

Report of Fisheries Investigations

Inventory of Species Present in Red Bluff Reservoir
near Orla and Angeles, Texas

by

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Dingell-Johnson Project F-5-R-4, Job B-17
April 15, 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-17

Title: Inventory of Species Present in Red Bluff Reservoir near Orla and Angeles, Texas.

Period Covered: April 15, 1956 to April 15, 1957

ABSTRACT:

Data collected during the course of the segment is fragmentary. White bass were apparently the most important game species and redhorse shiners were the most important cyprinid. Thirteen species were collected thus far. It was recommended this inventory be continued during another segment.

PROCEDURE:

Four netting collections were obtained at four locations in Red Bluff Reservoir. 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.

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.

Six seining stations were seined one time each. Commonsense seines with one-fourth inch mesh were used for these collections. To estimate relative abundance account was made of all individuals taken.

FINDINGS:

Description - Red Bluff Reservoir is the fifth in a series of major reservoirs located on the Upper Pecos River. The reservoir is formed by a 9,200 foot compacted earth-fill dam and is located 3 miles upstream from Screwbean Draw and 4.5 miles north of the town of Orla in Reeves County. Drainage area for the reservoir is 20,720 square miles. At spillway level the storage capacity is 307,000 acre feet, covers 15,000 surface acres and is 87 feet deep at its deepest place. The reservoir has been in operation since 1937. It was constructed and is used primarily for irrigation of about 15,000 acres in Reeves, Ward and Pecos Counties; however, water is also used for power development. The water releases are controlled by Red Bluff Power Control District and the reservoir is owned by the Reeves County Water Improvement District, Ward County Water Improvement District, Grandfalls-Big Valley Canal Co., and by the Pecos County Water Improvement District.

During the inventory period the reservoir contained about 11,080 acre feet of water. pH was recorded as 7.8.

Netting Collections - Only one gill netting trip was made during the year since this job was not started until the last quarter. Four experimental gill nets were set at four stations with the following results:

Species	No.	% Numerically	Avg. Wt. Ounces	% by Weight	Avg. K
Largemouth bass	2	3.6	19.0	4.15	2.64
White bass	21	38.1	20.0	45.95	2.28
Gizzard shad	19	34.5	5.0	10.39	1.84
River carpsuckers	8	14.5	22.0	19.66	2.40
Carp	3	5.4	31.0	10.18	2.68
Longnose gar	2	3.6	46.0	10.06	.51
Totals	55	100.00		100.00	

Seining Collections - Six seining stations were worked and the results of this work indicated complete dominance by two species. Redhorse shiners (Notropis lutrensis) were taken at all stations and are probably the most important cyprinid, and the Pecos River Pupfish (Cyprinodon sp.) were the most numerous species taken by seining; however, the utility of the species is not yet known. The following fishes were also taken:

Carp (Cyprinus carpio) - a number of young fish were taken in two localities.

Plains minnow (Hybognathus placita) two individuals at one locality.

Mosquitofish (Gambusia affinis and Gambusia gaigei) this identification is not yet confirmed as is questionable.

White bass (Roccus chrysops) taken only in upper part of lake.

Green sunfish (Lepomis cyanellus) taken at five of six locations and may be the most numerous of the sunfishes.

Bluegill (Lepomis macrochirus) common; apparently in a stunted condition.

Smallmouth buffalo (Ictiobus bubalus) not actually taken by seining or netting but observed in the catch of a fisherman.

CONCLUSIONS AND RECOMMENDATIONS:

As only on netting trips and six seining collections were made during the segment, and the evidence obtained thus far is fragmentary no conclusions can be drawn. It is recommended that this project be continued during another segment.

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