

STATE Texas
PROJECT NO. F-6-R-1, Job B-3
PERIOD July 1, 1953-June 30,
1954

Segment Completion Report

by

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TITLE

Inventory of Fish Species Present in Lake Corpus Christi.

OBJECTIVES

To determine the species present and their relative numbers in Lake Corpus Christi.

PROCEDURE

a. Netting Collections

1. Nine, instead of the five originally planned, stations were selected on Lake Corpus Christi to represent different locations and types of habitat. Experimental gill nets composed of 25 foot sections of $3/4$ ", 1", $1\frac{1}{2}$ ", 2" and 3" square mesh were set each month at each station except when stations were inaccessible due to low water or water hyacinth blocks.
2. A 300 by 8 ft. gill net with 3" square mesh was set seven nights and five 100 x 8 ft. nets of 2" and 3" square mesh were set.
3. Two $\frac{1}{4}$ " fyke nets were set during the period and three hoop nets with one-inch square mesh were set. Of the hoop nets, two were baited with cut fish and set in deep water while one was unbaited, set near shore with fykes sewed onto the front hoop.
4. All fish taken in nets were taken back to the boat landing and weighed, measured, sexed and parasites noted. Scales were not collected for age readings as previous inspections of scales have shown that age cannot be determined by this method in fish from Lake Corpus Christi. Stomachs of sport and predacious fishes were tagged and preserved in formalin for stomach analysis when such stomachs had food in them.

b. Seining Collections

1. 65 seining collections were made on the nine beaches selected near each of the netting stations. Seining was done with a 30 x 6 ft., $\frac{1}{4}$ " mesh bag seine or a 12 x 4 ft. commonsense seine, depending on conditions. Specimens taken were usually preserved in formalin and later counted in the laboratory but when large numbers of fish were taken, many were counted and recorded at the beach and discarded, with only a sample collection being preserved. In some months it was impossible to seine some of the beaches because low water levels or blocks of hyacinths made them inaccessible.

2. Data collected in netting and seining were recorded on Fish Cards and collection sheets.

RESULTS

a. Netting Collections

1. There were 2,088 specimens of 17 species collected from the 102 overnight experimental net sets.
2. The 300 ft. three-inch mesh net took 116 fish of nine species while the 100 ft. two and three-inch mesh nets took 44 fish of seven species.
3. The two fyke net sets accounted for 70 fish of ten species an apparent duplication of collections made by seining. The three hoop nets took only 36 fish of four species. Further efforts with these nets baited with cottonseed cake and left out for several days are expected to give better results.
4. Data collected on the collection sheets were filed in the laboratory and "K" factors figured for each fish. Stomachs collected are now being analyzed. Detailed tables giving these data will be prepared for the Job Completion Report.

b. Seining Collections

1. A total of 17,946 specimens, representing 26 species was tabulated from the seining collections. These data will be analyzed in the Job Completion Report to try to determine the relative and seasonal abundance of the various species.
2. The attached Fish List shows the number of each species taken by experimental gill nets and by seining at the stations and the percent of the total collected for each species.

SUMMARY

Monthly netting and seining collections were made from nine stations in Lake Corpus Christi. Experimental and two and three-inch mesh gill nets, one-fourth inch mesh fyke nets, one-inch mesh hoop nets, thirty by six ft. one-fourth inch bag seines and Common Sense seines were used. Fish taken were tabulated and the larger species were weighed, measured, sexed and parasites noted. When the stomachs were taken they were full from game and predacious species.

FISH LIST

Name of Water Lake Corpus Christi

Date July 1, 1953 - June 30, 1954

Species	Sta. 1	Sta. 2	Sta. 3	Sta. 4	Sta. 5	Sta. 6	Sta. 7	Sta. 8	Sta. 9	Total	Percent
Lepisosteus spatula	1		1		1	1	1	2		6	.02
Lepisosteus productus		3	8	9	31	18	10	43	30	152	.75
Lepisosteus osseus	1	1	5	4	13	2		15	10	51	.25
Dorosoma petenensis	1,978	515	107	2,209	437	1,825	30	195	195	7,296	36.41
Dorosoma cepedianum	686	280	84	266	45	47	14	32	224	1,678	8.38
Astyanax fasciatus	21	96	15	43	26	2		4	2	209	1.04
Ictiobus bubalus	17	35	37	63	16	24	68	32	24	316	1.57
Cyprinus carpio					2		1			3	.01
Notemigonus crysoleucas		21	55	12	20	45		17	95	265	1.32
Opsopoeodus emiliae	244	102	278	128	159	90	38	1	85	1,125	5.61
Notropis lutrensis	107	85	638	498	45	133		2	37	1,545	7.61
Pimephales vigilax	10	31	7	2	7				6	63	.31
Ictalurus punctatus	4	11	15	36	13	5		13	35	159	.74
Ictalurus furcatus	67	24	68	47	29	54		33	47	381	1.90
Ameiurus melas							2			2	.01
Pilodictus olivaris				1			4	1		6	.02
Schilbeodes mollis			7	1	3					41	.21
Gambusia affinis	77	508	78	258	58	158	82	74	171	1,464	7.31
Mollienesia latipinna		7	18	19			13		13	70	.35
Menidia beryllina	174	215	763	339	531	875	66	12	68	3,043	15.19
Micropterus salmoides		6					27			33	.16
Chaenobryttus coronarius		7	3		3	6	4	16	88	127	.63
Lepomis cyanellus								3	6	9	.04
Lepomis microlophus	5	15	5	2	4	13	6	1	51	102	.51
Lepomis macrochirus	29	75	6	71	29	48	156	58	200	672	3.35
Lepomis megalotus	1	2			4		1	8	2	18	.09
Pomoxis annularis	11	59	38	65	29	35	20	50	75	382	1.91
Aplodinotus grunniens	33	32	78	104	140	109	21	145	99	761	3.80
Cichlasoma cyanoguttata	5	16	2	6	3		14	2	7	55	.27
29 species - Totals	3,470	2,175	2,316	4,183	1,648	3,490	617	564	1,571	20,034	99.81

Map 1. Lake Corpus Christi.

