

FILE

JOB COMPLETION REPORT

As required by

FEDERAL AID IN FISHERIES RESTORATION ACT

TEXAS

Federal Aid Project No. F-4-R-13

REGION 2-A FISHERIES STUDIES

Job No. D-3: Evaluation of Pre-impoundment Rotenone Treatment

Project Leader: Charles T. Menn

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November 21, 1966

ABSTRACT

During this segment, 48 netting collections were made on both Hubbard Creek and Proctor Lakes.

The results of three segments of work under this job will be presented in a paper published in the Texas Parks and Wildlife Department Inland Fisheries Series.

JOB COMPLETION REPORT

State of Texas

Project No. F-4-R-13

Name: Region 2-A Fisheries Studies

Job No. D-3

Title: Evaluation of Pre-impoundment Rotenone Treatment

Period Covered: November 1, 1965 - October 31, 1966

Objectives:

1. To determine the fish species present, their relative abundance and the factors influencing their distribution.
2. To compare the fish population in Hubbard Creek Lake (pre-impoundment rotenone treatment of watershed) with that of Proctor Lake (untreated watershed) to determine the following:
 - a. Rough fish-game fish ratio.
 - b. Growth rates (based on length of time since stocking).
 - c. Coefficient of condition of game species.
 - d. Reproduction of game species.

Procedures:

Experimental gill nets were set at eight permanent stations on both Hubbard Creek and Proctor Lakes on a bimonthly basis. Original plans called for quarterly visits to each lake, but after some additional thought, it was felt that bimonthly visits would yield more data.

Since no seining data were available for the previous segments, it was decided that such information would be of little value for the current segment. Therefore, no seining collections were made.

Water analyses were made on each lake at an established station. Tests were made to determine dissolved oxygen, carbon dioxide, pH, and alkalinity.

Results:

During this segment, 48 netting collections were made on both Hubbard Creek and Proctor Lakes. Briefly, the results of the netting were as follows:

	<u>Hubbard Creek</u>		<u>Proctor</u>	
	Per Cent of <u>Number</u>	Per Cent of <u>Weight</u>	Per Cent of <u>Number</u>	Per Cent of <u>Weight</u>
Rough Species:	45.15	62.84	54.34	57.43
Game Species:	34.41	35.21	37.90	41.48
Miscellaneous Species:	<u>20.44</u>	<u>1.95</u>	<u>7.76</u>	<u>1.09</u>
TOTAL:	100.00	100.00	100.00	100.00

Table 1 lists the fish species included in the various categories of "rough species, game species and miscellaneous species".

A detailed analysis of all data obtained during three segments of this job will be prepared and submitted for publication in the Inland Fisheries Series (F-4-R-14, Job B-36).

Prepared by Charles T. Menn Approved by Marion Toole
Project Leader (Coordinator)

Date November 21, 1966 GARY WOOD
Fisheries Supervisor

Table 1. Checklist of fishes mentioned in this report and arranged within categories designated for reporting purposes.

Rough Fish

Spotted gar	<u>Lepisosteus oculatus</u>
Longnose gar	<u>L. osseus</u>
Gizzard shad	<u>Dorosoma cepedianum</u>
Smallmouth buffalo	<u>Ictiobus bubalus</u>
River carpsucker	<u>Carpionodes carpio</u>
Carp	<u>Cyprinus carpio</u>
Black bullhead	<u>Ictalurus melas</u>
Yellow bullhead	<u>I. natalis</u>
Freshwater drum	<u>Aplodinotus grunniens</u>

Game Fish

Channel catfish	<u>Ictalurus punctatus</u>
Blue catfish	<u>I. furcatus</u>
Flathead catfish	<u>Pylodictis olivaris</u>
Largemouth bass	<u>Micropterus salmoides</u>
White crappie	<u>Pomoxis annularis</u>

Miscellaneous sunfish

Warmouth	<u>Chaenobryttus gulosus</u>
Green sunfish	<u>Lepomis cyanellus</u>
Redear sunfish	<u>L. microlophus</u>
Bluegill	<u>L. macrochirus</u>
Longear sunfish	<u>L. megalotis</u>
