

FINAL REPORT

Sea Turtle Relocation Trawling

Port Canaveral Harbor Channel
Cape Canaveral, Florida
Brevard County



Dates:

18-24 February 2002

Submitted by:

Trish Bargo/Will Parks
REMSA, Inc.
Marine Endangered Species Observer Program

8 March 2002

ABSTRACT

A 24-hr per day sea turtle pre-dredge and relocation trawling project was initiated in the Port Canaveral Harbor Channel in response to an emergency dredging project requested by the U.S. Navy, to remove a "small but significant shoal located in Cut 2 of the Canaveral Harbor entrance channel." The Navy determined that this shoal would hamper its mission and requested a "one-time, emergency exemption from the terms and conditions of the 1997 Regional Biological Opinion (RBO) governing hopper dredging along the southeastern United States in order to use a hopper dredge to dredge Canaveral Harbor entrance channel to enable the safe passage of a naval submarine. Species targeted included Loggerhead (*Caretta caretta*), Kemp's Ridley (*Lepidochelys kempii*), Green (*Chelonia mydas*), Leatherback (*Dermochelys coriacia*), and Hawksbill (*Eretmochelys imbricata*). A total of 69 sea turtles were successfully caught, tagged, and released approximately three miles from shore with no recaptures reported.

INTRODUCTION

The sea turtle relocation project was initiated by the US Army Corps of Engineers (COE), Jacksonville District. Consultation between NMFS and COE on hopper dredging in Canaveral Harbor entrance channel was initiated on February 8, 2002 in which trawling was recommended. A letter from NMFS to COE referencing the consultation is appended to this report. Pursuant to permit agreements with the National Marine Fisheries Service (NMFS), approved trawl supervisors and observers were onboard the trawler at all times.

SCOPE OF WORK

The sea turtle relocation trawling project was contracted by NATCO Limited Partnership. The party agreeing to provide relocation trawling services (*Remsa, Inc.*) was to be responsible for providing two trawlers, nets, equipment, and the necessary trained personnel. Trawling was to be conducted 24 hours per day for a period of 5-10 days. Methods and equipment were standardized as much as possible including data sheets, nets, trawling speed and direction to tide, length of segment, length of tow, and numbers of tows per segment. Trawling was conducted with repetitive 15-30 minute (total time) tows in the channel. Data sheets were provided by the COE. Positions at the beginning and end of each tow were determined from Global Positioning System equipment. Tow speed was taken at the approximate mid point of each tow. The trawlers were fitted

with two 60 foot trawling nets constructed from 8 inch mesh (stretch) as specified by the COE turtle trawling net specification (see appendix).

All captured turtles were identified, measured, photographed, tagged, and released approximately three miles off the Brevard County coast. Turtles were tagged with NMFS #681 Inconel tags in one or each of the front flippers according to National Marine Fisheries Service protocol. Aseptic conditions were maintained for tag attachment and the tags themselves. Data on turtles was entered on standard data sheets provided by the COE. Photographs were taken of each turtle and appended to this report.

Water temperature measurements were taken at the surface twice daily. Weather conditions were recorded including air temperature, wind velocity and direction, and sea state-wave height. High and low tides times for each tow were recorded in military time.

Permits for handling threatened and endangered species were obtained from the appropriate agencies and are appended to this report.

DISCUSSION-RECOMMENDATIONS

Sea turtle relocation trawling in the Canaveral harbor entrance channel began on 18 February 2002 and continued through 24 February 2002 and was a tremendous success. A total of 69 endangered/threatened sea turtles were caught, examined, tagged, and released safely approximately 3 miles off the coast of Florida. A dead Loggerhead (*Caretta caretta*) was recovered on the trawler *F/V Miss Tina* on 20 Feb 02. The carcass was fresh but a slight odor was present. The cause of death is unknown, but the injuries were more consistent with a boat strike than a dredge take. The carcass was wrapped and weighted in webbing and sunk approximately three miles offshore. Another dead turtle was recovered on the trawler *F/V Capt Tom* on 24 Feb 02. This fresh dead green turtle (*Chelonia mydas*) appeared to be the victim of a predatory attack, most likely a small shark, with no visible scratches or scrapes on the plastron or carapace. It could not be concluded that the dredge was any way involved in the deaths of these turtles.

Although no recaptures were reported on this project, a tagged green turtle was caught on the *F/V Capt Tom* on 22 Feb 02. It was later determined that this turtle stranded at Anastasia State Park in St. John's County in April 2001, was rehabilitated at the Clearwater Marine Aquarium, tagged and released in December 2001. See the original tagging report appended to this report.

Some of the smallest green turtles caught were not tagged before being released. It was decided (personal communication: Dr. Alan Foley, FWC Sea Turtle Stranding and Salvage Network) that tagging such small turtles could be harmful.

Because the shoaled area needing to be dredged was only 500 ft., the entire tow distance required was approximately 1,500 ft. One problem associated with trawling for such short distances were turtles being caught, but not being "washed down" into the bags. Many of the turtles were getting their flippers and heads caught in the large mesh webbing as the nets were being whipped onboard. One experienced net builder suggested a smaller mesh in the body of the net, with a larger mesh in the bag to eliminate excessive bycatch and possibly reduce entanglement.

Incident weather (25-35 mph winds 7-8 ft seas) forced the two trawlers to discontinue operations at app. 2130 hrs on the evening of 20 Feb 02. Trawling operations resumed at app. 0630 hrs on 21 Feb 02, thus delaying the dredge start time by app. 10 hours. Ship traffic was the main cause of delay throughout the project with the trawlers being forced out of the channel several times daily reducing the critical "bottom time" required to effectively cover the area being dredged.

Several factors were considered when releasing the captured turtles: number of turtles, size and approximate weight, sea and wind states, etc. It was determined that the safest way to release the turtles was by using the trawlers themselves. Turtles were relocated as needed with no turtles being kept on deck more than 4-6 hours. The two trawlers alternated releases with one trawler remaining in the channel at all times. **REMSA** is considering the NMFS Protected Resources Division (PRD) recommendation to maintain a small, quick, stand-by vessel to transport captured turtles from the trawlers to the release site. The use of such a vessel would be ideal on projects such as this in which an abnormally large aggregation of sea turtles are present, however, the cost of maintaining such a vessel (insurance, slip fees, operator fees and lodging, etc.) must be considered.

If there are any questions concerning methods, results, or further details of topics covered in this report, please contact:

Trish Bargo
REMSA, Inc.
Marine Endangered Species Observer
Project Manager/Director
12829 Jefferson Ave. #108
Newport News, VA 23608
(757) 723-2930 (office)
(757) 544-0295 (cell)

APPENDIX

NMFS/COE PROJECT CORRESPONDANCE

OPTIONAL FORM 99 (7-90)

PROTECTED SPECIES SER

001

FAX TRANSMITTAL

of pages **2**

To: Russ Tolle	From: JIM McADAMS
Agency: COE	Phone #: 904 232 2117
Fax #: 232 2147	Fax #: 232 3442

ISBN 7948-01-317-7358 8099-107 GENERAL SERVICES ADMINISTRATION

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
 9721 Executive Center Drive North
 St. Petersburg, FL 33702
 (727) 570-5312; FAX (727) 570-5517

F/SER3:EGH

FEB 11 2002

Mr. James C. Duck
 Chief, Planning Division
 Army Corps of Engineers, Jacksonville District
 P.O. Box 4970
 Jacksonville, FL 32232-0019

Dear Mr. Duck:

This responds to your February 8, 2002, letter, transmitted via e-mail, with reference to proposed U.S. Army Corps of Engineers (COE) emergency dredging, requested by the U.S. Navy, to remove a "small but significant shoal located in Cut 2 of the Canaveral Harbor entrance channel." The Navy has determined that this shoal would hamper its mission and has requested a "one-time, emergency exemption (Fonseca, COE, pers. comm., February 7, 2002)" from the terms and conditions of the 1997 Regional Biological Opinion (RBO) governing hopper dredging along the southeastern United States in order to use a hopper dredge to dredge Canaveral Harbor entrance channel to enable the safe passage of a naval submarine. Your letter states that in the past, under similar circumstances, a submarine entering the channel has run aground. Your letter also states that the dredging must be completed by February 23, 2002, to meet the Navy's operational schedule. The proposed action would remove approximately 20,000 cubic yards of material in 2 - 3 days.

No assessment of the biological impacts of the proposed action was included in your letter, other than a brief statement that based on COE discussions with Mr. Chris Slay of the New England Aquarium, the COE determined that this work would have minimal impact on sea turtles at this location, and the dredging would be subject to all the provisions of the RBO.

The terms and conditions of the RBO incorporate the terms and conditions of its predecessor, the August 25, 1995, Opinion on hopper dredging of channels and borrow areas in the southeastern U.S. from North Carolina through Florida's east coast. Term and Condition No. 1 of that Opinion states that "Regular maintenance (dredging) activity in Canaveral Harbor shall not be conducted with a hopper dredge. A hopper dredge should be considered only under emergency conditions when no other type of dredge can be used to remove hazardous shoaling in an expedited time frame. Separate, specific Section 7 consultations must be conducted for all dredging activities in the Canaveral ship channel that may require the use of a hopper dredge. These consultations will be accelerated if warranted by emergency conditions." The RBO also requires monitoring by endangered species observers with at-sea large whale experience to conduct daytime observations for whales between December 1 and March 31, when humpback and right whales occur in the vicinity of channels and borrow areas, north of Cape Canaveral.

The concession in the 1995 Opinion to allow emergency hopper dredge use was a significant change from its predecessor, the November 25, 1991, Opinion on dredging of channels from North Carolina through Cape Canaveral, Florida, which prohibited hopper dredging "at any time in the Canaveral channel."

The reasons for the strict limitations on hopper dredge use are contained in the July 18, 1988 Opinion on maintenance dredging of Canaveral Harbor entrance channel. "Sea turtles surveys of the Cape Canaveral ship channel have been conducted by NMFS since 19789. These surveys were initiated when an unprecedented numbers of sea turtles in an apparent state of hibernation were discovered (Carr et al.



1980). Subsequent surveys have provided evidence that the Canaveral ship channel supports aggregations of sea turtles during all months of the year and particularly during cooler winter months (Henwood 1987; Butler *et al.* 1987; Henwood and Ogren 1987). More recent survey reports (Bolten and Bjorndal 1988; Christian and Harrington 1987; Henwood 1987) suggest that aggregations of sea turtles inhabiting the channel have not changed since the earlier studies. Three species of turtles, the loggerhead (threatened), Kemp's ridley (endangered) and green (endangered) have been captured in the project area. As well, there are documented reports of North Atlantic right whales (critically endangered) and humpback whales seen transiting Canaveral Channel.

NMFS Protected Resources Division (PRD) believes that in order to minimize the take of sea turtles, given the time of year of the proposed action, a month when sea turtles are likely to be concentrated in the Channel, 3 days (72 hours) of relocation trawling is necessary, assuming 2 trawlers trawl the dredge site full time during those 3 days except when they are in transit to/from captured-turtle release sites, for the 3 days leading up to the actual dredging and relocation trawling during the entire dredging operation, sweeping the area clear in front of the dredge. PRD recommends that a small, quick, stand-by vessel be maintained to transport captured turtles from the trawlers to the release site, thus enabling the trawlers to sweep the trawl site continuously without having to break away to transport the turtles to a distant location.

PRD will re-evaluate turtle relocation operations just prior to the start-up of hopper dredging and decide whether 1 relocation trawler or 2 are warranted after that, to sweep in front of the dredge during actual dredging operations. Of course, there must be endangered species observers aboard the trawlers and 100% observer coverage aboard the dredges; the hopper dredge in transit to and from the disposal site must, at night and in reduced visibility, follow speed restrictions to protect right whales (5 knots or less); takes (by relocation trawler and dredge) must be reported to PRD immediately and reports faxed to 727/570-5312. Any takes will count towards the take limit established in the 1997 RBC. Given Navy/COE adherence to these conditions, we would concur that no adverse effects, beyond those previously considered in the RBC, will occur to federally listed species.

We appreciate the opportunity to comment on this project and work with the Jacksonville District COE to ensure the protection of threatened and endangered species under NMFS purview, and to help the COE fulfill its mandate under the ESA. Please contact Mr. Eric Hawk, at telephone number listed above, if you have any questions or if we may be of assistance.

Sincerely



Georgia Thompson
Assistant Regional Administrator
for Protected Resources

cc: F/PR3

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File: 1514-22 E1. FL

FEDERAL PERMIT



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

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MAY - 8 2001

John Glass
REMSA, Inc.
12829 Jefferson Ave.
Suite 108
Newport News, Virginia 23608

Dear Mr. Glass:

Enclosed is permit #1266 issued to you under the authority of Section 10 of the Endangered Species Act (ESA). Permit #1266 authorizes takes of ESA-listed species associated with conservation activities in the Gulf of Mexico and Atlantic Ocean as part of dredging operations conducted by the U.S. Army Corps of Engineers.

Please review Permit #1266 to ensure that you understand what is authorized, and that you comply with the permit conditions. The original permit and a file copy of the signature page are enclosed. Please sign and date both, and return the signature page marked "FILE COPY" to our office. In the future, should you need a change in this authorization, please submit a modification request.

Your attention is directed to Section C which describes annual reporting and authorization requirements. Reports are due on March 31 each year. Permit #1266 is subject to annual reauthorization based on your reported take per annual period and your compliance with the terms and conditions of the permit. Permit #1266 expires on April 30, 2006.

Please note that permit #1266 is not valid until our office receives the signed copy of the signature page. You may submit the copy by facsimile to 301-713-0376 and confirm by mail. If you have any questions concerning the permit, please contact Terri Jordan at 301-713-1401 x148.

Sincerely,

Margaret Jones
for

Phil Williams
Acting Chief
Endangered Species Division

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

of pages 11

To	Irish Bargo	From	Eric Hawk
Dept./Agency	Dodge MacFarland	Phone #	
Fax #	215/920-4050	Fax #	

NSN 7540-01-317-7388 5099-101 GENERAL SERVICES ADMINISTRATION

Enclosure





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

SECTION 10 PERMIT FOR TAKES OF LISTED SPECIES

Permit Number: 1266
Permit Type: research/enhancement
Expiration Date: April 30, 2006
Reporting Period: January 1 through December 31
Annual Reports Due: March 31

Permit Holder:
REMSA, Inc.
12829 Jefferson Ave.
Suite 108
Newport News, Virginia 23608

Contact:
John Glass
Phone: (757) 833-7160
Fax: (757) 833-7213
Email: jglass@remsa.remsainc.com

Investigators:
John Glass - PI
Tamberly Kerr - CI
Trish Bargo - CI
Franscesca Saenz - CI
Sarah Martin - DA
Will Parks - DA
Sarah Pearce - DA
George Coto - DA

Authorization:
John D. Glass, Vice President for Environmental Operations -
REMSA is hereby authorized to take the ESA-listed species specified below for scientific research purposes, as cited in the Permit Holder's application:

Threatened and Endangered Green turtle (Chelonia mydas),
Endangered Hawksbill turtle (Eretmochelys imbricata),
Endangered Kemp's ridley turtle (Lepidochelys kempii),
Endangered Leatherback turtle (Dermochelys coriacea), and
Threatened Loggerhead turtle (Caretta caretta)

This authorization is subject to the provisions of the Endangered Species Act of 1973 (ESA) (16 U.S.C. §§ 1531-1543), the National Marine Fisheries Service (NMFS) regulations governing ESA-listed species permits (50 CFR Parts 222-226), and the conditions hereinafter set forth.



Abstract:

The applicant has requested a five-year permit to take leatherback, green, loggerhead, Kemp's ridley and green turtles from the Atlantic Ocean and Gulf of Mexico in conjunction with US Army Corps of Engineers (USACE) dredging projects for scientific research and enhancement purposes.

A. Number and Species of Animals

This permit is for work to be conducted over approximately a five-year period. Take numbers listed below are the maximum takes authorized per year.

	#	<u>Life stage</u>	<u>Species/DPS Population/ESU</u>	<u>Take Activity</u>	<u>Details</u>
1.	30	adult/ sub- adult & juvenile	Loggerhead turtle	Capture, handle, flipper tag and release	PIT tagging is not authorized
2.	7	adult/ sub- adult & juvenile	Green turtle	Capture, handle, flipper tag and release	PIT tagging is not authorized
3.	5	adult/ sub- adult & juvenile	Kemp's ridley turtle	Capture, handle, flipper tag and release	PIT tagging is not authorized
4.	4	adult/ sub- adult & juvenile	Hawksbill turtle	Capture, handle, flipper tag and release	PIT tagging is not authorized
5.	4	adult/ sub- adult & juvenile	Leatherback turtle	Capture, handle, flipper tag and release	PIT tagging is not authorized

1. Any mortalities associated with research activities will be counted toward the USACE's incidental take statement of the Biological Opinion for dredging operations that covers the project. All mortalities must be reported to the USACE and NMFS.
2. Turtles killed during USACE dredging operations may be maintained by the permit holder for training purposes, only after coordination with the appropriate state stranding coordinator (as cited in the permit holder's

state permits) or with the National Turtle Stranding Coordinator - Ms. Wendy Teas (305-361-4595). Documentation of the approval of retention should be made for each turtle.

B. Special Conditions

1. The listed sea turtles must be taken by the means, in the areas, and for the purposes set forth in the permit application, as limited by the conditions specified in this permit.
2. Individuals operating under this permit and conducting capturing and flipper tagging, must be approved by NMFS. Alternatively, there must be a NMFS approved individual present to supervise these activities until such time that the others individuals have been approved by NMFS.
3. All turtles shall be examined for existing tags, before attaching new ones. If existing tags are found, the tag identification numbers shall be recorded and included in the annual report.
4. During release, turtles shall be lowered as close to the water's surface as possible to prevent potential injuries.
5. The Permit Holder, personnel, or designated agent acting on the permit holder's behalf shall carefully observe a newly released turtle to ensure that it swims and dives in a normal manner. If a turtle is not behaving normally within one hour of release, the turtle shall be recaptured and taken to a rehabilitation facility.
6. The Permit Holder, personnel, or designated agent acting on the permit holder's behalf must not intentionally kill or cause to be killed any listed sea turtle. Care must be taken when handling live animals to minimize any possible injury to the animals and appropriate resuscitative techniques must be used on any comatose turtle prior to returning it to the water. Whenever possible, stressed or injured animals should be transferred to rehabilitation facilities and allowed an appropriate period of recovery before return to the wild. All turtles must be handled according to procedures specified in 50 CFR 223.206(d)(1)(i).
7. Tow times will not exceed 42 minutes (doors in to doors out).

8. Tow times must be reduced to 30 minutes (doors in to doors out) immediately following any observed mortality and must remain at 30 minutes until NMFS completes a review of the event(s).

If Trawling activities take place in waters where manatees reside

9. The following conditions to the permit are to prevent interactions with the endangered Florida manatees (*Trichechus manatus*):
 - a. Vessel personnel must be informed that it is illegal to intentionally or unintentionally harm, harass, or otherwise "take" manatees.
 - b. Crew involved in trawling should wear polarized sunglasses while on the water and keep a look out for manatees. Look for swirls on the water and other signs of manatees.
 - c. Cease trawling if a manatee is sighted in the vicinity of the vessel.
 - d. If a manatee is accidentally captured:
 - (1) Stop the vessel immediately: a manatee must breathe and surface approximately every 4 minutes. If an adult manatee is caught in the net, you will feel a hard "bump" and you will know to stop immediately and check the net. If a juvenile is caught, it may not be large enough to cause a significant "bump" to alert you.
 - (2) Turn off the vessel or put engine in neutral. Propellers can seriously injure or kill manatees.
 - (3) Release tension on the net to allow the animal the opportunity to free itself. Exercise caution when attempting to assist the animal in freeing itself. Manatees are docile animals but can thrash violently if captured or entangled in a net. A 1,200 to 3,500 pound manatee can cause extensive damage to shrimp nets while trying to escape or breathe, so quick action is essential to protect both the manatee and your investment.
 - (4) Contact the appropriate marine patrol office and NMFS immediately to report any incidents. If a manatee is injured, the sooner the animal receives treatment, the better its chances of recovery.

C. Permit Reporting and Reauthorization Requirements

NMFS Contact:

Turtle Permit Analyst
Office of Protected Resources
National Marine Fisheries Service

1315 East-West Highway
Silver Spring, MD 20910

Telephone: (301) 713-1401
Fax: (301) 713-0376
Email: turtle.permits@noaa.gov

1. Final Report: The Permit Holder must submit a final report within ninety (90) days of the expiration of this permit summarizing the results of the research and the success of the research relative to its goals.
2. Annual Report(s): The authorization of this permit is contingent upon receipt and approval of an annual report containing data on the preceding reporting period's research activities, a description of accomplished research activities, and those proposed for the forthcoming reporting period (See Page 1 of permit for reporting period and annual report due date).

Reports must include, using the enclosed blank table:

- a. a detailed description of activities conducted under this permit, including the species and total number of ESA-listed animals taken, the manner of take, and the dates/locations of take;
- b. any preliminary analyses of the data;
- c. measures taken to minimize disturbances to ESA-listed species and the effectiveness of these measures, a description of any problems and/or unforeseen effects which may have arisen during the research activities, and a brief narrative of the circumstances surrounding ESA-listed species injuries or mortalities, when appropriate; and
- d. steps that have been and will be taken to coordinate the research with that of other researchers.

D. Notification Requirements and Operational Reports

NMFS Contact:

Turtle Permit Analyst
Office of Protected Resources,
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Telephone: (301) 713-1401

Fax: (301) 713-0376
Email: turtle.permits@noaa.gov

1. Exceeding Authorized Take If the authorized level of take, including mortalities, is exceeded or if circumstances indicate that such an event is imminent, the Permit Holder must notify the above contact as soon as possible, but no later than two days after the authorized level of take is exceeded. The Permit Holder must then submit a written report to the above contact describing the circumstances of the unauthorized take. Pending review of these circumstances, NMFS may suspend research activities or amend this permit in order to allow research activities to continue.
2. Taking of Unauthorized ESA-listed Species If any ESA-listed species not included in this permit is killed, injured, or collected during the course of research activities, the Permit Holder must notify the above contact as soon as possible, but not later than two days after the event. The Permit Holder must then submit a written report to the above contact, describing the circumstances of the unauthorized take. Pending review of these circumstances, NMFS may suspend research activities or amend this permit in order to allow research activities to continue.
3. Unintentional Killing of Authorized ESA-Listed Species In the event that an authorized ESA-listed species is killed, the Permit Holder must notify the above contact verbally as soon as possible, but no later than two days following the event. The Permit Holder must then submit a written report to the above contact describing the circumstances surrounding the event. The Permit Holder must re-evaluate the techniques that were used and those techniques must be revised accordingly to prevent further injury or death. Pending review of these circumstances, NMFS may suspend research activities or amend this permit in order to allow research activities to continue.
4. Taking of Unauthorized Marine Mammals. In the event any marine mammal, is taken during the course of research activities, the Permit Holder must notify the above contact verbally as soon as possible, but no later than two days after the event. The Permit Holder must then submit a written report to the above contact, describing the circumstances of the unauthorized take. Pending review of these circumstances, NMFS may suspend research activities or

amend this permit in order to allow research activities to continue.

E. General Conditions

1. The Permit Holder must ensure that the ESA-listed species are taken only by the means, in the areas, and for the purposes set forth in the permit application, as limited by the terms and conditions in this permit.
2. The Permit Holder must ensure that all ESA-listed species are handled carefully. Should NMFS determine that a procedure provided for under this permit is no longer acceptable, the Permit Holder must immediately cease such activity until NMFS determines an acceptable substitute procedure.
3. The Permit Holder, in effecting the take authorized by this Permit, is considered to have accepted the terms and conditions of this permit and must be prepared to comply with the provisions of this permit, the applicable regulations, and the ESA.
4. The Permit Holder is responsible for the actions of any individual operating under the authority of this permit. Such actions include capturing, handling, releasing, transporting, maintaining, and caring for any ESA-listed species authorized to be taken by this permit.
5. The Permit Holder, personnel, or designated agent acting on the Permit Holder's behalf must possess a copy of this permit when conducting the activities for which a take of ESA-listed species or other exception to ESA prohibitions is authorized herein.
6. The Permit Holder may not transfer or assign this permit to any other person(s), as person is defined in Section 3(12) of the ESA. This permit ceases to be in force or effective if transferred or assigned to any other person without prior authorization from NMFS.
7. The Permit Holder must obtain any other Federal, state, and local permits/authorizations necessary for the conduct of the activities provided for in this permit. In addition, before taking ESA-listed species in the territorial waters of a foreign country, the Permit Holder must secure consent from, and comply with the appropriate laws of, that country.

8. Any personnel of the Permit Holder requiring Federal or state licenses to practice their profession must be duly licensed under the appropriate law.
9. The Permit Holder must coordinate with other co-managers and/or researchers to ensure that no unnecessary duplication and/or adverse cumulative effects occur as a result of the Permit Holder's activities.
10. The Permit Holder must allow any NMFS employee(s) or any other person(s) designated by NMFS, to accompany field personnel during the activities provided for in this permit. The Permit Holder must allow such person(s) to inspect the Permit Holder's records and facilities if such records and facilities pertain to ESA-listed species covered by this permit or NMFS's responsibilities under the ESA.
11. Under the terms of the regulations, a violation of any of the terms and conditions of this permit will subject the Permit Holder, and/or any individual who is operating under the authority of this permit, to penalties as provided for in the ESA.
12. The Permit Holder is responsible for biological samples collected from ESA-listed species as long as they are useful for research purposes. The terms and conditions concerning any samples collected under this authorization remain in effect as long as the Permit Holder maintains authority and responsibility of the material taken. The Permit Holder may not transfer biological samples to anyone not listed in the application without obtaining prior written approval from NMFS. Any such transfer will be subject to such conditions as NMFS deems appropriate.
13. The Office of Protected Resources, NMFS, may amend the provisions of this permit after reasonable notice to the Permit Holder.
14. 50 CFR Section 222.23(d)(8) allows NMFS to charge a reasonable fee to cover the costs of issuing permits under the ESA. The fee for this permit has been waived.
15. NMFS may revoke this permit if the activities provided for by it are not carried out, if the activities are not carried out in accordance with the conditions of the permit and the purposes and requirements of the ESA, or if NMFS otherwise determines that the findings made under section 10(d) of the ESA no longer hold.

STATE PERMIT

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



DAVID K. MEEHAN
St. Petersburg

H.A. "HERKY" HUFFMAN
Deltona

JOHN D. ROOD
Jacksonville

QUINTON L. HEDGEPEETH, DDS
Miami

EDWIN F. ROBERTS, DC
Pensacola

RODNEY BARRETO
Miami

SANDRA T. KAUPE
Palm Beach

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

DIVISION OF MARINE FISHERIES
Roy E. Crabtree, Ph.D., Director
Roy O. Williams, Asst. Director

SPECIAL ACTIVITY PERMIT

Issue to: Trish Bargo
Remsa, Inc.
12829 Jefferson Avenue, #108
Newport News, VA 23608

Issue date: February 18, 2002

Permit #: 02P-657

Purpose: Use of otter trawls for a public purpose. Trawls will be used to capture turtles for tagging and relocation purposes to accommodate an emergency military dredging operation.

Location: Florida waters of Brevard County in Canaveral Harbor, Cape Canaveral. Trawling will take place between buoys 8 - 16.

Authorized to Collect and Possess: Species for collection and possession to be determined by Marine Turtle Permit #158 issued by the Fish and Wildlife Commission, Office of Environmental Services, Bureau of Protected Species.

Authorized Gear: Double Otter Trawls, 162 ft. perimeter, 60 ft. length, 8" stretch mesh size. Tow times limited to 30 minutes or less.

Notification must be made to the nearest FWC Law Enforcement dispatch center prior to beginning activity.

Authorized Personnel: Trish Bargo, Will Parks, Tara Fitzpatrick, Tamberly Kerr, Bonnie Brown, Cameron Coffee.

Authorized Third Party Contractors: Captain Jim Higgins operating the vessel Captain Tom, FL686466; and Captain David Daniels operating the vessel Miss Tina, FL608091.

Reporting Requirement: Permit holder must submit to the Division of Marine Fisheries within 30 days of project completion a report detailing the number of tows, tow time length for each tow, species and number caught on each tow, and their final disposition.

Expiration date: March 1, 2002

Division of Marine Fisheries

18 February 2002
Date

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



DAVID K. MEEHAN
St. Petersburg

H.A. "HERKY" HUFFMAN
Deltona

JOHN D. ROOD
Jacksonville

QUINTON L. HEDGEPEATH, DDS
Miami

EDWIN P. ROBERTS, DC
Pensacola

RODNEY BARRETO
Miami

SANDRA T. KAUPE
Palm Beach

ALLAN L. EGBERT, Ph.D., Executive Director
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DAVID W. ARNOLD, CHIEF
BUREAU OF PROTECTED SPECIES MANAGEMENT
(850)922-4336
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MARINE TURTLE PERMIT

Mr. John D. Glass
REMSA, Inc.
12829 Jefferson Avenue
Newport News, Virginia 23608

TP # 158

Permit Expires: 31 January 2003

New permit.

Authorized To: (1) conduct trawl capture, (2) tag turtles using external flipper tags, (3) tag turtles using PIT tags.

Authorized Nesting Survey Area: None.

Authorized Research Projects: None.

Authorized Personnel: J. Glass, P. Bargo, T. Kerr, W. Parks Jr.

General Conditions: Permitted individuals must adhere to the FWC marine turtle permit guidelines developed under a Section 6 Cooperative Agreement between FWC and the U.S. Fish and Wildlife Service.

Special Conditions: See attachment of special conditions.

Handwritten signature of David W. Arnold in black ink.

David W. Arnold, Chief
Bureau of Protected Species Management
Office of Environmental Services

2/18/02

Date

cc: Sandy MacPherson, National Sea Turtle Recovery Coordinator, USFWS
FWC, Division of Law Enforcement, General Headquarters
FWC, Tequesta Office

SEA TURTLE DATA

*Original tagging reports available upon request

Canaveral Harbor Sea Turtle Data - F/V Capt. Tom

Turtle #	Species	Date Captured	Capture Location	Date Released	Release Location	SCL-notch-notch	SCL-flip-flip	SCW	CCL-notch-notch	CCL-flip-flip	CCW	Plastron-L	Plastron-W	Head-W	Tail-L	Left Tag	Right Tag
1	Cc	2/18/2002	N 28°24.016 W 80°38.734	2/18/2002	N 28°21.383 W 80°32.982	63cm	65.5cm	55.5cm	68cm		66.5cm	50.5cm	58.2cm	12cm	15cm	XXX838	XXX839
2	Cc	2/18/2002	N 28°24.016 W 80°38.734	2/18/2002	N 28°21.383 W 80°32.982	55.5cm	57.5cm	47.5cm	60cm		58cm	45cm	44.5cm	11.5cm	13cm	XXX840	XXX841
3	Cc	2/18/2002	N 28°23.972 W 80°33.681	2/18/2002	N 28°21.383 W 80°32.982	63cm	64.5cm	51.5cm	69cm		62cm	49cm	48cm	13cm	14cm	XXX842	XXX843
4	Cc	2/18/2002	N 28°23.972 W 80°33.681	2/18/2002	N 28°21.383 W 80°32.982	53cm	54cm	58cm	60cm		59.5cm	43cm	45cm	12cm	11cm	XXX844	XXX845
5	Cc	2/18/2002	N 28°24.572 W 80°35.206	2/18/2002	N 28°21.472 W 80°32.563	66cm	72cm	60cm	75cm		74cm	57cm	55cm	14cm	17cm	XXX846	XXX847
6	Cc	2/18/2002	N 28°24.076 W 80°33.774	2/19/2002	N 28°21.720 W 80°23.066		67cm	56cm	73cm		71cm	55cm	50cm	14cm	20cm	XXX848	XXX849
7	Cc	2/19/2002	N 28°24.575 W 80°36.754	2/19/2002	N 28°21.720 W 80°23.066	57cm	60cm	48cm	65cm		64cm	47cm	44cm	13cm	15cm	XXX850	XXX851
8	Cc	2/19/2002	N 28°24.568 W 80°34.838	2/19/2002	N 28°21.860 W 80°36.254	64cm	66cm	53.5cm	68cm		66cm	50cm	52cm	14.5cm	13cm	XXX854	XXX855
9	Cc	2/19/2002	N 28°24.568 W 80°34.838	2/19/2002	N 28°21.806 W 80°36.254	57cm	59cm	48cm	60cm		57cm	46cm	45cm	12cm	12cm	XXX852	XXX853
10	Cm	2/19/2002	N 28°24.576 W 80°35.139	2/19/2002	N 28°22.388 W 80°32.765	34cm	35cm	27.5cm	36cm		31.5cm	30cm	26cm	6cm	8cm	XXX860	XXX861
11	Cc	2/20/2002	N 28°41.078 W 80°33.643	2/20/2002	N 28°21.965 W 80°30.926	64cm	67cm	56cm	67cm		72cm	56cm	50cm	13cm	13cm	XXX862	XXX863
12	Cc	2/20/2002	N 28°24.045 W 80°33.629	2/20/2002	N 28°21.965 W 80°30.926	66cm	71.5cm	55.5cm	73cm		70cm	54cm	50cm	13.5cm	14cm	XXX864	XXX865
13	Cc	2/20/2002	N 28°24.020 W 80°33.722	2/20/2002	N 28°22.255 W 80°32.375	65.5cm	69.5cm	54cm	67.5cm		67cm	53.5cm	46cm	13cm	10.5cm	XXX866	XXX867
14	Cc	2/20/2002	N 28°24.584 W 80°35.200	2/20/2002	N 28°22.255 W 80°32.325	56cm	58cm	56cm	58.5cm		72cm	53cm	55cm	15.5cm	19cm	XXX868	XXX869
15	Cc	2/20/2002	N 28°24.584 W 80°35.208	2/20/2002	N 28°22.255 W 80°32.325	61cm	62cm	50cm	66cm		64cm	51cm	44.5cm	14cm	15cm	XXX870	XXX871
16	Cc	2/20/2002	N 28°24.020 W 80°33.686	2/20/2002	N 28°24.201 W 80°33.614	70.5cm	73cm	60cm	76cm		75cm	57cm	54cm	15cm	17cm	XXX872	XXX873
17	Cc	2/20/2002	N 28°24.020 W 80°33.686	2/20/2002	N 28°24.201 W 80°33.614	68cm	71cm	59cm	74cm		74cm	57cm	52cm	13cm	12cm	XXX874	XXX875
18	Cm	2/21/2002	N 28°24.016 W 80°33.519	2/21/2002	N 28°21.448 W 80°31.798	45.5cm	47.5cm	37cm	49.5cm		50.5cm	39.5cm	35.5cm	7cm	7.5cm		XXX877
19	Cc	2/21/2002	N 28°24.584 W 80°32.241	2/21/2002	N 28°21.448 W 80°31.798	52.3cm	53.5cm	44.6cm	56.2cm		58cm	42cm	37.5cm	11.5cm	8.5cm	XXX878	XXX879
20	Cc	2/21/2002	N 28°24.248 W 80°33.980	2/21/2002	N 28°21.557 W 80°32.137	59.5cm	61.5cm	49cm	64.5cm		67.5cm	47.5cm	43cm	13cm	12cm	XXX880	

Canaveral Harbor Sea Turtle Data - F/V Capt. Tom

Turtle #	Species	Date Captured	Capture Location	Date Released	Release Location	SCL-notch-notch	SCL-ftp-ftp	SCW	CCL-notch-notch	CCL-ftp-ftp	CCW	Piastron-L	Piastron-W	Head-W	Tail-L	Left Tag	Right Tag
21	Cc	2/21/2002	N 28°24.248 W 80°33.980	2/21/2002	N 28°21.557 W 80°32.137	54cm	56cm	46cm	58cm	61cm	59cm	42cm	42cm	12cm	13.5cm	XXX881	
22	Cc	2/21/2002	N 28°24.248 W 80°33.980	2/21/2002	N 28°21.557 W 80°32.137	56cm	61cm	51cm	63cm	65cm	64cm	50cm	46cm	12cm	12cm	XXX882	
23	Cc	2/21/2002	N 28°24.150 W 80°33.830	2/22/2002	N 28°21.790 W 80°31.790	58.5cm	61.5cm	48.5cm	63cm	66cm	58.5cm	47cm	42cm	12cm	11cm	XXX883	
24	Cc	2/21/2002	N 28°24.150 W 80°33.830	2/22/2002	N 28°21.790 W 80°31.790	58.3cm	60.1cm	50cm	63cm	65cm	60.5cm	50cm	46cm	11.5cm	13cm	XXX884	
25	Cm	2/21/2002	N 28°24.570 W 80°35.390	2/22/2002	N 28°21.790 W 80°31.789	22.9cm	23.4cm	18cm	23.5cm	24cm	21cm	18.5cm	16.5cm	3.5cm	2cm		
26	Cm	2/21/2002	N 28°24.570 W 80°35.390	2/22/2002	N 28°21.790 W 80°31.789	32cm		25cm	33.5cm		29.5cm	28cm	23.5cm	5cm	5cm		
27	Cc	2/22/2002	N 28°24.509 W 80°34.392	2/22/2002	N 28°21.670 W 80°32.763	64.5cm	67cm	56cm	70.5cm	72cm	69cm	50.5cm	49cm	13cm	14cm	XXX885	
28	Cc	2/22/2002	N 28°23.956 W 80°23.669	2/22/2002	N 28°21.670 W 80°32.763	59cm	61cm	59cm	64cm	66cm	61cm	47cm	45cm	13cm	11cm	XXX886	
29	Cc	2/22/2002	N 28°23.956 W 80°23.617	2/22/2002	N 28°21.670 W 80°32.763	72cm	75cm	56.8cm	77.5cm	80.5cm	71.5cm	54cm	51cm	15cm	22cm	XXX887	
30	Cm	2/22/2002	N 28°24.601 W 80°35.358	2/22/2002	N 28°21.670 W 80°32.763	36cm	37cm	27.5cm	38cm	39cm	32cm	29cm	27cm	6cm	7cm		
31	Cc	2/22/2002	N 28°24.570 W 80°35.247	2/23/2002	N 28°21.714 W 80°32.941	72cm	74.5cm	59cm	75cm	78cm	74cm	56cm	51cm	14cm	14.8cm	XXX888	
32	Cm	2/22/2002	N 28°24.566 W 80°35.950	2/23/2002	N 28°21.714 W 80°32.941	35.5cm	36.2cm	28.5cm	38.5cm	39cm	31.5cm	30.5cm	28cm	6cm	6cm		XXK460
33	Cm	2/23/2002	N 28°24.350 W 80°33.914	2/23/2002	N 28°21.714 W 80°32.941	30.9cm	31cm	24.5cm	33cm	33.5cm	28cm	27.5cm	24cm	5cm	4cm		
34	Cc	2/23/2002	N 28°24.566 W 80°35.308	2/23/2002	N 28°24.390 W 80°32.510	52cm		56cm	54cm		66cm	49cm	48cm	13cm	No Tail	XXX889	XXX890
35	Cc	2/24/2002	N 28°24.557 W 80°35.211	2/24/2002	N 28°20.420 W 80°32.440	58cm	59cm	48.5cm	60.5cm	62cm	59cm	45cm	43cm	12.5cm	13.5cm	XXX891	XXX892
36	Cm	2/24/2002	N 28°24.610 W 80°34.780	2/24/2002	N 28°20.420 W 80°32.440	51.5cm	53cm	42.5cm	55cm	57cm	47cm	46cm	41cm	7cm	8cm	XXX893	XXX894
37	Cc	2/24/2002	N 28°23.948 W 80°33.619	2/24/2002	N 28°20.738 W 80°32.721	66cm	67cm	52cm	70cm	72.3cm	66cm	48cm	47.5cm	14cm	16.5cm	XXX895	XXX896
38	Cc	2/24/2002	N 28°24.566 W 80°35.222	2/24/2002	N 28°24.184 W 80°32.519	66cm	68cm	55cm	70cm	72cm	71.5cm	52cm	39cm	15.2cm	11cm	XXX897	XXX898
39	Cm	2/24/2002	N 28°24.566 W 80°35.222	2/24/2002	N 28°24.184 W 80°32.519	33cm	35cm	30cm	35cm	37cm	36cm	30.5cm	27cm	6cm	6.5cm	XXX899	
40	Cm-Dead	2/24/2002	N 28°24.566 W 80°35.222			29.5cm	30cm	25cm	31cm	31.5cm	27.5cm	29cm	22.5cm	5.5cm			

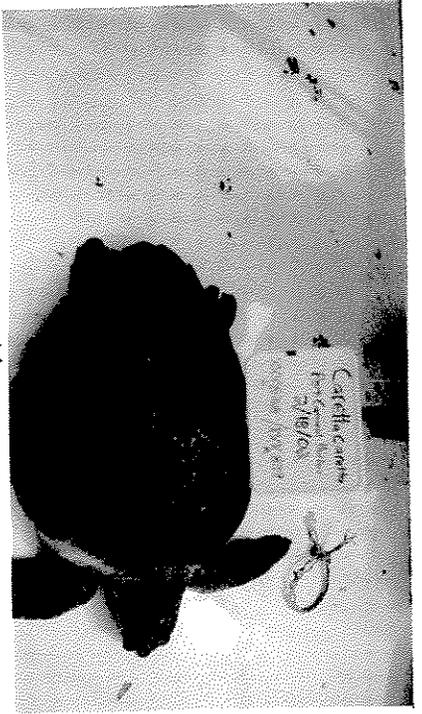
Canaveral Harbor Sea Turtle Data - F/V Miss Tina

Turtle #	Species	Date Captured	Capture Location	Date Released	Release Location	SCL-notch-notch	SCL-tip-tip	SCW	CCL-notch-notch	CCL-tip-tip	CCW	Plastron-L	Plastron-W	Head-W	Tail-L	Left Tag	Right Tag
1	Cc	2/18/02	N 28°24.317 W 80°35.068	2/18/02	N 28°21.911 W 80°32.022	82cm	86cm	67cm	87cm	92cm	82cm	82cm	82cm	18.5cm	18cm		
2	Cc	2/19/02	N 28°24.790 W 80°35.420	2/19/02	N 28°21.806 W 80°36.254		67.5cm	66cm		72cm	72cm	52.5cm	47cm	13cm	12cm	XX858	XX859
3	Cc	2/19/02	N 28°24.790 W 80°35.420	2/19/02	N 28°21.806 W 80°36.254	56.5cm		46.5cm	58cm	59.5cm	59cm	43.5cm	43cm	11.5cm	10.5cm	XX856	XX857
4	Cc	2/19/02	N 28°24.488 W 80°35.332	2/19/02	N 28°22.685 W 80°32.182	69cm	73cm	59cm	73.5cm	77.5cm	70cm	57.5cm	54cm	15.2cm	14cm	XX2802	XX2801
5	Cc	2/19/02	N 28°24.488 W 80°35.332	2/19/02	N 28°22.685 W 80°32.182	66cm	70cm	58cm	69.5cm	73cm	66.5cm	53cm	51cm	14cm	15cm	XX2904	XX2903
6	Cc	2/19/02	N 28°24.158 W 80°36.166	2/20/02	N 28°21.803 W 80°30.953	53.5cm	56cm	47cm	56.5cm	80cm	57cm	42.5cm	41.5cm	11cm	10cm	XX2906	XX2905
7	Cc	2/20/02	N 28°24.700 W 80°34.7	dead-stranding			75cm	59cm		81cm	72.5cm						
8	Cc	2/20/02	N 28°24.752 W 80°34.248	2/20/02	N 28°21.803 W 80°30.953	59cm	60cm	51cm	63.5cm	66cm	53cm	48cm	47cm	12cm	9.5cm	XX2908	XX2907
9	Cc	2/20/02	N 28°23.786 W 80°33.361	2/20/02	N 28°21.803 W 80°30.953	65.7cm	68.5cm	54.8cm	70.5cm	73cm	69cm	53.5cm	48cm	14cm	13.5cm	XX2911	XX2910
10	Cc	2/20/02	N 28°23.786 W 80°33.361	2/20/02	N 28°21.803 W 80°30.953	52cm	54cm	43cm	56.5cm	58cm	53cm	42cm	38cm	10cm	11cm	XX2913	XX2912
11-A	Cc	2/20/02	N 28°24.574 W 80°35.543	turtle escaped		57.2cm	59.7cm	50cm	61cm	63cm	60.5cm	45cm	44cm	12cm	12.5cm		
11-B	Cm	2/20/02	N 28°24.575 W 80°35.555	2/20/02	N 28°21.802 W 80°30.953	25cm		21cm	26cm		24.5cm	22cm	20cm	4.5cm	4cm		XX2914
12	Cc	2/20/02	N 28°24.577 W 80°35.559	2/20/02	N 28°21.495 W 80°32.410	64cm	66.5cm	55.2cm	68cm	70.2cm	66cm	50.5cm	51.8cm	13cm	14cm	XX2919	XX2918
13	Cc	2/20/02	N 28°24.560 W 80°34.188	2/20/02	N 28°21.495 W 80°32.410	58cm	57.7cm	47.4cm	56.5cm	60.5cm	56cm	45cm	43.5cm	12.5cm	10.5cm		XX2920
14	Cc	2/20/02	N 28°23.190 W 80°33.564	2/20/02	N 28°21.495 W 80°32.410	56.8cm	59.8cm	49.4cm	61.5cm	64cm	63cm	45cm	43cm	13cm	12cm		XX2922
15	Cc	2/20/02	N 28°24.581 W 80°35.198	2/20/02	N 28°21.495 W 80°32.410	51.5cm	53cm	43cm	56cm	57.5cm	54.5cm	40.3cm	40.38cm	11.5cm	10.5cm	XX2925	XX2924
16	Cm	2/21/02	N 24°24.409 W 80°34.190	2/21/02	N 28°22.755 W 80°32.909	28cm	28.3cm	26cm	31.5cm		29.5cm	25.5cm	23.5cm	5.5cm	4.5cm		
17	Cc	2/22/02	N 24°24.209 W 80°34.011	2/22/02	N 28°42.299 W 80°32.315	62cm	66cm	55cm	65cm		27cm	19.5cm	19.5cm	5.5cm	7.6cm	XX2926	XX2927
18	Cc	2/22/02	N 24°24.356 W 80°34.121	2/22/02	N 28°21.571 W 80°32.214	65.5cm	67.5cm	57.8cm	69cm	72cm	70cm	53.5cm	52.5cm	13cm	14cm	XX2929	XX2928
19	Cc	2/22/02	N 24°24.411 W 80°34.220	2/22/02	N 28°21.571 W 80°32.071	54.2cm	56.2cm	46.2cm	58cm	60cm	57.5cm	44cm	42.5cm	12cm	11.5cm	XX2931	XX2932

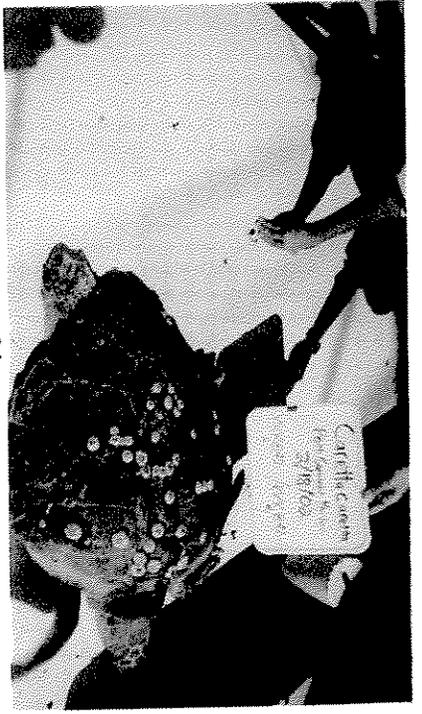
Canaveral Harbor Sea Turtle Data - F/V Miss Tina

20	Cm	2/22/02	N 24°24.359 W 80°34.009	2/22/02	N 28°21.571 W 80°32.214	37.5cm	38.5cm	28cm	37.5cm	38.5cm	32cm	30.5cm	28.5cm	6cm	8cm		
21	Cc	2/22/02	N 24°24.359 W 80°34.009	2/22/02	N 28°21.571 W 80°32.214	62cm	65cm	52cm	67cm	69cm	66.5cm	50.5cm	43cm	12.5cm	14cm	XXZ933	XXZ934
22	Cm	2/22/02	N 24°24.588 W 80°35.608	2/23/02	N 28°21.873 W 80°35.522	36.5cm	37.4cm	27.8cm	37.5cm	38.5cm	32cm	29.5cm	27cm	6cm	6.5cm		
23	Cm	2/23/02	N 24°24.129 W 80°33.140	2/23/02	N 28°21.873 W 80°35.522	40.1cm	40.4cm	30.5cm	43cm	43.3cm	35cm	34cm	32.3cm	7.5cm	8.3cm		
24	Cc	2/23/02	N 24°24.599 W 80°33.467	2/23/02	N 28°21.873 W 80°35.522	54.1cm	56cm	49.5cm	62cm	62.2cm	61cm	47.5cm	44.5cm	12cm	10cm	XXZ935	XXZ936
25	Cc	2/23/02	N 24°24.577 W 80°35.145	2/24/02	N 28°41.299 W 80°32.697	59.5cm	62.0cm	43cm	65cm	67cm	64cm	48.5cm	49.5cm	14cm	11.5cm	XXZ937	XXZ938
26	Cc	2/24/02	N 24°24.662 W 80°34.939	2/24/02	N 28°41.299 W 80°32.697	58cm	62.2cm	48.5cm	64cm	66.5cm	63.5cm	47cm	45.5cm	12.5cm	15cm	XXZ939	XXZ940
27	Cc	2/24/02	N 24°24.883 W 80°38.628	2/24/02	N 28°22.371 W 80°32.697	51cm	54.5cm	45cm	57cm	58.9cm	45.5cm	43cm	42cm	11cm	12cm	XXZ941	XXZ942
28	Cc	2/24/02	N 24°24.552 W 80°34.664	2/24/02	N 28°22.371 W 80°32.442	61.2cm	63.4cm	62.9cm	66cm	67.5cm	63cm	50.5cm	48.5cm	13cm	11cm	XXZ943	XXZ944
29	Cc	2/24/02	N 24°23.797 W 80°33.418	2/24/02	N 28°22.371 W 80°32.442	55.5cm	57.5cm	48cm	60cm	61.55cm	59.7cm	45.5cm	42cm	11.5cm	10cm	XXZ945	XXZ946
30	Cc	2/24/02	N 24°24.524 W 80°34.652	2/24/02	N 28°22.371 W 80°32.442	58.5cm	66cm	47.5cm	61cm	62cm	58cm	44.5cm	43.5cm	11.5cm	10.5cm	XXZ947	XXZ948

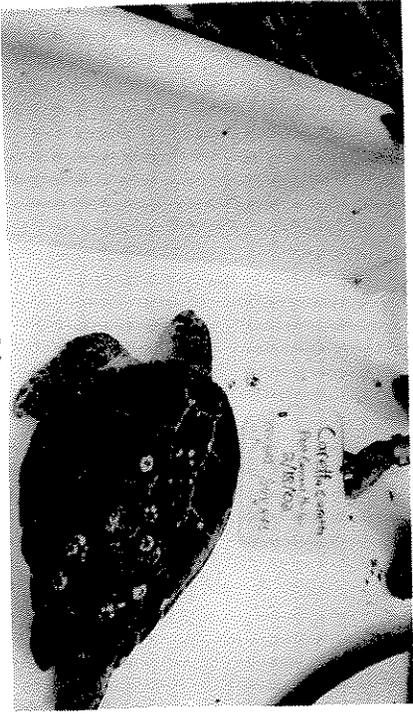
TRAWLER #1
F/V CAPT TOM
Turtle Photos



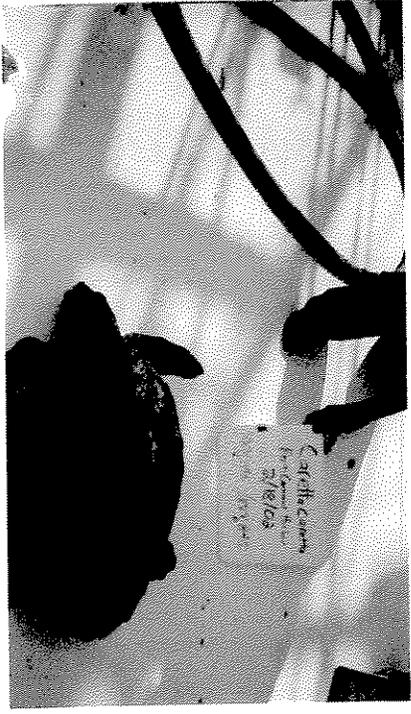
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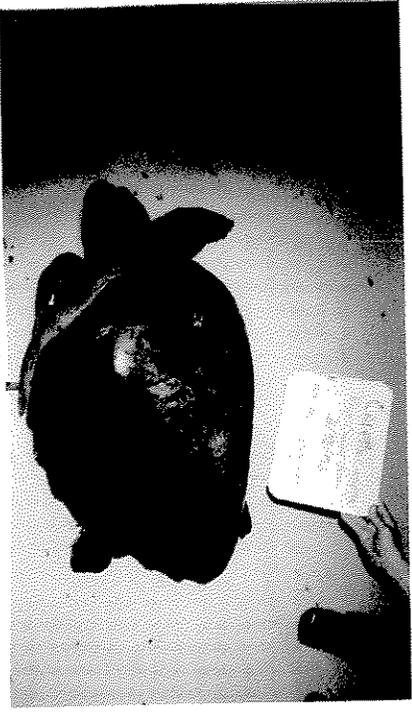
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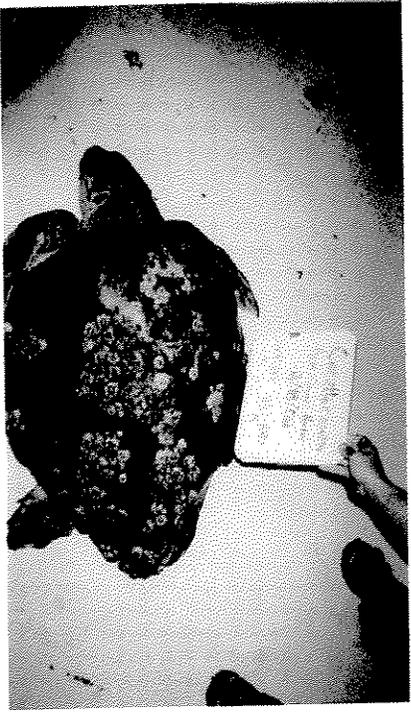
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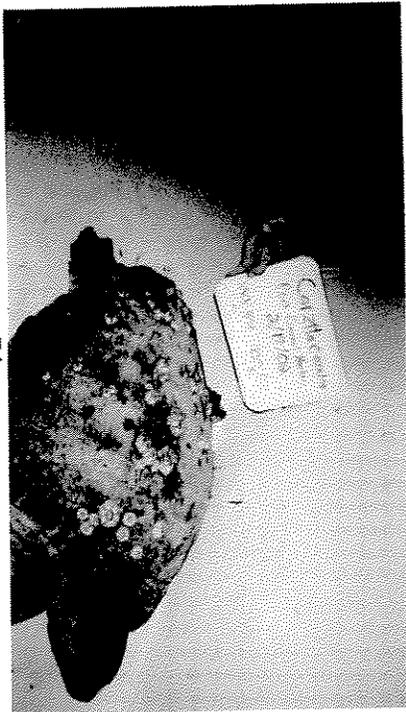
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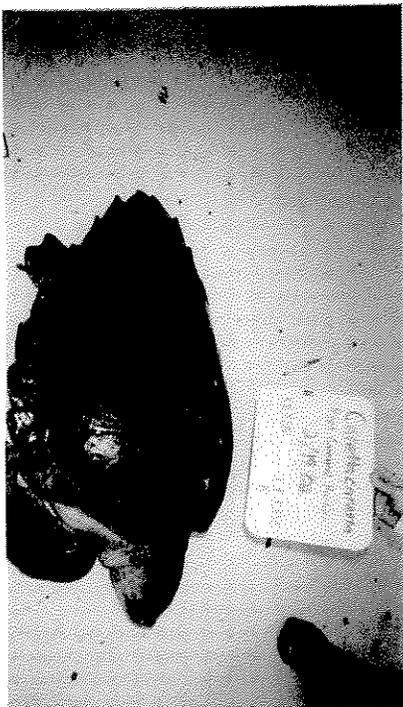
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6.jpg



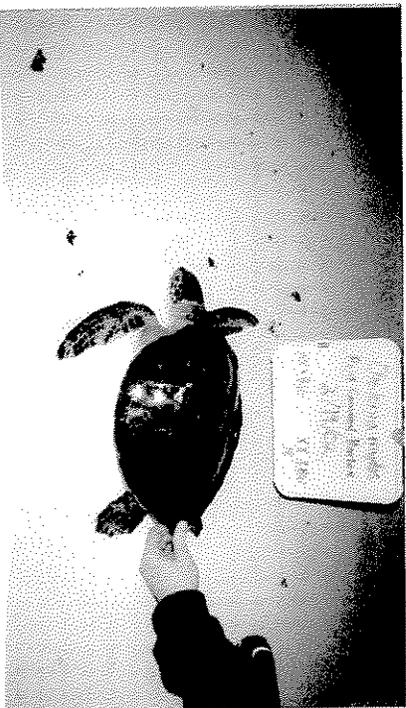
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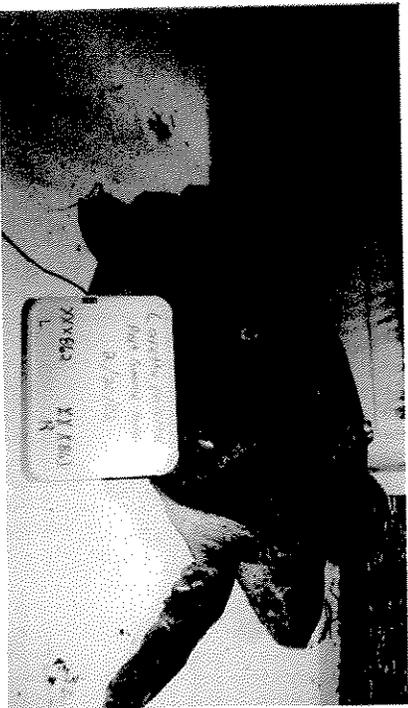
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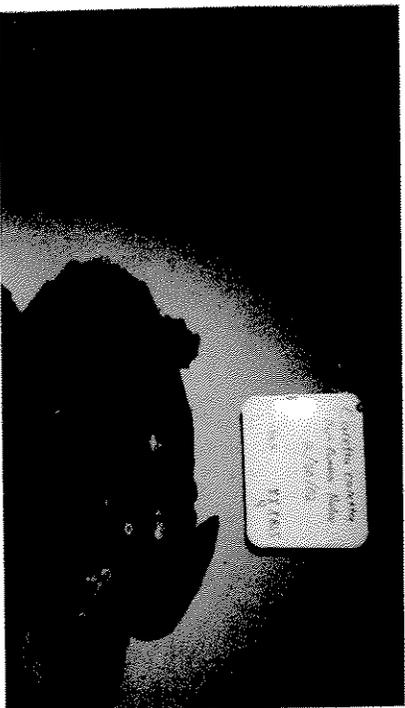
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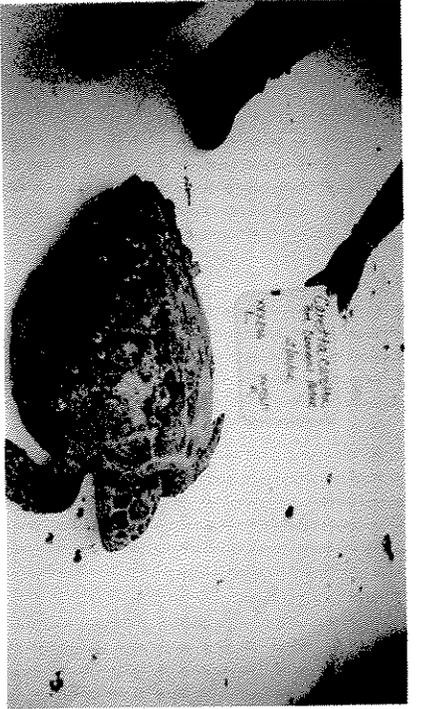
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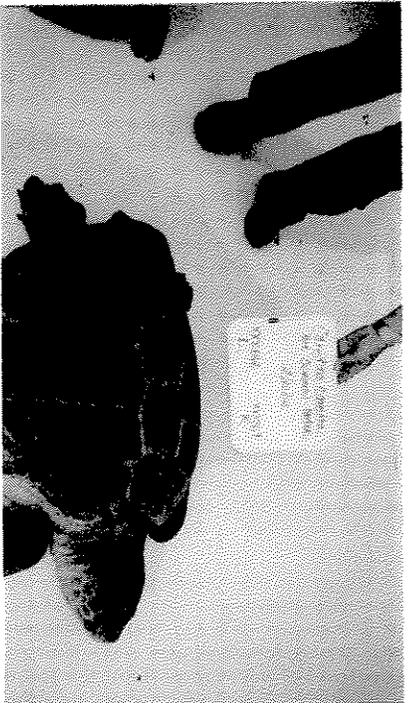
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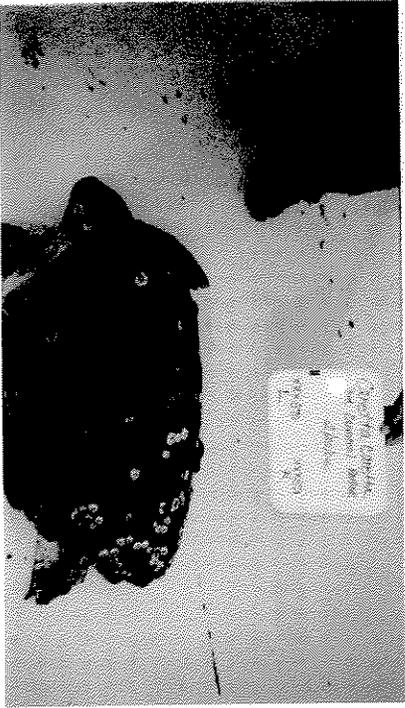
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13.jpg



14.jpg



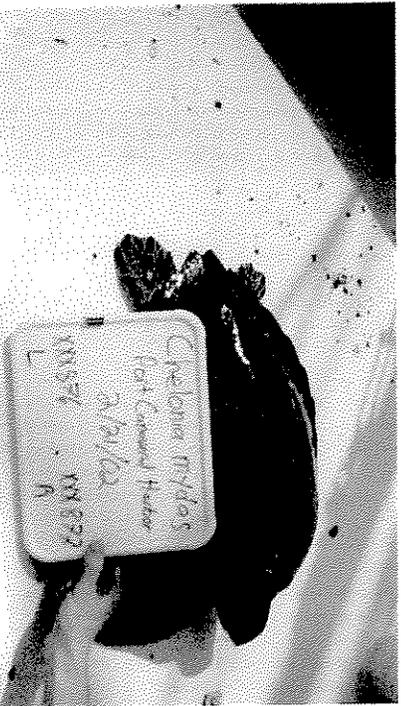
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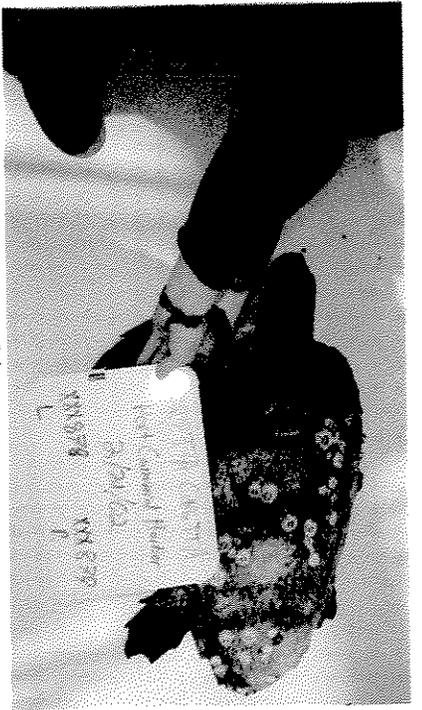
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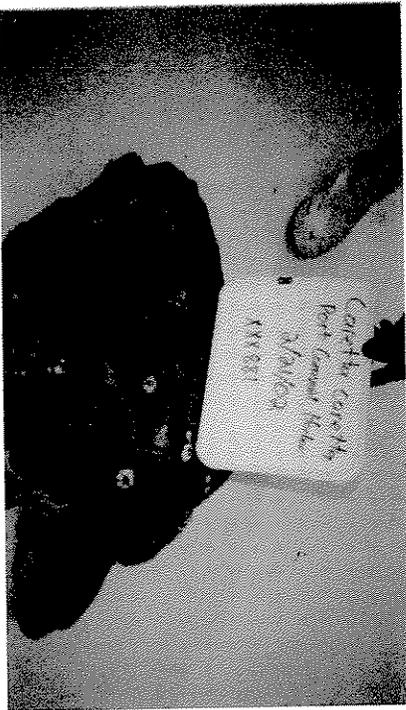
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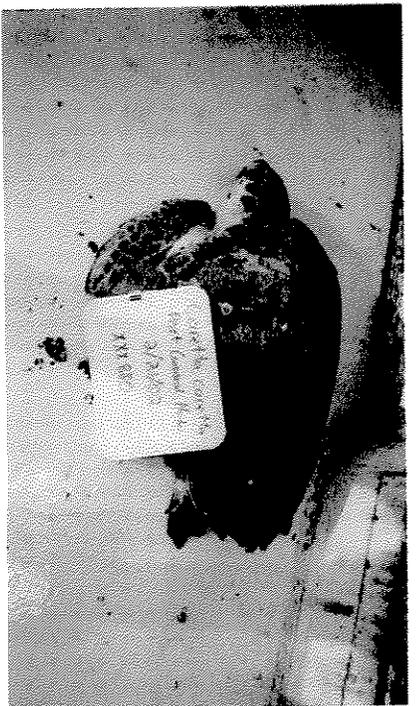
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19.jpg



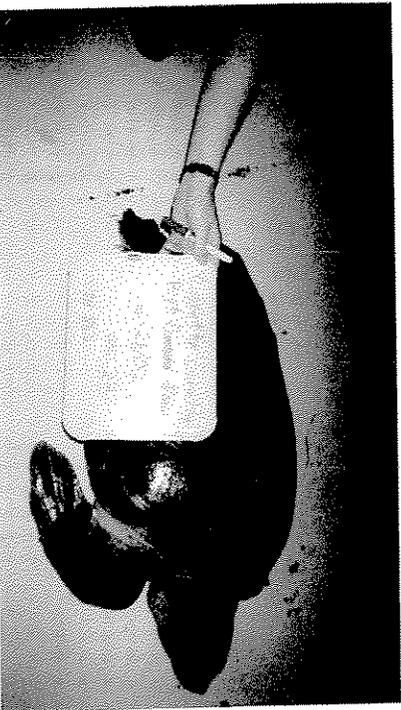
21.jpg



20.jpg



22.jpg



23.jpg

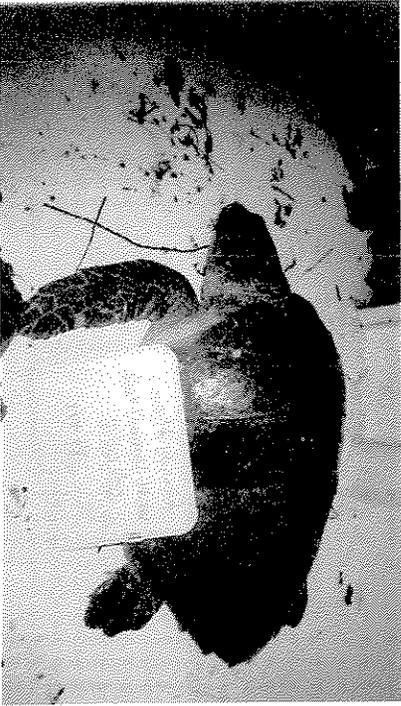


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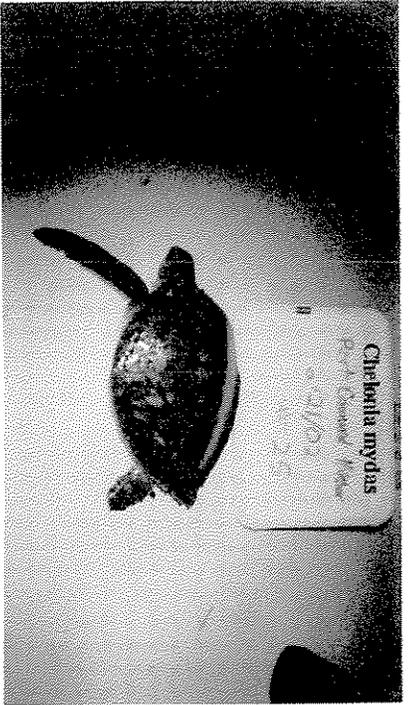
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27.jpg



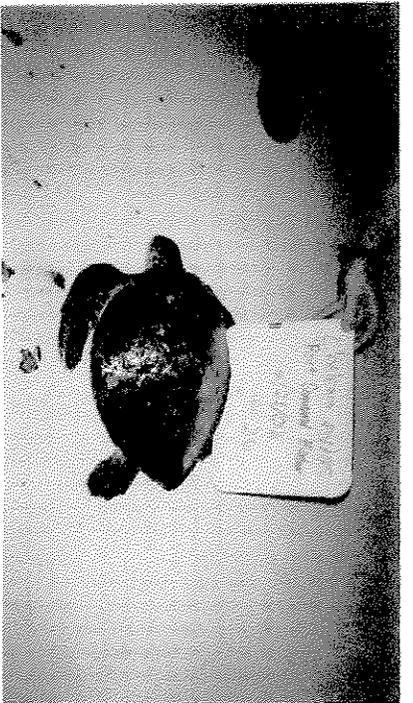
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28.jpg

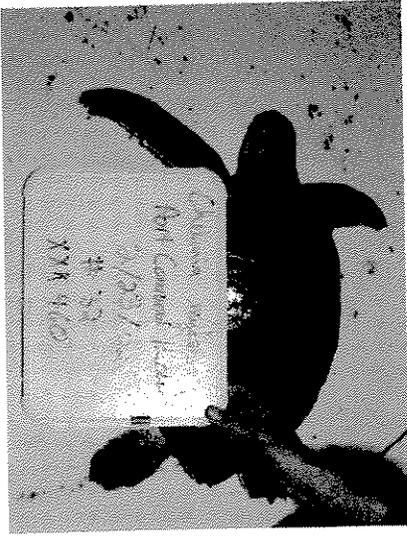


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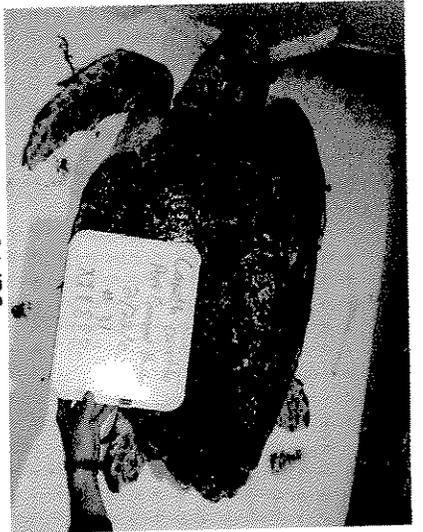




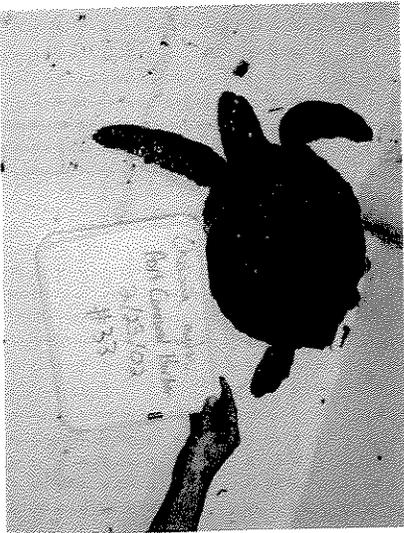
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32.JPG



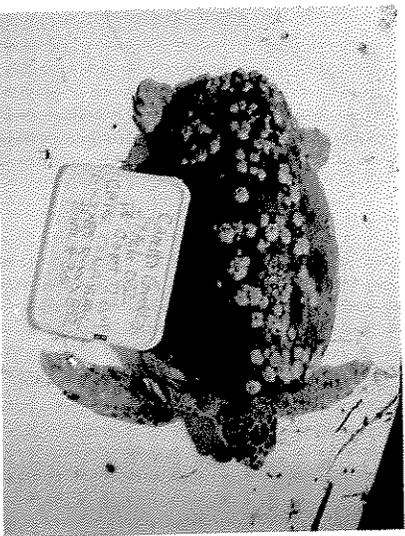
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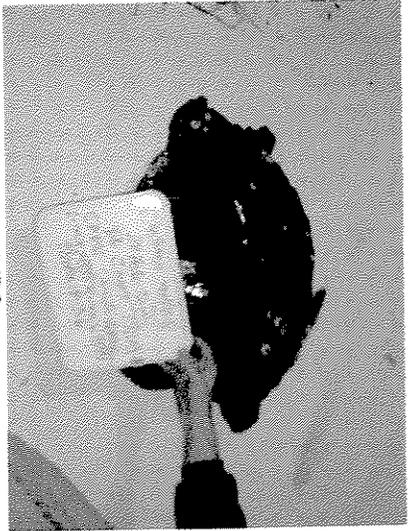
33.JPG



34.JPG



35.JPG



36.JPG



37.JPG



38.JPG



39.JPG



40.JPG

Chelonia mydas
Port Canaveral Harbor
2/24/02
possible adult B.M.

TRAWLER #2
F/V MISS TINA
Turtle Photos



1.jpg



2.jpg



3.jpg



4.jpg



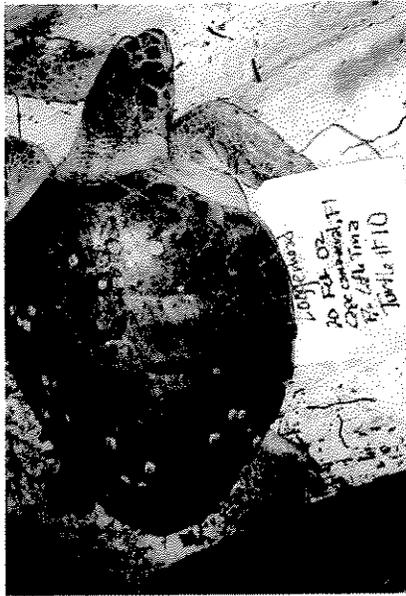
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6.jpg



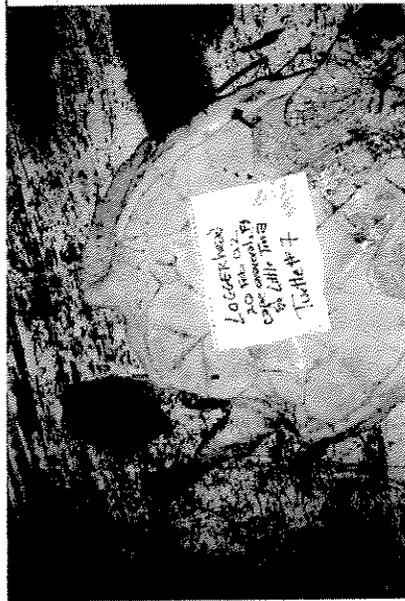
8.jpg



10.jpg



11-B.jpg



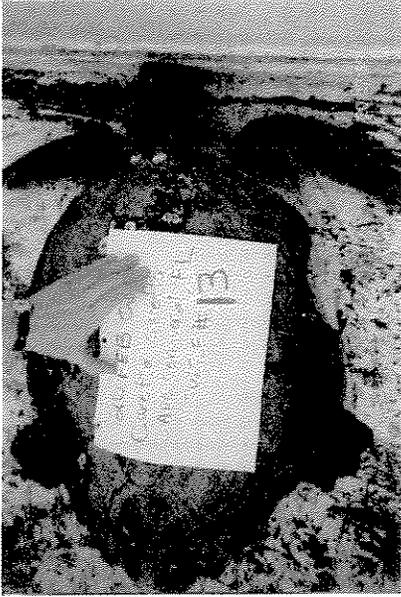
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9.jpg



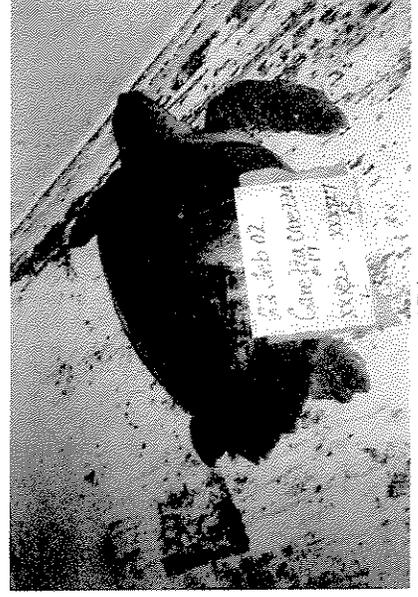
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13.jpg



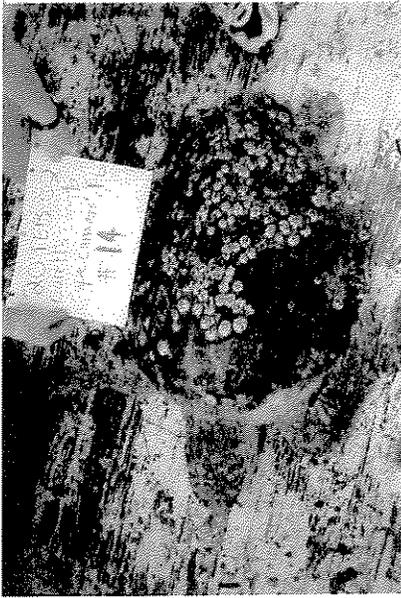
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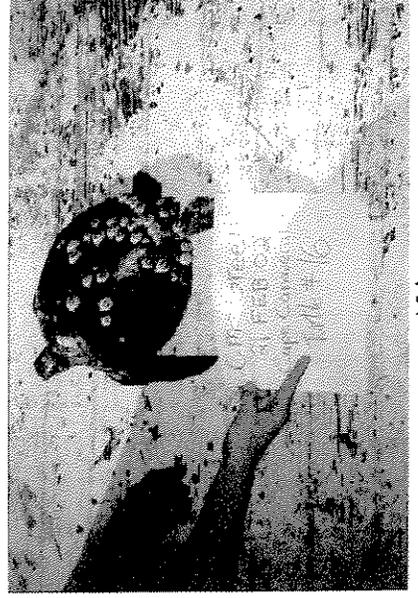
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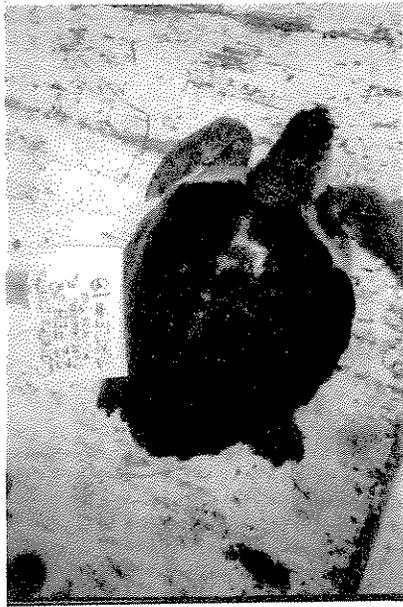
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14.jpg



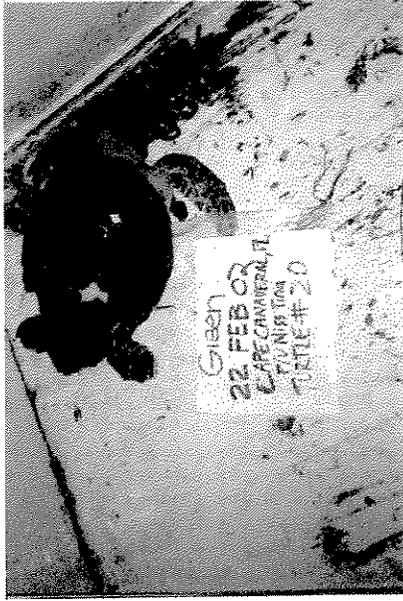
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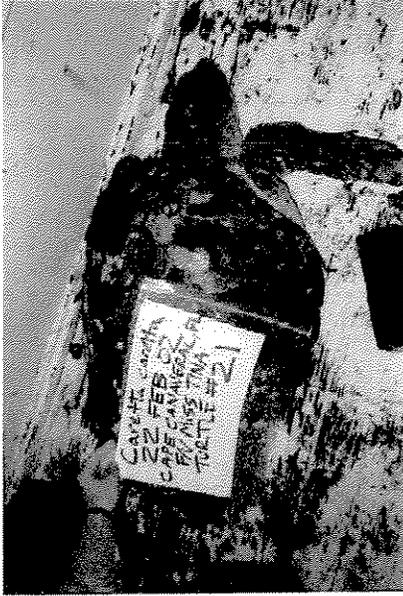
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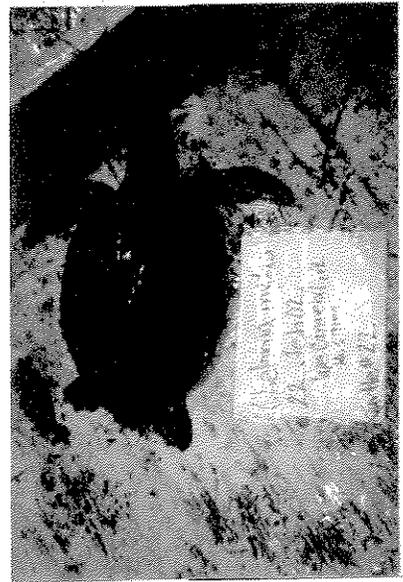
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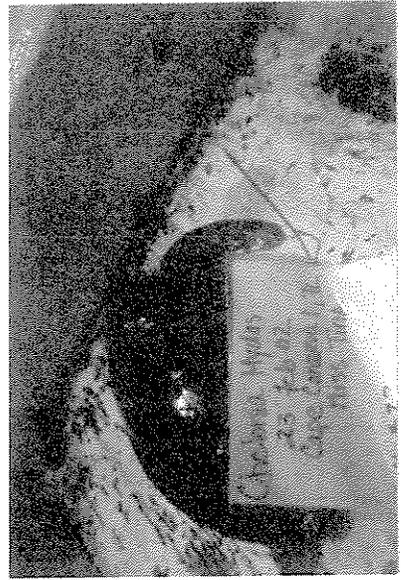
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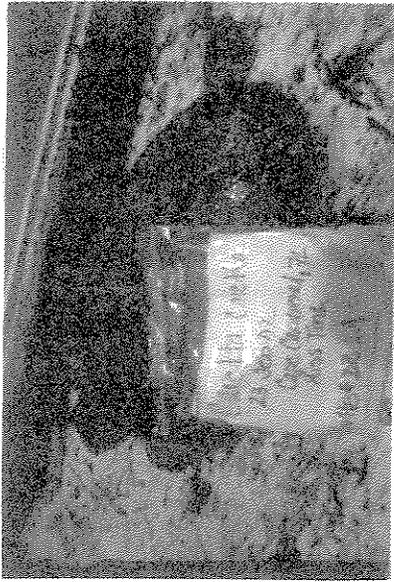
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22.jpg



23.jpg



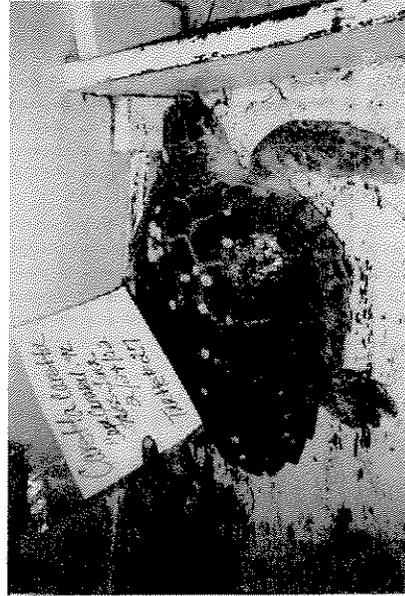
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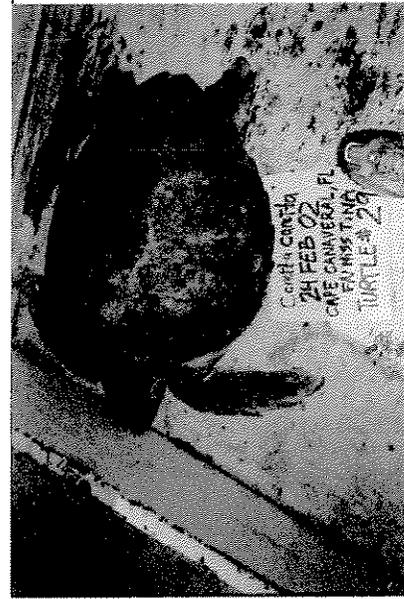
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29.jpg



30.jpg

TRAWLING DAILY REPORTS

F/V CAPT TOM

TRAWLING DAILY REPORTS

F/V MISS TINA

Sea Turtle Trawling Daily Report

Project: Cape Canaveral

Channel: Port Canaveral Harbor

Vessel: F/V Miss Tina

Captain: David Daniels

Observers: Trish Bargo / Bonnie Brown

Date: 19 Feb 02

Tow #	Begin Tow	End Tow	Total Tow Time	# of Turtles Port/Starboard
16	0045	0115	30	0
17	0130	0200	30	0
18	0255	0325	30	0
19	0335	0400	25	0
20	0415	0445	30	0
21	0500	0530	30	2-port
22	0610	0640	30	0
23	0655	0725	30	0
24	0901	0928	27	0
25	0938	1018	30	0
26	1020	1032	12	0
27	1153	1220	27	0
28	1230	1256	26	0
29	1308	1332	24	0
30	1410	1438	28	0
31-A	1445	1516	31	1port/1star
31-B	1555	1620	25	0
32	1722	1733	11	0
33	1805	1835	30	0
34	1850	1915	25	0
35	1959	2022	23	0
36	2035	2101	26	0
37	2125	2155	30	0
38	2205	2235	30	1 port

Sea Turtle Trawling Daily Report

Project: Cape Canaveral

Channel: Port Canaveral Harbor

Vessel: F/V Miss Tina

Captain: David Daniels

Observers: Trish Bargo / Bonnie Brown

Date: 21 Feb 02

Tow #	Begin Tow	End Tow	Total Tow Time	# of Turtles Port/Starboard
59	655	0709	14	0
60	0735	0750	15	0
61	0800	0815	15	0
62	0820	0838	18	0
63	0846	0900	14	0
64	0903	0922	19	1 port
65	0935	0955	20	0
66	1140	1150	10	0
67	1200	1220	20	0
68	1223	1245	22	0
69	1255	1311	16	0
70	1320	1337	11	0
71	1351	1405	14	0
72	1420	1425	5	0
73	1437	1453	16	0
74	1500	1525	25	0
75	1540	1602	22	0
76	1610	1638	28	0
77	1825	1835	10	0
78	1940	2005	25	0
80	2030	2047	17	0
81	2055	2110	15	0
82	2200	2217	17	0
83	2235	2255	20	1 port

Sea Turtle Trawling Daily Report

Project: Cape Canaveral

Channel: Port Canaveral Harbor

Vessel: F/V Miss Tina

Captain: David Daniels

Observers: Trish Bargo / Bonnie Brown

Date: 22 Feb 02

Tow #	Begin Tow	End Tow	Total Tow Time	# of Turtles Port/Starboard
86	2432	2445	13	0
87	0100	0120	20	0
88	0130	0150	20	0
89	0246	0256	10	0
90	0300	0304	4	0
91	0318	0330	12	0
92	0345	0355	10	0
93	0410	0417	7	0
94	0430	0440	10	0
95	0452	0501	9	0
96	0620	0627	7	0
97	0639	0645	6	0
98	0700	0710	10	0
99	0712	0725	13	0
100	0730	0745	15	0
101	0754	0808	14	0
102	0817	0821	4	0
103	0830	0837	7	0
104	0903	0924	21	0
105	0930	0950	20	0
106	1005	1025	20	0
107	1030	1055	25	1 port
108	1140	1200	20	0
109	1205	1225	20	0

Sea Turtle Trawling Daily Report

Project: Cape Canaveral

Channel: Port Canaveral Harbor

Vessel: F/V Miss Tina

Captain: David Daniels

Observers: Trish Bargo / Bonnie Brown

Date: 22 Feb 02

Tow #	Begin Tow	End Tow	Total Tow Time	# of Turtles Port/Starboard
110	1241	1256	15	0
111	1300	1320	20	0
112	1340	1355	15	0
113	1400	1415	15	0
114	1425	1440	15	0
115	1445	1510	25	0
116	1530	1545	15	0
117	1600	1620	20	0
118	1635	1658	23	0
119	1700	1728	28	1 port
120	1753	1715	22	0
121	1820	1837	17	0
122	1845	1858	13	0
123	2005	2030	25	0
124	2055	2120	25	1 port
125	2138	2153	15	0
126	2200	2218	18	0
127	2230	2245	15	0
128	2251	2308	17	0
129	2318	2341	23	0

Sea Turtle Trawling Daily Report

Project: Cape Canaveral

Channel: Port Canaveral Harbor

Vessel: F/V Miss Tina

Captain: David Daniels

Observers: Trish Bargo / Bonnie Brown

Date: 23 Feb 02

Tow #	Begin Tow	End Tow	Total Tow Time	# of Turtles Port/Starboard
130	0010	0035	25	0
131	0057	0124	27	0
132	0129	0140	11	0
133	0151	0209	18	0
134	0224	0255	29	1 port
135	0310	0320	10	0
136	0335	0350	15	0
137	0620	0635	15	0
138	0650	0705	15	0
139	0710	0726	16	0
140	0847	0910	23	0
141	0915	0935	20	0
142	0100	1020	20	0
143	1200	1220	20	0
144	1243	1256	13	0
145	1335	1352	18	0
146	1745	1810	25	0
147	1854	1917	23	0
148	2000	2015	15	0
149	2040	2110	30	1 port
150	2152	2217	25	0
151	2230	2245	15	0
152	2300	2320	20	0
153	2330	2350	20	0

SEA TURTLE STRANDING FORMS

SEA TURTLE STRANDING AND SALVAGE NETWORK – STRANDING REPORT

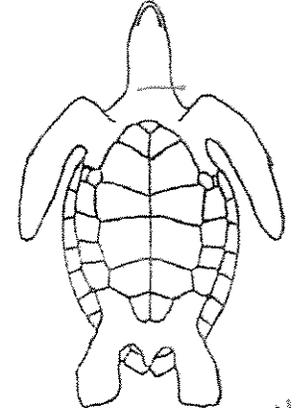
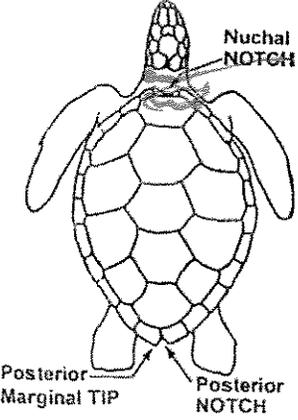
OBSERVER'S NAME / ADDRESS / PHONE:
 First Ronnie M.I. R Last Brain
 Affiliation Ramsay Inc
 Address Newport News, Virginia Beach
 Area code/Phone number (757) 544-0295

STRANDING DATE:
 Year 2002 Month 02 Day 22
 Turtle number by day 01
 Field #: Turtle # 7
 State coordinator must be notified within 48 hrs:
 (this was done by phone (757)437-6159
 email fax (757)437-4933)

SPECIES: (check one)
 CC = Loggerhead
 CM = Green
 DC = Leatherback
 EI = Hawksbill
 LK = Kemp's ridley
 UN = Unidentified
 Check Unidentified if not positive. Do Not Guess.

Photos taken? Yes No
 Species verified by state coordinator? Yes No

SEX: (check one)
 Immature, undetermined
 Female Male
 How was sex determined?
 Necropsy
 Tail length (adult only)
 Length of tail beyond carapace _____ cm / in



photos 7-10/11

STRANDING LOCATION:
 State Florida County Cape Canaveral harbour channel
 Descriptive location (be specific) _____
 Latitude 28° 24.700' Longitude 80° 34.7'

CONDITION: (check one)
 0 = Alive
 1 = Fresh dead
 2 = Moderately decomposed
 3 = Severely decomposed
 4 = Dried carcass
 5 = Skeleton, bones only
Slight smell

TAGS: Contact state coordinator before disposing of any tagged animal!!
 Flipper tags present? Yes No
 Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? Yes No
 If found, record number / tag location _____
 Coded wire tag scan? Yes No
 If positive response, record location (flipper) _____
 Checked for living tag? Yes No
 If found, record location (scute number & side) _____

FINAL DISPOSITION: (check one)
 1 = Left on beach where found; painted? Yes* No(5)
 2 = Buried: on beach / off beach;
 carcass painted before buried? Yes* No
 3 = Salvaged: all / part(s), what/why?
waiting for instruction from wrapped - FL stranding network
 4 = Pulled up on beach/dune; painted? Yes* No
 6 = Alive, released
 7 = Alive, taken to rehab. facility, where? _____
 8 = Left floating, not recovered; painted? Yes* No
 9 = Disposition unknown, explain
* wrapped - weighted - sunk offshore
 *If painted, what color? _____

CARAPACE MEASUREMENTS: (see drawing)
 Using calipers Circle unit
 Straight length (NOTCH-TIP) 75.0 cm / in
 Minimum length (NOTCH-NOTCH) _____ cm / in
 Straight width (Widest Point) 59 cm / in
 Using non-metal measuring tape Circle unit
 Curved length (NOTCH-TIP) 81 cm / in
 Minimum length (NOTCH-NOTCH) _____ cm / in
 Curved width (Widest Point) 92.5 cm / in
 Weight actual / est. _____ kg / lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiota, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.
head is almost completely off animal carapace where nuchal notch is located is torn off just around the notch and one of the tip areas next to that, leaving one tip exposed for SCL measurement
 Turtle tag in Tagging/relocation project in Canaveral channel (Dredge work)
 Head width 34.5cm Tail length 15.5cm
 Plastron width 60cm

SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Will M.I. _____ Last Parks
 Affiliation Remsa, Inc.
 Address 4330-B Kecoughtan Rd.
Hampton, VA 23669
 Area code/Phone number (757) 723-2930

STRANDING DATE:

Year 2002 Month 02 Day 24
 Turtle number by day 01
 Field #: _____

State coordinator must be notified within 48 hrs:
 this was done by phone (757)437-6159
 email fax (757)437-4933

SPECIES: (check one)

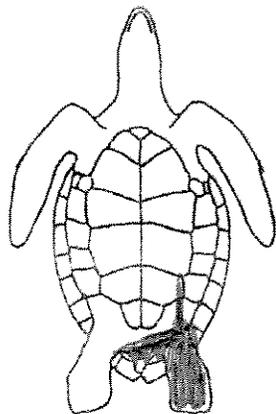
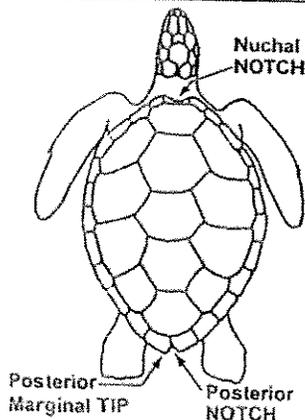
- CC = Loggerhead
 CM = Green
 DC = Leatherback
 EI = Hawksbill
 LK = Kemp's ridley
 UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? Yes No
 Species verified by state coordinator? Yes No

SEX: (check one)

- Immature, undetermined
 Female Male
 How was sex determined?
 Necropsy
 Tail length (adult only)
 Length of tail beyond carapace _____ cm / in



STRANDING LOCATION:

State Florida County Brevard
 Descriptive location (be specific) Port Canaveral Harbor Channel
Between bouys 13A and 9.
 Latitude N 28° 24.568 Longitude W 80° 35.222

CONDITION: (check one)

- 0 = Alive
 1 = Fresh dead
 2 = Moderately decomposed
 3 = Severely decomposed
 4 = Dried carcass
 5 = Skeleton, bones only

TAGS: Contact state coordinator before disposing of any tagged animal!

Flipper tags present? Yes No
 Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? Yes No
 If found, record number / tag location

Coded wire tag scan? Yes No
 If positive response, record location (flipper)

Checked for living tag? Yes No
 If found, record location (scute number & side)

FINAL DISPOSITION: (check one)

- 1 = Left on beach where found; painted? Yes* No(5)
 2 = Buried: on beach / off beach;
 carcass painted before buried? Yes* No
 3 = Salvaged: all / part(s), what/why?
waiting for instruction from FL
 4 = Pulled up on beach/dune; painted? Yes* No
 6 = Alive, released
 7 = Alive, taken to rehab. facility, where? _____
 8 = Left floating, not recovered; painted? Yes* No
 9 = Disposition unknown, explain _____

*If painted, what color? _____

CARAPACE MEASUREMENTS: (see drawing)

Using calipers Circle unit
 Straight length (NOTCH-TIP) 30 cm / in
 Minimum length (NOTCH-NOTCH) 29.5 cm / in
 Straight width (Widest Point) 25 cm / in
 Using non-metal measuring tape Circle unit
 Curved length (NOTCH-TIP) 31.5 cm / in
 Minimum length (NOTCH-NOTCH) 31 cm / in
 Curved width (Widest Point) 27.5 cm / in
 Weight actual / est. _____ kg / lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiota, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

It appears this little turtles left rear flipper was bitten off by something (possibly a small shark). There were no scratches on either the plastron or carapace - does not appear to be dredge or trawl related.

Trish Bargo