

Identification\_Information:

Citation:

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Originator: NOAA Fisheries Service

Publication\_Date: 20060703

Title:

Use of natural and created *Spartina alterniflora* salt marshes by fishery species and other aquatic fauna in Galveston Bay, Texas: September 1990 and May 1991.

Description:

Abstract:

Compared densities of nekton and infauna among 5 natural and 10 created salt marsh sites to test whether these marsh types were functionally equivalent. Created marshes ranged from 3-yrs to 15-yrs old. Natural and created marshes did not differ in species richness. Marsh elevation and tidal flooding are a key characteristic affecting use by nekton and should be considered in marsh construction projects.

Purpose:

To compare densities of nekton and infauna among 5 natural and 10 created salt marsh sites to test whether these marsh types were functionally equivalent.

Time\_Period\_of\_Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: 19900924

Ending\_Date: 19910517

Currentness\_Reference: ground condition

Status:

Progress: complete

Maintenance\_and\_Update\_Frequency: As needed

Spatial\_Domain:

Bounding\_Coordinates:

North\_Bounding\_Coordinate: 29.55389

South\_Bounding\_Coordinate: 29.17722

West\_Bounding\_Coordinate: -94.11417

East\_Bounding\_Coordinate: -94.48306

Keywords:

Theme:

Theme\_Keyword\_Thesaurus:

Theme\_Keyword: distribution

Theme\_Keyword: abundance

Theme\_Keyword: prey

Theme\_Keyword: restoration  
Theme\_Keyword: 1.8 m diameter cylindrical drop sampler  
Theme\_Keyword: dredge disposal  
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: nekton  
Theme\_Keyword: salt marsh  
Theme\_Keyword: fish  
Theme\_Keyword: habitat value  
Theme\_Keyword: crabs  
Theme\_Keyword: invertebrates

Place:

Place\_Keyword\_Thesaurus: Galveston Bay  
Place\_Keyword: Alligator Point  
Place\_Keyword: Anahuac Refuge  
Place\_Keyword: Bolivar Island  
Place\_Keyword: Frozen Point  
Place\_Keyword: Halls Lake  
Place\_Keyword: Lake Como  
Place\_Keyword: Little Pelican Island  
Place\_Keyword: Palm Beach  
Place\_Keyword: Pelican Spit  
Place\_Keyword: Peppergrove Cove  
Place\_Keyword: Texas  
Place\_Keyword: Gulf of Mexico

Access\_Constraints:

Use\_Constraints:

Data set is not for use in litigation. While efforts have been made to ensure that these data are accurate and reliable, NOAA cannot assume liability for any damages or misrepresentations caused by data inaccuracies, or as a result of these data being used for a particular purpose. NOAA makes no warranty, expressed or implied, nor does distribution constitute any such warranty.

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:

Data were entered into spreadsheets and checked against the raw data sheet to minimize entry errors.

Logical\_Consistency\_Report:

Completeness\_Report:

Lineage:

Process\_Step:

Process\_Description:

Sampling Gear Description:

The 1.8 m diameter cylindrical drop trap was a fiberglass enclosure with a galvanized metal skirt along the bottom. The drop trap enclosed an area of 2.6 m<sup>2</sup>. Traps were deployed from a front-mounted boom on a boat and pushed into the substrate.

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 lab for turbidity analysis. Minimum and maximum water depth was taken and recorded to the nearest centimeter.

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 or a trap blow-out.

Process\_Date: unknown

Process\_Step:

Process\_Description:

Removal of Animals:

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 was pumped from the trap and filtered through a 1.0 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 1.0 mm mesh bag, labeled, preserved, and returned to the laboratory for processing.

Process\_Date: unknown

Process\_Step:

Process\_Description:

Care of Nekton Samples in the Field:

Labels were placed inside, and attached to the outside of each 1.0 mm mesh sample bag. Samples were stored in 3 or 5 gallon buckets containing 10 percent formalin.

Ten percent formalin was made

by mixing one part full-strength formaldehyde with nine parts water. If animals were too large to fit into the sample bag, the specimen was identified to the lowest taxon, measured, recorded, and released.

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. Turbidity samples were analyzed upon return to the lab and the information was transferred to the field data sheets.

Field data sheets were entered into an electronic database or a database manager. Copies of the original field data sheets were provided to the Primary Investigator (PI).

Entered data were checked and verified against field sheets.

Process\_Date: unknown

Process\_Step:

Process\_Description:

**SPECIES IDENTIFICATION and MEASUREMENT:**

Fish were measured and recorded in 10 mm TL and non-penaeids in 5 mm TL size intervals.

Penaeid shrimp were measured to the nearest 1.0 mm TL.

Each fish was measured after being placed flat on its side with its mouth closed. TL in fish was the distance from the snout to the tip of the longest caudal fin ray. TL in shrimp 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. Hermit crabs were not measured.

Process\_Date: unknown

Process\_Step:

Process\_Description:

Organism Data Entry and Validation:

Laboratory and field data were entered into the computer using a spreadsheet or database manager. A text file was created that described these data and any abbreviated variables. These data were printed out and checked against ID sheets and data corrections were made at this time.

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 added to the master code file.

Process\_Date: unknown

Metadata\_Reference\_Information:

Metadata\_Date: 20060703

Metadata\_Contact:

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Contact\_Organization\_Primary:

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NOAA Fisheries Service,  
Fishery Ecology Branch, Galveston, Texas

Contact\_Person: Dr. Jim Ditty

Contact\_Address:

Address\_Type: mailing and physical

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Country: Unites States of America

Contact\_Voice\_Telephone: 409-766-3500

Metadata\_Standard\_Name:

FGDC Content Standard for Digital Geospatial  
Metadata

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