

STATE Texas

DATE April 1, 1951

BLUE CRAB INVESTIGATION

QUARTERLY REPORT

From: January 1, 1951 to March 31, 1951

Biologist: F. M. Daugherty, Jr.

Boat: Dolphin

Crew: Jose Rinche

INTRODUCTION

The blue crab investigation is concerned with the life history in Texas waters, migration patterns, shedding grounds, crab parasites, and fishing methods.

STATUS OF PROJECT AT THE TIME OF THE LAST REPORT, JAN. 1, 1951

At the time of the last report work had followed the regular sampling pattern. This work had not been correlated with previous data.

AREAS WORKED ON

The areas of operation were somewhat confined in comparison to previous work. The Gulf near Aransas Pass, south Aransas Bay, Mesquite Bay, Cedar Bayou, and the Intercoastal Canal near Sundown Bay comprised the working areas.

ACTIVITIES

The original stations of the above mentioned areas were checked. In February the Intercoastal Canal near Sun-

down Bay was sampled. This was done in order to check the effects of the extended freeze. Special effort was made to corroborate the early movement of crab larvae into the bays through Aransas Pass.

Laboratory work of an experimental nature was increased with the starting of a long range crab molt problem.

BIOLOGICAL DATA ACCUMULATED

Data pertaining to the regular phases of the problem have been collected and recorded. Megalopal larvae, have been collected and an attempt is being made to raise them through their molts. Only 12 out of 135 crabs, originally megalops, are still alive. Of this number, one crab has reached its fifth instar and the balance are in their fourth instar.

An attempt has been made to induce rapid molting by clipping the eyestalks of young crabs. Mortality is high in this operation and even though some crabs have shed readily, more work must be done to substantiate the findings. If this proves satisfactory and is economical in operation the practical application would be important.

OTHER ACTIVITIES

Hydrocyanic acid and some other industrial by-products were tested for their toxic effect on fish. As an outcome of these tests and previously run toxicity tests it is possible to recommend a standard testing system for industrial by-products to be released in marine waters.

UTILIZATION OF TIME

Project	Biologist Hours	Crew Hours
Crab Investigation (Field)	56	56
Crab Investigation (Laboratory)	214	
Crab Investigation (Data)	140	
Week end duty	12	
Seminar Work	40	
Seminar Talk Preparation	16	
Toxicity Tests	212	
Toxicity Test Write-Up	40	
Total	730	56

SUMMARY

1. Field work has been basically routine with the exceptions of an investigation in the Intercoastal Canal after the January-February freeze and work in Aransas Pass on larvae movements.
2. Laboratory work has been intensified along the lines of molting and soft crab production.
3. Toxicity tests on industrial by-products gave good results and paved the way for the formulation of a standard test.