

Report of Fisheries Investigations

Inventory of Species Present in Hords Creek Reservoir near Coleman, Texas

by

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Dingell-Johnson Project F-5-R-4, Job B-19
April 16, 1956 - April 15, 1957

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SEGMENT COMPLETION REPORT

State of TEXAS

Project No. F5R4 Name: Fisheries Investigations and Surveys of the Waters of Region 3-B.

Job No. B-19 Title: Inventory of Species Present in Hords Creek Reservoir near Coleman, Texas

Period Covered: April 16, 1956 through April 15, 1957

ABSTRACT:

Unanticipated difficulties encountered on other jobs limited the extent of work done on Hords Creek Reservoir to one netting trip during the segment. Six gill net collections and three seining collections captured fourteen species; however, data to date is regarded as fragmentary. Redear sunfish taken were unusually large. Work is to be continued during the 1957-58 period.

OBJECTIVES:

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

PROCEDURE:

Netting collections were made at six locations on the lake. Experimental nylon gill nets, measuring 125 feet long by 8 feet in depth and made up in 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. Common sense seines with one-fourth inch mesh were used for these collections. To estimate relative abundance a count was made of all individuals taken.

Samples from netting collections were weighed and measured in the field. Stomach contents and sexual maturity were also observed in an effort to obtain ecological information.

FINDINGS:

Description- Hords Creek Reservoir is located on the stream of that name about six miles west of the city of Coleman in Coleman, County, Texas. This reservoir was constructed by the U. S. Corp of Engineers for flood control in 1949-50, has a contributing drainage area of 48 square miles and the dam is located at river mile 27.8. The dam is

impacted earth construction and the emergency spillway elevation is 1940 feet above mean sea level. At that elevation the reservoir contains 66,018 acre feet of water and has 2,920 surface acres. Water in the reservoir is clear having no recordable turbidity at the time netting was done. The water temperature recorded was 58 degrees F., pH was 8.3 and dissolved oxygen content was 11 ppm.

Netting Collections - Only one netting trip was made to Hords Creek Reservoir during the segment. The following tabulated data is the result of six experimental gill net collections, and for that reason is obviously insufficient. Sunfish are grouped for comparative purposes. These individuals were unusually large as compared with those collected from other reservoirs within the region. Seven redear sunfish (Lepomis microlophus) predominated these fish and averaged nine and one-half ounces in weight. Bluegill (Lepomis macrochirus) were also unusually large for the area. In addition to the data obtained by netting and seining a number of sunfish that were reportedly caught at Hord Creek were examined in the creels of sportsmen. If the reports of these catches are accurate it is considered probable that a greater number of "pan size" sunfish were taken from this reservoir during the period than were found to occur in a combined total of all netting and seining collections and sportsmen's creels for all other reservoirs surveyed during the past thirty-six months.

Species	No.	Percent Numerically	Avg. Wt. ounces	Percent by weight	Avg. K.
Largemouth bass	24	10.7	34	36.4	2.40
White crappie	74	33.3	7	23.1	3.10
Channel catfish	6	2.6	18	4.9	2.24
Sunfish	16	7.3	6	4.3	4.68
Gizzard shad	86	38.5	5	19.2	1.89
River carpsuckers	14	6.3	17	10.6	2.45
Freshwater drum	3	1.3	10	1.3	2.20

Seining Collections - Data obtained from seining collections at three localities on the lake is fragmentary and for that reason a check list with comment is considered more suitable for this particular report than the numerical data taken from hauls that were employed to determine population ratios.

Seining Species Check List

Gizzard shad (Dorosoma cepedianum) - numerous and undoubtedly the most prolific of the fishes taken by gill netting.

Gray redhorse sucker (Moxostoma congestum) - rare taken at head of lake only.

Carp (Cyprinus carpio) - rare but taken from all three areas of the lake seined.

River carpsucker (Carpiodes carpio) - rare as indicated by seining; however, this is considered to be the result of inadequate sampling.

Redhorse shiner (Notropis lutrensis) - common but not abundant.

Plains minnow (Hybognathus placita) - rare.

Parrot minnow (Pimephales vigilax) - common and abundant near the dam.

Golden shiner (Notemigonus crysoleucas) - rare and unusually large. Taken near the dam only.

Largemouth bass (Micropterus salmoides) - numerous at all localities seined.

Green sunfish (Lepomis cyanellus) - numerous throughout the reservoir.

Bluegill sunfish (Lepomis macrochirus) - numerous throughout the reservoir.

Redear sunfish (Lepomis microlophus) - numerous throughout the reservoir, possible the dominant species for sunfishes.

White crappie (Pomoxis annularis) - common, taken at all seining stations.

SUMMARY:

1. Because of difficulties encountered in completing other work during the segment, Hords Creek Reservoir survey was started less than sixty days prior to completion of the years work. Only one netting trip was made.

2. Six experimental gill nets set at six locations on the lake captured 223 individuals of seven species. Gizzard shad were dominant in netting collections and Largemouth bass and white crappie were the dominant game species. Sunfish, particularly Redear sunfish, were unusually large for this region of Texas.

3. Seining at three locations captured thirteen species; however, this data as that for netting is regarded as fragmentary.

RECOMMENDATION:

It is recommended that this job be continued during the 1957-58 period.

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Date: April 24, 1958

