

**Marine Endangered Species Monitoring Program  
Relocation Trawling Summary  
Freeport, Texas  
W912HY-07-C-0028  
US Army Corps of Engineers - Galveston District  
Great Lakes Dock and Dredge Co.  
06Nov – 04Dec 2007**



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## **ABSTRACT**

*Twenty-four-hour-per-day relocation trawling was conducted onboard the trawling vessel F/V Miss Adrienne working for East Coast Observers, Inc. for endangered and threatened sea turtles during maintenance dredging on the Freeport Harbor Entrance and Jetty Channel of Freeport, Texas. Species targeted included Loggerhead (Caretta caretta), Kemp's Ridley (Lepidochelys kempii), Green (Chelonia mydas), Hawksbill (Eretmochelys imbricata), and Leatherback (Dermochelys coriacea) sea turtles. Coverage was provided by one (1) relocation trawler for the dredge Liberty Island. This summary focuses on statistics and scope of work conducted onboard the F/V Miss Adrienne.*

## **INTRODUCTION**

On 05 November 2007 the option to initiate Sea Turtle Relocation Trawling was granted based on three separate incidents involving endangered sea turtles on the Freeport project. Relocation trawling was initiated by the ACOE and Great Lakes Dock and Dredging Co. (GLDD), and was conducted by East Coast Observers, Inc. (ECO) in accordance with the requirements of the US Army Corps of Engineers (USACE) permit authorizing the hopper dredging. Trawling was conducted 24 hours a day during all dredging activities barring abeyance of operations regarding any mechanical failures, routine maintenance, taking on fuel, potable water, supplies, heightened sea states due to foul weather, or fog. Project completion occurred on 04 December 2007.

## **SCOPE OF WORK**

This relocation-trawling project in Freeport, Texas was contracted by Great Lakes Dock and Dredging Co. ECO, Inc provided relocation-trawling services and was responsible for providing and maintaining working nets, equipment, trained personnel, and a trawl supervisor approved through The National Marine Fisheries Service (NMFS). Equipment and operational standards were maintained in excellent order, and open communication was maintained at all times between all parties involved to achieve the best results possible. All parties agreed on trawling speed, length of tow, number of drags in segment and length of dredging / trawling during the segment.

Trawling was conducted with repetitive tows not to exceed thirty (40) minutes, and pertinent data was recorded by the trawling supervisor for each tow on standardized log sheets. Data included beginning and ending tow times, depth of water, average trawl speed, latitude and longitude at start and end of tow (obtained by GPS equipment aboard trawler), water temperature, air temperature and various sea conditions (wave height, wind speed, weather conditions), biological species by-catch, number of turtles captured (if applicable) on each tow and in which net (port or stbd.), and any relevant comments or subsequent incidents. A daily trawl summary was electronically submitted by the trawl supervisor to USACE, Great Lakes Dock and Dredging and any other required personnel which included any turtles relocated, by-catch, weather conditions and any other pertinent information for the day.

# RESULTS

Table 1: Cumulative project totals.

<b>Project Date: 06 Nov 2007 – 04 Dec 2006 (trawling)</b>
<b>Project Length: 29 days (trawling) 54 days (dredging)</b>
<b>Total Number of Dredge Takes: 3 dredge takes (1 <i>C. mydas</i>, 2 <i>L. kempii</i>)</b>
<b>Total Tows: 430</b>
<b>Number of Turtles Collected and Released: 1 Loggerhead, caught injured (prop wounds), died</b>
<b>Species: Loggerhead, <i>Caretta caretta</i></b>
<b>Capture Rate: (# turtles / # tows) = 0.0% (cumulative percentage)</b>
<b>Number of Recaptures: 0</b>
<b>Number of Turtles Transported to Rehabilitation: 0</b>
<b>Air Temperature: 38° - 81° Fahrenheit</b>
<b>Water Temperature: 75° - 83° Fahrenheit</b>

## DISCUSSION

All operations and methods employed by ECO, Inc. proved to be an overall success throughout project duration. Open communication was maintained between mates operating dredge and captains and/or trawl supervisor(s) onboard trawling vessels. There were occasions where trawler and/or the dredge suspended operations due to unsafe sea conditions and mechanical difficulties.

On 21 Nov the trawler suspended trawling and went on anchor for a storm front moving through the area that resulted in high seas. On 23Nov ~ 0930hrs due to the strong winds (40+kts) it was decided it would be safer for the trawler to head inshore. While pulling the anchor up, a wave crashed over the wheelhouse of the trawler and broke the wheelhouse windows resulting in a flooded wheelhouse. No injuries were reported but all electronic equipment was damaged. As a result of the water damage, all hard copies of data were destroyed, the only copies of data available from 06 Nov – 23 Nov are in the electronic daily trawl summaries that were submitted to GLDD and ACoE. Hardcopies of data from 24 Nov – 04 Dec are available upon request.

There were no turtles relocated during the duration of the project. However, on 14 Nov at 1330hrs a portion of a fresh loggerhead carapace was found in the starboard net. At 1725hrs the remainder of the turtle was retrieved also in the starboard bag and amazingly, the turtle was alive but in great distress. The Galveston Stranding Center was contacted and it was determined the turtle should remain onboard and be treated and monitored as there was little that could be done at the time. The turtle expired at 2035hrs, there was no evidence to indicate that this death was project related (see attached photos). It was determined to be a prop injury and therefore considered a “stranding” and a proper stranding report was submitted to NMFS.

**Table 1** By-catch list for duration of project

Species
Atlantic Cutlassfish
Atlantic Silversides
Black Drum
Blacktip Shark
Blue Crab
Burrfish
Butterfish
Clearnose Skate
Cow nose ray
Croaker
Flounder
Gafftopsail Catfish
Nurse Shark
Red Drum
Southern Stingray
Spider Crab
Squid

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**Appendix A. Recovered turtle pictures.**



**First section recovered (dorsal)**



**First section recovered (ventral)**



**Turtle recovered (dorsal 1)**



**Turtle recovered (site of trauma)**



**Turtle recovered (dorsal 2)**