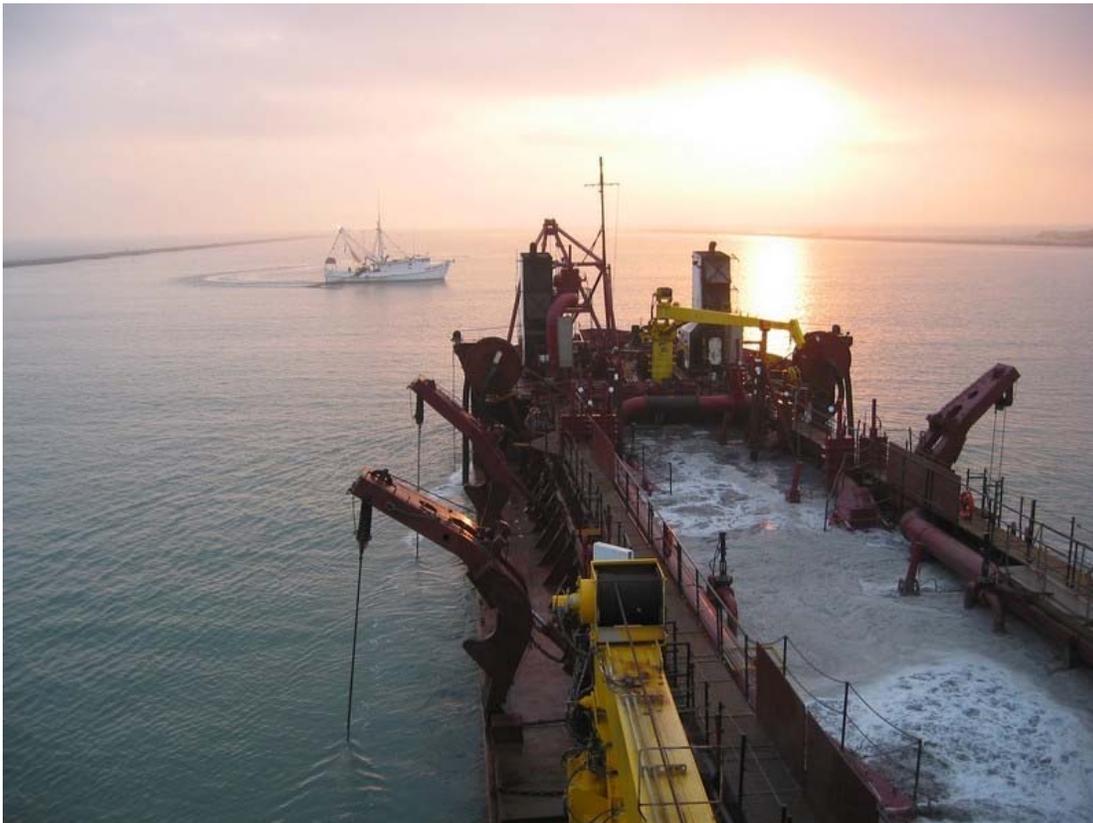


**Marine Endangered Species Monitoring Program  
Hopper Dredging Project Summary  
Brazos Island Harbor, Texas  
W912HY-07-C-0012**

**US Army Corps of Engineers - Galveston District  
Great Lakes Dock and Dredge Co.  
20Feb-15Mar 2007**



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## **ABSTRACT**

*A twenty-four-hour-per-day endangered species monitoring program was conducted onboard the hopper dredge Padre Island from 20Feb-15Mar 2007. Endangered and threatened species targeted include Loggerhead (*Caretta caretta*), Kemp's Ridley (*Lepidochelys kempii*), Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricata*, and Leatherback (*Dermochelys coriacea*) sea turtles. Observer monitoring was provided by East Coast Observers, inc. (ECO, inc.) and was at 100% coverage using two observers approved by the National Marine Fisheries Service (NMFS). This project was contracted through Great Lakes Dock and Dredge Company (GLDD).*

## **INTRODUCTION**

Great Lakes Dock and Dredge Company contracted with East Coast Observers, Inc. for twenty four hour endangered species monitoring for the emergency dredging of the Jetty Channel of the Brazos Island Harbor (BIH) Project onboard the hopper dredge Padre Island. Pursuant to agreements with NMFS, two certified observers were required to work onboard the dredge in 12 hour shifts allowing coverage 24 hours per day.

Dredging of an estimated 500,000 cubic yards of shoal material was required which began on 20Feb2007 and was completed on 15Mar2007 for a total of twenty-four days of dredging. A total of 171 loads were completed during this time frame, with six sea turtle takes occurring during the dredging process. Twenty-four hour Sea Turtle Relocation Trawling was also provided by ECO, Inc.

## **SCOPE OF WORK**

East Coast Observers, Inc. was subcontracted by GLDD to conduct onboard endangered species monitoring. ECO, Inc. was to provide necessary trained personnel and relevant equipment to inspect, clean and monitor inflow screening located onboard the Dredge Padre Island. Observers were also required to monitor the dragheads and draghead deflectors each time they were brought onboard for cleaning and maintenance, and complete load data sheets for each subsequent load. Any death or injury to endangered species was to be identified, measured, biopsied, photographed and logged. Proper disposal of said species was to be performed by the observer and dredge personnel. Load sheets were to be completed for each individual load, and included pertinent information to each load. Load start and stop times, condition of screening and draghead deflector, type of material dredged, weather and sea conditions, screen contents and species bycatch. Any take information was to be noted on the load data sheet, and then detailed in a separate incident report. Daily and weekly summary forms were to be completed and given to dredge and USACE personnel. Bridge watches were assigned to the observer when not occupied with screen and draghead inspection duties.

## RESULTS

**Project Date: 20 Feb – 20 Mar 2007**

**Project Length: 24 days**

**Coverage Level: 100% onboard dredge**

**Total Number of Takes: 6 (5, *C.mydas*, 1 *C.caretta*)**

**Number of Loads: 171**

**Water Temperature: Surface 61-69°F**

**Air Temperature: 53-85°F**

## DISCUSSION

The dredge Padre Island began dredging at 0028hrs on 20 February 2007 and completed dredging on 20 March 2007. During the dredging process there were six (6) incidental turtle takes on board the Padre Island (Appendix A).

Take number one (1), a *C.mydas*, occurred on 22Feb at 2130hrs.

Take number two (2), a *C.mydas*, occurred on 01Mar at 0600hrs.

Take number three (3), a *C.mydas*, occurred on 06Mar at 1415hrs.

Take number four (4), a *C.mydas*, occurred on 12Mar at 1305hrs.

Take number five (5), a *C.caretta*, occurred on 14Mar at 2300hrs.

Take number six (6), a *C.mydas*, occurred on 15Feb at 0830hrs.

The final disposition for all sea turtle takes was the Center for Coastal Studies on South Padre Island, Texas where the carcasses were to be kept for further study. Before transferring the carcasses they were visibly scanned for iconel tags as well as scanned for PIT tags, of which neither occurred.

Sea Turtle Relocation Trawling successfully relocated sixty-five (65) threatened and endangered sea turtles during the projects duration.

**Table 1. By-catch for project duration**

<b>By-catch</b>
Blue Crabs
Gafftopsail Catfish
Hardhead Catfish
Lesser Electric Ray
Rounded Skate
Smooth Butterfly Rays
Spider Crabs
Unidentified Eel
Unidentified Flounder
Unidentified Snapper
Unidentified Stingrays

**Appendix A. Turtle Take photographs**



**Take 1 - dorsal**



**Take 1 – ventral**



**Take 2 – dorsal**



**Take 2 – ventral**



**Take 3 - dorsal**



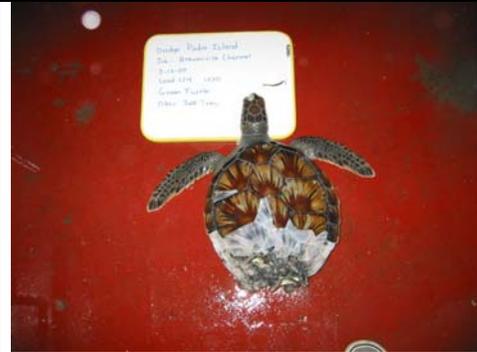
**Take 3 - ventral**



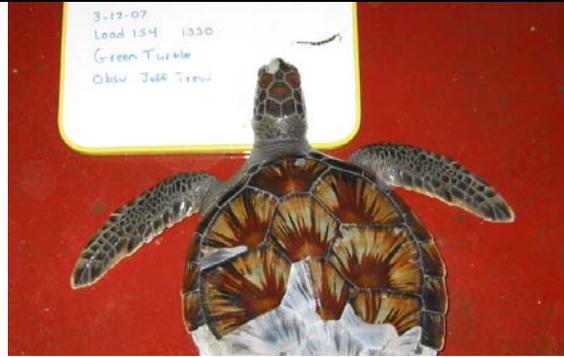
**Take 4 – ventral**



**Take 4 - dorsal**



**Take 4 - dorsal**



**Take 4 - dorsal**



**Take 5 - flipper**



**Take 5 - ventral**



**Take 6 - flipper**



**Take 6 - head**