

STATE Texas

DATE January 1, 1951

A SURVEY OF THE EFFECTS OF A  
NATURAL PASS ON FISH POPULATIONS

Quarterly Report

From: October 1, 1950 to December 31, 1950  
Biologist: Ernest G. Simmons  
Boats: Ada Lee, Skipjack, Small Barge, Large Barge  
Crew: Angelo Flores, Boat Captain  
Seferino Cortiniz  
David Mejardo  
Jose Solis

INTRODUCTION

During the previous months of the year it was observed that the south trap was not successful in taking sea trout (Cynoscion nebulosus) and redfish (Sciaenops ocellatus). These species would often move up to the trap but would not enter. It was decided to build a spiral trap to combat this situation.

STATUS OF PROJECT AT TIME OF LAST REPORT

The old south trap had been removed and construction had been initiated on the new spiral trap. All the wire had been removed from the north wing.

AREAS WORKED ON

Cedar Bayou has changed very little during the quarter. A new boat channel has been dredged on the east side of Grass

No fish were taken in the south trap during the quarter. The following tables will show the catch per hour during the quarter and the catch per hour during each month of operation of the north trap.

Oct. 1 - Dec. 31, 1950							
Trap	Total Hrs.	Diur. Hrs.	Noc. Hrs.	Catch/Total Hrs.	Catch/Noc. Hrs.	Catch/Diur. Hrs.	Total Fish
North	385	187	198	6.9	9.19	4.99	2653
Total	385	187	198	6.9	9.19	4.99	2653

October, 1950							
Trap	Total Hrs.	Diur. Hrs.	Noc. Hrs.	Catch/Total Hrs.	Catch/Noc. Hrs.	Catch/Diur. Hrs.	Total Fish
North	124	62	62	3.4	4.7	2.0	417
Total	124	62	62	3.4	4.7	2.0	417

November, 1950							
Trap	Total Hrs.	Diur. Hrs.	Noc. Hrs.	Catch/Total Hrs.	Catch/Noc. Hrs.	Catch/Diur. Hrs.	Total Fish
North	71	30	41	5.5	5.6	5.1	390
Total	71	30	41	5.5	5.6	5.1	390

December, 1950							
Trap	Total Hrs.	Diur. Hrs.	Noc. Hrs.	Catch/Total Hrs.	Catch/Noc. Hrs.	Catch/Diur. Hrs.	Total Fish
North	190	95	95	9.7	13.6	6.8	1846
Total	190	95	95	9.7	13.6	6.8	1846

It should be observed that the north trap was not in complete repair until the middle of November. Approximately 1000 shrimp were taken in this trap during the quarter.

All flounders caught in the trap were tagged and released. One such flounder which was tagged and released November 5, and which was in a ripe condition, was recovered November 29, 1950

in 18 fathoms of water in the gulf. Tagging has kept pace but returns have fallen off.

#### OTHER ACTIVITIES

The semi-annual seminar of the Marine Laboratory was attended from October 27, 1950 to October 29, 1950.

Sick leave occurred from November 16 to November 26, 1950 due to an injury incurred at the fish trap.

Fish tag information was distributed along the coast.

An annual report was written.

Fish mortality was checked in the Conn Brown Harbor, Aransas Pass, Texas.

#### UTILIZATION OF TIME

Job	Biologist Hours	Crew Hours	Total Hours
I--1a, 1b--Analysis of movement of fish	35	35	70
II--1a, 1b--Tagging operations	9	9	18
III--1a, 1b--Stomach analysis	9	0	9
IV--1a, 1b--Sex determination	9	0	9
V--1a, 1b--Meteorological & Hydrographical	2	0	2
VI--1a, 1b--Age determination	12	0	12
VII--1a, 1b--Maintenance	190	760	950

#### INCIDENTALS AND LABORATORY TIME

	Biologist Hours	Crew Hours	Total Hours
Running Time	70	280	350
Fish Mortality	6	0	6
Seminar	32	0	32
Annual Report	38	0	38
Sick Leave	80	0	80
Scale Work (Laboratory)	4	0	4
Tagging Reports	12	0	12
Tagging Information	20	0	20

A total of 362 hours was spent in the field by the biologist and 1420 hours were utilized by the crew, giving a total of 1782 hours in the field. In non-field work the biologist spent 166 hours. Grand total, 1948 hours for biologist and crew.

#### SUMMARY

1. A new spiral type trap has been constructed to catch those species moving from the gulf to the bays.
2. Large numbers of flounders (Paralichthys) moved out to the gulf in November and December in ripe condition.
3. Nocturnal movement continues to be greater than diurnal movement.
4. Sharp temperature changes govern movement to a large extent.