

A PRELIMINARY REPORT
ON
COMMERCIAL FISHING IN KENTUCKY

BY

William A. Tompkins, Harold L. Barber
and Lewis Gerow

Kentucky Division of Game and Fish
Earl Wallace, Director

INTRODUCTION

In 1950 the sportsmen of Kentucky removed about 16,242,000 pounds of fish from the waters of this state, of which 4,558,800 pounds, or 28%, were coarse fishes. However, intensive population surveys performed by the Division of Game and Fish on representative areas shows coarse fishes to compose about 78% of the total weight of the population. During this same period of time the commercial fisherman of Kentucky removed only 1,585,000 pounds of this unharvested reserve. The interest of this department in the commercial fisheries of the state is prompted both by the economic loss this meagre harvest represents and by the belief that a well-regulated commercial fishery, operating in waters that, because of their character, can always be under close supervision by this Division, represents a management tool of prime importance. For these reasons an effort is being made to aid the commercial fisherman in harvesting greater numbers of food fishes from the waters of this state.

During the course of the present survey of commercial fishing 160 persons who purchased commercial licenses in 1950 furnished, either through interviews or correspondence, data in regard to the matter. This number represents 11% of the total license sales for that year, and all averages and percentages reported herein, unless otherwise stated, are based on this randomly selected statewide sample.

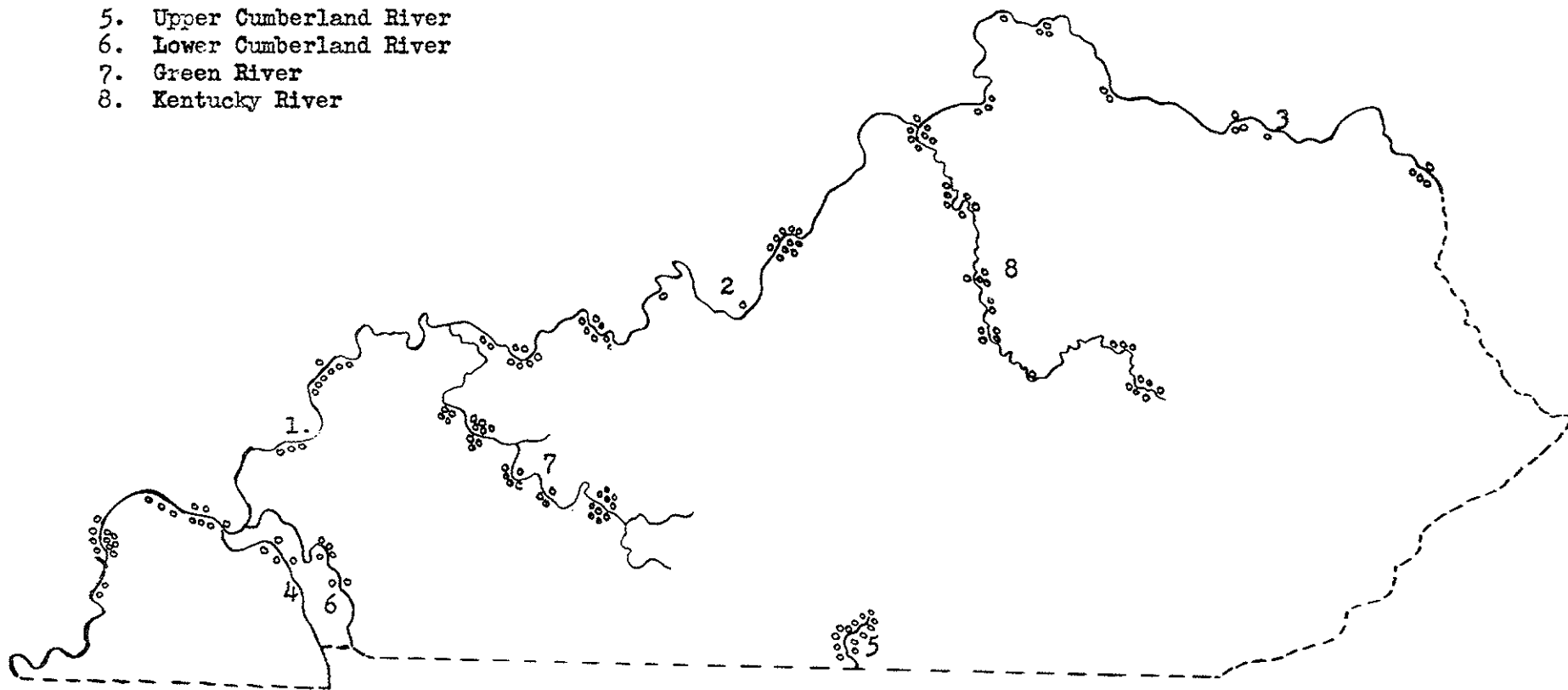
COMMERCIAL FISHING REGULATIONS

At the present time resident commercial fishermen must have in their possession a resident commercial fishing license. This \$5.00 license entitles the holder to take and sell all fish not protected by law as sport fish, provided that they are taken in a legal manner from prescribed waters. Fish may be taken with trot-lines, hoop nets, snag-lines, and seines whose mesh exceed two inches square, or, in the Mississippi River only, with wing nets. Fish may be taken from any navigable stream, which is construed as those under lock and dam, but cannot be taken above the uppermost lock and dam on any river. Commercial fishing is prohibited within two hundred yards of any lock and dam, and within the same distance from the mouth of any stream emptying into any navigable rivers.

In addition to the commercial fishing license the fisherman must have a \$1.00 tag attached to each one hundred feet of seine, each net, and each snag-line.

Non-resident commercial fishing licenses are sold for \$25.00, and net and line tags at \$2.00 each. Commercial licenses for the Ohio River, whose fishery Kentucky supervises on the 653 miles that forms its western and northern boundary, are sold at resident fees to inhabitants of Illinois, Indiana, and Ohio.

1. Lower Ohio River
2. Middle Ohio River
3. Upper Ohio River
4. Tennessee River
5. Upper Cumberland River
6. Lower Cumberland River
7. Green River
8. Kentucky River



Solid lines represent waters in Kentucky open to commercial fishing. Each dot represents fishing area of a fisherman who submitted data for this survey.

GEAR

Commercial fishing in Kentucky is generally restricted to hoop nets, trot-lines, and snag-lines. Inasmuch as the waters fished do not lend themselves to seining, this method, though legal, is rarely used. Only one fisherman reported having a seine in his possession. In 1950 the 1,460 licensed fishermen in the state fished 4,280 hoop nets, 2446 trot-lines, and 1,157 snag-lines, or an average of 2.9 hoop nets, 1.7 trot-lines, and .8 snag-lines per fisherman.

The low average of gear per fisherman results from the fact that only 5% of the licensed fishermen work full time at this occupation. These men usually tend from 10 to 35 pieces of gear. Sixty-one percent of the fishermen work part-time or seasonally and use less gear, while 34% of those purchasing commercial licenses do so in order to run one or two nets to procure food for their own consumption.

CATCH

In 1950 the average catch per fisherman was 1,085 pounds. The range in the size of catches ran from 9,125 pounds for a fisherman using 35 pieces of gear to 10 pounds for a person fishing one net for one month. Those persons working full-time averaged 5,326 pounds per year, but their catch made up only 28% of the total catch.

The species of fish taken most frequently varied from one river to another, and from one section of a river to another. In general, catfish, carp, and buffalo are the three fishes which compose the great bulk of the commercial catch. In spite of a

heavy population of drum in most of the waters this fish ranks fourth in frequency of appearance in catches. Suckers and paddlefish constitute most of the remainder of the catch, the latter being taken by snag-line in the spring months.

The following table lists, in order of frequency, the four kinds of fish that make up the bulk of the catches in the various sections.

RIVER	ORDER OF FREQUENCY
Green	Buffalo, catfish, carp, drum
Upper Ohio	Catfish, buffalo, carp, drum
Middle Ohio	Catfish, carp, buffalo, drum
Lower Ohio	Carp, catfish, buffalo, drum
Upper Cumberland	Catfish, drum, sucker, buffalo
Lower Cumberland	Catfish, carp, buffalo, drum
Kentucky	Buffalo, carp, catfish, drum
Tennessee	Catfish, drum, carp, paddlefish

MARKETING

Most of the commercial catch is sold directly from the fisherman's dock, with very few being sold through retail stores. At the present time the demand for fresh river fish is equal to or greater than the supply in most areas. The fish are usually sold in the round and alive, being kept in live boxes or on stringers in backwaters until they can be sold. In warm weather the problem of keeping the fish alive until peddled is acute, as most customers will accept nothing but fish that can be proved to be fresh. A few individuals dress their catch and market it through local retail outlets.

The price paid for the catch varies greatly from one fishing area to another. In the western portion of the state catfish bring from 25 to 35 cents a pound, drum from 10 to 25 cents a pound, and buffalo and carp from 5 to 15 cents a pound. In the Kentucky River and the upper portion of the Ohio, however, catfish and drum bring 30 to 40 cents a pound and carp and buffalo from 20 to 30 cents a pound. In most areas there are no agreements between fishermen as to standard prices for various fishes. The only exception to this is the upper Cumberland, where all catfish, carp, sucker, and buffalo are sold at a flat rate of 35 cents a pound. The statewide weighted average is 20.8 cents a pound, and the estimated total gross income on the 1950 catch was about \$329,680.00. Individual gross incomes for this period varied from \$3,190.00 to \$25.00.

COMMENTS

In an effort to better understand the problems of the commercial fishermen each one contacted was asked to submit any comments, suggestions or complaints that they might have in regard to present conditions. The great majority of the comments returned show a much better appreciation of the basic fundamentals of fishery management than one could find among a similar sample of sports fishermen. To report all of the suggestions presented would be impossible, but those which were most frequently encountered will be noted.

Twenty-eight percent of the suggestions were aimed directly at improving the fish populations, and included making larger

mesh mandatory on nets; providing harsher penalties for violators, closing certain areas during spawning, and putting size limits on some of the commercial fishes.

Twenty-five percent of the comments were based on improving the efficiency of fishing methods, and the single item most often repeated was the suggestion that wing nets be legalized in all navigable waters. The belief has long been held that the use of wing nets increases the ratio of game fish in the catch, and most sportsmens groups have vigorously opposed their use. In order to determine what effect wing nets actually have on the game fish to food fish catch ratio this deaprtment has undertaken a series of netting experiments. To date 10,700 net hours have been logged, and the difference between the catch of game fish in wing nets as opposed to hoop nets, based on total catch, is negligible. This study will be completed by the fall of 1951, and will be reported upon completely at that time.

Incidental suggestions as to methods of increasing catches included legalizing of gill nets, trammel nets and fish baskets, the commercializing of white bass, sauger and walleye, and the lifting of restrictions on fishing near stream mouths.

Twenty-three percent of the fishermen believed that the most pertinent problem facing commercial fishing today is the heavy pollution of those large streams in which their fishing is done. Fifteen persons reported that in the last few years they have been having difficulty in selling Ohio River and Green River fish because of the taste of the flesh, described by most as similar to kerosene. These reports came from areas that have oil

handling or processing industries in the neighborhood.

Localized complaints in regard to pollution included those concerned with acid mine waters and salt water from oil wells.

Of the remaining 24%, most were concerned with various problems in the marketing of their catch. The regulation of prices was of primary importance to seven fishermen, while three individuals suggested that local retailers be set up on a co-operative basis in each area. Some complaints in regard to competition from imported frozen fish were registered. Nine percent of the fishermen complained about the cost of licenses, but one-third of this number believed that the license fee was too low. This latter group was composed of full-time fishermen who were of the opinion that higher fees would drive many of the part-time and casual fishermen off of the rivers.

CONCLUSIONS

The harvest of existing rough fish populations by the commercial fishermen in Kentucky could be greatly accelerated without danger of affecting present stocks. The usefulness of the commercial fisherman as a management tool would be increased if commercial fishing in this state could be put upon a solid business basis. This would entail the encouragement of greater numbers of full-time fishermen operating more efficient gear, and with an assured retail outlet and co-operative prices. A necessary prerequisite to these developments would be the formation of a statewide commercial fisheries organization and it is possible that the Department of Fisheries will have to take the initiative in its inception.

Any method of increasing the efficiency of fishing gear has as a limiting factor its effect on game fish populations. Therefore, prior to any action on this point, sufficient evidence on the selectivity of various types of gear in regard to game fishes must be obtained.

This department must be responsible for bringing to the attention of the sportsmen the part that a sound commercial fishery can play in warmwater fishery management, as well as furnishing the commercial fisherman of the state with enough encouragement and technological assistance to promote this condition.

SUMMARY

In 1950 there were 1,460 licensed commercial fishermen in Kentucky. These men fished an average of 2.9 hoop nets, 1.7 trotlines, and .8 snag-lines per fisherman. The average catch was 1,085 pounds and the total catch 1,584,100 pounds. Catfish, carp and buffalo composed the bulk of the catch. The average price paid for the catch was 20.8 cents per pound, and the total gross income on the 1950 catch was \$329,680.00.