STATE Texas
PROJECT F-2-R-2, Job B-10
PERIOD June 1, 1954 to Nov. 30, 1954

FILE

Job Completion Report

by

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TITLE

Inventory of the species present and their distribution in those portions of the San Gabriel River and Brushy Creek within Region 6-B, which were not covered in Job B-7, Project F-2-R-1.

OBJECTIVES

To continue and complete the study of the rivers begun under Job B-7, Project F-2-R-1.

METHODS

Seine and rotenone collections were made in the following waters of Burnet and Milam Counties; the North San Gabriel River in Burnet County, six collections; The San Gabriel River in Milam County, four collections; Brushy Creek in Milam County, two collections. (See Table 1 and the appended map for location of stations.)

All seine collections were made with 6' x 4' and 10' x 4' common sense seines and/or with a 26' x 6' bag seine with $\frac{1}{4}$" mesh.

Seining collections were made at stations one, three, four, five, six and seven on the North San Gabriel River in Burnet County and at stations eight and eleven on the San Gabriel in Milam County.

Rotenone collections were made at stations eight and eleven on the San Gabriel River and thirteen and fourteen on Brushy Creek in Milam County.

Seine and rotenone specimens were taken to the laboratory for identification and counting after preservation with ten percent formalin. Large rotenone specimens were identified and counted in the field.

Thermal, chemical and ecological data were recorded for each station in conjunction with Job A-4, Project F-2-R-2.

FINDINGS

The combined streams yielded a total of 33 species representing nine families. A total of 12 species were taken in the North San Gabriel River in Burnet County, 32 species were taken in the San Gabriel River in Milam County, and 18 species were collected in the Brushy Creek in Milam County. Table II shows a breakdown by species of the specimens collected by seining. Table III gives the percentages and numbers of each species taken in two rotenone collections from each stream.

A list showing the distribution of the species collected during the study has not been included since the study area is small and the work done is merely a continuation of the work begun under Job B-7, Project F-2-R-1.

Seining collections in the North San Gabriel River, in Burnet County, produced 12 species of fishes. The fishes most abundant and most widely distributed were the red shiner, blacktail shiner and the longear sunfish. The green sunfish, largemouth black bass, spotted bass and the stoneroller were taken in one-half or more of the collections but were limited in number. The bluegill sunfish, orangethroat darter, mosquitofish, parrot minnow and mimic shiner were fishes taken in only one collection.

Scarcity of water in the San Gabriel River in Milam County limited collections to two locations. These areas were first seined and later treated with rotenone. A total of 10 species were taken by seining in the first collection while 28 species were later collected with rotenone. The most abundant species were the: longear sunfish, tadpole madtom, black bullhead, ghost shiner and the red shiner. Those fish next in order of abundance were the: blacktail shiner, parrot minnow, channel catfish and the river carpsucker.

Collection stations on Brushy Creek were dry or had very little water when first visited and could not be collected. After a rain the stations were again visited and two of them were treated with rotenone. The creek was not running but water was present in the larger pools. A total of 18 species were collected from two stations using the rotenone. The presence of channel catfish in the collections might indicate that a repopulation of the stream section occured from downstream since no catfish were taken from upstream collections. (Job B-7, Project F-2-R-1.) This occurrence could be explained in that the catfish were more resistant to turbid conditions following a rain and could move into an area that other fishes could not tolerate. The remainder of the fish population might easily have existed in the very shallow pools along the stream before the rain.

No ecological preference of the fishes could be noted since all fish were restricted to shallow or medium depth pools at all collection stations.

SUMMARY

1. The field work of this job was done in conjunction with Job A-4 and is a continuation of Job B-7, Project F-2-R-1.

2. A total of two collections were made on Brushy Creek, Milam County, six collections on the North San Gabriel River in Burnet County and four collections on the San Gabriel River in Milam County.

3. The distribution breakdown is as follows:

Brushy Creek, 18 species, 7 families
North San Gabriel, 12 species, 4 families
San Gabriel, 32 species, 9 families

4. No ecological distribution of the fishes found in the streams could be noted since all fish were restricted to shallow or medium depth pools.

Table 1

North San Gabriel River (Burnet County)	
Station No.	Location
1.	Russell Fork North San Gabriel, 6 mi. NE Bertram
2.	Russell Fork North San Gabriel, 5 mi. N Burnet on Farm Road 963.
3.	North San Gabriel River, 5 mi. SE Lake Victor
4.	North San Gabriel River 3 mi. NNW Tamega
5.	North San Gabriel River, crossing at Joppa
6.	Russell Fork North San Gabriel, 2 mi. S Joppa
7.	North San Gabriel River, 4 mi. SW Mahomet on Farm Road 243
San Gabriel River (Milam County)	
Station No.	Location
8.	½ mi. S town San Gabriel on Farm Road 486
9.	6 mi. SE town San Gabriel on county road
10.	7 mi. NW Rockdale on county road
11.	6 mi. N Rockdale on Farm Road 487
Brushy Creek (Milam County)	
Station No.	Location
12.	1 mi. E Thorndale on Texas Highway 79
13.	6 mi. E Thorndale on county road
14.	5 mi. NW Rockdale on county road

Table 1. Locations of survey stations used during study period under Job B-10, Project F-2-R-2, Basic Survey of the Remaining Portions of the San Gabriel River and Brushy Creek within Region 6-B, Which Were Not Covered in Job B-7, Project F-2-R-1

Table 11.

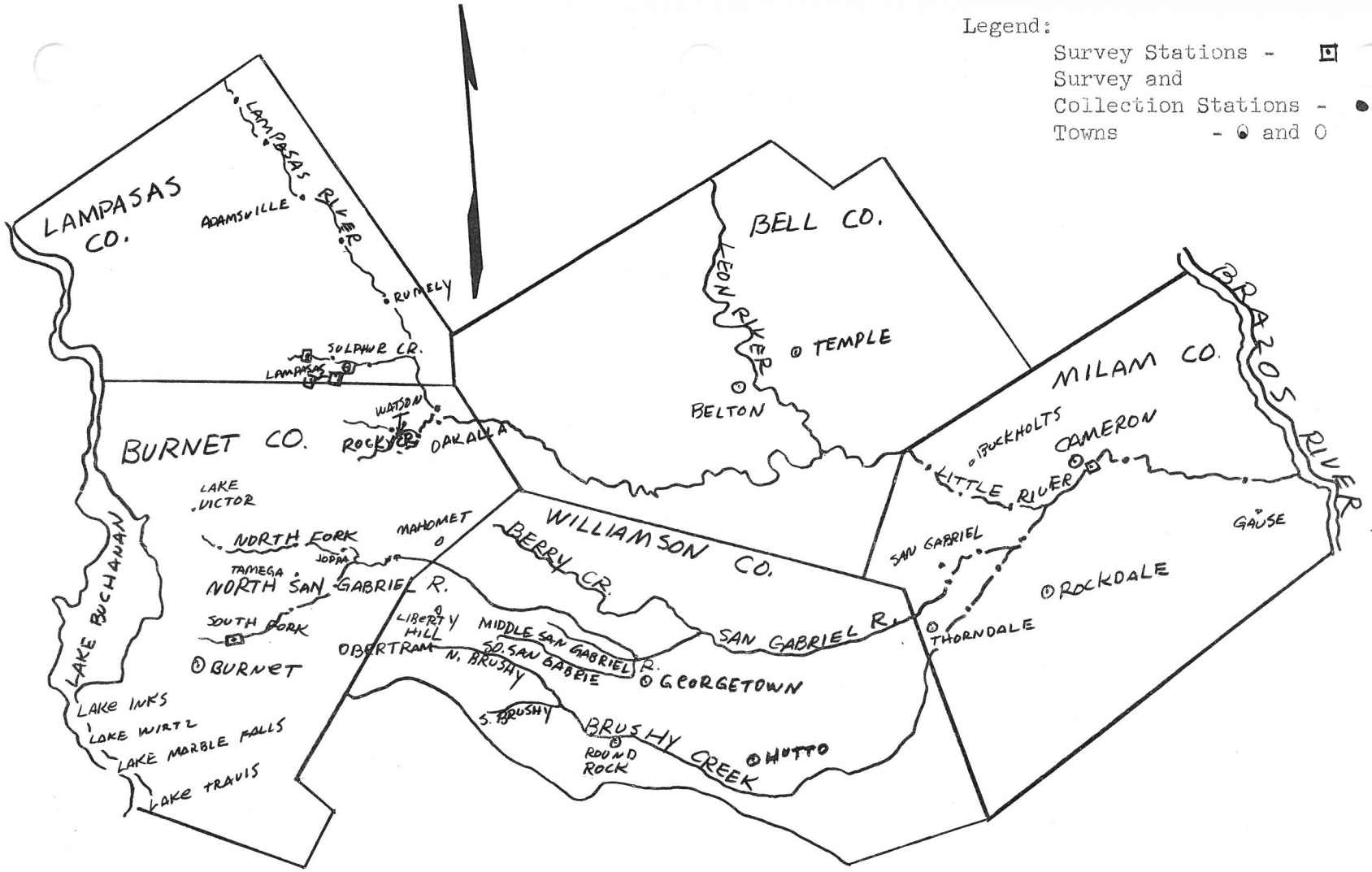
Species	Stations 1	3	4	5	6	7	To-tal	% of Total	Station 8	11	To-tal	% of Total
L. productus									1		1	0.558
N. venustus			9	57	21	12	99	26.259	62	1	63	35.195
N. lutrensis	9		37	14	3		63	16.710	22	1	23	12.849
N. volucellus				8			8	2.122				
P. vigilax				34			34	9.018				
C. anomalum	2		4		10		16	4.244				
F. notatus									1		1	0.558
G. affinis			2				2	0.530	38		38	21.229
M. punctulatus		1			6	3	10	2.652				
M. salmoides		9	2	1			12	3.183	7		7	3.910
L. megalotis	6	13	13	24	52	6	114	30.238	34	1	35	19.553
L. cyanellus	1	3		2	7		13	3.448				
E. spectabile						2	2	0.530	7		7	3.910
L. macrochirus		4					4	1.061				
H. scierus									3		3	1.675
P. promelas									1		1	0.558
Total	18	30	67	140	99	23	377	99.995	176	3	179	99.995

Table 11. Seining Collections North San Gabriel River, Burnet County and San Gabriel River, Milam County. Job B-10 Project F-2-R-2, June Through November 1954.

Table 111

Name of Species	San Gabriel River Number	San Gabriel River Percent	Brushy Creek Number	Brushy Creek Percent
Lepisosteus platostomus	7	0.686	--	--
Dorosoma cepedianum	5	0.490	24	1.758
Carpiodes carpio	37	3.627	6	0.439
Moxostoma congestum	2	0.196	--	--
Cyprinus carpio	1	0.098	2	0.146
Notropis venustus	44	4.313	--	--
Notropis lutrensis	127	12.450	146	10.695
Notropis volucellus	4	0.392	--	--
Notropis buchanani	94	9.215	--	--
Hybognathus nuchalis	--	--	1	0.073
Pimephales vigilax	70	6.682	56	4.102
Campostoma anomalum	30	2.941	--	--
Ictalurus punctatus	53	5.196	5	0.366
Ameiurus melas	133	13.039	219	16.043
Ameiurus natalis	20	1.960	113	8.278
Pilodictus olivaris	5	0.490	2	0.146
Schilbeodes gyrinus	92	9.019	22	1.611
Gambusia affinis	11	1.078	508	37.216
Micropterus punctulatus	9	0.882	--	--
Micropterus salmoides	4	0.392	--	--
Chaenobryttus coronarius	18	1.764	10	0.732
Lepomis cyanellus	18	1.764	92	6.739
Lepomis macrochirus	14	1.372	4	0.293
Lepomis humilis	7	0.686	37	2.710
Lepomis megalotis	186	18.235	117	8.571
Hadropterus scierus	5	0.490	--	--
Percina caprodes	10	0.980	--	--
Etheostoma chlorosomum	1	0.098	1	0.073
Etheostoma spectabile	9	0.882	--	--
Aplodinotus grunniens	4	0.392	--	--
	1,020	99.989	1,365	99.991

Table 111. Results of Rotenone Collections, San Gabriel River, Milam County, and Brushy Creek, Milam County. Job B-10, Project F-2-R-2, June through November 1954.



LITTLE RIVER DRAINAGE
Region 6-B

River	Basic Surveys	Inventories of Species
Lampasas River (Lampasas and Burnet Counties)	Job A-3	Job B-9
Little River (Milam County)	Job A-3	Job B-9
North San Gabriel River (Burnet County)	Job A-4	Job B-10
San Gabriel River (Milam County)	Job A-4	Job B-10
Brushy Creek (Milam County)	Job A-4	Job B-10

Note: For work done in Bell County, see Jobs A-1 and B-6, Project F-2-R-1
For work done in Williamson County, see Jobs A-2 and B-7, Project F-2-R-1