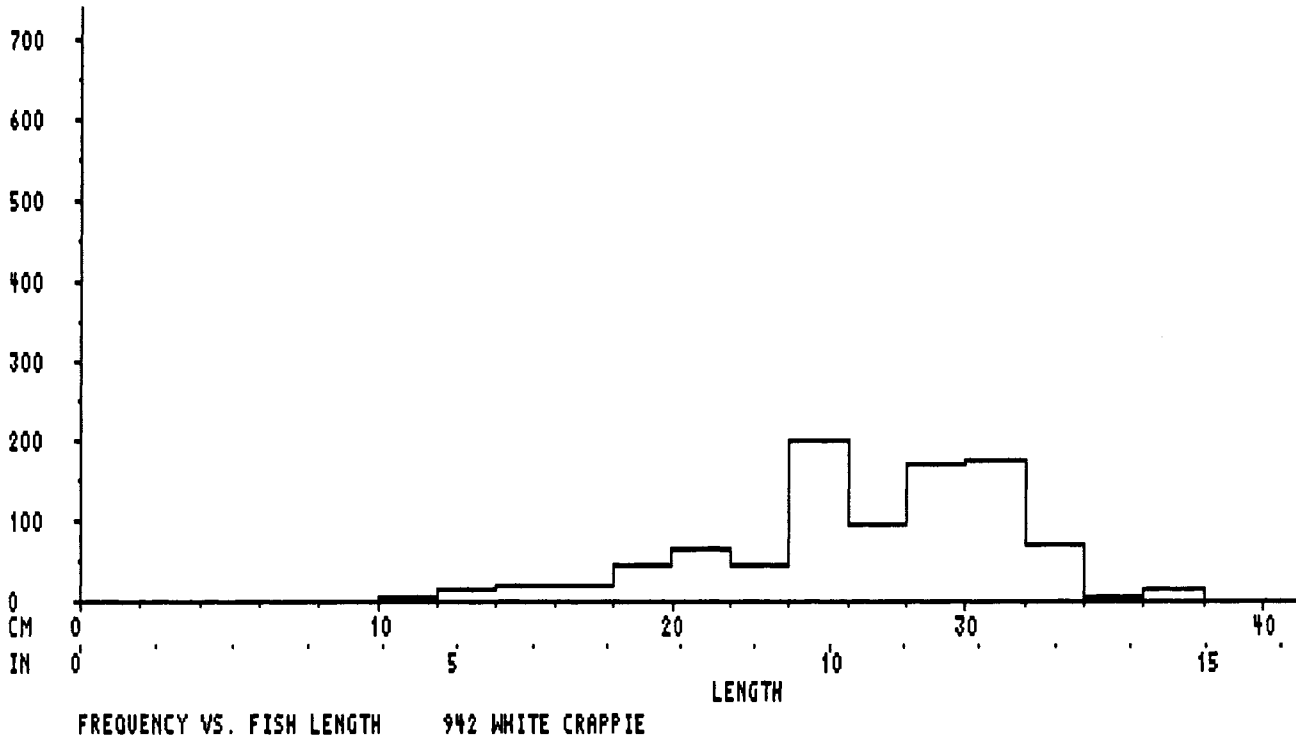


Figure 11. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

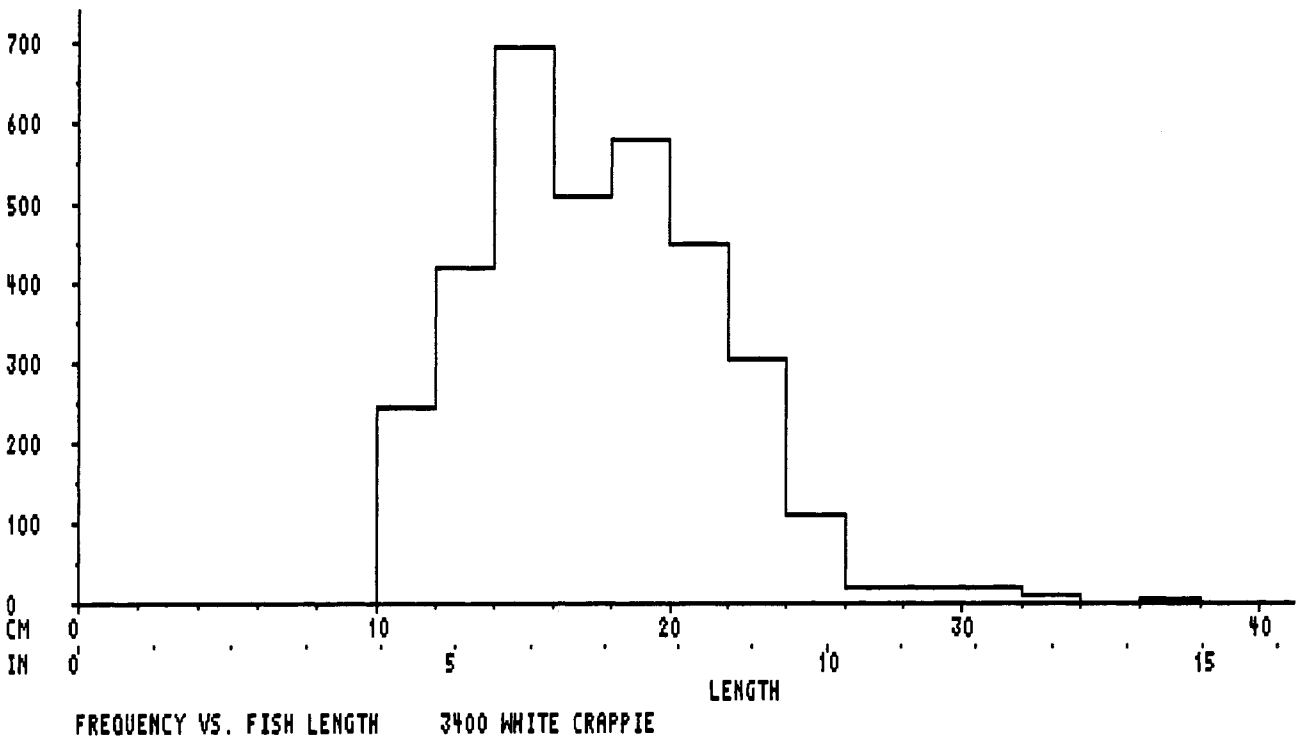
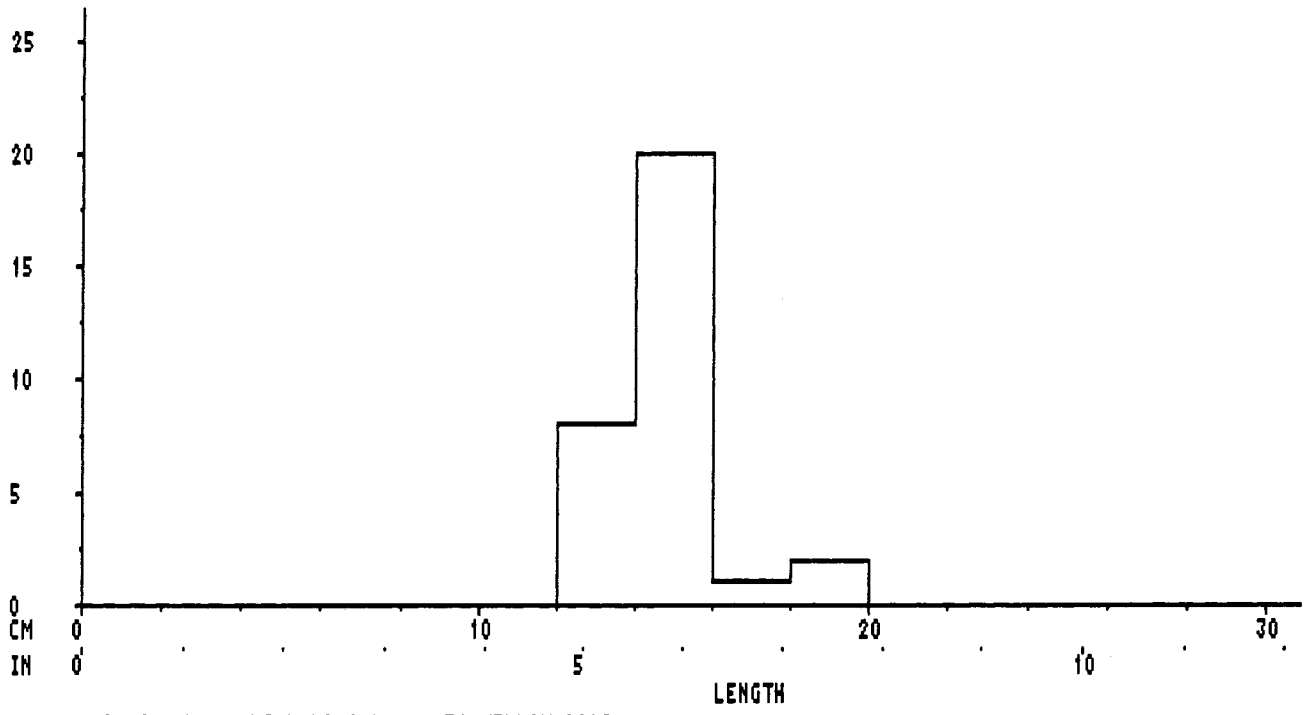
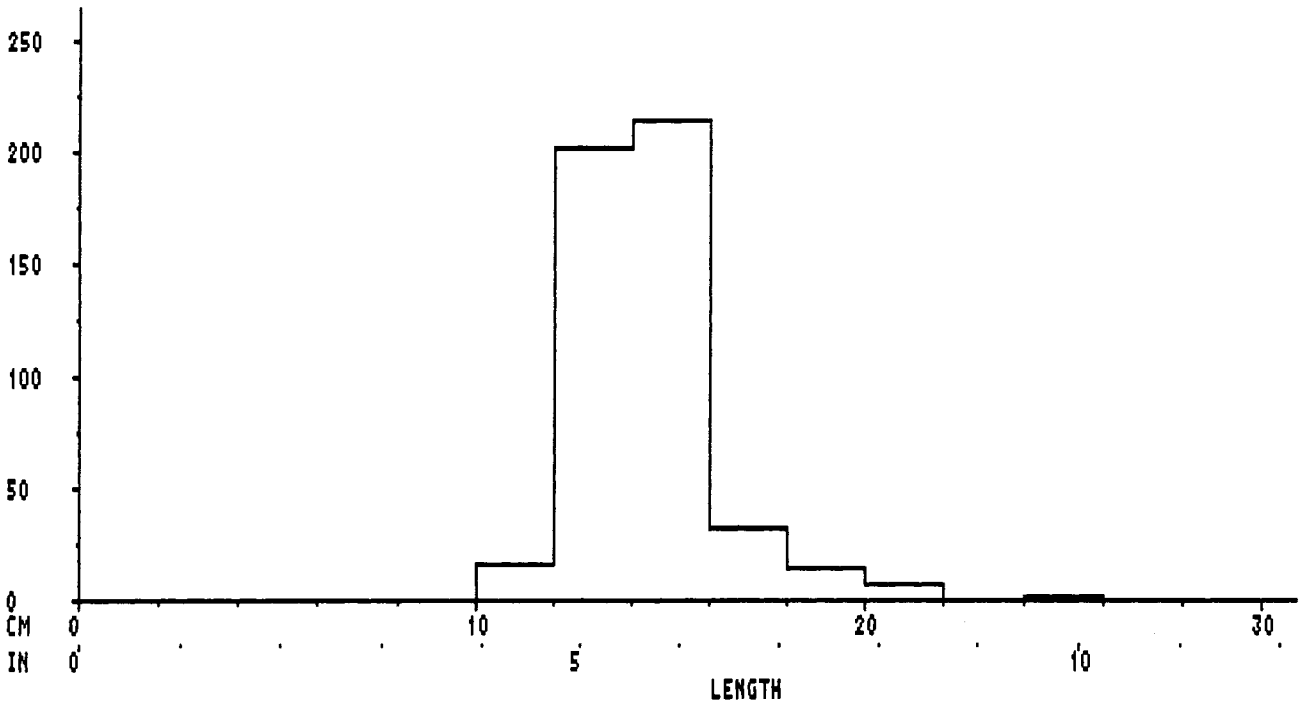


Figure 12. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.



FREQUENCY VS. FISH LENGTH 31 YELLOW BASS

Figure 13. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass harvested by all anglers.



FREQUENCY VS. FISH LENGTH 489 YELLOW BASS

Figure 14. Pana Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass released by all anglers. Note the difference in scale from Figure 13.

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

1999 PARIS EAST LAKE
 163 ACRES
 REGION 3, DISTRICT 11

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: 185/693 = 26.7%

NUMBER OF INTERVIEWS: 771

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	2257	1520-2994 (33%)	14	9-18 (33%)	10%
	HOLIDAY	3518	2430-4606 (31%)	22	15-28 (31%)	29%
	TOTAL	5775	4524-7026 (22%)	35	28-43 (22%)	21%
SHORE	WEEKDAY	4429	3611-5247 (18%)	27	22-32 (18%)	11%
	HOLIDAY	4032	2239-5826 (44%)	25	14-36 (44%)	20%
	TOTAL	8462	6875-10048 (19%)	52	42-62 (19%)	15%
BOAT & SHORE	WEEKDAY	6686	5585-7787 (16%)	41	34-48 (16%)	10%
	HOLIDAY	7550	5869-9232 (22%)	46	36-57 (22%)	24%
	TOTAL	14236	12287-16185 (14%)	87	75-99 (14%)	18%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
7186	5166-9206	(28%)	.382	.129-.636 (66%)	108.94	44.09	All species
8	0-34	(318%)	.000	.000-.001 (278%)	0.12	0.05	Black bullhead
14	0-49	(257%)	.002	.000-.007 (245%)	0.21	0.08	Black crappie
2967	1619-4315	(45%)	.088	.044-.133 (50%)	44.98	18.20	Bluegill
216	45-387	(79%)	.011	.001-.021 (92%)	3.27	1.32	Carp
954	103-1806	(89%)	.101	.000-.358 (255%)	14.47	5.85	Channel catfish
192	19-365	(90%)	.007	.000-.017 (133%)	2.91	1.18	Green sunfish
28	0-72	(152%)	.001	.000-.004 (161%)	0.43	0.17	Largemouth bass
			****	NOT RECORDED ****			Orangespotted sunfish
			****	NOT RECORDED ****			Tiger muskie
2462	1601-3324	(35%)	.159	.099-.219 (38%)	37.32	15.11	White crappie
247	0-1996	(709%)	.005	.000-.013 (145%)	3.74	1.51	Yellow bullhead
97	6-188	(93%)	.007	.000-.015 (113%)	1.48	0.60	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
1370	998-1742	(27%)	.083	.032-.134 (62%)	20.77	0.191	All species
2	0-8	(318%)	.000	.000-.000 (318%)	0.03	0.252	Black bullhead
1	0-2	(257%)	.000	.000-.000 (257%)	0.01	0.044	Black crappie
211	119-303	(44%)	.006	.003-.010 (55%)	3.19	0.071	Bluegill
247	64-430	(74%)	.013	.002-.024 (85%)	3.74	1.148	Carp
258	82-435	(68%)	.023	.000-.076 (235%)	3.92	0.271	Channel catfish
15	1-29	(95%)	.001	.000-.001 (134%)	0.22	0.077	Green sunfish
21	0-51	(149%)	.001	.000-.003 (156%)	0.31	0.733	Largemouth bass
			****	NOT RECORDED ****			Orangespotted sunfish
			****	NOT RECORDED ****			Tiger muskie
583	330-835	(43%)	.038	.020-.055 (46%)	8.83	0.237	White crappie
28	0-208	(649%)	.001	.000-.002 (199%)	0.42	0.113	Yellow bullhead
6	1-12	(85%)	.001	.000-.001 (125%)	0.09	0.064	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
3021	2200-3841	(27%)	.182	.070-.295 (62%)	18.53	0.420	All species
4	0-17	(278%)	.000	.000-.001 (318%)	0.03	0.555	Black bullhead
1	0-4	(257%)	.000	.000-.001 (245%)	0.01	0.096	Black crappie
464	261-667	(44%)	.014	.006-.021 (55%)	2.85	0.156	Bluegill
544	141-948	(74%)	.029	.004-.053 (85%)	3.34	2.531	Carp
570	181-958	(68%)	.050	.000-.168 (235%)	3.49	0.597	Channel catfish
32	2-63	(95%)	.001	.000-.003 (134%)	0.20	0.170	Green sunfish
45	0-113	(149%)	.002	.000-.006 (156%)	0.28	1.616	Largemouth bass
			****	NOT RECORDED ****			Orangespotted sunfish
			****	NOT RECORDED ****			Tiger muskie
1285	727-1842	(43%)	.083	.045-.121 (46%)	7.88	0.522	White crappie
61	0-458	(649%)	.001	.000-.004 (199%)	0.37	0.248	Yellow bullhead
14	2-25	(85%)	.001	.000-.003 (125%)	0.08	0.142	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
24498	20333-28663 (17%)	1.302	1.018-1.586 (22%)	371.38	150.29	All species
35	0-85 (147%)	.002	.000-.005 (132%)	0.52	0.21	Black bullhead
23	0-60 (164%)	.002	.000-.007 (223%)	0.34	0.14	Black crappie
11089	8641-13537 (22%)	.438	.327-.550 (26%)	168.10	68.03	Bluegill
300	117-482 (61%)	.013	.003-.024 (77%)	4.54	1.84	Carp
3214	2275-4153 (29%)	.202	.000-.461 (129%)	48.72	19.72	Channel catfish
763	341-1186 (55%)	.038	.012-.064 (69%)	11.57	4.68	Green sunfish
786	484-1088 (38%)	.047	.026-.069 (44%)	11.92	4.82	Largemouth bass
18	0-65 (257%)	.000	.000-.001 (278%)	0.27	0.11	Orangespotted sunfish
3	0-13 (318%)	.000	.000-.000 (430%)	0.05	0.02	Tiger muskie
5012	3291-6734 (34%)	.406	.247-.564 (39%)	75.99	30.75	White crappie
1171	593-1748 (49%)	.058	.026-.089 (55%)	17.75	7.18	Yellow bullhead
2085	1262-2909 (39%)	.096	.061-.131 (37%)	31.61	12.79	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
2924	2405-3443 (18%)	.172	.119-.224 (31%)	44.33	0.119	All species
6	0-15 (156%)	.000	.000-.001 (152%)	0.09	0.177	Black bullhead
1	0-3 (159%)	.000	.000-.000 (219%)	0.02	0.046	Black crappie
589	458-721 (22%)	.024	.017-.030 (27%)	8.93	0.053	Bluegill
339	139-539 (59%)	.016	.004-.027 (72%)	5.14	1.134	Carp
562	358-767 (36%)	.041	.000-.098 (138%)	8.53	0.175	Channel catfish
38	17-59 (54%)	.001	.001-.002 (63%)	0.58	0.050	Green sunfish
410	232-588 (43%)	.021	.011-.031 (48%)	6.22	0.522	Largemouth bass
1	0-4 (278%)	.000	.000-.000 (257%)	0.02	0.066	Orangespotted sunfish
		****	NOT RECORDED ****			Tiger muskie
760	456-1064 (40%)	.059	.033-.084 (43%)	11.52	0.152	White crappie
93	26-160 (72%)	.004	.002-.006 (50%)	1.41	0.080	Yellow bullhead
124	68-180 (45%)	.006	.003-.008 (42%)	1.87	0.059	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
6446	5302-7591	(18%)	.379	.263-.495 (31%)	39.55	0.263	All species
13	0-34	(156%)	.001	.000-.002 (152%)	0.08	0.390	Black bullhead
2	0-6	(159%)	.000	.000-.001 (219%)	0.01	0.101	Black crappie
1299	1009-1589	(22%)	.052	.038-.066 (27%)	7.97	0.117	Bluegill
747	305-1189	(59%)	.034	.010-.059 (72%)	4.58	2.499	Carp
1240	788-1692	(36%)	.091	.000-.216 (138%)	7.61	0.386	Channel catfish
84	38-129	(54%)	.003	.001-.005 (63%)	0.51	0.110	Green sunfish
905	513-1297	(43%)	.047	.025-.069 (48%)	5.55	1.151	Largemouth bass
3	0-10	(278%)	.000	.000-.000 (257%)	0.02	0.145	Orangespotted sunfish
			****	NOT RECORDED	****		Tiger muskie
1675	1005-2345	(40%)	.129	.074-.185 (43%)	10.28	0.334	White crappie
205	57-354	(72%)	.008	.004-.013 (50%)	1.26	0.175	Yellow bullhead
273	149-396	(45%)	.012	.007-.018 (42%)	1.67	0.131	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	5.3	4.7-5.8 (10%)	0.7	12.0	80
SHORE	1.7	1.4-2.1 (21%)	0.2	7.8	56
BOAT & SHORE	3.8	3.3-4.3 (12%)	0.2	12.0	136
MILES TRAVELED	17.6	13.8-21.3 (21%)	1	1100	663
SUCCESS RATING (1-10)	4.2	4.0-4.4 (5%)	1	10	661

*60 samples were from split interviews of completed trips.
19.2% of all 709 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 0 out of 709 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	57	152	29	7	1					
SHORE INTERVIEWS	181	164	75	28	10	1	1	2	1	

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

171 (24.1%)	ANY	All species
104 (14.7%)	BLG	Bluegill
29 (4.1%)	CAP	Carp
179 (25.2%)	CCF	Channel catfish
72 (10.2%)	CRP	Crappie spp.
145 (20.5%)	LMB	Largemouth bass
1 (0.1%)	TGM	Tiger muskie
8 (1.1%)	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	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	242	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	228	5	3	-	-	3	2	-	2	-	-	-	-	-	-	-
RELEASE	194	18	5	5	4	-	2	-	4	-	6	-	3	-	-	2
Carp																
HARVEST	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	239	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	241	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
RELEASE	213	18	7	2	-	-	-	2	1	-	-	-	-	-	-	-
Green sunfish																
HARVEST	239	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	230	7	1	2	-	2	-	-	-	-	-	-	-	-	-	1
Largemouth bass																
HARVEST	241	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	179	30	25	4	2	-	2	-	1	-	-	-	-	-	-	-
Tiger muskie																
HARVEST	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	241	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	212	6	2	-	7	4	2	-	2	2	-	-	-	2	-	4
RELEASE	204	12	7	5	5	2	-	-	2	-	-	-	-	2	-	4
Yellow bullhead																
HARVEST	241	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	231	9	-	-	-	-	1	-	-	-	2	-	-	-	-	-
Yellow bass																
HARVEST	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	227	3	2	4	1	4	-	-	2	-	-	-	-	-	-	-

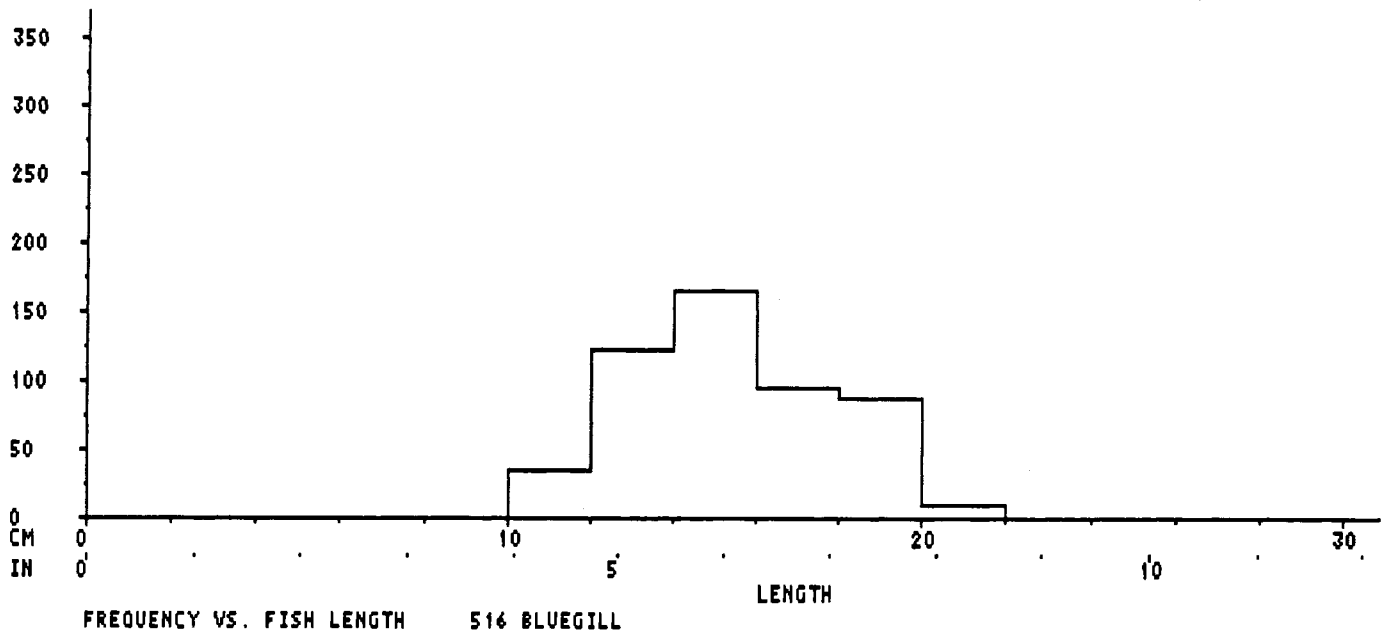


Figure 1. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

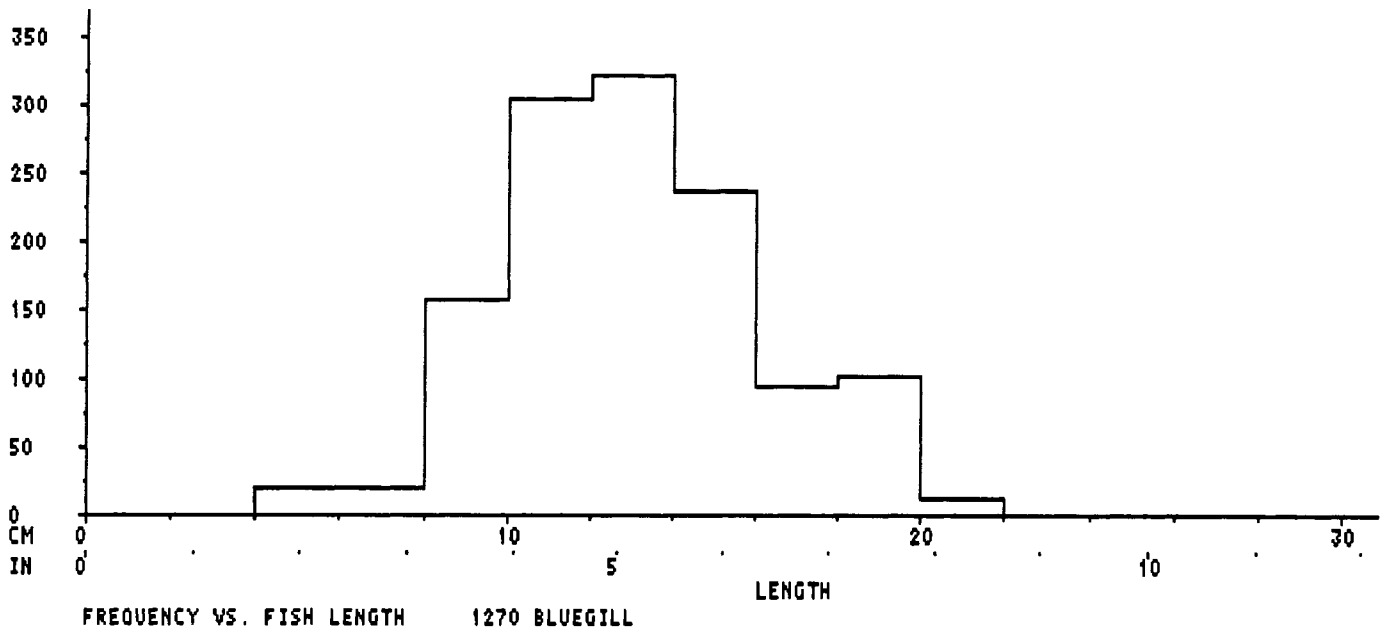


Figure 2. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

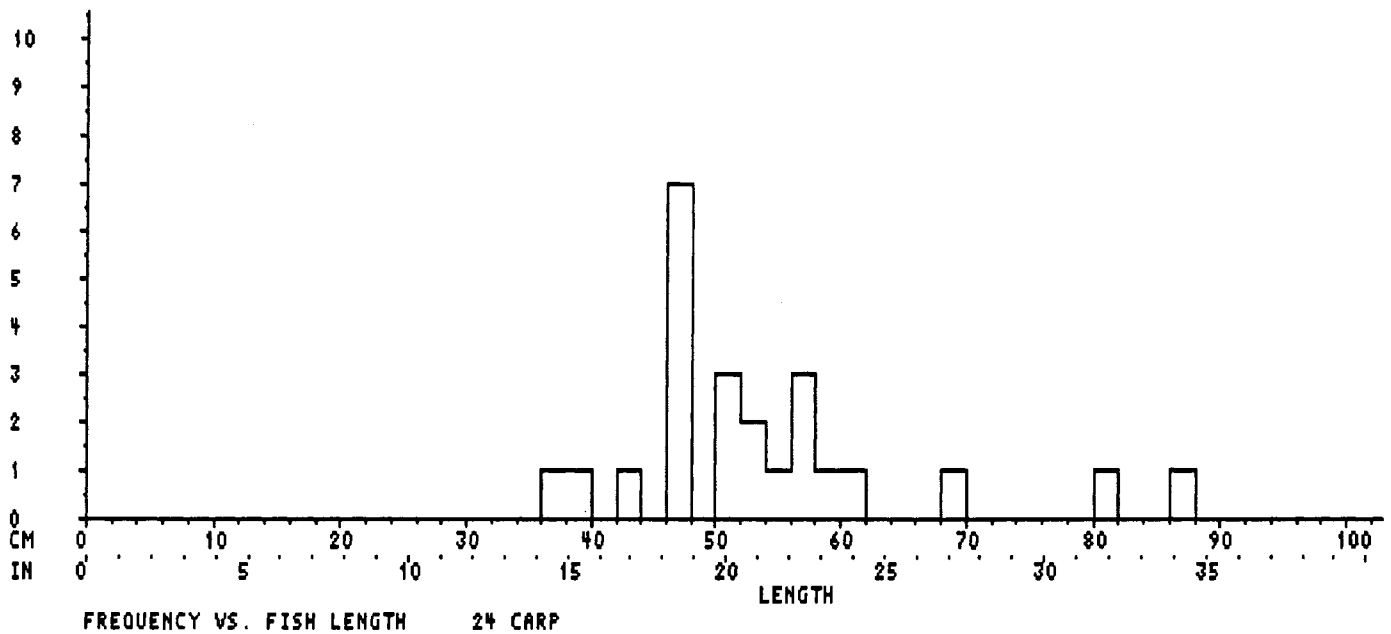


Figure 3. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp harvested by all anglers.

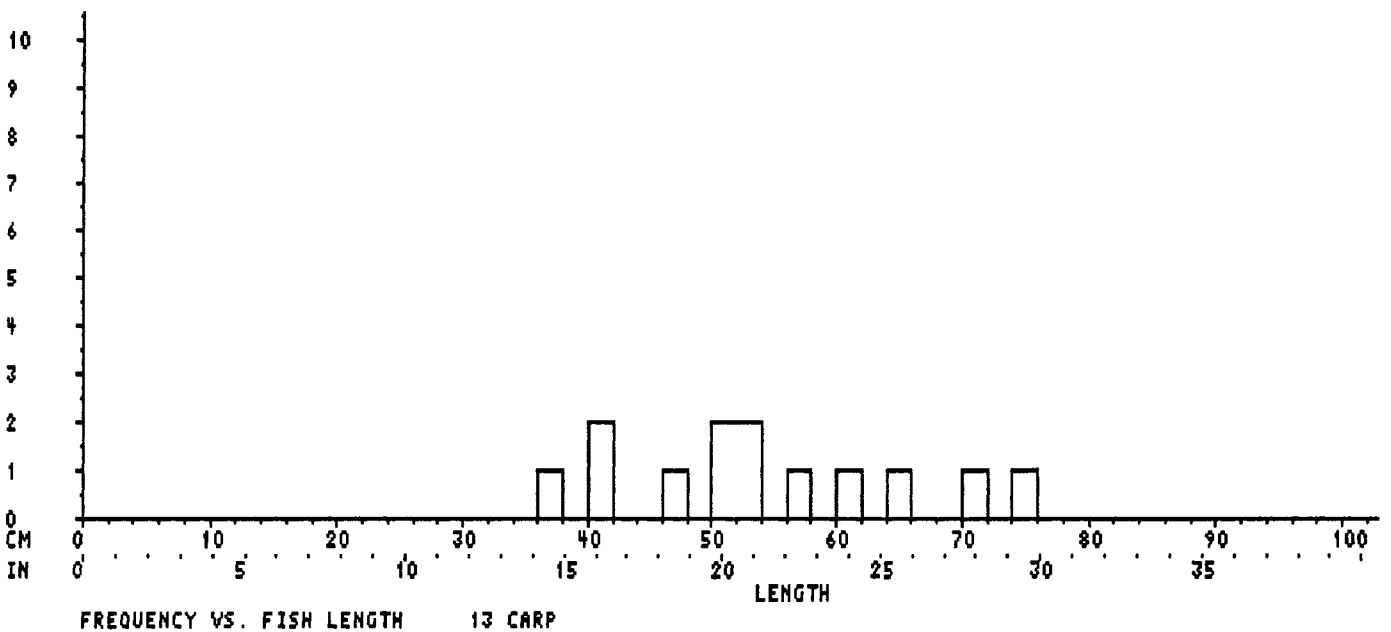


Figure 4. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp released by all anglers.

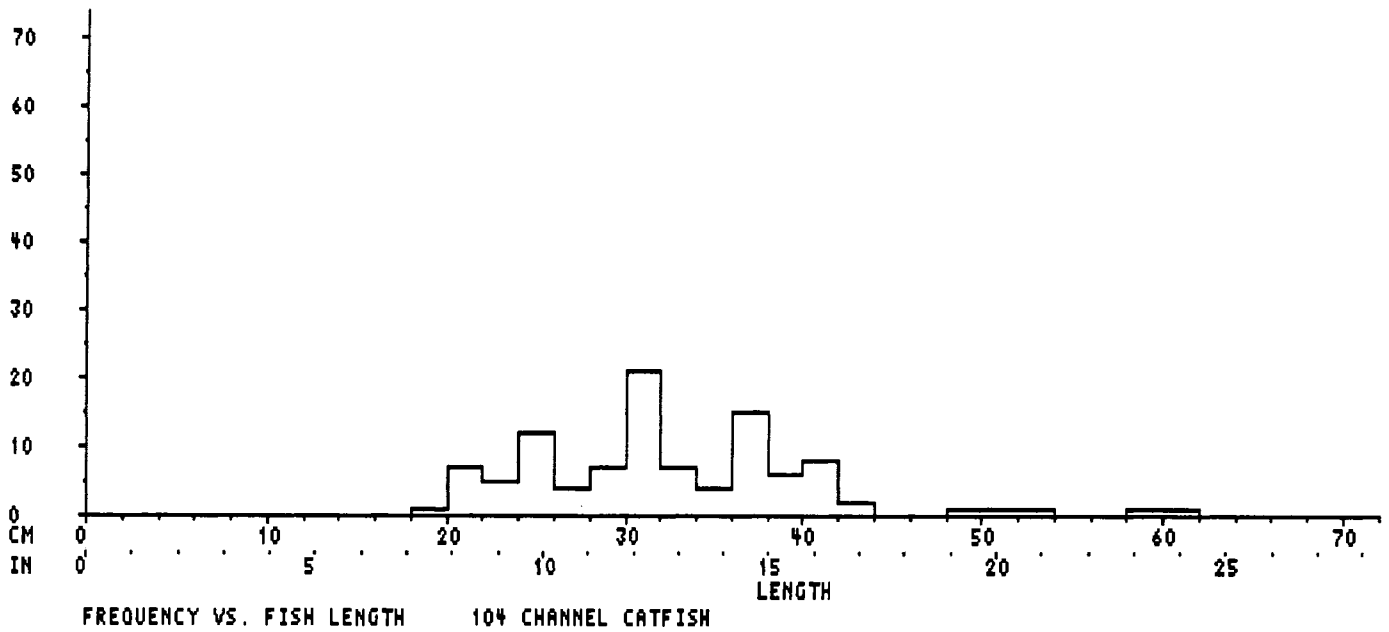


Figure 5. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

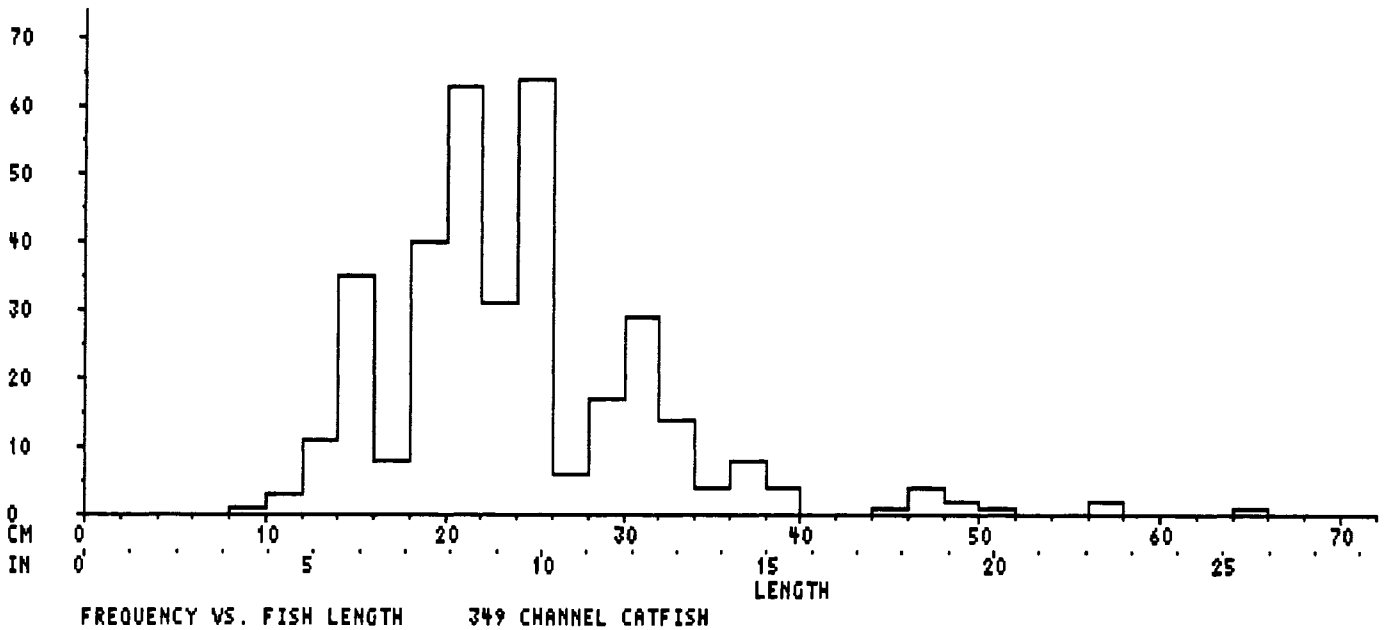


Figure 6. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

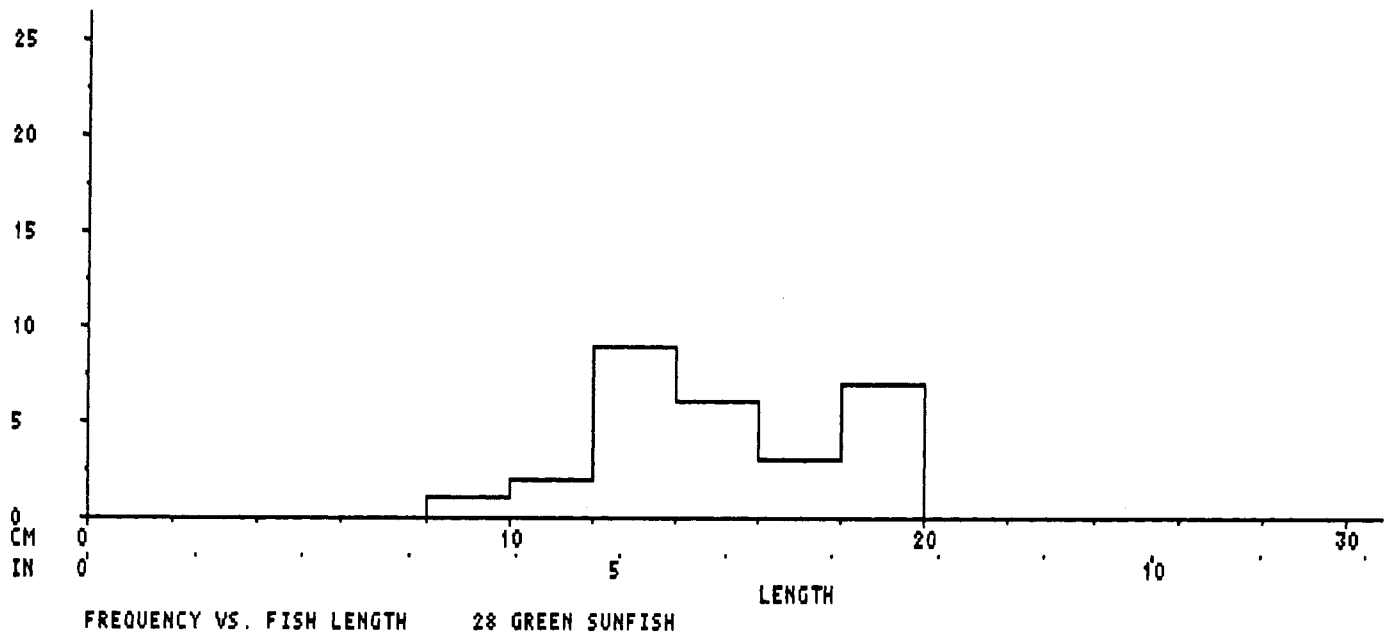


Figure 7. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of green sunfish harvested by all anglers.

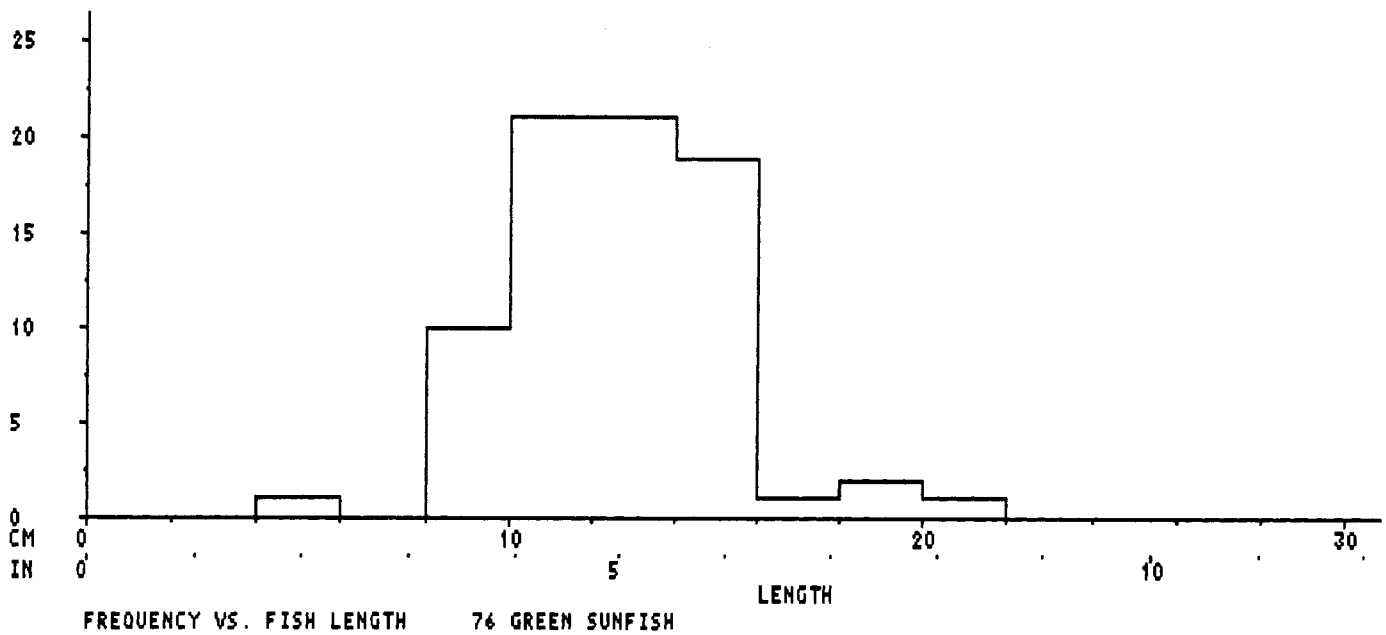


Figure 8. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of green sunfish released by all anglers.

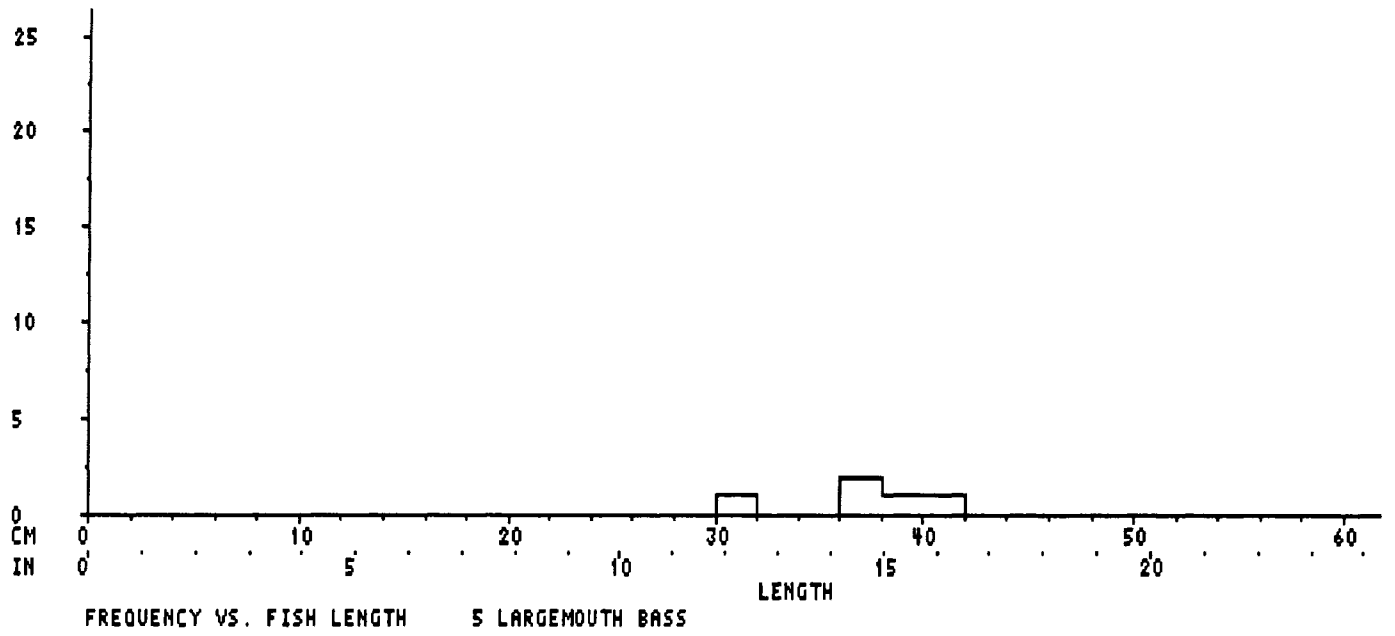


Figure 9. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

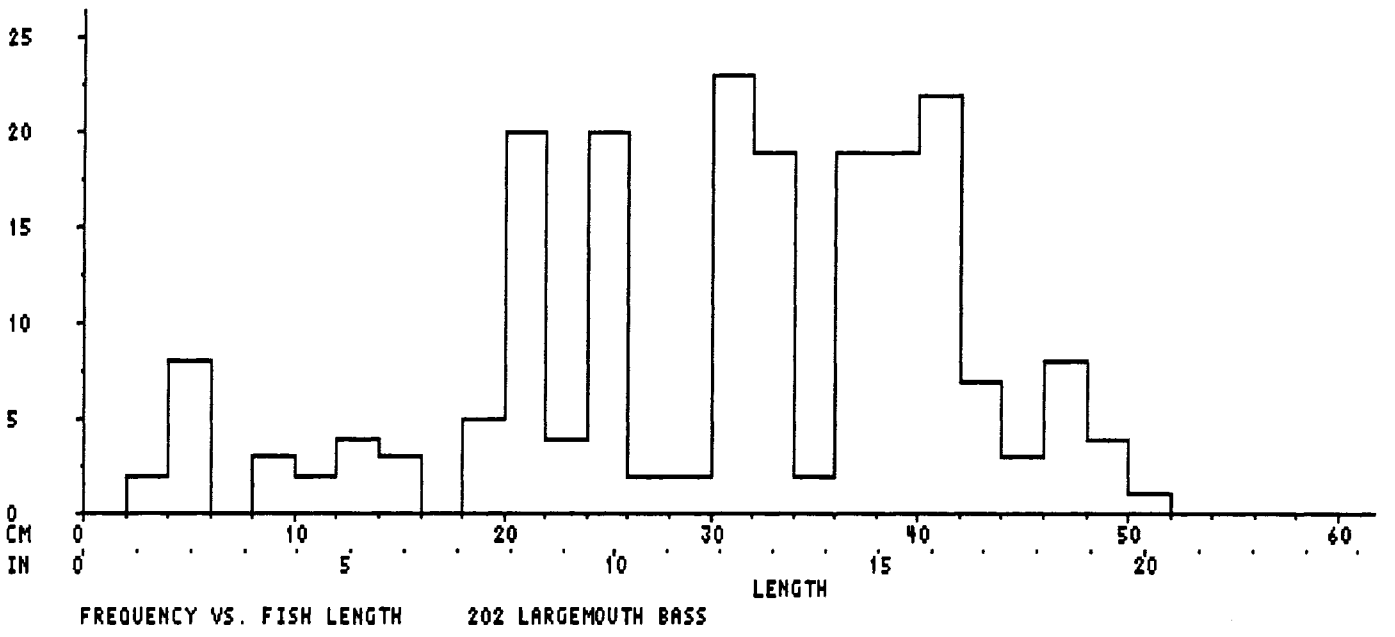


Figure 10. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers.

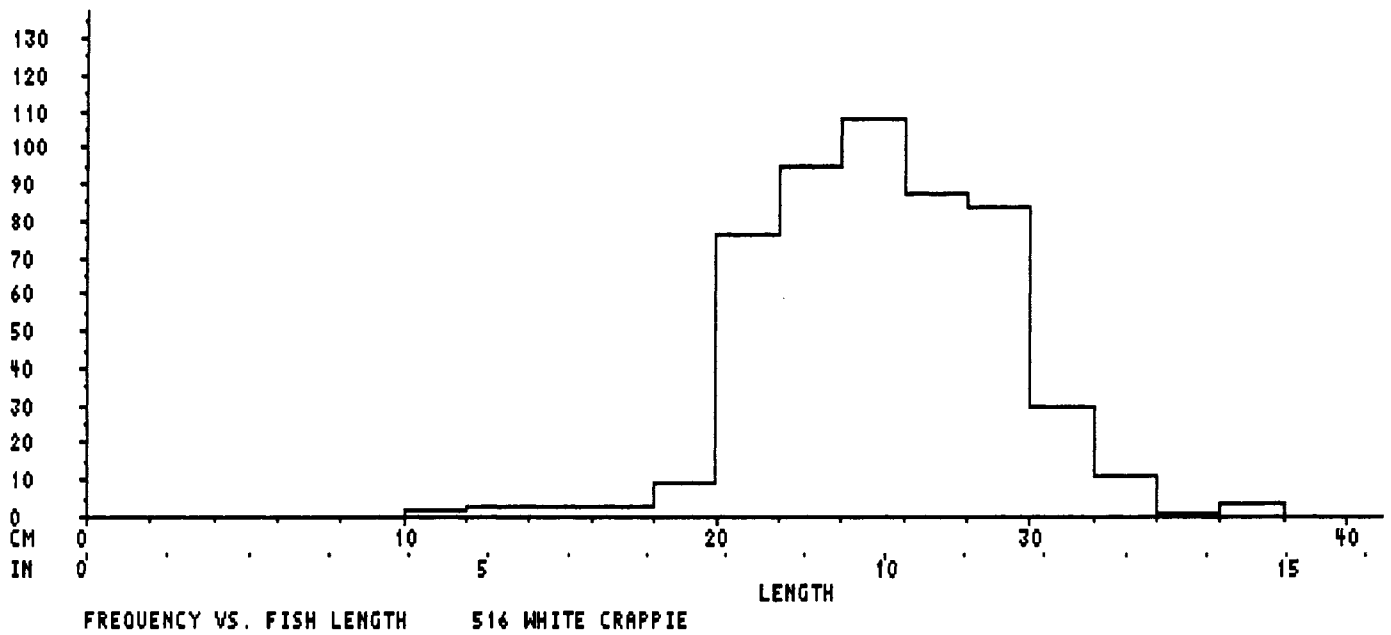


Figure 11. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

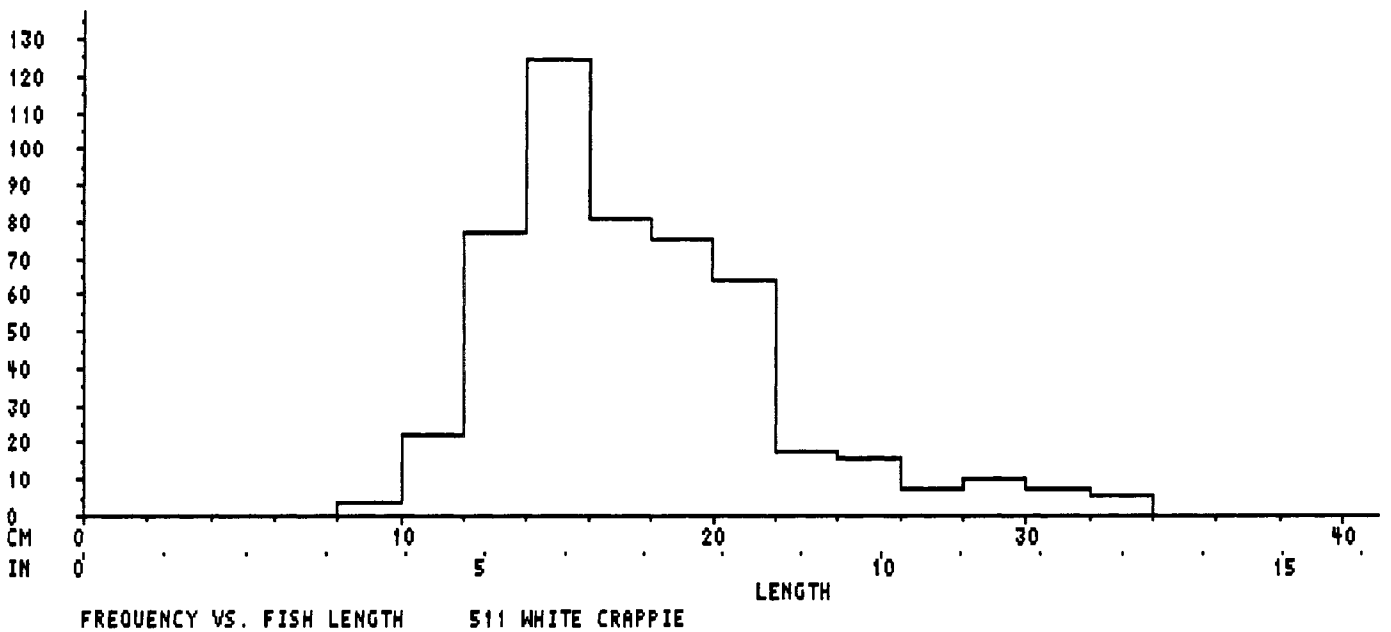


Figure 12. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.

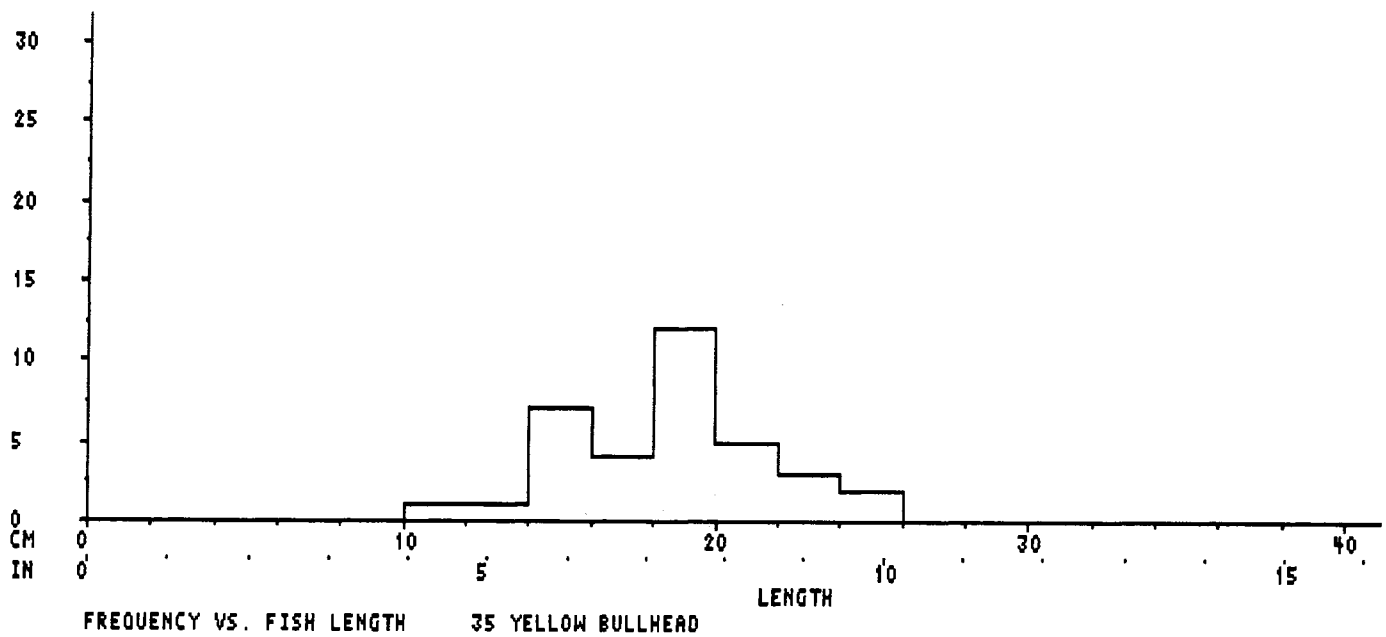


Figure 13. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bullhead harvested by all anglers.

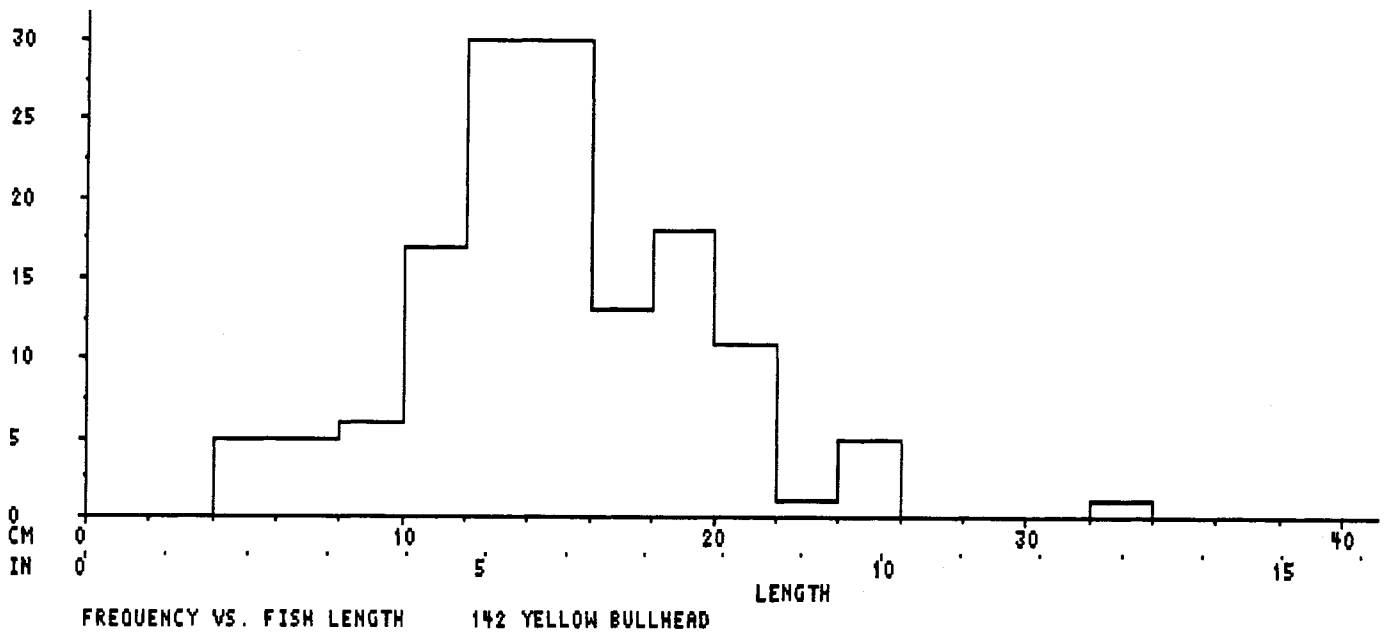


Figure 14. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bullhead released by all anglers.

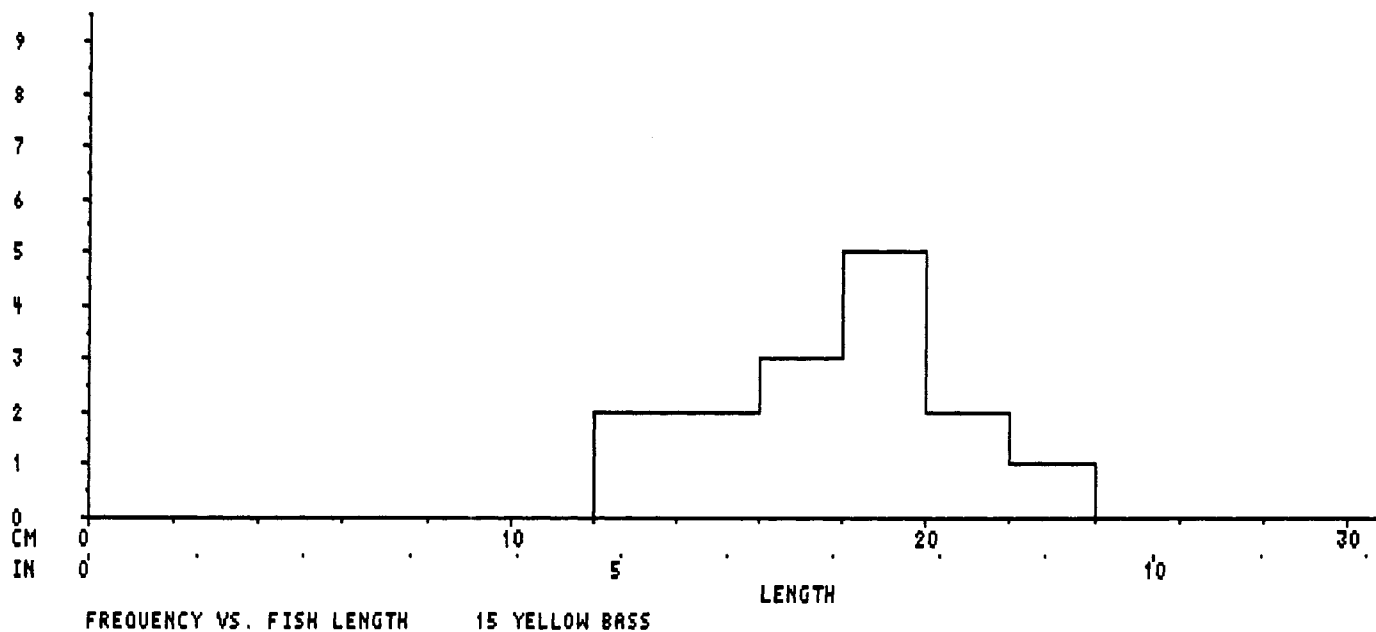


Figure 15. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass harvested by all anglers.

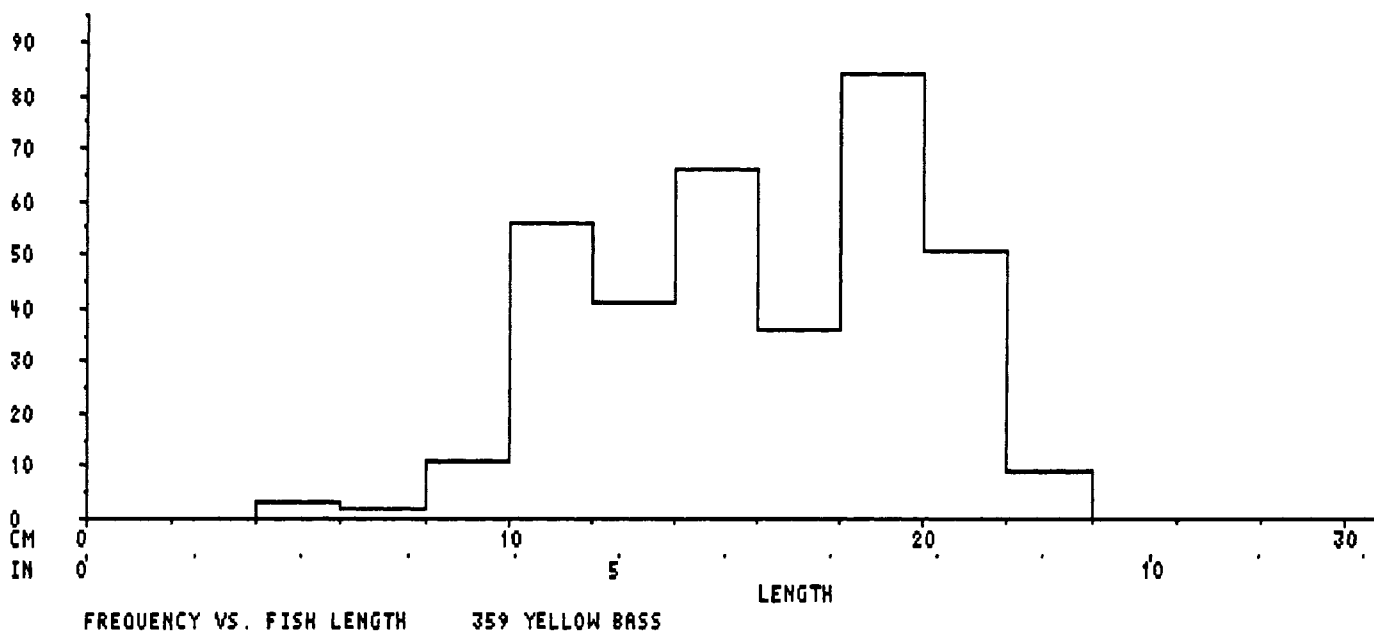


Figure 16. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass released by all anglers. Note the difference in scale from Figure 15.

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

1999 PARIS WEST LAKE
 75 ACRES
 REGION 3, DISTRICT 11

STRATIFICATION SUMMARY:

Day creel only.
 Results cover 04/09/1999 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: 153/618 = 24.8%

NUMBER OF INTERVIEWS: 525

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	573	296-851 (48%)	8	4-11 (48%)	12%
	HOLIDAY	1461	958-1965 (34%)	20	13-26 (34%)	28%
	TOTAL	2035	1475-2595 (28%)	27	20-35 (28%)	24%
SHORE	WEEKDAY	2934	2079-3789 (29%)	39	28-51 (29%)	10%
	HOLIDAY	3179	2396-3961 (25%)	43	32-53 (25%)	21%
	TOTAL	6113	5021-7204 (18%)	82	67-97 (18%)	16%
BOAT & SHORE	WEEKDAY	3507	2619-4395 (25%)	47	35-59 (25%)	11%
	HOLIDAY	4640	3760-5521 (19%)	62	50-74 (19%)	23%
	TOTAL	8147	6931-9364 (15%)	109	93-126 (15%)	18%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
1856	1048-2663	(44%)	.120	.051-.190 (58%)	61.46	24.87	All species
856	283-1430	(67%)	.037	.006-.067 (84%)	28.36	11.48	Bluegill
39	0-102	(160%)	.001	.000-.002 (145%)	1.30	0.53	Carp
820	435-1206	(47%)	.052	.022-.082 (57%)	27.18	11.00	Channel catfish
51	0-134	(161%)	.001	.000-.002 (143%)	1.70	0.69	Green sunfish
30	0-63	(107%)	.026	.000-.089 (236%)	1.01	0.41	Largemouth bass
			****	NOT RECORDED ****			Longear sunfish
			****	NOT RECORDED ****			Orangespotted sunfish
50	0-117	(133%)	.003	.000-.010 (242%)	1.67	0.68	White crappie
8	0-26	(235%)	.001	.000-.002 (263%)	0.26	0.10	Yellow bullhead
			****	NOT RECORDED ****			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
412	263-561	(36%)	.049	.000-.107 (116%)	13.64	0.222	All species
50	12-89	(77%)	.002	.000-.004 (84%)	1.66	0.059	Bluegill
35	0-82	(135%)	.001	.000-.002 (129%)	1.15	0.890	Carp
292	156-427	(46%)	.022	.000-.051 (134%)	9.66	0.356	Channel catfish
2	0-5	(148%)	.000	.000-.000 (142%)	0.07	0.040	Green sunfish
29	0-64	(123%)	.024	.000-.079 (235%)	0.95	0.958	Largemouth bass
			****	NOT RECORDED ****			Longear sunfish
			****	NOT RECORDED ****			Orangespotted sunfish
4	0-8	(131%)	.000	.000-.001 (275%)	0.12	0.071	White crappie
1	0-4	(302%)	.000	.000-.001 (316%)	0.03	0.142	Yellow bullhead
			****	NOT RECORDED ****			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
908	580-1236	(36%)	.109	.000-.235 (116%)	12.17	0.490	All species
110	25-196	(77%)	.005	.001-.009 (84%)	1.48	0.129	Bluegill
76	0-180	(135%)	.002	.000-.005 (129%)	1.03	1.961	Carp
643	345-942	(46%)	.048	.000-.113 (134%)	8.62	0.784	Channel catfish
4	0-11	(148%)	.000	.000-.000 (142%)	0.06	0.088	Green sunfish
63	0-141	(123%)	.052	.000-.175 (235%)	0.85	2.112	Largemouth bass
			****	NOT RECORDED ****			Longear sunfish
			****	NOT RECORDED ****			Orangespotted sunfish
8	0-18	(131%)	.001	.000-.003 (275%)	0.11	0.157	White crappie
2	0-9	(302%)	.000	.000-.002 (316%)	0.03	0.312	Yellow bullhead
			****	NOT RECORDED ****			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
10074	6802-13347 (32%)	.714	.502-.925 (30%)	333.69	135.04	All species
4746	3332-6159 (30%)	.248	.171-.325 (31%)	157.19	63.61	Bluegill
46	0-110 (137%)	.002	.000-.003 (108%)	1.53	0.62	Carp
2240	1716-2763 (23%)	.217	.161-.272 (26%)	74.18	30.02	Channel catfish
307	101-513 (67%)	.012	.002-.021 (80%)	10.17	4.12	Green sunfish
799	493-1105 (38%)	.095	.029-.161 (69%)	26.47	10.71	Largemouth bass
5	0-18 (226%)	.000	.000-.000 (231%)	0.18	0.07	Longear sunfish
15	0-63 (318%)	.003	.000-.015 (430%)	0.50	0.20	Orangespotted sunfish
1475	0-12177 (726%)	.113	.000-.841 (642%)	48.85	19.77	White crappie
181	88-274 (51%)	.009	.000-.023 (143%)	5.99	2.43	Yellow bullhead
260	41-480 (84%)	.015	.000-.035 (138%)	8.62	3.49	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
1385	1064-1705 (23%)	.127	.071-.183 (44%)	45.87	0.137	All species
244	166-321 (32%)	.013	.009-.017 (32%)	8.08	0.051	Bluegill
44	0-92 (111%)	.002	.000-.003 (107%)	1.45	0.952	Carp
462	324-601 (30%)	.044	.018-.070 (59%)	15.31	0.206	Channel catfish
11	0-21 (97%)	.000	.000-.001 (119%)	0.36	0.035	Green sunfish
463	278-648 (40%)	.057	.001-.113 (98%)	15.33	0.579	Largemouth bass
0	0-2 (226%)	.000	.000-.000 (226%)	0.02	0.095	Longear sunfish
2	0-9 (430%)	.000	.000-.001 (318%)	0.05	0.118	Orangespotted sunfish
116	0-1021 (778%)	.008	.000-.067 (726%)	3.85	0.079	White crappie
25	9-40 (61%)	.001	.000-.003 (76%)	0.81	0.136	Yellow bullhead
18	2-35 (87%)	.001	.000-.003 (140%)	0.61	0.071	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
3053	2347-3760 (23%)	.280	.156-.403 (44%)	40.93	0.303	All species
538	367-708 (32%)	.028	.019-.037 (32%)	7.21	0.113	Bluegill
97	0-204 (111%)	.004	.000-.007 (107%)	1.29	2.100	Carp
1019	714-1325 (30%)	.097	.040-.154 (59%)	13.66	0.455	Channel catfish
24	1-47 (97%)	.001	.000-.002 (119%)	0.32	0.078	Green sunfish
1020	612-1428 (40%)	.126	.002-.249 (98%)	13.68	1.277	Largemouth bass
1	0-3 (226%)	.000	.000-.000 (226%)	0.01	0.210	Longear sunfish
4	0-15 (318%)	.001	.000-.003 (318%)	0.05	0.259	Orangespotted sunfish
256	0-2251 (778%)	.018	.000-.147 (726%)	3.44	0.174	White crappie
54	21-87 (61%)	.003	.001-.006 (76%)	0.72	0.300	Yellow bullhead
41	5-76 (87%)	.002	.000-.006 (140%)	0.55	0.157	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	4.1	3.5-4.7 (15%)	1.0	9.0	64
SHORE	1.6	1.4-1.8 (14%)	0.2	4.5	105
BOAT & SHORE	2.5	2.2-2.9 (13%)	0.2	9.0	169
MILES TRAVELED	12.4	9.7-15.1 (22%)	1	430	437
SUCCESS RATING (1-10)	3.7	3.5-4.0 (7%)	1	10	435

*52 samples were from split interviews of completed trips.
35.9% of all 471 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 3 out of 471 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	33	48	5							
SHORE INTERVIEWS	210	95	49	17	11	1	1			1

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

80 (17.0%)	ANY	All species
63 (13.4%)	BLG	Bluegill
11 (2.3%)	CAP	Carp
217 (46.1%)	CCF	Channel catfish
9 (1.9%)	CRP	Crappie spp.
90 (19.1%)	LMB	Largemouth bass
1 (0.2%)	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+
Bluegill																
HARVEST	221	7	-	2	-	-	5	-	-	-	-	-	-	-	-	-
RELEASE	185	25	9	-	7	3	-	-	-	-	3	-	-	-	2	1
Carp																
HARVEST	235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	234	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	209	10	15	-	-	-	-	-	1	-	-	-	-	-	-	-
RELEASE	187	26	8	6	1	3	4	-	-	-	-	-	-	-	-	-
Green sunfish																
HARVEST	235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	234	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	231	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	183	19	9	7	4	4	4	2	2	-	-	-	-	-	-	1
White crappie																
HARVEST	235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	217	6	-	2	-	1	2	-	2	-	3	-	-	-	-	2
Yellow bullhead																
HARVEST	233	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	225	8	1	-	1	-	-	-	-	-	-	-	-	-	-	-
Yellow bass																
HARVEST	235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	233	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

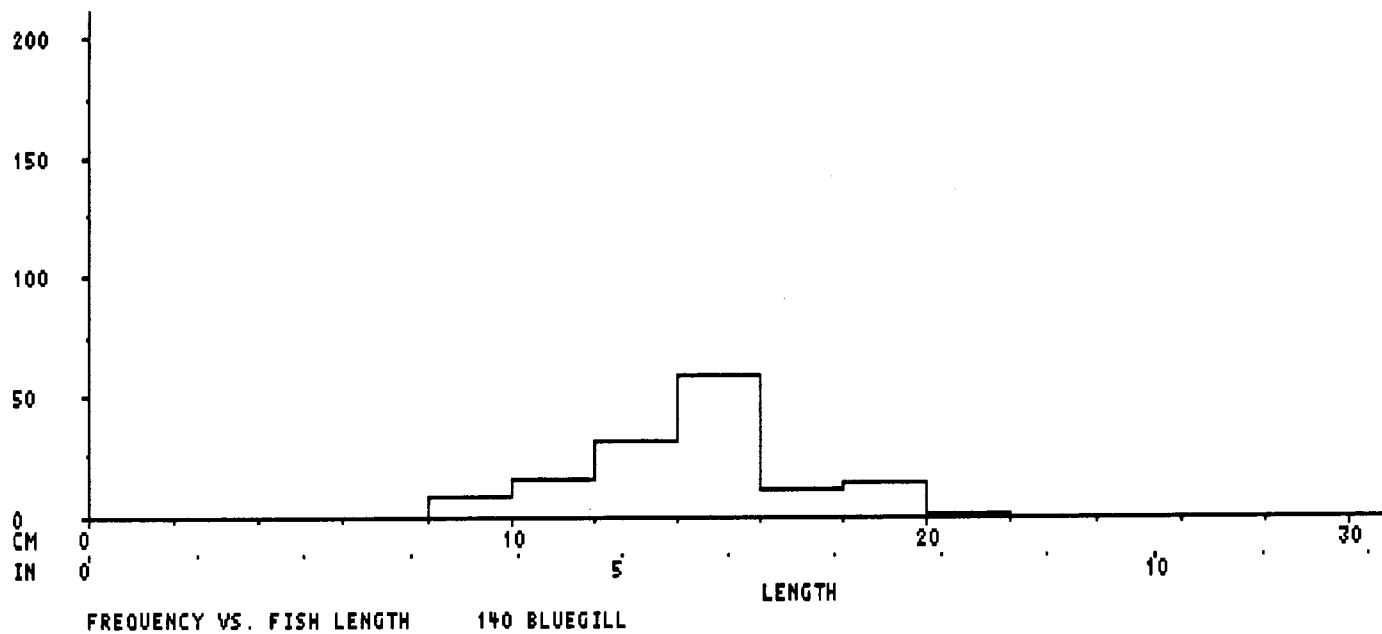


Figure 1. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.



Figure 2. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of bluegill released by all anglers.

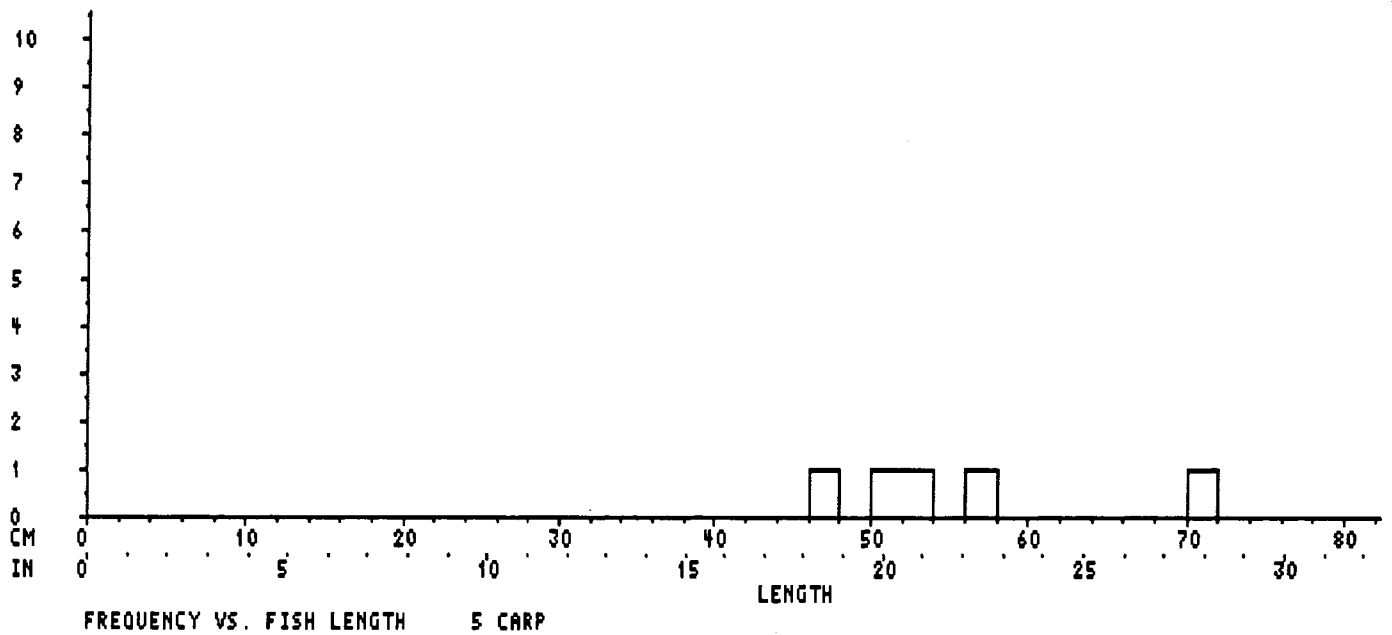


Figure 3. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of carp harvested by all anglers.

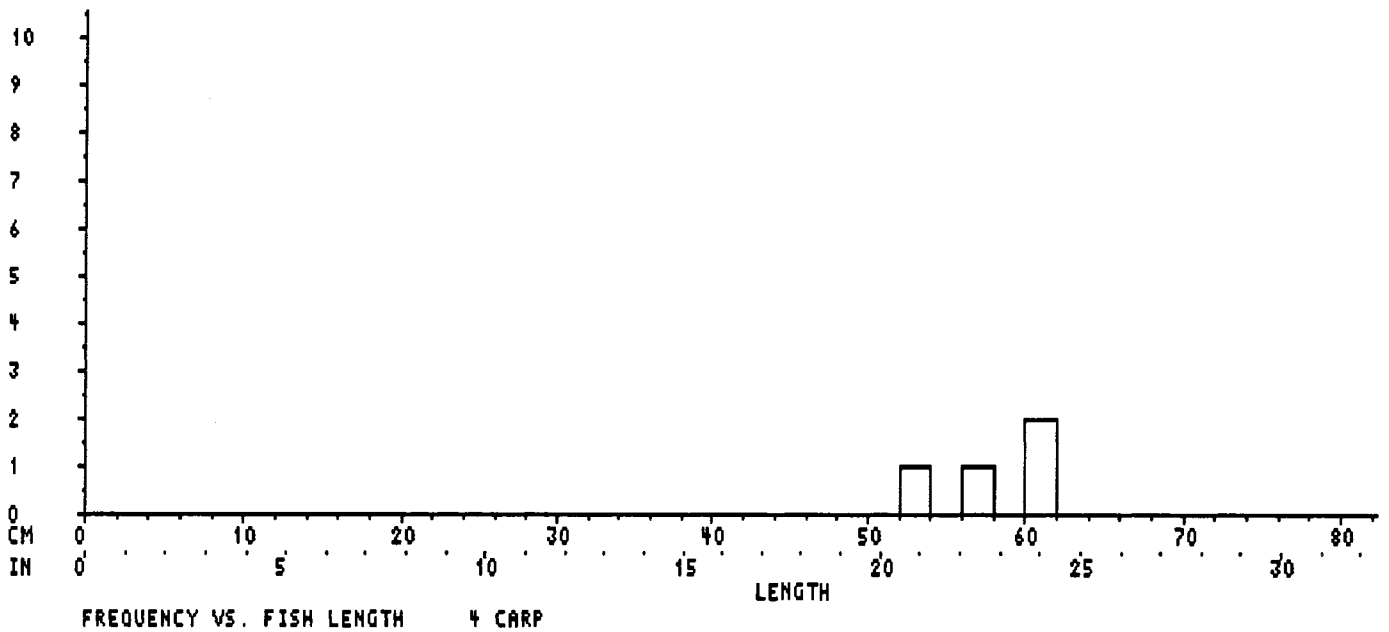


Figure 4. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of carp released by all anglers.

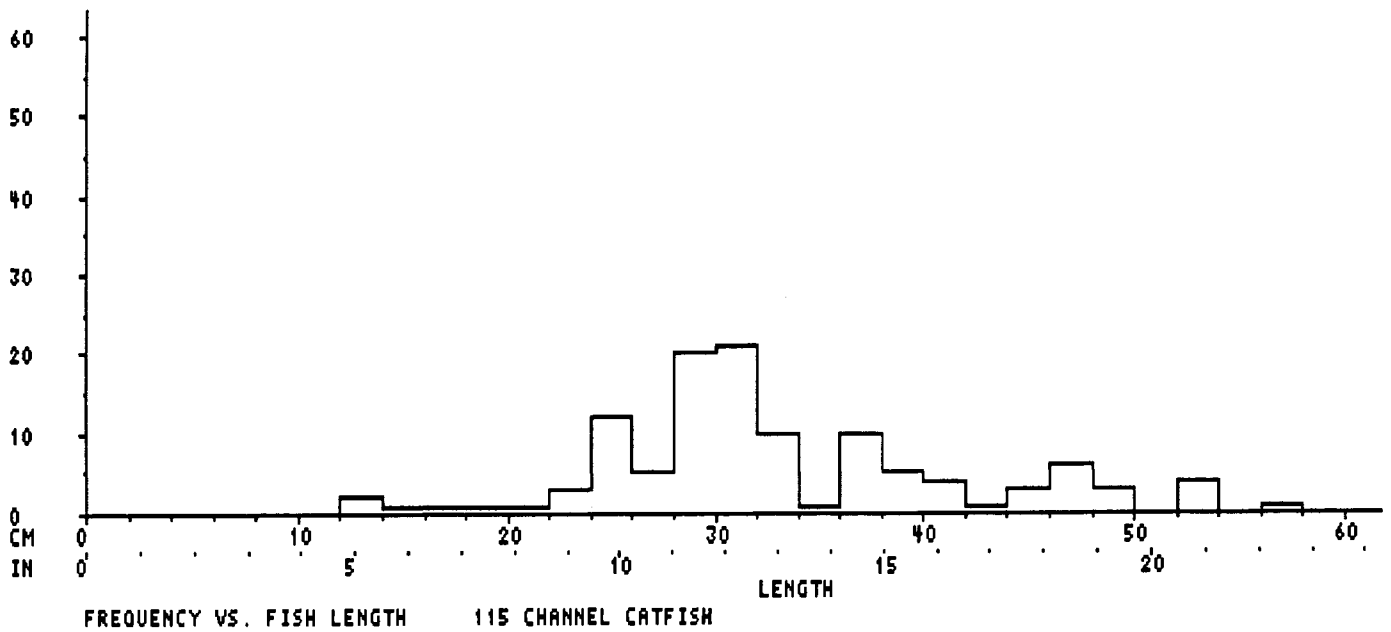


Figure 5. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

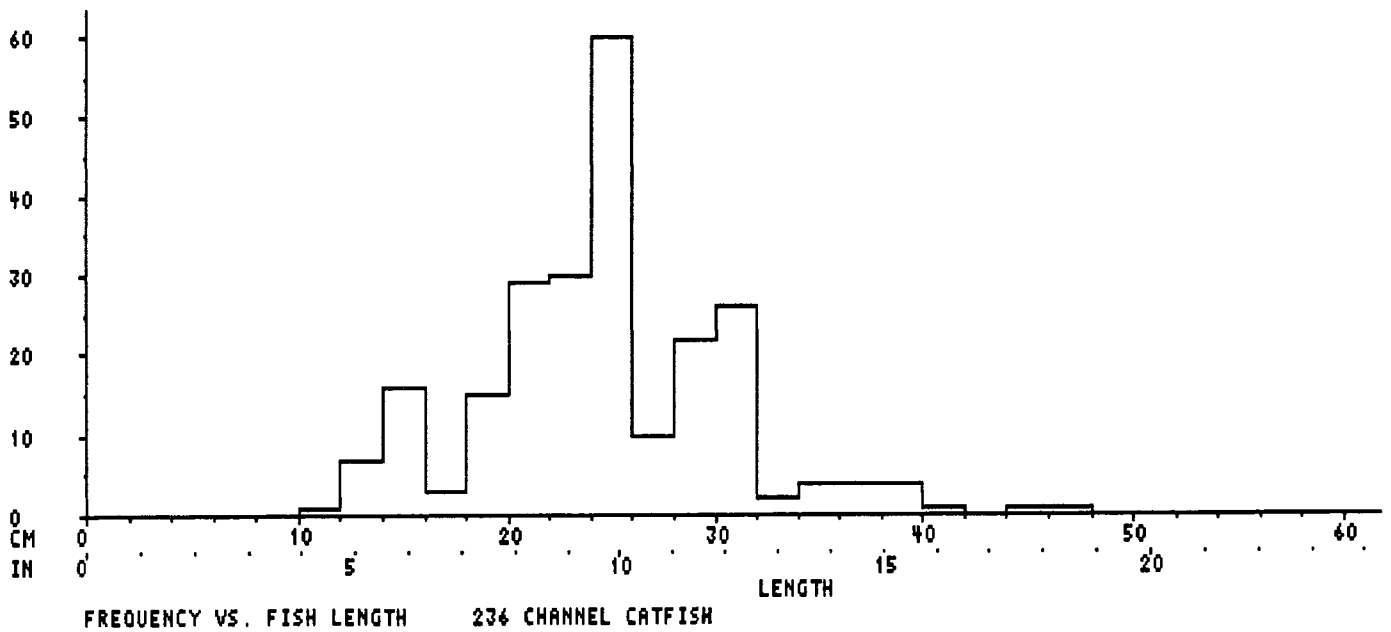


Figure 6. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

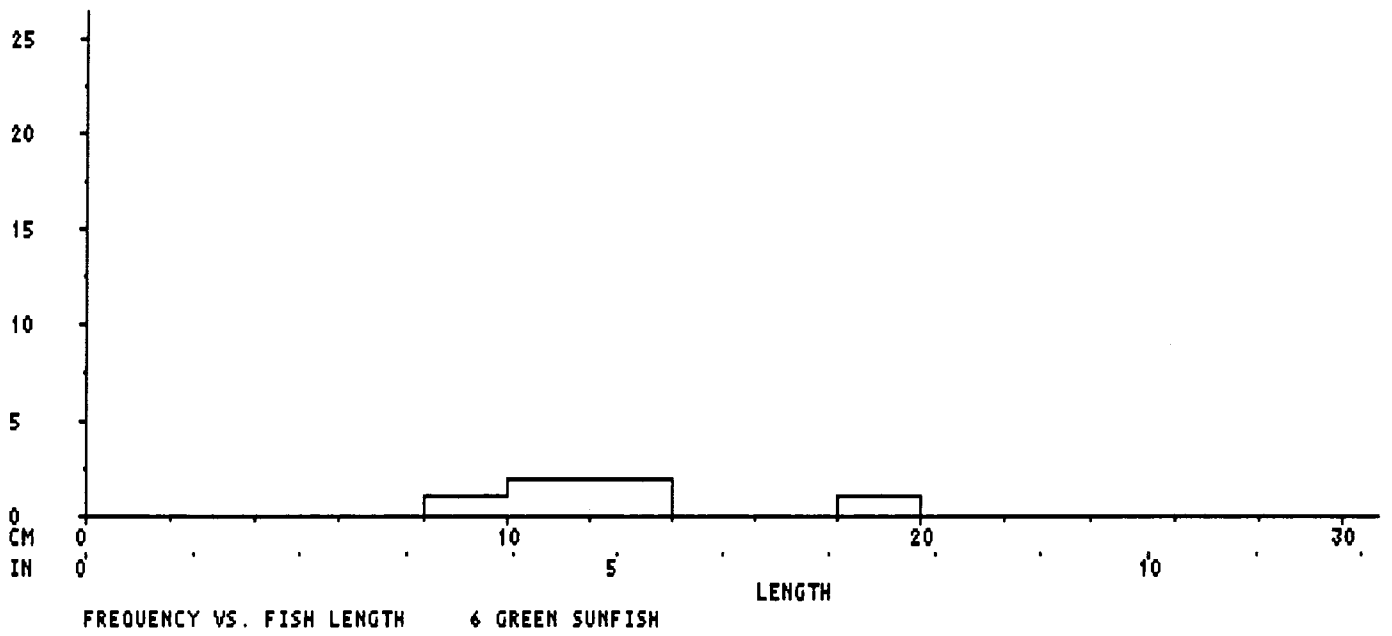


Figure 7. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of green sunfish harvested by all anglers.

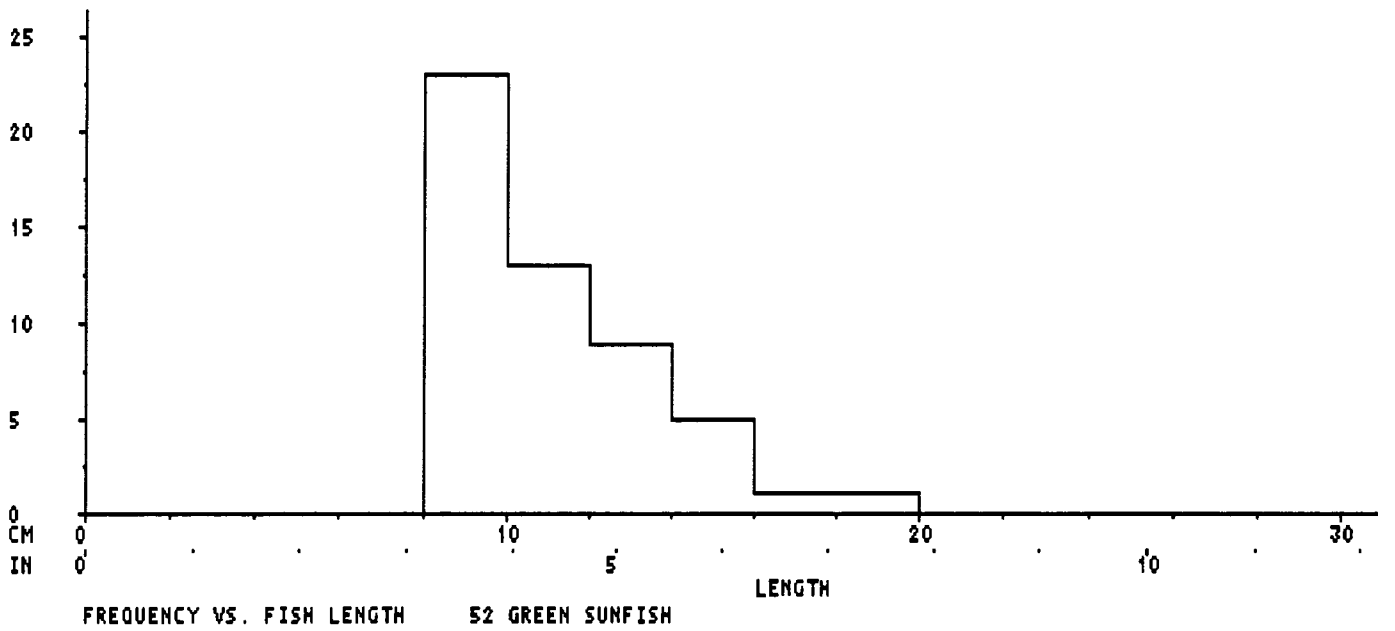


Figure 8. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of green sunfish released by all anglers.

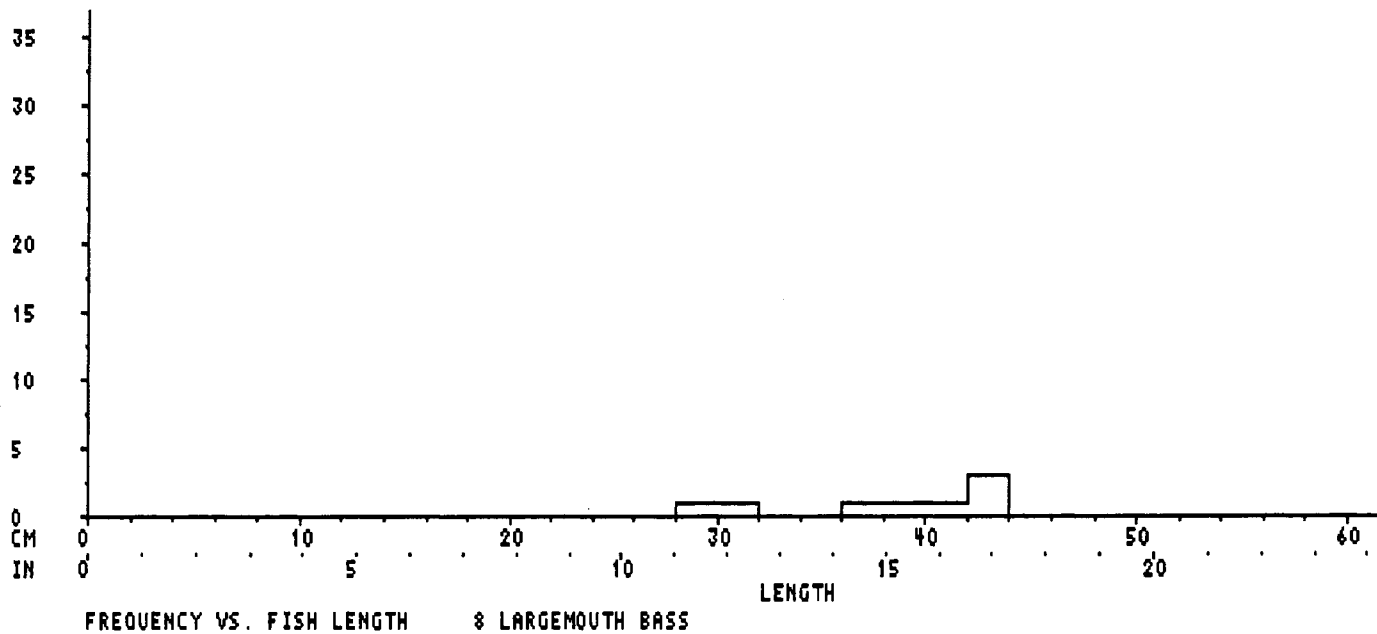


Figure 9. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

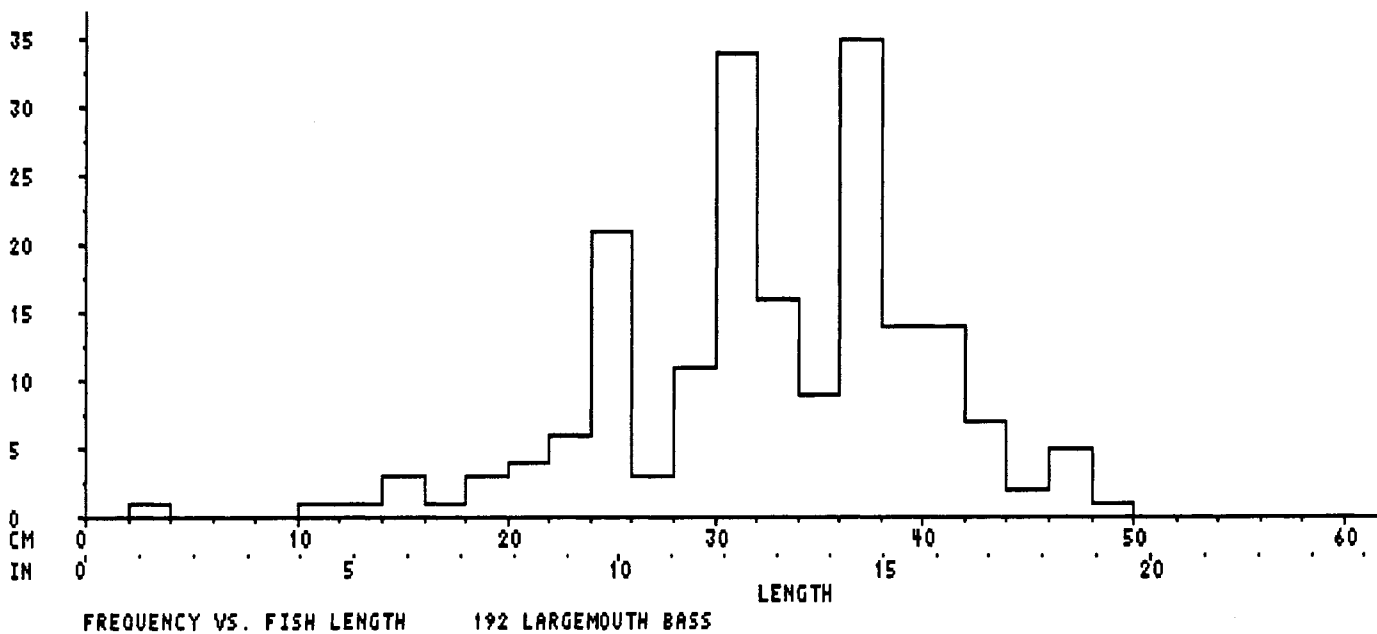


Figure 10. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of largemouth bass released by all anglers.

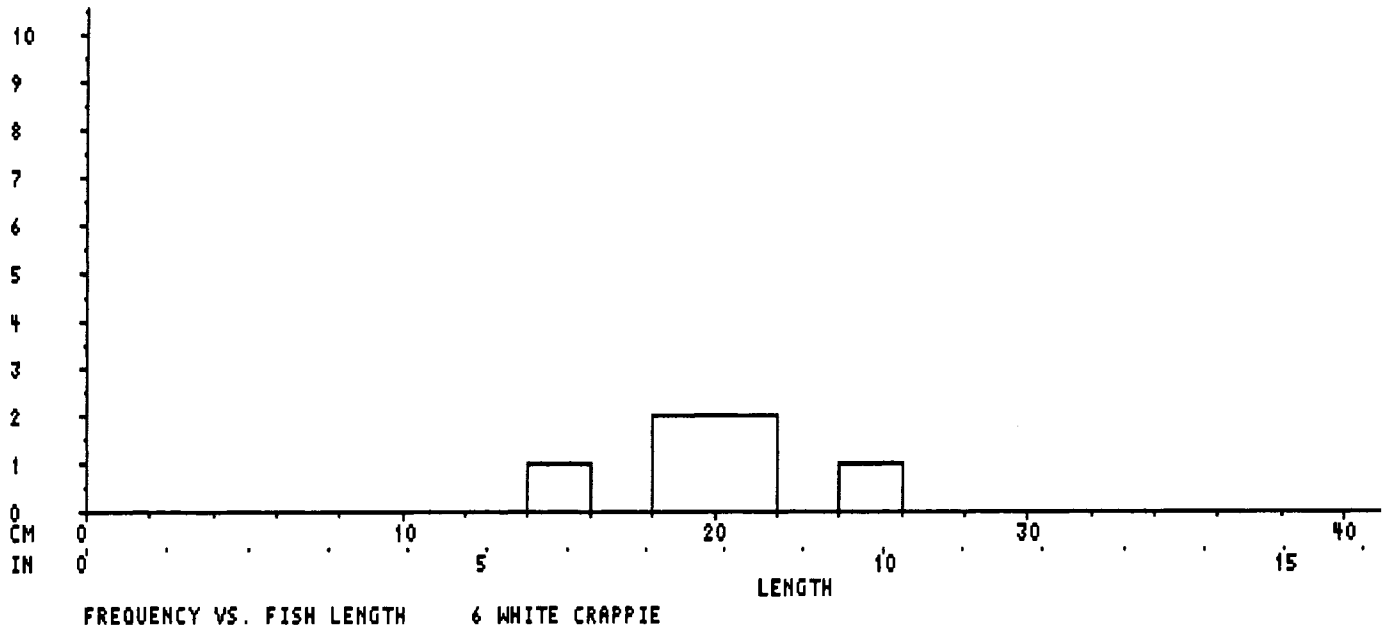


Figure 11. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

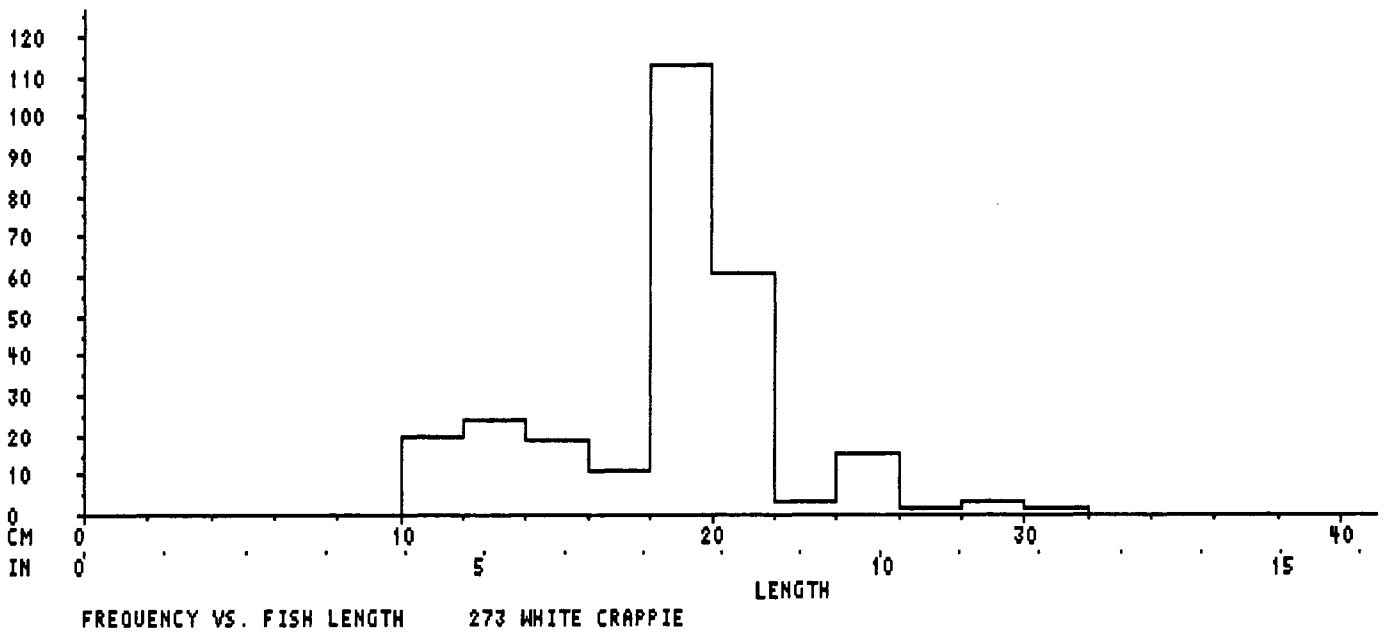


Figure 12. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of white crappie released by all anglers. Note the difference in scale from Figure 11.

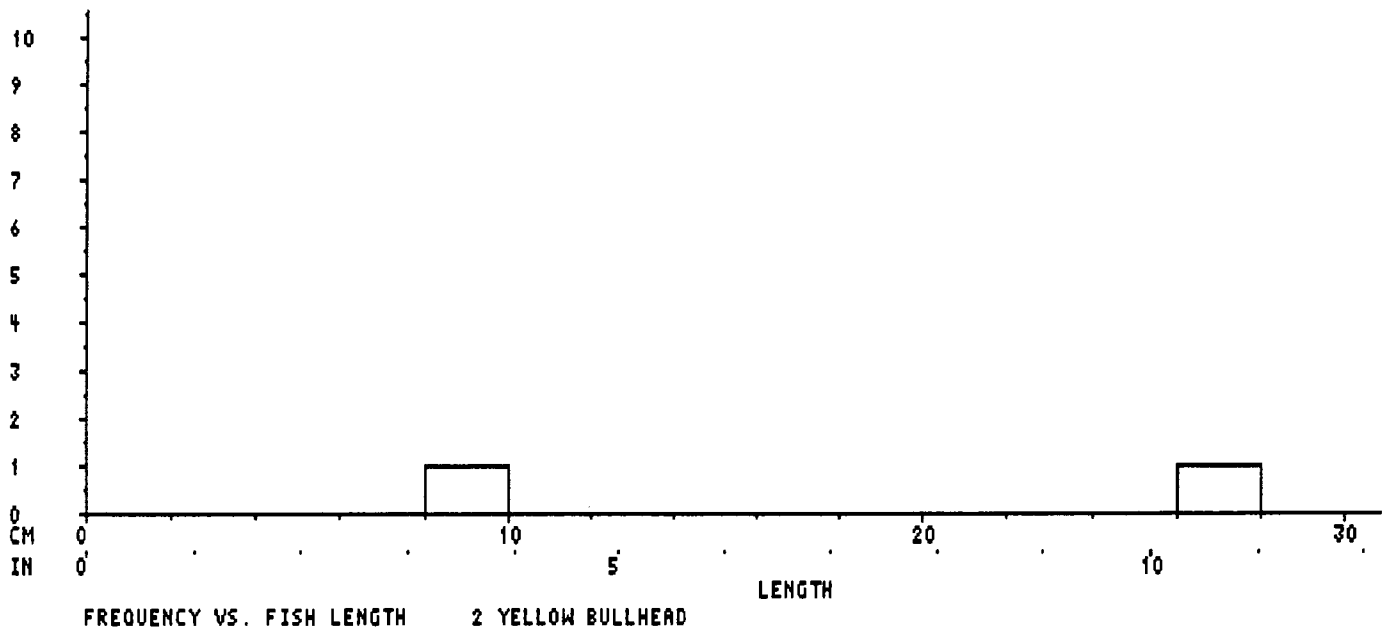


Figure 13. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of yellow bullhead harvested by all anglers.

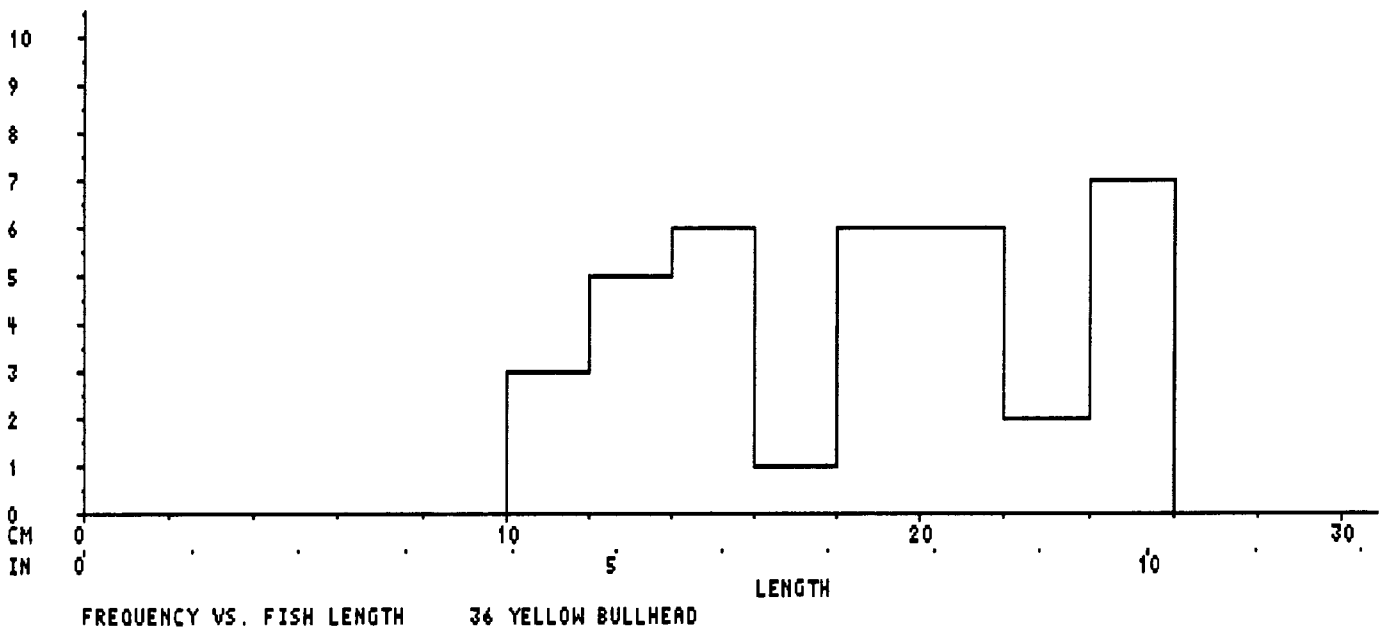


Figure 14. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of yellow bullhead released by all anglers.

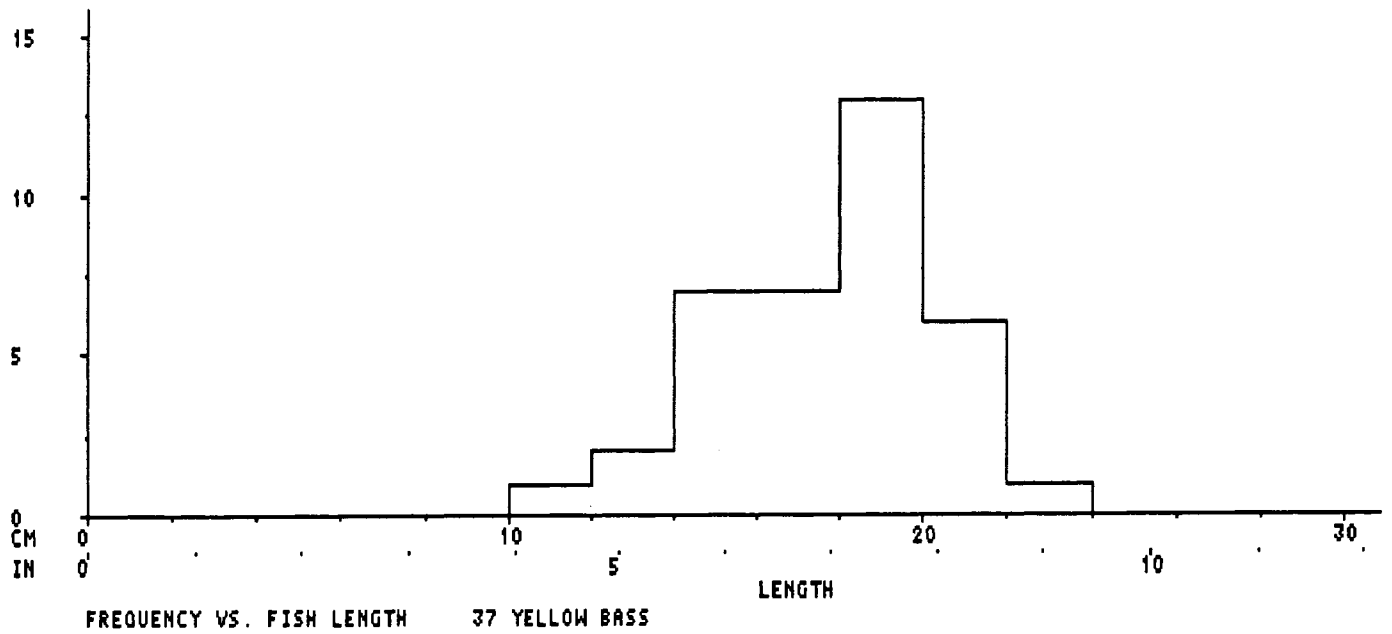


Figure 15. Paris Lake West 1999 day creel 4/09 through 10/31. Length-frequency histogram of yellow bass released by all anglers. Note that zero harvested yellow bass were recorded in angler interviews.

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

1999 PIERCE LAKE
 147 ACRES
 REGION 1, DISTRICT 1

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: 4805

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	8187	7035-9338 (14%)	56	48-64 (14%)	20%
	HOLIDAY	10888	9823-11953 (10%)	74	67-81 (10%)	50%
	TOTAL	19075	17507-20643 (8%)	130	119-141 (8%)	37%
SHORE	WEEKDAY	18405	15971-20838 (13%)	125	109-142 (13%)	14%
	HOLIDAY	22311	19804-24819 (11%)	152	135-169 (11%)	33%
	TOTAL	40716	37222-44210 (9%)	277	253-301 (9%)	25%
BOAT & SHORE	WEEKDAY	26591	23899-29283 (10%)	181	163-199 (10%)	16%
	HOLIDAY	33200	30476-35924 (8%)	226	207-245 (8%)	39%
	TOTAL	59791	55961-63621 (6%)	407	381-433 (6%)	29%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
7010	6018-8002	(14%)	.126	.101-.152 (20%)	117.91	47.72	All species
3342	2560-4124	(23%)	.072	.049-.095 (32%)	56.21	22.75	Black crappie
1190	714-1666	(40%)	.016	.007-.026 (59%)	20.02	8.10	Bluegill
17	0-34	(103%)	.000	.000-.000 (126%)	0.28	0.11	Brown bullhead
103	45-161	(56%)	.000	.000-.001 (73%)	1.73	0.70	Carp
1597	1313-1880	(18%)	.023	.017-.028 (23%)	26.86	10.87	Channel catfish
59	24-95	(60%)	.000	.000-.001 (67%)	1.00	0.40	Largemouth bass
1	0-4	(318%)	.000	.000-.000 (430%)	0.02	0.01	Muskellunge
3	0-11	(236%)	.000	.000-.000 (236%)	0.06	0.02	Northern pike
			****	NOT RECORDED ****			Pumpkinseed
2	0-7	(231%)	.000	.000-.000 (231%)	0.04	0.01	Rock bass
			****	NOT RECORDED ****			Redear sunfish
			****	NOT RECORDED ****			Striped bass hybrid
43	0-90	(109%)	.000	.000-.001 (115%)	0.72	0.29	Smallmouth bass
608	404-812	(34%)	.013	.008-.019 (39%)	10.22	4.14	Walleye
5	0-14	(167%)	.000	.000-.000 (176%)	0.09	0.03	White bass
24	0-58	(141%)	.000	.000-.000 (123%)	0.40	0.16	Yellow bullhead
16	0-39	(147%)	.000	.000-.000 (204%)	0.27	0.11	Yellow perch

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

KG HARVESTED	95% CI		KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
2069	1769-2368	(14%)	.036	.029-.042 (18%)	34.79	0.295	All species
620	462-778	(25%)	.014	.009-.018 (32%)	10.43	0.186	Black crappie
52	34-69	(34%)	.001	.000-.001 (63%)	0.87	0.043	Bluegill
4	0-8	(103%)	.000	.000-.000 (124%)	0.07	0.243	Brown bullhead
177	68-285	(61%)	.001	.000-.002 (92%)	2.97	1.714	Carp
725	596-855	(18%)	.010	.008-.012 (22%)	12.20	0.455	Channel catfish
27	7-48	(75%)	.000	.000-.000 (88%)	0.46	0.463	Largemouth bass
1	0-7	(430%)	.000	.000-.000 (318%)	0.02	1.368	Muskellunge
6	0-19	(236%)	.000	.000-.000 (245%)	0.09	1.866	Northern pike
			****	NOT RECORDED ****			Pumpkinseed
0	0-1	(236%)	.000	.000-.000 (231%)	0.00	0.102	Rock bass
			****	NOT RECORDED ****			Redear sunfish
			****	NOT RECORDED ****			Striped bass hybrid
15	0-30	(103%)	.000	.000-.000 (110%)	0.25	0.353	Smallmouth bass
432	276-589	(36%)	.010	.005-.015 (52%)	7.27	0.712	Walleye
1	0-3	(167%)	.000	.000-.000 (176%)	0.02	0.195	White bass
7	0-18	(135%)	.000	.000-.000 (116%)	0.13	0.324	Yellow bullhead
1	0-2	(131%)	.000	.000-.000 (300%)	0.02	0.057	Yellow perch

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

LB HARVESTED	95% CI		LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
4560	3900-5220	(14%)	.079	.064-.093 (18%)	31.04	0.651	All species
1367	1019-1714	(25%)	.030	.021-.040 (32%)	9.30	0.409	Black crappie
114	75-152	(34%)	.002	.001-.003 (63%)	0.78	0.096	Bluegill
9	0-17	(103%)	.000	.000-.000 (124%)	0.06	0.535	Brown bullhead
389	150-628	(61%)	.002	.000-.004 (92%)	2.65	3.778	Carp
1599	1313-1886	(18%)	.022	.017-.027 (22%)	10.89	1.002	Channel catfish
60	15-106	(75%)	.000	.000-.001 (88%)	0.41	1.022	Largemouth bass
3	0-13	(318%)	.000	.000-.000 (318%)	0.02	3.015	Muskellunge
12	0-42	(236%)	.000	.000-.000 (245%)	0.08	4.115	Northern pike
			****	NOT RECORDED ****			Pumpkinseed
0	0-2	(236%)	.000	.000-.000 (236%)	0.00	0.226	Rock bass
			****	NOT RECORDED ****			Redear sunfish
			****	NOT RECORDED ****			Striped bass hybrid
33	0-67	(103%)	.000	.000-.000 (110%)	0.22	0.779	Smallmouth bass
953	608-1298	(36%)	.022	.010-.033 (52%)	6.49	1.570	Walleye
2	0-6	(167%)	.000	.000-.000 (176%)	0.01	0.430	White bass
16	0-39	(135%)	.000	.000-.000 (116%)	0.11	0.715	Yellow bullhead
2	0-5	(131%)	.000	.000-.000 (300%)	0.01	0.125	Yellow perch

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
34338	30498-38178 (11%)	.548	.491-.605 (10%)	577.60	233.75	All species
8018	6190-9846 (23%)	.177	.135-.220 (24%)	134.88	54.58	Black crappie
17026	14099-19953 (17%)	.207	.172-.242 (17%)	286.39	115.90	Bluegill
73	36-110 (51%)	.003	.000-.010 (281%)	1.22	0.50	Brown bullhead
144	80-208 (44%)	.001	.000-.001 (58%)	2.43	0.98	Carp
3616	3074-4158 (15%)	.063	.051-.076 (20%)	60.82	24.61	Channel catfish
3153	2404-3902 (24%)	.053	.040-.066 (25%)	53.03	21.46	Largemouth bass
50	20-80 (59%)	.001	.000-.003 (117%)	0.84	0.34	Muskellunge
49	10-87 (80%)	.001	.000-.005 (235%)	0.82	0.33	Northern pike
10	0-29 (184%)	.000	.000-.000 (200%)	0.17	0.07	Pumpkinseed
186	77-295 (59%)	.002	.000-.004 (93%)	3.12	1.26	Rock bass
3	0-11 (257%)	.000	.000-.000 (278%)	0.05	0.02	Redear sunfish
19	0-58 (209%)	.000	.000-.000 (210%)	0.31	0.13	Striped bass hybrid
489	329-649 (33%)	.007	.004-.010 (39%)	8.23	3.33	Smallmouth bass
1234	963-1504 (22%)	.029	.021-.037 (29%)	20.75	8.40	Walleye
61	19-103 (68%)	.001	.000-.001 (92%)	1.03	0.42	White bass
80	2-158 (97%)	.000	.000-.001 (104%)	1.35	0.55	Yellow bullhead
127	43-211 (66%)	.002	.000-.004 (79%)	2.13	0.86	Yellow perch

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

KG CAUGHT	95% CI	KG/HOUR	95% CI	KG/HA	AVE KG	SPECIES
5057	4534-5579 (10%)	.093	.080-.105 (13%)	85.06	0.147	All species
912	724-1100 (21%)	.020	.016-.025 (24%)	15.34	0.114	Black crappie
613	495-732 (19%)	.008	.006-.009 (21%)	10.32	0.036	Bluegill
15	7-23 (56%)	.000	.000-.002 (300%)	0.25	0.209	Brown bullhead
225	113-338 (50%)	.001	.000-.002 (72%)	3.79	1.565	Carp
1210	1011-1410 (16%)	.019	.015-.022 (19%)	20.36	0.335	Channel catfish
1102	850-1354 (23%)	.022	.015-.029 (33%)	18.54	0.350	Largemouth bass
101	31-171 (70%)	.003	.000-.007 (171%)	1.69	2.013	Muskellunge
48	8-88 (83%)	.001	.000-.005 (242%)	0.81	1.003	Northern pike
0	0-1 (162%)	.000	.000-.000 (189%)	0.00	0.029	Pumpkinseed
17	4-31 (77%)	.000	.000-.001 (147%)	0.29	0.094	Rock bass
0	0-0 (257%)	.000	.000-.000 (278%)	0.00	0.035	Redear sunfish
6	0-18 (210%)	.000	.000-.000 (209%)	0.10	0.321	Striped bass hybrid
135	92-178 (32%)	.003	.001-.004 (66%)	2.27	0.276	Smallmouth bass
631	456-805 (28%)	.015	.009-.020 (39%)	10.61	0.511	Walleye
12	1-23 (89%)	.000	.000-.000 (126%)	0.21	0.204	White bass
24	3-44 (87%)	.000	.000-.000 (134%)	0.40	0.294	Yellow bullhead
4	2-7 (63%)	.000	.000-.000 (60%)	0.07	0.035	Yellow perch

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

LB CAUGHT	95% CI	LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
11148	9996-12300 (10%)	.204	.177-.232 (13%)	75.89	0.325	All species
2011	1596-2426 (21%)	.045	.034-.055 (24%)	13.69	0.251	Black crappie
1352	1092-1613 (19%)	.017	.014-.021 (21%)	9.21	0.079	Bluegill
33	15-52 (56%)	.001	.000-.004 (300%)	0.23	0.461	Brown bullhead
497	248-745 (50%)	.003	.001-.005 (72%)	3.38	3.449	Carp
2668	2229-3108 (16%)	.041	.034-.049 (19%)	18.16	0.738	Channel catfish
2430	1874-2985 (23%)	.048	.032-.064 (33%)	16.54	0.771	Largemouth bass
222	68-376 (70%)	.006	.000-.017 (171%)	1.51	4.438	Muskellunge
106	18-194 (83%)	.003	.000-.011 (242%)	0.72	2.211	Northern pike
1	0-2 (162%)	.000	.000-.000 (189%)	0.00	0.064	Pumpkinseed
38	9-68 (77%)	.000	.000-.001 (147%)	0.26	0.207	Rock bass
0	0-1 (278%)	.000	.000-.000 (278%)	0.00	0.078	Redear sunfish
13	0-39 (210%)	.000	.000-.000 (209%)	0.09	0.707	Striped bass hybrid
298	204-391 (32%)	.006	.002-.009 (66%)	2.03	0.609	Smallmouth bass
1390	1006-1775 (28%)	.032	.020-.045 (39%)	9.46	1.128	Walleye
27	3-52 (89%)	.000	.000-.001 (126%)	0.19	0.450	White bass
52	7-97 (87%)	.000	.000-.001 (134%)	0.35	0.649	Yellow bullhead
10	4-16 (63%)	.000	.000-.000 (60%)	0.07	0.076	Yellow perch

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

	MEAN	95% CI		MIN	MAX	#SAMPLES
HOURS PER COMPLETED TRIP*						
BOAT	3.3	3.1-3.4	(4%)	0.3	12.8	668
SHORE	2.3	2.1-2.5	(8%)	0.2	9.5	225
BOAT & SHORE	3.0	2.9-3.2	(4%)	0.2	12.8	893
MILES TRAVELED	17.6	15.5-19.7	(12%)	1	3000	3734
SUCCESS RATING (1-10)	3.3	3.2-3.4	(3%)	1	10	3725

*385 samples were from split interviews of completed trips.

20.2% of all 4416 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 60 out of 4416 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	459	840	201	55	12					
SHORE INTERVIEWS	1018	1052	351	204	95	55	22	11	17	24

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

2032 (46.0%)	ANY	All species
653 (14.8%)	BLC	Black crappie
209 (4.7%)	BLG	Bluegill
1 (0.0%)	BRB	Brown bullhead
28 (0.6%)	CAP	Carp
96 (2.2%)	CAT	Catfish spp.
437 (9.9%)	CCF	Channel catfish
14 (0.3%)	CRP	Crappie spp.
433 (9.8%)	LMB	Largemouth bass
55 (1.2%)	MUE	Muskellunge
8 (0.2%)	NOP	Northern pike
8 (0.2%)	SMB	Smallmouth bass
439 (9.9%)	WAE	Walleye
1 (0.0%)	WHB	White bass

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 crappie																
HARVEST	1615	19	26	17	9	6	4	6	7	-	3	-	-	-	-	1
RELEASE	1581	60	31	6	5	6	3	1	4	1	4	-	2	4	-	5
Bluegill																
HARVEST	1684	17	-	8	-	-	4	-	-	-	-	-	-	-	-	-
RELEASE	1411	157	53	42	10	16	7	-	4	-	7	-	2	-	-	4
Brown bullhead																
HARVEST	1713	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1711	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carp																
HARVEST	1709	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1710	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	1624	61	23	3	-	-	2	-	-	-	-	-	-	-	-	-
RELEASE	1578	104	16	9	2	2	1	-	-	-	-	-	1	-	-	-
Largemouth bass																
HARVEST	1711	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1480	168	45	11	5	1	2	-	1	-	-	-	-	-	-	-
Muskellunge																
HARVEST	1712	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1703	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern pike																
HARVEST	1713	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1704	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rock bass																
HARVEST	1713	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1710	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Smallmouth bass																
HARVEST	1711	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1674	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Walleye																
HARVEST	1647	55	7	3	-	1	-	-	-	-	-	-	-	-	-	-
RELEASE	1613	86	11	3	-	-	-	-	-	-	-	-	-	-	-	-
White bass																
HARVEST	1711	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1711	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1999 PIERCE LAKE

DAY CREEL

03/15/1999 - 10/31/1999

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+
Yellow bullhead																
HARVEST 1712		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1713		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow perch																
HARVEST 1710		2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1710		2	-	-	1	-	-	-	-	-	-	-	-	-	-	-

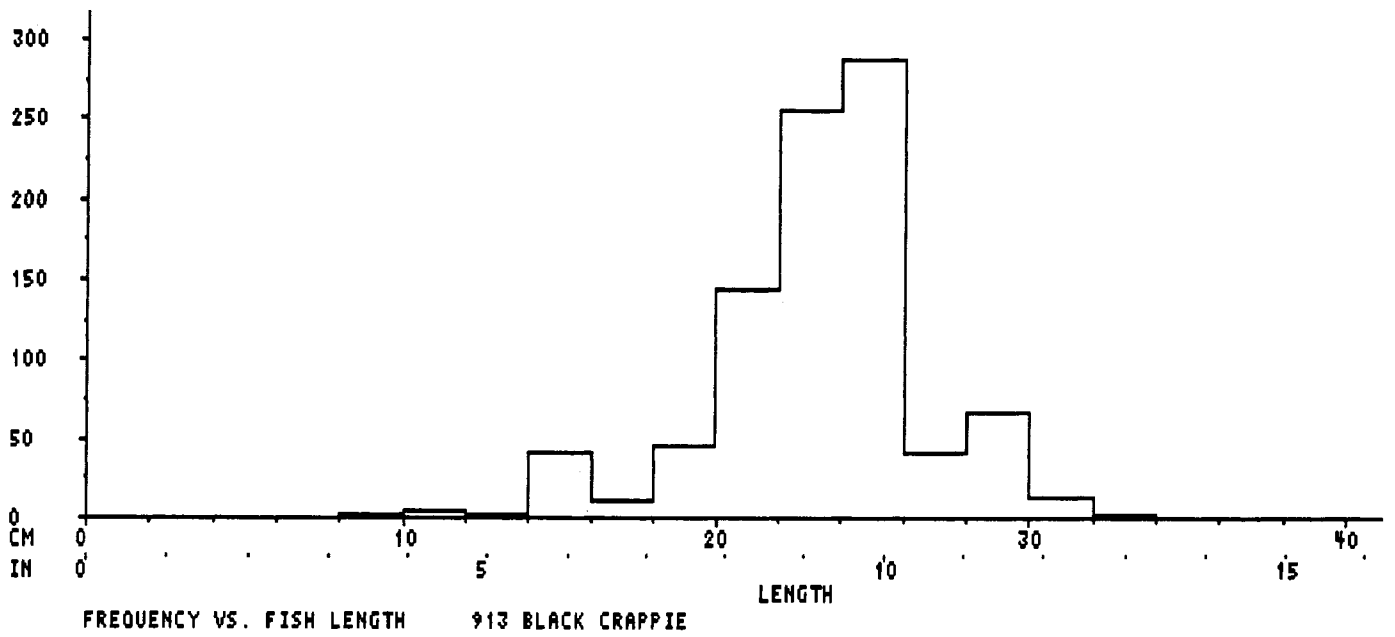


Figure 1. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

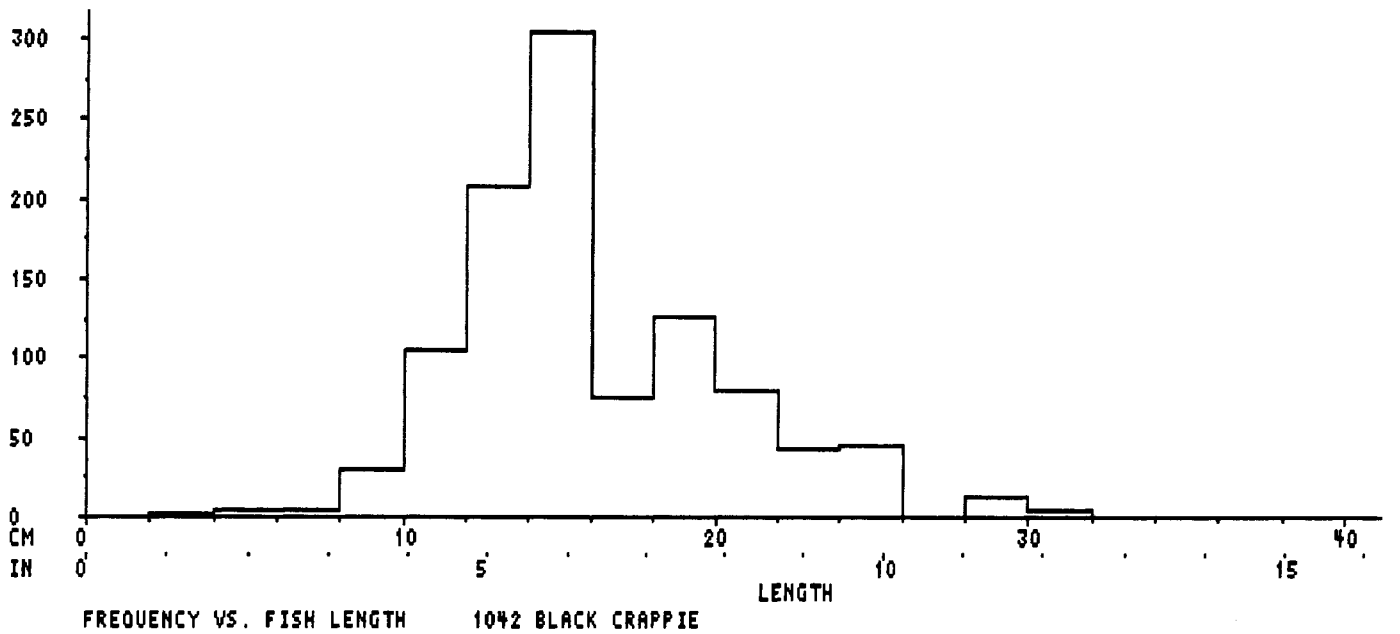


Figure 2. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

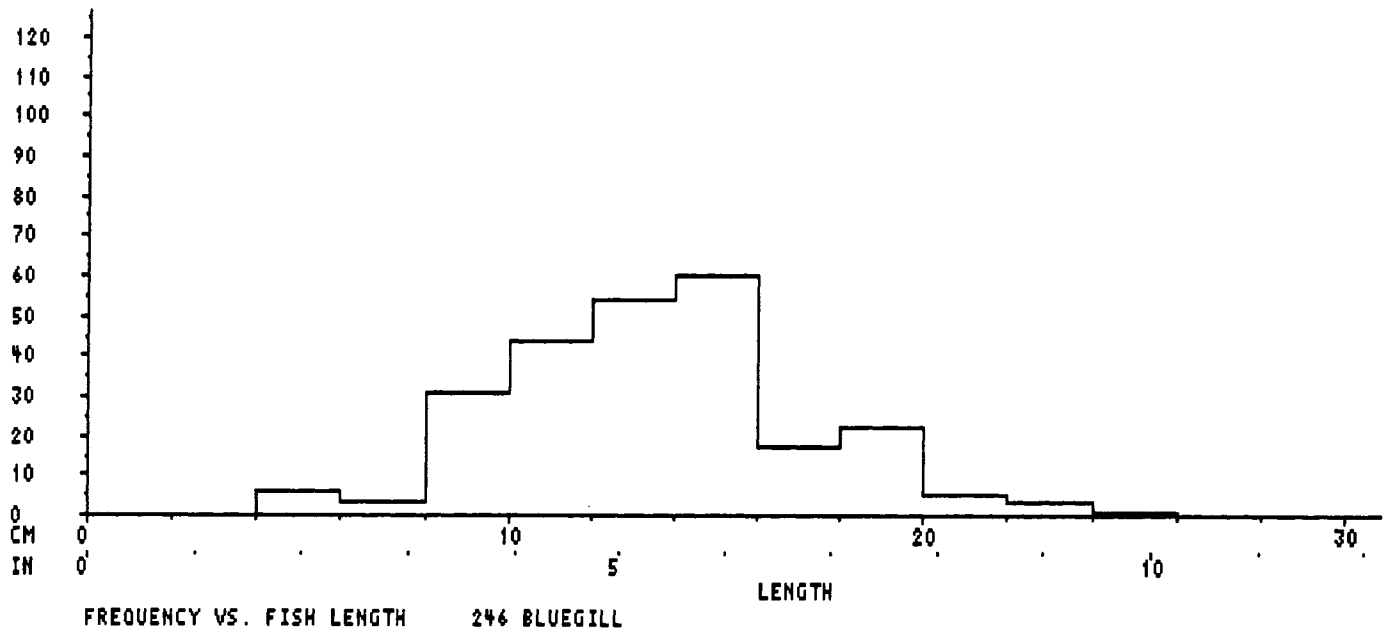


Figure 3. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

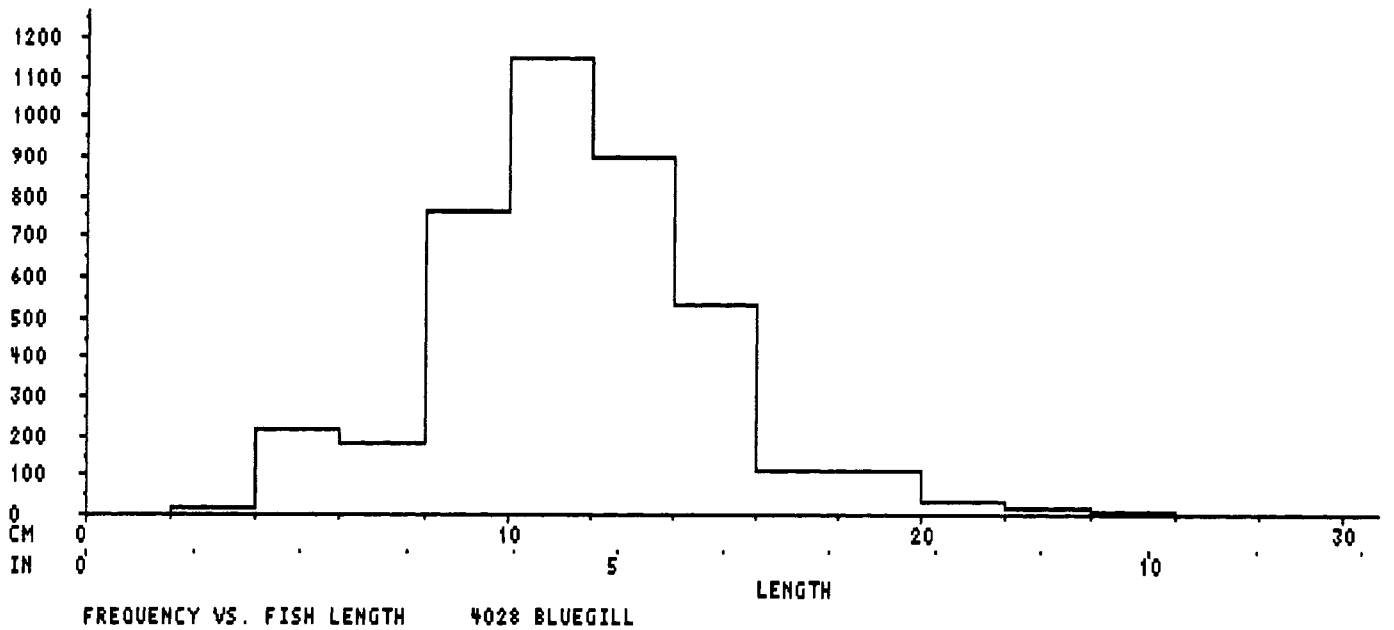


Figure 4. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers. Note the difference in scale from Figure 3.

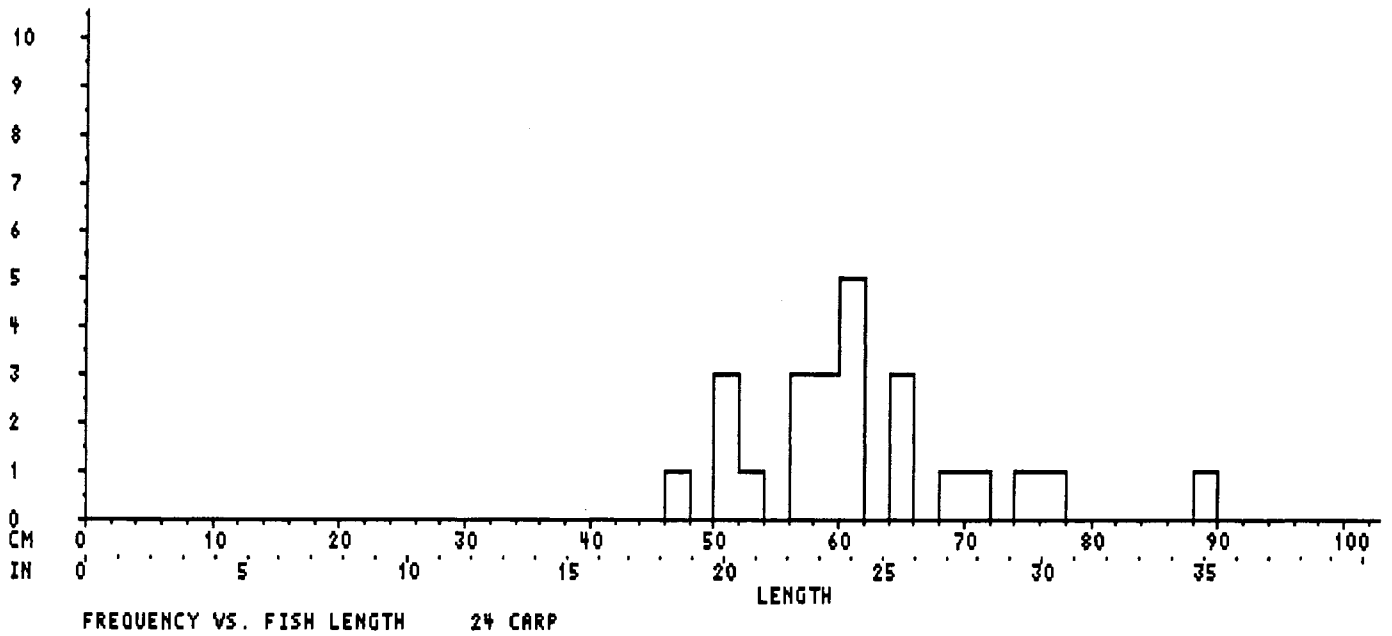


Figure 5. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp harvested by all anglers.

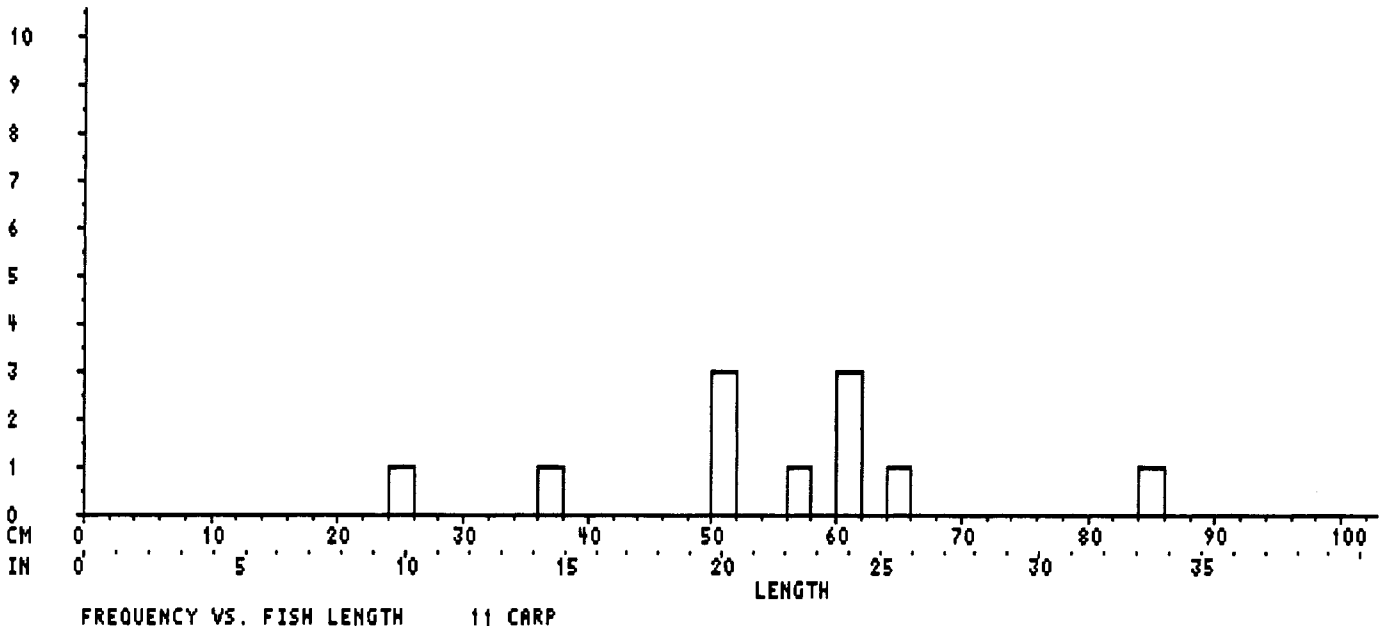


Figure 6. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp released by all anglers.

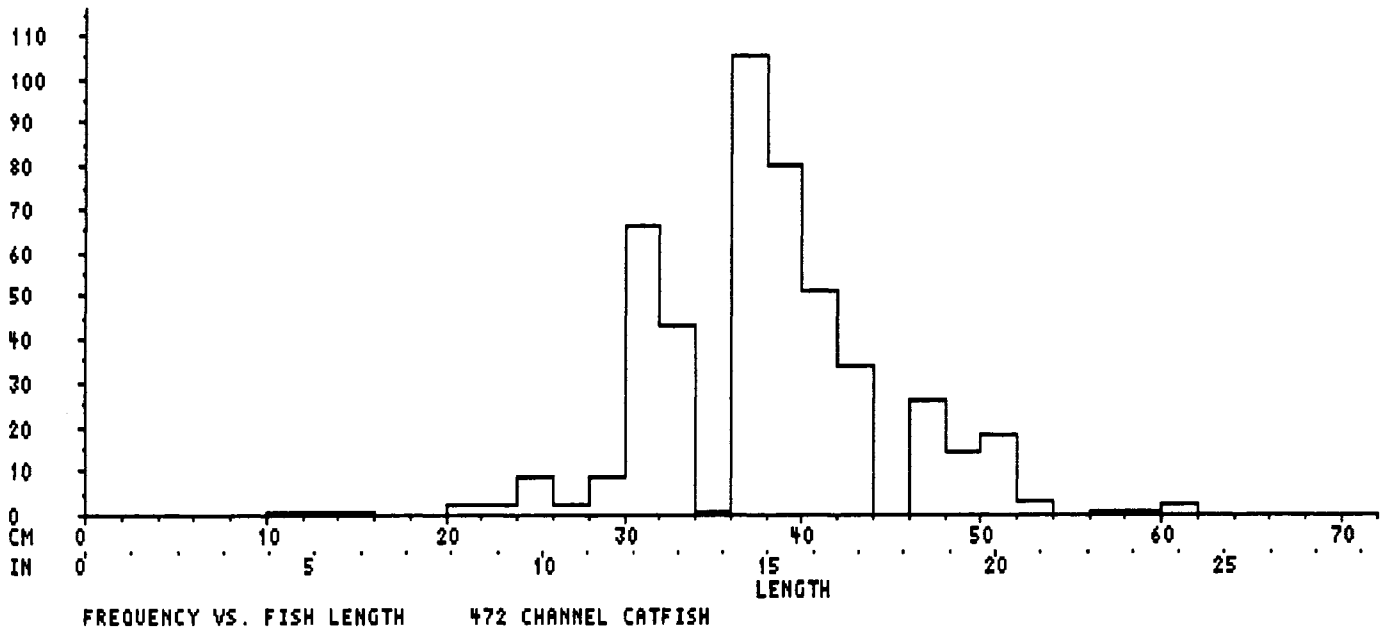


Figure 7. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

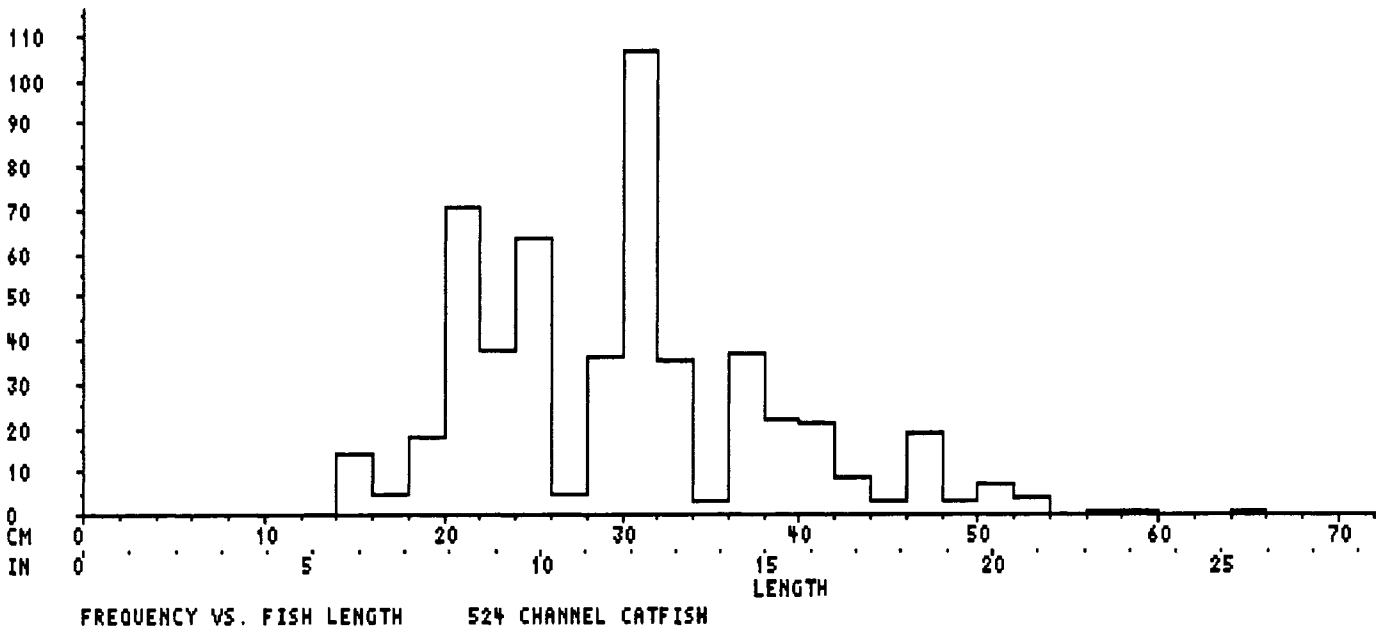


Figure 8. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

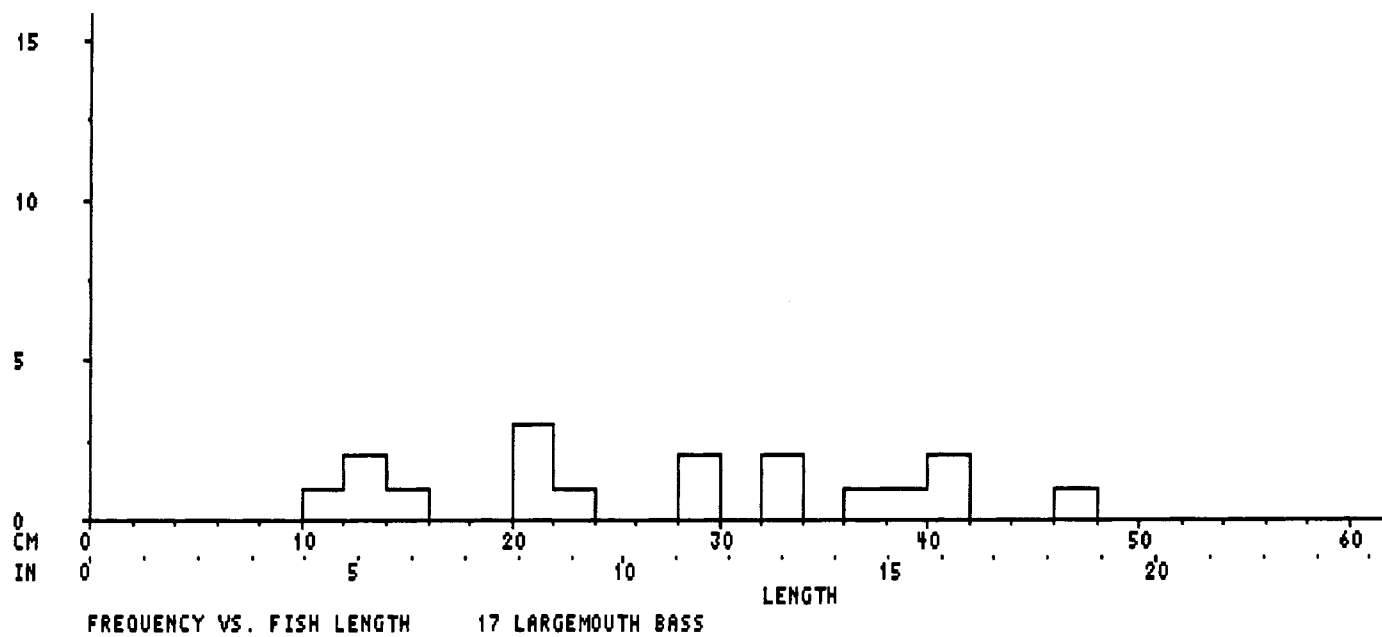


Figure 9. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

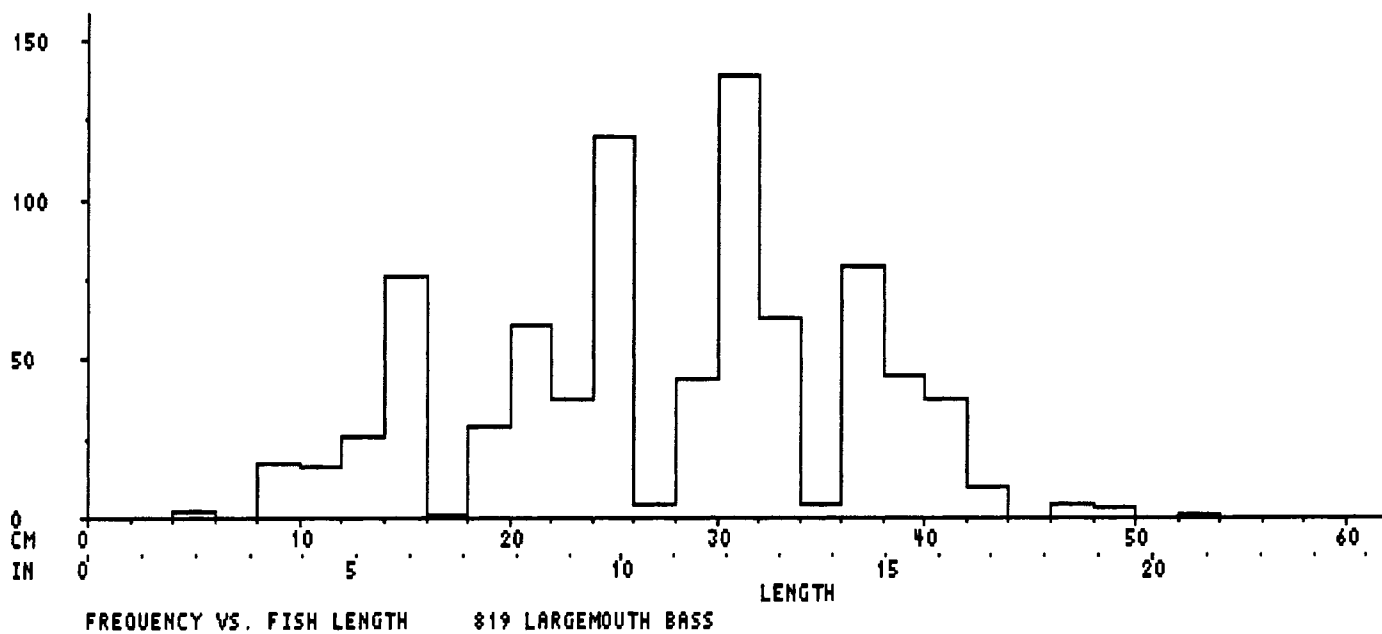


Figure 10. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 9.

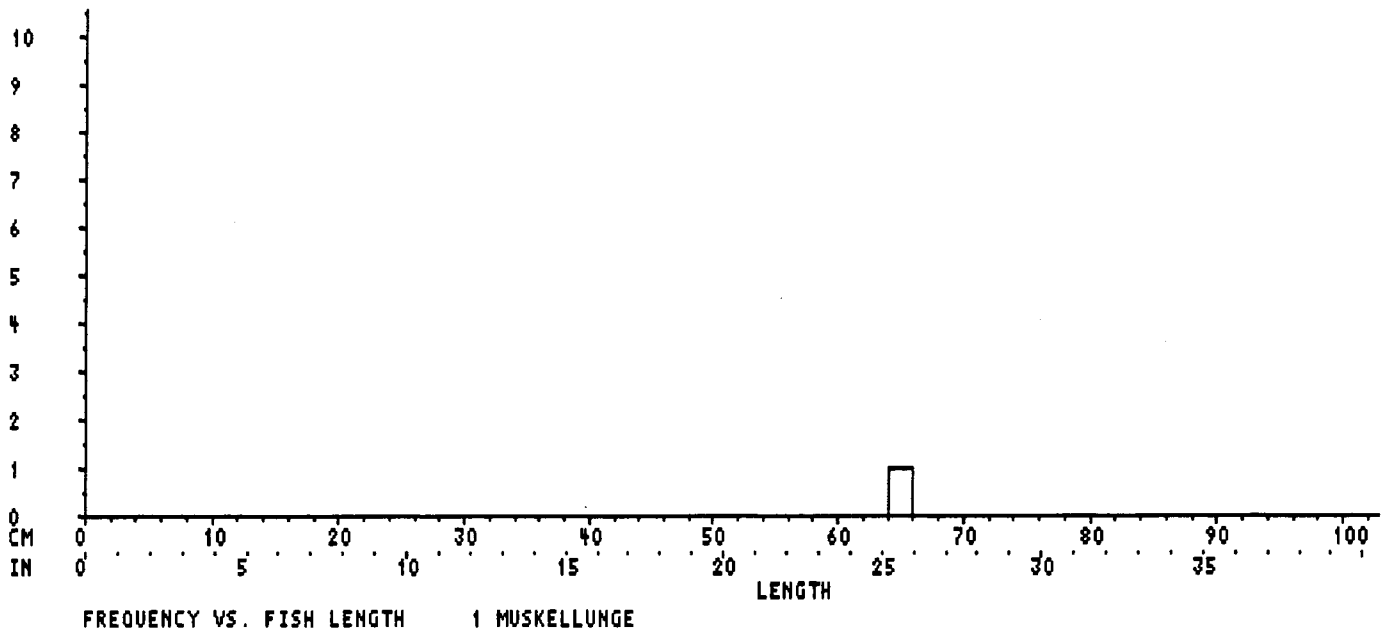


Figure 11. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of muskellunge harvested by all anglers.

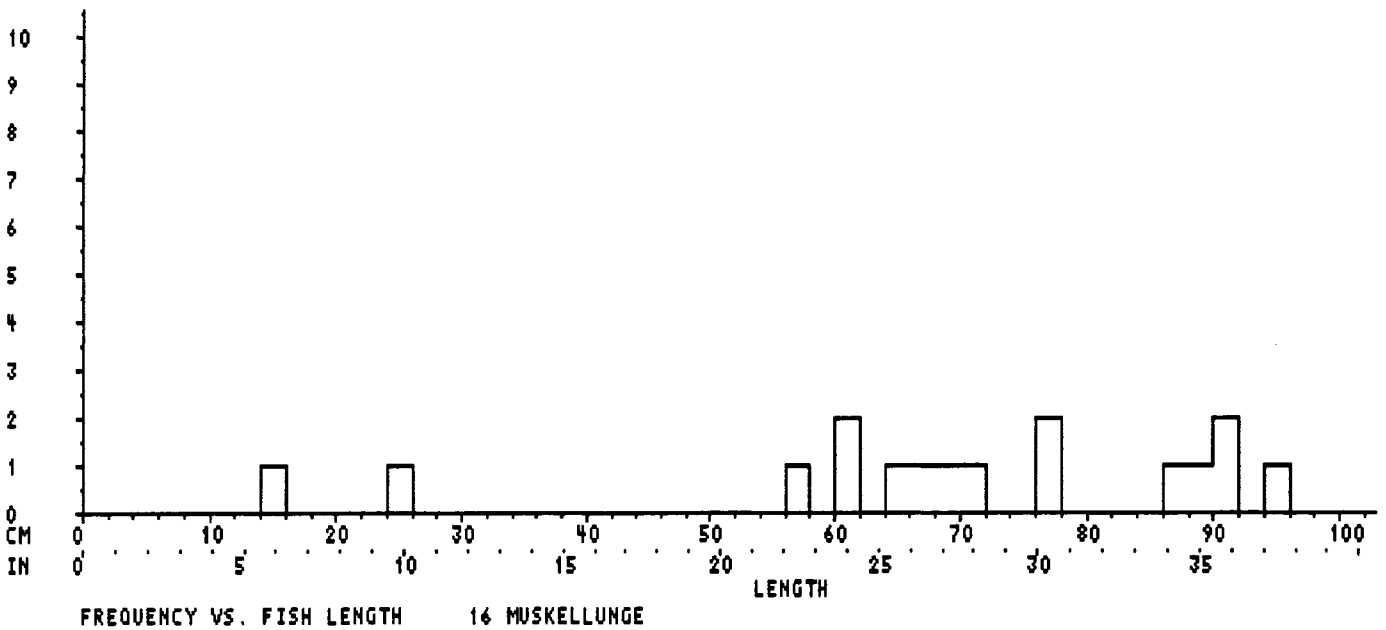


Figure 12. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of muskellunge released by all anglers.

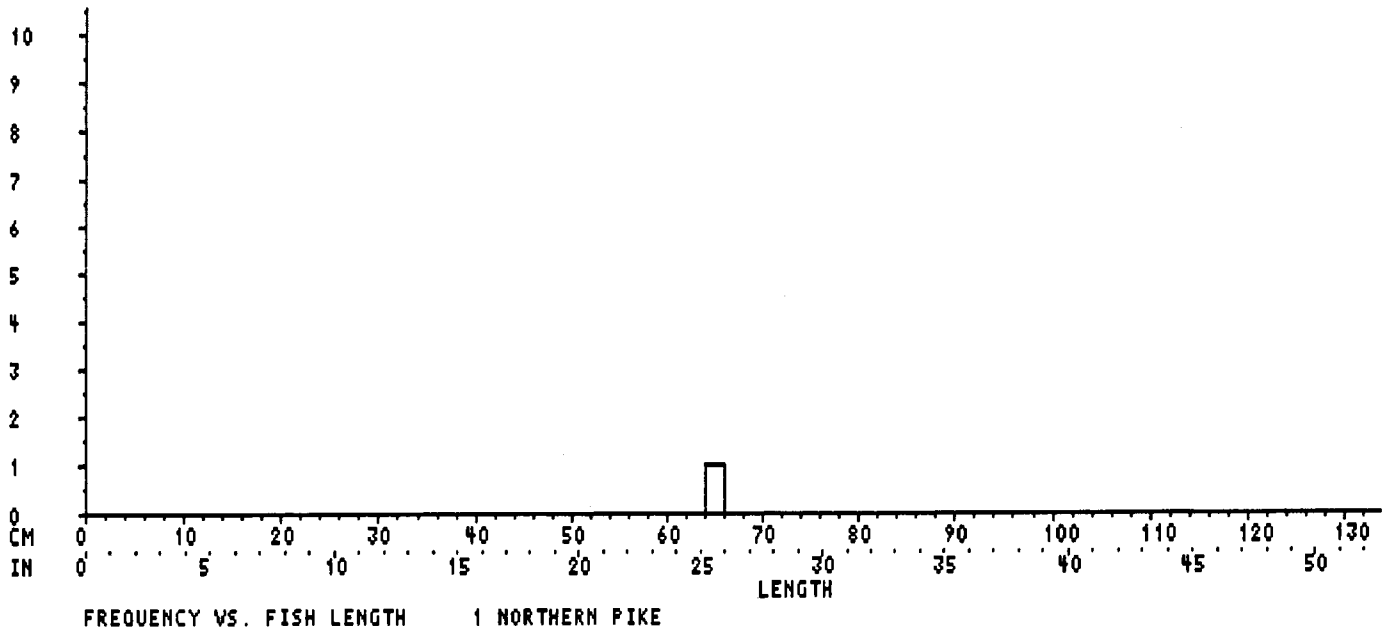


Figure 13. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of northern pike harvested by all anglers.

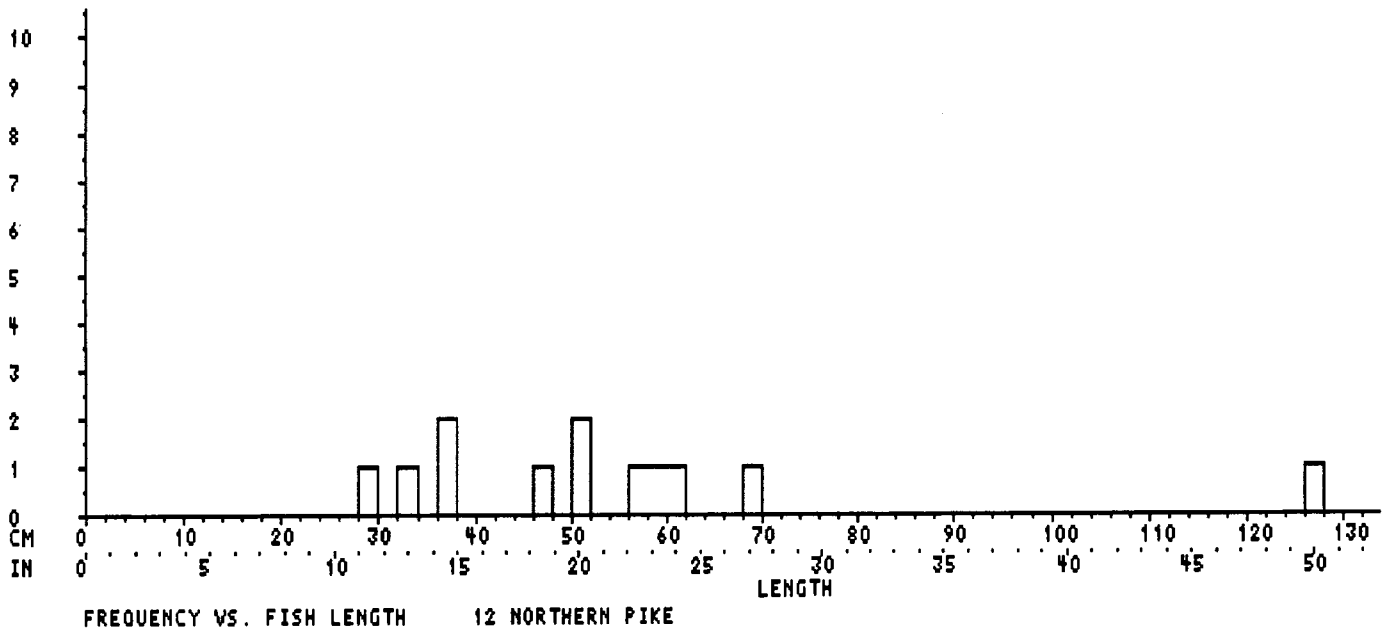


Figure 14. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of northern pike released by all anglers.

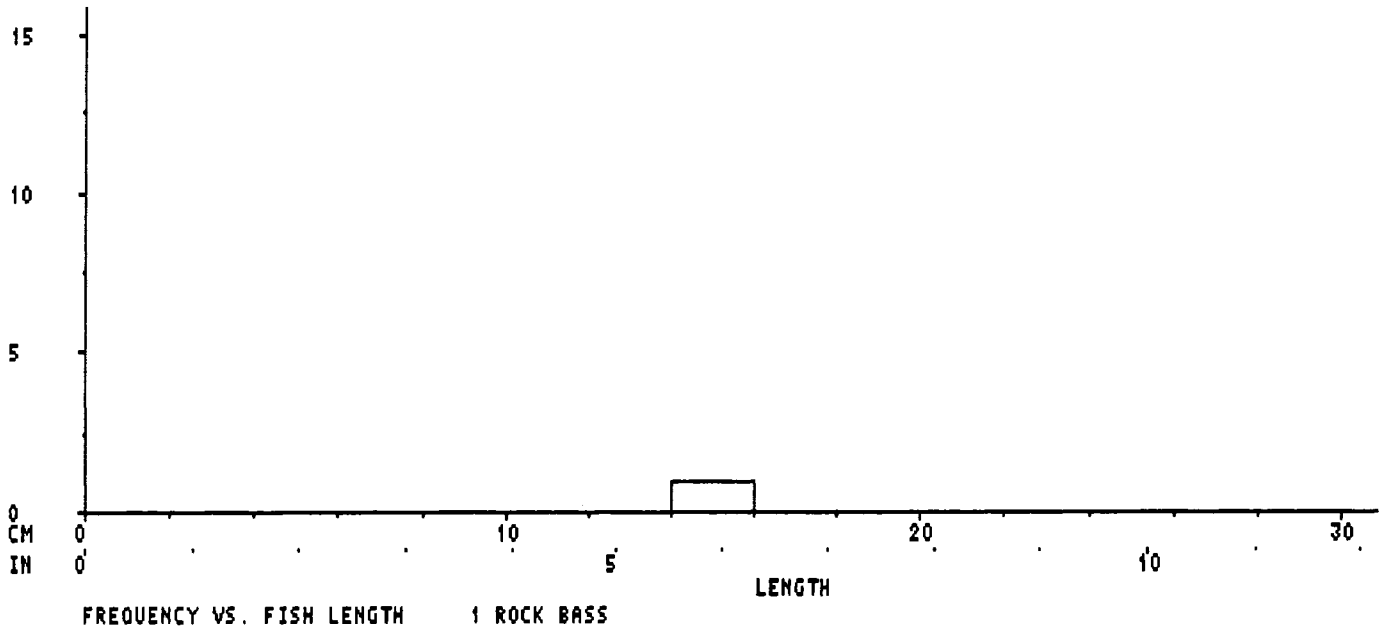


Figure 15. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of rock bass harvested by all anglers.

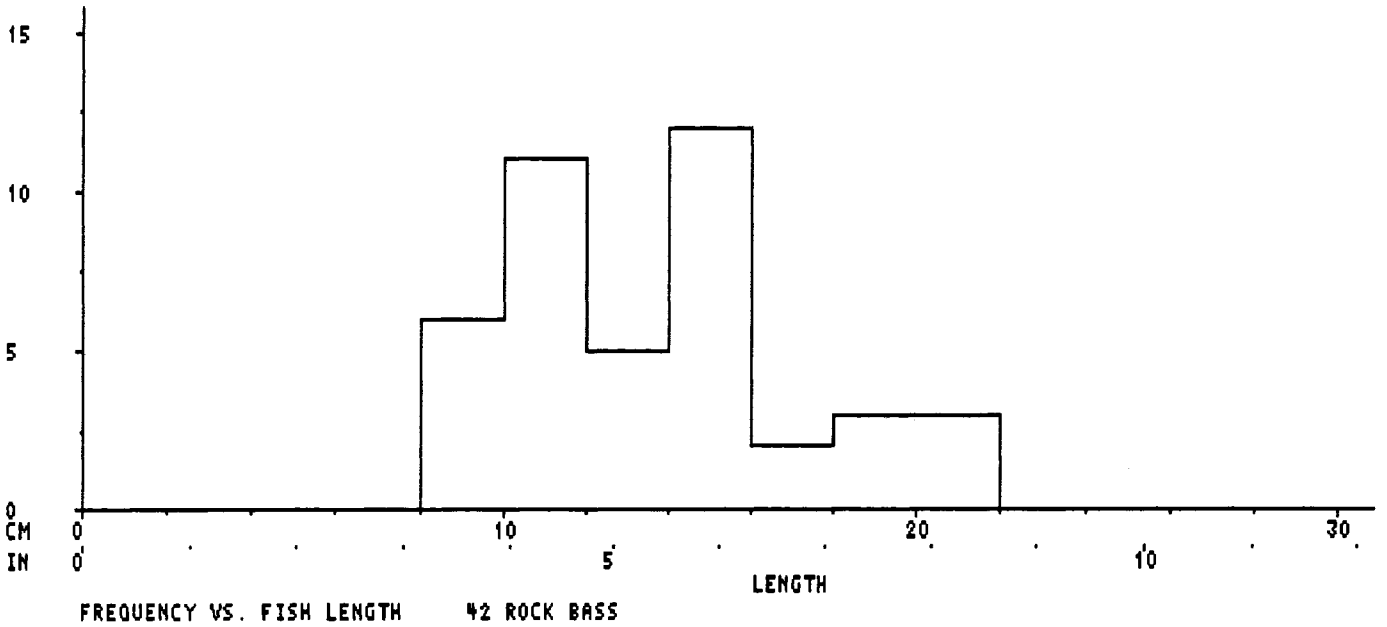


Figure 16. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of rock bass released by all anglers.

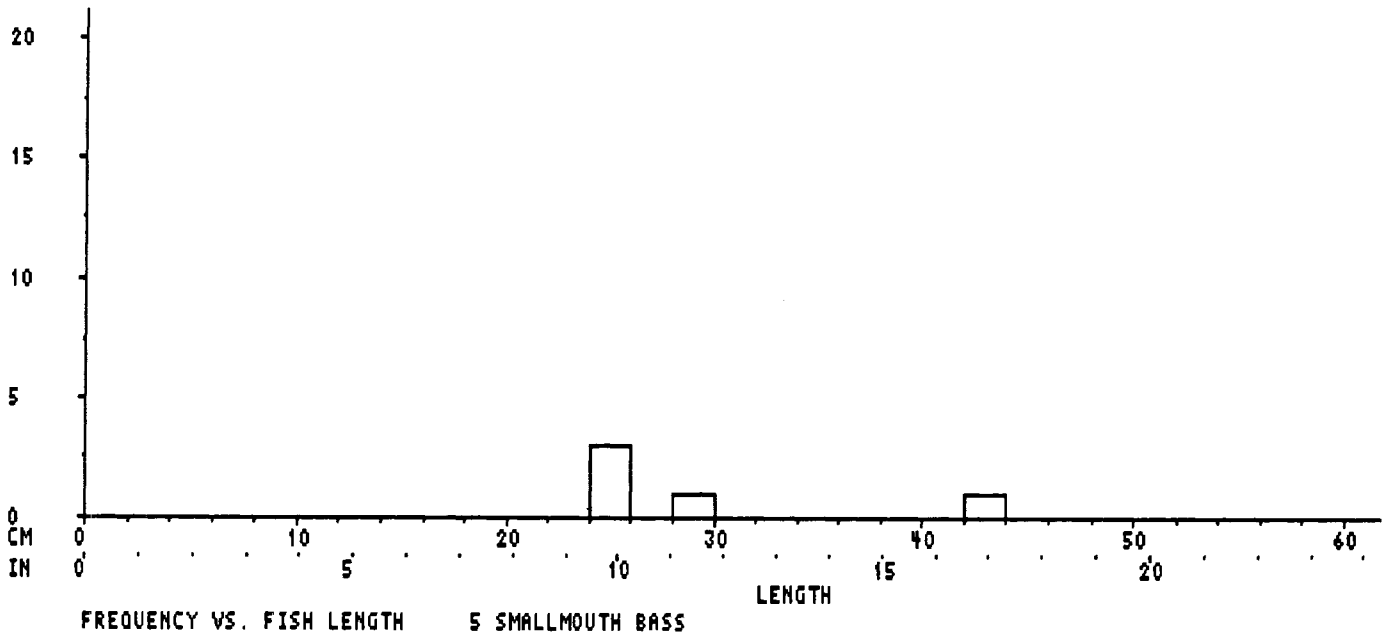


Figure 17. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of smallmouth bass harvested by all anglers.

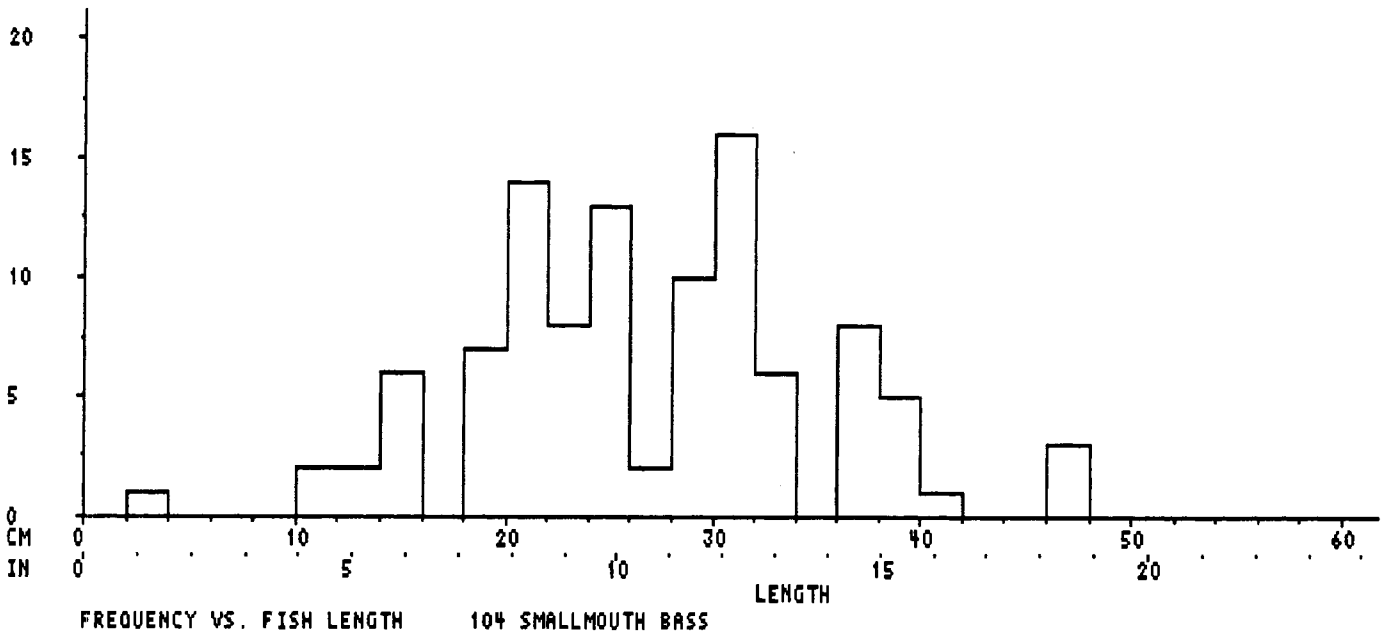


Figure 18. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of smallmouth bass released by all anglers.

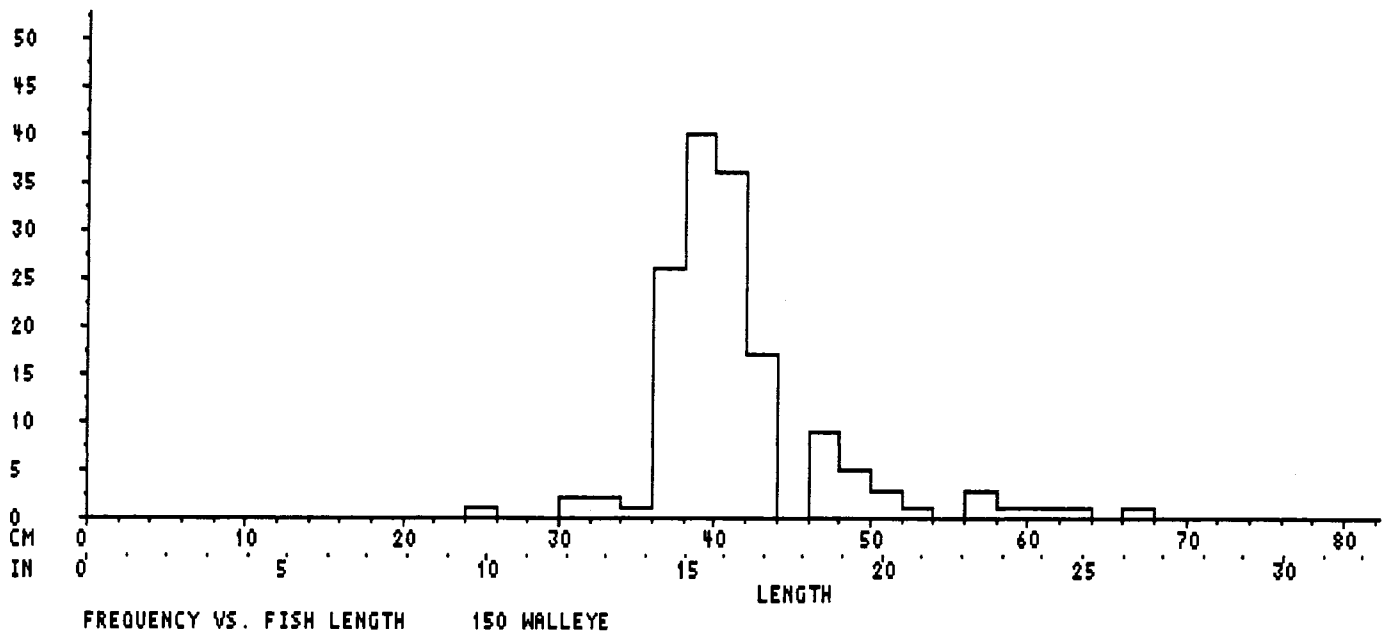


Figure 19. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of walleye harvested by all anglers.

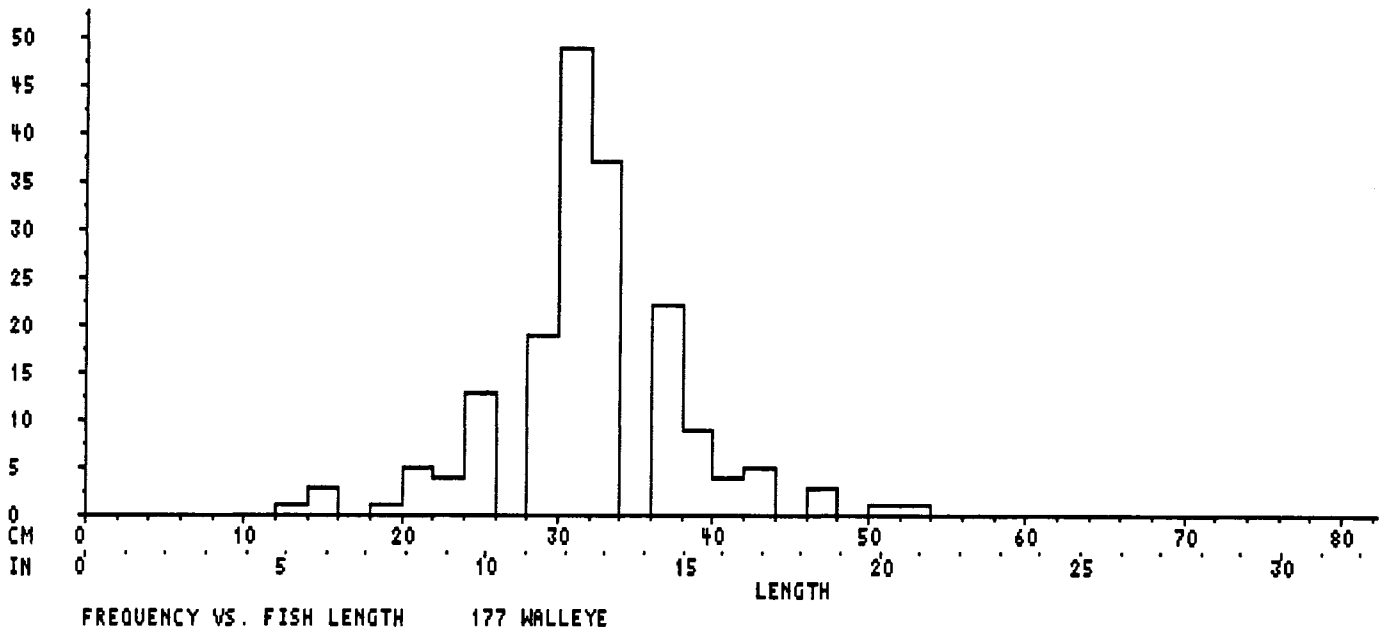


Figure 20. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of walleye released by all anglers.

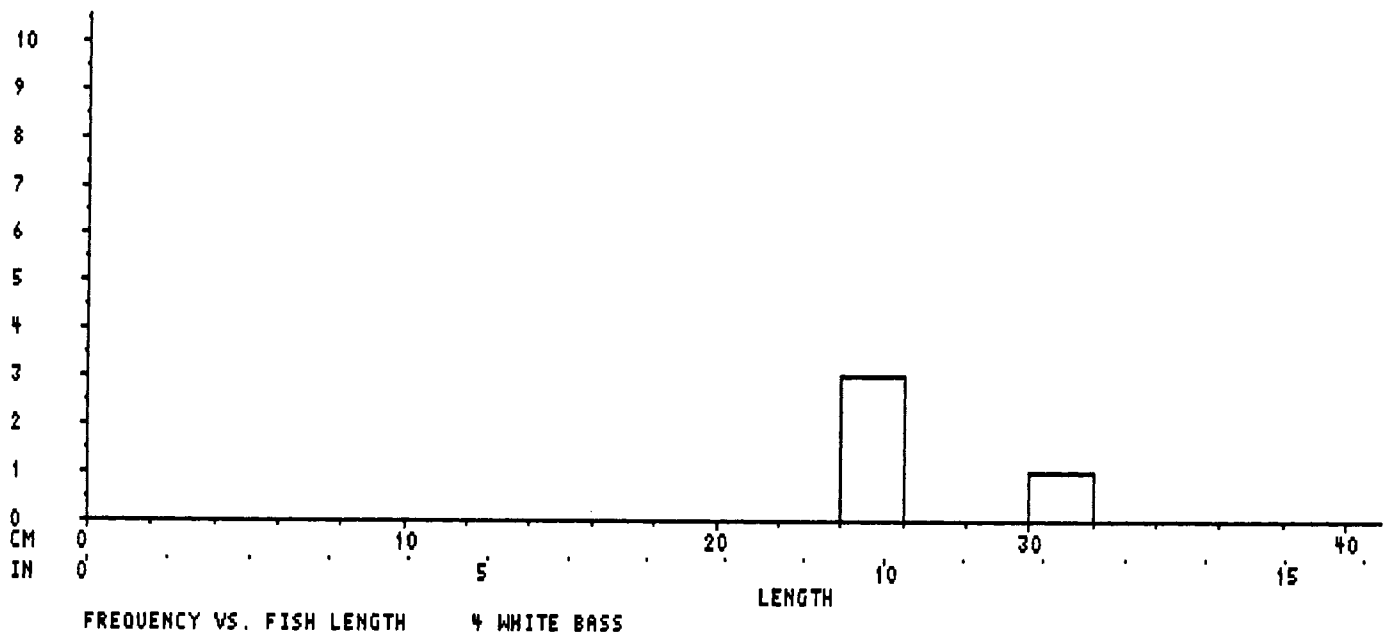


Figure 21. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white bass harvested by all anglers.

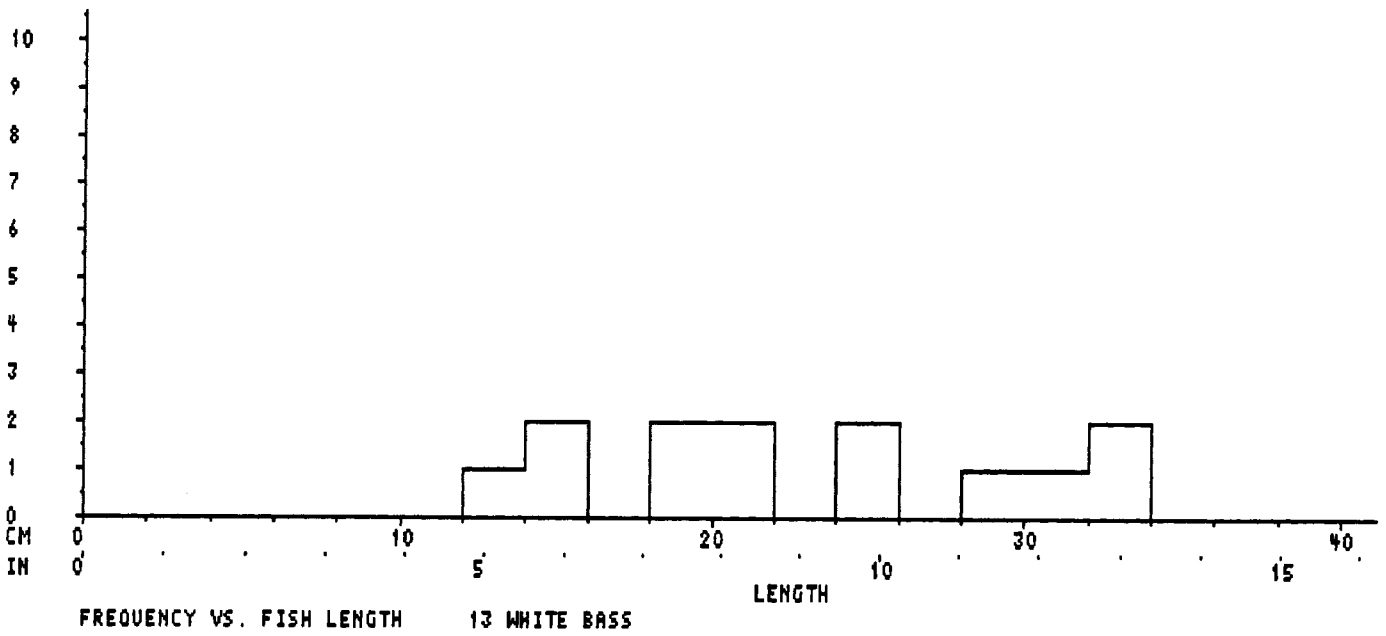


Figure 22. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white bass released by all anglers.

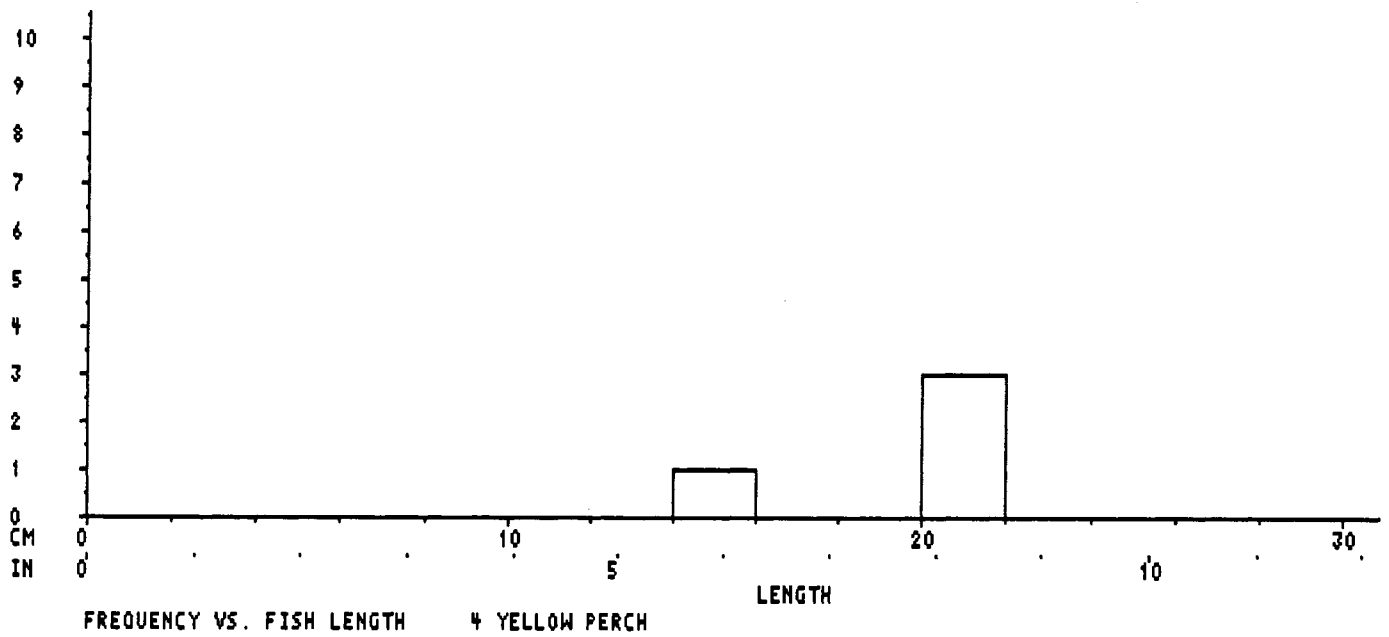


Figure 23. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow perch harvested by all anglers.

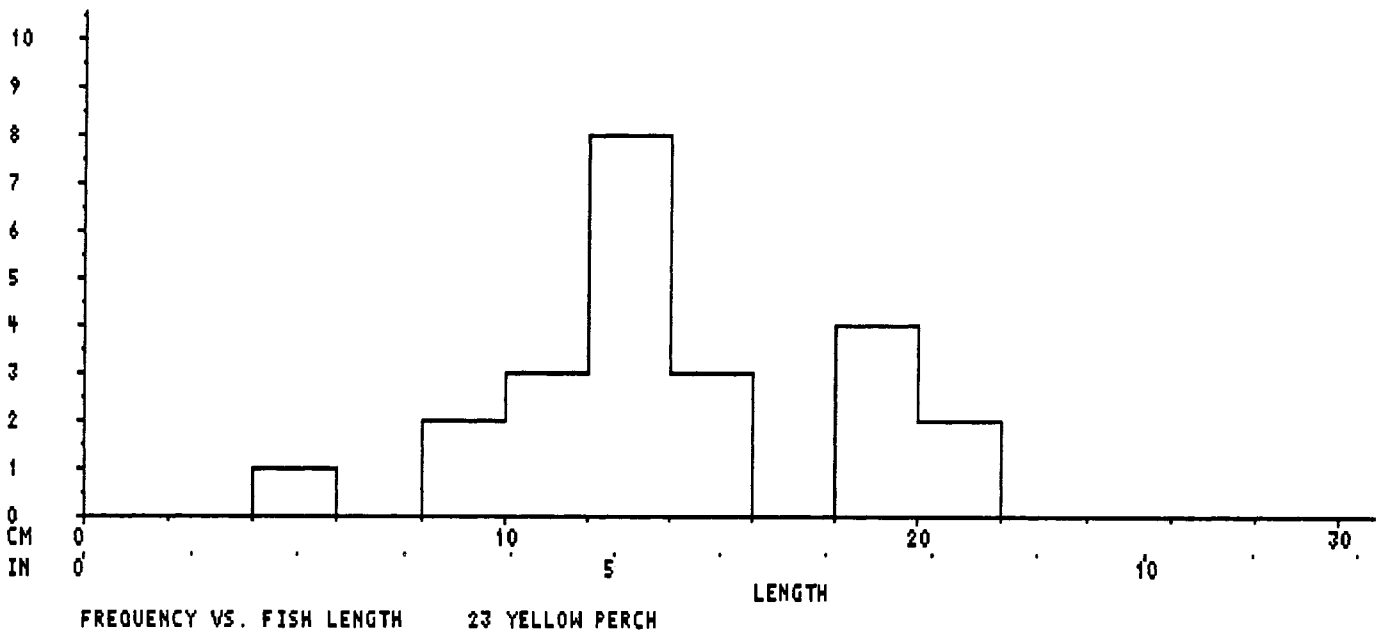


Figure 24. Pierce Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow perch released by all anglers.

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

1999 REND LAKE
 16135 ACRES

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: 439/693 = 63.3%

NUMBER OF INTERVIEWS: 3594

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	68960	59381-78539 (14%)	4	4-5 (14%)	5%
	HOLIDAY	62874	50750-74998 (19%)	4	3-5 (19%)	12%
	TOTAL	131834	116382-147285 (12%)	8	7-9 (12%)	8%
SHORE	WEEKDAY	20767	17143-24392 (17%)	1	1-2 (17%)	5%
	HOLIDAY	14345	11625-17065 (19%)	1	1-1 (19%)	9%
	TOTAL	35112	30581-39644 (13%)	2	2-2 (13%)	6%
BOAT & SHORE	WEEKDAY	89727	79485-99969 (11%)	6	5-6 (11%)	5%
	HOLIDAY	77219	64794-89645 (16%)	5	4-6 (16%)	11%
	TOTAL	166946	150844-183049 (10%)	10	9-11 (10%)	8%

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

# HARVESTED	95% CI	#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
163482	142173-184791 (13%)	.650	.554-.746 (15%)	25.04	10.13	All species
		****	NOT RECORDED ****			Bigmouth buffalo
1029	572-1486 (44%)	.002	.001-.002 (57%)	0.16	0.06	Black crappie
4453	837-8069 (81%)	.029	.000-.061 (108%)	0.68	0.28	Bluegill
		****	NOT RECORDED ****			Bowfin
		****	NOT RECORDED ****			Carp
19300	16208-22393 (16%)	.078	.065-.092 (17%)	2.96	1.20	Channel catfish
273	150-396 (45%)	.001	.000-.002 (82%)	0.04	0.02	Flathead catfish
57	0-115 (103%)	.000	.000-.000 (99%)	0.01	0.00	Freshwater drum
54	0-133 (145%)	.000	.000-.001 (142%)	0.01	0.00	Gizzard shad
706	380-1031 (46%)	.005	.000-.013 (149%)	0.11	0.04	Largemouth bass
43	0-113 (165%)	.000	.000-.000 (195%)	0.01	0.00	Longear sunfish
121	0-276 (128%)	.000	.000-.001 (125%)	0.02	0.01	Orangespotted sunfi
1508	785-2232 (48%)	.006	.002-.009 (63%)	0.23	0.09	Striped bass hybrid
67	0-164 (145%)	.000	.000-.001 (182%)	0.01	0.00	Striped bass
		****	NOT RECORDED ****			Warmouth
32142	22815-41470 (29%)	.149	.094-.204 (37%)	4.92	1.99	White bass
103036	86634-119438(16%)	.376	.313-.439 (17%)	15.78	6.39	White crappie
229	0-465 (103%)	.001	.000-.003 (125%)	0.04	0.01	Yellow bullhead
463	0-975 (110%)	.001	.000-.003 (126%)	0.07	0.03	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
50846	44097-57596 (13%)	.216	.178-.253 (17%)	7.79	0.311	All species
		****	NOT RECORDED ****			Bigmouth buffalo
228	117-338 (49%)	.000	.000-.001 (57%)	0.03	0.221	Black crappie
380	17-743 (95%)	.002	.000-.004 (104%)	0.06	0.085	Bluegill
		****	NOT RECORDED ****			Bowfin
		****	NOT RECORDED ****			Carp
14978	12305-17652 (18%)	.062	.046-.078 (26%)	2.29	0.776	Channel catfish
734	319-1149 (57%)	.004	.000-.009 (111%)	0.11	2.698	Flathead catfish
30	0-69 (127%)	.000	.000-.000 (110%)	0.00	0.543	Freshwater drum
1	0-4 (181%)	.000	.000-.000 (148%)	0.00	0.024	Gizzard shad
595	339-850 (43%)	.004	.000-.010 (145%)	0.09	0.844	Largemouth bass
6	0-14 (149%)	.000	.000-.000 (148%)	0.00	0.135	Longear sunfish
3	0-7 (116%)	.000	.000-.000 (127%)	0.00	0.027	Orangespotted sunfi
858	389-1327 (55%)	.004	.000-.008 (101%)	0.13	0.569	Striped bass hybrid
77	0-190 (146%)	.000	.000-.001 (184%)	0.01	1.153	Striped bass
		****	NOT RECORDED ****			Warmouth
10773	7348-14197 (32%)	.054	.028-.080 (48%)	1.65	0.335	White bass
22040	18339-25742 (17%)	.084	.067-.101 (20%)	3.38	0.214	White crappie
93	4-182 (95%)	.001	.000-.001 (100%)	0.01	0.409	Yellow bullhead
49	0-100 (101%)	.000	.000-.000 (120%)	0.01	0.107	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
112097	97218-126976 (13%)	.476	.393-.558 (17%)	6.95	0.686	All species
		****	NOT RECORDED ****			Bigmouth buffalo
502	258-746 (49%)	.001	.000-.001 (57%)	0.03	0.487	Black crappie
838	38-1638 (95%)	.004	.000-.009 (104%)	0.05	0.188	Bluegill
		****	NOT RECORDED ****			Bowfin
		****	NOT RECORDED ****			Carp
33021	27127-38916 (18%)	.137	.102-.172 (26%)	2.05	1.711	Channel catfish
1618	703-2533 (57%)	.010	.000-.020 (111%)	0.10	5.948	Flathead catfish
67	0-152 (127%)	.000	.000-.000 (110%)	0.00	1.197	Freshwater drum
3	0-8 (181%)	.000	.000-.000 (148%)	0.00	0.053	Gizzard shad
1311	748-1875 (43%)	.009	.000-.022 (145%)	0.08	1.860	Largemouth bass
12	0-31 (149%)	.000	.000-.000 (148%)	0.00	0.297	Longear sunfish
7	0-16 (116%)	.000	.000-.000 (127%)	0.00	0.060	Orangespotted sunfi
1892	858-2925 (55%)	.009	.000-.017 (101%)	0.12	1.254	Striped bass hybrid
170	0-419 (146%)	.001	.000-.003 (184%)	0.01	2.541	Striped bass
		****	NOT RECORDED ****			Warmouth
23750	16200-31299 (32%)	.118	.061-.175 (48%)	1.47	0.739	White bass
48591	40431-56751 (17%)	.186	.149-.223 (20%)	3.01	0.472	White crappie
206	10-401 (95%)	.001	.000-.002 (100%)	0.01	0.901	Yellow bullhead
109	0-220 (101%)	.000	.000-.001 (120%)	0.01	0.235	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
349007	303391-394623 (13%)	1.243	1.067-1.419 (14%)	53.45	21.63	All species
19	0-58 (209%)	.000	.000-.000 (209%)	0.00	0.00	Bigmouth buffalo
1103	635-1571 (42%)	.002	.001-.003 (54%)	0.17	0.07	Black crappie
7731	3007-12454 (61%)	.044	.009-.079 (80%)	1.18	0.48	Bluegill
18	0-54 (208%)	.000	.000-.000 (209%)	0.00	0.00	Bowfin
61	0-151 (149%)	.000	.000-.001 (180%)	0.01	0.00	Carp
22127	18657-25597 (16%)	.092	.076-.109 (18%)	3.39	1.37	Channel catfish
293	165-421 (44%)	.001	.000-.002 (79%)	0.04	0.02	Flathead catfish
1762	1219-2306 (31%)	.006	.003-.009 (50%)	0.27	0.11	Freshwater drum
54	0-133 (145%)	.000	.000-.001 (142%)	0.01	0.00	Gizzard shad
26164	20957-31370 (20%)	.064	.049-.080 (24%)	4.01	1.62	Largemouth bass
43	0-113 (165%)	.000	.000-.000 (195%)	0.01	0.00	Longear sunfish
277	0-566 (104%)	.004	.000-.009 (162%)	0.04	0.02	Orangespotted sunfi
2793	1154-4432 (59%)	.009	.004-.014 (55%)	0.43	0.17	Striped bass hybrid
67	0-164 (145%)	.000	.000-.001 (182%)	0.01	0.00	Striped bass
174	0-365 (109%)	.000	.000-.001 (158%)	0.03	0.01	Warmouth
70333	48519-92147 (31%)	.301	.187-.415 (38%)	10.77	4.36	White bass
211786	178823-244749 (16%)	.702	.595-.809 (15%)	32.43	13.13	White crappie
703	353-1053 (50%)	.003	.001-.005 (71%)	0.11	0.04	Yellow bullhead
3498	1646-5351 (53%)	.014	.006-.022 (54%)	0.54	0.22	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
80069	69551-90587 (13%)	.300	.251-.349 (16%)	12.26	0.229	All species
58	0-179 (209%)	.000	.000-.001 (209%)	0.01	3.214	Bigmouth buffalo
235	124-346 (47%)	.000	.000-.001 (55%)	0.04	0.213	Black crappie
490	86-893 (82%)	.003	.000-.005 (92%)	0.08	0.063	Bluegill
1	0-3 (208%)	.000	.000-.000 (208%)	0.00	0.048	Bowfin
79	0-211 (168%)	.000	.000-.001 (194%)	0.01	1.312	Carp
15501	12794-18208 (17%)	.064	.048-.080 (25%)	2.37	0.701	Channel catfish
741	325-1156 (56%)	.004	.000-.009 (111%)	0.11	2.527	Flathead catfish
834	538-1130 (36%)	.002	.001-.003 (55%)	0.13	0.473	Freshwater drum
1	0-4 (181%)	.000	.000-.000 (148%)	0.00	0.024	Gizzard shad
15699	12124-19274 (23%)	.037	.027-.047 (27%)	2.40	0.600	Largemouth bass
6	0-14 (149%)	.000	.000-.000 (148%)	0.00	0.135	Longear sunfish
7	1-14 (91%)	.000	.000-.000 (138%)	0.00	0.026	Orangespotted sunfi
1080	422-1738 (61%)	.004	.000-.008 (91%)	0.17	0.387	Striped bass hybrid
77	0-190 (146%)	.000	.000-.001 (184%)	0.01	1.153	Striped bass
29	0-62 (112%)	.000	.000-.000 (164%)	0.00	0.169	Warmouth
16869	11182-22557 (34%)	.079	.042-.116 (47%)	2.58	0.240	White bass
27901	23328-32474 (16%)	.103	.084-.122 (19%)	4.27	0.132	White crappie
298	153-444 (49%)	.001	.000-.002 (62%)	0.05	0.424	Yellow bullhead
164	81-246 (50%)	.001	.000-.001 (53%)	0.03	0.047	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
176522	153334-199710 (13%)	.662	.554-.770 (16%)	10.94	0.506	All species
128	0-394 (209%)	.001	.000-.002 (209%)	0.01	7.085	Bigmouth buffalo
517	273-762 (47%)	.001	.000-.001 (55%)	0.03	0.469	Black crappie
1080	191-1969 (82%)	.006	.000-.011 (92%)	0.07	0.140	Bluegill
2	0-6 (209%)	.000	.000-.000 (208%)	0.00	0.106	Bowfin
174	0-466 (168%)	.001	.000-.002 (194%)	0.01	2.893	Carp
34174	28206-40141 (17%)	.141	.106-.177 (25%)	2.12	1.545	Channel catfish
1633	717-2548 (56%)	.010	.000-.020 (111%)	0.10	5.572	Flathead catfish
1838	1186-2491 (36%)	.004	.002-.007 (55%)	0.11	1.043	Freshwater drum
3	0-8 (181%)	.000	.000-.000 (148%)	0.00	0.053	Gizzard shad
34610	26729-42492 (23%)	.082	.060-.105 (27%)	2.15	1.323	Largemouth bass
12	0-31 (149%)	.000	.000-.000 (148%)	0.00	0.297	Longear sunfish
16	1-30 (91%)	.000	.000-.000 (138%)	0.00	0.057	Orangespotted sunfi
2381	930-3832 (61%)	.010	.001-.019 (91%)	0.15	0.853	Striped bass hybrid
170	0-419 (146%)	.001	.000-.003 (184%)	0.01	2.541	Striped bass
65	0-137 (112%)	.000	.000-.000 (164%)	0.00	0.373	Warmouth
37190	24652-49729 (34%)	.175	.093-.256 (47%)	2.30	0.529	White bass
61511	51429-71594 (16%)	.227	.184-.270 (19%)	3.81	0.290	White crappie
658	338-978 (49%)	.003	.001-.004 (62%)	0.04	0.936	Yellow bullhead
361	179-542 (50%)	.001	.001-.002 (53%)	0.02	0.103	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	4.0-4.5 (5%)	0.2	10.0	511
SHORE	2.4	2.1-2.7 (14%)	0.2	8.5	98
BOAT & SHORE	4.0	3.8-4.2 (5%)	0.2	10.0	609
MILES TRAVELED	73.3	69.5-77.1 (5%)	1	2500	2732
SUCCESS RATING (1-10)	3.9	3.8-4.0 (3%)	1	10	2728

*323 samples were from split interviews of completed trips.
18.7% of all 3265 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 1 out of 3265 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	363	1947	139	37		4				
SHORE INTERVIEWS	294	338	81	45	9	7	1			

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

381 (11.7%)	ANY	All species
10 (0.3%)	BLG	Bluegill
2 (0.1%)	CAP	Carp
538 (16.5%)	CAT	Catfish spp.
11 (0.3%)	CCF	Channel catfish
1124 (34.4%)	CRP	Crappie spp.
27 (0.8%)	FCF	Flathead catfish
945 (28.9%)	LMB	Largemouth bass
201 (6.2%)	WHB	White bass
26 (0.8%)	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 crappie																
HARVEST 1130	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1134	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST 1130	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	2
RELEASE 1117	6	6	2	-	4	-	-	-	-	-	1	-	-	-	-	-
Channel catfish																
HARVEST 979	61	36	30	13	7	1	-	-	4	1	-	1	-	1	2	
RELEASE 1088	26	9	9	2	2	-	-	-	-	-	-	-	-	-	-	-
Flathead catfish																
HARVEST 1128	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1134	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Freshwater drum																
HARVEST 1136	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1098	34	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Gizzard shad																
HARVEST 1135	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1136	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST 1112	21	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 725	271	63	21	27	13	8	2	3	-	1	-	2	-	-	-	
Orangespotted sunfish																
HARVEST 1136	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1134	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
Striped bass hybrid (Wiper)																
HARVEST 1125	8	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1134	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Striped bass																
HARVEST 1134	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1136	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warmouth																
HARVEST 1136	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE 1132	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White bass																
HARVEST 1058	18	15	4	6	2	-	4	4	4	21	-	-	-	-	-	-
RELEASE 1049	31	22	2	3	4	-	3	4	-	7	-	-	-	-	-	11

1999 REND LAKE

DAY CREEL

03/15/1999 - 10/31/1999

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+
White crappie																
HARVEST	882	20	19	29	22	40	28	15	14	18	9	13	7	2	5	13
RELEASE	882	21	27	30	19	62	6	-	16	4	34	3	3	2	1	26
Yellow bullhead																
HARVEST	1136	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1119	14	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow bass																
HARVEST	1128	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	1111	11	6	2	2	4	-	-	-	-	-	-	-	-	-	-

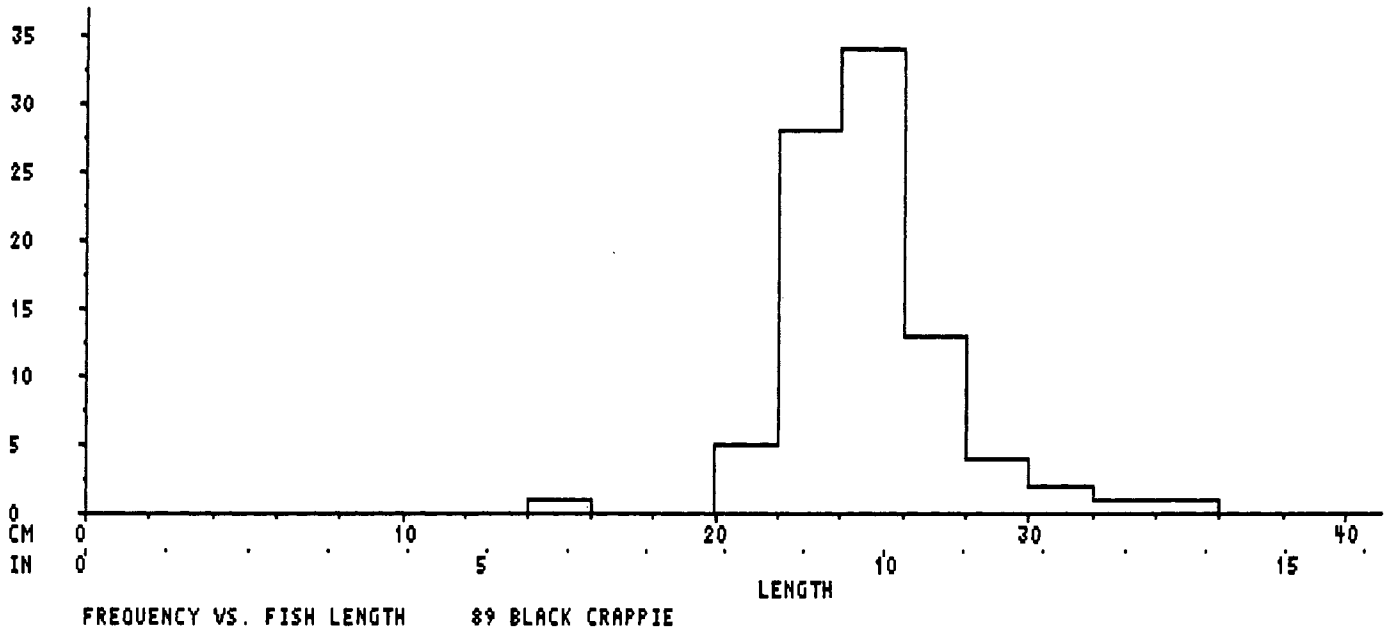


Figure 1. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

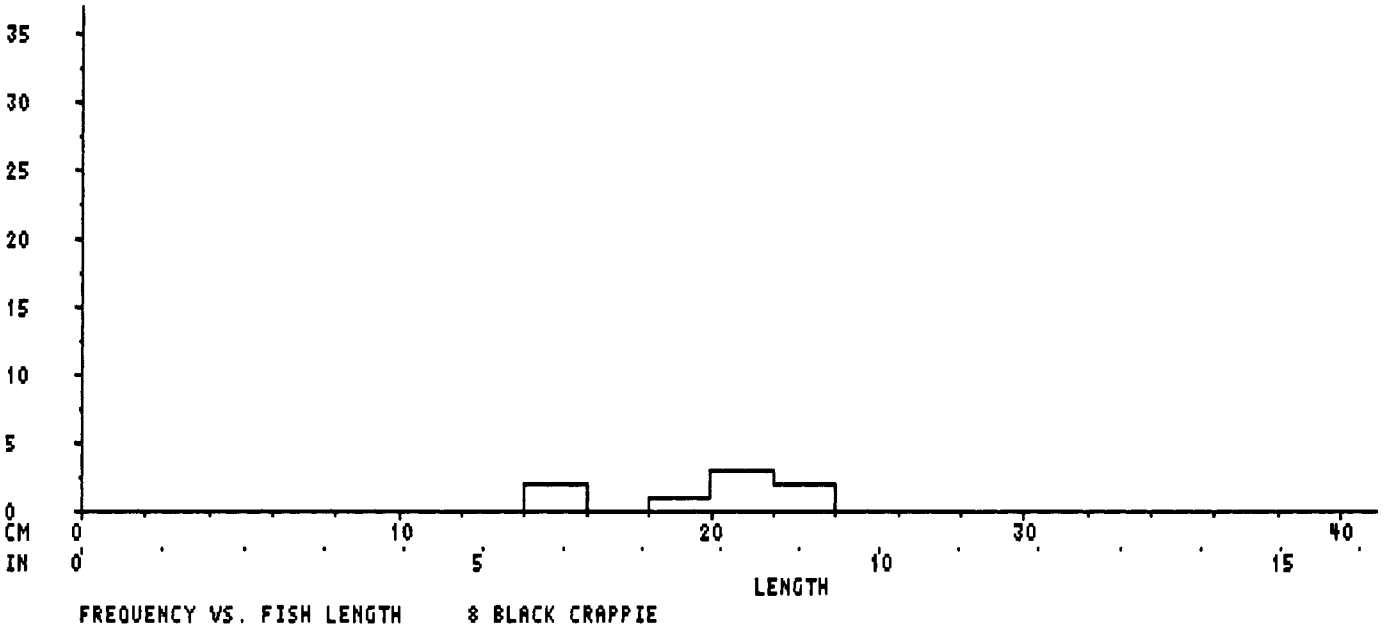


Figure 2. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

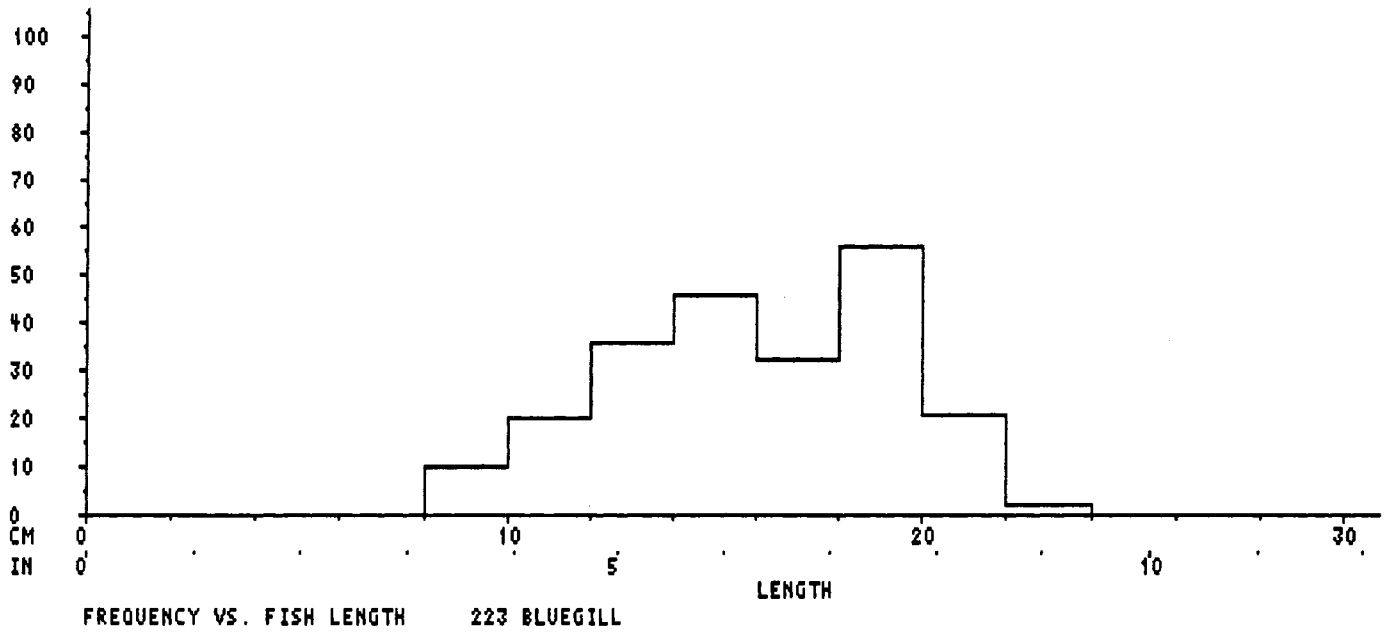


Figure 3. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

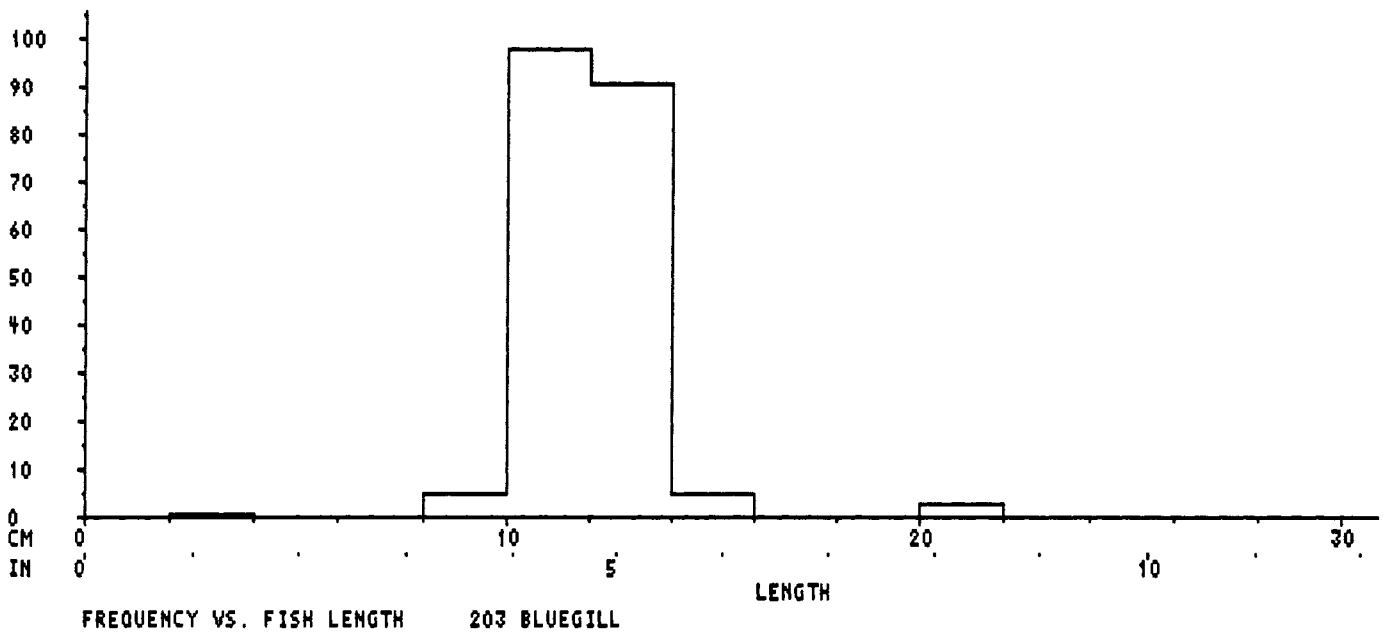


Figure 4. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

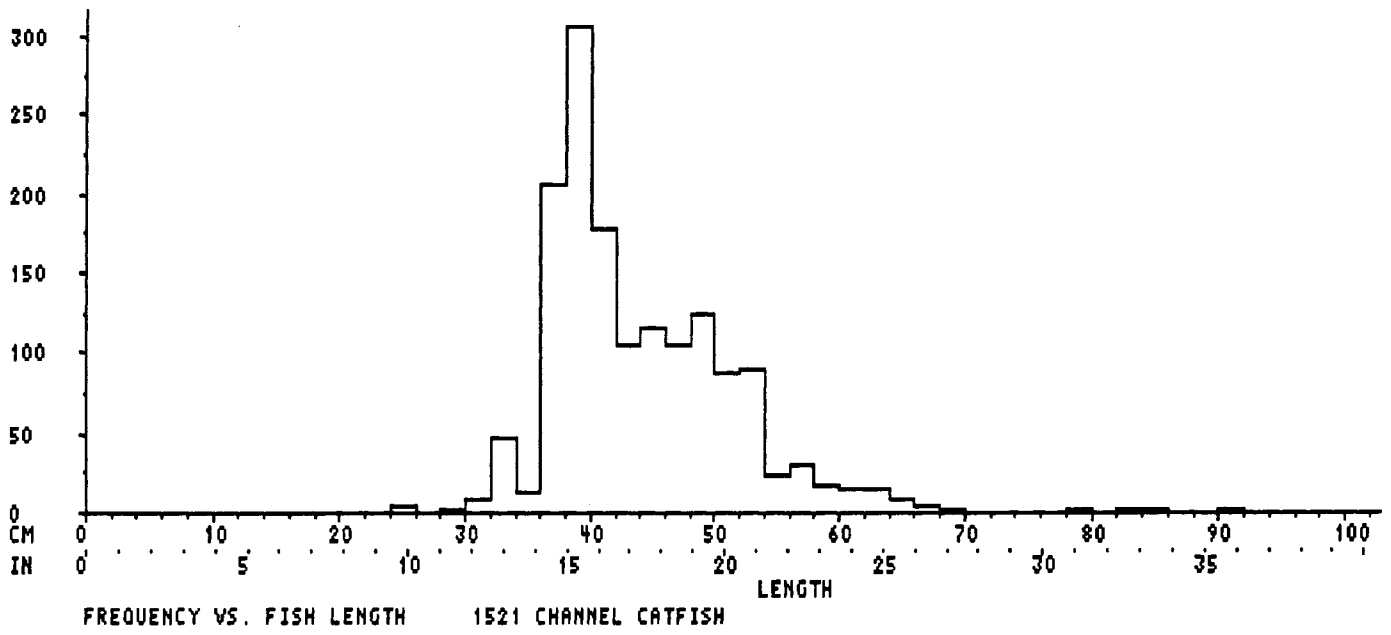


Figure 5. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

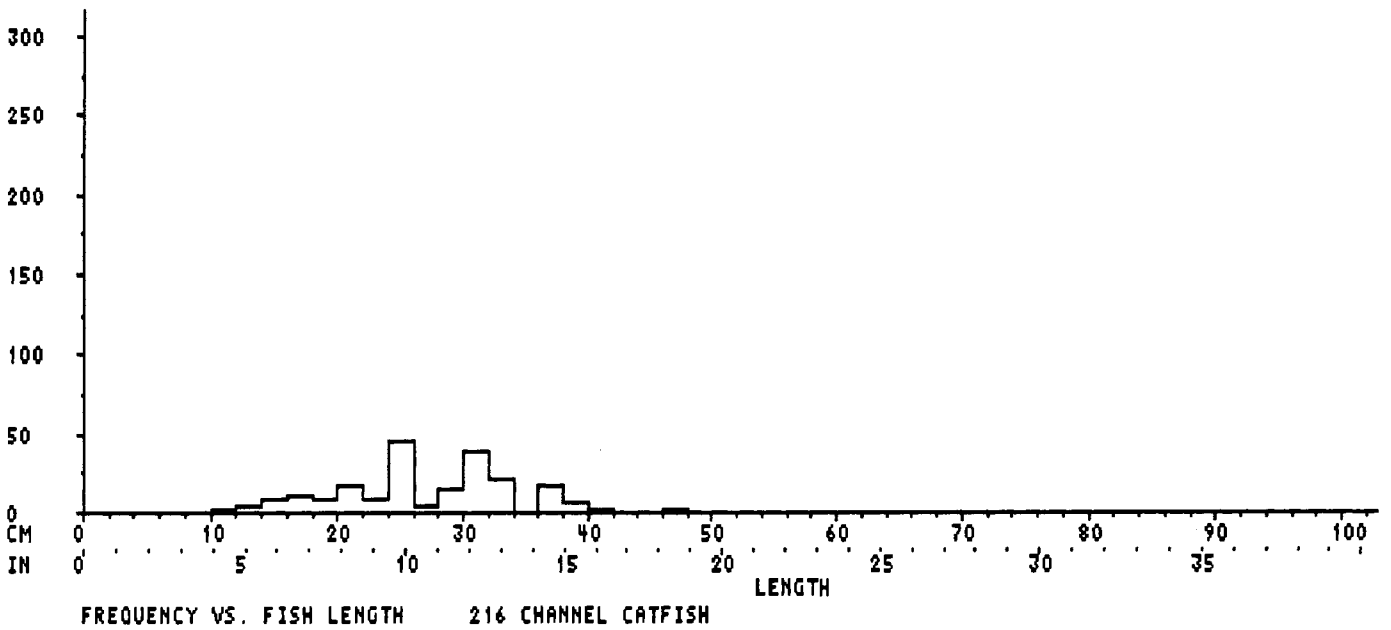


Figure 6. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

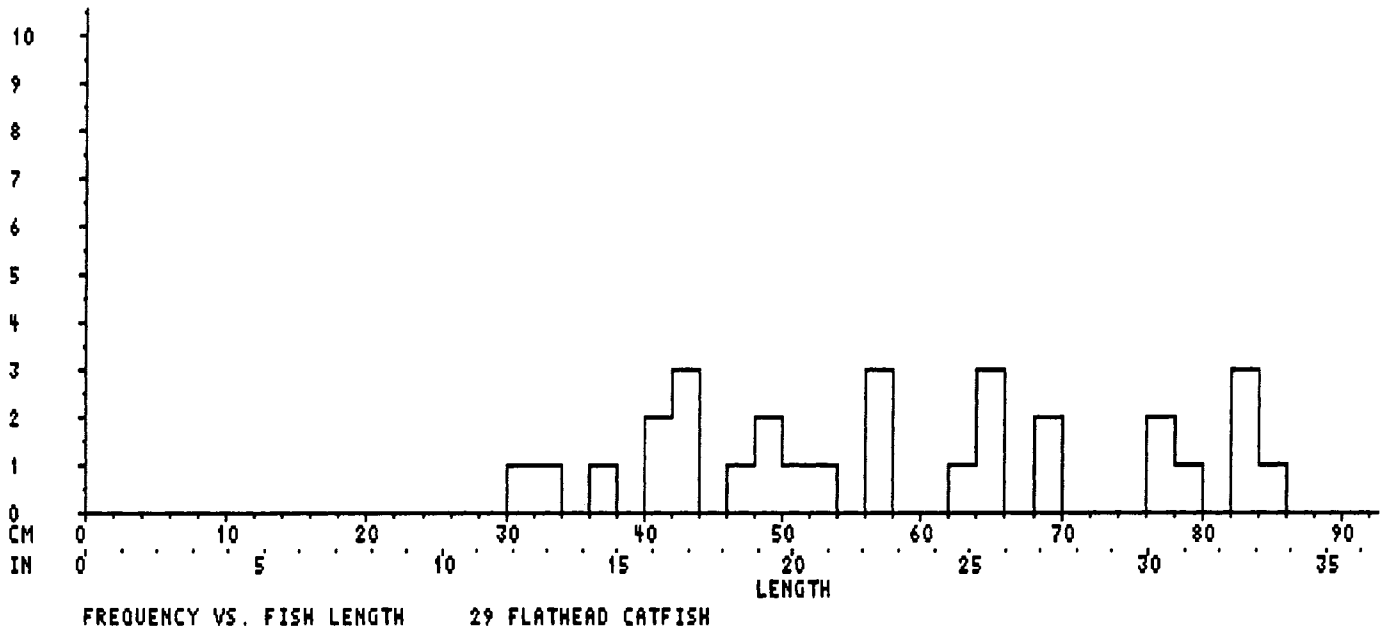


Figure 7. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of flathead catfish harvested by all anglers.

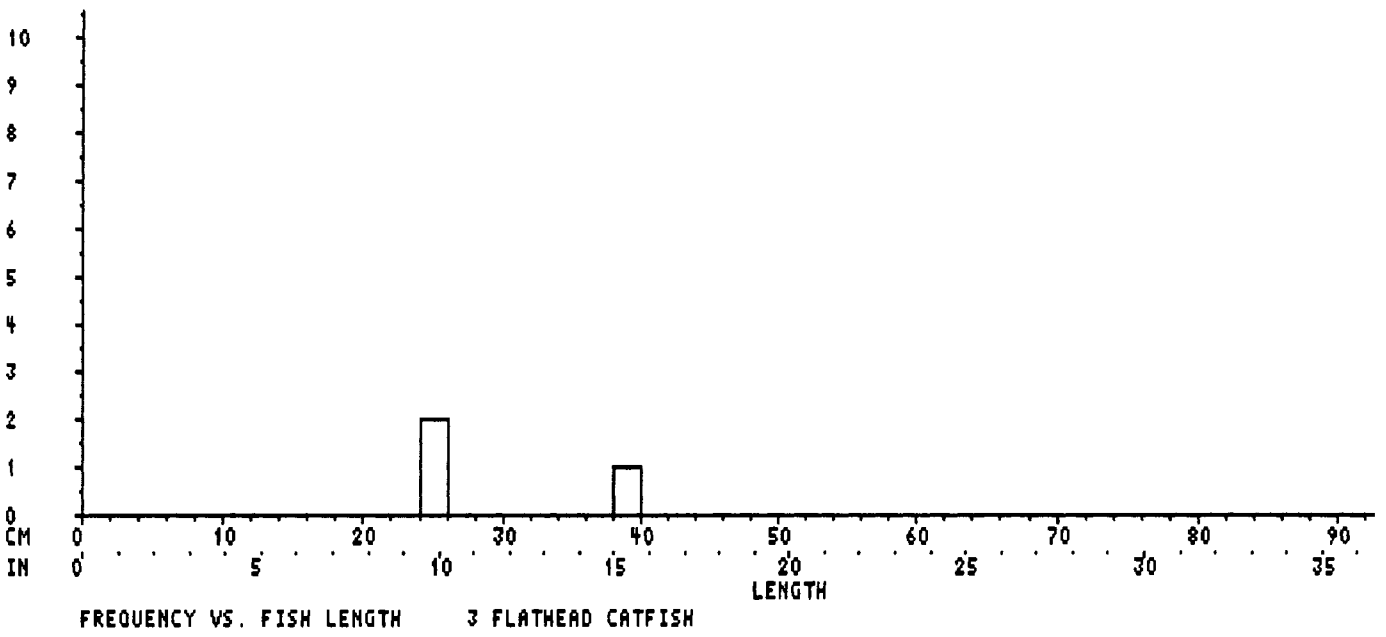


Figure 8. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of flathead catfish released by all anglers.

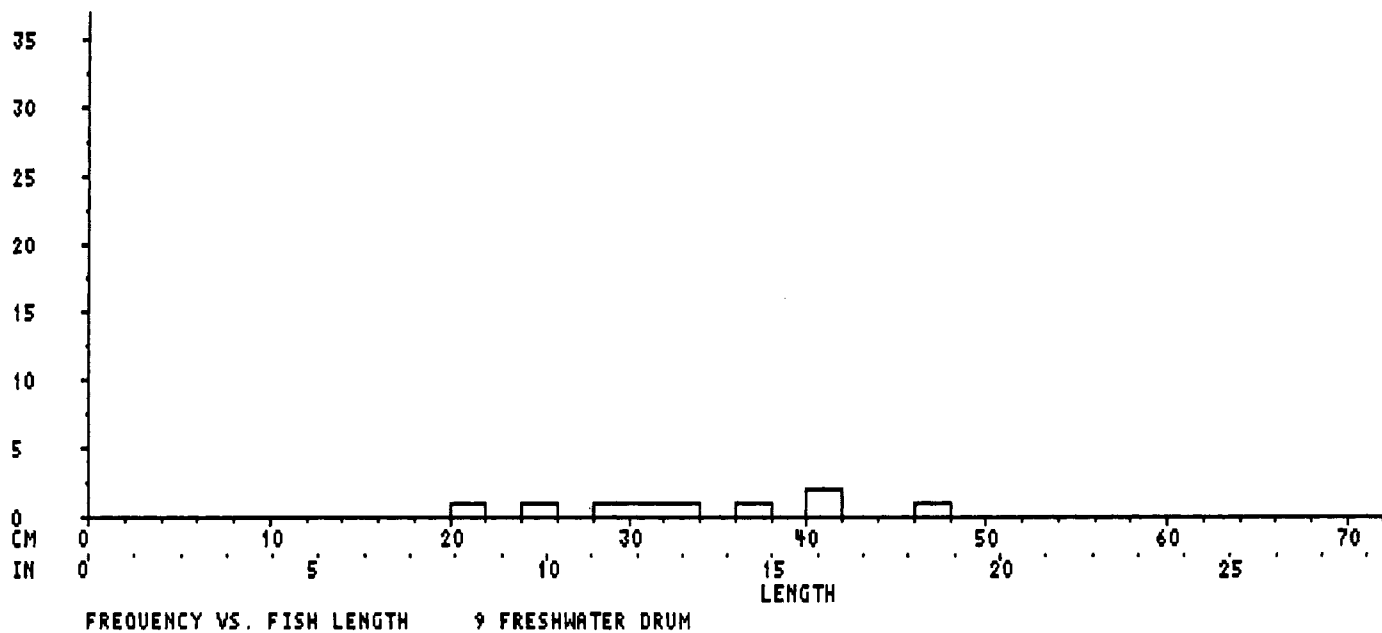


Figure 9. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of freshwater drum harvested by all anglers.

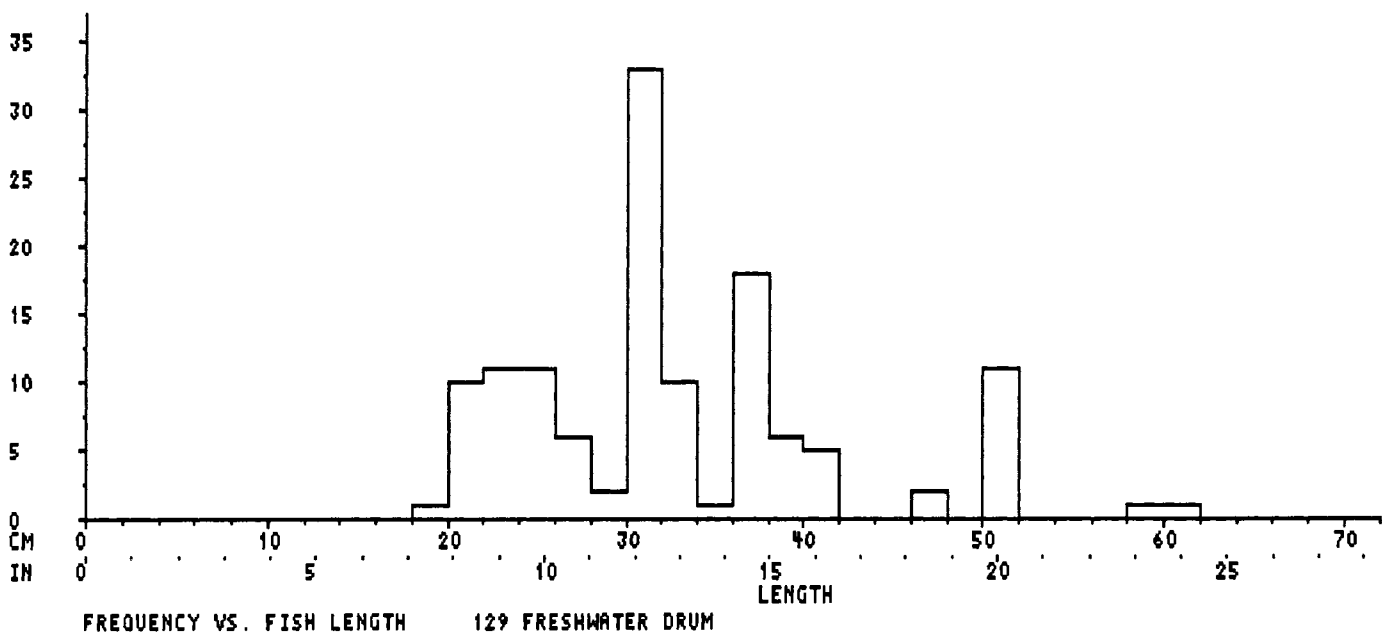


Figure 10. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of freshwater drum released by all anglers.

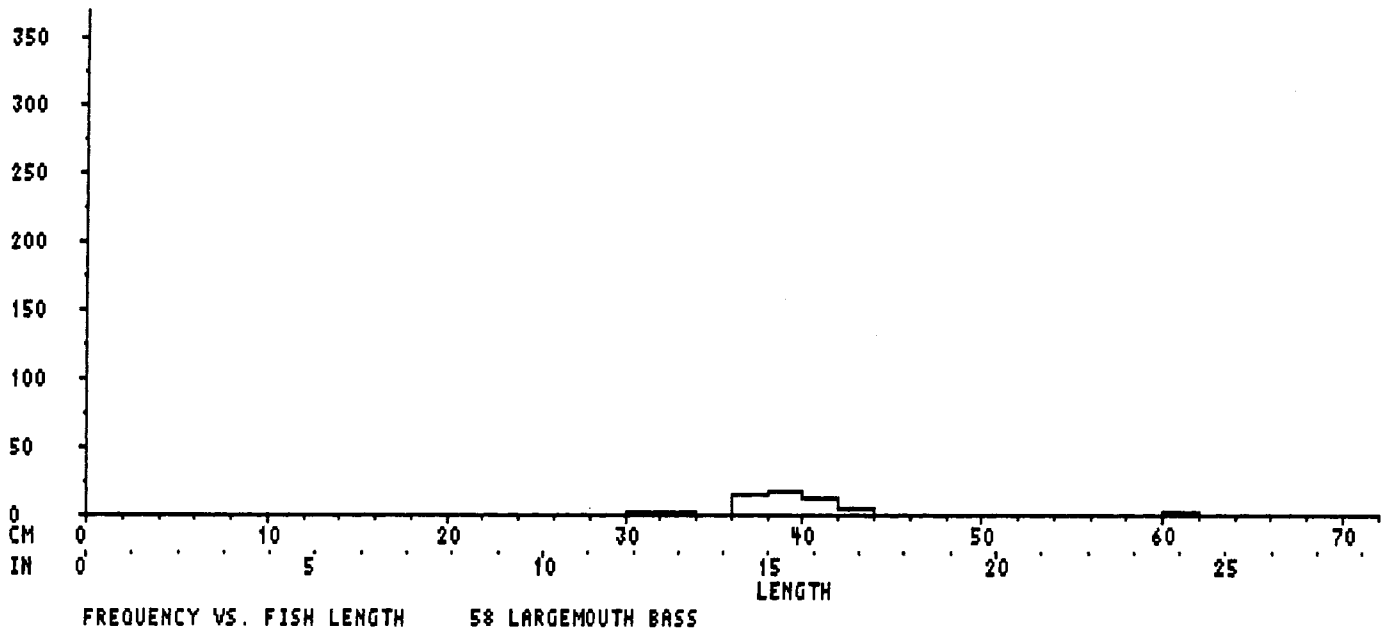


Figure 11. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

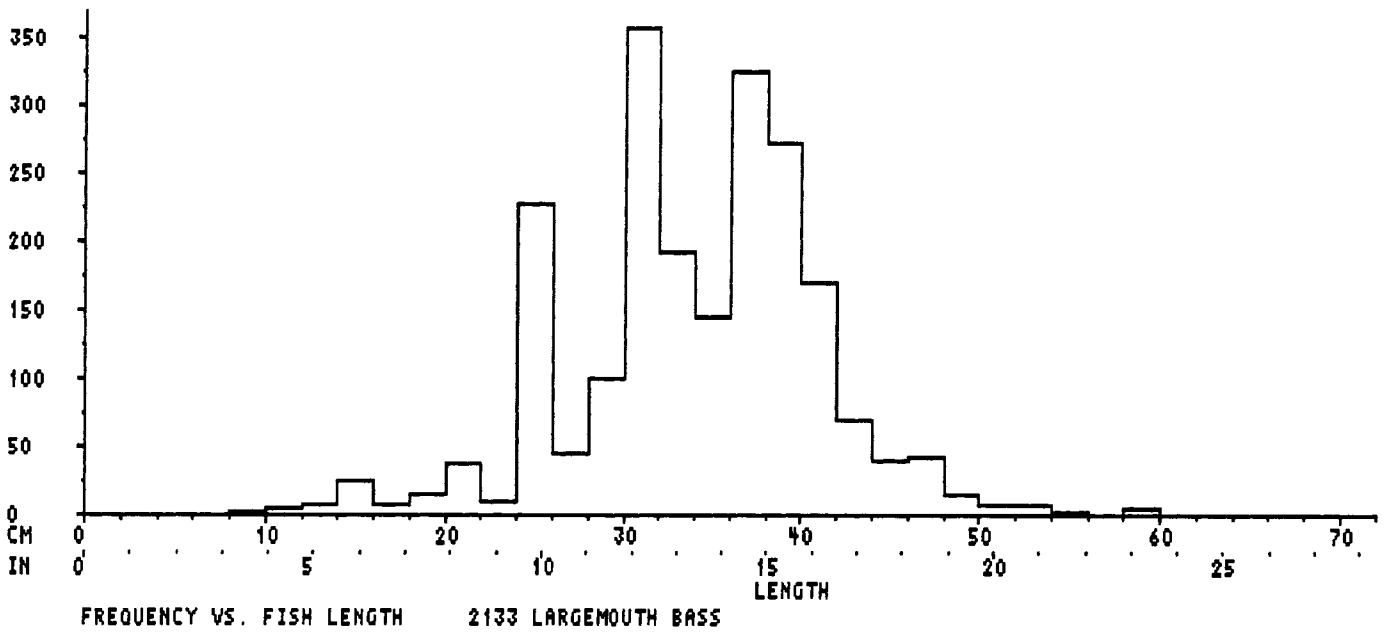


Figure 12. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers.

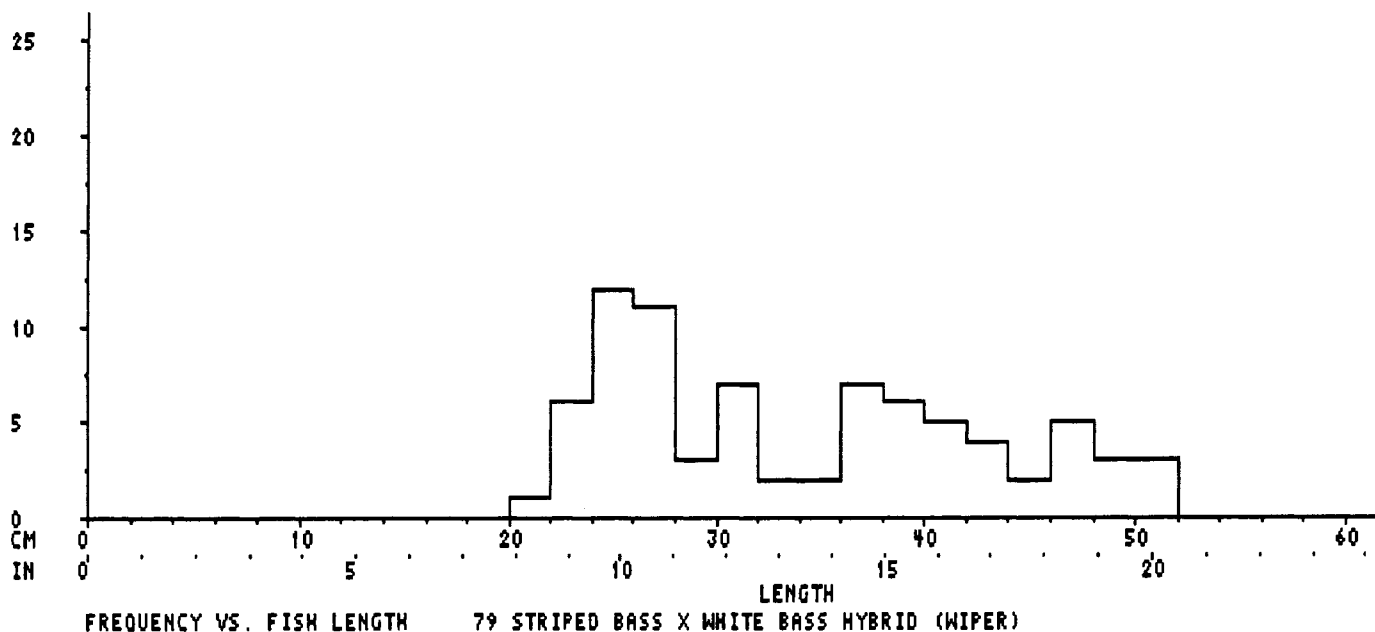


Figure 13. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of hybrid striped bass harvested by all anglers.

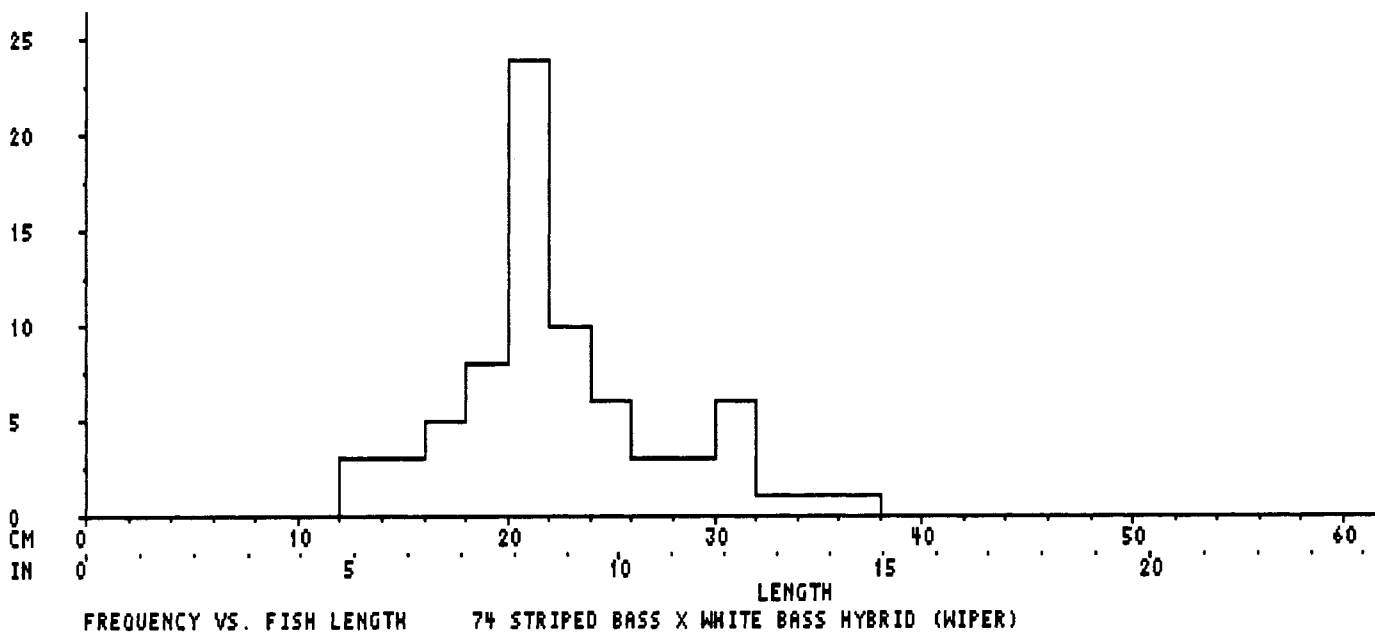


Figure 14. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of hybrid striped bass released by all anglers.

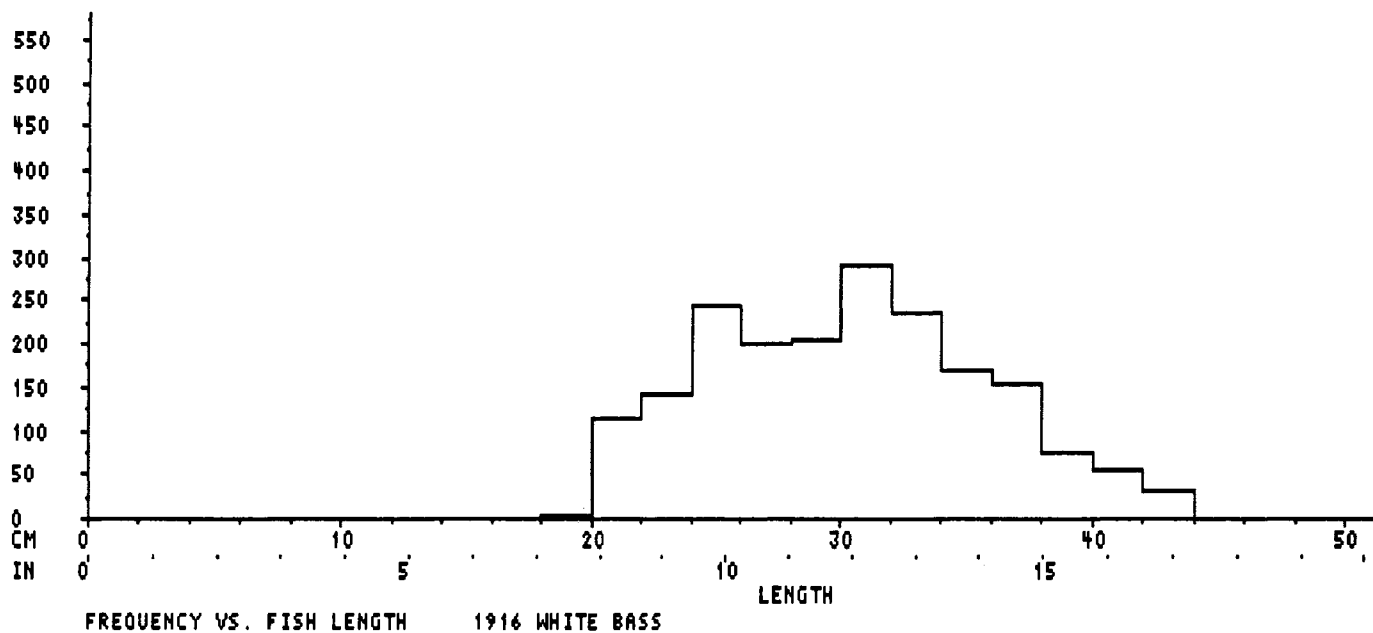


Figure 15. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white bass harvested by all anglers.

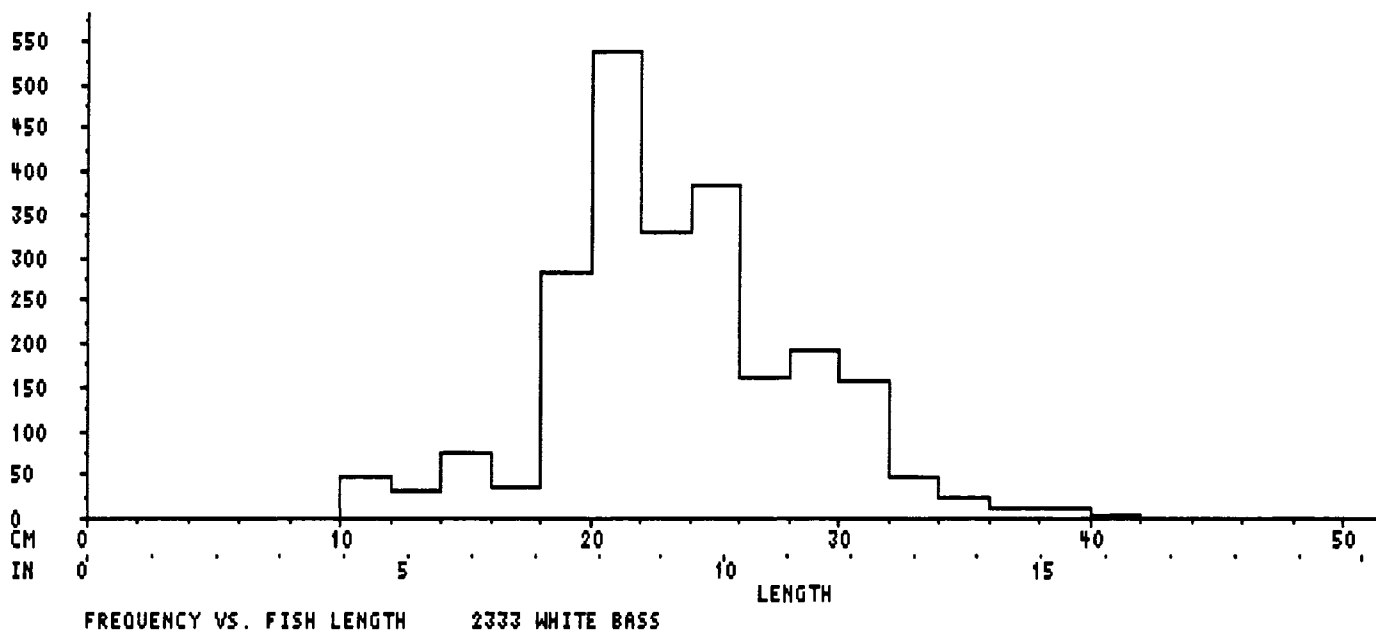


Figure 16. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white bass released by all anglers.

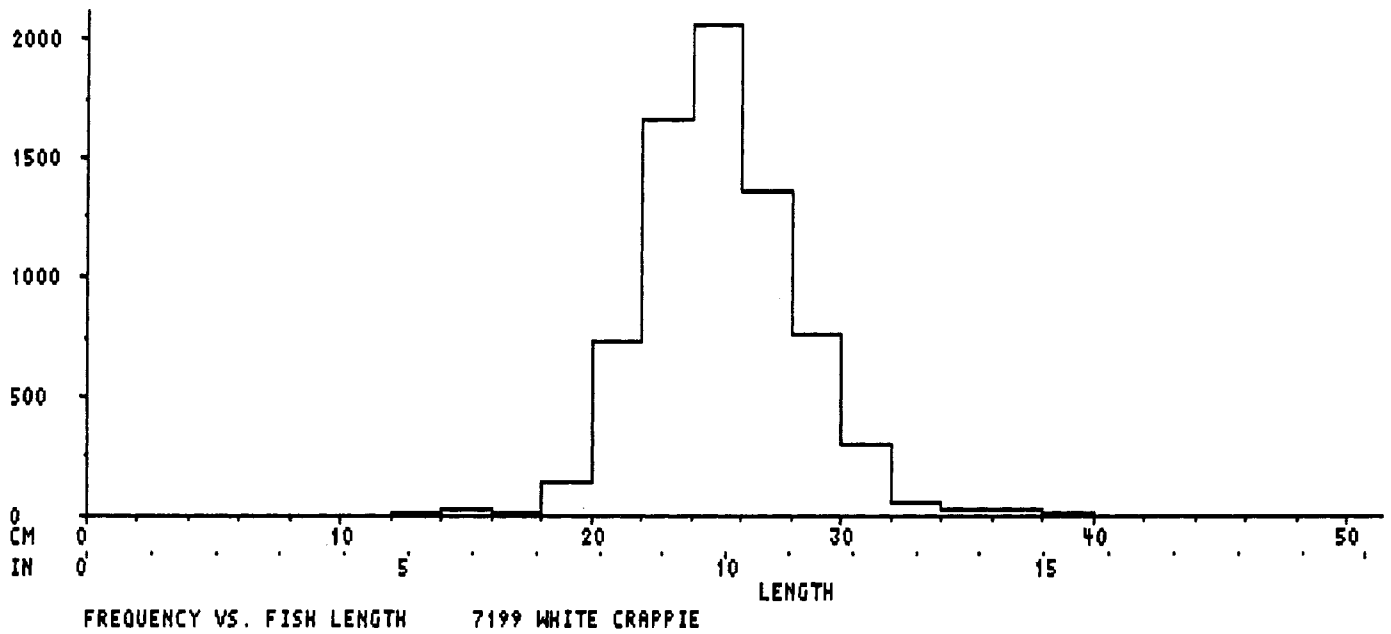


Figure 17. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

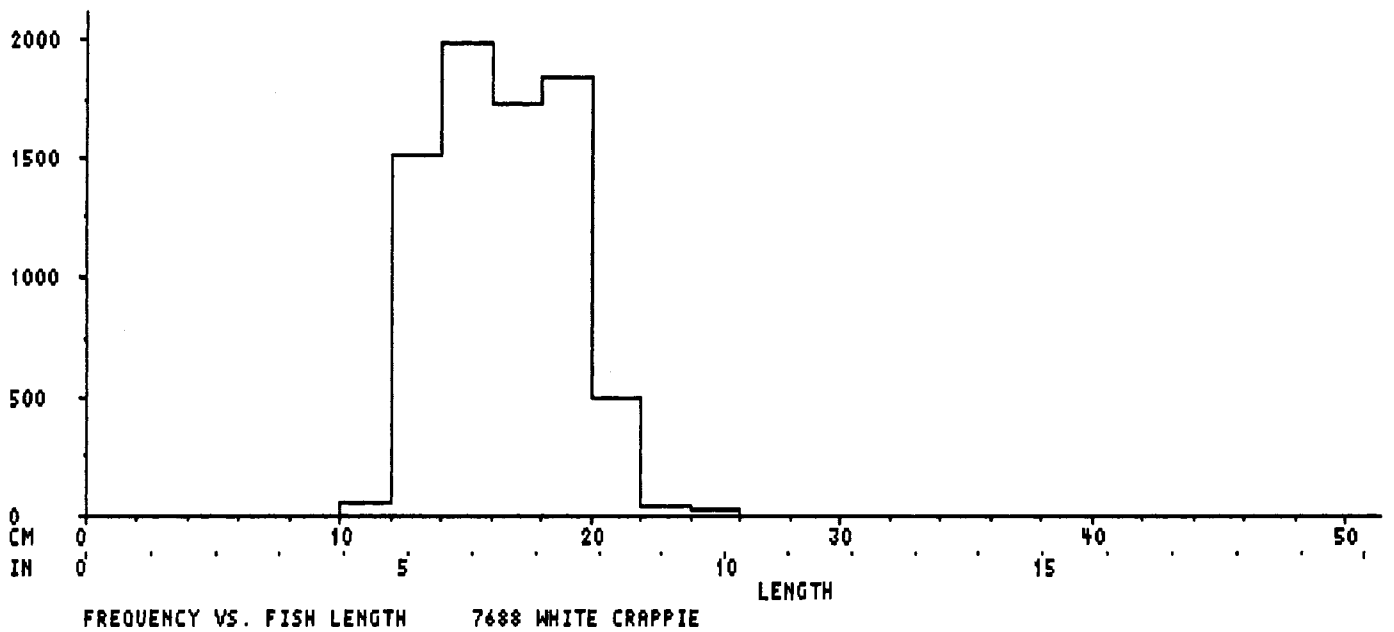


Figure 18. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.

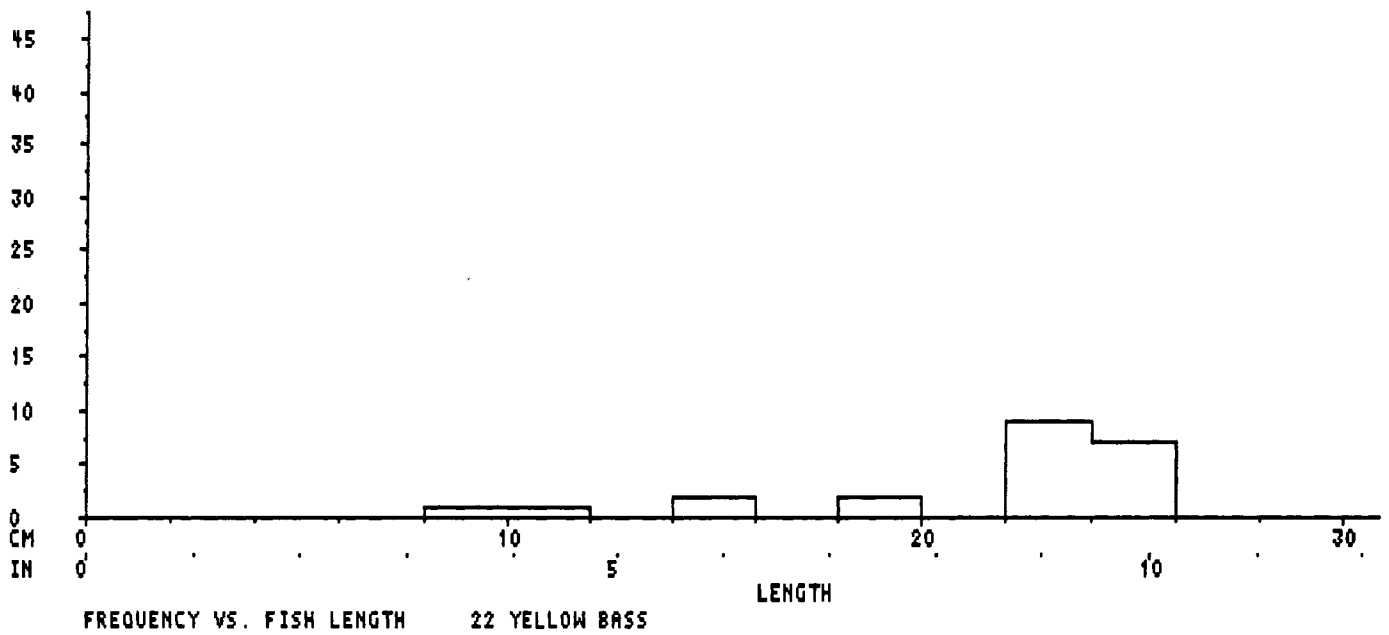


Figure 19. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass harvested by all anglers.

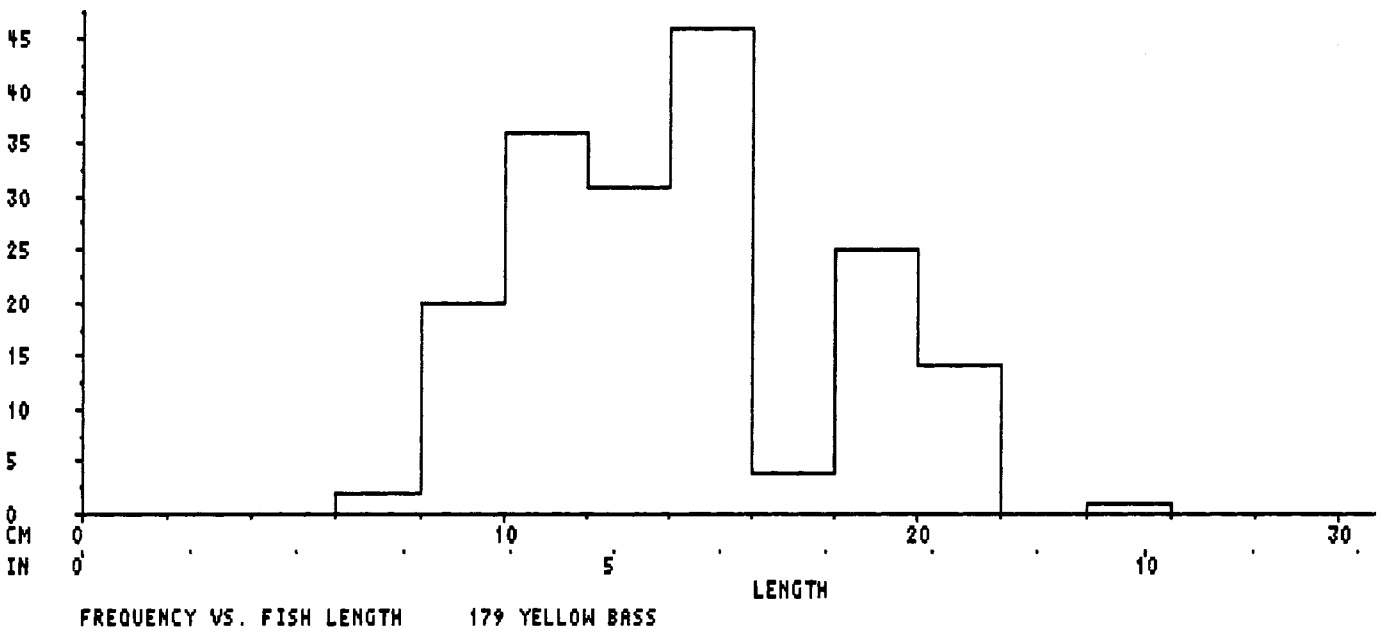


Figure 20. Rend Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow bass released by all anglers.

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

1999 ROUND LAKE
 227 ACRES
 REGION 2, DISTRICT 7

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: 311/693 = 44.9%

NUMBER OF INTERVIEWS: 522

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	1587	1180-1993 (26%)	7	5-9 (26%)	17%
	HOLIDAY	2201	1750-2651 (20%)	10	8-12 (20%)	44%
	TOTAL	3787	3209-4366 (15%)	17	14-19 (15%)	33%
SHORE	WEEKDAY	1536	1179-1893 (23%)	7	5-8 (23%)	13%
	HOLIDAY	1119	891-1348 (20%)	5	4-6 (20%)	31%
	TOTAL	2656	2232-3079 (16%)	12	10-14 (16%)	20%
BOAT & SHORE	WEEKDAY	3123	2582-3664 (17%)	14	11-16 (17%)	15%
	HOLIDAY	3320	2823-3817 (15%)	15	12-17 (15%)	40%
	TOTAL	6443	5726-7160 (11%)	28	25-32 (11%)	28%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
1177	636-1719	(46%)	.073	.041-.104 (43%)	12.81	5.19	All species
4	0-11	(210%)	.000	.000-.000 (209%)	0.04	0.02	Black bullhead
46	0-152	(233%)	.003	.000-.007 (166%)	0.50	0.20	Black crappie
761	319-1203	(58%)	.042	.018-.067 (58%)	8.28	3.35	Bluegill
110	52-167	(53%)	.008	.004-.012 (55%)	1.19	0.48	Carp
53	7-100	(87%)	.005	.000-.010 (112%)	0.58	0.23	Channel catfish
37	11-62	(69%)	.003	.001-.004 (76%)	0.40	0.16	Largemouth bass
11	0-26	(135%)	.001	.000-.002 (133%)	0.12	0.05	Northern pike
5	0-17	(220%)	.000	.000-.001 (218%)	0.06	0.02	Rock bass
			****	NOT RECORDED ****			Walleye
			****	NOT RECORDED ****			White crappie
5	0-15	(207%)	.000	.000-.001 (207%)	0.05	0.02	Yellow bullhead
145	24-267	(83%)	.011	.000-.021 (96%)	1.58	0.64	Yellow perch
1	0-3	(226%)	.000	.000-.000 (226%)	0.01	0.00	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
313	204-422	(35%)	.023	.013-.034 (46%)	3.40	0.266	All species
1	0-3	(209%)	.000	.000-.000 (209%)	0.01	0.317	Black bullhead
4	0-15	(243%)	.000	.000-.001 (184%)	0.05	0.099	Black crappie
52	24-79	(53%)	.003	.001-.004 (53%)	0.56	0.068	Bluegill
98	44-153	(55%)	.007	.003-.010 (54%)	1.07	0.902	Carp
90	3-177	(97%)	.008	.000-.018 (115%)	0.98	1.696	Channel catfish
33	10-55	(70%)	.002	.000-.004 (81%)	0.35	0.906	Largemouth bass
25	0-59	(130%)	.002	.000-.005 (141%)	0.28	2.313	Northern pike
1	0-3	(220%)	.000	.000-.000 (220%)	0.01	0.207	Rock bass
			****	NOT RECORDED ****			Walleye
			****	NOT RECORDED ****			White crappie
1	0-2	(207%)	.000	.000-.000 (207%)	0.01	0.138	Yellow bullhead
8	1-15	(91%)	.001	.000-.001 (124%)	0.09	0.055	Yellow perch
0	0-0	(223%)	.000	.000-.000 (226%)	0.00	0.076	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
689	450-929	(35%)	.052	.028-.075 (46%)	3.04	0.586	All species
2	0-6	(210%)	.000	.000-.000 (210%)	0.01	0.699	Black bullhead
10	0-34	(243%)	.001	.000-.002 (184%)	0.04	0.219	Black crappie
114	54-173	(53%)	.006	.003-.009 (53%)	0.50	0.150	Bluegill
217	97-336	(55%)	.015	.007-.023 (54%)	0.95	1.987	Carp
198	6-390	(97%)	.018	.000-.040 (115%)	0.87	3.739	Channel catfish
72	21-122	(70%)	.005	.001-.009 (81%)	0.32	1.996	Largemouth bass
56	0-129	(130%)	.005	.000-.012 (141%)	0.25	5.100	Northern pike
2	0-7	(218%)	.000	.000-.000 (220%)	0.01	0.457	Rock bass
			****	NOT RECORDED ****			Walleye
			****	NOT RECORDED ****			White crappie
1	0-4	(207%)	.000	.000-.000 (207%)	0.01	0.303	Yellow bullhead
17	2-33	(91%)	.001	.000-.003 (124%)	0.08	0.120	Yellow perch
0	0-1	(223%)	.000	.000-.000 (226%)	0.00	0.167	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
4862	3924-5800	(19%)	.342	.280-.403	(18%)	52.92	21.42	All species
29	0-63	(118%)	.003	.000-.006	(128%)	0.31	0.13	Black bullhead
211	93-329	(56%)	.012	.006-.018	(49%)	2.30	0.93	Black crappie
3146	2359-3932	(25%)	.227	.174-.281	(24%)	34.24	13.86	Bluegill
122	62-182	(49%)	.009	.004-.013	(50%)	1.33	0.54	Carp
94	43-146	(55%)	.009	.002-.015	(72%)	1.03	0.42	Channel catfish
747	587-907	(21%)	.043	.035-.052	(20%)	8.13	3.29	Largemouth bass
52	21-83	(59%)	.007	.000-.019	(177%)	0.56	0.23	Northern pike
8	0-20	(159%)	.001	.000-.001	(149%)	0.08	0.03	Rock bass
7	0-19	(186%)	.000	.000-.001	(165%)	0.07	0.03	Walleye
4	0-13	(257%)	.000	.000-.001	(278%)	0.04	0.02	White crappie
8	0-20	(152%)	.000	.000-.001	(152%)	0.09	0.03	Yellow bullhead
430	248-613	(42%)	.031	.017-.045	(45%)	4.69	1.90	Yellow perch
4	0-12	(167%)	.000	.000-.000	(157%)	0.05	0.02	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
1156	951-1360	(18%)	.087	.059-.115	(32%)	12.58	0.238	All species
6	0-13	(106%)	.001	.000-.001	(117%)	0.07	0.225	Black bullhead
18	7-29	(60%)	.001	.000-.002	(55%)	0.20	0.086	Black crappie
197	151-243	(23%)	.014	.011-.017	(22%)	2.15	0.063	Bluegill
108	52-163	(52%)	.007	.004-.011	(50%)	1.17	0.883	Carp
147	53-242	(64%)	.013	.003-.023	(79%)	1.60	1.567	Channel catfish
510	396-624	(22%)	.029	.023-.035	(21%)	5.55	0.684	Largemouth bass
134	24-244	(82%)	.019	.000-.044	(138%)	1.46	2.623	Northern pike
1	0-4	(180%)	.000	.000-.000	(163%)	0.01	0.183	Rock bass
7	0-18	(163%)	.000	.000-.001	(208%)	0.07	1.128	Walleye
2	0-6	(257%)	.000	.000-.000	(278%)	0.02	0.533	White crappie
1	0-3	(163%)	.000	.000-.000	(176%)	0.01	0.168	Yellow bullhead
24	14-33	(42%)	.002	.001-.003	(49%)	0.26	0.055	Yellow perch
1	0-2	(184%)	.000	.000-.000	(176%)	0.01	0.147	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
2548	2097-2998	(18%)	.191	.129-.253 (32%)	11.22	0.524	All species
14	0-29	(106%)	.001	.000-.003 (117%)	0.06	0.496	Black bullhead
40	16-64	(60%)	.002	.001-.004 (55%)	0.18	0.189	Black crappie
434	333-536	(23%)	.031	.024-.038 (22%)	1.91	0.138	Bluegill
238	115-360	(52%)	.017	.008-.025 (50%)	1.05	1.948	Carp
325	116-534	(64%)	.028	.006-.051 (79%)	1.43	3.455	Channel catfish
1125	873-1377	(22%)	.064	.051-.078 (21%)	4.96	1.508	Largemouth bass
295	52-538	(82%)	.041	.000-.098 (138%)	1.30	5.783	Northern pike
3	0-8	(180%)	.000	.000-.000 (163%)	0.01	0.403	Rock bass
15	0-39	(163%)	.001	.000-.003 (208%)	0.07	2.487	Walleye
4	0-13	(257%)	.000	.000-.001 (257%)	0.02	1.174	White crappie
3	0-7	(163%)	.000	.000-.000 (176%)	0.01	0.370	Yellow bullhead
52	30-74	(42%)	.004	.002-.006 (49%)	0.23	0.121	Yellow perch
1	0-4	(184%)	.000	.000-.000 (176%)	0.01	0.324	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	2.4	2.2-2.5	(7%)	1.0	7.2	182
SHORE	1.5	1.3-1.7	(13%)	0.5	5.0	49
BOAT & SHORE	2.2	2.1-2.3	(6%)	0.5	7.2	231
MILES TRAVELED	3.5	2.7-4.3	(22%)	1	60	453
SUCCESS RATING (1-10)	3.6	3.3-3.8	(6%)	1	10	462

*26 samples were from split interviews of completed trips.
46.6% of all 496 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 0 out of 496 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	143	155	17							1
SHORE INTERVIEWS	58	87	24	10	1					

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

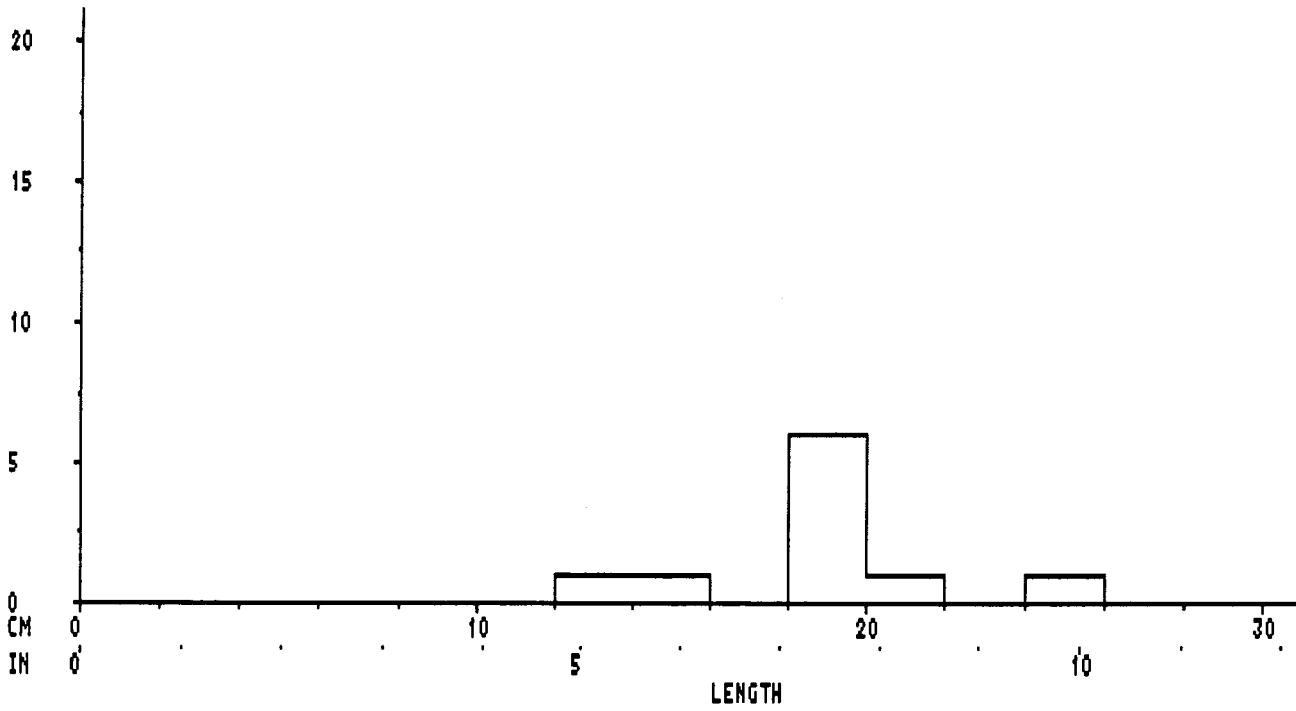
171 (34.5%)	ANY	All species
5 (1.0%)	BLC	Black crappie
19 (3.8%)	BLG	Bluegill
13 (2.6%)	CAP	Carp
5 (1.0%)	CCF	Channel catfish
277 (55.8%)	LMB	Largemouth bass
5 (1.0%)	NOP	Northern pike
1 (0.2%)	WHC	White crappie

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	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	399	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST	397	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	372	27	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	389	3	-	2	-	-	5	2	-	-	-	-	-	-	-	-
RELEASE	327	9	26	12	8	4	6	-	3	-	4	-	-	2	-	-
Carp																
HARVEST	393	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	400	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	392	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	379	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	244	123	24	6	3	-	1	-	-	-	-	-	-	-	-	-
Northern pike																
HARVEST	395	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	394	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rock bass																
HARVEST	399	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Walleye																
HARVEST	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	398	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	400	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow bullhead																
HARVEST	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	399	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow perch																
HARVEST	395	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	363	32	-	-	-	2	4	-	-	-	-	-	-	-	-	-

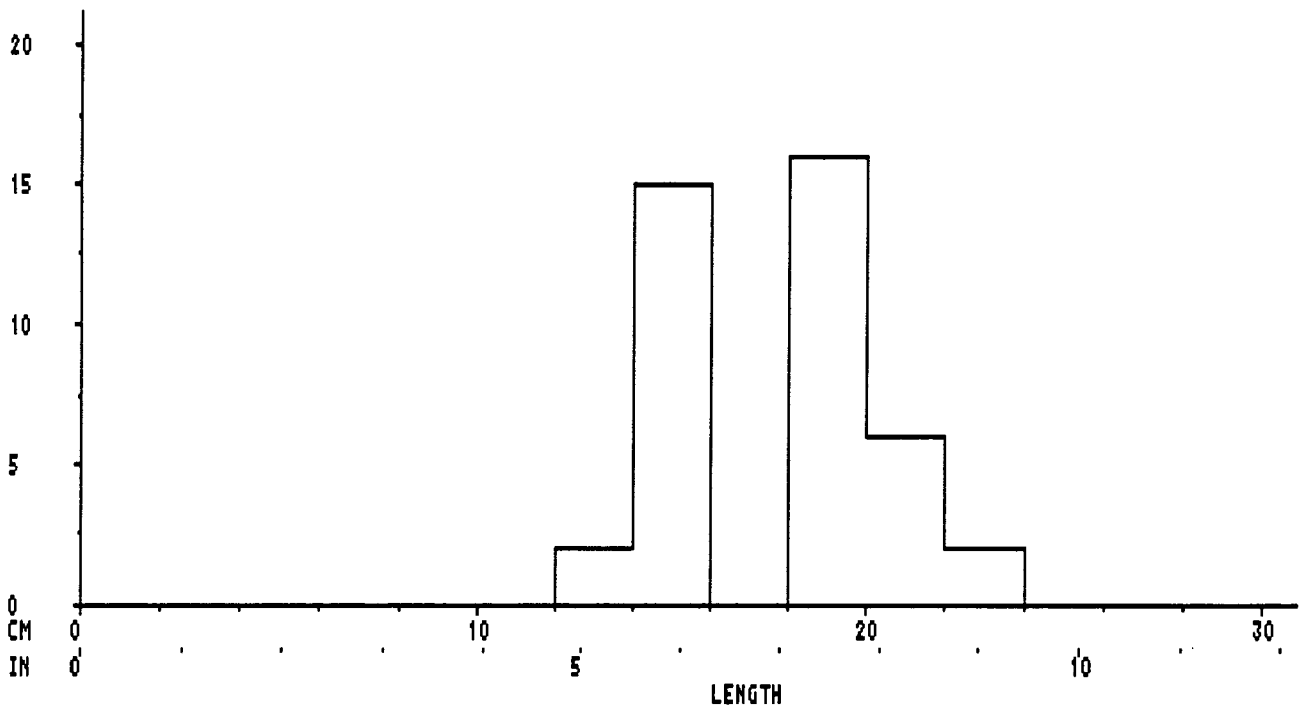
Table 11 (continued). Number of anglers with a given harvest & release for completed trips

# OF FISH:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15+
Yellow bass																
HARVEST	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



FREQUENCY VS. FISH LENGTH 10 BLACK CRAPPIE

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



FREQUENCY VS. FISH LENGTH 41 BLACK CRAPPIE

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

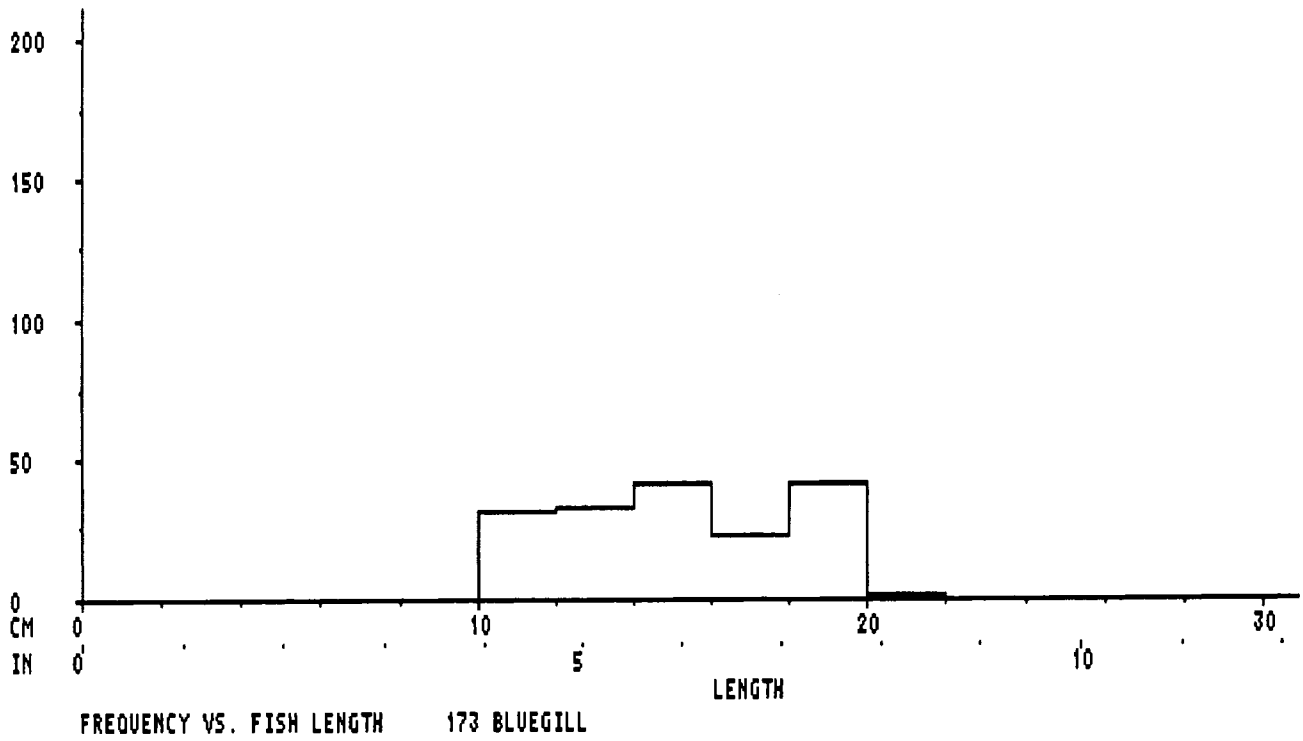


Figure 3. Round Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

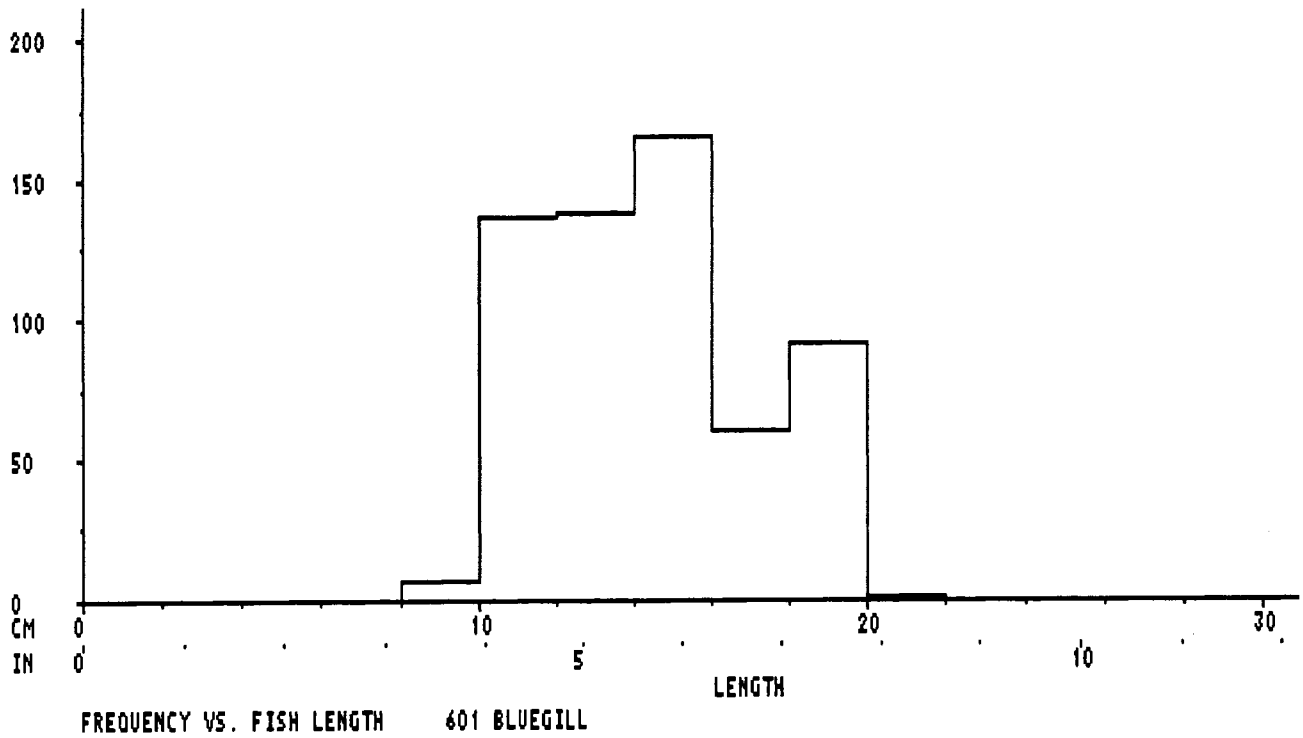


Figure 4. Round Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

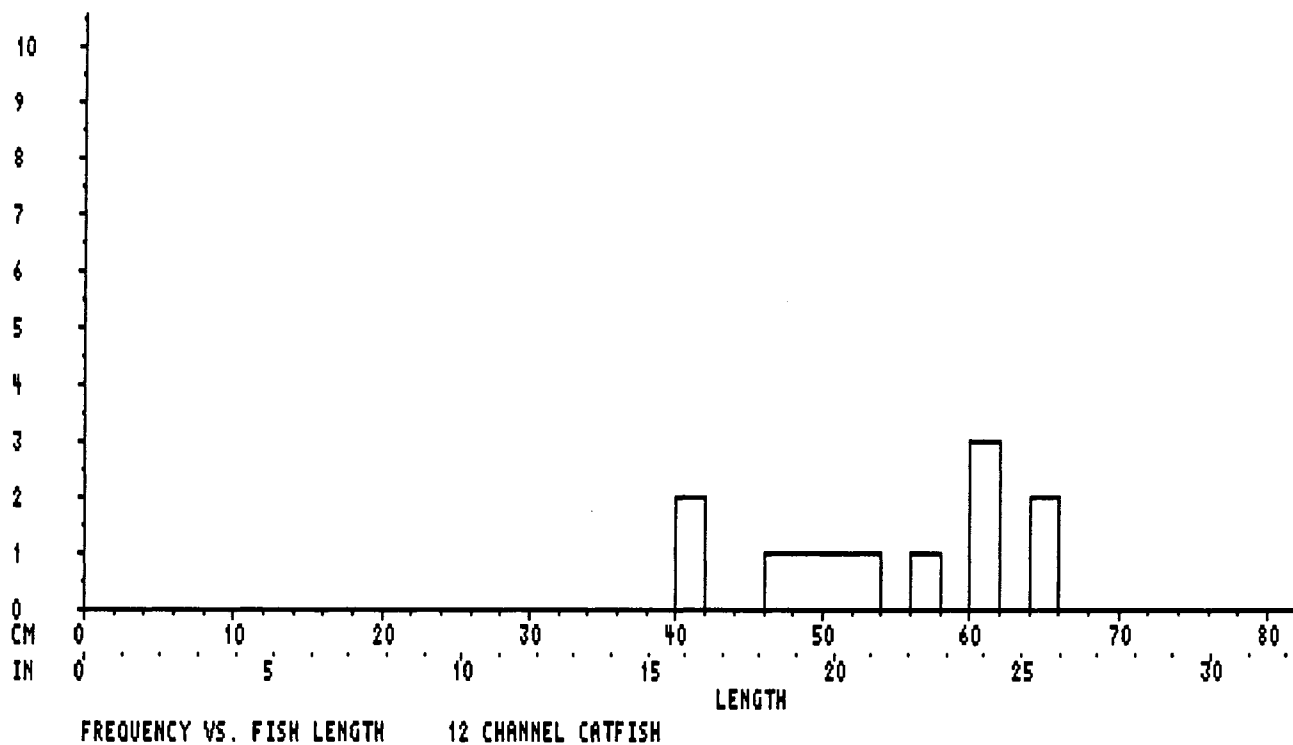


Figure 5. Round Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

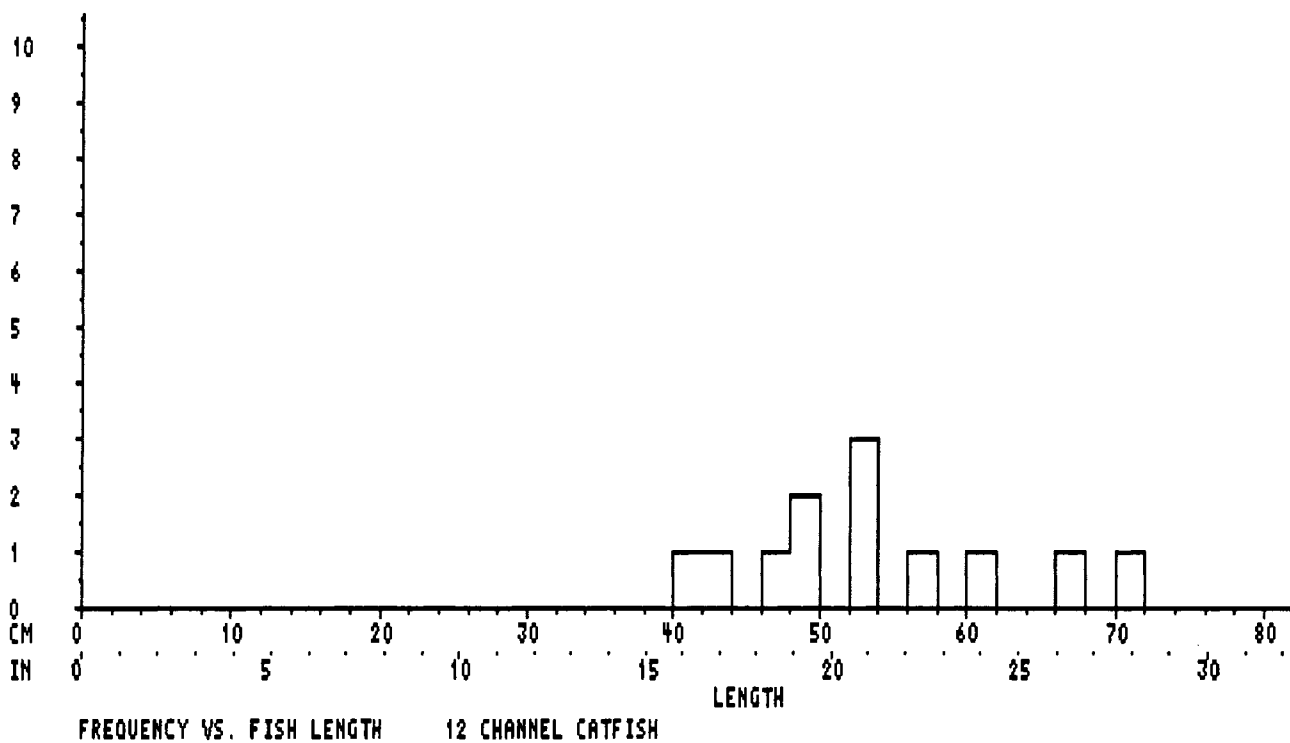


Figure 6. Round Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

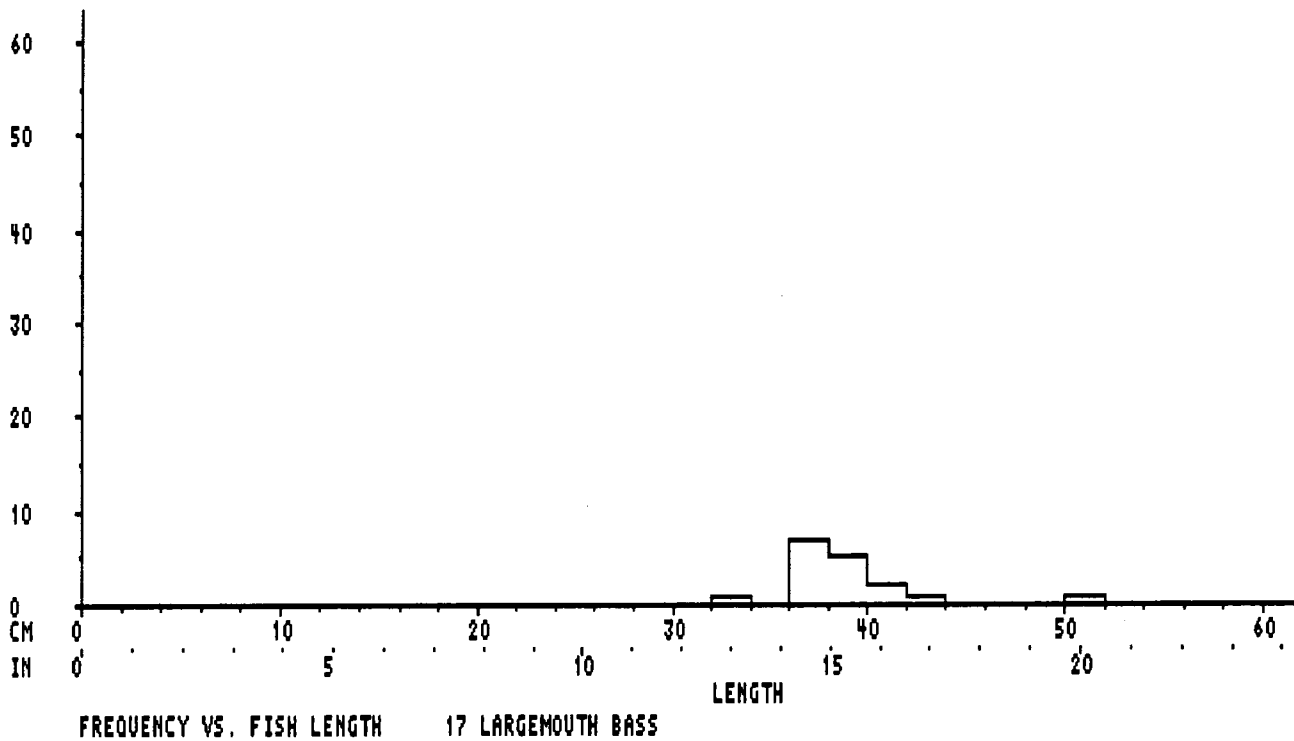


Figure 7. Round Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

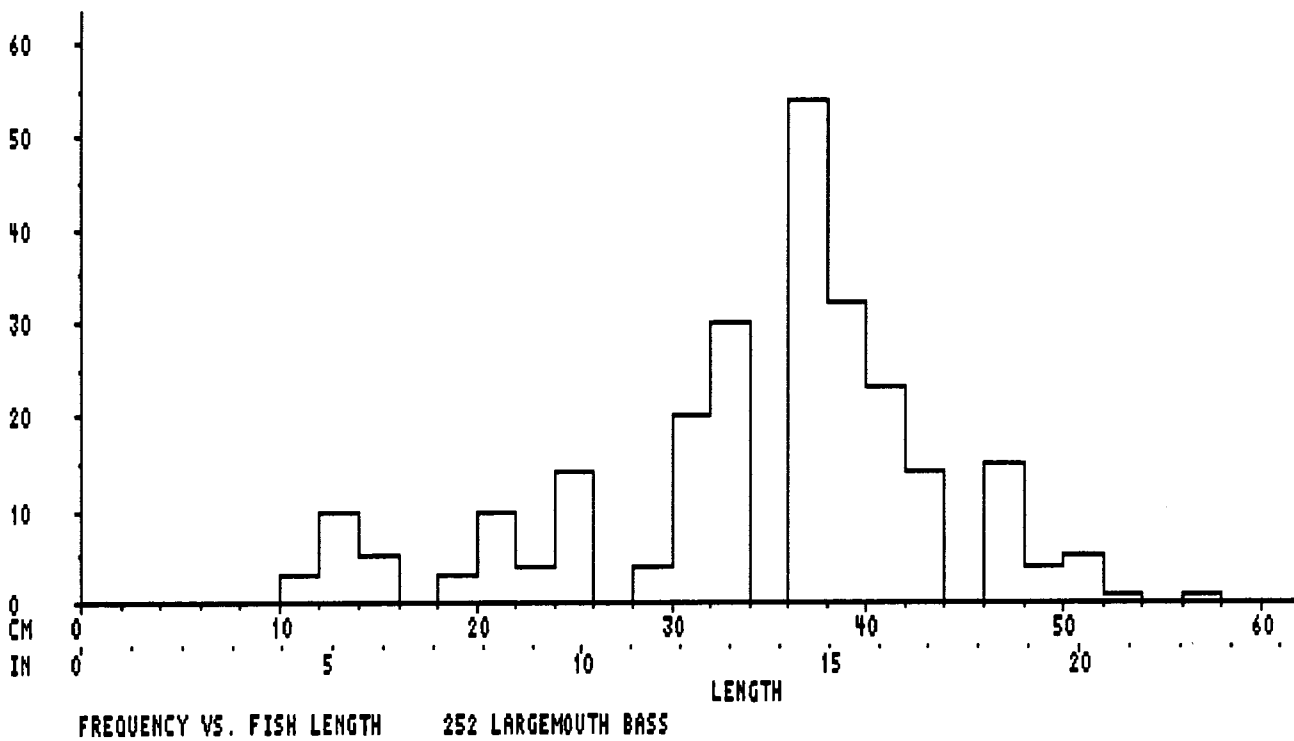


Figure 8. Round Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers.

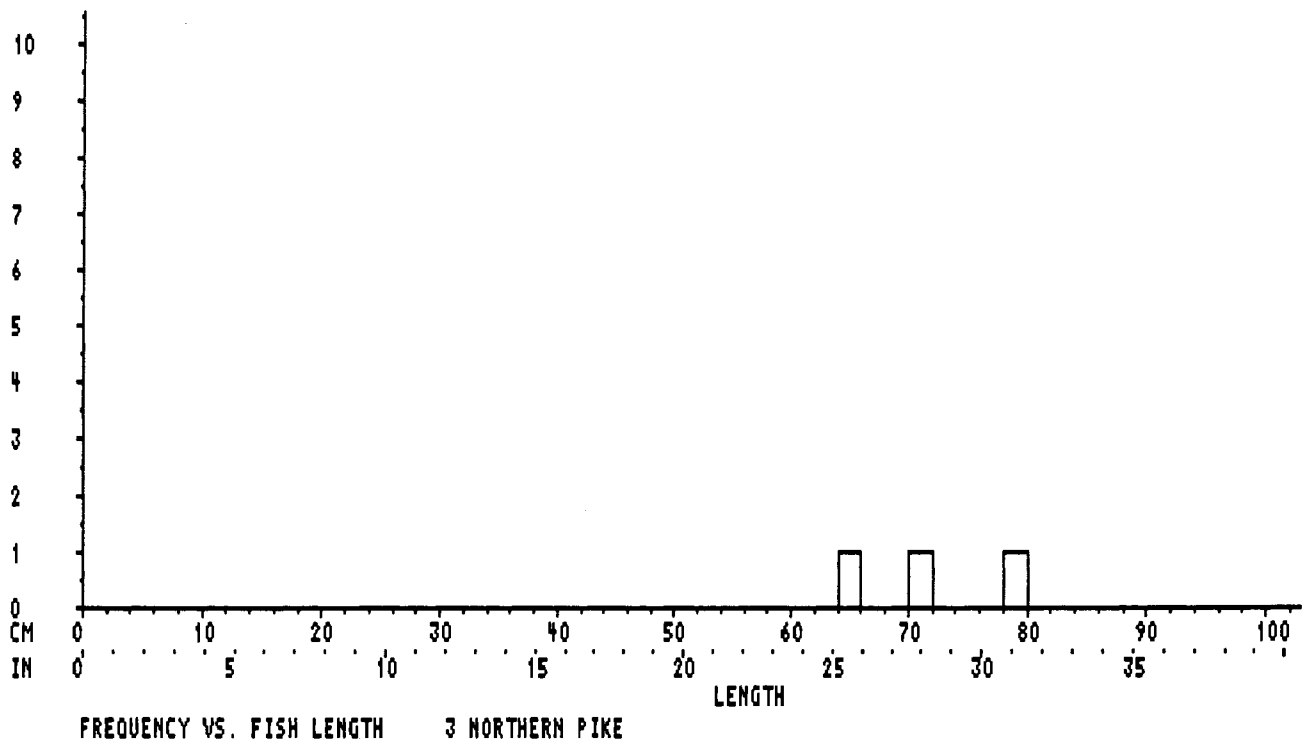


Figure 9. Round Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of northern pike harvested by all anglers.

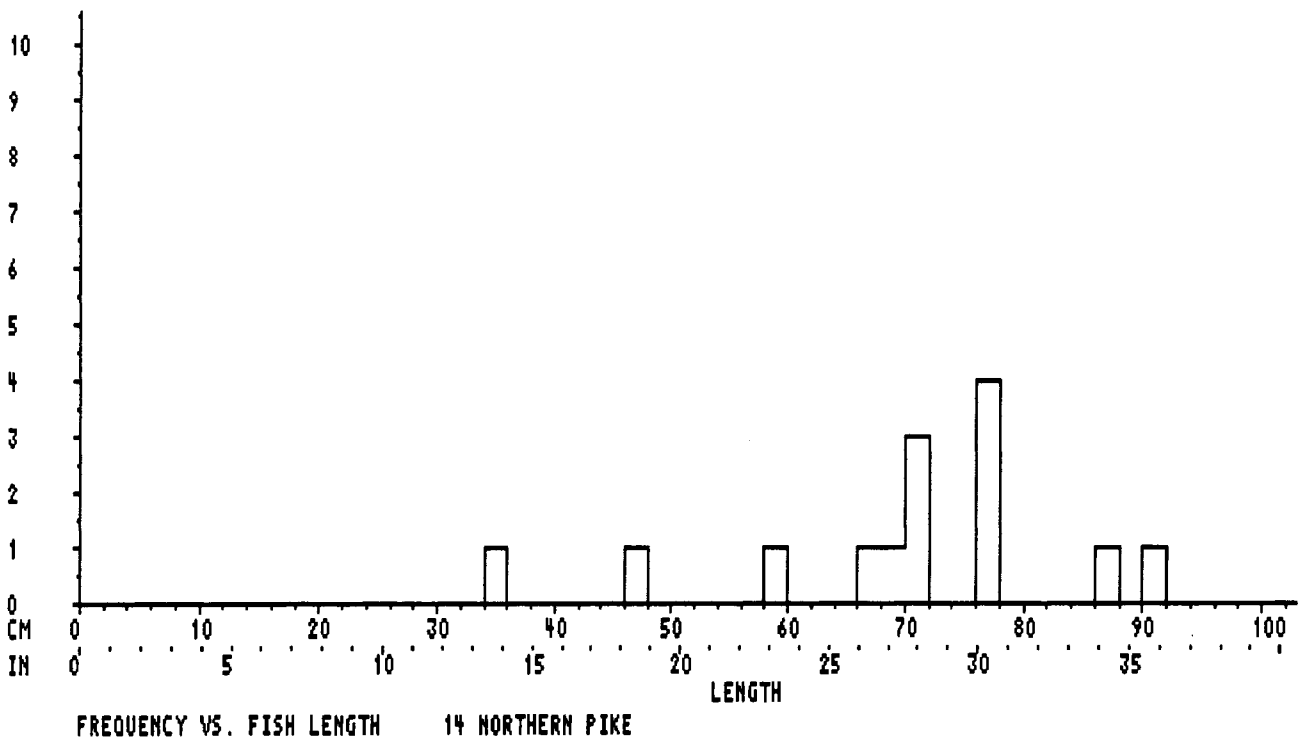


Figure 10. Round Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of northern pike released by all anglers.

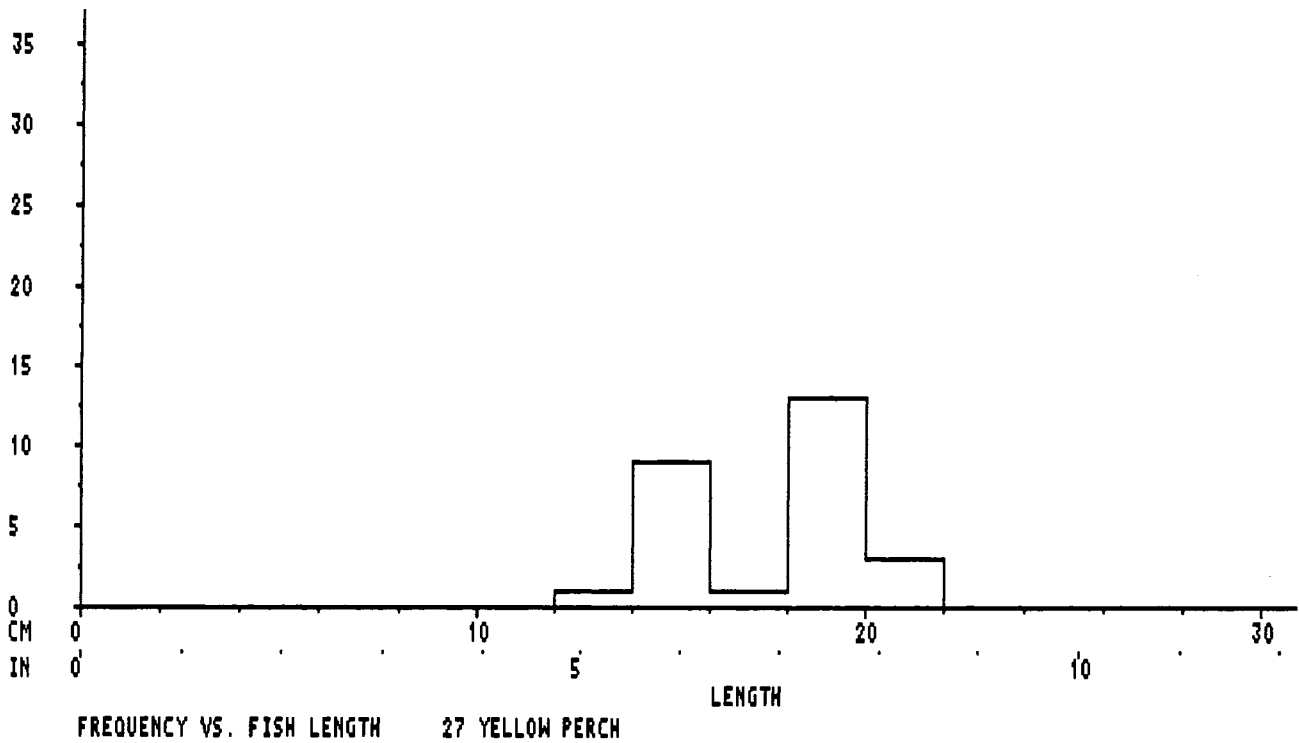


Figure 11. Round Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow perch harvested by all anglers.

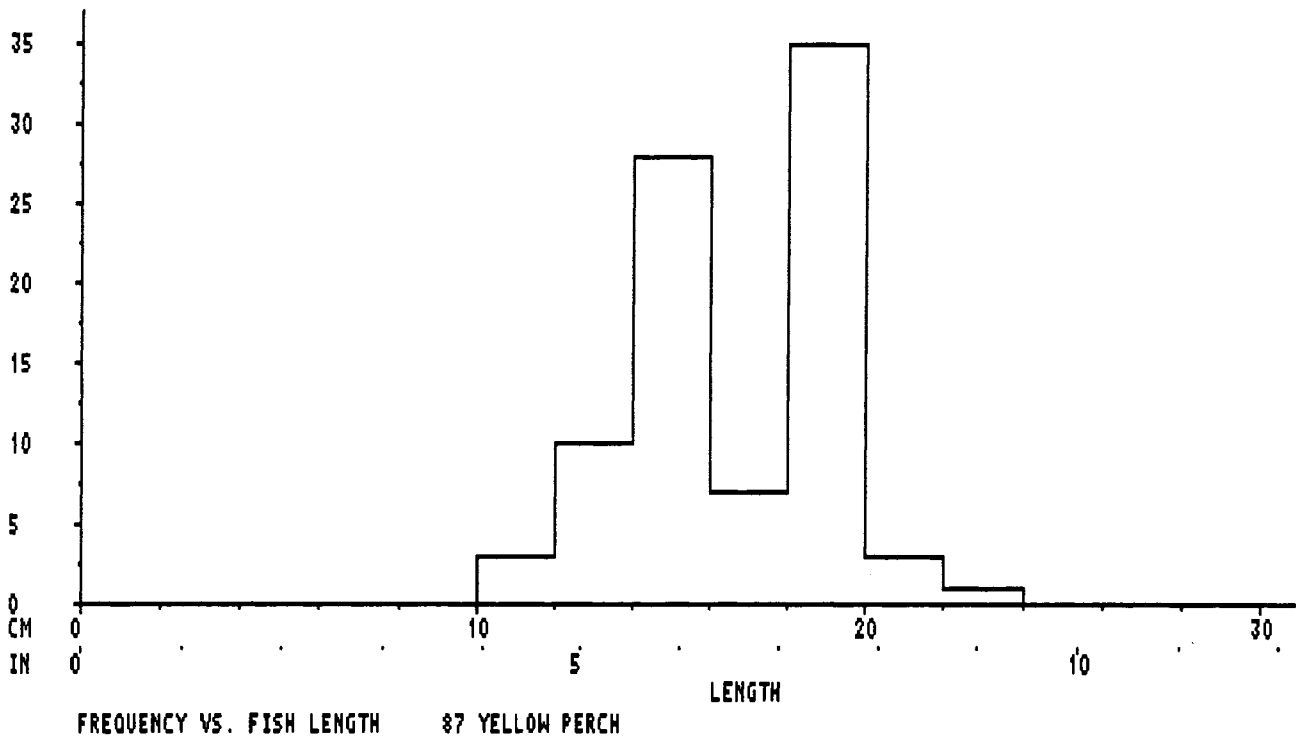


Figure 12. Round Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of yellow perch released by all anglers.

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

1999 SPRING LAKE NORTH
 466 ACRES
 REGION 1, DISTRICT 5

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: 302/693 = 43.6%

NUMBER OF INTERVIEWS: 2267

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	7966	6677-9255 (16%)	17	14-20 (16%)	17%
	HOLIDAY	10325	9075-11575 (12%)	22	19-25 (12%)	36%
	TOTAL	18291	16495-20087 (10%)	39	35-43 (10%)	28%
SHORE	WEEKDAY	5799	5053-6545 (13%)	12	11-14 (13%)	13%
	HOLIDAY	5653	5193-6114 (8%)	12	11-13 (8%)	28%
	TOTAL	11453	10576-12329 (8%)	25	23-26 (8%)	21%
BOAT & SHORE	WEEKDAY	13765	12276-15255 (11%)	30	26-33 (11%)	15%
	HOLIDAY	15979	14646-17311 (8%)	34	31-37 (8%)	33%
	TOTAL	29744	27745-31742 (7%)	64	60-68 (7%)	25%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
25853	22265-29441	(14%)	.744	.616-.871 (17%)	137.12	55.49	All species
29	0-79	(168%)	.002	.000-.005 (192%)	0.16	0.06	Black bullhead
732	355-1108	(51%)	.022	.001-.044 (96%)	3.88	1.57	Black crappie
21297	18175-24419	(15%)	.624	.504-.744 (19%)	112.95	45.71	Bluegill
15	0-48	(218%)	.001	.000-.002 (220%)	0.08	0.03	Brown bullhead
20	0-41	(104%)	.001	.000-.002 (116%)	0.11	0.04	Bluegill x Redear
68	0-146	(113%)	.002	.000-.004 (129%)	0.36	0.15	Carp
274	154-393	(44%)	.008	.004-.011 (43%)	1.45	0.59	Channel catfish
2	0-6	(318%)	.000	.000-.000 (318%)	0.01	0.00	Freshwater drum
294	143-445	(51%)	.006	.003-.008 (48%)	1.56	0.63	Green sunfish
966	730-1202	(24%)	.029	.021-.037 (28%)	5.12	2.07	Largemouth bass
9	0-29	(218%)	.000	.000-.001 (220%)	0.05	0.02	Muskellunge
2058	1411-2704	(31%)	.047	.034-.060 (28%)	10.91	4.42	Redear sunfish
86	34-137	(60%)	.002	.000-.003 (77%)	0.45	0.18	Warmouth
4	0-12	(226%)	.000	.000-.000 (231%)	0.02	0.01	White bass
			****	NOT RECORDED ****			White crappie
			****	NOT RECORDED ****			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
3420	2970-3871	(13%)	.100	.084-.115 (15%)	18.14	0.132	All species
15	0-41	(175%)	.001	.000-.003 (234%)	0.08	0.513	Black bullhead
221	98-344	(56%)	.007	.000-.014 (107%)	1.17	0.302	Black crappie
1844	1570-2118	(15%)	.053	.043-.064 (20%)	9.78	0.087	Bluegill
4	0-12	(218%)	.000	.000-.000 (218%)	0.02	0.270	Brown bullhead
4	0-7	(102%)	.000	.000-.000 (114%)	0.02	0.176	Bluegill x Redear
99	0-208	(110%)	.002	.000-.005 (106%)	0.53	1.456	Carp
294	160-429	(46%)	.009	.004-.014 (55%)	1.56	1.079	Channel catfish
2	0-9	(318%)	.000	.000-.000 (430%)	0.01	2.203	Freshwater drum
17	9-26	(47%)	.000	.000-.001 (44%)	0.09	0.059	Green sunfish
655	467-843	(29%)	.020	.014-.027 (33%)	3.48	0.678	Largemouth bass
18	0-56	(218%)	.001	.000-.003 (218%)	0.09	1.955	Muskellunge
234	153-315	(35%)	.005	.004-.007 (29%)	1.24	0.114	Redear sunfish
12	5-19	(59%)	.000	.000-.000 (60%)	0.06	0.141	Warmouth
1	0-5	(231%)	.000	.000-.000 (226%)	0.01	0.487	White bass
			****	NOT RECORDED ****			White crappie
			****	NOT RECORDED ****			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
7540	6547-8534	(13%)	.220	.186-.253 (15%)	16.18	0.292	All species
33	0-90	(175%)	.002	.000-.006 (234%)	0.07	1.132	Black bullhead
486	215-757	(56%)	.015	.000-.031 (107%)	1.04	0.665	Black crappie
4065	3461-4670	(15%)	.117	.094-.140 (20%)	8.73	0.191	Bluegill
8	0-26	(218%)	.000	.000-.001 (220%)	0.02	0.595	Brown bullhead
8	0-16	(102%)	.000	.000-.001 (114%)	0.02	0.388	Bluegill x Redear
218	0-459	(110%)	.005	.000-.011 (106%)	0.47	3.209	Carp
649	352-946	(46%)	.019	.009-.030 (55%)	1.39	2.378	Channel catfish
5	0-26	(430%)	.000	.000-.001 (430%)	0.01	4.856	Freshwater drum
38	20-56	(47%)	.001	.000-.001 (44%)	0.08	0.130	Green sunfish
1445	1030-1859	(29%)	.045	.030-.059 (33%)	3.10	1.495	Largemouth bass
39	0-123	(218%)	.002	.000-.006 (218%)	0.08	4.310	Muskellunge
516	338-695	(35%)	.012	.008-.015 (29%)	1.11	0.251	Redear sunfish
26	11-42	(59%)	.000	.000-.001 (60%)	0.06	0.310	Warmouth
3	0-11	(231%)	.000	.000-.000 (226%)	0.01	1.074	White bass
			****	NOT RECORDED ****			White crappie
			****	NOT RECORDED ****			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
81874	73530-90218 (10%)	2.545	2.140-2.949 (16%)	434.24	175.73	All species
29	0-79 (168%)	.002	.000-.005 (192%)	0.16	0.06	Black bullhead
1566	917-2214 (41%)	.052	.026-.077 (50%)	8.30	3.36	Black crappie
63105	55705-70504 (12%)	1.948	1.559-2.336 (20%)	334.69	135.45	Bluegill
15	0-48 (218%)	.001	.000-.002 (220%)	0.08	0.03	Brown bullhead
20	0-41 (104%)	.001	.000-.002 (116%)	0.11	0.04	Bluegill x Redear
152	57-246 (62%)	.004	.001-.008 (75%)	0.80	0.33	Carp
357	230-483 (36%)	.011	.007-.015 (34%)	1.89	0.77	Channel catfish
2	0-6 (318%)	.000	.000-.000 (318%)	0.01	0.00	Freshwater drum
362	199-524 (45%)	.008	.004-.013 (55%)	1.92	0.78	Green sunfish
12948	11161-14736 (14%)	.436	.375-.496 (14%)	68.67	27.79	Largemouth bass
398	287-510 (28%)	.010	.006-.014 (39%)	2.11	0.85	Muskellunge
2734	1836-3632 (33%)	.064	.043-.085 (33%)	14.50	5.87	Redear sunfish
142	78-206 (45%)	.007	.000-.014 (119%)	0.75	0.31	Warmouth
25	0-52 (113%)	.000	.000-.001 (96%)	0.13	0.05	White bass
18	0-55 (211%)	.001	.000-.005 (306%)	0.09	0.04	White crappie
3	0-10 (257%)	.000	.000-.000 (278%)	0.01	0.01	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
11386	10207-12565 (10%)	.370	.323-.417 (13%)	60.39	0.139	All species
15	0-41 (175%)	.001	.000-.003 (234%)	0.08	0.513	Black bullhead
345	191-500 (45%)	.011	.004-.018 (67%)	1.83	0.220	Black crappie
2928	2553-3303 (13%)	.085	.069-.102 (19%)	15.53	0.046	Bluegill
4	0-12 (218%)	.000	.000-.000 (218%)	0.02	0.270	Brown bullhead
4	0-7 (102%)	.000	.000-.000 (114%)	0.02	0.176	Bluegill x Redear
194	63-324 (68%)	.005	.002-.008 (64%)	1.03	1.282	Carp
324	187-460 (42%)	.011	.005-.016 (50%)	1.72	0.909	Channel catfish
2	0-9 (318%)	.000	.000-.000 (430%)	0.01	2.203	Freshwater drum
20	11-28 (43%)	.000	.000-.001 (44%)	0.10	0.054	Green sunfish
6720	5756-7684 (14%)	.233	.189-.278 (19%)	35.64	0.519	Largemouth bass
547	377-717 (31%)	.016	.009-.022 (42%)	2.90	1.374	Muskellunge
257	167-347 (35%)	.006	.004-.008 (30%)	1.36	0.094	Redear sunfish
19	11-27 (44%)	.001	.000-.002 (138%)	0.10	0.133	Warmouth
7	0-15 (120%)	.000	.000-.000 (94%)	0.04	0.277	White bass
2	0-6 (248%)	.000	.000-.001 (308%)	0.01	0.100	White crappie
1	0-4 (257%)	.000	.000-.000 (278%)	0.01	0.588	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
25102	22503-27702 (10%)	.815	.711-.919 (13%)	53.88	0.307	All species
33	0-90 (175%)	.002	.000-.006 (234%)	0.07	1.132	Black bullhead
761	420-1101 (45%)	.024	.008-.041 (67%)	1.63	0.486	Black crappie
6456	5629-7283 (13%)	.188	.152-.225 (19%)	13.86	0.102	Bluegill
8	0-26 (218%)	.000	.000-.001 (220%)	0.02	0.595	Brown bullhead
8	0-16 (102%)	.000	.000-.001 (114%)	0.02	0.388	Bluegill x Redear
427	138-715 (68%)	.010	.004-.017 (64%)	0.92	2.826	Carp
713	411-1015 (42%)	.023	.012-.035 (50%)	1.53	2.003	Channel catfish
5	0-26 (430%)	.000	.000-.001 (430%)	0.01	4.856	Freshwater drum
43	25-62 (43%)	.001	.001-.001 (44%)	0.09	0.120	Green sunfish
14814	12689-16940 (14%)	.515	.416-.613 (19%)	31.80	1.144	Largemouth bass
1205	831-1580 (31%)	.035	.020-.049 (42%)	2.59	3.029	Muskellunge
567	369-764 (35%)	.013	.009-.017 (30%)	1.22	0.207	Redear sunfish
42	23-60 (44%)	.002	.000-.005 (138%)	0.09	0.292	Warmouth
15	0-32 (120%)	.000	.000-.000 (94%)	0.03	0.610	White bass
4	0-13 (248%)	.000	.000-.001 (308%)	0.01	0.220	White crappie
3	0-9 (257%)	.000	.000-.000 (278%)	0.01	1.297	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	3.8	3.6-4.1	(6%)	0.2	9.0	328
SHORE	2.0	1.6-2.3	(19%)	0.3	8.0	56
BOAT & SHORE	3.6	3.3-3.8	(6%)	0.2	9.0	384
MILES TRAVELED	27.2	20.8-33.7	(24%)	1	3250	1754
SUCCESS RATING (1-10)	3.8	3.7-3.9	(3%)	1	10	1704

*188 samples were from split interviews of completed trips.

18.5% of all 2071 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 19 out of 2071 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	390	678	103	14	2	1				
SHORE INTERVIEWS	379	378	99	20	4	3				

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

186 (9.0%)	ANY	All species
480 (23.2%)	BLG	Bluegill
7 (0.3%)	CAP	Carp
8 (0.4%)	CAT	Catfish spp.
164 (7.9%)	CCF	Channel catfish
140 (6.8%)	CRP	Crappie spp.
915 (44.2%)	LMB	Largemouth bass
165 (8.0%)	MUE	Muskellunge
3 (0.1%)	RSF	Redear sunfish
3 (0.1%)	SUN	Sunfish spp. excluding Crappie and Black Bass

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 crappie																
HARVEST	675	2	7	2	-	2	-	-	-	-	1	-	-	-	-	-
RELEASE	661	13	3	6	2	-	1	3	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	616	4	-	3	12	3	4	4	12	1	4	2	-	2	5	17
RELEASE	522	30	8	16	18	13	5	2	11	-	8	-	7	5	-	44
Bluegill x Redear sunfish hybrid																
HARVEST	687	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	689	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carp																
HARVEST	686	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	689	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	681	6	-	2	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	683	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Green sunfish																
HARVEST	687	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	683	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	672	12	2	3	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	288	156	77	50	31	24	19	8	8	6	4	1	3	4	1	9
Muskellunge																
HARVEST	689	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	629	57	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Redear sunfish																
HARVEST	650	17	12	5	3	-	-	2	-	-	-	-	-	-	-	-
RELEASE	683	-	2	2	1	-	1	-	-	-	-	-	-	-	-	-
Warmouth																
HARVEST	683	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	680	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White bass																
HARVEST	689	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	687	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow bullhead																
HARVEST	689	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	688	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-

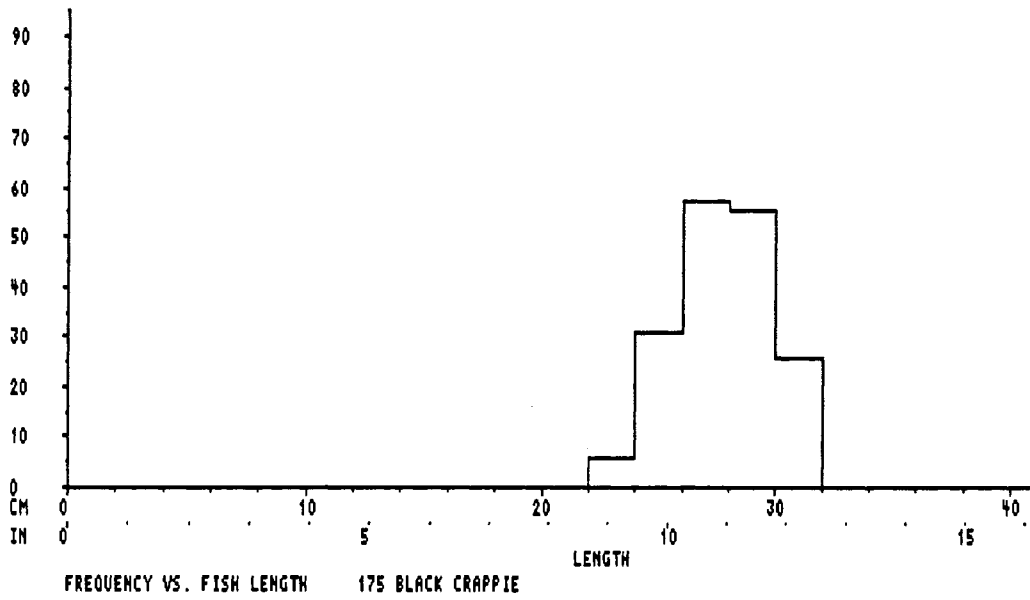


Figure 1. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie harvested by all anglers.

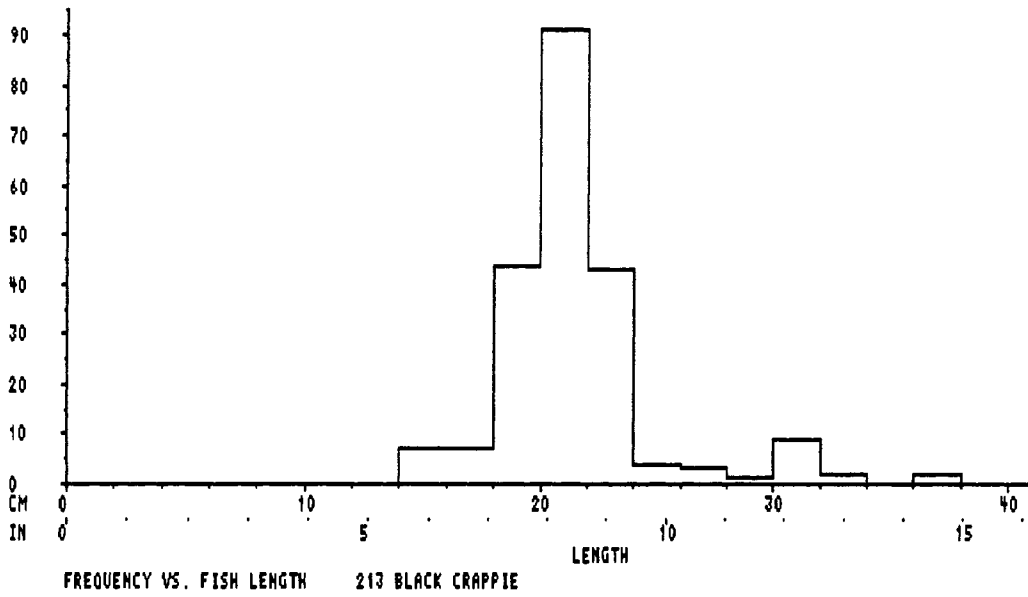


Figure 2. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of black crappie released by all anglers.

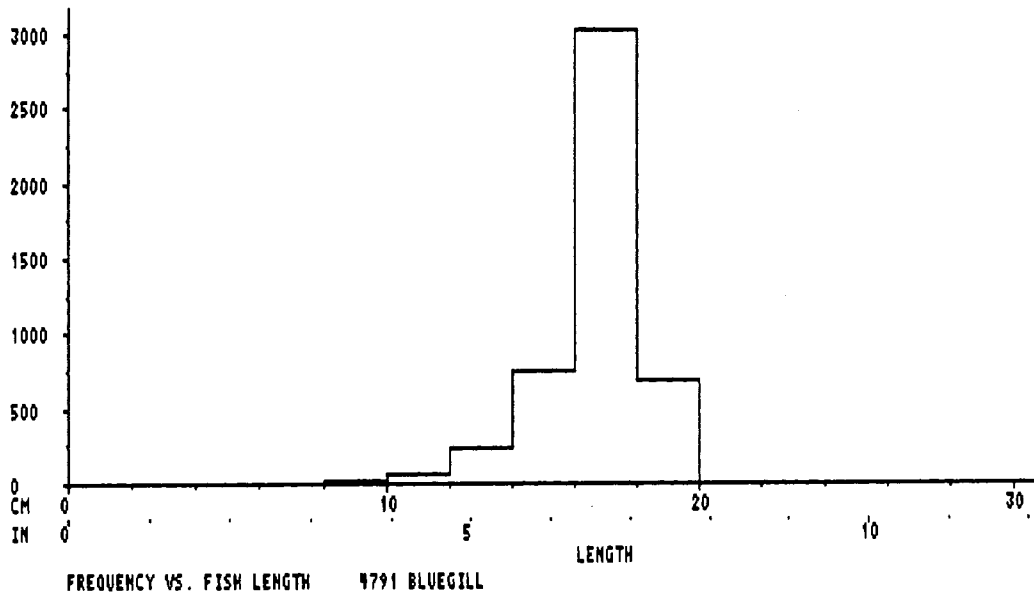


Figure 3. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

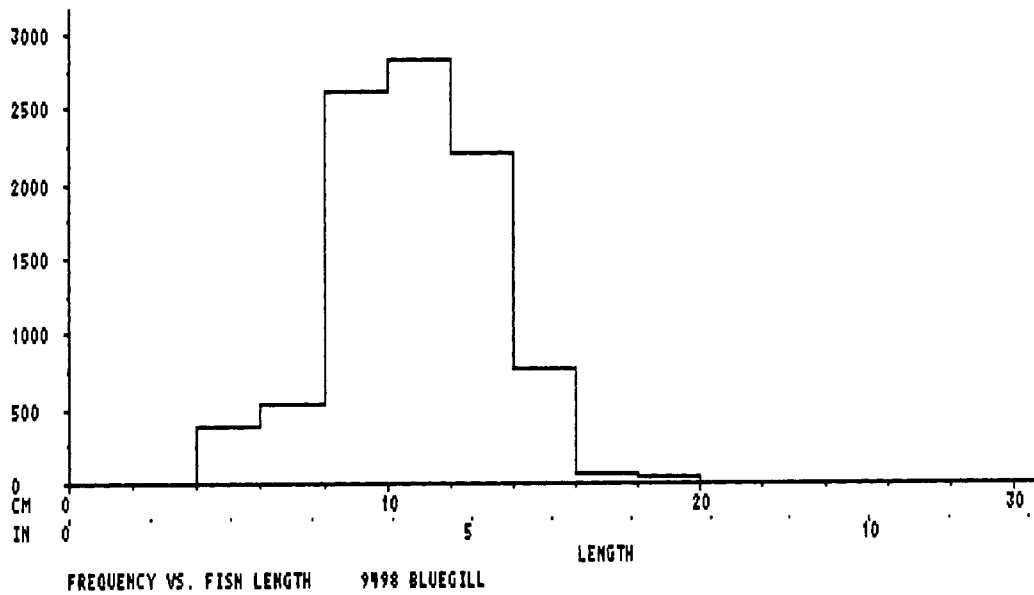


Figure 4. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

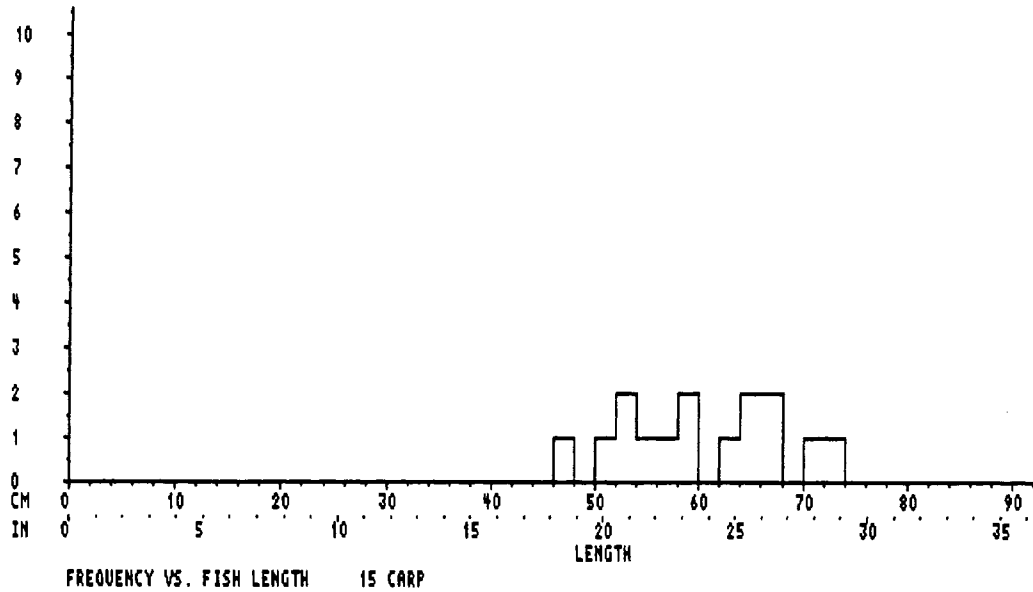


Figure 5. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp harvested by all anglers.

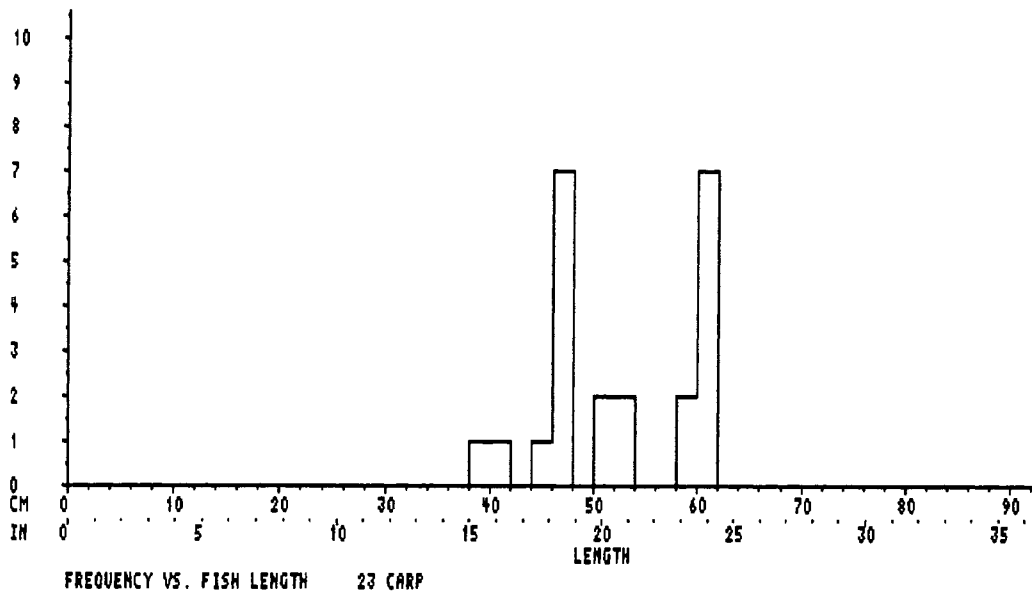


Figure 6. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp released by all anglers.

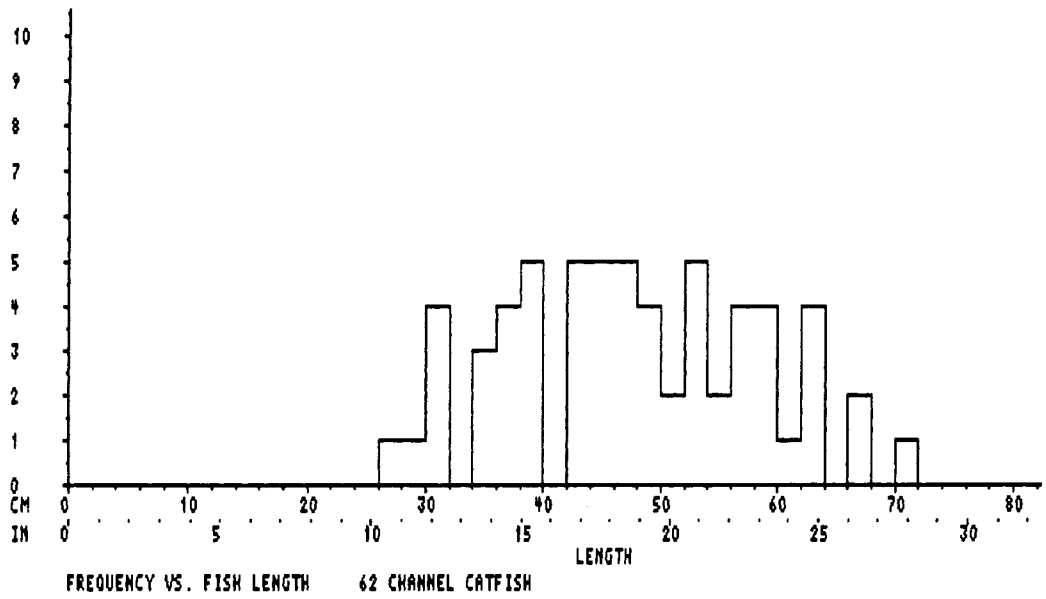


Figure 7. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

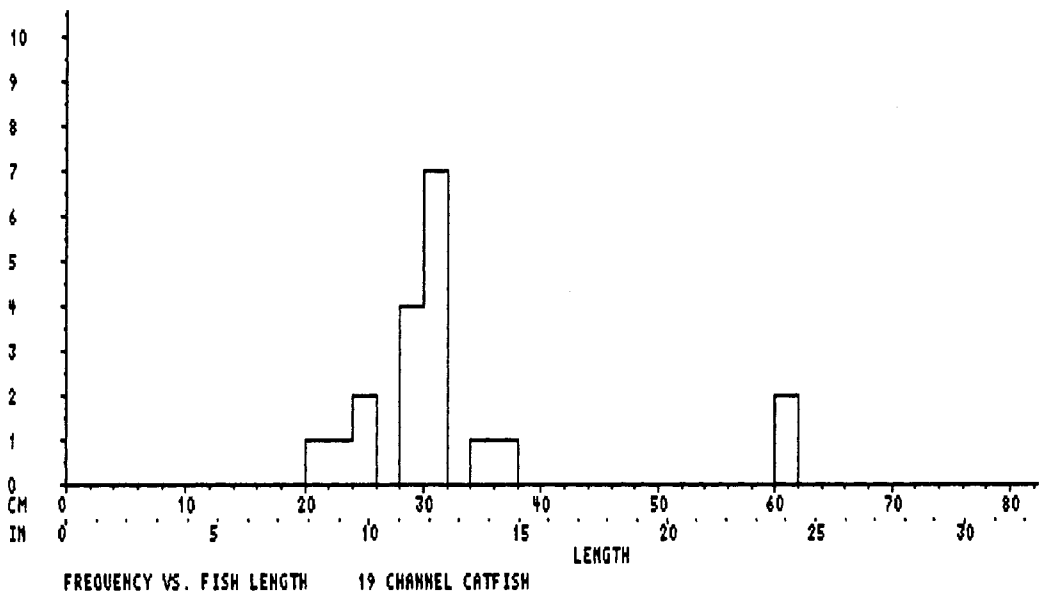


Figure 8. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

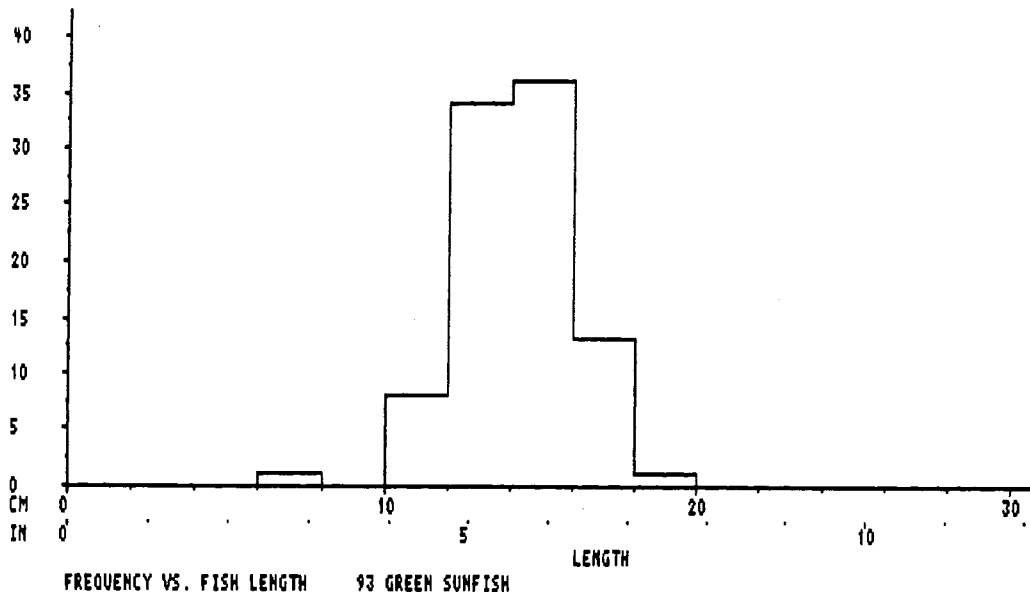


Figure 9. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of green sunfish harvested by all anglers.

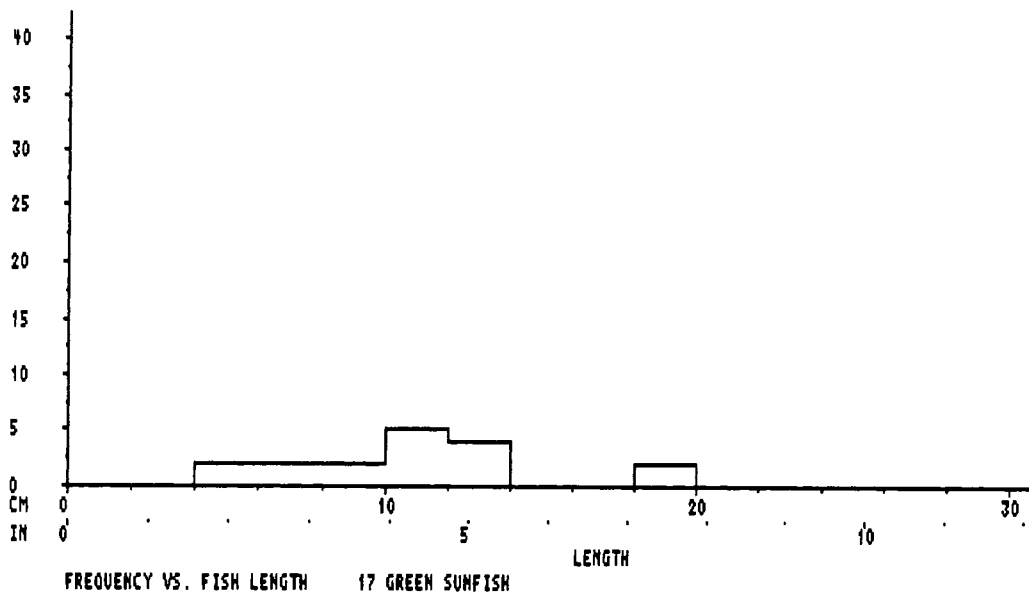


Figure 10. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of green sunfish released by all anglers.

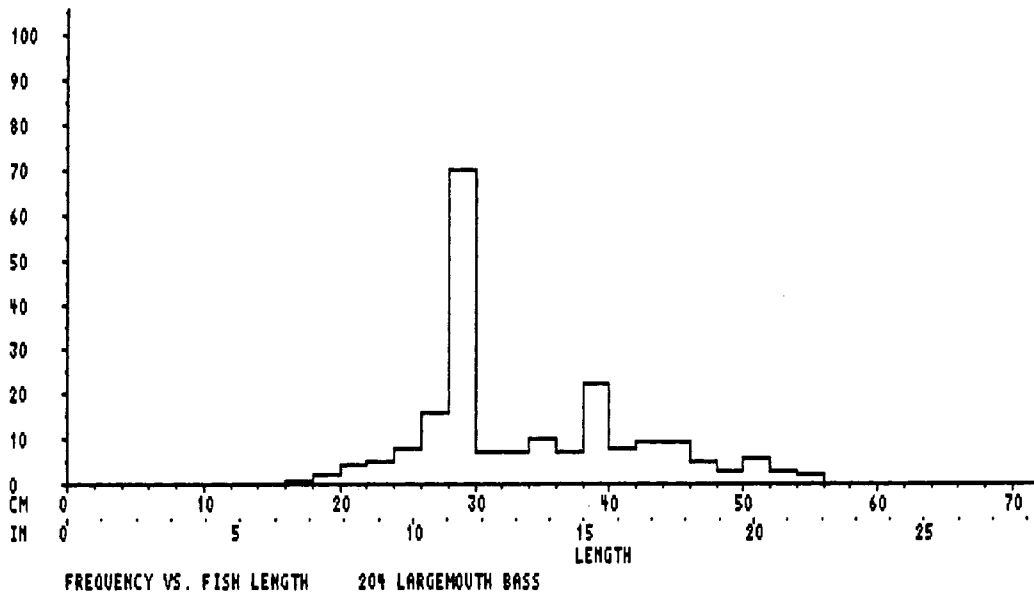


Figure 11. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

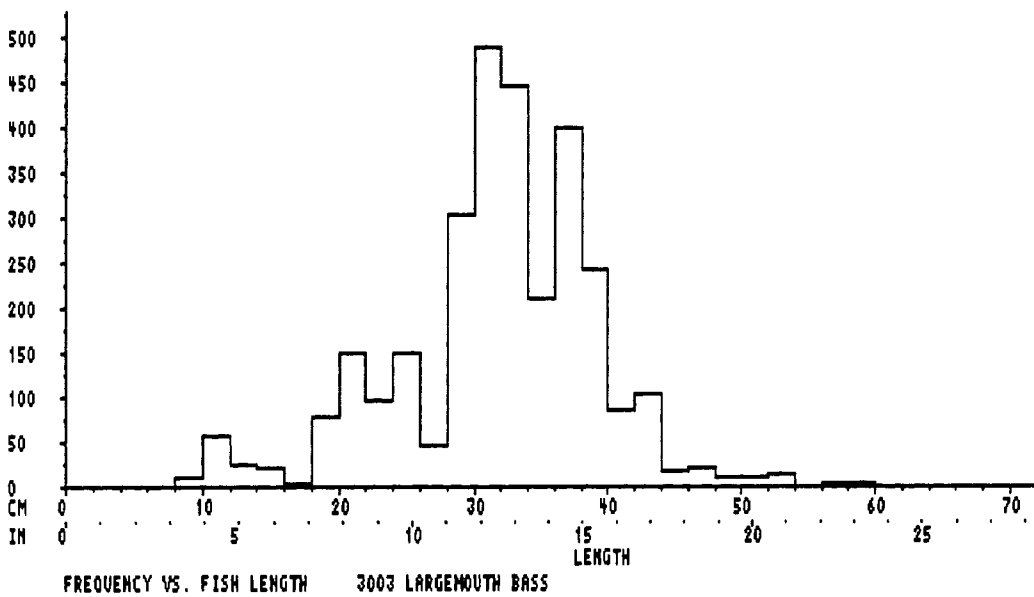


Figure 12. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers. Note the difference in scale from Figure 11.

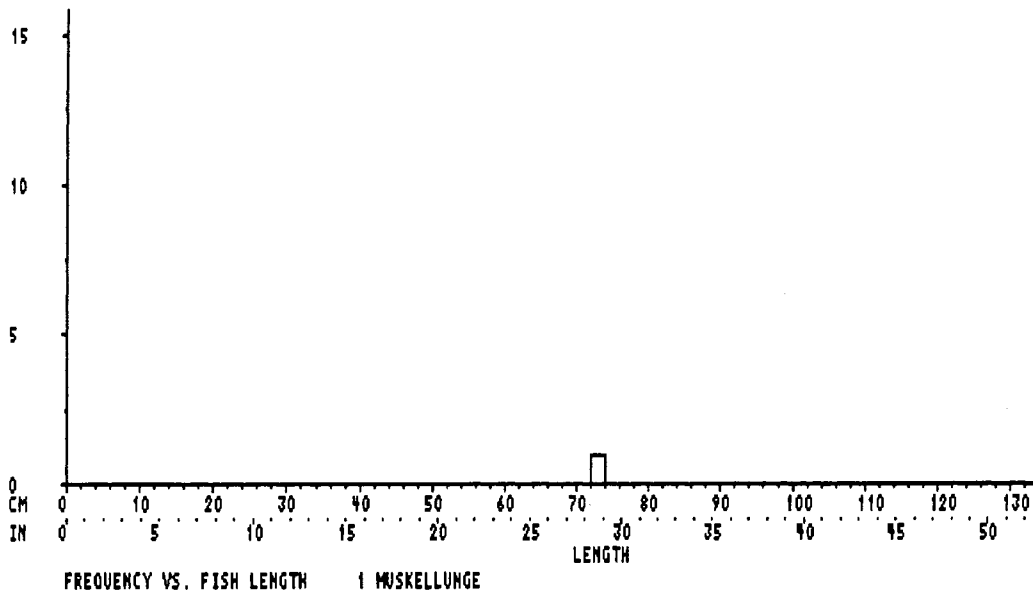


Figure 13. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of muskellunge harvested by all anglers.

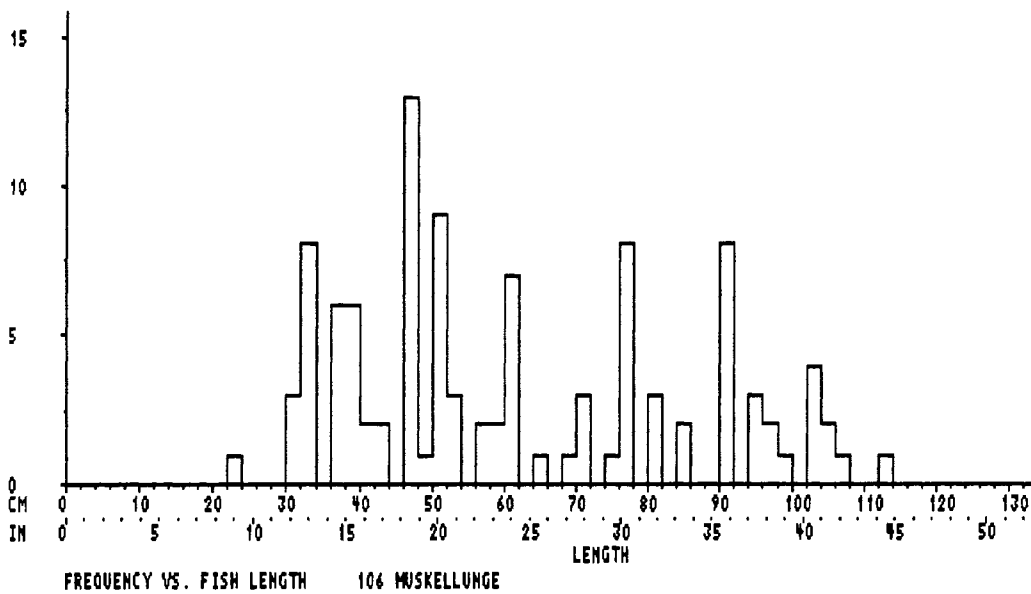


Figure 14. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of muskellunge released by all anglers.

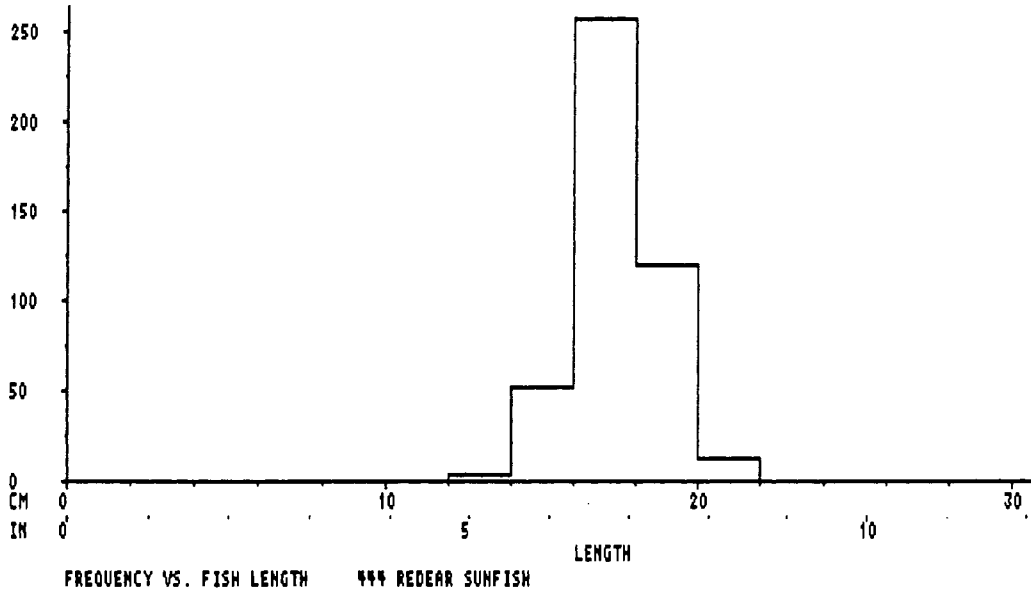


Figure 15. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of reedear sunfish harvested by all anglers.

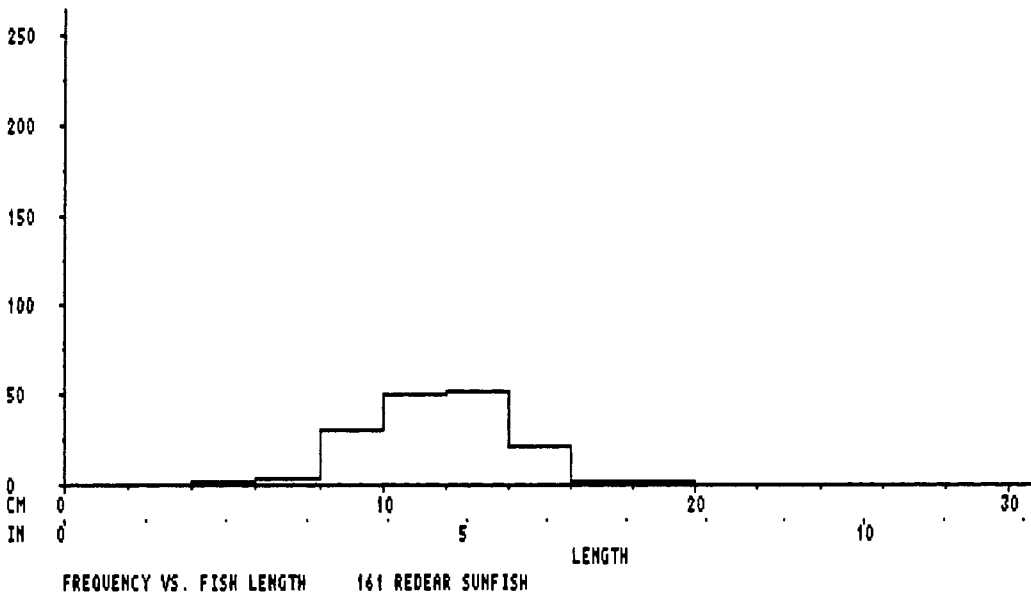
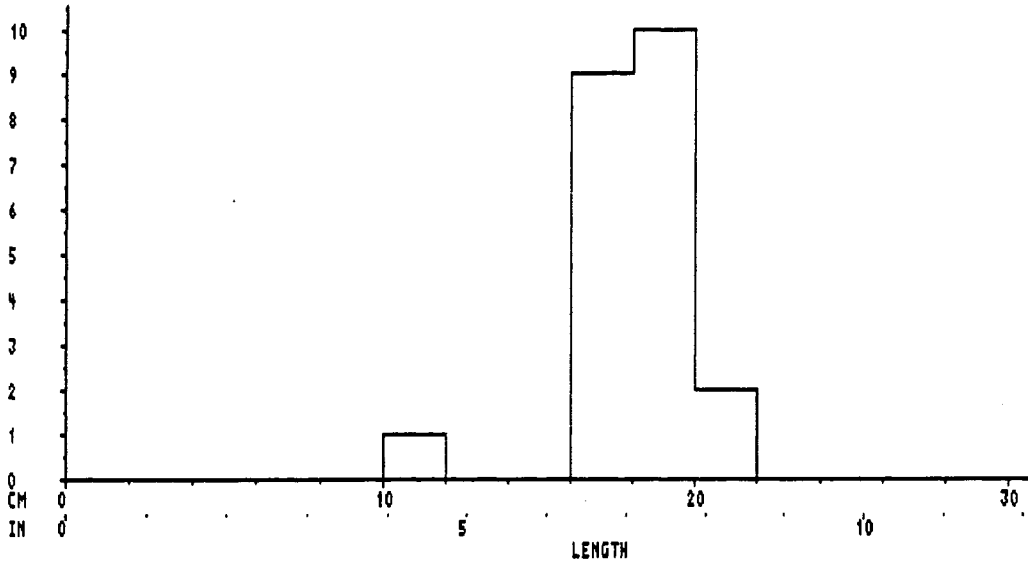
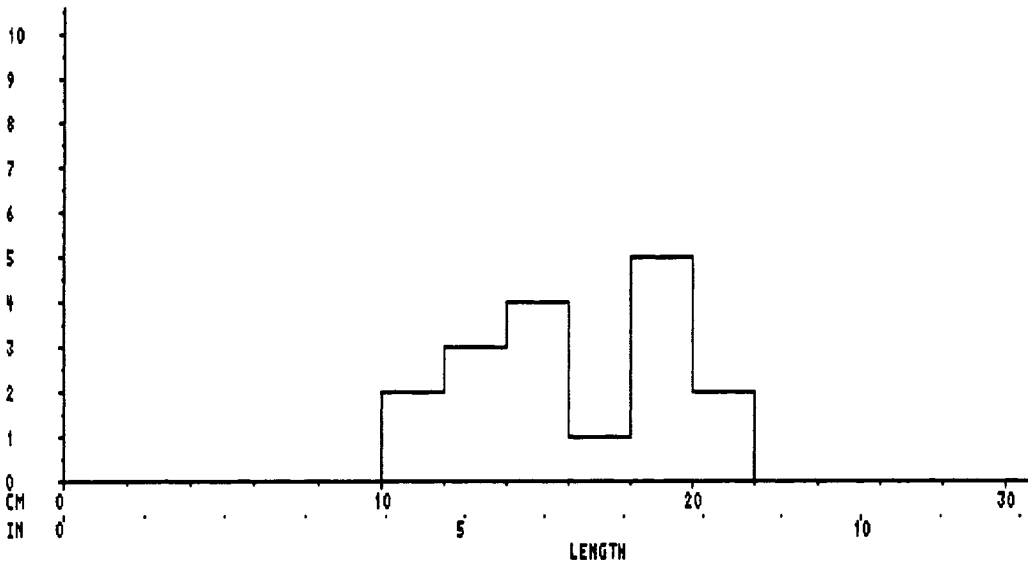


Figure 16. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of reedear sunfish released by all anglers.



FREQUENCY VS. FISH LENGTH 22 WARMOUTH
 Figure 17. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of warmouth harvested by all anglers.



FREQUENCY VS. FISH LENGTH 17 WARMOUTH
 Figure 18. Spring Lake North 1999 day creel 3/15 through 10/31. Length-frequency histogram of warmouth released by all anglers.

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

1999 WALTON PARK LAKE
 30 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: 307/693 = 44.3%

NUMBER OF INTERVIEWS: 432

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	315	137-493 (56%)	11	5-17 (56%)	21%
	HOLIDAY	391	270-512 (31%)	13	9-17 (31%)	54%
	TOTAL	706	491-921 (30%)	24	17-31 (30%)	40%
SHORE	WEEKDAY	1106	812-1400 (27%)	37	27-47 (27%)	21%
	HOLIDAY	1360	1089-1631 (20%)	46	37-55 (20%)	55%
	TOTAL	2466	2066-2866 (16%)	83	70-97 (16%)	40%
BOAT & SHORE	WEEKDAY	1421	1077-1765 (24%)	48	36-59 (24%)	21%
	HOLIDAY	1751	1454-2048 (17%)	59	49-69 (17%)	55%
	TOTAL	3172	2718-3626 (14%)	107	92-122 (14%)	40%

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

# HARVESTED	95% CI		#/HOUR	95% CI	#/HA	#/ACRE	SPECIES
60	13-106	(79%)	.004	.000-.008 (91%)	4.95	2.00	All species
			****	NOT RECORDED ****			Black bullhead
3	0-11	(236%)	.000	.000-.001 (236%)	0.27	0.11	Bluegill
3	0-11	(236%)	.000	.000-.001 (236%)	0.27	0.11	Carp
25	0-56	(127%)	.002	.000-.005 (153%)	2.05	0.83	Channel catfish
			****	NOT RECORDED ****			Green sunfish
28	0-66	(133%)	.002	.000-.004 (135%)	2.36	0.96	Largemouth bass
			****	NOT RECORDED ****			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
35	8-61	(76%)	.002	.000-.005 (93%)	2.90	0.590	All species
			****	NOT RECORDED ****			Black bullhead
0	0-1	(245%)	.000	.000-.000 (236%)	0.03	0.125	Bluegill
1	0-4	(236%)	.000	.000-.000 (245%)	0.11	0.426	Carp
12	0-28	(123%)	.001	.000-.001 (112%)	1.03	0.518	Channel catfish
			****	NOT RECORDED ****			Green sunfish
21	0-44	(112%)	.002	.000-.004 (134%)	1.72	0.740	Largemouth bass
			****	NOT RECORDED ****			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
77	18-135	(76%)	.005	.000-.010 (93%)	2.58	1.301	All species
			****	NOT RECORDED ****			Black bullhead
1	0-3	(245%)	.000	.000-.000 (236%)	0.03	0.276	Bluegill
3	0-10	(245%)	.000	.000-.001 (245%)	0.09	0.938	Carp
27	0-61	(123%)	.001	.000-.003 (112%)	0.92	1.143	Channel catfish
			****	NOT RECORDED ****			Green sunfish
46	0-97	(112%)	.004	.000-.008 (134%)	1.54	1.631	Largemouth bass
			****	NOT RECORDED ****			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
3141	2481-3802	(21%)	.273	.208-.337 (24%)	261.35	105.77	All species
7	0-16	(136%)	.000	.000-.001 (163%)	0.56	0.23	Black bullhead
1054	646-1461	(39%)	.108	.059-.156 (45%)	87.66	35.48	Bluegill
22	5-38	(76%)	.002	.000-.004 (95%)	1.80	0.73	Carp
1460	1120-1800	(23%)	.113	.085-.141 (25%)	121.50	49.17	Channel catfish
81	0-190	(135%)	.003	.000-.009 (191%)	6.71	2.72	Green sunfish
418	281-555	(33%)	.041	.026-.055 (36%)	34.75	14.06	Largemouth bass
101	13-188	(87%)	.006	.001-.012 (86%)	8.38	3.39	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
482	363-602	(25%)	.041	.031-.051 (24%)	40.13	0.154	All species
2	0-4	(134%)	.000	.000-.000 (145%)	0.14	0.272	Black bullhead
42	26-58	(38%)	.004	.002-.006 (46%)	3.48	0.040	Bluegill
8	2-15	(81%)	.001	.000-.001 (108%)	0.68	0.391	Carp
184	140-228	(24%)	.013	.010-.017 (23%)	15.29	0.126	Channel catfish
3	0-8	(129%)	.000	.000-.000 (182%)	0.28	0.042	Green sunfish
232	135-329	(42%)	.022	.013-.030 (39%)	19.30	0.556	Largemouth bass
11	2-21	(85%)	.001	.000-.002 (100%)	0.95	0.114	White crappie

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

LB CAUGHT	95% CI		LB/HOUR	95% CI	LB/ACRE	AVE LB	SPECIES
1063	800-1326	(25%)	.091	.069-.113 (24%)	35.80	0.339	All species
4	0-8	(134%)	.000	.000-.000 (145%)	0.12	0.599	Black bullhead
92	57-127	(38%)	.009	.005-.013 (46%)	3.10	0.088	Bluegill
18	4-33	(81%)	.002	.000-.003 (108%)	0.61	0.863	Carp
405	308-502	(24%)	.029	.023-.036 (23%)	13.65	0.278	Channel catfish
7	0-17	(129%)	.000	.000-.001 (182%)	0.25	0.094	Green sunfish
511	297-726	(42%)	.048	.029-.067 (39%)	17.22	1.227	Largemouth bass
25	4-47	(85%)	.002	.000-.004 (100%)	0.85	0.252	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	2.7	2.3-3.1	(14%)	0.5	5.7	49
SHORE	1.9	1.8-2.0	(7%)	0.2	5.0	234
BOAT & SHORE	2.0	1.9-2.2	(7%)	0.2	5.7	283
MILES TRAVELED	4.7	3.7-5.7	(21%)	1	65	329
SUCCESS RATING (1-10)	4.0	3.7-4.4	(9%)	1	10	326

*76 samples were from split interviews of completed trips.

80.4% of all 352 interviews were completed trips.

ILLEGAL HARVEST: Clerk noted 1 out of 352 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	8	34	8							
SHORE INTERVIEWS	123	137	38	4						

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

56 (15.9%)	ANY	All species
15 (4.3%)	BLG	Bluegill
1 (0.3%)	CAP	Carp
195 (55.4%)	CCF	Channel catfish
84 (23.9%)	LMB	Largemouth bass
1 (0.3%)	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	508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	504	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	420	19	20	15	5	11	6	2	2	2	2	-	2	2	-	-
Carp																
HARVEST	508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	497	9	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	499	5	3	1	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	260	97	73	45	18	12	1	-	1	-	-	-	-	-	-	1
Green sunfish																
HARVEST	508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	506	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
Largemouth bass																
HARVEST	504	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	428	49	11	15	2	3	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	490	10	2	5	-	-	-	1	-	-	-	-	-	-	-	-

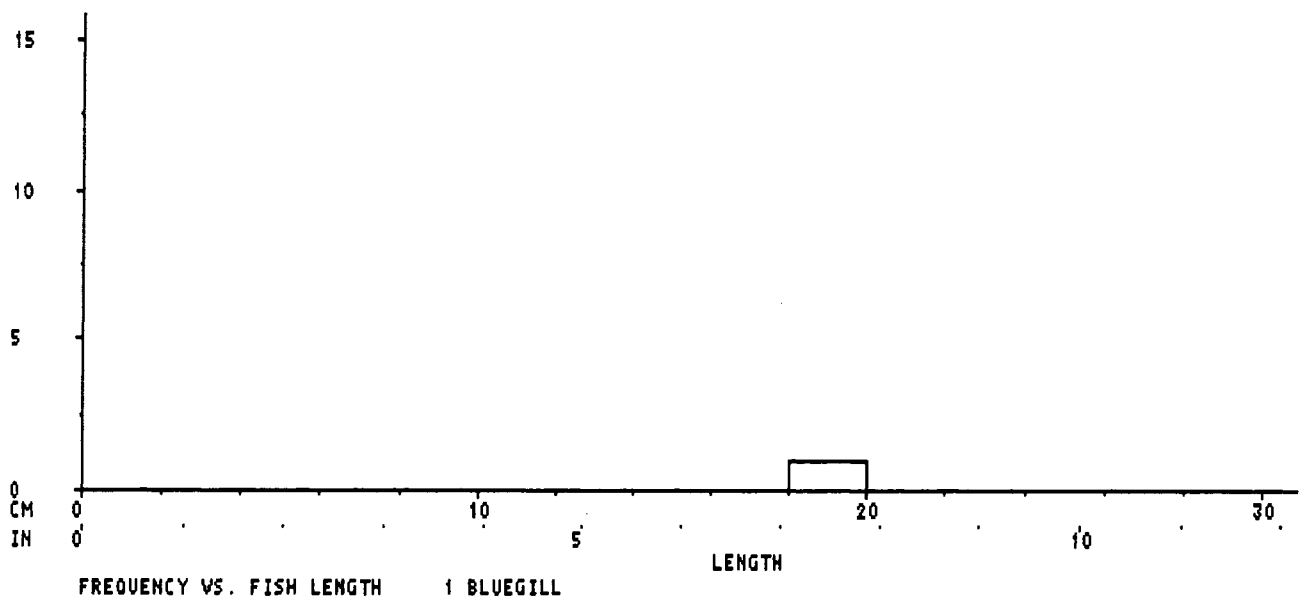


Figure 1. Walton Park Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

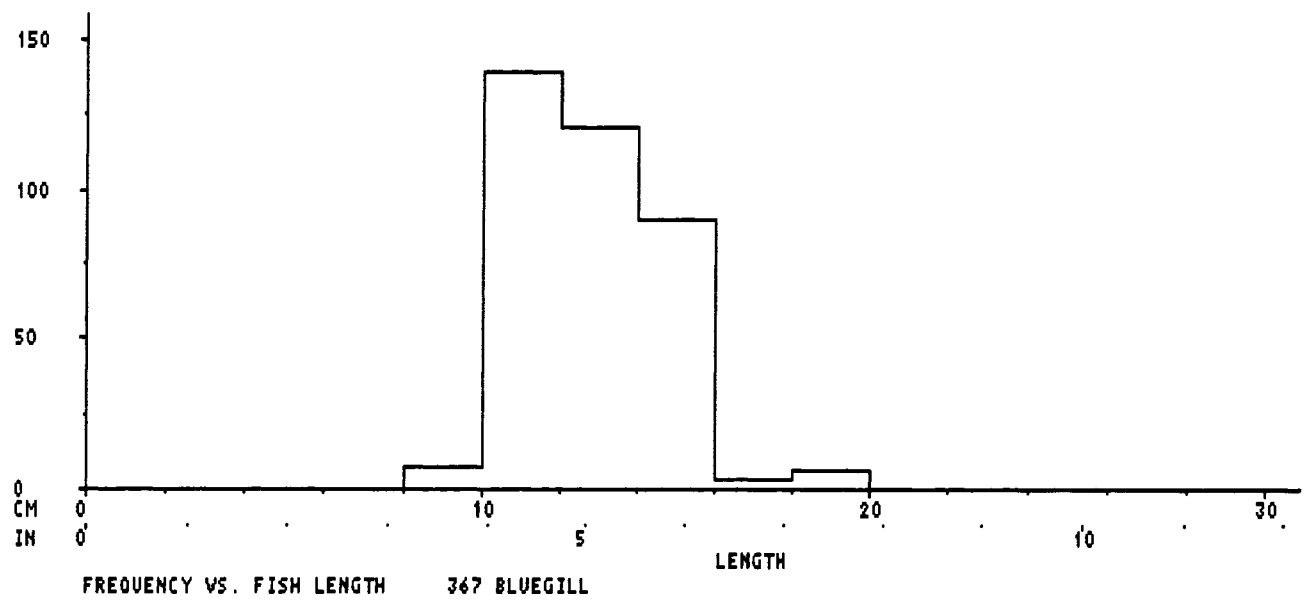


Figure 2. Walton Park Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers. Note the difference in scale from Figure 1.

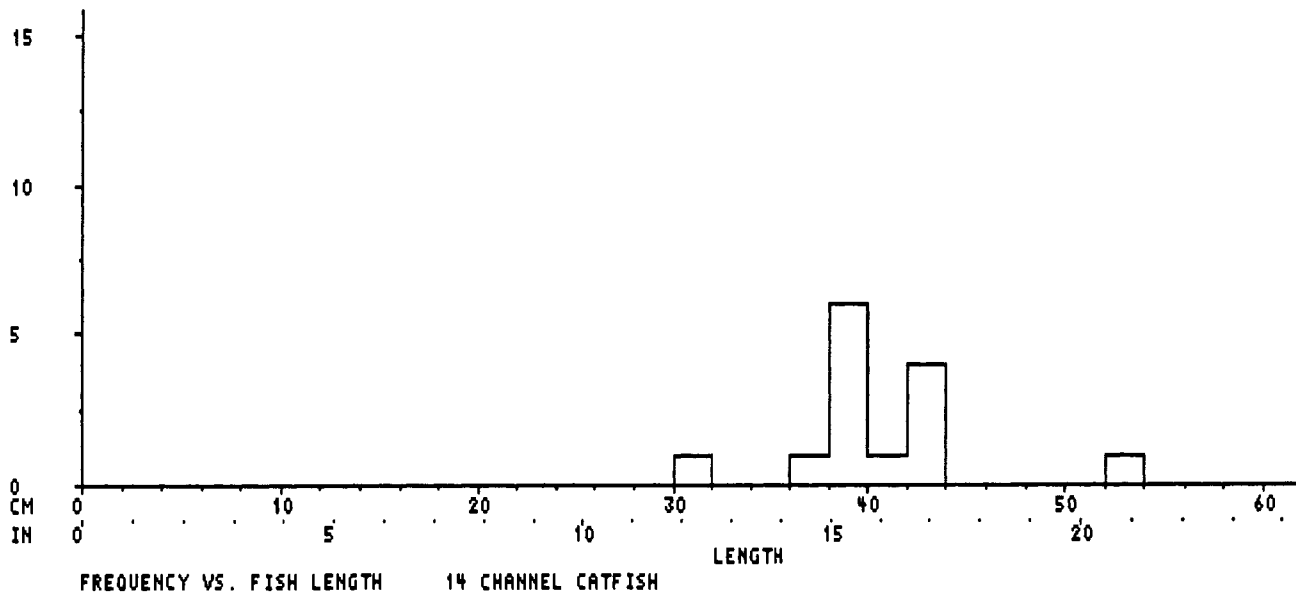


Figure 3. Walton Park Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

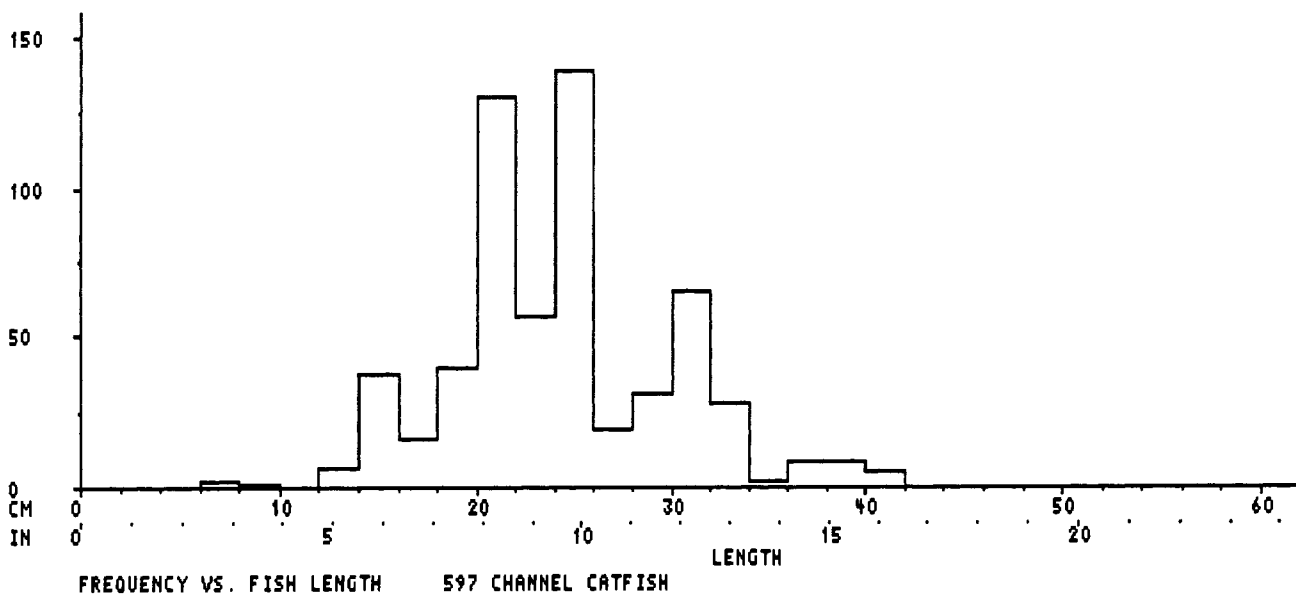


Figure 4. Walton Park Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers. Note the difference in scale from Figure 3.

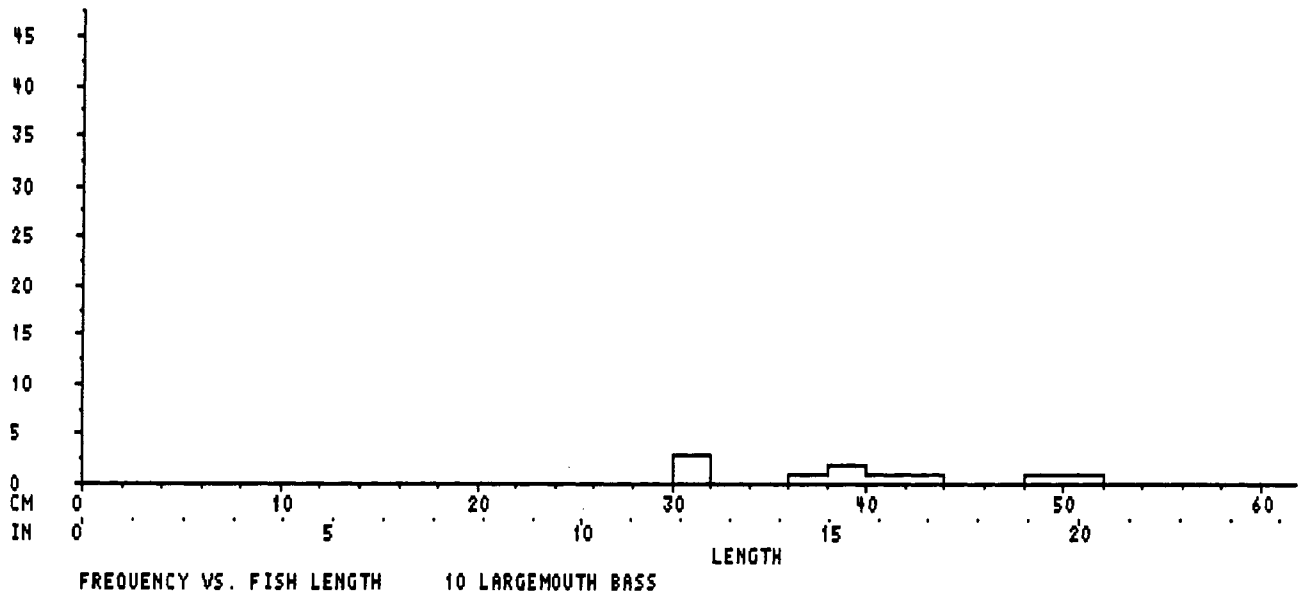


Figure 5. Walton Park Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass harvested by all anglers.

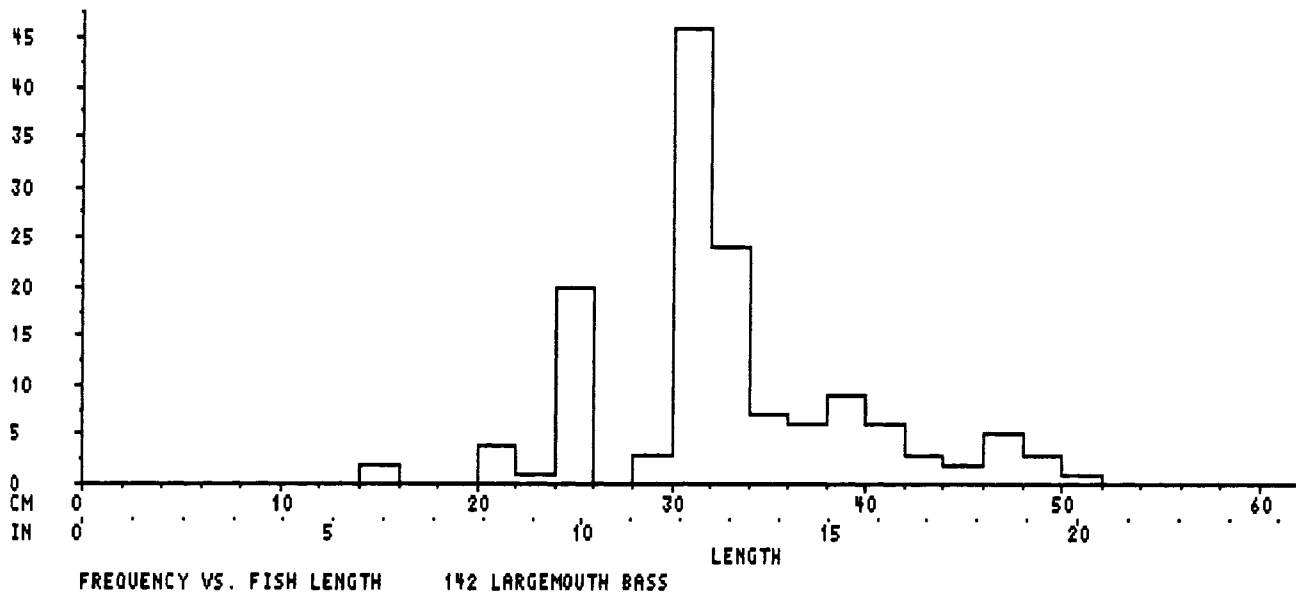


Figure 6. Walton Park Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of largemouth bass released by all anglers.

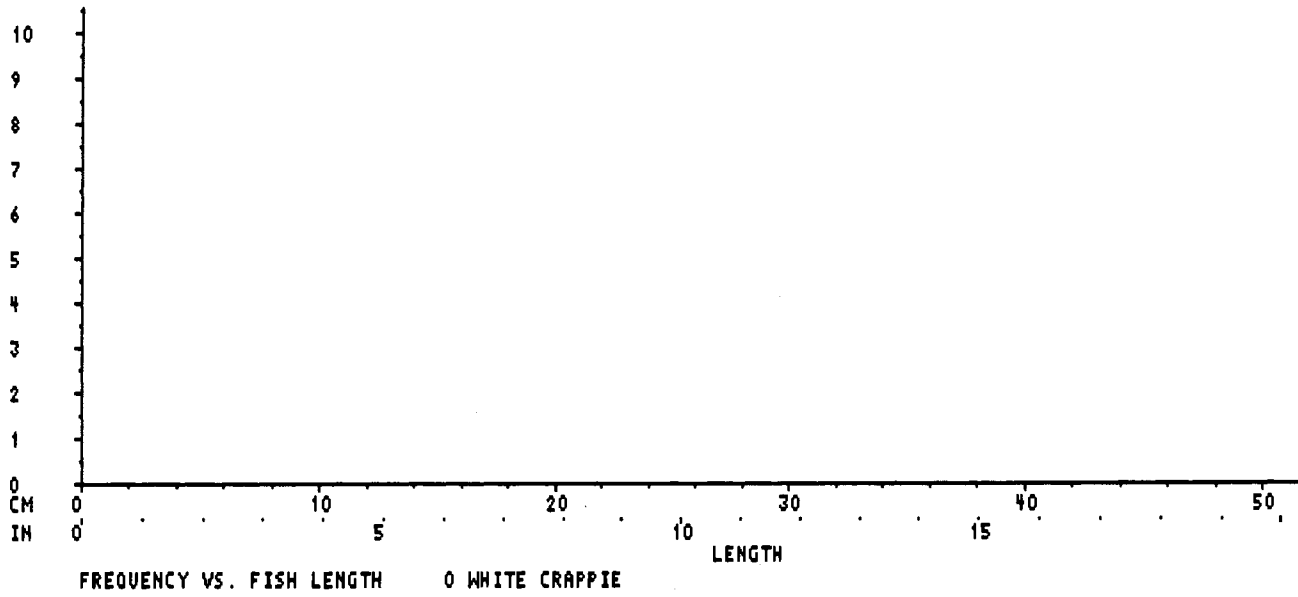


Figure 7. Walton Park Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie harvested by all anglers.

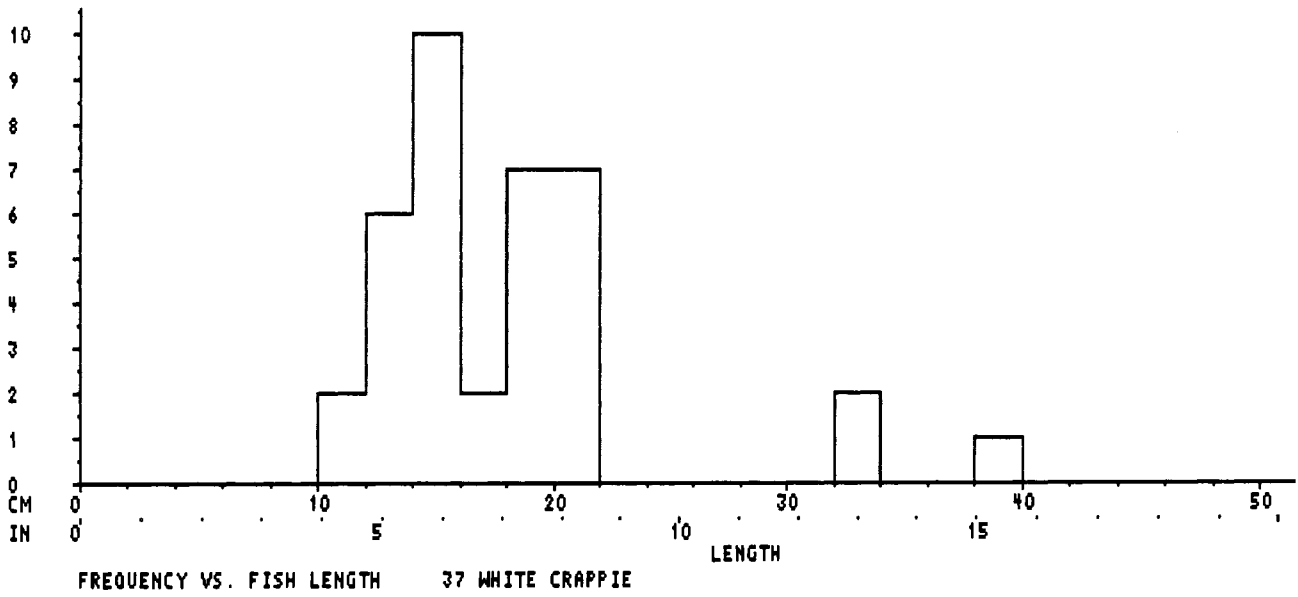


Figure 8. Walton Park Lake 1999 day creel 3/15 through 10/31. Length-frequency histogram of white crappie released by all anglers.

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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	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	242	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black crappie																
HARVEST	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bluegill																
HARVEST	228	5	3	-	-	3	2	-	2	-	-	-	-	-	-	-
RELEASE	194	18	5	5	4	-	2	-	4	-	6	-	3	-	-	2
Carp																
HARVEST	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	239	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Channel catfish																
HARVEST	241	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
RELEASE	213	18	7	2	-	-	-	2	1	-	-	-	-	-	-	-
Green sunfish																
HARVEST	239	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	230	7	1	2	-	2	-	-	-	-	-	-	-	-	-	1
Largemouth bass																
HARVEST	241	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	179	30	25	4	2	-	2	-	1	-	-	-	-	-	-	-
Tiger muskie																
HARVEST	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	241	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White crappie																
HARVEST	212	6	2	-	7	4	2	-	2	2	-	-	-	2	-	4
RELEASE	204	12	7	5	5	2	-	-	2	-	-	-	-	2	-	4
Yellow bullhead																
HARVEST	241	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	231	9	-	-	-	-	1	-	-	-	2	-	-	-	-	-
Yellow bass																
HARVEST	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELEASE	227	3	2	4	1	4	-	-	2	-	-	-	-	-	-	-

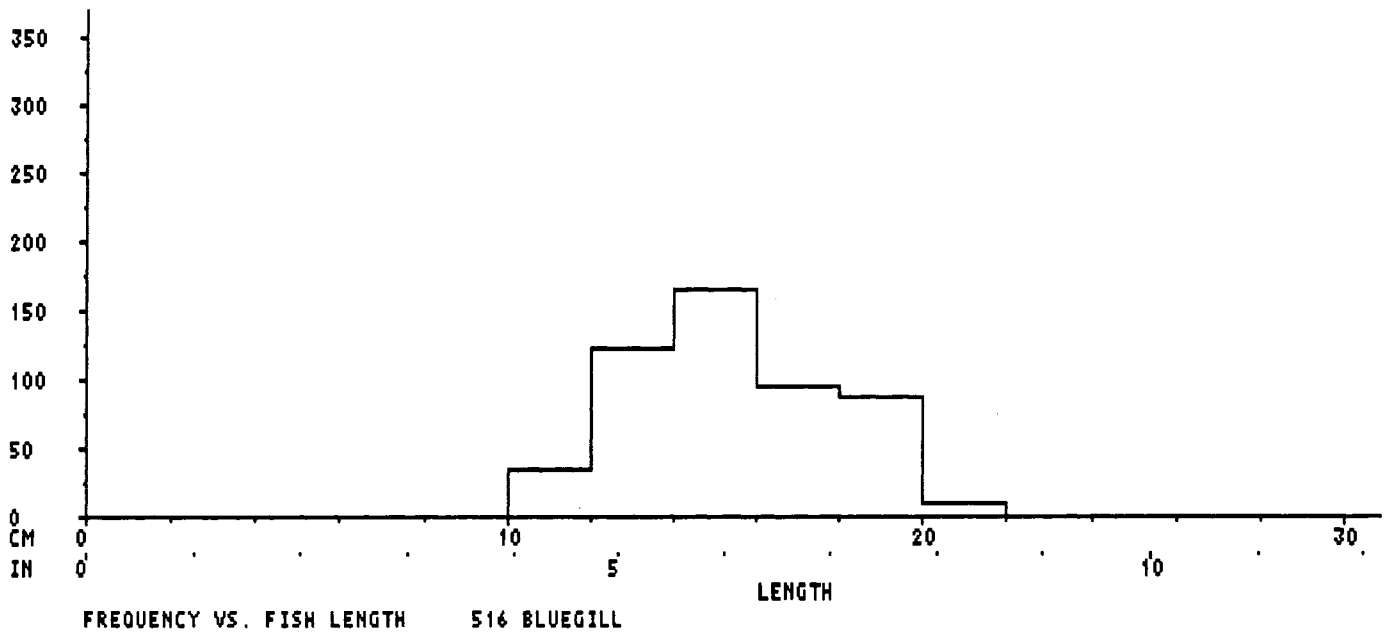


Figure 1. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill harvested by all anglers.

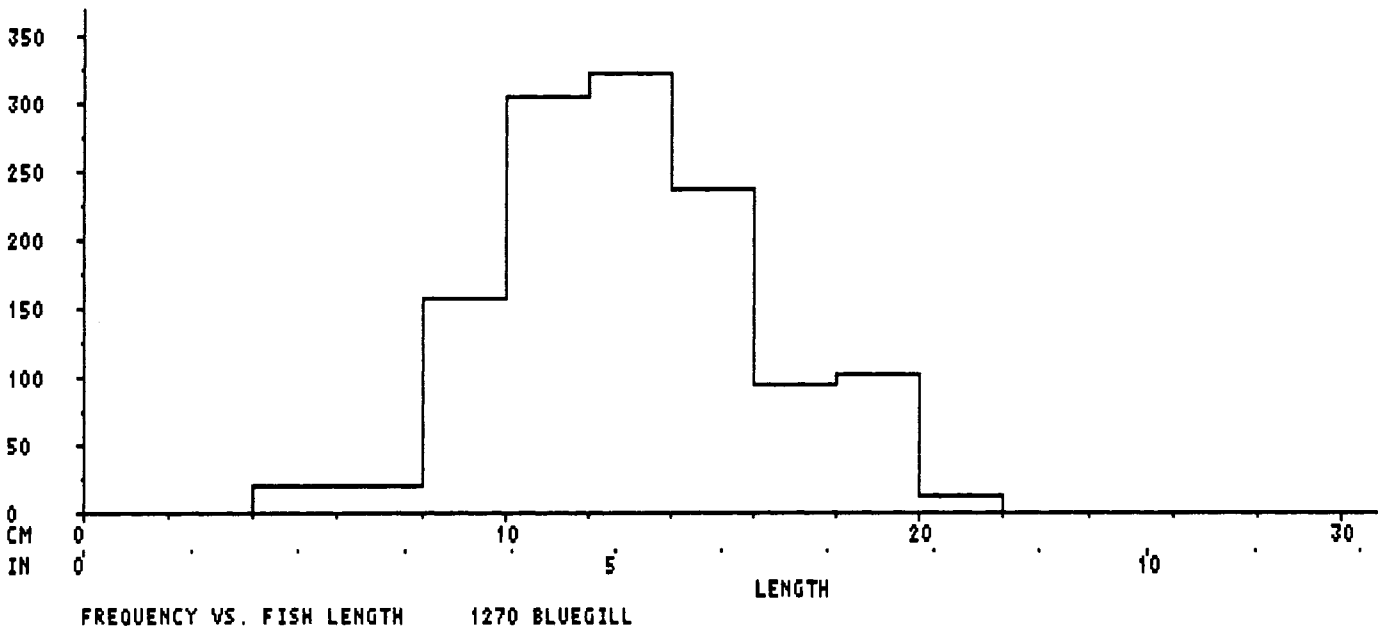


Figure 2. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of bluegill released by all anglers.

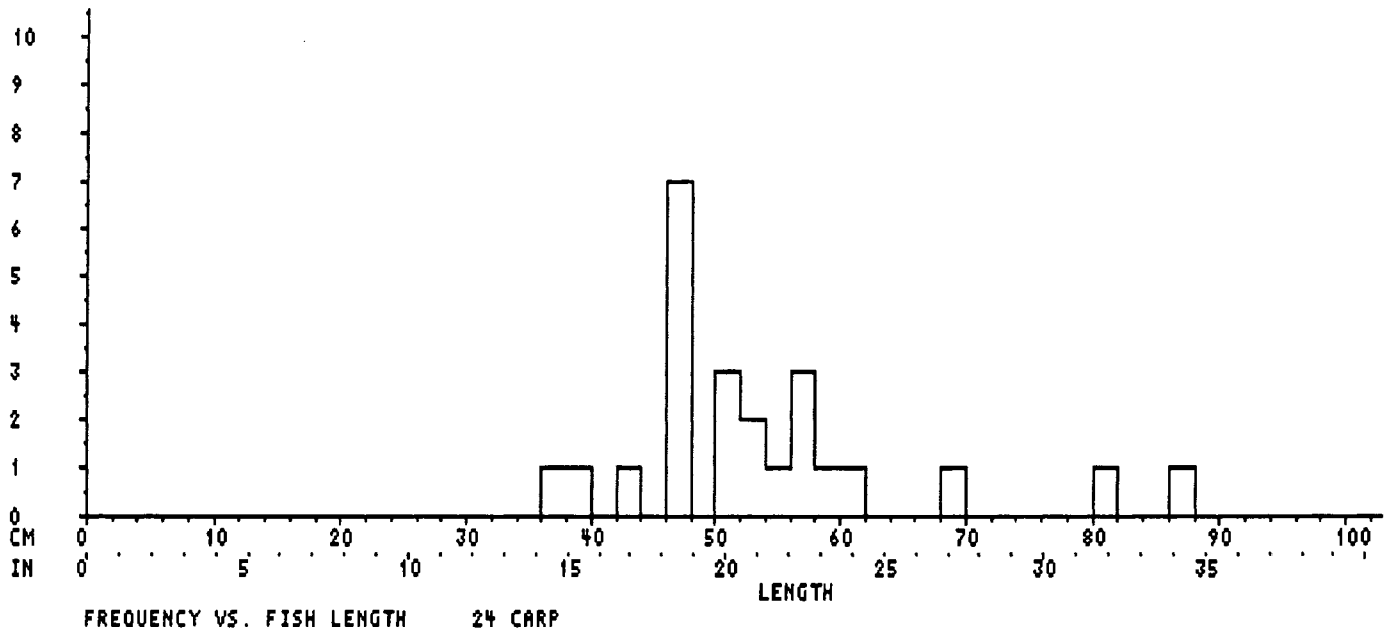


Figure 3. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp harvested by all anglers.

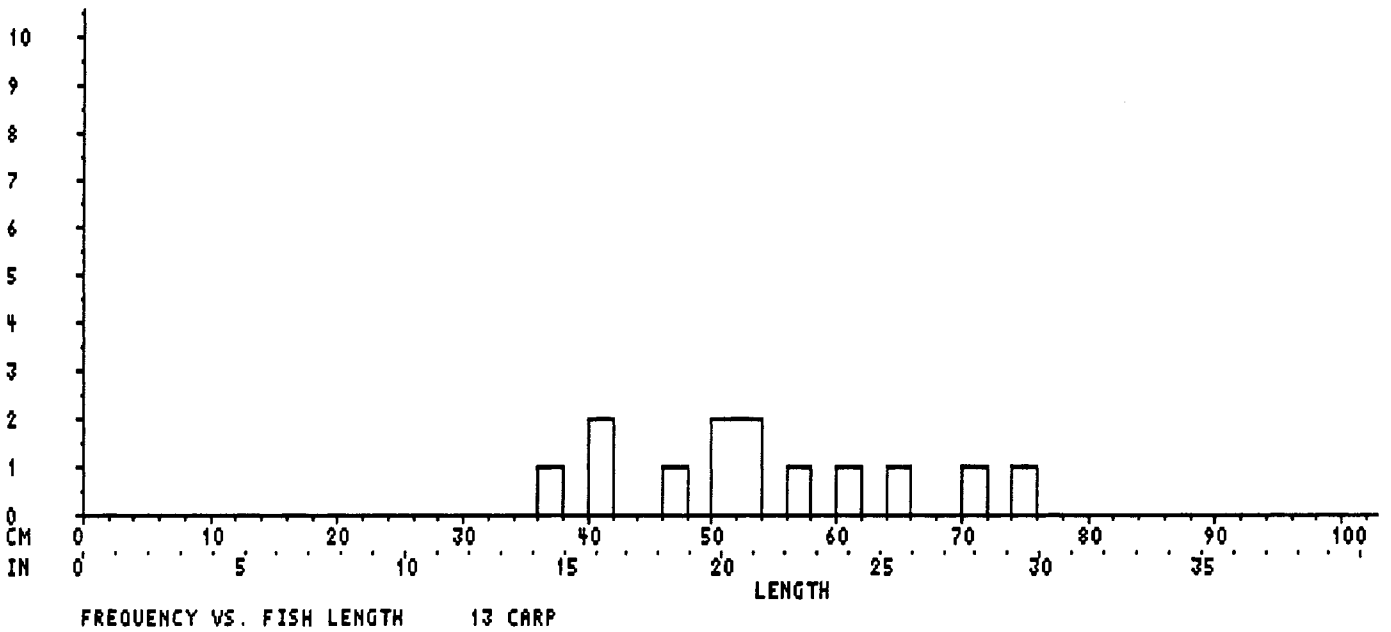


Figure 4. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of carp released by all anglers.

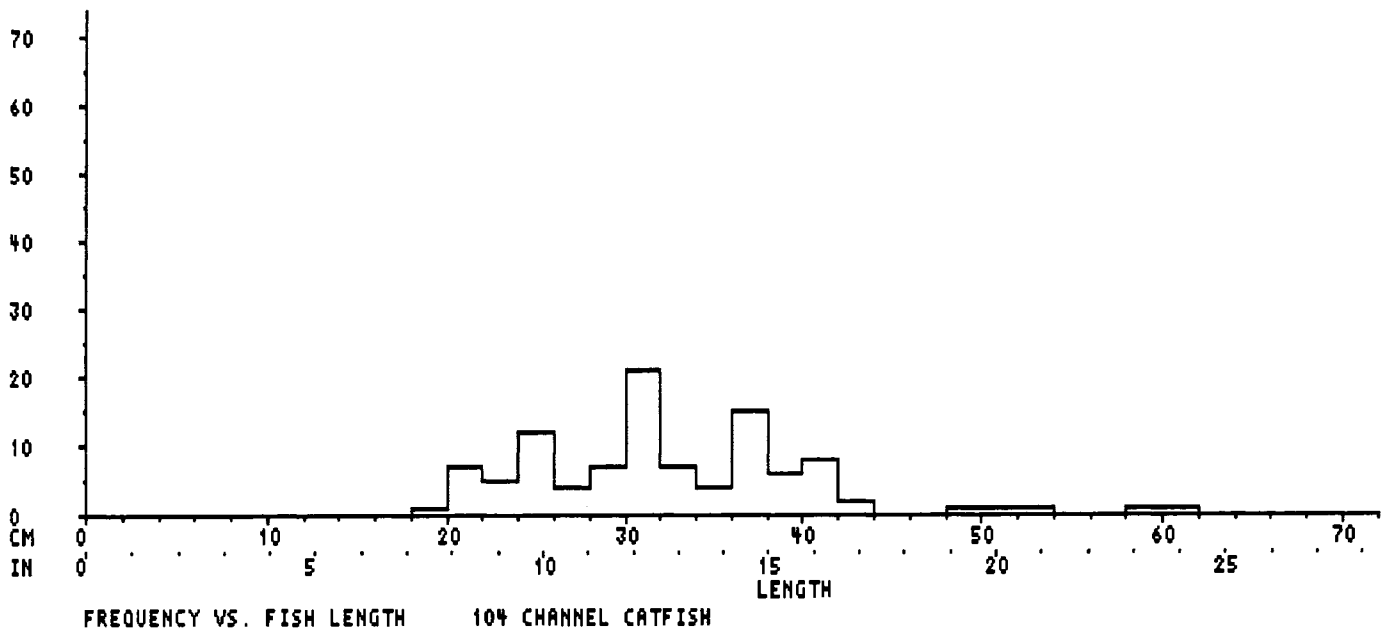


Figure 5. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish harvested by all anglers.

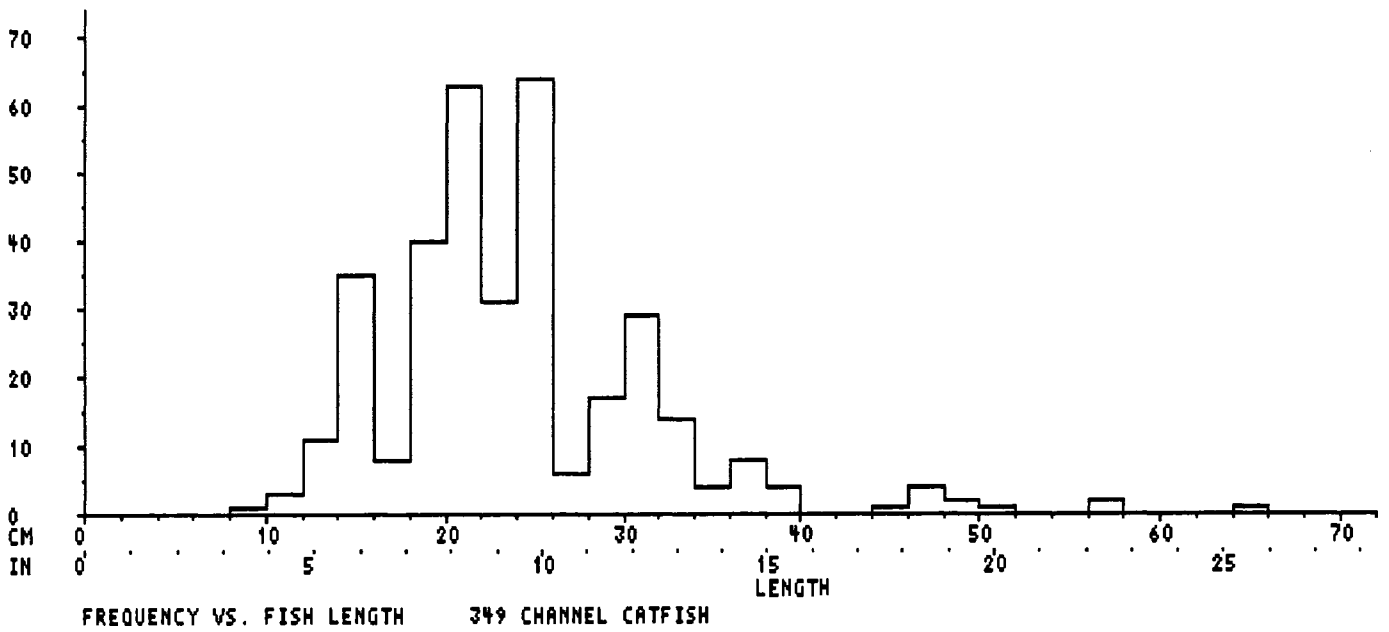


Figure 6. Paris Lake East 1999 day creel 3/15 through 10/31. Length-frequency histogram of channel catfish released by all anglers.

