

## Identification\_Information:

## Citation:

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Originator: NOAA Fisheries Service

Publication\_Date: 20060731

## Title:

Utilization of marsh and associated habitats along a salinity gradient in Galveston Bay, Texas: April, July and November 1987.

## Description:

## Abstract:

Between April 1987 and November 1987, a total of 144 samples were collected in marsh, nonvegetated, and submerged aquatic vegetated areas of the upper, middle, and lower portions of Galveston Bay, Texas. Findings reveal how marshes of the Galveston Bay system are utilized by consumers.

## Purpose:

Identify and describe the relationship between fishery productivity and the coastal environment. Specifically, to examine nursery utilization of estuarine marshes by fishery species in relation to differences in salinity among sites.

## Time\_Period\_of\_Content:

## Time\_Period\_Information:

## Range\_of\_Dates/Times:

Beginning\_Date: 19870420

Ending\_Date: 19871105

Currentness\_Reference: ground condition

## Status:

Progress: complete

Maintenance\_and\_Update\_Frequency: As needed

## Spatial\_Domain:

## Bounding\_Coordinates:

West\_Bounding\_Coordinate: -95.167

East\_Bounding\_Coordinate: -94.700

North\_Bounding\_Coordinate: 29.826

South\_Bounding\_Coordinate: 29.200

## Keywords:

## Theme:

Theme\_Keyword\_Thesaurus: None

Theme\_Keyword: distribution

Theme\_Keyword: abundance

Theme\_Keyword: predator

Theme\_Keyword: prey

Theme\_Keyword: estuarine dependent

Theme\_Keyword: 1.8-m cylindrical drop sampler

Theme\_Keyword: submerged aquatic vegetation

Theme\_Keyword: estuaries

Theme\_Keyword: brown shrimp

Theme\_Keyword: white shrimp  
Theme\_Keyword: pink shrimp  
Theme\_Keyword: Farfantepenaeus aztecus  
Theme\_Keyword: Litopenaeus setiferus  
Theme\_Keyword: Farfantepenaeus duorarum  
Theme\_Keyword: macrofauna  
Theme\_Keyword: nekton  
Theme\_Keyword: salt marsh  
Theme\_Keyword: fish  
Theme\_Keyword: shrimp  
Theme\_Keyword: crabs  
Theme\_Keyword: invertebrates

Place:

Place\_Keyword\_Thesaurus: None  
Place\_Keyword: Smith Point  
Place\_Keyword: Moses Lake  
Place\_Keyword: Jamaica Beach  
Place\_Keyword: Christmas Bay  
Place\_Keyword: Trinity River delta  
Place\_Keyword: Big Pasture Bayou  
Place\_Keyword: Cow Pasture Bayou  
Place\_Keyword: Galveston Bay  
Place\_Keyword: Texas  
Place\_Keyword: Gulf of Mexico

Access\_Constraints:

Use\_Constraints:

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Point\_of\_Contact:

Contact\_Information:

Contact\_Organization\_Primary:

Contact\_Organization:

NOAA Fisheries Service, formerly National  
Marine Fisheries Service, Fishery Ecology Branch.

Contact\_Person: Dr. Jim Ditty

Contact\_Address:

Address\_Type: mailing and physical

Address: Galveston Laboratory, 4700 Avenue U

City: Galveston

State\_or\_Province: Texas

Postal\_Code: 77551-5997

Country: Unites States of America

Contact\_Voice\_Telephone: 409-766-3500

Data\_Quality\_Information:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

After proper identification and enumeration of biological organisms, data were entered into spreadsheets and checked against the raw data sheet to avoid entry errors.

Logical\_Consistency\_Report:

Completeness\_Report:

Lineage:

Process\_Step:

Process\_Description:

Sampling Gear Description:

The 1.8-m cylindrical diameter drop trap was a fiberglass enclosure with a galvanized metal skirt along the bottom.

Drop traps enclosed a 2.6-m<sup>2</sup> area. Traps were deployed from a boat via a front-mounted boom.

Process\_Date: unknown

Process\_Step:

Process\_Description:

Measuring Environmental Variables:

Environmental data were collected immediately after gear deployment and before collection of animals. Water temperature, salinity, and D.O. data were collected within the sampler and a water sample was returned to the laboratory for turbidity analysis. Minimum and maximum water depth was taken with a meter stick and recorded to the nearest centimeter. Field sheets were checked to ensure all required environmental data were recorded correctly.

Process\_Date: unknown

Process\_Step:

Process\_Description:

Sampling of Nekton and Associated Plants:

The engine was turned off once the boat approached the sampling site to minimize site disturbance prior to sampling.

The boat drifted or was slowly guided to the sampling site by pushing from the stern. One person in the boat released the trap from the bow. Immediately after drop sampler deployment, field personnel pushed the sampler approximately 15-cm into the sediment to obtain a proper seal along the bottom of the trap to prevent escape of organisms and trap blow-out. All emergent vascular plants enclosed in the sampler were clipped at ground level to assist in animal retrieval and returned to the laboratory for processing.

Process\_Date: unknown

Process\_Step:

Process\_Description:

Removal of Animals from Drop Traps:

After the drop trap was pushed into the substrate, dip nets were used to sweep the bottom of the trap and remove the nekton.

Enclosed water filtered through a 1-mm mesh plankton net.

As the water level dropped, the sampler was continually swept with dip nets because the efficiency of animal capture increases with reduced water depth. Once drained, the sediment was visually and manually inspected for animals remaining on or burrowed into the substrate. Animals taken in dip nets or found during substrate inspection were added to the drop trap catch. Animals and other material (i.e., vegetation, macro-algae, shell hash, and detritus) pumped into the cod end of the plankton net were rinsed and the catch bag was detached. Samples were placed in a 1-mm mesh bag, labeled, preserved, and returned to the laboratory for processing.

Process\_Date: unknown

Process\_Step:

Process\_Description:

Initial Processing of Field Data and Samples:

After returning from the field, samples were recorded in the laboratory log book. The log book served as a sample inventory and verification of sample arrival and condition.

Turbidity samples were analyzed in the lab and the information was transferred to the field data sheets. Field data sheets were entered into an electronic database or database manager.

Process\_Date: unknown

Process\_Step:

Process\_Description:

**SPECIES IDENTIFICATION AND MEASUREMENT:**

Specimens were identified and the species name recorded on the appropriate identification sheet. In fish, total length (TL) was the distance from the snout to the tip of the longest caudal fin ray. Fish were measured after being placed flat on their side with the mouth closed. In shrimp, TL was measured from the tip of the rostrum to the tip of telson. If the rostrum was broken, TL was not measured. Carapace width (CW) of crabs was measured across the widest part of the carapace (from tip to tip of the lateral spines if present). If lateral spines were broken, CW was not measured. Shrimp were measured to the nearest millimeter total length (TL). Non-penaeids were measured and assigned to 5-mm TL size categories. Fish were measured and recorded in 10-mm TL size categories.

Process\_Date: unknown

Process\_Step:

Process\_Description:

Preservation and Storage of Fish and Invertebrates:

After sorting and identification, organisms were preserved in 70 percent ETOH (i.e., mixture of 7.4 parts of 95 percent ETOH and 2.6 parts of water) for long-term storage and usually disposed of after 10 years.

Process\_Date: unknown

Process\_Step:

Process\_Description:

Organism Data Entry and Validation:

Laboratory and field data were entered into the computer using a database manager. A text file was created that described these data and any abbreviated variables. Data were printed out and checked against ID sheets to ensure all information was correct. Data corrections were made at this time. Hard copies of the file were given to the PI and stored in the project folder along with the original field and laboratory data sheets. A code was assigned to each species using the Fishery Ecology Branch revised species code list. Species not found on the code list were assigned a new code, which was also added to the master code list.

Process\_Date: unknown

Metadata\_Reference\_Information:

Metadata\_Date: 20060731

Metadata\_Contact:

Contact\_Information:

Contact\_Organization\_Primary:

Contact\_Organization:

NOAA Fisheries Service, National Marine Fisheries  
Service, Fishery Ecology Branch, Galveston, Texas

Contact\_Person: Dr. Jim Ditty

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Metadata\_Standard\_Name: FGDC Content Standard for Digital Geospatial Metadata

Metadata\_Standard\_Version: FGDC-STD-001.1-1999