

JOB REPORT

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Project No. M-4-R-3

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Project Name: General Ecological Survey of the Matagorda Area.

Period Covered: September 1, 1960- December 31, 1961 Job No. D-2

Mapping of Exposed Shell and Reefs in Lavaca Bay and East Matagorda Bay.

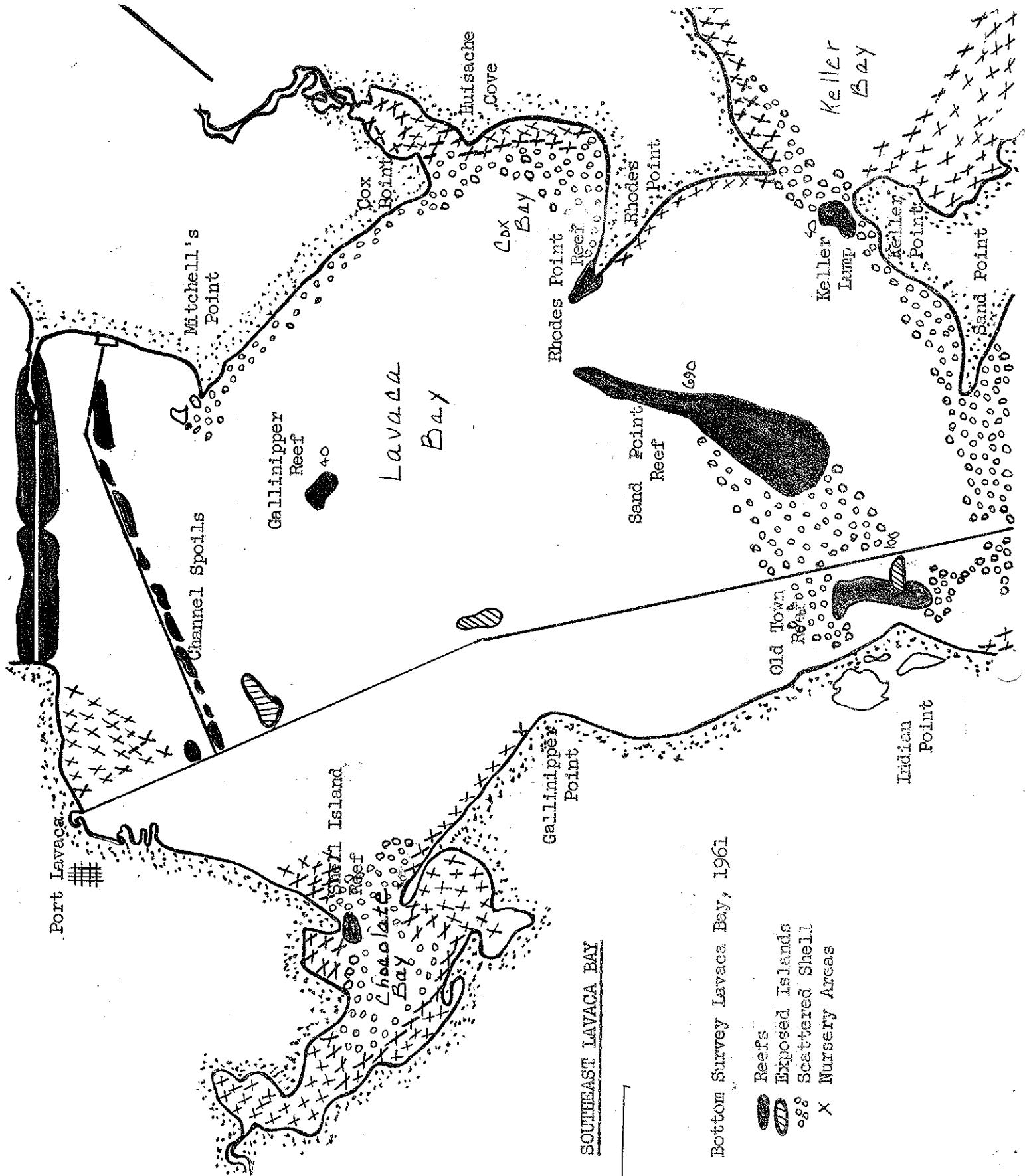
Abstract: Mapping of Lavaca Bay was completed. Time was not available to accomplish any further work on East Matagorda Bay bottom. It was found that exposed shell and reef areas have greatly decreased in Lavaca Bay since the mapping of the bay bottom in 1913. Maps are included for study.

Objectives: To map all reefs and exposed shell area in Lavaca Bay and East Matagorda Bay to aid in more efficient management and rehabilitation of the area.

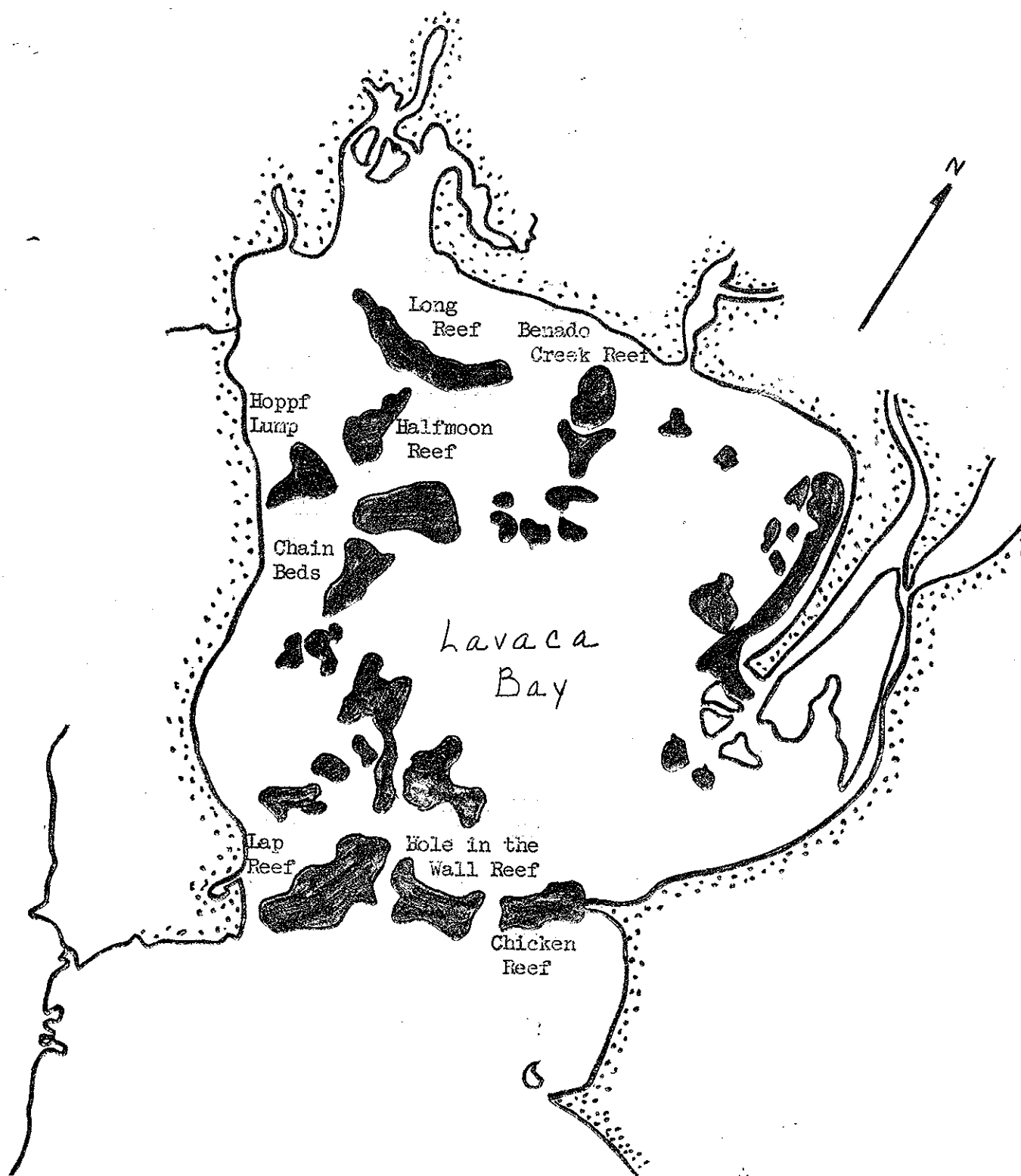
Procedure: The method of operation employed was to work one state tract at a time until a knowledge of bottom type, average depth, and existing shell was gained. A process of mapping existing reefs, spoil islands, exposed shell, and obstructions was then begun. Reefs were located with sounding pole and roller bar. After a reef was located it was outlined with cane pole markers, and it was surveyed with a sextant from two known points. A knowledge of the overall length and width of the area was gained by measuring with a line marked every fifty feet.

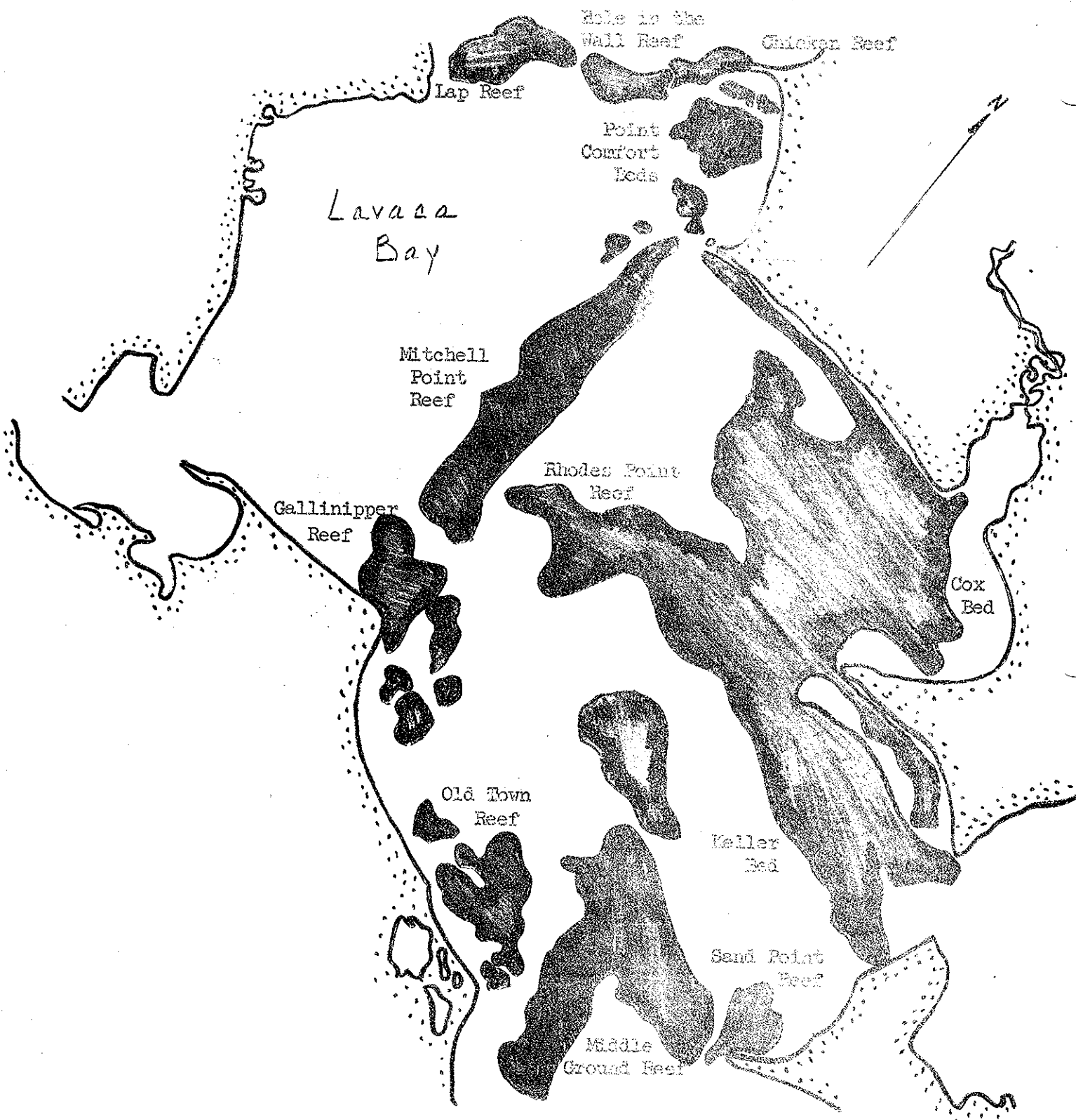
Findings: Presently there are seven reefs in southeast Lavaca Bay; the largest of them being Sand Point Reef. There are two small reefs in the northeast Lavaca Bay. Scattered shell occurs along the eastern shoreline. The western shoreline is predominately hard sand. The greater portion of the bay bottom is soft mud and silt. The area around Gallinipper Reef and west to the mouth of Chocolate Bay is overlaid with two to three feet of silt.

Due to a heavy influx of freshwater into the bay in 1959, 1960, and 1961 there are very few live oysters in Lavaca Bay. A few live oysters are on Old Town Reef and Sand Point Reef, but they are small and in poor condition. No live oysters were found in northeast Lavaca Bay.



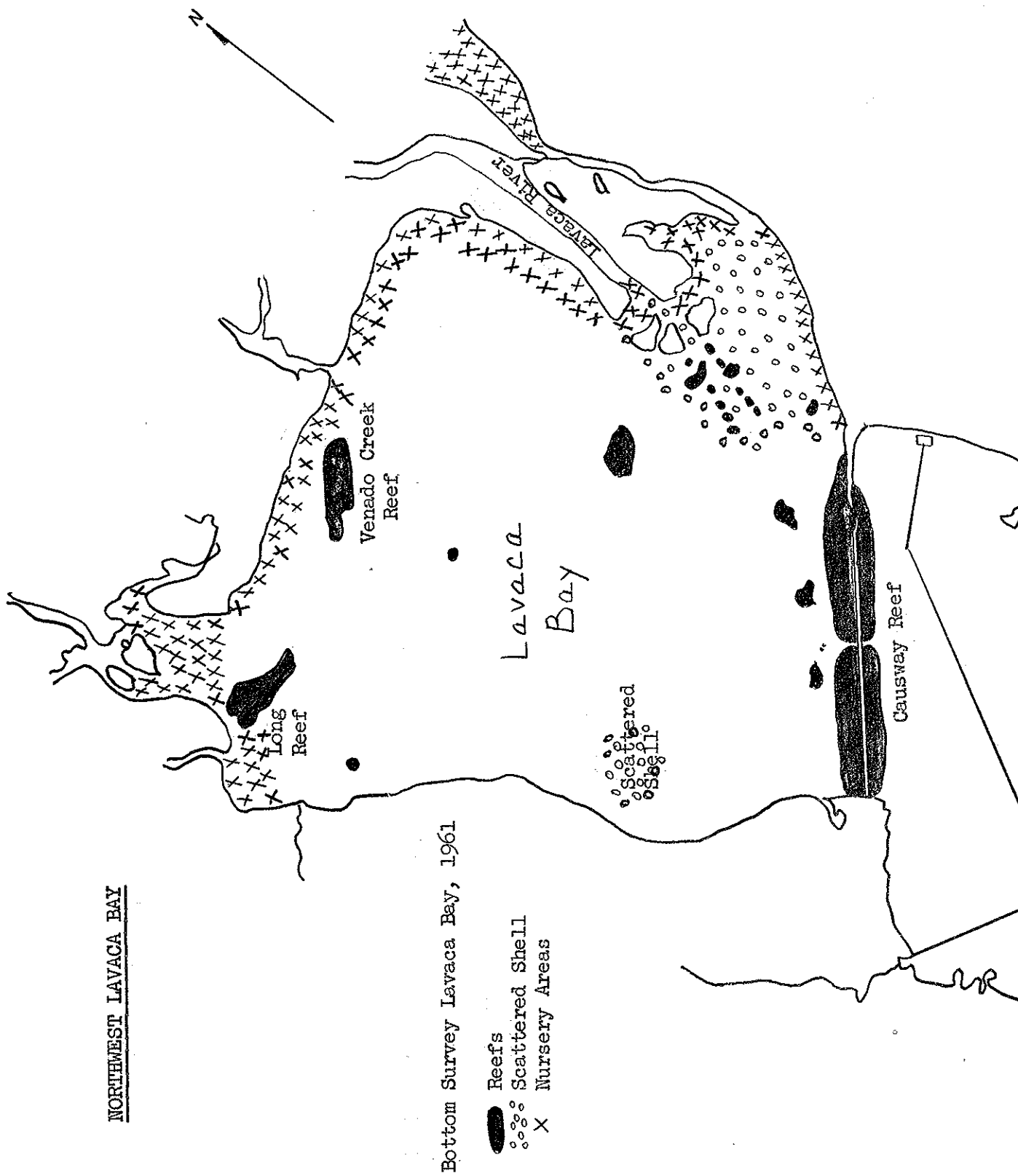
Oyster Bottoms of Lavaca Bay
T. Van De Bogert, 1913





Oyster Bottoms of Lavaca Bay
 E. Van De Bogert, 1913

NORTHWEST LAVACA BAY



Bottom Survey Lavaca Bay, 1961

- Reefs
- Scattered Shell
- X Nursery Areas

The maps included from a study of existing oyster bottoms in Lavaca Bay by T. Van de Bogert in his paper, Oyster Bottoms of Lavaca Bay, in 1913 show the historic trend of the bay. One can see by comparison of the number of reefs existing in 1913 with the number existing at the present time, the reefs in Lavaca Bay have decreased to less than one-third their size in 1913. Many of the reefs have disappeared completely, and some are almost entirely gone. The report of T. Van de Bogert discussed the fine oysters found and their great abundance. There are not enough oysters for commercial production at any of the reefs still existing.

Nursery areas included in the maps in Figures I and II are for the most part Diplanthera and Enteromorpha beds, and the bottom composition in all of these areas is mud and some scattered shell. Cox Bay, Kellers Bay, Chocolate Bay, and Powderhorn Lake are known nursery areas for juvenile trout, redbfish, flounder and sheepshead. Most of the work on this bottom survey was done at a time of the year when juvenile fish were not present, and a complete study of juvenile fish composition has not been attempted. Not much is known about the nursery areas found along the shorelines of Northwest Lavaca Bay or the Lavaca and Navidad Rivers, but juvenile white shrimp are very abundant in these areas at certain times of the year.

References: De Bogert, Van T., 1913. Oyster Bottoms of Lavaca Bay.

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