

**Marine Endangered Species Monitoring Program  
Hopper Dredging Project Summary  
York Spit Channel, VA.  
Channel Maintenance**



**US Army Corps of Engineers  
Dredge McFarland  
18 June – 05 August 2007**

**Submitted by:  
Jennifer Kravassi  
*East Coast Observers, Inc.*  
PO Box 6192  
Norfolk, VA. 23508  
(757) 227-5779**

## **ABSTRACT**

*A twenty-four-hour-per-day endangered species monitoring program was conducted onboard the hopper dredge McFarland from 18 June 2007 through 05 August 2007 during routine channel maintenance dredging in the York Spit Channel. Endangered and threatened species targeted include the Loggerhead (*Caretta caretta*), Kemp's Ridley (*Lepidochelys kempii*), Green (*Chelonia mydas*), and Leatherback (*Dermochelys coriacea*) sea turtles. Observer monitoring was provided by East Coast Observers, inc. (ECO, inc.) and was at 100%, using two observers approved by the National Marine Fisheries Service (NMFS). This project was awarded by the US Army Corps of Engineers (USACE – Baltimore District), and also contracted through same.*

## **INTRODUCTION**

Endangered species observers conducted twenty four hour monitoring aboard the hopper dredge McFarland for the entire channel deepening project at York Spit Cannel, VA. 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. During the duration of this project, one take was recorded on 05 August 2007. A Kemp's Ridley sea turtle was taken in the port trap and subsequently perished from it's injuries. Dredging was suspended immediately following this incident.

## **SCOPE OF WORK**

East Coast Observers, Inc. was subcontracted by USACE, Philadelphia District 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 McFarland. Observers were also required to monitor the draghead and draghead deflector 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, photographed and logged. Load sheets were to be completed for each individual load, and included pertinent information to each load. Load time start, load time stop, condition of screening and draghead deflector, type of dredged material, 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 observers when not occupied with screen and draghead inspection duties.

## **RESULTS**

Dredging commenced on 18 June 2007 and ran through July 2<sup>nd</sup>. Dredging resumed again on 13 July and continued through 05 August 2007. One take occurred on 05 August 2007, during load #274 involving a *Lepidochelys kempii* (Kemp's Ridley). There were

also other non-threatened species recorded as by-catch, and a list has been attached. All reports regarding the take have also been attached below.

**Project Date: 18 June - 02 July 07 and 13 July– 05 August 07**

**Project Length: 39 days**

**Coverage Level: 100% onboard dredge**

**Total Number of Takes: 1**

**Number of Loads: 274**

**Water Temperature: 60 - 68 degrees Fahrenheit**

## **DISCUSSION**

One take occurred during load # 274 on 05 August 2007. A Kemp's Ridley was found during observer inspection after the completion of this load. The Kemp's was a juvenile, and was in the port side screening basket. Lacerations to its' head and carapace, along with bruising to flippers was recorded by observers aboard dredge. A full report was taken, and the carcass was later transferred to the Virginia Aquarium Stranding Center for necropsy and tissue sampling. Proper screening was in place at 100% and fully operational. All procedures were followed correctly during dredging.

## **BY-CATCH LISTING**

*Astroscopus y-graecum*

*Busycon contrarium*

*Callinectes sapidus*

*Limulus polyphemus*

*Mola mola*

*Pagurus pollicaris*

*Paralichthys dentatus*

*Raja eglantera*

*Raja ocellata*

*Sphoeroides maculatus*

*Unidentified caudal fin from shark*

*Various marine vegetation*

*Southern Stargazer Fish*

*Lightning Whelk (and eggs)*

*Blue Crab*

*Horseshoe Crab*

*Sunfish*

*Flat Clawed Hermit Crab*

*Summer Flounder*

*Clear Nosed Skate (and eggs)*

*Winter Skate (and eggs)*

*Northern Puffer*

## **SIGHTINGS DURING BRIDGE WATCH**

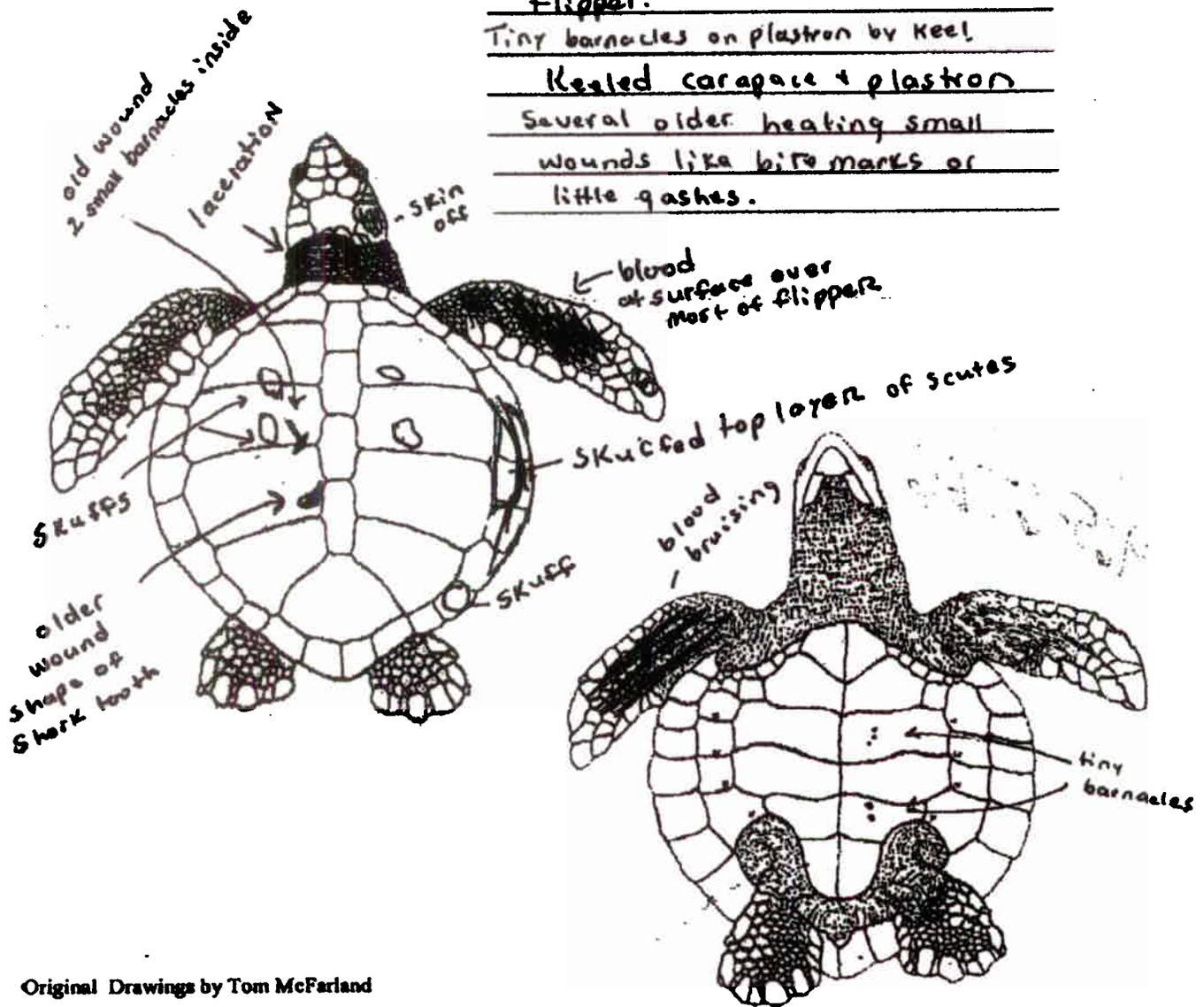
*Caretta caretta*  
*Tursiops truncatus*

*Loggerhead Turtle*  
*Bottlenose Dolphin*

# Kemp's Ridley (*Lepidochelys kempii*)

Shade areas of turtle that are missing; sketch cracks and lacerations

Comments: Young turtle in excellent condition. Main injury is laceration back of head. Few scuffs to carapace. Blood bruising on right fore flipper. Tiny barnacles on plastron by keel. Keeted carapace + plastron. Several older healing small wounds like bite marks or little gashes.



Original Drawings by Tom McFarland  
Drawings Modified by Andrew Jackson

ENDANGERED SPECIES OBSERVER PROGRAM  
SEA TURTLE INCIDENTAL TAKE DATA FORM

JSACE DISTRICT: Baltimore  
PROJECT NAME: York Spit Channel Mince DREDGE NAME: M. Farland

DATE: 8-5-07 Time turtle take recovered (24hr): 0945 Turtle take # for project: 1

LOAD #: 274 Times (24hrs): Start 0644 End 0806 Load start date 8-5-07

SPECIES OF TURTLE TAKE: Unknown Loggerhead Green Kenn's ridley Hawksbill Leatherback

Channel location of take: Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

Other location / Channel description (e.g. buoy markers, landmarks):  
York Spit Channel / Channel Markers 32-36

Location take recovered on dredge: Port trap

Number of dragheads in use at time of incident: 2 Draghead deflector? YES  NO

Condition of deflector: Good Condition of screening: Good

Beaufort Sea State: 0 1 2 3 4 5 6 7 8 9 10 11 12

AIR TEMP: 30 °C/F (°F = 9/5 (°C) + 32; °C = 5/9 (°F - 32))

WATER TEMP: Surface 22 °C/F Column (mid-depth) \_\_\_\_\_ °C/F Bottom \_\_\_\_\_ °C/F

Condition of specimen: Very good

0 = Alive; 1 = Fresh dead; 2 = Moderately decomposed; 3 = Severely decomposed; 4 = skeleton/old bone; 5 = undetermined

Sex: M F UN How determined? \_\_\_\_\_ Age class: Juv  Sub-Adult \_\_\_\_\_ Adult \_\_\_\_\_ UN \_\_\_\_\_

Measurements: Circle units

Plastron Length: 19 cm/in Head Width: 5 cm/in

Carapace Straight Length: \_\_\_\_\_ cm/in Carapace Straight Width: 23 cm/in

Carapace Curved Length: 24.5 cm/in Carapace Curved Width: 26.5 cm/in

Measurement/description of part: Sex flipper 15.5 cm length

Genetic samples taken: YES  NO \_\_\_\_\_ Photos taken: YES  NO \_\_\_\_\_

Turtle tagged?: YES \_\_\_\_\_ NO  Tag type: \_\_\_\_\_ Tag #: \_\_\_\_\_ Tag date: \_\_\_\_\_

Final disposition of specimen: Virginia Aquarium Stranding Program

Comments: \* Samples can be taken by stranding program

Load data form attached: YES  NO \_\_\_\_\_ Dredge load log attached: YES \_\_\_\_\_ NO

Observer's name leg: Osborn & C. Jourdant

Use diagrams below to illustrate specimen/part recovered:

