Report of Fisheries Investigations

Inventory of Species Present in Lake Scarbrough near Coleman, Texas

by

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Dingell-Johnson Project F-5-R-5, Job B-20
April 16, 1957 - April 15, 1958

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JOB COMPLETION REPORT

State of TEXAS

Project No. F5R5 Name: Fisheries Investigations and Surveys of the Waters of Region 3-B.

Job No. B-20 Title: Inventory of Species Present in Lake Scarbrough near Coleman, Texas.

Period Covered: April 16, 1957 through April 15, 1958

ABSTRACT:

Sixteen netting collections obtained from Lake Scarbrough indicated that the lake is heavily infested with freshwater drum and that the principle game fish is white crappie. Seining was ineffective due to the abruptness of the shoreline. It is recommended that the fish populations of this lake and the farm tanks above it on its watershed be totally eradicated.

OBJECTIVES:

To determine the species present and their relative abundance as well as to determine the ecological factors influencing their distribution.

PROCEDURE:

Sixteen netting collections were obtained from Lake Scarbrough from sixteen different stations. Experimental nylon gill nets, measuring 125 feet long by 8 feet deptł and made up of five, 25 foot, sections were used. Mesh size of these nets increased progressively in each following section at one-half inch intervals, beginning with one-inch mesh and terminating with a three-inch mesh section.

Seining collections were made at three locations. The abrupt slope of the shorelone prevented the making of more seining collections. Common sense seines were used. To estimate relative abundance a count was made of all individuals taken.

FINDINGS:

Description-Lake Scarbrough is located on Indian Creek, about twelve miles above the confluence of Indian Creek and Hords Creek, northwest of the City of Coleman. The dam was completed in 1923 by the Central Colorado River Authority. It is an earth impacted dam, 1,000 feet long, with a maximum height of 40 feet, and a maximum width of 100 feet at the base. The reservoir was constructed as a municipal and industrial water supply and is one of two sources of water for the City of Coleman At capacity the lake contains 1,500 acre feet of water and covers 138 surface acres.

Netting Collections-The most abundant fish as indicated by netting was the freshwater drum. These fish being the dominant species is a rather unusual situation

for the West Texas area. They composed about 45 percent of the catch by both number and weight. There is no apparent explanation for this condition. River carpsuckers are in a minority and gizzard shad are plentiful but not anywhere close to being a major fishery problem. However, when these three species of rough fish are considered as a group they compose about 65 percent of the fish in the lake both by number and weight.

White crappie are the dominant game fish in the lake and appear to attain a reasonably large size. Largemouth bass, caught in nets, were also good sized fish. Channel catfish are significant by their absence from the game fish population, as indicated by the netting collections. Only one individual of this species was obtained. It is possible that channel catfish are unable to reproduce in this reservoir.

Seining Collections-The shoreline of Lake Scarbrough is very steep and for that reason seining was very ineffective. Only very short seine drags could be made in a limited number of places. The seining sample is not, therefore, considered to be representative. The only species obtained were a small number of golden shiners (Notemigonus crysoleucas), parrot minnows (Pimephales vigilax) and gambusia (Gambusia affinis). There are, no doubt, other species in the lake which were not obtained by netting or seining. For instance, no sunfish were picked up by either method of sampling.

RECOMMENDATIONS:

Since this lake has reportedly been "good fishing" in the past, and since the percentage of rough fish was found to be about 65 percent, it is recommended that the fish population of this lake be eradicated as soon as is practical. In order for the restocking of Lake Scarbrough to have lasting value, after the eradication of its fish population, it would be best if the farm tanks above it on the watershed were also treated. This could be done only after the City of Coleman and the owners of these tanks gave assurance of cooperation in such a program.

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Approved by Marion Toole
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Date December 15, 1958

Table 1. Result of netting in Lake Scarbrough from April 16, 1957 to April 16, 1958

Species	No.	Percent by No.	Avg. Wt. ounces	Percent by Wt.	Average K
Gizzard shad	40	15.75	2	2.41	1.80
River carpsuckers	12	4.72	48	17.33	2.20
Channel catfish	1	.39	28	.84	1.75
Largemouth bass	5	1.97	65	10.08	2.89
White crappie	81	31.89	10	24.37	2.85
Freshwater drum	115	45.28	13	44.97	2.35
Totals	254	100.00		100.00	

Table 2. A comparison of game and rough species taken by netting from Lake Scarbrough

Utility	No.	Percent by No.	Avg. Wt. ounces	Percent by Wt.
Rough and Forage Species (including shad, suckers, and drum)	167	65.75	12.88	64.71
Game Species (including catfish, bass, and crappie)	87	34.25	13.48	35.29
Totals	254	100.00		100.00