A FIVE-YEAR SUMMARY OF COMMERCIAL FISHING FOR CARP, BUFFALO, SHEEPSHEAD, CATFISH AND BULLHEAD ON THE WISCONSIN PORTION OF THE MISSISSIPPI RIVER - 1960-64

By

Alan Finke

July, 1966

1/This report is one of the management report series intended to keep interested persons informed on fishery management subjects.
A FIVE-YEAR SUMMARY OF COMMERCIAL FISHING FOR CARP,
BUFFALO, SHEEPSHEAD, CATFISH AND BULLHEAD ON THE
WISCONSIN PORTION OF THE MISSISSIPPI RIVER - 1960-64

By
Alan Finke
Biologist

INTRODUCTION

Successful management of a fishery resource often relies on long-term trends in the fishery. These trends are neither evident from current catches nor from annual statistical reports. From time to time it is, therefore, desirable to review the annual statistics and to note the consistencies or inconsistencies of the data provided on an annual basis. This report makes extractions from the statistics of five recent years, 1960-64 inclusive. By means of graphs, visual evidence of the nature of the fishery and trends in the fishery is made readily available for comparison and interpretation.

Only the five most important species are included—these made up 98.4 percent of the 23,944,000 pounds taken during the period 1960 through 1964. The value to the fishermen of these species during that period was approximately $1,475,000.

In addition to these five major species, over a dozen others entered into the commercial harvest. Among these minnow species, the most important were the redhorses and suckers, quillback or "white carp", and sand sturgeon. Mooneyes and goldeyes are occasionally important in the upper portion of the Mississippi River. Bowfins and gar are common in the river, but their value is so low that only a few thousand pounds are kept each year. A few hundred American eels are taken annually while fishing for catfish. This species is widespread but not common in the Mississippi River.
CARP

The carp harvest rose from 2,522,000 pounds in 1960 to 4,105,000 pounds in 1964—an increase of 63 percent (Fig. 1). During this five-year period, a total of 16,112,000 pounds of carp were taken. The average price per pound varied between $.03 and $.04.

Seines and gill nets accounted for 96 percent of the carp caught (Fig. 2). The seine catch increased each year and by 1964 it was 75 percent greater than in 1960, and accounted for 64 percent of the carp harvested (Fig. 3). The gill net catch remained at about the same level each year after 1960, averaging nearly 1,100,000 pounds per year.

Pool 4A (Lake Pepin) was by far the greatest carp producing area in the Wisconsin boundary waters, accounting for 7,600,000 pounds or 43 percent of the total five-year harvest (Fig. 4). Pools 8 and 9 were next in carp production, each yielding slightly over 2,000,000 pounds. Pools 5A and 6 had the lightest carp harvest.

August was the best month for catching carp, followed closely by July and September (Fig. 5). The fewest carp were taken in May and November.
Fig. 1. Total Pounds of Carp By Year

1960 - 1964
<table>
<thead>
<tr>
<th></th>
<th>Millions of Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seine</td>
<td></td>
</tr>
<tr>
<td>Gill Net</td>
<td></td>
</tr>
<tr>
<td>Set Line</td>
<td></td>
</tr>
<tr>
<td>Buffalo Net</td>
<td></td>
</tr>
<tr>
<td>Dait Net</td>
<td></td>
</tr>
<tr>
<td>Trammel Net</td>
<td>21,000 pounds</td>
</tr>
<tr>
<td>Frame Net</td>
<td>3,600 pounds</td>
</tr>
<tr>
<td>Slat Net</td>
<td>3,400 pounds</td>
</tr>
</tbody>
</table>

Fig. 2. Total Pounds of Carp by Gear 1950 - 1964
Fig. 3: Pounds of Carp Taken With Different Gear From Mississippi River 1960 - 1964
Fig. 4. Pounds of Carp By Pool 1960 - 1964
Fig. 5. Pounds of Carp By Month 1960 - 1964
BUFFALO

The buffalo catch rose from 408,000 pounds in 1960 to 679,000 pounds in 1964—an increase of 66 percent (Fig. 6). During this period, the total buffalo harvest was 2,771,000 pounds. Price per pound ranged from $.08 to $.11.

The gill net was the most effective gear for taking buffalo, accounting for 1,500,000 pounds over the five-year period (Figs. 7 and 8). This was nearly twice as many pounds as were taken with seines. Buffalo nets were third in effectiveness, producing 350,000 pounds.

Pool 9 yielded the most buffalo—560,000 pounds, followed by Pools 7 and 8, each producing slightly less than 500,000 pounds (Fig. 9).

The best months for catching buffalo were March and April, accounting for 474,000 pounds and 410,000 pounds respectively over the five-year period (Fig. 10).
Fig. 6. Pounds of Buffalo by Year 1960 - 1964
Fig. 6. Pounds of Buffalo Taken From Mississippi River

With Different Gear 1960 - 1964
Fig. 9. Pounds of Buffalo by Pool 1960 - 1964
Fig. 10. Pounds of Buffalo by Month 1960 - 1964
CATFISH

Trends in the catfish fishery differ from most other commercial species in that until recent years the catch declined (Fig. 11). It dropped 22 percent from 1960 to 1962, increased slightly in 1963, then rose 35 percent in 1964. The 1964 harvest was 612,000 pounds—9.7 percent higher than in 1960. During the five-year period, a total of 2,528,000 pounds of catfish were harvested. The price ranged from $1.19 per pound in 1960 to $1.24 in 1964.

Set lines were the most important gear, accounting for 1,237,000 pounds or half of the total five-year catch (Figs. 12 and 13). Next in effectiveness were slat nets, producing 604,000 pounds—all in Wisconsin-Iowa waters. Bait and buffalo nets together caught 20 percent of the catfish.

Pool 9 was the biggest catfish producer, followed by Pool 11 and Pool 8 (Fig. 14). Pools 3 and 5A yielded the fewest catfish.

The summer months of June, July, and August were the most productive months for taking catfish (Fig. 15).
Fig. 11. Pounds of Catfish by Year 1960 - 1964
Fig. 12. Pounds of Catfish by Gear 1960 - 1964
Fig. 13. Pounds of Catfish Taken With Different Gear 1960 - 1964
Fig. 15: Pounds of Catfish by Month 1960 - 1964

Thousands of Pounds

SHEEPSHEAD

The sheepshead catch increased 68 percent from 1960 to 1964, rising from 281,000 pounds to 471,000 pounds (Fig. 16). The total catch during the five-year period was 1,869,000 pounds. The average price per pound ranged from $.05 to $.07.

The seine was by far the most effective gear, accounting for 67 percent of the harvest (Figs. 17 and 18). Gill nets were next in importance, followed by set lines.

Pool 8 was the most important source of sheepshead, producing 35 percent of the total catch (Fig. 19). Pool 9 was second in sheepshead production.

March was the best month for catching sheepshead, followed by November (Fig. 20). Except for May, when few sheepshead were caught, all the other months were similar in production.
Fig. 17. Pounds of Sheephead By Gear 1960 - 1964
Fig. 18. Pounds of Sheepshead Taken With Different Types of Gear 1960 - 1964
Fig. 20. Pounds of Sheepshead by Month 1960 - 1964
BULLHEAD

The annual bullhead harvest remained virtually the same from 1960 to 1963, but showed a 28 percent increase in 1964 over the previous year (Fig. 21). A total of 272,000 pounds were taken during the five-year period. The price per pound ranged between $.07 and $.11.

Set lines were the most efficient gear, accounting for 64 percent of the total catch (Fig. 22). Next in effectiveness were bait nets and slat nets.

Pools 8 and 9 were outstanding producers of bullheads, each yielding about 41 percent of the harvest (Fig. 23).

May was the best month to catch bullheads, followed closely by October (Fig. 24). These two months accounted for 60 percent of the catfish harvest during the five-year period.
Fig. 21. Pounds of Bullhead By Year 1960 - 1964
Fig. 22. Pounds of Bullhead By Gear

1960 - 1964
Fig. 23. Pounds of Bullhead By Pool 1940 - 1964
Fig. 24. Pounds of Bullhead By Month 1960 - 1964

Thousands of Pounds

Jan  Feb  Mar  Apr  May  June  July  Aug  Sept  Oct  Nov  Dec
TRENDS IN GEAR USAGE AND NUMBER OF COMMERCIAL FISHERMEN

The following two figures (25 and 26) show the number of commercial fishermen licensed for the major types of gear and the amount of gear licensed over the period 1960 through 1964.

Set lines were by far the most popular gear, with a peak of 939 licenses issued in 1961. Since then the number has declined sharply, so that in 1964 the number of set line licenses had decreased to 68%. The majority of these set liners were not commercial fishermen, but mostly weekend and part-time fishermen who contributed little to the commercial catch.

Gill nets were the next most frequently licensed gear. The number of gill net fishermen remained rather constant from 1960 to 1964, although the overall trend is downward since 1963.

The number of fishermen licensed for slat nets declined slightly from 1960 to 1963, then rose slightly in 1964. The number of fishermen licensed for seine, buffalo nets and bait nets did not vary much over the five-year period.

The amount of gear licensed corresponded closely to the number of fishermen issued Mississippi River commercial fishing licenses, except for buffalo nets and bait nets. Use of these types of gear rose substantially, so that the 788 buffalo nets licensed in 1964 was 51 percent greater than in 1960. Similar increases occurred for bait nets, with 575 licensed in 1964—an increase of 67 percent. These nets are legal only in Wisconsin-Iowa waters and are used primarily for catfish.

The number of slat nets declined, with 1,356 licensed in 1964—a decrease of 26 percent from 1960. This gear is used solely for catfish in the Wisconsin-Iowa waters. The decrease in its usage is probably due to the increased popularity of bait and buffalo nets.

Other gear used on the Mississippi River are trammel nets and frame nets. Neither of these is important in the total fishery, as they are used by only a few fishermen in the Wisconsin-Iowa waters.