ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 5 / 27 / 94 Loads: 80-81

Area Worked: stations 36+00 → 98+00 (between buoys 5 & 7 - Chesapeake Channel)

Conditions: clear, winds NNW 15-20 Kts, seas 3'-5', temp. 70°F

Are there incidents involving endangered or protected species? Yes____ No X

Comments: Observer aboard will be working a schedule of six hours on, six hours off, for a total of twelve hours per day. Observer will be working from 0600 to 1200 hrs and from 1800 to 2400 hrs.

The dredge Dodge Island has been equipped with special discharge boxes so that all of the inflow may be screened. These boxes have doors that can be operated by the observer. Three of the four boxes have been equipped with these doors as of today. The one box that does not yet have the door operating, was not used.

The skimmer baskets have been screened with a 4" x 4" mesh and are in good condition. Though not required by the job specs, the aft one third of the hopper has lateral overflow screening installed.

The mate and draytender that were on watch around 1700 hrs. reported seeing what they believed was a dead sea turtle floating in the water. They reported that the

(cont on back)

Bridge Watch Summary

Species	No. of animals	Comments
		No sightings of any marine mammals or live sea turtles.

Observer(s) Name: Lisa Conner

turtle was not whole. The turtle was sighted near the channel on the return trip from the disposal area.

The biological sample today consisted mostly of horseshoe crabs, barndoor skates and whelks.

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 5 / 28 / 94 Loads: 83 - 85

Area Worked: stations 36+00 - 98+00 (between buoys 5 & 7 - Chesapeake Channe

Conditions: Clear, winds SW 5-10 Kts, seas 1'-3', temp. 72°F, bay H2O temp. 6

Are there incidents involving endangered or protected species? Yes X No ____

Comments: Following load #83, around 0900 hrs, observer found a piece of sea turtle in the starboard draghead. The sample was identified as sea turtle by the small patches of skin that were still attached. The sample had two sections containing cartilage and bone fragments. These sections were of the same size and broken cartilage was exposed in the same way, indicating that they might, at one time, have been symmetrical joints. However, the sample was so disfigured that it was impossible for the observer to make any absolute conclusions. Both the skin sections and the exposed cartilage appeared to be fresh. No other turtle parts were found.

The sample was double bagged and placed in the freezer. It was later taken ashore by NATCO personnel and is being kept frozen until it can be delivered to NMFS.

(continued)

Bridge Watch Summary

Species	No. of animals	Comments
		There were no sightings of any marine mammals or sea turtles from the bridge watch.

Observer(s) On Duty: Lisa Conger

Cont Daily Report 5/28/94 Dredge Dodge Island

Three of the four discharge boxes have now been equipped with hydraulic doors. The dredge is being loaded through these boxes only. Observer is able to operate the doors from on deck.

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/10/94 Loads: 135 - 138

Area Worked: Stations 42-99; near Red #6

Conditions: Hazy with light winds and sea state during AM/shifting to overcast skies; Beaufort 3; wind east 10-15 knots. Air: 70's. Water temperature: 72.

Are there incidents involving endangered or protected species? **No**

Comments:

Observer following work schedule of previous observers: six hours on, six hours off, working 0600 to 1200 hours and 1800 to 2400 hours, for a total of twelve hours per day.

Inflow is screened (four discharge boxes) 100%. Two skimmers are also screened. Boxes and skimmers are in good operating condition. Overflow lateral screening (not required) is also in place on the aft third of the hopper.

Dredge is working "clean-up" of this section of channel; each load requires many cuts to fill the hopper. Dredged material is heavy, fine, dark gray sand. Very little trash or debris accumulating in discharge boxes, but quite a bit of fauna. Today, discharge boxes and skimmers held: 1 flounder; ~20 skates; ~ 35 horseshoe crabs; 10 spider crabs; ~6 blue crabs; whelks (live & empty shells); 1 sea squirt;1 small unidentified fish; rocks. Dragheads were very clean, excepting a small amount of metal debris.

Bridge Watch Summary

Species	No. of Animals	Comments
None		

Observer(s) On Duty: P. Olson

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/11/94 Loads: 139 - 142

Area Worked: Stations 42-98; 72-99, Red side

Conditions: Overcast; Beau. 2 & Wind SE/NE 5-10 kts. increasing to Beau. 3 & Wind 15+ kts.; Air 70's; Water temp. 71.

Are there incidents involving endangered or protected species? **No**

Comments:

Inflow screening and dragheads continue to be free of clogging trash, debris, mud, or clay. Fauna sample remains heavy, including: 38 horseshoe crabs; 27 clearnose skates; 9 blue crabs; 8 spider crabs; 5 windowpane flounders; 1 spotted whiff flounder; whelk egg cases; ~120 live whelks. Also: rocks; small amount of wood; 18" ammunition shell.

Bridge Watch Summary

Species	No. of Animals	Comments
None		

Observer(s) On Duty: P. Olson

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/12/94 Loads: 144 - 146

Area Worked: Stations 72-98 & 72-150, Red side

Conditions: Overcast to clear; Beau. 1 to Beau. 3; Wind E <5 kts. to ESE 15 kts. Air: 70's. Water temperature: 69.

Are there incidents involving endangered or protected species? **No**

Comments:

Ship digging in new section: stations 72 - 150. Dredged material is fine, heavy, dark gray sand.

Inflow screening and dragheads remain clean of debris or muck, and fauna sample continues to be substantial. Retained in the discharge boxes and skimmers were: 18 horseshoe crabs; 21 clearnose skates; 9 spider crabs; 3 blue crabs; ~10 large live snails; ~75 live whelks; whelk egg cases; 1 hogchoker; 1 unid. flounder; 1 24" unid. fish; worms; rocks.

Bridge Watch Summary

Species	No. of Animals	Comments
Tursiops truncatus	8 - 12	In channel; possibly feeding

Observer(s) On Duty: P. Olson

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/13/94 Loads: 148

Area Worked: Stations 98 - 150

Conditions: Clear w/haze; Beau. 3; Wind E 15 kts. Air temp: 77. Water temp: 69.

Are there incidents involving endangered or protected species? **No**

Comments:

Fuel day - no dredging from 0400 to 1730. Overflow lateral screening (not required) was removed while ship was anchored for fueling. Inflow and skimmer screening is in good condition.

Found in screening today were: 15 horseshoe crabs; 11 clearnose skates; 3 windowpane flounders; 1 hogchoker; 4 blue crabs; 1 spider crab; ~75 live whelks; whelk egg cases; ~10 large live snails; rocks.

Bridge Watch Summary

Species	No. of Animals	Comments
Tursiops truncatus	4 - 6	Seen on way back from dump
Tursiops truncatus	4 - 6	Seen at dig site

Observer(s) On Duty: P. Olson

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/14/94 Loads: 150 - 153

Area Worked: Stations 98 - 150, between buoys #9 and #10

Conditions: Clear with haze; Beau. 1 - 3; Winds S <5 kts. in the AM, building to 10 -12 kts. Air temp: 70's & 80's. Water temp: 69.

Are there incidents involving endangered or protected species? **No**

Comments:

Loads continue to be clean, with substantial fauna take, including: 105 horseshoe crabs; 62 clearnose skates; 9 spider crabs; 4 blue crabs; 2 angel sharks; 3 windowpane flounder; 2 unid. flounder; 2' unid. fish; ~145 live whelks; whelk egg cases; ~35 live large snails; sea cucumber.

Unidentified sea turtle seen briefly at the water's surface. (Turtle dove quickly.) Sighted 50 meters off ship's port beam at the dig site.

Bridge Watch Summary

Species	No. of Animals	Comments
Unid. turtle	1	See above

Observer(s) On Duty: P. Olson

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ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/15/94 Loads: 154 - 157

Area Worked: Stations 98 - 150; between buoys #9 and #10

Conditions: Hazy; Beau. 1 - 2; Wind S/SE 1- 10 kts. Air temp: 80. Water temp: 69.

Are there incidents involving endangered or protected species? **Yes**

Comments:

Loggerhead turtle taken on Load #155. See attached.

Other fauna retained in boxes and skimmers included the usual sizable number of horseshoe crabs, clearnose skates, spider crabs, blue crabs, flounders, and live whelks.

Unidentified dead sea turtle seen floating at the surface, "right side up", 200 meters off the ship's port beam at the dig site. Turtle was whole and intact; bloated; approximately three feet in length; grayish in color and in general appeared to be in a quite deteriorated condition. Carapace was a hardshell with scutes.

Bridge Watch Summary

Species	No. of Animals	Comments
Tursiops truncatus	3 - 6	At dig site
Unid. dead sea turtle	1	See above

Observer(s) On Duty: P. Olson

Dredge Dodge Island
Chesapeake Channel
Cape Henry, VA
15 June 1994

Incidental Take of *Caretta caretta* Aboard Dredge Ship Dodge Island, Load #155

At approximately 10:00, upon routine inspection of ship's screened inflow boxes, observer found chunks of turtle shell in the fore and aft starboard boxes. Observer then checked the starboard draghead and found a large loggerhead turtle, freshly dead, lodged in the draghead. The turtle was difficult to remove. The captain assisted observer by raising the hood of the draghead with a crane, after which the captain and observer were able to pull the turtle out.

The turtle was badly mangled. The head and three flippers were intact, along with some of the plastron, but the carapace was severely broken and much of it missing. Viscera and tissue were a chewed up, blackened mass. Color of the carapace was reddish-brown-orange, with white barnacles present. The plastron, flippers, and head were yellow. The head was large; width across the top at its widest part was about five inches. Each flipper had one large claw.* Weight was estimated by observer and captain to be about 80 pounds.

The condition of the turtle seemed to indicate that it had been in the draghead for sometime during the load. That load (#155) consisted of 2 3/4 hours of digging. Ship was operating between buoys number 9 and 10, near the Cape Henry Channel section of the Chesapeake Channel.

Observer photographed the turtle, after which it was bagged (plastic), labeled, and sent ashore in the crew/support boat. Field engineers were going to place it in a freezer until advised by National Marine Fisheries Service (NMFS) what to do with the specimen. A small sample of tissue and shell was also saved and frozen on board, to be forwarded to NMFS at some time in the near future.

Chris —
* ~~[illegible]~~ The meaning I intended here was "One claw on each front flipper was quite large."
P.O. 8/2/94

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/16/94 Loads: 158 - 160

Area Worked: Stations 98 - 150, between buoys #9 and #10

Conditions: Thick haze; Beau. 1 - 2; Wind E 1 - 5 kts. Air temp: 70's & 80's. Water temp: 72.

Are there incidents involving endangered or protected species? **No**

Comments:

Dredged material continues to be heavy, fine, dark gray sand. Retained in boxes and skimmers today were horseshoe crabs, clearnose skates, spider crabs, blue crabs, windowpane flounders, hogchokers, an angel shark, live whelks, whelk egg cases, live large snails, a sea squirt, wood, and a cannonball.

Bridge Watch Summary

Species	No. of Animals	Comments
None		

Observer(s) On Duty: P. Olson

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

WEEKLY SUMMARY

Dates: 06/10/94 - 06/16/94 Loads: 135 - 160

Are there incidents involving endangered or protected species? **Yes**

Comments:

Observer followed daily work schedule of previous observers on this job, working 0600 to 1200 hours and 1800 to 2400 hours, for a total of twelve hours a day.

Inflow was screened 100%, as were two skimmers. All screening was in good operating condition.

On 6/15/94, a loggerhead turtle (*Caretta caretta*) was taken during Load #155. Kim Thounhurst, of NMFS, was notified. The turtle was photographed, then bagged and sent ashore to be frozen until further word from NMFS. Observer wrote and faxed an incident report to Ms. Thounhurst per her request. Report is included with the daily. Captain and crew were very helpful in the handling of the turtle.

On 6/14, an unidentified sea turtle (live) was seen briefly at the water's surface. On 6/15, a dead sea turtle was observed floating on the water. Both sightings occured at the dig site. See dailies for details.

Bridge Watch Summary

Species	No. of Animals	Comments
Tursiops truncatus	19 - 30	6/12, 6/13, 6/15 - see dailies for details
Unid. sea turtle	1	See above
Unid. dead sea turtle	1	See above

Observers On Duty:

Paula Olson

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/17/94 Loads: 162 - 165

Area Worked: Stations 98 - 150 & 110 - 98

Conditions: Hazy then clearing; Beau. 1 - 2; Wind light from SE. Air temp: 70's & 80's. Water temp: 72.

Are there incidents involving endangered or protected species? **No**

Comments:

Observer coverage has been increased to 100%. A second oberver arrives today, and beginning with Load #162 all loads are monitored by an observer. Each observer works 12 hours per day.

Dredged material is fine, heavy, dark gray sand. Job continues to be a clean one; dragheads and screening are free of trash or muck. Screening retains a sizable amount of fauna, including: horseshoe crabs; clearnose skates; skate egg cases; spider crabs; blue crabs; hermit crabs; unid. crab; windowpane flounders; hogchoker; summer flounder; unid. flounders; unid. fish; live whelks; live large snails.

Bridge Watch Summary

Species	No. of Animals	Comments
Unid. sea turtle	1	100 yds. to port; swimming away from ship
Tursiops truncatus	2	Mother/calf pair
Tursiops truncatus	5	In channel; one w/ badly damaged dorsal fin

Observer(s) On Duty: A. Rogers, P. Olson

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/18/94 Loads: 166 - 169

Area Worked: Stations 98 - 150

Conditions: Clear; Beau. 1 - 3; Wind calm increasing to S 10 kts. Air temp: 70's & 80's. Water temp: 74.

Are there incidents involving endangered or protected species? **Yes**

Comments:

Following load #167, about 1000 hours, observer found fresh turtle parts in both starboard discharge boxes (inflow screening). The fore box contained a set of posterior flippers. The flippers were connected in one piece, and yellow in color. The aft box contained a piece of turtle consisting of a portion of carapace, bone with some tissue attached, and a portion of plastron. The carapace was a brown-orange color, and pitted with barnacle scars. The few scutes did not overlap. The plastron was yellow. Due to the color of the carapace, species was identified as *Caretta caretta*. Kim Thounhurst, of NMFS, was notified via answering machine. Observer photographed parts, then double bagged them, and placed them on ice until they went ashore on the crew boat. Field personnel were going to freeze specimen, awaiting word from NMFS.

continued

Bridge Watch Summary

Species	No. of Animals	Comments
Caretta caretta	1	At surface, 50 meters to stbd. Seen at dig site, at noon.
Tursiops truncatus	2	At dig site
" "	4 - 8	.75 mile N of channel, feeding. Later crossed channel.
" "	~75	N of channel, travelling NE

Observer(s) On Duty: A. Rogers, P. Olson

After the next load, #168, at 1645, observer found three fresh pieces of turtle in the aft starboard discharge box. Two pieces were each a portion of carapace and plastron. The carapace was a brown-orange color; scutes did not overlap. Live barnacles were attached near the edge of the shell on the ventral side. The third piece was visceral material. Due to the color of the carapace, these pieces were also identified as *Caretta caretta*, possibly belonging to the same individual as parts taken in the previous load. These parts were also photographed, then double-bagged and placed in the ship's freezer, awaiting word from NMFS after the weekend.

Other fauna retained in screening today included horseshoe crabs, clearnose rays, spider crabs, blue crabs, flounders, and live whelks. Screening on port skimmer (not required) is warped. A noticable increase in bottlenose dolphins today.

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/19/94 Loads: 170 - 172

Area Worked: Stations 98 - 150

Conditions: Clear; Beau. 2; Wind S/W/SW 5 - 10 kts. Air temp: 70's & 80's. Water temp: 72/73.

Are there incidents involving endangered or protected species? **Yes**

Comments:

Following load #170, about 0500 hours, observer found three small pieces of turtle shell in the aft starboard dishcharge box. All three pieces were carapace, reddish-brown in color, with scutes that did not overlap. Due to the color, species was identified as *Caretta caretta*. Pieces were fresh; possibly from same individual as parts taken yesterday during load #167 and/or load #168. Observer took photographs, then double-bagged parts and stored them on the ship, awaiting direct contact with NMFS tomorrow (Monday morning).

Following load #171, about 1115, observer recovered another fresh piece of *Caretta caretta* carapace from the starboard discharge box. Again, photographs were taken, and sample was double-bagged and stored on ship, awaiting direct contact with NMFS on Monday morning. Possibly, this piece could be part of turtle(s) taken during the previous 25 hours.

continued

Bridge Watch Summary

Species	No. of Animals	Comments
Tursiops truncatus	18	In channel near buoy #7, travelling SE
" "	2	Red side of channel
" "	2	In cut near #10, feeding

Observer(s) On Duty: A. Rogers, P. Olson

Following load #172, at 2015, observer found the posterior portion of a turtle in the aft starboard discharge box. The specimen was fresh, and consisted of two flippers, tail, a portion of the plastron (not enough to count inframarginals), and some viscera, including the stomach. Plastron and ventral side of the flippers were yellow; the dorsal side of the flippers was a brown-orange color. Observer photographed specimen, then double-bagged it and stored it on the ship. Stomach was bagged seperately and placed in a freezer. NMFS will be notified first thing tomorrow morning regarding this take.

Note: The sea turtle parts incidentally taken aboard the dredge in the past two days represent anywhere from two to five individuals. Careful laboratory examination could determine the exact number of individuals involved.

Fauna also retained in screening today included horseshoe crabs, clearnose skates, spider crabs, blue crabs, angel shark, windowpane flounders, hogchokers, unid. flounders, whelk egg cases, and live whelks.

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

Date: 06/20/94 Loads: 173 - 175

Area Worked: Stations 98 - 150

Conditions: Clear/hazy; Beau. 1 - 2; Wind S/W 5 kts. changing to ENE 10 kts. Air: 70's & 80's. Water temp: 78.

Are there incidents involving endangered or protected species? **No**

Comments:

Dredge is finishing up this area. Dredged material is very fine sand and silt. Inflow screening continues to be in good operating condition. Fauna take lighter today, including horseshoe crabs, blue crab, spider crab, clearnose skates, cownose rays, angel shark, windowpane flounder, hogchokers, live large snails, and live whelks.

Bridge Watch Summary

Species	No. of Animals	Comments
None		

Observer(s) On Duty: A. Rogers, P. Olson

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

DAILY REPORT

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Date: 06/21/94 Loads: **176** - 179

Area Worked: Cape Henry Spit: Stations 98-116
York Spit: Stations 70-156 Green, between buoys #31 & #34

Conditions: Overcast and hazy; Beau. 1 - 2; Wind calm to S ~10 kts.
Air: 70's - 90's. Water temp: 76.

Are there incidents involving endangered or protected species? **No**

Comments:

With load #177, dredge began digging in a new area, **York Spit**. Dredged material is dark gray mud. Fauna take is light in this area, and there is no trash. Retained in screening today were horseshoe crabs, clearnose skates, cownose ray, unid. large ray, unid. flounder, whelks, and vegetative debris.

Bridge Watch Summary

Species	No. of Animals	Comments
None		

Observer(s) On Duty: A. Rogers, P. Olson

ENDANGERED SPECIES OBSERVER PROGRAM
MAINTENANCE DREDGING
Cape Henry/York Spit - Chesapeake Bay, Virginia
Dredge Dodge Island (NATCO)

WEEKLY SUMMARY

Dates: 06/17/94 - 06/23/94 Loads: 162 - 188

Are there incidents involving endangered or protected species? **Yes**

Comments:

Observer coverage was increased to 100%. On 6/17 a second observer came aboard, and beginning with load #162 all loads were monitored by an observer. Each observer worked12 hours per day.

On 6/21 dredge completed Cape Henry portion of the job and began York Spit section. There was noticeably less fauna take at the York Spit dig site. Inflow was screened 100%, as were two skimmers. All screening was in good operating condition. The effectiveness of inflow screening, in particular, was demonstrated this week as the discharge boxes retained small turtle parts that were the only evidence that a turtle had been incidentally injured or killed.

On 6/18/94, following loads #167 and #168, fresh *Caretta caretta* parts were found in the starboard discharge boxes. Parts were photographed, double-bagged and placed in cold storage, NMFS was notified. On 6/19/94, following loads #170, #171, and #172, fresh *Caretta caretta* parts were found in the aft starboard discharge box.

continued

Bridge Watch Summary

Species	No. of Animals	Comments
Unid. sea turtle	1	6/17; 100 yards to port
Caretta caretta	1	6/18; 50 meters to stbd.
Tursiops truncatus	116 - 120	Group of 75 on 6/18. See dailies for details.

Observers On Duty:

Paula Olson
Annette Rogers