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A summary of three 12-month creel censuses of the Pool 7 Sport Fishery conducted at 5 year intervals between April 1, 1962 and March 31, 1973.

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INTRODUCTION

A 12-month survey of sport fishing on seven navigation pools selected from the 27 pools making up the upper Mississippi River between Minneapolis-St. Paul, Minnesota and St. Louis, Missouri, is conducted once every five years by the conservation agencies of the five states bordering the river. Wisconsin, Illinois, Iowa, Minnesota, and Missouri are organized into an Upper Mississippi River Conservation Committee to coordinate such scientific investigations of Mississippi River resources. Wisconsin's contribution to this recurring survey was a creel census of Pool 7 conducted from April 1, 1972 through March 31, 1973. Pool 7 includes an 11-mile stretch of river with 11,031 acres of surface water at normal water level. Similar surveys were conducted in 1962-63 and 1967-68, and their results were compared with this most recent census to determine what changes may be occurring in the Pool 7 fishery.

METHODS

Because it would be impractical to census an area as large as a navigation pool completely and accurately for an entire year, a statistical sampling method was agreed upon by member states of the U.M.R.C.C. This method was based on the subsampling principle, in which pools would be divided into a number of smaller sections which could be censused completely in a matter of hours. The data from these sections could then be expanded by use of statistical formulas to give information for the entire pool. Pool 7 was divided into six sections in this survey, a reduction from the 12 used in the two preceding surveys (Figure 1). Information gained from sampling fewer stations more frequently was felt to outweigh what might be lost by having larger areas to cover in each check. All data collected during the creel census was recorded separately by section as well as by season.

To insure an equal and random census of all sections, a work schedule was established consisting of four consecutive census days followed by two days off, plus a rotation between "early" days (census completed by 12:30 p.m.) and "late" days (census begun after 12:30 p.m.). By following this prearranged schedule without deviation throughout the year, the requisite randomness and equality were achieved. Details on the methods and procedures used in collecting data may be found in Appendix B at the end of the report.

RESULTS

The Angler

A. Age, Sex, Residency, and State Waters Fished

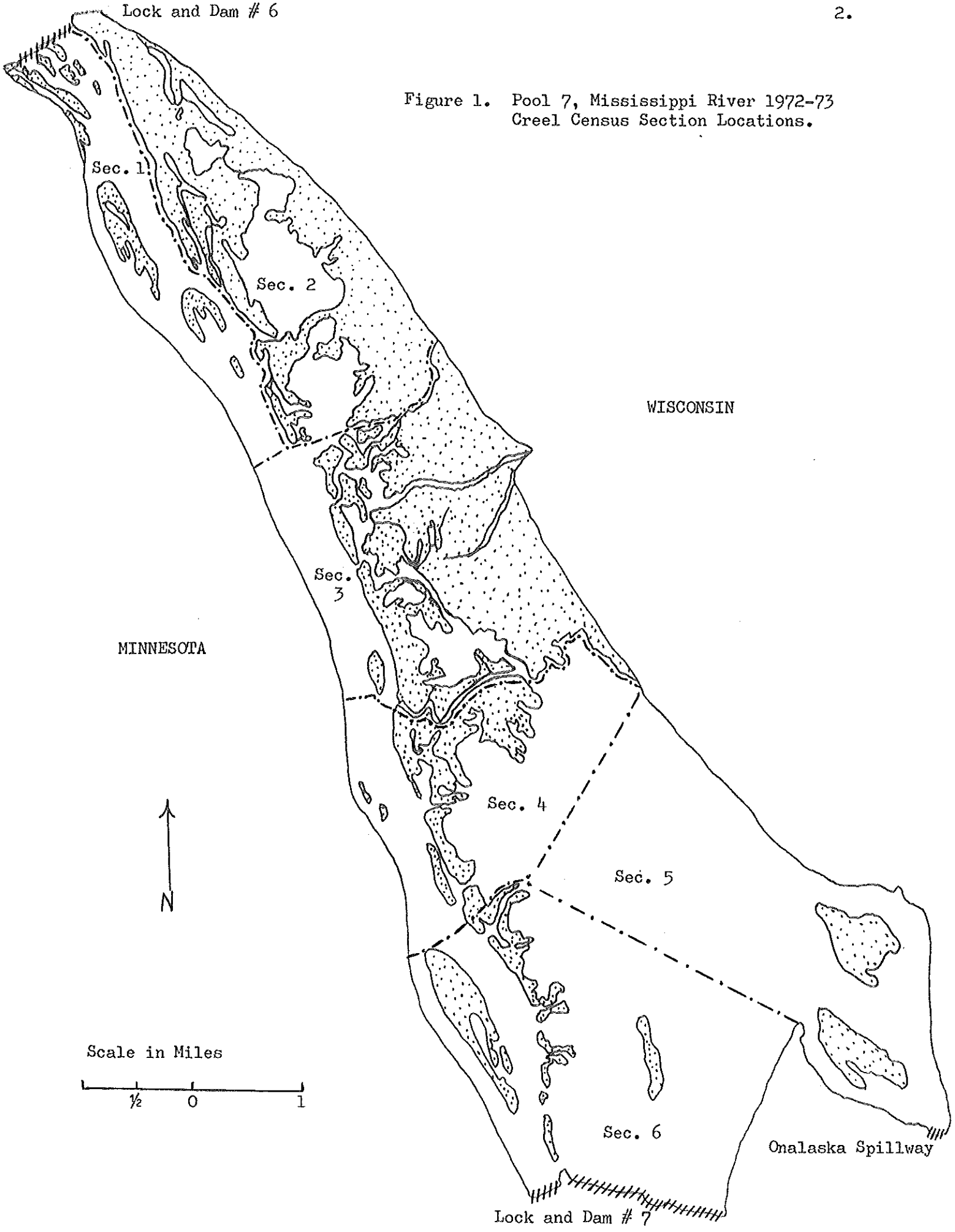

Figure 1. Pool 7, Mississippi River 1972-73 Creel Census Section Locations.

The 2,884 fishermen interviews during the census were five percent of the estimated number of actual fishing trips made on Pool 7 during the 1972-73 study period (Tables 1, 7, and 8). This was similar to the six percent sample in 1962-63, but well below the eleven percent contacted in 1967-68. Male anglers predominated (88 percent), but the proportion of females was up two percent from the two earlier surveys. The average age for male and female anglers was the same (43 years) with fishermen between 45 and 64 years most numerous for both sexes (Table 2). Anglers fishing from boats and the river bank averaged slightly older than in the previous survey, and barge and ice fishermen slightly younger, for both males and females. Barge and boat anglers were older on the average than bank and ice anglers. This may reflect a preference by children for the greater freedom of movement bank and ice fishing afford compared to boats and barges. Similarly, the most elderly fishermen likely prefer more sedentary boat and barge angling. Also, in may cases, access to bank and ice angling is free, while the costs of owning or renting the means for water transportation are involved in boat and barge fishing.

The proportion of non-resident anglers in the census was 27.5 percent, up 2.6 percent from the previous survey and 8.4 percent from 1962-63 (Table 4). Most of the non-residents came from Minnesota in 1962-63 and from Illinois in 1967-68 and 1972-73. The proportion of Illinois residents nearly tripled in the last two surveys compared to 1962-63. About 90 percent of the fishermen interviewed lived either within 50 miles of Pool 7 or over 150 miles away (Table 5). Local fishermen residing within 25 miles dominated the fishery in all three surveys, making up 50 to 60 percent of those interviewed. The proportion of anglers travelling over 150 miles to fish more than doubled to one quarter of the total between 1962-63 and 1972-73 censuses.

By far the greatest portion of the Pool 7 impoundment lies in Wisconsin, with most of this area river lake and slough habitat, primarily providing fishing for panfish, largemouth bass, and northern pike (see Appendix A for description of river habitats). However, most of the popular tailwater fishery for walleye and sauger is located in Minnesota. Wing dams bordering the main channel which provide good fishing for several species are about equally divided between Wisconsin and Minnesota.

Most of the fishing occurred in Wisconsin waters (78 percent) reflecting their greater acreage and was down slightly from the two preceding surveys (Table 6). A reciprocity agreement between Wisconsin and Minnesota allows an angler with a resident or nonresident license from either state to fish both states' boundary waters. Therefore, all interviewed anglers were licensed to fish anywhere in Pool 7.

B. Extent of Fishing and Distribution by Method and Season

Projections based on angler counts, fishing hours in different seasons, and the average length of various types of fishing trips were used to estimate a total of 60,225 angler trips involving 218,511 hours of fishing from April 1, 1972 through March 31, 1973 (Tables 7 and 8). This was a decline of five percent for fishing trips and seven percent for fishing hours from 1967-68, when anglers were 20 percent fewer and fishing time 24 percent less than 1962-63 levels.

Boat fishing dominated in this survey, accounting for nearly half the total activity (Table 7). Ice fishing ranked next in popularity with one-third of the fishing. Bank angling contributed 12 percent and barge angling seven percent.

In terms of actual hours spent, open water fishing was down 45 percent in 1967-68 and 36 percent in this survey compared to the 1962-63 level. Boat fishing dropped off 43 and 32 percent, bank fishing 58 and 52 percent, and barge fishing 24 and 21 percent in the last two surveys, respectively. Ice fishing increased by nearly one-third from the 1962-63 level in 1967-68, but declined to 12 percent less than 1962-63 effort in this survey.

In general, the significance of boat and ice fishing have been inversely related. In surveys where boat fishing dominated, accounting for nearly half the fishing in 1962-63 and 1972-73, ice fishing contributed about one-third. The situation was reversed in 1967-68, when half the fishing was done through the ice and one-third from boats. The importance of ice fishing was down in 1962-63 to the same extent that bank angling was above its level in the last two surveys. Barge angling held very constant over the three surveys.

Summer accounted for more boat fishing than the other seasons in all three surveys, and declined somewhat to about half the total boat fishing hours in the 1972-73 survey. Spring boat angling doubled in significance between the 1962-63 survey and the latest one, up to one-fourth of the total. Fall accounted for nearly all the remaining boat fishing, with a declining trend in the last two surveys. The actual number of hours of spring boat fishing nearly doubled between the 1967-68 survey and this one, while summer and fall dropped to about half their 1962-63 levels in the last two surveys.

More hours of bank fishing were done in summer than other seasons, with a decline in significance, as for boat angling. Bank fishing has been considerably more popular in spring than in fall, steadily increasing in importance to exceed summer bank fishing in the last survey. Fall bank fishing declined slightly in significance in the last two surveys. The actual hours spent bank fishing in spring of 1972-73 were intermediate between a peak in 1962-63 and low in 1967-68. Hours spent in summer and fall bank angling in the last two surveys were only about one-third of the effort in 1962-63.

Barge fishing effort was consistently high in summer over the three surveys, but slightly exceeded by fall in 1962-63 and 1972-73. Considerably less barge fishing occurred in spring with a declining trend. Fall effort was as low as spring in 1967-68.

Summer was the dominant season for all open water fishing combined, accounting for about half the total. The remainder was fairly equally divided between spring and fall, with a trend toward increasing importance for spring over the three surveys. Winter fishing pressure was up one-fourth in 1967-68, but dropped to ten percent less than 1962-63 levels in this survey.

The average length of a fishing trip was based on interviews with anglers who had finished fishing when contacted (Table 8). This information was very limited for the 1972-73 census, based on a sample of only 0.1 percent of the fishing activity.

Bank fishermen made the shortest average trips, two to three hours long. Barge fishermen fished longest, averaging five to six hours per trip. Boat trips (three to four hours average) and ice fishing (four hours average) were intermediate in length. The length of boat trips declined over the three surveys, while ice fishing remained fairly constant.

Seasonally, most fishing occurred during the summer months, June through August and winter, December through March (Table 7). Summer was the more popular season in 1962-63, while winter dominated in the last two surveys. Spring months (April and May) and fall months (September and October) had similar amounts of fishing. Both were least significant in the 1967-68 survey when winter fishing dominated most, with nearly half of the total for the year. Spring contributed most heavily to the fishery in 1972-73 and fall peaked in 1962-63. November was the least popular fishing period.

As some seasons are longer than others, a monthly average better indicates the instantaneous level of effort for each season. This figure was highest for summer in all three surveys, with the winter of 1967-68 and spring of 1972-73 comparable.

The hours of spring fishing dropped one-third between the 1962-63 and 1967-68 censuses, but rose to slightly above the 1962-63 level in the latest survey. Only half as much summer fishing was done in 1967-68 as in 1962-63, with a slight further decline in the last survey. Fall angling dropped to just under one-half of 1962-63 hours, then partially recovered to just over one-half. Early winter and winter fishing activity rose about one-third while all other seasons were declining in 1967-68, but fell to record lows in the last survey.

C. Lures Used and Method of Presentation

Still fishing was considerably more popular than casting in all seasons (Table 9a). However, casting doubled in popularity in this survey compared to the two preceding, increasing to one-fourth of the anglers contacted. More fishermen were casting than still fishing for the first time in all three surveys in spring of the 1972-73 census.

Live bait was the most popular bait used by fishermen in all three surveys (Tables 9b and 9c). It was fished more during the open water period of the latest survey than in the earlier two, and was more popular in summer and fall than spring and early winter. A correlation between method and lure was evident from the popularity of still fishing live bait in summer and fall and casting artificial lures in spring and early winter. However, use of both live bait and casting were at their highest levels in the last census. This may reflect the increase in popularity of walleye fishing, where live bait is often casted rather than still fished.

Minnows and worms accounted for nearly all the live bait fished. Worms were used more than twice as much as minnows in 1962-63. In the last two surveys, they were more equal in popularity, with minnows exceeding worms slightly in 1967-68, and the reverse in 1972-73.

Information on the type of artificial lures used is limited, largely due to the wide variety of lures in use. Jig lures have apparently declined in popularity over the three surveys, while flies have not been significant after the 1962-63 survey. In recent years, an artificial lure called a "Sonar" has become popular on the upper Mississippi River, and data were collected on it in the survey. It was the dominant artificial lure in fall and early winter fishing, and of considerable but lesser importance in spring.

D. Access, Habitat Fished, and Species Preferences

The river lake and pond habitat of Pool 7 was fished most, followed by the tailwaters (Table 10). River lake use was down somewhat and tailwater use up in the last two surveys compared to 1962-63. The proportion of Pool 7 that is river lake and the percent of the anglers fishing in this habitat is similar. However, Pool 7 tailwater is only 3 percent of the total pool area, compared to almost one-third of the fishing that occurs there, indicating the heavy use per acre this area receives.

The majority of anglers contacted were trying to catch some species of panfish (Table 11), with moderate decline in their popularity in the last two surveys compared to 1962-63. It was difficult to evaluate the relative popularity of the individual panfish species from the interviews. A particular lure could potentially take a variety of species and many fishermen would take whatever fish were available. The high incidence of a particular species in the catch indicates that in certain circumstances anglers are fishing that species due to its availability without actually selecting it in advance.

Most of the remainder were pursuing some species of gamefish reporting no particular preference. Walleye and northern pike were equally popular in the 1962-63 census, followed closely by largemouth bass. The proportion of largemouth bass and walleye fishermen increased about equally in 1967-68, while northern pike fishing was unchanged. In the last survey, walleye fishing increased again, by about the same amount as in 1967-68. Over one-fourth of all interviewed anglers were after walleye, while northern pike fishermen were down to only one-third their former significance in the fishery, and bass anglers only one-tenth.

Panfishing was most dominant during the winter, comprising about three-fourths of all anglers contacted during that period. Summer ranked next, with about two-thirds. The seasonal popularity of walleye fishing was exactly the reverse of panfish, highest in early winter, followed by spring and fall. The least fishing occurred in winter, followed by summer. However, walleye fishing has increased dramatically in popularity in all seasons during recent surveys. Fishing for northern pike and largemouth bass showed seasonal fluctuations, but not as consistent as for panfish and walleye. Similar to panfish, northern and bass were fished most in summer and winter for the first two surveys, with summer most significant in 1962-63 and winter in 1967-68. Both species were fished most in spring during the last census.

The utilization of public access sites relative to private ones has been steadily increasing (Table 12). Practically all public access occurred on the Wisconsin side. The geographical distribution of public access use varied in the surveys. In 1962-63 heaviest use occurred on the Trempealeau lakes at the upper end of Pool 7. Access use for the tailwaters at the upper end of Pool 7, and upper and lower Lake Onalaska were all similar and somewhat lower. Use of the tailwater and upper Lake Onalaska accesses more than doubled in significance in the 1967-68 census. The Trempealeau lakes area declined slightly and lower Lake Onalaska remained about the same. In this survey, use of the tailwater access increased further to the highest proportion of use received by any area over the three surveys. The Trempealeau lakes were back up to near 1962-63 levels, while Lake Onalaska access sites were far below their significance in the two earlier censuses. The location of private access site use was not examined.

The Catch

A. General

An estimate of the fishing pressure and harvest from Pool 7 was obtained by projecting catch rate data from the angler interviews, through 455 instantaneous counts of fishermen present (Table 13a - 13f). A total of 60,225 angler trips involving 218,511 hours of fishing yielded a catch of 338,757 fish for a catch rate of 1.550 fish per hour. The decline in fishing pressure was discussed earlier.

The harvest in 1967-68 declined more sharply than the fishing pressure, to only 58 percent of that taken five years earlier. In this survey it increased to 76 percent of the 1962-63 catch. The catch rate in fish per hour dropped about the same amount as the fishing pressure 1967-68, but was up to 1.55 fish per hour in this census, seven percent higher than 1962-63.

The wide variety of fish included in the Pool 7 sport fishery complicates evaluation of the fishery by species. Catch rate data accurately indicate the quality of the fishing for a given species only if the gear, lure, and method of fishing are directed toward taking that species.

The catch rates in this report are determined from the total fishing effort for all species combined, not from the effort directed at the individual species, respectively. As a result, catch rates for all species appear lower than they actually are, as part of the effort used in calculating each catch rate was directed toward other species. The larger the proportion of the total effort a given species commands, the closer the rate in this report approaches the actual value. Because most of the fishing in Pool 7 is directed toward panfish, the catch rates for them more closely approximate the actual ones than do those for larger gamefish attracting less effort. Similarly, shifts in the distribution of the total effort among the various species will also have an influence on their respective catch rates. For example, if effort shifts away from bluegills to walleye with no actual change in their respective catch rates, the rates would appear to drop for bluegills and rise for walleye.

B. Species Significance

Bluegills have strongly dominated the sport fishing catch in all three surveys, accounting for nearly two-thirds of the catch both in 1962-63 and 1972-73 surveys, and nearly half in 1967-68 (Table 15). Crappies ranked next, ranging from just under one-fourth of the catch in 1967-68 to one-tenth in this survey. There were 2.5 times as many black crappies as white crappies in 1962-63, increasing to 21 times as many in the latest survey. Yellow perch ranked third, with a consistent 7 to 9 percent of the catch. Together, these four panfish species made up from 77 to 88 percent of all fish caught. No other species individually contributed more than 5½ percent to the catch.

The relative importance of the remaining species varied somewhat between surveys. In the 1962-63 survey, largemouth bass ranked first, accounting for 3.2 percent of the catch. Sauger, freshwater drum, and walleye followed, 1.7 to 1.3 percent. Northern pike and white bass were third (1.0 percent), and pumpkinseed and channel catfish fourth (0.5 to 0.7 percent). The next survey was similar except that walleye and white bass increased in significance, while pumpkinseed and drum declined. The latest survey recorded a considerable decrease in the importance of largemouth bass. Sauger moved up to replace them in the top position. White bass gained considerably in significance to rank second. Northern pike dropped to their lowest point in the three surveys, just below largemouth bass. Drum and pumpkinseed both increased in significance from the preceding survey, but remained below 1962-63 levels. Catfish again were least significant of the major species. The significance of the four principle species of large gamefish more than doubled between the 1962-63 survey and the 1967-68 survey. This was due primarily to a sharp decline in the significance of bluegills in the catch. As a result, all other species increased in significance, except yellow perch and pumpkinseeds. The significance of gamefish in catch numbers was intermediate for this survey, as a result of both the recovery in the bluegill catch and record lows in northern pike and largemouth bass catches.

C. Species Numbers

The significance of the various species in the catch did not necessarily correspond to the fluctuations in catch numbers (Tables 13a - 13f and 15). While the percent of bluegills in the catch returned to the 1962-63 level in this survey, the actual number was still down one-fourth from 1962-63. Crappies were more significant in the catch in 1967-68 than in 1962-63, but the number dropped substantially. Yellow perch numbers declined sharply in the last two surveys, with comparatively little change in catch significance. Numbers of pumpkinseed and drum declined considerably in 1967-68, then rebounded to record high levels in this survey. The trend for northern pike was the reverse, up nearly one-third in 1967-68, and down slightly in this survey. The largemouth bass catch was identical in 1962-63 and 1967-68, then fell off greatly in the last survey. Four species showed substantial gains in the last two surveys; walleye, sauger, channel catfish, and white bass. Increases were largest for sauger and white bass, with catches in 1972-73 about 2½ times 1962-63 levels.

D. Catch Rates

Catch rates for panfish were considerable higher than for the larger gamefish (Table 14). An average of 8.2 bluegills were taken per ten hours of fishing in 1962-63, followed by a decline to only 4.7 per ten hours in 1967-68. A severe flood in 1965 was thought likely to be a significant factor in this decline. However, in this survey the catch rate had not only recovered, but exceeded the 1962-63 rate (9.0 bluegills per ten hours). Crappie catch rates declined only slightly in 1967-68 from 2.6 to 2.5 fish per ten hours, then dropped to only one-half this amount in 1972-73. The yellow perch catch rate experienced a drop similar to that for bluegill in 1967-68, from 1.4 to 0.8 fish per ten hours. It nearly recovered to the 1962-63 level in this survey (1.1 fish per ten hours).

Large gamefish catch rates were just the reverse of those for panfish, increasing in 1967-68 from lower levels in 1962-63. Walleye showed the greatest increase, doubling from 2.4 to 4.8 fish per 100 hours of fishing. The sauger catch rate also increased considerably, up from 4.0 to 6.3 fish per 100 hours. Northern pike had a slightly smaller increase, 1.6 to 2.5 fish per 100 hours. Largemouth bass increased least, from 4.2 to 4.8 fish per 100 hours. The sauger catch rate showed another similar increase in this survey, up to ten fish per 100 hours. A smaller rise occurred in the walleye catch rate to 5.7 fish per 100 hours. Largemouth bass dropped sharply to only about half of the earlier levels, while northern pike declined back to the same rate observed in 1962-63.

In summary, panfish species were taken at higher rates than gamefish. Over the three surveys, one to two hours of fishing was done for each bluegill taken, 4 to 7½ hours for a crappie and 7½ to 13½ hours for a yellow perch. Sauger were the most frequently taken game fish, 10 to 25 hours per fish. Walleye and largemouth bass ranked next, with one taken per 20 to 40 hours fished. Northern pike required the most effort per fish, 40 to 60 hours. Fluctuations in catch rates between surveys of 40 to 50 percent were found for all species, with walleye and sauger most variable. In general, increases in catch rates for certain species coincided with declines in others, making the overall rate more stable than that for any particular species.

E. Seasonal Catch Distribution

The seasonal distribution of the catch for the principle species and fluctuations between surveys were examined. In the 1962-63 survey, summer fishing provided more of the catch than any other season for most of the species. The summer catch was most significant for freshwater drum (70 percent), and also accounted for over half the white bass and channel catfish catches. The remainder of the catch was distributed between spring and fall, with winter insignificant (Tables 16a - 16f).

Summer was also the most productive season for three gamefish, yielding 35 to 40 percent of the largemouth bass, northern pike, and walleye catches. Fall ranked next in both the largemouth bass and walleye catches, with one-quarter of each. The spring catch was equal to that in fall for walleye but was less important for bass (15 percent). The winter catch was significant for bass (20 percent), but minor for walleye. Winter was the second most significant season for northern pike (30 percent), equal to spring and fall combined. Sauger was the only species with the largest catch in fall (35 percent). Summer ranked second with one-quarter, followed closely by a combined early winter and winter catch, and 15 percent in spring.

Crappie and yellow perch catches were greatest in winter, with just under half the catch. Summer and winter catches provided one-third each of the bluegill catch with the remaining one-third equally divided between spring and fall.

Considerable change in the seasonal catch distribution occurred in 1967-68. Most striking was the general shift from summer to winter as the dominant season in the fishery. Winter catches comprised over half the total harvest for five species in 1967-68, compared to none in 1962-63. About 70 percent of the bluegill, crappie, and yellow perch catches came in winter. Winter northern pike and largemouth bass catches were next, with 55 to 60 percent of the annual total. Winter catches exceeded those in any other season for sauger (35 percent). A total of seven species had highest catches in winter compared to only two in 1962-63.

The leading season for the walleye catch shifted from summer to spring (40 percent), although summer retained second ranking at 30 percent. While winter failed to dominate the walleye catch, it did increase greatly to a level of significance comparable to that of spring and fall in 1962-63.

In general, 1972-73 census found a seasonal catch distribution intermediate to the two preceding surveys. Over half the total catch of two species was made in winter, and three others were taken in greater numbers then, than during any other season. The bluegill catch distribution remained very similar to that in 1967-68, with nearly two-thirds taken in winter. Only slight increases occurred in the significance of spring through fall catches compared to larger ones in early winter and winter. Fall through winter crappie catches were very similar in significance to those in 1962-63, with winter contributing just over half the total. Unique to the 1972-73 crappie catch was a record high in the spring harvest and a record low for summer. The winter catch of yellow perch in 1972-73 was lower than for either of the preceding surveys, but still ranked above that in any other season, with one-third of the total. As for crappie, the spring catch rose to a record high, nearly as large as winter. Both summer and fall catches made substantial recoveries from 1967-68 levels, but did not begin to approach what they had been in 1962-63.

Winter continued to produce more largemouth bass and northern pike than any other season, but not over half the total as in 1967-68. Again, spring catches reached record levels of significance for both species. The importance of summer and fall catches of northern pike were nearly identical to 1967-68, although the actual numbers dropped considerably. Summer and fall bass catches were intermediate to their significance in the preceding surveys. Numerically, the summer catch reached an all-time low, and fall was only slightly above the 1967-68 low.

The walleye catch continued to be heaviest in spring, but less so than in 1967-68. Fall and early winter catches reached record high levels for the three surveys, and summer a record low. Sauger shifted back to a fall dominated catch as in 1962-63 from the winter-centered one in 1967-68. Catches in all seasons were up numerically from 1967-68, and all but summer reached record high levels. Summer again was at its lowest significance for the three surveys.

Summer fishing did account for over half the white bass catch, with both spring and summer catches at record high levels. Fall catches dropped to a record low.

Seasonal catch fluctuations were also evaluated with respect to their impact on changes in the total catch. The 1967-68 declines in bluegill and crappie centered in summer, with smaller drops in spring and fall. The yellow perch decline was also greatest in summer, but fall and winter losses were nearly as great.

The partial recovery in the catches of most of the above species also varied seasonally. For bluegill, it was due more to a record high winter harvest than the combined increases of the entire open water period. Yellow perch catches improved only in the open water period, with spring exceeding fall and summer. The continued decline in the crappie catch was equally divided between summer and winter.

White bass catch increases were made in the open water period, with spring most significant in 1967-68 and spring and summer equally important in the latest survey. Considerable catch increases for walleye and sauger occured in spring and winter of the last two surveys. In the last survey, a rise in the fall catch was also significant, more so for sauger than walleye.

Both the northern pike and largemouth bass catches experienced considerable increases in winter and declines during the rest of the year in the 1967-68 survey. For bass, the increase and decline were nearly equal for a constant total catch level, while winter gains considerably exceeded losses during the rest of the year for a record high pike catch. Catches for both species fell to record lows in this survey, due to winter declines that eliminated the 1967-68 gains, coupled with further drops in summer catch.

F. Seasonal Catch Rates

Winter fishing produced bluegill, crappie, and yellow perch at the highest rate of any season in 1962-63. Spring and summer rates ranked an equal second for bluegills. The spring crappie catch rate was nearly as high as that in winter, while fall ranked second for perch, only half as productive as winter. Spring catch rates were highest for white bass. Northern pike catch rates were equally high in winter and summer, followed closely by fall and spring. Largemouth bass, walleye, and sauger catch rates were all highest in early winter. Equal spring and fall rates followed closely for bass. Spring rates were higher than fall for walleyes, and fall higher than spring for sauger. The early winter catch rate for sauger was three times greater than that in fall.

Winter continued to be the best fishing season for bluegill, crappie, and perch in 1967-68 but rates were down in nearly all significant seasons. Exceptions included a slight use in the winter crappie catch rate, and a considerable increase in the spring catch rate for perch, which now ranked second, well above the fall rate. The bluegill catch rate in spring showed the greatest drop, followed by summer and fall. Both spring and summer crappie catch rates fell off considerably more than fall. White bass catch rates increased considerably in all seasons, with spring remaining highest. Northern pike catch rates improved in all seasons, with greatest increases and highest rates in winter and early winter. Largemouth bass catch rates declined in all seasons except winter, which had the highest rate, followed by early winter. Sauger catch rates rose in all seasons except summer, with early winter remaining well above other seasons. Walleye catch rates increased in all seasons, except for small declines in fall and early winter. Spring showed the greatest increase, to a rate far above all other seasons.

Bluegill catch rates were up for all seasons in the 1972-73 census compared to those in 1967-68. The greatest increases were in winter and early winter, both at record high levels for the three surveys. Fall rates recovered to 1962-63 levels, summer somewhat less, and spring the least. Yellow perch catch rates increased for all seasons, compared to the preceding census. Spring, fall, and winter perch catch rates were similarly high. Compared to the 1962-63 rates, spring was up considerably, fall unchanged, and winter down. Crappie rates continued to decline in all seasons to record low levels, with winter retaining the highest seasonal catch rate. Spring and summer white bass catch rates were also at their highest levels, while fall rates dropped to their lowest levels. The summer white bass catch rate slightly exceeded the spring one for the first time. Northern pike catch rates in 1972-73 were down from 1967-68 levels in all seasons except spring, which was both the best season in that survey and the highest spring rate of the three censuses. Largemouth bass catch rates dropped to record lows for all seasons in 1972-73, with the largest decline in winter, followed by summer. Sauger and walleye catch rates fall through winter reached their highest levels for the three surveys in 1972-73. Rates were highest and increases greatest for early winter, followed by fall. This was the case for sauger in all three surveys, while spring catch rates for walleye had been highest in 1967-68 and ranked second in 1962-63.

G. Catch Distribution by Fishing Method

In the 1962-63 census, boat fishing accounted for more of the catch of each major species than any other method, with three exceptions. Ice fishing produced more crappies and perch, and barge fishing, more sauger. Boat fishing was most important largemouth bass catch, producing two-thirds of the total. Over half of the white bass, northern pike, and walleye catches were also made from boats (Tables 17a - 17d).

A definite shift from boat to ice fishing occurred in the 1967-68 survey, with over half the catch of most of the major species taken through the ice. Ice fishing was most significant for bluegill, crappie, and largemouth bass, accounting for three-fourths of the catch of each. More than half of the catch of yellow perch and northern pike also came through the ice. However, boat fishing did retain its dominant position in the walleye catch, with 70 percent of the total. It also became the leading method for taking sauger in 1967-68, with half the catch. The major portion of the white bass catch switched from boats to barge anglers, who took two-thirds of the total harvest.

The 1972-73 census marked a continuation of a boat dominated fishery for sauger and walleye. Northern pike returned to catches from boats appreciably exceeding those through the ice. Yellow perch and largemouth bass catches showed the same shift, but boat catches only slightly exceeded those through the ice.

The catch distribution of bluegill, crappie, sauger, and white bass remained similar to that of 1967-68. The dominance of the ice fishery in the bluegill catch decreased from three-fourths to two-thirds, with an increased boat catch accounting for the remainder. The ice fishery continued to produce nearly three-fourths of the crappies taken, with a large drop in the boat catch bringing it down to the level of the bank catch.

Boat fishing continued to take half the sauger catch. The most significant change was an increase in the catch through the ice to a level comparable to the barge fishery. The predominence of the bank catch in the white bass fishery increased from two-thirds to three-fourths of the total catch. A substantial increase in the barge catch also occurred, contributing to the dwindling significance of the boat fishery.

Both walleye and largemouth bass shifted back toward the type of fishery in the 1962-63 survey, for a catch distribution intermediate to those of the first two censuses. The boat catch was largest for both species, nearly two-thirds of the walleye catch and just over half of the bass catch. Boat and bank catch declined while barge and ice catches went up for walleye. A drop in the bass catch through the ice brought it down to a level comparable to that of the boat fishery.

The significance of fluctuations in the catches by the various fishing methods to changes in the total harvest were also examined. Although bluegill catches declined for all methods in 1967-68, the boat fishery accounted for nearly two-thirds of the total drop. Most of the remainder was due to bank catch losses. The bluegill catch remained below 1962-63 levels in 1972-73 due slightly more to low boat than low bank catches. The partial recovery from 1967-68 low catch can be attributed slightly more to a record high ice fishing catch than a substantial improvement in the boat catch. Low crappie catches were due mainly to boat catch declines. The ice fishery was the only method with a higher catch in 1967-68 than 1962-63. A decline in the ice fishery in 1972-73 comparable to that in the boat fishery in 1967-68 far exceeded a continued drop in the boat fishing catch.

Low yellow perch catches in the last two censuses were similar to those for bluegill, except that the boat and ice fisheries rather than the boat and bank fishermen were mainly responsible. Boat declines accounted for most of the drop in 1967-68, and ice fishing in 1972-73. The partial recovery in 1972-73 was due somewhat more to an improved boat catch than a record high bank catch.

Increased walleye and sauger catches were due mainly to rising boat catches, with the remainder from bank and ice angling. In 1967-68, bank catch increases outweighed those through the ice for sauger, and were about equal for walleye. The ice fishing catch increases considerably outweighed bank catches in 1972-73.

The largemouth bass catch held constant in 1967-68 when a large increase in the ice fishing catch counteracted declines in catches by all other methods, chiefly in the boat fishery. The large catch decline in 1972-73 was due chiefly to the return of the ice fishing catch to the 1962-63 level, with little change in the catch by other methods. The increase in the northern pike catch in 1967-68 was due almost entirely to a rise in the catch through the ice, which counteracted a substantial decline in the boat catch. A decline in the total catch in the 1972-73 census resulted chiefly from a return to 1962-63 catch levels through the ice and the failure of the boat catch to completely recover from the 1967-68 decline.

Increases in the white bass catch were due almost entirely to the bank fishery.

H. Catch Rates by Fishing Method

Bluegill and crappie were taken at a higher rate through the ice than by any other method over the three surveys. The highest rate for yellow perch shifted from the ice fishery in 1962-63 to bank angling in 1972-73. Bluegill and perch catch rates were highest in 1972-73 and lowest in 1967-68, while rates for crappie have steadily declined since 1962-63.

Over the three surveys, boat and ice fishing produced largemouth bass at the highest rates. In 1962-63 boat angling was nearly twice as productive as ice fishing, with a complete reversal in 1967-68. Both methods had equal rates in the 1972-73 census. Highest catch rates occurred in 1967-68, and lowest in the latest survey.

More variation occurred in the fishing methods that took northern pike most effectively. Equal catch rates for boat and ice fishing ranked highest in 1962-63. Large increases in barge and ice catch rates in 1967-68 resulted in the highest levels recorded for northerns in the three surveys. Bank catch rates doubled, to also exceed the highest rates in the preceding census. Ice fishing catch rates dropped and boat catch rates recovered in 1972-73, for a return to respective levels comparable to those in 1962-63. Bank rates also declined to a level comparable to the boat rate.

The five remaining major species in the catch all had consistently low catch rates through the ice compared to other fishing methods. In the 1962-63 census, white bass were caught at the highest rate from fishing barges. Drastic increases in the bank catch rate in the last two surveys placed this fishing method well above the corresponding barge rates. Barge rates also increased over the same period, to a lesser extent.

Barge fishing yielded walleye and sauger at the highest rate of any method for the three surveys, except for a slightly higher boat catch rate for walleye in 1967-68. Barge catch rates were highest in 1972-73 and lowest in 1967-68. Boat catch rates exceeded those for bank angling in all surveys, and both were considerably higher in the last two surveys than in 1962-63. Although catch rates through the ice were considerably lower than for other methods, they have consistently and rapidly increased over the three censuses.

In summary, bluegill had by far the highest catch rate of all species for the boat and ice fisheries, followed by crappies and then perch. Bluegill also held the highest bank catch rates in 1962-63, but shared the top bank rate with crappies and white bass in 1967-68. In the 1972-73 census, yellow perch and white bass both held the highest bank catch rates. Sauger had higher barge catch rates than all other species in all three surveys, followed by walleye, white bass, and crappie at considerably low rates.

I. Catch Distribution by Type of Lure and Method of Presentation

Still fishing was considerably more popular than casting in all seasons (Table 9a). Casting reached its greatest importance in spring, followed by early winter and fall, with summer least significant. Casting doubled in popularity in this survey compared to the two previous censuses, increasing from one-eighth to one-fourth of the anglers contacted. Casting exceeded still fishing for the first time in all three surveys in spring of the 1972-73 census.

Live bait was the most popular lure used by fishermen in all three surveys (Tables 9b and 9c). It was used more heavily during the open water season in this survey than in the two preceding censuses, and was more popular in summer and fall than spring and early winter. A correlation between method and lure is evident from the popularity of still fishing live bait in summer and fall, and casting artificial lures in spring and early winter. However, both live bait and casting were at their highest levels in the latest survey. This may reflect the increase in popularity of walleye fishing, where live bait is often casted rather than still fished.

A combination of artificial lure and live bait was the lure used most frequently for ice fishing in the last two surveys, contrasted with an almost entirely live bait ice fishery in 1962-63. This shift probably reflects inaccurate recording in 1962-63 rather than a drastic shift to combining artificial and live bait in 1967-68.

The significance of different baits and lures was determined from catches and catch rates of interviewed anglers. Projections like those made for different types of angling were not possible because counts of the types of lures used could not be made without actually interviewing the fishermen. However, the sample of anglers represented by interviews is probably representative enough of the fishery to give a fair indication of which lures were most significant for various species.

The bluegill catch in this survey was equally distributed between live bait and artificial lures with live bait attached. In earlier surveys live bait was more important, accounting for about 90 percent of the catches in two previous surveys. Nearly all bluegills caught on live bait only were taken with worms. The significance of lures with live bait attached increased greatly in this survey from the 5 to 10 percent in earlier ones. This may represent a change in the manner of recording data from angler interviews, rather than a drastic change in the last survey. The crappie catch was made mainly with live bait, nearly three-fourths in this survey, and ranging from 55 percent in 1967-68 to 85 percent in 1962-63. Most of the remainder was attributed to lures with live bait attached, with their importance inversely related to that of live bait alone. Minnows were the most important live bait; accounting for three-fourths of the live bait catch in this survey and ranging from two-thirds in 1962-63 to 90 percent in 1967-68. Live bait dominated the yellow perch catch in all three surveys, accounting for nearly the entire catch in 1962-63 and this survey, and just over half in 1967-68. Artificial lures with live bait attached made up nearly the entire remainder. Worms were slightly more important than minnows for perch in this survey and 1967-68, but dominated minnows 9 to 1 in 1962-63.

Half the white bass catch in this survey was taken on artificial lures, about equally divided between jigs and other artificials. Minnows produced most of the remainder. Artificials took nearly three-fourths of the white bass catch in 1967-68, with the remainder caught mainly on minnows, plus a considerable contribution from artificials combined with live bait. Jigs accounted for just over three-fourths of the white bass taken on artificials. The 1962-63 survey was quite different, with artificials producing only one-fourth of the catch. Live bait provided just under half with worms taking slightly more white bass than minnows. Artificials combined with live bait accounted for nearly one-third of the catch; while other artificials outranked jigs.

The walleye catches in this survey and 1962-63 were quite similar, with 60 percent of the catch taken with live bait, one-quarter with artificials, and the remainder on artificial and live bait combinations. In 1967-68, artificials were more significant than live bait, producing half the catch compared to 40 percent for live bait. Artificial lures and live bait combined were down slightly from the other surveys. Minnows have been the dominant live bait through all surveys, and increased from 80 percent in 1962-63 to 95 percent in this survey. Most of the remainder of the live bait catch was made with worms which declined as minnows increased. Jigs produced 40 percent of the catch made with artificials in 1962-63, but declined to only 10 to 20 percent in the last two surveys. Use of the sonar lure has apparently influenced this change, accounting for two-thirds of the walleyes taken on artificials in this survey.

The distribution of the sauger catch between lures was similar to that for walleyes, in that live bait was more significant in this survey and 1962-63 than in 1967-68. Live bait was somewhat more important in the sauger catch than for walleyes. Minnows were the only live bait of significance in the sauger catch, while worms made an appreciable contribution to the walleye catch prior to this survey. As for walleyes, artificial lures were more important than artificial lures combined with live bait. The contribution from both types of lures was fairly constant over the three surveys; 20 to 30 percent for artificials only and 15 to 20 percent for live bait and artificials combined. Jigs were most significant in the artificial catch in 1962-63, accounting for two-thirds. They declined in recent surveys as the sonar lure increased in popularity, to where it took 80 percent of sauger caught on artificials in this survey.

Northern pike were taken mainly on live bait, 55 to 65 percent. Minnows were the only significant type of live bait, except in the 1962-63 survey when worms contributed nearly 15 percent to the live bait catch. Artificial lures took one-third of the northern pike in this survey and in 1962-63. In 1967-68, artificial lures produced only one-eighth of the catch. Only artificial lures other than jigs, flies, or sonars were important. Combined artificials and live bait made appreciable contributions to the northern pike catch in earlier surveys, but were of little significance in this one.

Live bait and artificial lures were of equal importance to the largemouth bass catch in both this and the 1962-63 survey, each contributing about 40 percent of the total. Artificial lures were less than half this important in 1967-68, producing only 15 percent of the catch, while live bait increased to one-half. Combinations of live bait with artificial lures yielded one-fourth of the catch in this survey and ranged from 15 percent in 1962-63 to one-third in 1967-68. Worms led the live bait catch in this census (70 percent) and in 1962-63 (60 percent), with minnows making up the remainder. This was reversed in 1967-68 when four bass were taken with minnows for each one caught on worms.

J. Catch Rates by Method of Presentation and Type of Lure

In general, still fishing produced bluegill, crappie, and yellow perch at rates much higher than casting. Still fishing through the ice was generally more productive than in open water. The effectiveness of still fishing over casting tended to increase over the three surveys for these species (Tables 18a - 18d).

For largemouth bass and northern pike the catch rate for casting declined from many times that of still fishing in 1962-63 to only slightly higher in the last two surveys.

Casting catch rates have increased relative to still fishing for both sauger and walleye over the three surveys, with casting more effective for walleye than sauger. Casting was more efficient than still fishing for white bass in all three surveys, and has increased drastically in the last two.

Catch rates on different baits and lures did not always correspond closely with their significance in the total catch. Lures seldom used often had catch rates as high as or greater than the ones accounting for most of the catch of a given species (Tables 19a - 19k).

Flies, worms, and artificials combined with live bait all produced bluegills at comparably high rates in at least two of the three surveys examined. Highest rates for combined artificials and live bait and for flies occurred in this survey, and for worms in 1962-63. Minnows took crappies at a high rate most consistently, followed by artificial lures combined with live bait. Jigs and flies were comparable to the above in effectiveness in the first two surveys, but unimportant in this one. The most consistently productive lure for yellow perch over the three surveys was worms. They outranked all others in 1962-63, but were on a par with live-bait-artificial combinations in 1967-68 and with minnows in this survey.

Jigs were the top lure for white bass in all three surveys, with their efficiency greatly increased in the last two surveys. Other artificial lures ranked next, and also increased greatly in effectiveness from earlier surveys. Live bait other than worms and minnows and artificial lures with live bait attached were about as productive as jigs and other artificial lures in 1962-63, but were much less productive than artificials in the last two surveys. Freshwater drum were taken at the highest rate on worms in the first two surveys, with an increasing trend over the three surveys. In this survey, jig catch rates increased drastically from earlier censuses, to exceed those for worms. Prepared baits were much more productive for channel catfish than any other lures for the 1962-63 and 1967-68 surveys, but didn't appear in this one. Jigs, followed by worms and minnows, ranked highest in the absence of prepared bait, but were well below the prepared bait catch rates. A type of artificial lure called a sonar caught walleyes at the highest rate in this survey. This lure was not analyzed separately in earlier surveys, and may have also contributed to a rising catch rates for artificials other than jigs and flies in preceding surveys.

High catch rates were recorded for flies in 1967-68 and jigs in 1962-63. Catch rates for live baits were highest for types other than minnows or worms, which were comparable to those for artificials. Lures producing the best catch rates for sauger were similar to those for walleyes. Live bait other than worms or minnows ranked first in 1962-63 and this survey. Next were jigs in the first survey, and sonars in the last. Other live bait did not appear in the 1967-68 census, when jigs and other artificials had the highest rates, followed by minnows and flies. Rates in that census did not nearly approach the high levels for other live bait and sonars.

Artificial lures other than jigs and flies caught northern pike best in 1962-63 and in this survey, followed by minnows. Just the reverse was true in 1967-68, when minnows outfished artificials. Artificial lures other than jigs and flies consistently were the best producers of largemouth bass in this and preceding surveys. Rates for them in the first and last surveys far outranked all other lures, but minnows and live bait-artificial combinations followed artificials closely in 1967-68, when their catch rate was lower. The amount of fishing in Pool 7 was down 20 percent in 1967-68 and 25 percent in 1972-73, compared to the record 79,000 fishing trips made in the 1962-63 census (Table 20). However, economic inflation brought estimated fishermen expenditures in 1972-73 up to 90 percent of the record $423,600 spent in 1962-63.

DISCUSSION AND CONCLUSIONS

Changes in the Pool 7 fishery noted over the three surveys examined in this report may be attributed to a number of probable causes. The increasing proportion of anglers travelling long distances to fish Pool 7 likely reflects the availability of faster and easier transportation between major metropolitan centers to the south and east and the river through the establishment of interstate highway systems. The increase in income and living standards of residents of these large population centers afforded them the time and money to make such fishing trips feasible. In addition, declining fishing opportunities nearer the densely populated areas also offers incentive for longer trips.

The decline in fishing pressure in Pool 7 could be due to a decrease in fishing success for panfish, indicated by the 1967-68 census, particularly bluegill and crappie which account for most of the fishery. Poorer fishing may have encouraged some fishermen to seek species other than panfish, or to choose other forms of recreation than fishing. General observations indicate' that such outdoor activities as pleasure boating, water skiing, and picnicking have increased considerably over the study period, and may have attracted some people into these activities instead of fishing. The popularity of these activities is often associated with larger, more powerful boats than required for fishing, which again may reflect the increased affluence of our society. In certain instances, heavy pleasure boating activity may discourage fishing, further contributing to the decline in fishing. The next survey may well indicate whether the improvement in panfish angling, evident in this survey, will continue and be influential enough to return the Pool 7 catch to its 1962-63 status.

Catch declines occurred for those panfish and gamefish species generally associated more with backwater lakes and sloughs than the main channel or larger side channels. This could indicate a decline in the quality of this habitat either for supporting the fishable population or allowing its harvest. Considerable evidence exists that the fish habitat in Mississippi River backwaters and sloughs has declined in many areas due to filling, following the creation and maintenance of a 9-foot navigation project in the main channel. Where the sediment is silt, dense growth of higher aquatics and filamentous algae make fishing difficult and unproductive over much of the summer period unless water levels are high. Sand-filled areas become shallow, with considerable current and a shifting bottom which is relatively barren and unproductive. The catch declines were generally most severe for the open water and for boat and bank angling. This could be caused by a variety of factors. A shift from backwater to main river fishing involving different fish species; such as walleye and sauger rather than bluegill, crappie, largemouth bass, and northern pike has apparently occurred. Pleasure boating and other recreation plus increasing weed density in shallow water could discourage panfish angling in summer and shift more of the activity to the more productive winter fishing. Seasonal weather conditions could affect the susceptibility of fish to angling, with or without affecting fish population levels. Severe spring floods in 1965 and 1969 may have had an appreciably detrimental effect on backwater species populations and habitat.

Not only catches but catch rates have been rising for those river fish species increasing in significance. Future surveys may indicate the capacity for these species for increased harvest, if angling effort for them continues to rise. Or this survey may mark the beginning of a trend back to the 1962-63 level of panfish dominance, although the fishery may be considerably more concentrated during the ice fishing period than previously.

The length of the period of ice cover and ice and snow conditions can also have a considerable bearing on the significance of the winter period in a given year. Similarly, unfavorable water conditions due to heavy rains or wind could discourage fishing activity during the open water period. A shift in the location of the fishery toward heavier pressure in the tailwaters and less on the lake reflects the increased popularity of walleye and sauger fishing and decline in panfishing. The increasing use of casting with artificial lures contrasted with less still fishing with live bait also reflects the same species preference shift.

It should be noted that comparisons between the three surveys may or may not be representative of consistent trends in a fishery, and are therefore only possible indicators of general changes in status, at best. However, the censuses have provided useful information concerning the nature of the Pool 7 fishery. Some aspects have been notably constant. It has been panfish centered, with bluegill the dominant species in the three surveys. Declines in certain species coincided with increases in others, in terms of both catch and catch rates. Frequently, the decline of a particular species for a certain season or method was to some extent counteracted by an increase in another season or method. More species showed both increases and declines than those consistently changing in either direction over the three surveys.

Significant changes were also apparent in some areas. The Pool 7 fishery has apparently been shrinking in terms of both effort and catch, while catch rates for some of the most popular species reached their highest level in the latest census. Major shifts have occurred in when and how the major species are taken, and the degree of interest in them. The census data also provide information that would be useful for setting up a stratified sampling program aimed at obtaining maximum information with minimum effort in future investigations. Data collection could then be concentrated in the locations and time periods of greatest significance to the catch.

SUMMARY

The Angler

Pool 7 fishing has been predominantly a sport of local middle-aged males over the three censuses examined. An increase in the numbers of Illinois residents fishing Pool 7 has been the most significant change in the type of angler during the study period.

The amount of fishing in Pool 7 has declined overall. All types of open water fishing declined sharply in 1967-68 compared to levels in 1962-63 and only showed a slight recovery in 1972-73. Ice fishing activity appeared to be inversely related to the amount of open water fishing, peaking in 1967-68 and lowest in 1972-73. Boat and ice fisheries have been larger than those on the bank and fishing barge. Boat fishing attracted the greatest number of anglers in the first and last survey taken, but was exceeded by the ice fishery in 1967-68.

Seasonally, fishing activity declined spring through fall in 1967-68. The spring fishery recovered and rose to a record high level in the next census in 1972-73. Fall fishing partially recovered, while summer continued to drop to a record low. Early winter and winter fishing increased while other seasons declined in 1967-68, but dropped to record lows in 1972-73. The dominant fishing season was summer in the first census, and winter in the last two.

Still fishing has accounted for most of the angling in Pool 7. Casting more than doubled in popularity in the last survey, but still accounted for only one-quarter of the fishing. Most fishermen were using live bait alone, with live bait combined with an artificial lure next, and artificials alone used least. The live bait used was almost entirely worms or minnows, with worms most popular except in 1967-68. Little information was available as to the type of artificial lures used. Apparently jigs and flies have declined in importance, while a Sonar lure has become important in spring, fall, and early winter fishing.

Most of the angling was done in river lake habitat, followed by the tailwater. Tailwater fishing increased from 20 percent of the total in 1962-63 to 30 percent in the last two surveys. However, the tailwater fishery is considerably more intensive, due to its more limited area. Most anglers were trying to catch panfish, mainly bluegills. The popularity of panfish has declined in the last two surveys, as walleye and sauger fishing has received increasing attention. Interest in northern pike and largemouth bass declined drastically in the last survey.

The panfish and walleye-sauger fisheries were seasonal, with panfish sought most intensively in winter followed by summer, and walleye-sauger most in early winter, followed by spring and fall. Largemouth bass and northern pike fisheries were also seasonal, but the chief seasons varied between surveys.

Use of public access sites relative to private ones has been increasing. The most significant changes in use patterns have been an increase for tailwater access and decline for Lake Onalaska sites.

The Catch

The total catch dropped more than the amount of fishing did in 1967-68, with a corresponding drop in catch rate from just under 1½ fish per hour to just over 1 fish per hour. A partial recovery in the catch with a continuing drop in fishing pressure brought the rate back up to just over 1½ fish per hour. Catch fluctuations covered a range of just under 200,000 fish and effort, 100,000 hours of fishing.

Three major panfish; bluegills, crappie, and yellow perch, made up from 75 to 90 percent of the total catch by number. Bluegill was by far the dominant species, from 2 to 6½ times more numerous than the next most common fish, crappies. Perch have provided a consistent 5 to 10 percent of the catch.

No other species accounted for much more than 5 percent of the catch. Largemouth bass were the most prominant of the remaining fish in the catch for the first two censuses. A decline in their significance combined with increases for sauger, walleye, and white bass made each of the latter more prominant than largemouth bass in the 1972-73 census.

In terms of actual numbers, the bluegill catch has ranged from 120,000 to nearly 280,000 fish per year; crappies, 35,000 to nearly 75,000; and yellow perch 25,000 to 40,000. Catches of bluegill and perch in the last census were intermediate in the above ranges for the respective species, representing parted recoveries from low 1967-68 catches. Crappies have shown a consistent decline, much more drastic for white crappies (20,000 to 2,000) than black crappies (55,000 to 35,000). Sauger had the largest catches of the remaining species, 7,500 to 18,500. Largemouth bass followed with 6,000 to 14,000, walleye (6,000 to 10,000), and white bass (4,000 to 11,500). All had peak catches in the last survey, except largemouth bass which dropped to its lowest level.

The catch rates were calculated for individual species using total effort rather than effort for a given species, and are therefore biased downward. Both bluegill and yellow perch showed improvement from low catch rates in 1967-68; bluegills to a record high, and perch, only a partial recovery. Crappie catch rates held steady while perch and bluegill declined, then fell off in 1972-73. Largemouth bass followed the same pattern as crappies, while the remaining major species all showed consistent catch rate improvements, except for a slight decline in the drum catch rate in 1967-68.

The seasonal catch distribution of the major species showed considerable fluctuation over the three censuses. In general terms for all species, summer was most significant in the 1962-63 census, winter in 1967-68, with an intermediate situation in the 1972-73 survey. Winter was the most important season for the three most significant panfish. It provided two-thirds of the bluegill catch in the last two surveys, and one-third in 1962-63, nearly as high as the leading summer catch that year. Winter produced more crappies and perch than any other season in all three surveys; half to three-fourths of the crappie catch and one-third to two-thirds of the perch catch. Summer produced the greatest number of walleyes in 1962-63, and winter the largest sauger catch in 1967-68. In the respective remaining surveys, spring was most significant for walleye and fall for sauger. The largemouth bass shifted from chiefly a summer fishery in 1962-63 to winter in the last two surveys. White bass was consistently a summer fishery.

Winter had by far the highest catch rates for bluegill, and was also the best season for crappie and perch. Spring catch rates were comparable to those in winter for crappies in the first census and perch in the last two. Sauger catch rates were far higher in early winter than any other season. Walleye and largemouth bass rates were also highest then, except for a higher spring catch rate for walleyes and a higher winter rate for bass in 1967-68. White bass catch rates were highest in spring during 1962-63 and 1967-68 and higher in summer in 1972-73.

The most productive type of fishing for the three major panfish was through the ice, except that the boat catch was somewhat higher for bluegill in 1962-63, and for perch in 1972-73. More sauger and walleye were taken from boats than by any other method, except that the sauger catch from the fishing barge considerably exceeded that from boats in 1962-63.

Both boat and ice fishing were highly significant to the largemouth bass fishery. Boats predominated in 1962-63, the catch through the ice in 1967-68, with equal catches by each method in 1972-73. Boat fishermen caught most of the white bass in 1962-63, shifting to a dominant bank catch in the last two surveys.

Catch rates were highest for bluegill and crappies through the ice for all three censuses. Ice fishing also produced yellow perch at the highest rate in 1962-63, but bank angling was more productive in the last two surveys. Barge angling yielded sauger and walleye at the highest rates, except that boat catch rates slightly exceeded barge rates for walleye in 1967-68. Largemouth bass catch rates conformed closely to catch trends; boat rates highest in 1962-63, ice fishing rates in 1967-68, and equal rates for both methods in 1972-73. White bass were taken at highest rates from the bank, with a comparably high boat rate in 1962-63.

Still fishing has consistently been a considerably more popular method of lure presentation than casting, accounting for 75 to 85 percent of the fishing. Casting was most significant in the latest survey, and was most popular in spring and early winter. The most widely used type of lure was live bait, accounting for half to three-fourths of the angling. Live bait combined with an artificial lure ranked next, with one-quarter of all fishing, the remainder done with artificials alone. No important changes were evident in the relative importance of live bait and artificial lures over the three surveys. The live bait used was almost entirely worms or minnows. The relative popularity of these two baits ranged from more than twice as many worms as minnows in 1962-63 to slightly more minnows than worms in 1967-68. Little information was collected on the type of artificial lures used. Use of jigs and flies has apparently declined, and a Sonar lure was of particular significance to fall and early winter fishing in 1972-73.

Live bait dominated the panfish catch. Bluegills were taken almost entirely on worms, with the catch equally divided between worms used alone and with an artificial lure. Crappies were taken mainly on minnows. Worms were slightly more significant than minnows for perch in the last two surveys, and strongly outweighed them in 1962-63.

In general, minnows produced most walleye and sauger, followed by artificial lures. Artificials were more significant in the catches of both species in the 1967-68 survey than in the other two, and slightly out-ranked live bait for walleyes that year. Minnows were more significant in the sauger catch than for walleye, taken in more appreciable numbers on worms and artificials.

Minnows took most of the northern pike in all surveys, with the remainder caught mainly on artificial lures. The largemouth bass catch was about equally split between live bait and artificials, except for the 1967-68 census when live bait used alone and in conjunction with artificial lures greatly exceeded use of artificials alone. Minnows were the most important live bait in 1967-68, and worms in the other two surveys.

The most effective lures for white bass also varied. Live bait used alone and with artificials produced most of the catch in 1962-63, with worms slightly more productive than minnows. Artificials dominated catches in the last two censuses, with minnows taking most of the remainder.

Panfish were taken at higher rates by still fishing than casting, with the period of ice cover more productive than open water. Highest catch rates for drum shifted from still fishing to casting. Casting was consistently more productive than still fishing for largemouth bass and northern pike, but its effectiveness declined considerably over the surveys. Casting catch rates were also higher than still fishing for sauger, walleye, and white bass, except for sauger in 1962-63. The effectiveness of casting increased for all three species over the three censuses.

Flies and worms used alone and combined with artificials all produced bluegills at comparably high rates over the three surveys. Worms were most productive in the first census, and the other two lures in the latest one. Highest crappie catch rates occurred with minnows and perch with worms. Artificial lures, particularly jigs, were most productive for white bass, with rates increasing.

Artificials and live bait other than minnows or worms took walleye and sauger at higher rates than other lures, although minnows were of greatest significance numerically in the catch. Jigs and flies were important artificial lures in earlier surveys and sonars in the latest one.

Artificial lures were most effective for largemouth bass and northern pike, except that minnows outfished artificials for northerns in 1967-68. Live bait was also more effective for bass in that survey than in the others.

Total expenditures by Pool 7 fishermen in connection with fishing trips were up $64,000 from the $315,000 spent in 1967-68 in spite of a declining fishery. However, they did not approach the record of nearly $425,000 in 1962-63.

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Table 1.

AGE COMPOSITION OF ANGLERS

AGE	MALE						FEMALE						COMBINED					
	1962-63		1967-68		1972-73		1962-63		1967-68		1972-73		1962-63		1967-68		1972-73	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 12	164	4.1	248	3.9	117	4.6	29	6.3	49	6.9	16	4.6	193	4.3	297	4.2	133	4.6
12-15	172	4.3	313	4.8	139	5.5	26	5.7	29	4.1	11	3.2	198	4.5	342	4.8	150	5.2
16-17	42	1.1	106	1.6	52	2.0	4	0.9	6	1.0	7	2.0	46	1.0	112	1.6	59	2.0
18-24	273	6.9	494	7.7	218	8.6	27	5.9	56	7.9	27	7.8	300	6.8	550	7.7	245	8.5
25-34	535	13.5	1,030	15.9	399	15.7	43	9.3	80	11.5	47	13.5	578	13.1	1,110	15.5	446	15.5
35-44	613	15.5	1,048	16.2	359	14.2	79	17.2	105	14.8	53	15.3	692	15.7	1,153	16.0	412	14.3
45-64	1,486	37.5	2,181	33.6	822	32.4	204	44.3	321	45.3	154	44.4	1,690	38.2	2,502	34.8	976	33.8
65 and Over	675	17.1	1,053	16.3	431	17.0	48	10.4	60	8.5	32	9.2	723	16.4	1,113	15.4	463	16.1
TOTAL	3,960	89.6	6,473	90.1	2,537	88.0	460	10.4	706	9.9	347	12.0	4,420	100.0	7,179	100.0	2,884	100.0

Table 2.

AGE COMPOSITION OF ANGLERS ENGAGED IN DIFFERENT TYPES OF FISHING

			TYPE OF FISHING				
Sex	Year		Boat	Bank	Barge	Ice	TOTAL
Male	1962-63	No.	1,659	524	312	1,465	3,960
		Avg. Age	44.0	43.9	46.4	46.1	45.5
	1967-68	No.	2,372	784	454	2,863	6,473
		Avg. Age	42.8	39.1	45.8	45.0	43.5
	1972-73	No.	1,091	308	199	939	2,537
		Avg. Age	44.3	41.2	45.0	42.5	43.3
Female	1962-63	No.	218	105	45	92	460
		Avg. Age	43.4	42.2	46.0	43.0	43.8
	1967-68	No.	328	108	105	165	706
		Avg. Age	41.2	40.3	47.6	43.0	42.4
	1972-73	No.	181	77	41	48	347
		Avg. Age	45.5	42.2	43.9	36.9	43.4
Overall	1962-63	No.	1,877	629	357	1,557	4,420
		Avg. Age	43.7	43.1	46.3	44.6	45.3
	1967-68	No.	2,700	892	559	3,028	7,179
		Avg. Age	42.6	39.3	46.1	44.9	43.4
	1972-73	No.	1,272	385	240	987	2,884
		Avg. Age	44.4	41.4	44.8	42.3	43.3

Table 3a.

AGE DISTRIBUTION OF MALE ANGLERS

AGE	1962-63	1967-68	1972-73	AGE	1962-63	1967-68	1972-73
2	0	1	0	50	88	123	33
3	0	1	0	51	53	127	30
4	2	5	3	52	87	110	42
5	6	8	4	53	66	103	34
6	0	12	8	54	76	119	46
7	22	22	12	55	67	113	36
8	21	39	18	56	77	81	50
9	28	41	27	57	106	125	54
10	38	51	19	58	80	85	43
11	42	68	26	59	73	120	45
12	38	67	28	60	76	97	37
13	48	77	38	61	45	95	68
14	32	69	36	62	51	115	48
15	54	100	37	63	64	79	57
16	22	54	29	64	69	90	25
17	20	52	23	65	72	152	59
18	23	48	28	66	83	77	33
19	28	46	28	67	77	130	67
20	27	47	31	68	77	105	39
21	52	82	24	69	59	100	46
22	47	78	42	70	49	73	35
23	48	100	32	71	35	91	28
24	48	93	33	72	34	58	18
25	57	119	42	73	47	75	19
26	59	112	51	74	35	55	10
27	63	105	27	75	29	45	9
28	46	114	36	76	24	20	12
29	38	76	43	77	18	20	10
30	62	134	44	78	11	15	12
31	63	107	49	79	8	7	14
32	36	94	34	80	3	10	6
33	49	79	34	81	2	2	4
34	62	90	39	82	3	8	5
35	58	97	34	83	2	8	3
36	44	72	41	84	1	1	1
37	55	109	38	85	0	0	0
38	48	94	35	86	0	0	0
39	59	139	38	87	0	0	0
40	74	132	34	88	1	1	0
41	63	89	30	89	2	0	1
42	66	118	32	90	1	0	0
43	75	110	38	91	0	0	0
44	71	88	39	92	0	0	0
45	90	133	27	93	0	0	0
46	104	118	39	94	2	0	0
47	62	129	39				
48	73	100	43	TOTAL	3,955	6,473	2,537
49	79	119	26				

Table 3b.

AGE DISTRIBUTION OF FEMALE ANGLERS

AGE	1962-63	1967-68	1972-73	AGE	1962-63	1967-68	1972-73
2	0	0	0	50	16	23	1
3	0	1	0	51	6	17	8
4	0	4	0	52	12	19	12
5	0	7	1	53	20	20	8
6	0	3	2	54	9	30	6
7	7	9	1	55	11	14	9
8	6	6	3	56	11	4	12
9	3	5	0	57	5	15	17
10	6	5	5	58	7	10	10
11	5	9	4	59	8	12	3
12	9	8	2	60	8	15	7
13	7	10	4	61	8	12	6
14	8	6	3	62	11	13	7
15	2	5	2	63	3	12	8
16	1	2	2	64	6	13	3
17	3	4	5	65	10	6	6
18	3	3	2	66	4	2	3
19	3	7	0	67	1	9	1
20	4	11	5	68	6	2	2
21	10	6	4	69	3	11	4
22	1	11	5	70	5	4	5
23	3	8	5	71	2	5	3
24	3	10	6	72	3	0	5
25	5	17	7	73	0	5	2
26	1	9	6	74	4	2	0
27	4	4	2	75	3	3	0
28	1	8	3	76	0	5	1
29	1	11	4	77	1	4	0
30	6	7	4	78	0	0	0
31	7	10	7	79	0	0	0
32	5	3	5	80	3	1	0
33	4	4	3	81	1	0	0
34	9	7	6	82	0	0	0
35	6	7	6	83	1	0	0
36	4	9	8	84	0	0	0
37	11	14	4	85	0	1	0
38	8	11	3	86	0	0	0
39	7	11	5	87	0	0	0
40	10	3	4	88	0	0	0
41	7	5	3	89	0	0	0
42	9	19	7	90	0	0	0
43	10	15	9	91	0	0	0
44	7	11	4	92	1	0	0
45	11	14	11	93	0	0	0
46	7	25	11	94	0	0	0
47	19	18	4				
48	14	16	6	TOTAL	458	706	347
49	12	19	5				

Table 3c.

AGE DISTRIBUTION OF ANGLERS, BOTH SEXES COMBINED

AGE	1962-63	1967-68	1972-73	AGE	1962-63	1967-68	1972-73
2	0	1	0	50	104	146	34
3	0	2	0	51	59	144	38
4	2	9	3	52	99	129	54
5	6	15	5	53	86	123	42
6	0	15	10	54	85	149	52
7	29	31	13	55	78	127	45
8	27	45	21	56	88	85	62
9	31	46	27	57	111	140	71
10	44	56	24	58	87	95	53
11	47	77	30	59	81	132	48
12	47	75	30	60	84	112	44
13	55	87	42	61	53	107	74
14	40	75	39	62	62	128	55
15	56	105	39	63	67	91	65
16	23	56	31	64	75	103	28
17	23	56	28	65	82	158	65
18	26	51	30	66	87	79	36
19	31	53	28	67	78	139	68
20	31	58	36	68	83	107	41
21	62	88	28	69	62	111	50
22	48	89	47	70	54	77	40
23	51	108	37	71	37	96	31
24	51	103	39	72	37	58	23
25	62	136	49	73	47	80	21
26	60	121	57	74	39	57	10
27	67	109	29	75	32	48	9
28	47	122	39	76	24	25	13
29	39	87	47	77	19	24	10
30	68	141	48	78	11	15	12
31	70	117	56	79	8	7	14
32	41	97	39	80	6	11	6
33	53	83	37	81	3	2	4
34	71	97	45	82	3	8	5
35	64	104	40	83	3	8	3
36	48	81	49	84	1	1	1
37	66	123	42	85	0	1	0
38	56	105	38	86	0	0	0
39	66	150	43	87	0	0	0
40	84	135	38	88	1	1	0
41	70	94	33	89	2	0	1
42	75	137	39	90	1	0	0
43	85	125	47	91	0	0	0
44	78	99	43	92	1	0	0
45	101	147	38	93	0	0	0
46	111	143	50	94	2	0	0
47	81	147	43				
48	87	116	49	TOTAL	4,413	7,179	2,884
49	91	138	31				

Table 4a. ORIGIN OF WISCONSIN ANGLERS BY COUNTY

COUNTY	NUMBER OF ANGLERS			PERCENT OF ALL INTERVIEWED ANGLERS[1/]		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Adams	-	-	5	-	-	0.2
Ashland	-	-	2	-	-	0.1
Bayfield	-	3	-	-	Trace	-
Buffalo	25	28	12	0.6	0.4	0.4
Calumet	1	-	-	Trace	-	-
Chippewa	-	10	1	-	0.1	Trace
Clark	138	280	53	3.1	3.9	1.8
Columbia	11	19	6	0.2	0.3	0.2
Crawford	-	-	2	-	-	0.1
Dane	34	19	17	0.8	0.3	0.6
Dodge	1	5	-	Trace	0.1	-
Dunn	-	-	2	-	-	0.1
Eau Claire	13	16	3	0.3	0.2	0.1
Fond du Lac	1	7	2	Trace	0.1	0.1
Forest	-	1	-	-	Trace	-
Grant	8	-	4	0.2	-	0.1
Green	5	3	-	0.1	Trace	-
Green Lake	-	-	3	-	-	0.1
Iowa	-	1	-	-	Trace	-
Jackson	254	280	63	5.7	3.9	2.2
Jefferson	-	11	12	-	0.2	0.4
Juneau	28	12	1	0.6	0.2	Trace
Kenosha	28	242	55	0.6	3.4	1.9
La Crosse	1,579	2,142	903	35.7	29.8	31.3
Langlade	1	-	-	Trace	-	-
Lincoln	1	-	4	Trace	-	0.1
Manitowoc	-	1	1	-	Trace	Trace
Marathon	11	43	8	0.2	0.6	0.3
Marquette	2	1	-	Trace	Trace	-
Milwaukee	109	275	126	2.5	3.8	4.4
Monroe	249	299	60	5.6	4.2	2.1
Oneida	-	-	2	-	-	0.1
Outagamie	-	-	1	-	-	Trace
Ozaukee	-	2	-	-	Trace	-
Pierce	1	-	-	Trace	-	-
Portage	4	15	-	0.1	0.2	-
Racine	37	113	58	0.8	1.6	2.0
Richland	5	5	1	0.1	0.1	Trace
Rock	19	64	28	0.4	0.9	1.0
Rusk	3	-	-	Trace	-	-
Sauk	5	4	3	0.1	Trace	0.1
Sheboygan	1	1	-	Trace	Trace	-
Trempealeau	932	1,358	594	21.1	19.0	20.6
Vernon	33	30	8	0.8	0.4	0.3
Walworth	3	8	10	Trace	0.1	0.3
Washburn	2	-	1	Trace	-	Trace
Washington	4	10	10	0.1	0.1	0.3
Waukesha	14	32	16	0.3	0.4	0.6
Waupaca	-	2	-	-	Trace	-
Winnebago	1	6	2	Trace	0.1	0.1
Wood	12	44	12	0.3	0.6	0.4
TOTAL	3,575	5,392	2,091	80.9	75.1	72.5

1/ Percent figures include anglers from States other than Wisconsin.

Table 4b.

ORIGIN OF MINNESOTA ANGLERS BY COUNTY AND OTHERS BY STATE ONLY

	NUMBER OF ANGLERS			PERCENT OF ALL INTERVIEWED ANGLERS[1/]		
COUNTY	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Anoka	-	7	-	-	0.1	-
Dakota	2	-	7	Trace	-	0.2
Dodge	6	3	9	0.1	Trace	0.3
Fillmore	21	161	4	0.5	2.2	0.1
Freeborn	7	-	-	0.2	-	-
Hennepin	10	14	1	0.2	0.2	Trace
Houston	25	39	10	0.6	0.5	0.3
Mower	18	4	11	0.4	0.1	0.4
Olmstead	31	47	19	0.7	0.7	0.7
Ramsey	1	2	1	Trace	Trace	Trace
Redwood	1	-	-	Trace	-	-
Steele	5	1	-	0.1	Trace	-
Wabasha	1	1	-	Trace	Trace	-
Winona	365	422	257	8.3	5.9	8.9
Others	-	8	2	-	0.1	0.1
TOTAL	493	709	321	11.1	9.9	11.1
STATE						
Illinois	190	822	361	4.3	11.5	12.5
Indiana	21	66	19	0.5	0.9	0.7
Iowa	96	126	40	2.2	1.8	1.4
Michigan	3	3	-	Trace	Trace	-
Missouri	12	4	-	0.3	Trace	-
Ohio	5	7	7	0.1	0.1	0.2
Others	25	50	27	0.6	0.6	0.9
TOTAL	352	1,078	472	8.0	15.0	16.4

1/ Percent figures include Wisconsin anglers.

Table 5.

DISTANCE TRAVELED BY ANGLERS BASED ON ZONE

ZONE	MILES	YEAR	NUMBER	PERCENT
1	0- 25	1962-63	2,602	58.9
		1967-68	3,542	49.3
		1972-73	1,691	58.6
2	26- 50	1962-63	883	20.0
		1967-68	1,134	15.8
		1972-73	236	8.2
3	51- 75	1962-63	234	5.3
		1967-68	493	6.9
		1972-73	129	4.5
4	76-100	1962-63	75	1.7
		1967-68	119	1.7
		1972-73	46	1.6
5	101-125	1962-63	115	2.6
		1967-68	124	1.7
		1972-73	35	1.2
6	126-150	1962-63	36	0.8
		1967-68	129	1.8
		1972-73	56	1.9
7	151-250	1962-63	397	9.0
		1967-68	794	11.1
		1972-73	609	21.1
8	251-500	1962-63	48	1.1
		1967-68	799	11.1
		1972-73	55	1.9
9	Over 500	1962-63	29	0.7
		1967-68	45	0.6
		1972-73	27	0.9

Table 6.

NUMBERS OF INTERVIEWED ANGLERS BY STATUTORY WATERS FISHED

	WISCONSIN STATUTORY WATERS			MINNESOTA STATUTORY WATERS		
ANGLER ORIGIN	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Wisconsin	3,149	4,827	1,805	427	570	303
Minnesota	245	380	214	248	329	108
Illinois	125	572	190	65	250	171
Indiana	18	46	13	3	20	6
Iowa	44	38	7	52	88	33
Ohio	5	7	4	0	1	3
Michigan	0	2	0	0	0	0
Missouri	12	4	0	0	0	0
Other States	14	38	23	10	7	4
TOTAL	3,615	5,914	2,256	805	1,265	628

Table 7. TOTAL PROJECTED NUMBER OF HOURS OF FISHING BY TYPE AND SEASON

Season	Year	TYPE OF FISHING: Boat No. Hours	Boat % [1]	Bank or Wading No. Hours	Bank or Wading %	Barge No. Hours	Barge %	Total Open Water No. Hours	Total Open Water %	Ice No. Hours	Ice %	Total for Year No. Hours	Total for Year % [2]
Spring	1962-63	19,627	48.0	15,957	39.0	3,925	9.6	39,509	96.7	1,345	3.3	40,854	13.2
	1967-68	15,870	58.8	8,164	30.3	2,933	10.9	26,967	100.0	0	0	26,967	11.5
	1972-73	27,807	63.6	12,584	28.8	2,614	6.0	43,005	98.4	704	1.6	43,709	20.0
Summer	1962-63	89,603	71.5	29,228	23.3	6,472	5.2	125,303	100.0	0	0	125,303	40.6
	1967-68	49,067	72.2	11,842	17.4	7,053	10.4	67,962	100.0	0	0	67,962	29.0
	1972-73	47,488	74.2	10,390	16.2	6,088	9.5	63,966	100.0	0	0	63,966	29.3
Fall	1962-63	35,661	68.6	8,787	16.9	7,534	14.5	51,982	100.0	0	0	51,982	16.8
	1967-68	15,385	70.1	2,768	12.6	3,789	17.3	21,942	100.0	0	0	21,942	9.4
	1972-73	21,228	70.4	2,623	8.7	6,283	20.9	30,134	100.0	0	0	30,134	13.8
Early Winter	1962-63	2,617	53.8	1,089	22.4	1,155	23.8	4,861	100.0	0	0	4,861	1.6
	1967-68	763	11.3	110	1.6	568	8.4	1,441	21.3	5,313	78.7	6,754	2.9
	1972-73	2,310	68.1	424	12.5	471	13.9	3,205	94.4	189	5.6	3,394	1.6
Winter	1962-63	1,344	1.5	583	0.7	426	0.5	2,353	2.7	83,387	97.3	85,740	27.8
	1967-68	3,572	3.3	580	0.5	479	0.4	4,631	4.2	105,717	95.8	110,348	47.2
	1972-73	2,285	3.0	958	1.2	0	0	3,243	4.2	74,065	95.8	77,308	35.4
Total for Fishing Year	1962-63	148,852	48.2 [3]	55,644	18.0	19,512	6.3	224,008	72.5	84,732	27.5		
	1967-68	84,657	36.2	23,464	10.0	14,822	6.3	122,943	52.5	111,030	47.5		
	1972-73	101,118	46.3	26,979	12.3	15,456	7.1	143,553	65.7	74,958	34.3		
Grand Total	1962-63											308,740	
	1967-68											233,973	
	1972-73											218,511	

[1] Percentage by type of fishing for season.

[2] Percentage by season for total year.

[3] Percentage by type of fishing for total year.

Table 8.

SUMMARY OF COMPLETED FISHING TRIPS

	YEAR	BOAT	BANK OR WADING	BARGE	TOTAL OPEN WATER	ICE	TOTAL ALL TYPES
Total Hours	1962-63	-	-	-	-	-	-
	1967-68	791.0	88.5	192.5	1,072.0	691.5	1,763.5
	1972-73	87.5	7.5	-	95.0	99.5	194.5
Total Anglers Contacted	1962-63	-	-	-	-	-	-
	1967-68	205	42	34	281	174	455
	1972-73	30	3	-	33	27	60
Average Hours	1962-63	4.2	3.2	5.2	-	3.8	3.9
	1967-68	3.9	2.1	5.7	3.8	4.0	3.9
	1972-73	2.9	2.5	-	2.9	3.7	3.2

Table 9a.

ACTUAL NUMBER OF ANGLERS BY FISHING METHOD USED IN EACH SEASON

FISHING METHOD	YEAR	SPRING		SUMMER		FALL		EARLY WINTER		WINTER		TOTAL	
		No. Anglers	%	No. Anglers	%	No. Anglers	%	No. Anglers	%	No. Anglers	%	No. Anglers	%
Casting	1962-63	115	24.0	241	16.2	102	13.5	12	13.3	7	0.4	477	10.8
	1967-68	329	28.3	324	16.9	155	19.1	23	25.0	19	0.6	850	11.8
	1972-73	316	55.0	225	29.7	147	34.3	23	37.7	69	6.5	780	27.0
Still Fishing[1/]	1962-63	268	55.9	1,024	69.0	538	71.2	55	61.1	1,582	98.3	3,467	78.5
	1967-68	769	66.2	1,438	75.2	597	73.6	65	70.7	3,161	98.8	6,030	84.0
	1972-73	258	44.9	522	68.9	279	65.0	38	62.3	985	92.8	2,082	72.2
Trolling	1962-63	0	0	8	0.5	3	0.4	0	0	0	0	11	0.2
	1967-68	2	0.2	10	0.5	7	0.9	0	0	0	0	19	0.3
	1972-73	1	0.1	11	1.4	3	0.7	0	0	0	0	15	0.6
Multiple	1962-63	96	20.1	212	14.3	113	14.9	23	25.6	20	1.3	464	10.5
	1967-68	62	5.3	141	7.4	52	6.4	4	4.3	21	0.7	280	3.9
	1972-73	0	0	0	0	0	0	0	0	7	0.7	7	0.2
TOTAL	1962-63	477	100.0	1,485	100.0	756	100.0	90	100.0	1,609	100.0	4,419	100.0
	1967-68	1,162	100.0	1,913	100.0	811	100.0	92	100.0	3,201	100.0	7,179	100.0
	1972-73	575	100.0	758	100.0	429	100.0	61	100.0	1,061	100.0	2,884	100.0

[1/] Includes ice fishing.

Table 9b.

ACTUAL NUMBER OF ANGLERS USING LIVE BAIT IN EACH SEASON

FISHING LURE	YEAR	SPRING		SUMMER		FALL		EARLY WINTER		WINTER		TOTAL	
		No. Anglers	%	No. Anglers	%	No. Anglers	%	No. Anglers	%	No. Anglers	%	No. Anglers	%
Worms	1962-63	135	28.2	603	40.6	258	34.1	12	13.3	805	50.0	1,813	41.0
	1967-68	173	14.9	778	40.7	243	30.0	9	9.8	272	8.5	1,475	20.5
	1972-73	143	24.9	452	59.6	204	47.6	9	14.8	171	16.1	979	33.9
Minnows	1962-63	53	11.1	164	11.0	154	20.4	41	45.6	371	23.1	783	17.7
	1967-68	295	25.4	381	19.9	207	25.5	45	48.9	1,015	31.7	1,943	27.1
	1972-73	267	46.4	181	23.9	127	29.6	33	54.1	185	17.4	793	27.5
Other Live Bait	1962-63	11	2.3	1	Trace	1	0.1	0	0	6	0.4	19	0.4
	1967-68	1	0.1	8	0.4	0	0	0	0	0	0	9	0.1
	1972-73	0	0	1	0.1	14	3.3	1	1.6	0	0	16	0.6
Multiple Live Bait	1962-63	91	19.0	264	17.8	110	14.5	3	3.3	290	18.0	758	17.2
	1967-68	104	9.0	251	13.1	98	12.1	1	1.1	145	4.7	599	8.3
	1972-73	6	1.0	4	0.5	5	1.2	0	0	0	0	15	0.5
TOTAL LIVE BAIT	1962-63	290	60.6	1,032	69.5	523	69.1	56	62.2	1,472	91.5	3,373	76.3
	1967-68	573	49.3	1,418	74.1	548	67.6	55	59.8	1,432	44.7	4,026	56.1
	1972-73	416	72.3	638	84.2	350	81.6	43	70.5	356	33.5	1,803	62.5

Table 9c.

ACTUAL NUMBER OF ANGLERS USING ARTIFICIAL LURES ALONE AND IN COMBINATION WITH LIVE BAIT IN EACH SEASON

FISHING LURE	YEAR	SPRING		SUMMER		FALL		EARLY WINTER		WINTER		TOTAL	
		No. Anglers	%	No. Anglers	%	No. Anglers	%	No. Anglers	%	No. Anglers	%	No. Anglers	%
Jigs	1962-63	23	4.8	14	0.9	11	1.5	9	10.0	53	3.3	110	2.5
	1967-68	62	5.4	55	2.9	30	3.7	0	0	51	1.6	198	2.8
	1972-73	8	1.4	21	2.8	8	1.9	2	3.3	3	0.3	42	1.5
Flies	1962-63	34	7.1	49	3.3	14	1.8	3	3.3	7	0.4	107	2.4
	1967-68	12	1.0	7	0.4	5	0.6	0	0	1	Trace	25	0.3
	1972-73	4	0.7	1	0.1	0	0	0	0	0	0	5	0.2
Sonar	1962-63	No Data Collected											
	1967-68	No Data Collected											
	1972-73	32	5.6	13	1.7	46	10.7	7	11.5	25	2.4	123	4.3
Other Arti-	1962-63	69	14.4	202	13.6	89	11.8	8	8.9	17	1.1	385	8.7
	1967-68	427	36.7	260	13.6	140	17.3	23	25.0	55	1.7	905	12.6
ficials	1972-73	78	13.6	77	10.2	22	5.1	3	4.9	3	0.3	183	6.3
TOTAL ARTI-	1962-63	126	26.3	265	17.8	114	15.1	20	22.2	77	4.8	602	13.6
	1967-68	501	43.1	322	16.8	175	21.6	23	25.0	107	3.3	1,128	15.7
FICIALS	1972-73	122	21.3	112	14.7	76	17.7	12	19.7	31	3.0	353	12.3
Multiple Live and	1962-63	61	12.7	175	11.8	108	14.3	14	15.6	52	3.2	410	9.3
	1967-68	88	7.6	160	8.4	85	10.5	14	15.2	1,660	51.9	2,007	28.0
Arti-	1972-73	37	6.4	8	1.1	3	0.7	6	9.8	674	63.5	728	25.2
ficials													

Table 10.

NUMBER OF ANGLERS USING THE VARIOUS HABITATS

HABITAT	NUMBER			PERCENT		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
River Lake	2,904	3,807	1,652	65.7	53.0	57.3
Tailwater	917	2,110	876	20.7	29.4	30.4
Side Channel	290	704	240	6.6	9.8	8.3
Slough	48	276	83	1.1	3.9	2.9
Main Channel Border	1/	274	28	1/	3.8	1.0
Main Channel	261	8	5	5.9	0.1	0.1
TOTAL	4,420	7,179	2,884	100.0	100.0	100.0

1/ Not available.

Table 11.

NUMBERS OF INTERVIEWED ANGLERS FISHING FOR MAJOR SPECIES IN EACH SEASON

		Panfish[1/]	Bluegill	Crappie	Yellow Perch	Northern Pike	Largemouth Bass	Walleye and Sauger	White Bass	Channel Catfish	Freshwater Drum
Spring	1962-63	315	173	70	0	85	81	100	0	5	7
	1967-68	408	166	150	6	111	121	549	18	3	4
	1972-73	229	0	0	4	56	19	238	19	4	3
Summer	1962-63	1,006	502	162	8	234	233	264	3	48	22
	1967-68	912	458	167	1	233	306	291	22	89	2
	1972-73	450	0	3	0	34	12	159	53	23	22
Fall	1962-63	433	167	60	10	138	98	212	5	24	5
	1967-68	332	210	73	2	80	97	266	4	12	3
	1972-73	210	0	6	2	11	9	176	4	11	0
Early Winter	1962-63	28	8	6	0	12	13	49	0	0	0
	1967-68	18	5	11	0	2	2	61	0	0	0
	1972-73	11	0	0	0	1	3	46	0	0	0
Winter	1962-63	1,297	685	355	29	205	117	72	0	1	1
	1967-68	2,213	1,235	722	10	589	669	264	0	5	0
	1972-73	867	2	0	9	49	7	130	0	0	0
TOTAL	1962-63	3,079	1,535	653	47	674	542	697	8	78	35
	1967-68	3,883	2,074	1,230	19	1,015	1,195	1,431	44	109	9
	1972-73	1,765	5	9	15	151	50	749	76	38	25

1/ Panfish includes bluegill, crappie, all other species of sunfish, yellow perch, bullheads, rock bass, and white bass. Therefore, the number of anglers fishing for the individual panfish species above are low to the extent that they were lumped into the combined panfish category. The number of fishermen seeking an individual species includes anglers who are also fishing for one or more other species as well.

Table 12.

ACCESS SITE USAGE

WISCONSIN SITES

Public Site	1962-63		1967-68		1972-73	
	No. Anglers	%	No. Anglers	%	No. Anglers	%
Trempealeau Landing	193	4.4	779	10.9	450	15.6
Third Lake	155	3.5	12	0.2	156	5.4
Guide Wall	142	3.2	351	4.9	140	4.9
Long Lake	129	2.9	36	0.5	75	2.6
Upper Onalaska	218	4.9	563	7.8	58	2.0
French Island #1	86	1.9	129	1.8	5	0.2
French Island #2	47	1.1	108	1.5	0	0
French Island #3	77	1.7	72	1.0	42	1.5
French Island #4	11	0.2	35	0.5	1	Tr.
French Island #5	171	3.9	217	3.0	19	0.7
Round Lake	237	5.4	153	2.1	27	0.9
Brice Prairie	99	2.2	696	9.7	23	0.8
Lytles	1	Tr.	2	Tr.	0	0
Other Public Land	254	5.8	1,369	19.1	1,082	19.1
TOTAL	1,823	41.3	4,513	63.0	2,078	72.1

MINNESOTA SITES

Public Site	1962-63		1967-68		1972-73	
	No. Anglers	%	No. Anglers	%	No. Anglers	%
Dresbach	44	1.0	65	0.9	6	0.2
Dakota	6	0.1	25	0.4	6	0.2
TOTAL	50	1.1	90	1.3	12	0.4

TOTAL WISCONSIN AND MINNESOTA COMBINED

Sites	1962-63		1967-68		1972-73	
	No. Anglers	%	No. Anglers	%	No. Anglers	%
All Public Sites	1,873	42.4	4,603	64.2	2,090	72.5
All Private Sites	2,547	57.6	2,567	35.8	794	27.5
TOTAL	4,420	100.0	7,170	100.0	2,884	100.0

Table 13a.

PROJECTED NUMBER OF FISH CAUGHT BY TYPE OF FISHING IN SPRING

Species	Boat			Bank			Barge			Ice			Total		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	-	-	-	20	-	-	-	-	-	-	-	-	20	-
Mooneye	-	10	-	-	-	-	-	-	-	-	-	-	-	10	-
Northern Pike	222	330	1,073	202	130	83	98	17	-	-	-	-	522	477	1,156
Carp	175	79	31	70	20	-	-	13	-	-	-	-	245	112	31
Suckers & Redhorse	-	21	31	-	-	-	-	4	-	-	-	-	-	25	31
Bullhead sp.	-	100	31	314	160	222	-	47	-	-	-	-	314	307	253
Channel Catfish	117	100	64	61	20	111	20	13	162	-	-	-	198	133	337
Flathead Catfish	-	-	-	107	10	-	20	-	-	-	-	-	127	10	-
White Bass	270	900	253	41	1,080	3,608	349	240	324	42	-	-	702	2,220	4,185
Rock Bass	-	40	-	20	40	361	-	82	-	-	-	-	20	162	361
Warmouth	-	-	-	-	10	-	-	-	-	-	-	-	-	10	-
Green Sunfish	-	-	-	-	-	55	-	-	-	-	-	-	-	-	55
Pumpkinseed	318	10	220	720	40	138	-	-	-	42	-	704	1,080	50	1,062
Bluegill	15,293	1,841	7,633	18,899	1,340	1,443	192	56	-	5,194	-	704	39,578	3,237	9,780
Smallmouth Bass	99	10	158	20	70	-	98	30	-	-	-	-	217	110	158
Largemouth Bass	1,880	460	915	204	120	28	330	56	36	-	-	704	2,414	636	1,683
White Crappie	3,337	200	-	2,217	260	-	153	-	-	62	-	-	5,769	460	-
Black Crappie	1,924	3,352	884	3,155	2,719	3,691	444	373	-	104	-	7,744	5,627	6,444	12,319
Yellow Perch	660	681	1,515	1,118	2,170	4,467	20	9	-	124	-	1,408	1,922	2,860	7,390
Sauger	157	1,730	2,208	143	510	749	867	695	379	-	-	-	1,167	2,935	3,336
Walleye	518	2,661	2,745	123	730	389	911	459	306	-	-	-	1,552	3,850	3,440
Freshwater Drum	443	351	2,555	533	70	971	236	21	216	-	-	-	1,212	442	3,742
Projected Number of Fishermen	4,673	4,069	7,130	4,987	3,888	5,992	785	515	459	354	-	176	10,799	8,472	13,757
Projected Number of Fish	25,413	12,876	20,316	27,947	9,519	16,316	3,738	2,115	1,423	5,568	-	11,264	62,666	24,510	49,319
Projected Hours Fished	19,627	15,870	27,807	15,957	8,164	12,584	3,925	2,933	2,612	1,345	-	704	40,854	26,967	43,707
Projected Fish Per Hour	1.295	0.811	0.7306	1.751	1.166	1.2966	0.952	0.721	0.5448	4.140	-	16.000	1.534	0.909	1.1284

Table 13b.

PROJECTED NUMBER OF FISH CAUGHT BY TYPE OF FISHING IN SUMMER

Species	Boat			Bank			Barge			Total		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Shovelnose Sturgeon	-	-	-	-	-	-	-	-	21	-	-	21
Longnose Gar	-	15	-	-	-	-	-	-	-	-	15	-
Bowfin	47	15	-	-	26	-	-	-	-	47	41	-
Mooneye	-	15	-	-	-	-	-	-	-	-	15	-
Northern Pike	1,591	427	565	142	297	170	39	537	61	1,772	1,261	796
Carp	29	-	104	42	26	57	-	-	-	42	55	161
Suckers & Redhorse	35	49	-	84	-	-	-	-	-	119	49	-
Bullhead sp.	150	108	104	143	13	198	13	9	-	306	130	302
Channel Catfish	757	1,811	1,201	377	219	625	39	164	82	1,173	2,194	1,908
Flathead Catfish	196	240	33	92	13	-	26	73	41	314	326	74
White Bass	1,313	113	988	327	2,196	4,206	602	583	1,316	2,242	2,892	6,510
Yellow Bass	210	-	-	-	-	-	-	-	-	210	-	-
Rock Bass	190	221	247	172	206	198	52	18	41	414	445	486
Warmouth	-	15	-	-	-	-	-	-	-	-	15	-
Green Sunfish	-	-	1,344	-	-	256	-	-	-	-	-	1,600
Pumpkinseed	642	206	1,311	50	-	256	-	-	-	692	206	1,567
Bluegill	78,193	17,821	42,891	26,501	3,177	1,819	1,191	401	-	105,885	21,399	44,710
Smallmouth Bass	96	397	318	126	90	28	13	63	-	235	550	346
Largemouth Bass	4,460	2,065	1,311	555	258	-	-	54	-	5,015	2,377	1,311
White Crappie	4,316	447	318	522	155	-	628	28	-	5,466	630	318
Black Crappie	12,287	4,445	1,201	1,499	1,382	1,165	479	37	597	14,265	5,864	2,963
Yellow Perch	9,494	1,364	3,856	1,392	168	170	26	18	-	10,912	1,550	4,026
Sauger	823	270	461	-	181	341	1,165	510	452	1,988	961	1,254
Walleye	2,056	2,444	850	126	77	256	311	291	309	2,493	2,812	1,415
Freshwater Drum	2,992	2,109	1,662	1,444	529	1,563	401	137	473	4,837	2,775	3,698
Projected Number of Fishermen	21,334	12,581	12,176	9,134	5,639	4,948	1,294	1,237	1,068	31,762	19,457	18,192
Projected Number of Fish	119,848	34,626	58,765	33,594	9,013	11,308	4,985	2,923	3,393	158,427	46,562	73,466
Projected Hours Fished	89,603	49,067	47,488	29,228	11,842	10,390	6,472	7,053	6,088	125,303	67,962	63,966
Projected Fish Per Hour	1.338	0.706	1.238	1.149	0.761	1.089	0.770	0.414	0.557	1.264	0.685	1.148

Table 13c.

PROJECTED NUMBER OF FISH CAUGHT BY TYPE OF FISHING IN FALL

Species	Boat			Bank			Barge			Total		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Mooneye	-	22	-	-	-	-	-	-	-	-	22	-
Northern Pike	559	143	76	56	51	57	121	126	83	736	320	216
Carp	50	22	-	19	13	-	-	-	-	69	35	-
Suckers & Redhorse	53	66	-	-	-	-	-	-	-	53	66	-
Bullhead sp.	-	395	-	347	13	-	-	7	-	347	415	-
Channel Catfish	576	528	664	144	76	-	-	28	-	720	632	664
Flathead Catfish	20	32	-	-	-	-	-	7	-	20	39	-
White Bass	760	352	25	261	1,428	456	15	70	270	1,036	1,850	751
Rock Bass	72	109	76	46	-	-	15	-	-	133	109	76
Pumpkinseed	404	252	102	46	-	-	-	-	-	450	252	102
Bluegill	30,665	6,343	17,955	5,401	316	399	15	14	-	36,081	6,673	18,354
Smallmouth Bass	128	55	51	126	13	114	-	7	-	254	75	165
Largemouth Bass	2,669	605	741	762	13	-	-	14	-	3,431	632	741
White Crappie	996	143	-	537	51	-	-	42	-	1,533	236	-
Black Crappie	4,536	2,166	2,838	898	63	-	15	126	-	5,449	2,355	2,838
Yellow Perch	7,201	649	3,505	2,054	25	399	-	-	-	9,255	674	3,904
Sauger	597	1,066	4,016	186	543	-	1,853	925	2,903	2,636	2,534	6,919
Walleye	671	352	1,586	56	202	57	708	175	1,016	1,435	729	2,659
Freshwater Drum	444	649	204	238	329	-	60	70	-	742	1,048	204
Projected Number of Fishermen	8,491	3,945	5,443	2,746	1,318	1,249	1,507	665	1,102	12,744	5,928	7,794
Projected Number of Fish	50,401	13,949	31,839	11,177	3,136	1,482	2,802	1,611	4,272	64,380	18,696	37,593
Projected Hours Fished	35,661	15,385	21,228	8,787	2,768	2,623	7,534	3,789	6,283	51,982	21,942	30,134
Projected Fish Per Hour	1.413	0.907	1.500	1.272	1.133	0.565	0.372	0.425	0.680	1.239	0.852	1.248

Table 13d.

PROJECTED NUMBER OF FISH CAUGHT BY TYPE OF FISHING IN EARLY WINTER

Species	Boat			Bank			Barge			Ice			Total		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	-	25	-	-	-	-	-	-	-	-	-	-	-	25
Northern Pike	21	30	25	33	-	-	-	10	-	-	-	14	54	40	39
Suckers & Redhorse	-	6	-	-	-	-	-	-	-	-	-	-	-	6	-
Channel Catfish	-	6	-	-	-	-	-	-	-	-	-	-	-	6	-
White Bass	-	6	-	-	-	-	-	5	-	-	-	-	-	11	-
Pumpkinseed	-	-	-	-	-	-	-	-	-	-	253	14	-	253	14
Bluegill	411	-	571	73	-	-	-	-	-	-	5,819	308	484	5,819	879
Smallmouth Bass	21	-	-	-	-	-	-	-	-	-	-	-	21	-	-
Largemouth Bass	336	12	124	33	-	-	-	-	-	-	2,783	14	369	2,795	138
White Crappie	230	-	-	33	-	-	-	-	-	-	506	-	263	506	-
Black Crappie	38	-	-	66	-	-	-	-	-	-	506	14	104	506	14
Yellow Perch	-	-	174	33	-	424	-	-	-	-	759	-	33	759	598
Sauger	217	398	1,739	-	-	-	535	241	514	-	-	-	752	639	2,253
Walleye	104	65	273	-	-	-	102	19	150	-	-	-	206	84	423
Projected Number of Fishermen	623	196	592	340	52	202	231	100	83	-	1,328	47	1,194	1,676	924
Projected Number of Fish	1,378	523	2,931	271	-	424	637	275	664	-	10,626	364	2,286	11,424	4,383
Projected Hours Fished	2,617	763	2,310	1,089	110	424	1,155	568	471	-	5,313	189	4,861	6,754	3,394
Projected Fish Per Hour	0.527	0.685	1.269	0.249	-	1.000	0.552	0.484	1.409	-	2.000	1.926	0.470	1.691	1.291

Table 13e.

PROJECTED NUMBER OF FISH CAUGHT BY TYPE OF FISHING IN WINTER

	Boat			Bank			Barge			Ice			Total		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	-	-	-	-	-	-	-	-	-	74	-	-	74	-
Northern Pike	-	21	13	-	41	57	-	-	-	1,280	3,436	1,444	1,280	3,498	1,514
Carp	-	-	13	-	-	-	-	-	-	-	-	-	-	-	13
Suckers & Redhorse	-	-	-	-	-	-	7	-	-	-	21	59	7	21	59
Bullhead sp.	-	11	-	-	-	-	-	-	-	28	32	-	28	43	-
Channel Catfish	-	-	-	-	-	-	-	-	-	-	433	-	-	433	-
White Bass	-	-	-	-	-	-	-	-	-	295	21	30	295	21	30
Rock Bass	-	-	-	-	-	-	-	-	-	-	21	30	-	21	30
Pumpkinseed	-	-	-	-	-	-	-	-	-	1,003	529	526	1,003	529	526
Bluegill	717	-	-	-	-	-	-	-	-	95,228	83,527	135,095	95,945	83,527	135,095
Smallmouth Bass	-	-	-	-	-	-	-	-	-	54	-	-	54	-	-
Largemouth Bass	126	11	-	191	14	-	-	-	-	2,688	7,791	2,244	3,005	7,816	2,244
White Crappie	-	-	-	-	-	-	29	-	-	7,792	11,809	1,481	7,821	11,809	1,481
Black Crappie	169	11	-	153	-	11	147	-	-	27,146	31,102	17,457	27,615	31,113	17,468
Yellow Perch	-	387	27	-	276	1,220	-	-	-	18,793	11,682	7,021	18,793	12,345	8,268
Sauger	196	1,859	593	-	14	23	66	407	-	678	1,776	4,281	940	4,056	4,897
Walleye	134	1,257	1,011	-	69	160	22	17	-	137	782	1,200	293	2,125	2,371
Freshwater Drum	105	11	-	-	-	-	-	-	-	-	-	-	105	11	-
Projected Number of Fishermen	320	916	586	182	276	456	85	84	-	21,944	26,429	18,516	22,531	27,705	19,558
Projected Number of Fish	1,447	3,589	1,657	344	414	1,471	271	424	-	155,302	153,015	170,868	157,364	157,442	173,996
Projected Hours Fished	1,344	3,572	2,285	583	580	958	426	479	-	83,387	105,717	74,065	85,740	110,348	77,308
Projected Fish Per Hour	1.077	1.005	0.726	0.590	0.714	1.536	0.636	0.885	-	1.862	1.447	2.307	1.835	1.427	2.251

Table 13f.

PROJECTED NUMBER OF FISH CAUGHT BY TYPE OF FISHING--ALL SEASONS COMBINED

Species	Boat			Bank			Barge			Ice			Total		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Shovelnose Sturgeon	-	-	-	-	-	-	-	-	21	-	-	-	-	-	21
Longnose Gar	-	15	-	-	-	-	-	-	-	-	-	-	-	15	-
Bowfin	47	15	25	-	46	-	-	-	-	-	74	-	47	135	25
Mooneye	-	47	-	-	-	-	-	-	-	-	-	-	-	47	-
Northern Pike	2,393	951	1,752	433	519	367	258	690	144	1,280	3,436	1,458	4,364	5,596	3,721
Carp	225	130	148	131	59	57	-	13	-	-	-	-	356	202	205
Suckers & Redhorse	88	163	31	84	-	-	7	4	-	-	-	59	179	167	90
Bullhead sp.	150	614	135	804	186	420	13	63	-	28	32	-	995	895	555
Channel Catfish	1,450	2,445	1,929	582	315	736	59	205	246	-	433	-	2,091	3,398	2,909
Flathead Catfish	216	272	33	199	23	-	46	80	41	-	-	-	461	375	74
White Bass	2,343	1,371	1,266	629	4,704	8,270	966	898	1,910	337	21	30	4,275	6,994	11,476
Yellow Bass	210	-	-	-	-	-	-	-	-	-	-	-	210	-	-
Rock Bass	262	370	323	238	246	559	67	100	41	-	21	30	567	737	953
Warmouth	-	15	-	-	10	-	-	-	-	-	-	-	-	25	-
Green Sunfish	-	-	1,344	-	-	-	311	-	-	-	-	-	-	-	1,655
Pumpkinseed	1,364	468	1,633	816	40	394	-	-	-	1,045	782	1,244	3,225	1,290	3,271
Bluegill	125,279	26,005	69,050	50,874	4,833	3,661	1,398	471	-	100,422	89,346	136,107	277,973	120,655	208,818
Smallmouth Bass	344	462	527	272	173	142	111	100	-	54	-	-	781	735	669
Largemouth Bass	9,471	3,153	3,091	1,745	405	28	330	124	36	2,688	10,574	2,962	14,234	14,256	6,117
White Crappie	8,879	790	318	3,309	466	-	810	70	-	7,854	12,315	1,481	20,852	13,641	1,799
Black Crappie	18,954	9,974	4,923	5,771	4,164	4,867	1,085	536	597	27,250	31,608	25,215	53,060	46,282	35,602
Yellow Perch	17,355	3,081	9,077	4,597	2,639	6,680	46	27	-	18,917	12,441	8,429	40,915	18,188	24,186
Sauger	1,990	5,323	9,017	329	1,248	1,113	4,486	2,778	4,248	678	1,776	4,281	7,483	11,125	18,659
Walleye	3,483	6,779	6,465	305	1,078	862	2,045	961	1,781	137	782	1,200	5,979	9,600	10,308
Freshwater Drum	3,984	3,120	4,421	2,215	928	2,534	697	228	689	-	-	-	6,896	4,276	7,644
Projected Number of Fishermen	35,441	21,707	25,927	17,389	11,173	12,847	3,902	2,601	2,712	22,298	27,757	18,739	79,030	63,238	60,225
Projected Number of Fish	198,487	65,563	115,508	73,333	22,082	31,001	12,433	7,348	9,752	160,870	163,641	182,496	445,123	258,634	338,757
Projected Hours Fished	148,852	84,657	101,118	55,644	23,464	26,979	19,512	14,822	15,456	84,732	111,030	74,958	308,740	233,973	218,511
Projected Fish Per Hour	1.333	0.750	1.142	1.318	0.817	1.149	0.637	0.496	0.631	1.899	1.444	2.435	1.442	1.105	1.550

Table 14.

CATCH PER MAN-HOUR FOR MAJOR SPECIES OF FISH
TAKEN BY ANGLERS IN THE LAST THREE CREEL CENSUSES

Species	Catch Rate 1962-63	Catch Rate 1967-68	Increase or Decrease From 1962-63	Catch Rate 1972-73	Increase or Decrease From	
					1962-63	1967-68
Northern Pike	0.0163	0.0251	+0.0088	0.0168	+0.0005	-0.0083
Channel Catfish	0.0062	0.0135	+0.0073	0.0135	+0.0073	0.0000
White Bass	0.0162	0.0334	+0.0172	0.0562	+0.0400	+0.0228
Pumpkinseed	0.0089	0.0044	-0.0045	0.0109	+0.0020	+0.0065
Bluegill	0.8224	0.4706	-0.3518	0.9006	+0.0782	+0.4300
Largemouth Bass	0.0423	0.0480	+0.0057	0.0239	-0.0184	-0.0241
White Crappie	0.0722	0.0549	-0.0173	0.0076	-0.0646	-0.0473
Black Crappie	0.1894	0.1976	+0.0082	0.1282	-0.0612	-0.0714
Yellow Perch	0.1371	0.0751	-0.0620	0.1093	-0.0278	+0.0342
Sauger	0.0395	0.0627	+0.0232	0.0998	+0.0603	+0.0371
Walleye	0.0243	0.0482	+0.0239	0.0569	+0.0326	+0.0087
Freshwater Drum	0.0209	0.0174	-0.0035	0.0350	+0.0141	+0.0176
ALL SPECIES[1/]	1.442	1.105	-0.0337	1.550	+0.0108	+0.0445

[1/] Includes the species listed above plus the following less significant ones: Shovelnose Sturgeon, Longnose Gar, Bowfin, Carp, Suckers and Redhorse, Mooneye, Flathead Catfish, Bullhead sp., Smallmouth Bass, Rock Bass, Green Sunfish, Warmouth, and Yellow Bass.

Table 15.

PROJECTED CATCH OF MAJOR SPECIES OF FISH
TAKEN BY ANGLERS IN THE LAST THREE CREEL CENSUSES

Species	Number of Fish			Percent of Total Catch		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Northern Pike	4,364	5,596	3,721	1.0	2.2	1.1
Channel Catfish	2,091	3,398	2,909	0.5	1.3	0.9
White Bass	4,275	6,994	11,476	1.0	2.7	3.4
Pumpkinseed	3,225	1,290	3,271	0.7	0.5	1.0
Bluegill	277,973	120,655	208,818	62.4	46.7	61.6
Largemouth Bass	14,234	14,256	6,117	3.2	5.5	1.8
White Crappie	20,852	13,641	1,799	4.7	5.3	0.5
Black Crappie	53,060	46,282	35,602	11.9	17.9	10.5
Yellow Perch	40,915	18,188	24,186	9.2	7.0	7.1
Sauger	7,483	11,125	18,659	1.7	4.3	5.5
Walleye	5,979	9,600	10,308	1.3	3.7	3.0
Freshwater Drum	6,896	4,276	7,644	1.5	1.7	2.3
Minor Species	3,776	3,333	4,247	0.9	1.2	1.3
TOTAL	445,123	258,634	338,757	100.0	100.0	100.0

Table 16a.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ANGLERS IN SPRING

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	2	-	-	0.0006	-
Mooneye	-	1	-	-	0.0003	-
Northern Pike	18	50	37	0.0141	0.0162	0.0250
Carp	9	13	1	0.0071	0.0042	0.0007
Suckers & Redhorse	-	3	1	-	0.0010	0.0007
Bullhead sp.	6	37	9	0.0047	0.0120	0.0061
Channel Catfish	10	15	15	0.0078	0.0049	0.0101
Flathead Catfish	2	1	-	0.0016	0.0003	-
White Bass	35	254	156	0.0275	0.0823	0.1053
Yellow Bass	-	-	-	-	-	-
Rock Bass	6	27	13	0.0047	0.0087	0.0088
Warmouth	-	1	-	-	0.0003	-
Green Sunfish	-	-	2	-	-	0.0014
Pumpkinseed	22	5	13	0.0173	0.0016	0.0088
Bluegill	996	331	295	0.7818	0.1072	0.1992
Smallmouth Bass	8	15	5	0.0063	0.0049	0.0034
Largemouth Bass	67	71	33	0.0526	0.0230	0.0223
White Crappie	235	46	-	0.1845	0.0149	-
Black Crappie	205	694	172	0.1609	0.2249	0.1161
Yellow Perch	48	287	211	0.0377	0.0930	0.1425
Sauger	63	386	118	0.0495	0.1251	0.0797
Walleye	71	446	118	0.0557	0.1445	0.0797
Freshwater Drum	59	47	128	0.0463	0.0152	0.0864
TOTAL	1,860	2,732	1,327	1.4599	0.8851	0.8960
Hours Fished	1,274.0	3,086.5	1,481.0			

Table 16b.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ANGLERS IN SUMMER

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Shovelnose Sturgeon	-	-	1	-	-	0.0005
Longnose Gar	-	1	-	-	0.0002	-
Bowfin	1	3	-	0.0003	0.0006	-
Mooneye	-	1	-	-	0.0002	-
Northern Pike	61	109	25	0.0170	0.0228	0.0125
Carp	1	4	5	0.0003	0.0008	0.0025
Suckers & Redhorse	2	3	-	0.0006	0.0006	-
Bullhead sp.	8	9	10	0.0022	0.0019	0.0050
Channel Catfish	32	149	60	0.0089	0.0312	0.0299
Flathead Catfish	10	24	3	0.0028	0.0050	0.0015
White Bass	88	241	240	0.0245	0.0504	0.1197
Yellow Bass	6	101	-	0.0017	0.0211	-
Rock Bass	12	32	16	0.0033	0.0067	0.0080
Warmouth	-	1	-	-	0.0002	-
Green Sunfish	-	-	47	-	-	0.0234
Pumpkinseed	21	13	46	0.0058	0.0027	0.0229
Bluegill	2,729	1,412	1,277	0.7591	0.2953	0.6370
Smallmouth Bass	6	39	10	0.0017	0.0082	0.0050
Largemouth Bass	146	156	37	0.0406	0.0326	0.0185
White Crappie	176	43	9	0.0489	0.0090	0.0045
Black Crappie	441	391	104	0.1227	0.0818	0.0519
Yellow Perch	294	-	115	0.0818	-	0.0574
Sauger	109	87	47	0.0303	0.0182	0.0234
Walleye	85	192	48	0.0236	0.0402	0.0239
Freshwater Drum	136	189	125	0.0378	0.0395	0.0624
TOTAL	4,364	3,200	2,225	1.2139	0.6693	1.1099
Hours Fished	3,595.0	4,781.0	2,004.6			

Table 16c.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ANGLERS IN FALL

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Mooneye	-	2	-	-	0.0009	-
Northern Pike	34	35	8	0.0153	0.0162	0.0068
Carp	3	3	-	0.0013	0.0014	-
Suckers & Redhorse	2	6	-	0.0009	0.0028	-
Bullhead sp.	10	38	-	0.0045	0.0176	-
Channel Catfish	28	58	26	0.0126	0.0269	0.0221
Flathead Catfish	1	4	-	0.0005	0.0019	-
White Bass	47	155	22	0.0212	0.0718	0.0187
Rock Bass	5	10	3	0.0023	0.0046	0.0025
Pumpkinseed	15	23	4	0.0067	0.0107	0.0034
Bluegill	1,265	604	709	0.5693	0.2798	0.6014
Smallmouth Bass	9	7	4	0.0041	0.0032	0.0034
Largemouth Bass	113	58	29	0.0509	0.0269	0.0246
White Crappie	63	23	-	0.0284	0.0107	-
Black Crappie	234	220	111	0.1053	0.1019	0.0941
Yellow Perch	318	61	144	0.1431	0.0283	0.1221
Sauger	161	272	297	0.0725	0.1260	0.2519
Walleye	82	73	112	0.0369	0.0338	0.0950
Freshwater Drum	33	95	8	0.0149	0.0440	0.0068
TOTAL	2,423	1,747	1,477	1.0904	0.8092	1.2528
Hours Fished	2,222	2,159	1,179			

Table 16d.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ANGLERS IN EARLY WINTER

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	-	1	-	-	0.0077
Northern Pike	2	7	2	0.0075	0.0257	0.0154
Suckers & Redhorse	-	1	-	-	0.0037	-
Channel Catfish	-	1	-	-	0.0037	-
White Bass	-	2	-	-	0.0073	-
Pumpkinseed	-	1	1	-	0.0037	0.0077
Bluegill	13	23	45	0.0490	0.0844	0.3475
Smallmouth Bass	1	-	-	0.0038	-	-
Largemouth Bass	16	13	6	0.0604	0.0477	0.0463
White Crappie	13	2	-	0.0490	0.0073	-
Black Crappie	6	2	1	0.0226	0.0073	0.0077
Yellow Perch	1	3	8	0.0038	0.0110	0.0618
Sauger	60	117	94	0.2264	0.4294	0.7259
Walleye	17	15	18	0.0642	0.0550	0.1390
TOTAL	129	187	176	0.4868	0.6862	1.3591
Hours Fished	265	272.5	129.5			

Table 16e.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ANGLERS IN WINTER

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	6	-	-	0.0007	-
Northern Pike	68	276	53	0.0176	0.0316	0.0199
Carp	-	-	1	-	-	0.0004
Suckers & Redhorse	1	2	2	0.0002	0.0002	0.0008
Bullhead sp.	2	4	-	0.0005	0.0004	-
Channel Catfish	-	34	-	-	0.0039	-
White Bass	12	2	1	0.0031	0.0002	0.0004
Rock Bass	-	2	1	-	0.0002	0.0004
Pumpkinseed	42	42	17	0.0108	0.0048	0.0064
Bluegill	4,234	6,585	4,388	1.0929	0.7544	1.6489
Smallmouth Bass	2	-	-	0.0005	-	-
Largemouth Bass	133	616	73	0.0343	0.0706	0.0274
White Crappie	324	931	48	0.0836	0.1067	0.0180
Black Crappie	1,239	2,453	568	0.3198	0.2810	0.2134
Yellow Perch	879	977	337	0.2269	0.1119	0.1266
Sauger	51	331	188	0.0132	0.0379	0.0706
Walleye	18	191	128	0.0046	0.0219	0.0481
Freshwater Drum	7	1	-	0.0018	0.0001	-
TOTAL	7,014	12,453	5,805	1.8105	1.4266	2.1813
Hours Fished	3,874.0	8,729.0	2,661.2			

Table 16f.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ANGLERS--ALL SEASONS COMBINED

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Shovelnose Sturgeon	-	-	1	-	-	0.0001
Longnose Gar	-	1	-	-	0.0001	-
Bowfin	1	11	1	0.0001	0.0006	0.0001
Mooneye	-	4	-	-	0.0002	-
Northern Pike	183	477	125	0.0163	0.0251	0.0168
Carp	13	20	7	0.0012	0.0011	0.0009
Suckers & Redhorse	5	15	3	0.0004	0.0008	0.0004
Bullhead sp.	26	88	19	0.0023	0.0047	0.0025
Channel Catfish	70	257	101	0.0062	0.0135	0.0135
Flathead Catfish	13	29	3	0.0012	0.0015	0.0004
White Bass	182	654	419	0.0162	0.0344	0.0562
Yellow Bass	6	-	-	0.0005	-	-
Rock Bass	23	71	33	0.0020	0.0037	0.0044
Warmouth	-	2	-	-	0.0001	-
Green Sunfish	-	-	49	-	-	0.0066
Pumpkinseed	100	84	81	0.0089	0.0044	0.0109
Bluegill	9,237	8,955	6,714	0.8225	0.4706	0.9006
Smallmouth Bass	26	61	19	0.0023	0.0032	0.0025
Largemouth Bass	475	914	178	0.0423	0.0480	0.0239
White Crappie	811	1,045	57	0.0722	0.0549	0.0076
Black Crappie	2,127	3,760	956	0.1894	0.1976	0.1282
Yellow Perch	1,540	1,429	815	0.1371	0.0751	0.1093
Sauger	444	1,193	744	0.0395	0.0627	0.0998
Walleye	273	917	424	0.0243	0.0482	0.0569
Freshwater Drum	235	332	261	0.0209	0.0174	0.0350
TOTAL	15,790	20,319	11,010	1.4061	1.0678	1.4768
Hours Fished	11,230.0	19,028.0	7,455.3			

Table 17a.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED BOAT ANGLERS

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Longnose Gar	-	1	-	-	0.0002	-
Bowfin	1	1	1	0.0002	0.0002	0.0003
Mooneye	-	4	-	-	0.0006	-
Northern Pike	85	80	55	0.0174	0.0122	0.0166
Carp	9	12	5	0.0016	0.0018	0.0015
Suckers & Redhorse	3	14	1	0.0006	0.0021	0.0003
Bullhead sp.	4	54	4	0.0008	0.0083	0.0012
Channel Catfish	52	173	62	0.0107	0.0265	0.0187
Flathead Catfish	7	18	1	0.0014	0.0028	0.0003
White Bass	84	130	37	0.0172	0.0199	0.0112
Yellow Bass	6	-	-	0.0012	-	-
Rock Bass	8	28	10	0.0016	0.0043	0.0030
Warmouth	-	1	-	-	0.0002	-
Green Sunfish	-	-	38	-	-	0.0115
Pumpkinseed	39	37	48	0.0080	0.0057	0.0145
Bluegill	3,698	1,883	2,180	0.7587	0.2881	0.6572
Smallmouth Bass	12	31	16	0.0025	0.0047	0.0048
Largemouth Bass	302	234	100	0.0620	0.0358	0.0301
White Crappie	286	61	9	0.0587	0.0093	0.0027
Black Crappie	641	813	173	0.1315	0.1244	0.0522
Yellow Perch	561	249	303	0.1151	0.0381	0.0913
Sauger	95	527	354	0.0195	0.0806	0.1067
Walleye	128	580	259	0.0263	0.0887	0.0781
Freshwater Drum	132	228	136	0.0269	0.0349	0.0410
TOTAL	6,153	5,159	3,792	1.2628	0.7893	1.1432
Hours Fished	4,872.5	6,536.0	3,317.0			

Table 17b.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED BANK ANGLERS

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	4	-	-	0.0020	-
Northern Pike	14	43	15	0.0112	0.0215	0.0158
Carp	4	5	2	0.0032	0.0025	0.0021
Suckers & Redhorse	1	-	-	0.0008	-	-
Bullhead sp.	19	18	15	0.0152	0.0090	0.0158
Channel Catfish	14	25	26	0.0112	0.0125	0.0274
Flathead Catfish	3	2	-	0.0024	0.0010	-
White Bass	20	391	286	0.0160	0.1955	0.3010
Rock Bass	5	20	20	0.0040	0.0100	0.0211
Warmouth	-	1	-	-	0.0005	-
Green Sunfish	-	-	11	-	-	0.0116
Pumpkinseed	17	4	14	0.0136	0.0020	0.0147
Bluegill	971	405	123	0.7774	0.2026	0.1295
Smallmouth Bass	6	15	3	0.0048	0.0075	0.0032
Largemouth Bass	31	34	1	0.0248	0.0170	0.0011
White Crappie	143	42	-	0.1145	0.0210	-
Black Crappie	188	384	175	0.1505	0.1920	0.1842
Yellow Perch	87	252	282	0.0697	0.1260	0.2968
Sauger	17	109	41	0.0136	0.0545	0.0432
Walleye	11	100	38	0.0088	0.0500	0.0400
Freshwater Drum	57	74	90	0.0464	0.0370	0.0947
TOTAL	1,608	1,928	1,142	1.2882	0.9642	1.2020
Hours Fished	1,248	2,000	950			

Table 17c.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED BARGE ANGLERS

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Shovelnose Sturgeon	-	-	1	-	-	0.0013
Northern Pike	16	83	7	0.0120	0.0388	0.0091
Carp	-	3	-	-	0.0014	-
Suckers & Redhorse	1	1	-	0.0008	0.0005	-
Bullhead sp.	1	13	-	0.0008	0.0071	-
Channel Catfish	4	25	13	0.0030	0.0117	0.0169
Flathead Catfish	3	9	2	0.0023	0.0042	0.0026
White Bass	64	131	95	0.0480	0.0613	0.1237
Rock Bass	10	21	2	0.0075	0.0098	0.0026
Bluegill	100	59	-	0.0750	0.0276	-
Smallmouth Bass	6	15	-	0.0045	0.0070	-
Largemouth Bass	17	21	2	0.0128	0.0098	0.0026
White Crappie	59	9	-	0.0443	0.0042	-
Black Crappie	80	109	29	0.0600	0.0510	0.0378
Yellow Perch	3	4	-	0.0023	0.0019	-
Sauger	303	417	210	0.2273	0.1952	0.2734
Walleye	128	175	88	0.0960	0.0819	0.1146
Freshwater Drum	46	30	35	0.0345	0.0140	0.0456
TOTAL	841	1,125	484	0.6317	0.5266	0.6302
Hours Fished	1,331	2,136	768			

Table 17d.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ICE ANGLERS

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	6	-	-	0.0007	-
Northern Pike	68	271	48	0.0180	0.0324	0.0198
Suckers & Redhorse	-	-	2	-	-	0.0008
Bullhead sp.	2	3	-	0.0005	0.0003	-
Channel Catfish	-	34	-	-	0.0041	-
White Bass	14	2	1	0.0037	0.0002	0.0004
Rock Bass	-	2	1	-	0.0002	0.0004
Pumpkinseed	44	43	19	0.0116	0.0051	0.0079
Bluegill	4,468	6,608	4,411	1.1839	0.7909	1.8226
Smallmouth Bass	2	-	-	0.0005	-	-
Largemouth Bass	125	625	75	0.0330	0.0748	0.0310
White Crappie	323	933	48	0.0854	0.1117	0.0198
Black Crappie	1,218	2,454	579	0.3221	0.2937	0.2392
Yellow Perch	889	924	230	0.2356	0.1106	0.0950
Sauger	29	140	139	0.0077	0.0168	0.0574
Walleye	6	62	39	0.0016	0.0074	0.0161
TOTAL	7,188	12,107	5,592	1.9046	1.4490	2.3106
Hours Fished	3,774	8,355	2,420			

Table 18a.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ANGLERS CASTING LURES

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Shovelnose Sturgeon	-	-	1	-	-	0.0005
Bowfin	-	1	-	-	0.0005	-
Northern Pike	57	65	51	0.0508	0.0331	0.0235
Carp	1	6	6	0.0009	0.0031	0.0028
Suckers & Redhorse	-	1	1	-	0.0005	0.0005
Bullhead sp.	-	4	-	-	0.0020	-
Channel Catfish	2	7	45	0.0018	0.0036	0.0207
Flathead Catfish	1	-	2	0.0009	-	0.0009
White Bass	34	400	400	0.0303	0.2039	0.1840
Rock Bass	-	6	5	-	0.0031	0.0023
Pumpkinseed	2	3	1	0.0018	0.0015	0.0005
Bluegill	253	81	34	0.2257	0.0413	0.0156
Smallmouth Bass	7	15	4	0.0062	0.0076	0.0018
Largemouth Bass	193	151	65	0.1722	0.0770	0.0299
White Crappie	13	7	-	0.0116	0.0036	-
Black Crappie	34	149	45	0.0303	0.0760	0.0207
Yellow Perch	3	-	31	0.0027	-	0.0143
Sauger	31	204	428	0.0277	0.1040	0.1969
Walleye	54	256	303	0.0482	0.1305	0.1394
Freshwater Drum	1	33	102	0.0009	0.0168	0.0469
TOTAL	686	1,389	1,524	0.6120	0.7081	0.7010
Hours Fished	1,121.0	1,961.5	2,174.0			

Table 18b.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ANGLERS STILL FISHING[1/]

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Longnose Gar	-	1	-	-	0.0001	-
Bowfin	1	10	1	0.0002	0.0006	0.0002
Mooneye	-	4	-	-	0.0002	-
Northern Pike	28	398	73	0.0059	0.0246	0.0140
Carp	11	14	1	0.0023	0.0009	0.0002
Suckers & Redhorse	5	14	2	0.0010	0.0008	0.0004
Bullhead sp.	24	80	19	0.0050	0.0049	0.0037
Channel Catfish	53	238	56	0.0111	0.0147	0.0107
Flathead Catfish	8	28	1	0.0017	0.0017	0.0002
White Bass	63	191	16	0.0132	0.0118	0.0031
Yellow Bass	5	-	-	0.0010	-	-
Rock Bass	18	62	27	0.0038	0.0038	0.0052
Warmouth	-	1	-	-	0.0001	-
Green Sunfish	-	-	49	-	-	0.0094
Pumpkinseed	47	79	75	0.0099	0.0049	0.0144
Bluegill	4,066	8,791	6,652	0.8536	0.5437	1.2739
Smallmouth Bass	9	39	14	0.0019	0.0024	0.0027
Largemouth Bass	74	727	108	0.0155	0.0450	0.0207
White Crappie	357	1,038	57	0.0749	0.0642	0.0109
Black Crappie	715	3,549	907	0.1501	0.2195	0.1737
Yellow Perch	554	1,416	783	0.1163	0.0876	0.1500
Sauger	272	902	307	0.0571	0.0558	0.0588
Walleye	143	596	117	0.0300	0.0369	0.0224
Freshwater Drum	223	275	159	0.0468	0.0170	0.0304
TOTAL	6,676	18,453	9,424	1.4016	1.1412	1.8048
Hours Fished	4,763.0	16,170.0	5,221.5			

[1/] Still fishing includes ice fishing.

Table 18c.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ANGLERS TROLLING

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Northern Pike	-	-	1	-	-	0.0233
Flathead Catfish	1	-	-	0.0714	-	-
White Bass	-	1	3	-	0.0303	0.0698
Rock Bass	-	-	1	-	-	0.0233
Pumpkinseed	-	-	5	-	-	0.1163
Bluegill	-	1	3	-	0.0303	0.0698
Smallmouth Bass	1	1	1	0.0714	0.0303	0.0233
Black Crappie	-	2	2	-	0.0606	0.0465
Sauger	-	1	-	-	0.0303	-
Walleye	8	2	3	0.5714	0.0606	0.0698
TOTAL	10	8	19	0.7143	0.2424	0.4419
Hours Fished	14	33	43			

Table 18d.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY INTERVIEWED ANGLERS USING MULTIPLE FISHING METHODS

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Northern Pike	30	14	-	0.0194	0.0162	-
Carp	1	-	-	0.0006	-	-
Bullhead sp.	-	4	-	-	-	0.0046
Channel Catfish	15	12	-	0.0097	0.0139	-
Flathead Catfish	3	1	-	0.0019	0.0012	-
White Bass	71	62	-	0.0458	0.0718	-
Yellow Bass	1	-	-	0.0006	-	-
Rock Bass	5	3	-	0.0032	0.0035	-
Warmouth	-	1	-	-	0.0012	-
Pumpkinseed	7	2	-	0.0045	0.0023	-
Bluegill	455	82	25	0.2937	0.0950	1.5152
Smallmouth Bass	7	6	-	0.0045	0.0069	-
Largemouth Bass	84	36	5	0.0542	0.0417	0.3030
White Crappie	118	-	-	0.0762	-	-
Black Crappie	160	60	2	0.1033	0.0695	0.1212
Yellow Perch	94	13	1	0.0607	0.0151	0.0606
Sauger	108	86	9	0.0697	0.0996	0.5455
Walleye	61	63	1	0.0394	0.0730	0.0606
Freshwater Drum	11	24	-	0.0071	0.0278	-
TOTAL	1,231	469	43	0.7947	0.5431	2.6061
Hours Fished	1,549.0	863.5	16.5			

Table 19a.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING WORMS

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Mooneye	-	2	-	-	0.0006	-
Northern Pike	11	8	5	0.0028	0.0025	0.0021
Carp	9	4	1	0.0023	0.0013	0.0004
Suckers & Redhorse	2	6	-	0.0005	0.0019	-
Bullhead sp.	18	46	16	0.0046	0.0144	0.0068
Channel Catfish	22	103	41	0.0056	0.0325	0.0175
Flathead Catfish	5	7	1	0.0012	0.0022	0.0004
White Bass	16	12	6	0.0041	0.0038	0.0026
Yellow Bass	3	-	-	0.0008	-	-
Rock Bass	7	28	27	0.0018	0.0088	0.0115
Green Sunfish	-	-	48	-	-	0.0205
Pumpkinseed	71	48	63	0.0180	0.0151	0.0269
Bluegill	6,565	2,865	3,011	1.7700	0.9028	1.2848
Smallmouth Bass	3	18	14	0.0008	0.0057	0.0060
Largemouth Bass	83	73	46	0.0211	0.0230	0.0196
White Crappie	158	26	16	0.0402	0.0082	0.0068
Black Crappie	437	178	191	0.1111	0.0561	0.0815
Yellow Perch	927	295	338	0.2356	0.0930	0.1442
Sauger	7	15	7	0.0018	0.0047	0.0030
Walleye	27	36	9	0.0069	0.0113	0.0038
Freshwater Drum	162	145	141	0.0412	0.0457	0.0602
TOTAL	8,533	3,915	3,981	2.1685	1.2337	1.6987
Hours Fished	3,935.0	3,173.0	2,343.5			

Table 19b.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING MINNOWS

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Shovelnose Sturgeon	-	-	1	-	-	0.0004
Longnose Gar	-	1	-	-	0.0002	-
Bowfin	-	6	1	-	0.0010	0.0004
Northern Pike	74	279	73	0.0345	0.0480	0.0319
Carp	-	3	3	-	0.0005	0.0013
Suckers & Redhorse	-	1	-	-	0.0002	-
Bullhead sp.	1	9	3	0.0005	0.0015	0.0013
Channel Catfish	8	35	37	0.0037	0.0060	0.0162
Flathead Catfish	-	8	2	-	0.0014	0.0009
White Bass	14	121	186	0.0065	0.0208	0.0812
Rock Bass	1	22	3	0.0005	0.0038	0.0013
Green Sunfish	-	-	1	-	-	0.0004
Pumpkinseed	-	1	-	-	0.0002	-
Bluegill	70	132	208	0.0327	0.0227	0.0908
Smallmouth Bass	4	12	1	0.0018	0.0021	0.0004
Largemouth Bass	53	313	20	0.0247	0.0538	0.0087
White Crappie	229	370	19	0.1070	0.0636	0.0083
Black Crappie	831	1,696	507	0.3883	0.2916	0.2213
Yellow Perch	104	232	311	0.0485	0.0399	0.1358
Sauger	252	542	429	0.1177	0.0932	0.1873
Walleye	116	248	235	0.0542	0.0426	0.1026
Freshwater Drum	13	27	81	0.0061	0.0046	0.0354
TOTAL	1,770	4,058	2,121	0.8271	0.6977	0.9260
Hours Fished	2,140.0	5,816.0	2,290.5			

Table 19c.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING LIVE BAIT OTHER THAN WORMS OR MINNOWS

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Northern Pike	1	1	-	0.0222	0.0230	-
Channel Catfish	-	1	-	-	0.0230	-
Flathead Catfish	1	1	-	0.0222	0.0230	-
White Bass	2	-	-	0.0444	-	-
Pumpkinseed	2	-	1	0.0444	-	0.0235
Bluegill	46	-	4	1.0222	-	0.0941
Smallmouth Bass	2	-	-	0.0444	-	-
Largemouth Bass	-	-	1	-	-	0.0235
White Crappie	2	-	-	0.0444	-	-
Black Crappie	1	-	1	0.0222	-	0.0235
Yellow Perch	-	1	-	-	0.0230	-
Sauger	12	-	27	0.2667	-	0.6353
Walleye	5	6	6	0.1111	0.1379	0.1412
TOTAL	74	10	40	1.6444	0.2299	0.9412
Hours Fished	45.0	43.5	42.5			

Table 19d.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING MORE THAN ONE TYPE OF LIVE BAIT

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73[1/]	1962-63	1967-68	1972-73
Bowfin	1	1	-	0.0004	0.0006	-
Mooneye	-	1	-	-	0.0006	-
Northern Pike	15	21	-	0.0068	0.0133	-
Carp	1	-	-	0.0004	-	-
Suckers & Redhorse	3	3	-	0.0013	0.0019	-
Bullhead sp.	7	7	-	0.0032	0.0044	-
Channel Catfish	13	30	17	0.0059	0.0191	0.4722
Flathead Catfish	1	6	-	0.0121	0.0038	-
White Bass	49	6	-	0.0223	0.0038	-
Yellow Bass	2	-	-	0.0009	-	-
Rock Bass	7	13	-	0.0032	0.0083	-
Warmouth	-	1	-	-	0.0006	-
Pumpkinseed	17	3	-	0.0077	0.0019	-
Bluegill	1,652	453	-	0.7530	0.2877	-
Smallmouth Bass	4	4	-	0.0018	0.0025	-
Largemouth Bass	73	47	-	0.0333	0.0299	-
White Crappie	288	61	-	0.1313	0.0387	-
Black Crappie	532	274	-	0.2425	0.1740	-
Yellow Perch	386	206	2	0.1759	0.1308	0.0556
Sauger	18	34	-	0.0082	0.0216	-
Walleye	11	49	-	0.0050	0.0311	-
Freshwater Drum	41	75	-	0.0187	0.0476	-
TOTAL	3,121	1,295	19	1.4225	0.8225	0.5278
Hours Fished	2,194.0	1,574.5	36.0			

1/ Anglers using more than one type of live bait were classified as the most important type whenever possible in 1972-73.

Table 19e.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING ALL TYPES OF LIVE BAIT COMBINED

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Shovelnose Sturgeon	-	-	1	-	-	0.0002
Longnose Gar	-	1	-	-	0.0001	-
Bowfin	1	7	1	0.0001	0.0007	0.0002
Mooneye	-	3	-	-	0.0003	-
Northern Pike	101	309	78	0.0121	0.0291	0.0166
Carp	10	7	4	0.0012	0.0007	0.0008
Suckers & Redhorse	5	10	-	0.0005	0.0010	-
Bullhead sp.	26	62	19	0.0031	0.0058	0.0040
Channel Catfish	43	169	95	0.0052	0.0159	0.0202
Flathead Catfish	7	22	3	0.0008	0.0021	0.0006
White Bass	81	139	192	0.0097	0.0131	0.0407
Yellow Bass	5	-	-	0.0005	-	-
Rock Bass	15	63	30	0.0018	0.0059	0.0064
Warmouth	-	1	-	-	0.0001	-
Green Sunfish	-	-	49	-	-	0.0104
Pumpkinseed	90	52	64	0.0108	0.0049	0.0136
Bluegill	8,333	3,450	3,223	1.0021	0.3252	0.6839
Smallmouth Bass	13	34	15	0.0016	0.0032	0.0032
Largemouth Bass	209	433	67	0.0251	0.0408	0.0142
White Crappie	677	457	35	0.0814	0.0431	0.0074
Black Crappie	1,801	2,148	699	0.2165	0.2025	0.1483
Yellow Perch	1,417	734	651	0.1702	0.0692	0.1381
Sauger	289	591	463	0.0348	0.0557	0.0982
Walleye	159	339	250	0.0191	0.0320	0.0531
Freshwater Drum	216	247	222	0.0260	0.0233	0.0471
TOTAL	13,498	9,278	6,161	1.6235	0.8746	1.3074
Hours Fished	8,314.0	10,608.0	4,712.5			

Table 19f.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING JIGS

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Northern Pike	2	2	2	0.0055	0.0034	0.0146
Carp	3	3	-	0.0082	0.0051	-
Bullhead sp.	-	1	-	-	0.0017	-
Channel Catfish	-	3	4	-	0.0051	0.0293
White Bass	20	353	93	0.0548	0.6091	0.6813
Rock Bass	2	4	1	0.0055	0.0069	0.0073
Bluegill	73	19	1	0.2000	0.0327	0.0073
Smallmouth Bass	2	10	-	0.0055	0.0172	-
Largemouth Bass	16	5	-	0.0438	0.0086	-
White Crappie	27	14	-	0.0739	0.0241	-
Black Crappie	52	182	7	0.1424	0.3140	0.0512
Yellow Perch	34	-	-	0.0931	-	-
Sauger	55	83	20	0.1507	0.1432	0.1465
Walleye	26	49	22	0.0712	0.0845	0.1611
Freshwater Drum	4	16	23	0.0109	0.0276	0.1684
TOTAL	316	744	173	0.8648	1.2839	1.2674
Hours Fished	365.5	579.5	136.5			

Table 19g.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING FLIES

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Northern Pike	2	-	-	0.0079	-	-
Pumpkinseed	2	1	-	0.0079	0.0303	-
Bluegill	260	6	22	1.0277	0.1818	2.3157
Smallmouth Bass	2	2	-	0.0079	0.0606	-
Largemouth Bass	18	-	-	0.0711	-	-
White Crappie	18	-	-	0.0711	-	-
Black Crappie	57	21	-	0.2252	0.6363	-
Yellow Perch	4	-	-	0.0158	-	-
Sauger	15	3	-	0.0593	0.0909	-
Walleye	3	6	-	0.0118	0.1818	-
Freshwater Drum	1	-	-	0.0039	-	-
TOTAL	382	39	22	1.5099	1.1818	2.3157
Hours Fished	253.0	33.0	9.5			

Table 19h.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING PREPARED BAITS AND SONAR LURES

	Number of Fish			Fish Per Man-Hour		
	Prepared Baits[1]		Sonar[2]	Prepared Baits		Sonar
Species	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Northern Pike	-	-	1	-	-	0.0034
Carp	-	-	2	-	-	0.0067
Channel Catfish	10	35	1	0.1212	0.8750	0.0034
Flathead Catfish	1	4	-	0.0121	0.1000	-
Pumpkinseed	-	-	1	-	-	0.0034
Bluegill	55	8	16	0.6667	0.2000	0.0540
Largemouth Bass	1	-	3	0.0121	-	0.0101
White Crappie	3	-	-	0.0363	-	-
Black Crappie	2	-	4	0.0242	-	0.0135
Yellow Perch	6	2	1	0.0727	0.0500	0.0034
Sauger	-	-	141	-	-	0.4755
Walleye	1	-	69	0.0121	-	0.2327
Freshwater Drum	2	1	9	0.0242	0.0250	0.0304
TOTAL	81	50	248	0.9818	1.2500	0.8364
Hours Fished	82.5	40.0	296.5			

[1] Prepared baits did not account for any of the fish taken by interviewed anglers in the 1972-73 survey.

[2] Fish taken on the sonar lure were recorded separately from other categories only in the 1972-73 survey. Any fish taken on sonars in 1962-63 and 1967-68 would be included in the "other artificial" group.

Table 191.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING ARTIFICIAL LURES OTHER THAN JIGS, FLIES, AND, FOR THE 1972-73 CENSUS ONLY, SONARS

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	1	-	-	0.0005	-
Northern Pike	52	61	38	0.0588	0.0309	0.0810
Carp	-	10	-	-	0.0050	-
Suckers & Redhorse	-	1	-	-	0.0005	-
Bullhead sp.	-	16	-	-	0.0080	-
Channel Catfish	-	37	-	-	0.0187	-
Flathead Catfish	2	1	-	0.0022	0.0005	-
White Bass	28	97	113	0.0317	0.0492	0.2411
Rock Bass	-	1	3	-	0.0005	0.0048
Pumpkinseed	-	2	1	-	0.0010	0.0016
Bluegill	67	63	12	0.0758	0.0319	0.0569
Smallmouth Bass	3	10	4	0.0034	0.0050	0.0085
Largemouth Bass	165	144	64	0.1867	0.0730	0.1365
White Crappie	4	2	-	0.0045	0.0010	-
Black Crappie	39	134	31	0.0441	0.0679	0.0504
Yellow Perch	-	30	7	-	0.0152	0.0149
Sauger	16	270	16	0.0181	0.1369	0.0341
Walleye	34	385	12	0.0385	0.1953	0.0256
Freshwater Drum	-	36	24	-	0.0182	0.0390
TOTAL	410	1,301	489	0.4638	0.6601	0.7956
Hours Fished	884.0	1,977.0	614.5			

Table 19j.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING ALL TYPES OF ARTIFICIAL LURES

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	1	-	-	0.0003	-
Northern Pike	56	63	41	0.0373	0.0243	0.0450
Carp	3	13	2	0.0020	0.0050	0.0022
Suckers & Redhorse	-	1	-	-	0.0003	-
Bullhead sp.	-	17	-	-	0.0065	-
Channel Catfish	-	40	5	-	0.0154	0.0055
Flathead Catfish	2	1	-	0.0013	0.0003	-
White Bass	48	450	206	0.0319	0.1741	0.2261
Rock Bass	2	5	3	0.0013	0.0019	0.0032
Pumpkinseed	2	3	2	0.0013	0.0011	0.0022
Bluegill	400	88	51	0.2661	0.0340	0.0560
Smallmouth Bass	7	22	4	0.0047	0.0085	0.0044
Largemouth Bass	199	149	67	0.1324	0.0576	0.0735
White Crappie	49	16	-	0.0326	0.0061	-
Black Crappie	148	337	35	0.0985	0.1304	0.0384
Yellow Perch	38	30	8	0.0259	0.0116	0.0088
Sauger	86	356	177	0.0572	0.1377	0.1943
Walleye	63	440	103	0.0419	0.1703	0.1131
Freshwater Drum	5	52	33	0.0033	0.0201	0.0362
TOTAL	1,108	2,084	737	0.7374	0.8067	0.8089
Hours Fished	1,502.5	2,583.0	911.0			

Table 19k.

NUMBER OF FISH CAUGHT, HOURS OF FISHING EFFORT, AND CATCH RATE PER MAN-HOUR OF FISHING EFFORT BY ANGLERS USING MULTIPLE LIVE AND ARTIFICIAL LURES

Species	Number of Fish			Fish Per Man-Hour		
	1962-63	1967-68	1972-73	1962-63	1967-68	1972-73
Bowfin	-	3	-	-	0.0005	-
Mooneye	-	1	-	-	0.0001	-
Northern Pike	26	105	6	0.0196	0.0181	0.0032
Suckers & Redhorse	-	4	3	-	0.0006	0.0015
Bullhead sp.	-	9	2	-	0.0014	0.0010
Channel Catfish	17	13	-	0.0128	0.0022	-
Flathead Catfish	3	2	-	0.0023	0.0003	-
White Bass	53	65	21	0.0399	0.0112	0.0114
Yellow Bass	1	-	-	0.0008	-	-
Rock Bass	6	3	-	0.0045	0.0005	-
Warmouth	-	1	-	-	0.0001	-
Pumpkinseed	8	29	15	0.0060	0.0050	0.0081
Bluegill	473	409	3,440	0.3562	0.9331	1.8780
Smallmouth Bass	6	5	-	0.0045	0.0008	-
Largemouth Bass	67	322	44	0.0505	0.0572	0.0240
White Crappie	82	572	22	0.0617	0.0986	0.0120
Black Crappie	176	1,275	222	0.1325	0.2199	0.1211
Yellow Perch	85	663	156	0.0640	0.1143	0.0851
Sauger	65	246	104	0.0489	0.0424	0.0567
Walleye	49	138	71	0.0369	0.0238	0.0387
Freshwater Drum	12	32	6	0.0090	0.0055	0.0032
TOTAL	1,129	8,907	4,112	0.8502	1.5366	2.2449
Hours Fished	1,328.0	5,796.5	1,831.5			

Table 20.

ANGLER EXPENDITURE ON SPORT FISHING IN POOL 7

	1962-63	1967-68	1972-73
Projected Number of Fishing Trips	79,030	63,238	60,225
Cost Per Trip[1/]	$5.36	$4.98	$6.30
Total Expenditure	$423,600.80	$314,925.24	$379,417.50

1/ Value per trip based on the "National Survey of Fishing and Hunting" for 1960, 1965, and 1970 respectively.

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