

Job Report

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Biologist III

Project No.: MO-R-6 Date: November 14, 1965
Project Name: Survey of Oyster Populations and Associated Organisms
Period Covered: January 1, 1964 to December 31, 1964 Job No.: 5

Study of Oyster Growth and Population Structure in
San Antonio and Espiritu
Santo Bays

Abstract: Mortalities among seed and market oysters (Crassostrea virginica) were noted in June in lower San Antonio Bay. They occurred at a later period, and were less severe, in Espiritu Santo Bay. Upper San Antonio Bay did not appear to be affected. The nature of the mortalities was similar to that caused by "Aransas Bay disease" but the organism responsible was not identified.

The oyster harvest was confined to small reefs in the upper bay area adjacent to Guadalupe Bay. Production appeared to be about one-quarter less than that of the previous season.

Objectives: To monitor changes in the oyster population in San Antonio and Espiritu Santo Bays and to determine the centers of commercial harvest in the area, for use in making management recommendations.

Procedures: Periodic samples were taken at four reefs in the San Antonio-Espiritu Santo Bay area. Each sample consisted of a standard bushel of oysters taken by a sample dredge. All live oysters in the bushel samples were measured to the nearest millimeter along the right valve from hinge to bill. Locations of oyster boats working in the area were observed to determine the reefs receiving fishing pressure.

Findings & Discussion: Oyster spat (under 26 mm in length) were generally abundant in samples throughout the year (Table 1). The peak set apparently occurred in the fall (Table 1).

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Oyster mortalities were first observed in June, primarily in the lower bay area (Panther Point and Chicken Foot Reefs). Mortalities appeared to be less severe and occurred at a later period in Espiritu Santo Bay (Josephine Reef). The upper bay area did not appear to be affected. Although the organism responsible was not identified, the nature of the mortality was similar to that caused by "Aransas Bay disease" but the organism responsible was not identified.

Bay disease".

Commercial oystering during the 1963-64 and 1964-65 harvest seasons was limited to the extreme north end of San Antonio Bay adjacent to Guadalupe Bay (Figure 1) where numerous, small reefs were worked by tongers.

In January, about 40 boats fished the area, averaging six barrels per day per boat for a total daily production of 240 barrels. In September and October around 15 boats produced 175 barrels per day. In November the daily production dropped to about 60 barrels, and by December the daily production was below 50 barrels. The 1964 harvest appeared to be about one-quarter less than that in 1963.

The harvest appears to be about one-fourth less than the 1963-64 season. No commercial landings statistics were available at the time this report was written.

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Table 1

Number of oysters per bushel sample collected during 1964

Reef	Month	No. Oysters/Bushel Sample		
		Spat	Seed	Market
Mosquito Pt.	May	?	72	0
	July	701	117	0
	October	369	234	5
Josephine	January	529	217	21
	May	506	161	18
	July	352	125	17
	October	955	61	11
Panther Point	April	454	161	2
	June	476	73	0
	October	1012	73	0
	December	779	102	0
Chicken Foot	April	151	234	49
	June	268	58	0
	September	330	108	0
	December	630	198	0

Figure 1: Sample Stations and Oyster Harvest Areas in San Antonio Bay

