

## Job Report

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Project Name: Survey of the Oyster Fishery in Area MO-2

Period Covered: September 1, 1960 to April 15, 1961 Job No. B-5

### Survey of Counts, Weights, and Measurements Compiled From the Oyster Shucking Houses in Area MO-2

Abstract: A survey of the weights and measurements used by the commercial shucking houses showed errors in the conversion factors used in estimating the numbers of gallons of oyster meats to a barrel and the weight of a gallon of oysters.

Objective: To obtain production statistics from commercial shucking houses and to study various operations and methods involved in the shucking and marketing of oysters.

Procedure: Several oyster houses were visited in Area MO-2 throughout the oyster season to check the production and quality of oysters processed. Weights were taken of the gallon containers of oysters along with the yield per barrel to determine the pounds of meat per barrel. Prices were recorded for the wholesale and retail sale of oysters, as well as the prices paid to the oystermen and the shuckers.

Findings: During the 1960-1961 oyster season (September 1960 through April 1961) the main oyster producing areas were Espiritu Santo Bay and Galveston Bay.

Four bay areas, Lavaca Bay, Aransas Bay, Copano Bay, and Corpus Christi Bay, have no reported production. Lavaca Bay and Copano Bay oysters were killed by excessive fresh water caused by the heavy precipitation which the coastal region experienced from September through November, 1960. Aransas Bay was closed to oystering of all types in December 1959 after a high mortality attributed to a parasitic fungus, Dermocystidium marinum, had annihilated the market oysters in the bay. It is anticipated that Aransas Bay will be reopened in October 1961.

On September 1, 1959, Corpus Christi Bay was closed to dredging and has remained closed since that date. The reefs had been badly overworked the previous season (1958-1959), and the oysters remaining on the reefs were small and unmarketable. Since the closure to dredging, the production from Corpus Christi Bay has been negligible and a high mortality of the oysters has occurred from unknown reasons. Studies are now underway to determine the cause of the mortality and the feasibility of restocking the reefs.

Heavy rains flooded the central Texas coast and Guadalupe River, creating a vast influx of fresh water into San Antonio Bay. This fresh water killed some of the San Antonio Bay oysters but had a greater effect in keeping the oysters in "poor" market condition. Some shucking houses harvested the watery, bloated oysters in spite of their poor quality. In the process of packing

and cooling the shucked oysters, a loss of approximately 25 percent in the volume of meat would occur from fresh water "bleeding" out of the oyster tissue. The containers would have to be reopened, drained, and filled with more oysters to make up for the loss of water. This increased the expenses of the producer considerably and placed a poor quality oyster on the market. Other producers saw the disadvantages of working the San Antonio Bay area and began bringing oysters by truck from Galveston Bay to as far south as Corpus Christi.

In December 1960 San Antonio Bay was closed to oystering by the State Health Department for a short time after complaints had been received that several people had suffered food poisoning from eating oysters from that bay. It was found that occasionally a few dead oysters, killed by the fresh water, were inadvertently packed with fresh oysters and put on the market. A voluntary shutdown was requested from the oyster houses working in San Antonio Bay and was observed. These producers then turned to Galveston, Matagorda, Espiritu Santo, and Mesquite Bays for their source of supply.

Wholesale and retail prices per gallon of oyster meats remained fairly constant throughout the season. There were minor fluctuations at the beginning of the season in September when the wholesale price rose as high as \$7.50 per gallon and at the end of the season in April when the price dropped to around \$5.00 per gallon. The average wholesale price for the season was \$6.00 per gallon and \$6.50 on the retail market. These prices are for oysters sold at the oyster houses and are considerably lower than the prices at grocery stores and other retail markets. Prices paid to the fishermen averaged \$4.00 per barrel. Shuckers at most houses received \$1.25 per gallon shucked.

A few houses pay the fishermen by the number of gallons shucked from their load, but the barrel measurement is used by all houses buying large quantities of oysters from several different fishermen. The barrel size varies in volume from one oyster house to another and has brought up some questions as to the accuracy of the production figures. Some houses use a three bushel or three box measure. This can make the volume anywhere between 6,500 cubic inches and 8,100 cubic inches, depending on whether the U.S. Standard bushel (2,150 cu. in.) or a Texas bushel (2,700 cu. in.) was used. Some houses use a 55 gallon oil drum which has been cut off at the top ring. One house checked uses a wheel barrow for a barrel measure, and some other houses checked use a barrel that could be changed in volume to whatever amount is needed to yield two gallons of oyster meat. The prices paid to the fishermen vary with the barrel size, but in reporting the production all houses state that they handled various numbers of barrels. The yield per barrel from houses using the three box barrel or the oil drum, which are close in volume, is from 1.5 to 2.0 gallons of oyster meat, depending upon the quality of the oysters.

Table 1 is a list of the oyster houses checked during the month of January 1961. The figures are indicative of the conditions which held throughout the season.

Comments: In computing the weight of a gallon of shucked oysters, the Marine Laboratory Statistical Agent uses a figure of 8.75 pounds per gallon of oyster meat, the same as used by the U.S. Fish and Wildlife Service. However, this was found to be inaccurate in estimating the weight of a gallon of oysters produced in Texas during the 1960-1961 season. In checking the weights of gallon containers of oysters at several different oyster houses, it was found that a gallon of oyster meat allowed to drain a few minutes and weighed without the container was eight pounds. The gallon container or can used for the shipping and marketing of the oysters weighed 12 ounces, or .75 pounds; thus a total of 8.75 pounds for the oysters and the can. Gallon containers of oysters taken from the shelves of oyster houses had an average weight of 9 pounds, 3 ounces. These oysters were not drained. Without the weight of the can a gallon of freshly

packed oysters would weigh 8 pounds, 7 ounces, still lower than the 8 pounds, 12 ounces used by the statistical department. It is evident that continued checks are needed throughout the season to maintain yield and weight data on the oysters being produced if accurate production data is to be obtained.

The barrel measurement as stated before is used by nearly all the houses to report their production from month to month. It is essential that either a standard size barrel be used by all houses and repeated checks made of the yield throughout the season or a special form be supplied to the dealers to record the volume size of their barrel and the yield obtained from it.

An important tool for setting seasons, restrictions, and overall management is production data from each individual bay. The data must be as accurate as possible for each bay area. Often many producers transport oysters from one area to be shucked in another and report the production as being from the area in which the oysters were shucked. This is evident in the production figures for Nueces Bay during the 1959-1960 oyster season. Many of these oysters were transported by truck from the San Antonio Bay area but were reported as produced from Nueces Bay. A sudden drop from 219,853 pounds for the 1959-1960 season to 6,169 pounds for the 1960-1961 season is somewhat out of proportion. How much of the figure is from Nueces Bay is not known, but measures should be enacted to prevent this type of error.

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Table 1 - Oyster House Check  
January, 1961

Location and House	Price per Gallon Whl.	Price per Gal. Retail	Price to Boat	Price for Shuckers	Yield per Barrel****	Area Oyster Taken From
Seadrift House 1	\$6.00	\$6.50	\$4.00 per Gallon *	\$1.50 per Gallon	1.5 gal.	San Antonio Bay
Palacios House 2	\$5.50	\$6.00- \$6.50	\$2.25 to Crew **	\$1.25	1.5 - 1.8 gal.	Espiritu Santo Bay
Matagorda House 3	\$6.00- \$6.50	\$7.00	\$4.00- \$4.50	\$1.50	2.0 gal.	East Matagorda Bay
Port O'Connor House 4	\$5.85		\$4.50	\$1.50	1.75 gal.	Espiritu Santo Bay
Port Lavaca House 5	\$6.00- \$6.25	\$7.00	\$4.00	\$1.25	1.75 gal.	Espiritu Santo Bay
Port Lavaca House 6	\$5.75- \$6.00		\$4.25	\$1.40	1.75 gal.	Espiritu Santo Bay
Port Lavaca House 7	\$6.00	\$6.25- \$6.50	\$4.00	\$1.50	1.5 gal.	Galveston Bay
Corpus Christi House 8	\$5.50	\$7.00	\$4.50***	\$1.25	1.5 gal.	Galveston Bay
Austwell House 9	\$5.50	\$6.50	\$4.00	\$1.50	1.5 gal.	San Antonio Bay

\* Oyster fishermen opened own oysters for \$4.00 per gallon  
 \*\* Boat owned by oyster house. Crew paid \$2.25 per barrel  
 \*\*\* Oysters were trucked to Corpus Christi at \$4.50 per barrel  
 \*\*\*\* Estimated yield by oyster house operator