

Report of Fisheries Investigations

Basic Survey and Inventory of Species, as well as their
Distribution in the Clear Fork of the Brazos River
in Region 3-B, Texas

by

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Dingell-Johnson Project F-5-R-4, Job B-16
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SEGMENT COMPLETION REPORT

Investigations Project

State of TEXAS

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

Job No. B-16 Title: Basic Survey and Inventory of Species, as well as their Distribution in the Clear Fork of the Brazos River in Region 3-B, Texas.

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

ABSTRACT:

Basic and inventory data were obtained during the period. Because information obtained thus far is known to be inadequate; additional work is recommended as necessary before the Clear Fork of the Brazos Watershed can be properly evaluated and understood. Work on this job is postponed until 1958 because it is regarded as less important, at this time, than other work proposed, and because of difficulty in doing this work in conjunction with other required survey work.

OBJECTIVES:

To gather fundamental data on the above waters in regard to their physical, chemical and biological aspects and to determine the distribution of the species present, their relative abundance and the ecological factors influencing their distribution.

PROCEDURE:

A. Basic Survey

By standard procedures information was collected to complete the stream survey forms similar to those given by Lagler in his HANDBOOK OF FRESHWATER FISHERY BIOLOGY.

B. Inventory of Species (seining stations were selected)

1. Data was collected including a tally for each species taken as well as ecological information concerning each species.
2. Temperature, pH, turbidity, dissolved oxygen and carbon dioxide were determined at every station.
3. Netting collections were made at stations selected during the course of the work.

FINDINGS:

Because of many difficulties encountered in completing other river surveys; (i.e. the Upper Colorado River and the Pecos River watersheds) the only data and specimens obtained thus far were taken from stream areas immediately above Lake Trammel near Lake Sweetwater, below Fort Phantom Hill Reservoir, near Abilene and from the watershed near Buffalo Gap. Netting was possible only above Lake Trammel.

Netting - Netting results as presented below are obviously fragmentary. The sunfish grouped were one bluegill and one green sunfish. Two experimental gill nets were set in the above described locality.

Species	No.	Numerical Percent	Avg. Wt. ounces	Percent by Wt.	Avg. K
Largemouth Bass	1	5.26	18	12.33	2.40
Channel Catfish	1	5.26	24	14.73	2.34
Sunfish	2	10.54	3	3.15	4.10
Gizzard Shad	12	63.16	4	25.66	1.86
River Carpsuckers	3	15.78	28	44.21	2.54

Seining - Seining collections were taken at six localities within the above described areas of the watershed. It is believed that numerical results may be misleading because it was difficult to locate areas where stone or brush obstructions on the stream bottom did not prevent or render ineffective this method of sampling and because the small number of specimens obtained is regarded as insufficient even for the localities where collection work was possible. For these reasons a species check list with comment is regarded as being more suitable for this particular report.

Seining Check List

Gizzard Shad (Dorosoma cepedianum) - numerous although difficult to capture by seining. These fish were observed in schools above Lake Trammel and below Fort Phantom Hill Reservoir.

River Carpsucker (Carpionodes carpio) - collected below Fort Phantom Hill Reservoir only.

Carp (Cyprinus carpio) - Collected below Fort Phantom Hill Reservoir only.

Redhorse Shiner (Notropis lutrensis) - particularly numerous in the stream areas near Buffalo Gap; however, this species was taken at all three areas.

Plains Shiner (Notropis percobromus) - Above Lake Trammel and near Buffalo Gap but not in collections below Fort Phantom Hill Reservoir.

Channel Catfish (Ictalurus punctatus) - taken below Fort Phantom Hill only.

Largemouth Bass (Micropterus salmoides) - in all collections, but rare.

Bluegill (Lepomis macrochirus)- numerous in all collections.

Green Sunfish (Lepomis cyanellus) - numerous in all collections.

White Crappie (Pomoxis annularis) - present above Lake Trammel only.

Black Crappie (Pomoxis nigromaculatus) - Lake Trammel only.

Logperch (Percina caprodes) - below Fort Phantom Hill Reservoir only.

RECOMMENDATIONS:

It is recommended that this survey be discontinued at this time and be resumed in 1958-1959.

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