

SEGMENT COMPLETION REPORT

State of TEXAS

Project No. F4R5

Name: Fisheries Investigations and Surveys of the Waters of Region 4-B.

Job No. B-12

Title: Check on Commercial Catch of Rough Fish in Lake Whitney.

Period Covered:

November 1, 1957 through October 31, 1958

OBJECTIVES:

To determine the effectiveness of commercial fishing on the control of predatory species and the value of the legal fishery, as well as the relative abundance and seasonal variation by species in the commercial catch.

ABSTRACT:

Commercial fishing on Lake Whitney is done by contract fishermen who are required to take only certain species and must make monthly reports as to number and pounds of each species taken.

Only two contract fishermen operated on this lake during the period from November 1, 1957 through October 31, 1958. These men did not fish the lake at the same time.

A total of 53,065 fish weighing 234,714 pounds were taken. Buffalofish made up 81.56 percent of the number and 81.67 percent of the weight of all fish taken. Buffalofish also accounted for 92.93 percent of the \$39,196.81 total value of the catch.

The average surface area of Lake Whitney was 15,800 acres, which was used to calculate the harvest of rough fish per acre. A total of 14 pounds of rough fish per acre was made up of 12.13 pounds of buffalofish. This is an increase of 7.51 pounds over the catch of the previous segment. The other species increased only slightly.

PROCEDURE:

The commercial fishing on Lake Whitney is done by bonded contractors who are required to submit monthly reports detailing their catch. These reports show the catch by number and pounds of each species in the catch. The contract names the species that may be taken and all others must be returned to the water unharmed if possible. The operations of the contract netters are supervised by the local game warden but reports must be sent to the Director of Inland Fisheries.

RESULTS:

Table 1 shows the results of the netting as taken from the reports of the two

contract fishermen who operated on this lake during the project period. One contractor netted during November and December of 1957 and left the lake after January 1958. The other arrived March 1, 1958 and netted through October 1958. These men took a total of 53,065 fish weighing 234,714 pounds. Buffalofish made up the bulk of the catch with 81.56 percent of the total number and 81.67 percent of the total weight. They also comprised the major portion of the value since they wholesaled at \$.19 per pound for a total value of \$36,424.90 or 92.93 percent. Carp provided 12.35 percent of the total number and 12.96 percent of the total weight but since they brought only \$.09 per pound they made up only 6.99 percent of the value of the catch. The other species were of negligible value to the fisherman since the catch was small or they had no market value.

Table 2 presents a comparison of the 1957-58 catch with that of 1956-57 in terms of average weight of each species and pounds of fish caught per surface acre. An average acreage of 15,800 was used since the lake was at that figure the majority of the time. The growth of buffalofish, carp and gar was quite pronounced but the average weight of carpsucker declined decidedly. This decline was probably due to the catch of young of the year specimens. Buffalofish increased from 3.86 pounds to 4.43 pounds in average weight while the catch per surface acre increased from 4.62 pounds to 12.13 pounds. The average weight increase per individual of the other species was not accompanied by such a pronounced increase in pounds per surface acre.

There is little doubt that the netting is selective on buffalofish which is to be expected since the difference in price between this species and other rough fish species is so pronounced.

Prepared by Leonard D. Lamb
Project Leader

Approved by Marion Toole
Director Inland Fisheries Division

Date December 29, 1958

Table 1. The Commercial Catch from Lake Whitney in Number, Weight, Percentage and Wholesale Market Value of Each Species Taken, from November 1, 1957 through October 31, 1958

Species	Number	Percent of Number	Weight	Percent of Weight	Wholesale Price per Pound	Total Value	Percent of Value
Buffalofish	43,282	81.56	191,710	81.679	\$0.19	\$36,424.90	92.93
Carp	6,554	12.35	30,421	12.960	0.09	2,737.89	6.98
Sucker	2	.01	3	.001	.09	.27	.00
Gar	2,948	5.55	12,193	5.195	No Value		
Mullet	2	.01	12	.005	No Value		
TOTALS	53,065	100.00	234,714	100.000		\$39,196.81	100.00

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Table 2. A Comparison of the Rough Fish Catch of 1956-57 with that of 1957-58, in Terms of Average Weight and Pounds Per Surface Acre, Lake Whitney, Texas.

Species	Average Weight in Pounds		Pounds Per Surface Acre	
	1956-57	1957-58	1956-57	1957-58
Buffalofish	3.86	4.43	4.67	12.13
Carp	2.64	4.64	1.29	1.92
Carp sucker	1.93	1.35	.02	.02
Gar	1.96	4.13	.02	.77
Totals	- - -	- - -	6.00	14.84