

**Marine Endangered Species Monitoring Program
Hopper Dredging Project Summary
Freeport Harbor, Texas
W912HY-07-C-0028**

**US Army Corps of Engineers - Galveston District
Great Lakes Dock and Dredge Co.
12Oct-04Dec 2007**



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ABSTRACT

*A twenty-four-hour-per-day endangered species monitoring program was conducted onboard the hopper dredge Liberty Island from 12Oct – 04Dec 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 maintenance dredging of the Freeport Harbor Entrance and Jetty Channel Project onboard the hopper dredge Liberty 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 began on 12Oct2007 and was completed on 04Dec2007 for a total of fifty-four days of dredging. A total of 465 loads were completed during this time frame, with three separate incidents involving endangered sea turtles occurring in a 72hr period. Immediately following the third incident, twenty-four hour Sea Turtle Relocation Trawling was initiated, which 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 Liberty 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 remains were 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: 12 Oct – 04 Dec 2007

Project Length: 54 days

Coverage Level: 100% onboard dredge

Total Number of Takes: 3 (1, *C.mydas*, 2 *L.kempii*)

Number of Loads: 465

Water Temperature: Surface 57-83°F

Air Temperature: 38-81°F

DISCUSSION

The dredge Liberty Island began dredging just after midnight on 12 October 2007 and completed dredging operations on 04 December 2007. During the dredging process there were three (3) incidental turtle takes on board the Liberty Island (Appendix A).

Take number one (1), a *C. mydas*, occurred on 02Nov at 0820hrs.

Take number two (2), a *L. kempii*, occurred on 03Nov at 2022hrs.

Take number three (3), a *L. kempii*, occurred on 04Nov at 0100hrs.

All takes were inspected for any tags and found to have none. Biopsy samples were also taken from each take and will be sent to NMFS for analysis.

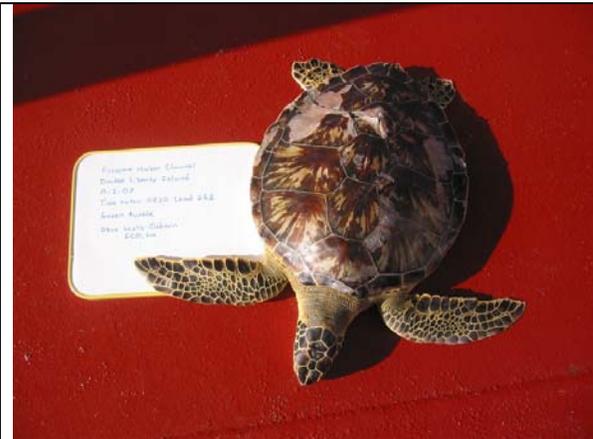
Table 1. By-catch for project duration

Species	Number
Atlantic Croaker	40
Atlantic Cutlassfish	6
Atlantic Sharpnose shark	1
Atlantic Stingray	19
Black Drum	7
Blue Crab	51
Clearence Skate	2
Conger Eel	1
Gafftopsail catfish	14
Hardhead Catfish	25
Offshore Tonguefish	1
Red Drum	4
Roundel Skate	3
Smooth Butterfly Ray	1
Southern Flounder	23
Southern Stingray	6
Spider Crab	1
Spotted-spoon nose eel	1
Star Drum	6
Unid. Eel	1
Unid. Fish	5
Unid. Ray	2

Table 2. Sightings for project duration

Species	Number of sightings	Number of individuals
Bottlenose dolphin	213	640

Appendix A. Turtle Take photographs



Take 1 - dorsal



Take 1 - ventral



Take 2 - dorsal



Take 2 - close up (dorsal)

