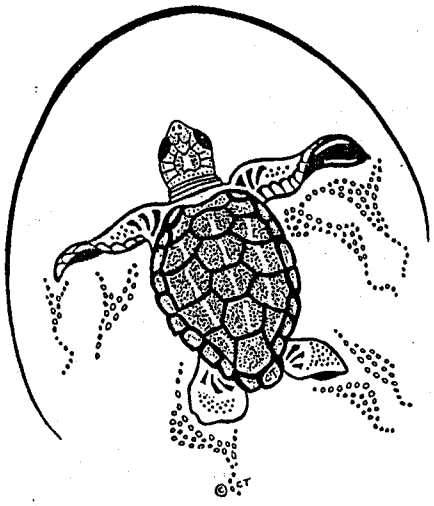
LOGGERHEADLINES



Sea Turtle News from South Carolina

August - November, 2000

***Greetings*!**

This will be the final issue of *Loggerheadlines* for the 2000 season. There was a lot going on, even into the fall of the year.

Strandings

There were 17 dead turtles recorded in August compared to 21 last year. These included 12 loggerheads, four Kemp's ridleys and one green turtle. The distribution remained consistent with past months with 10 of the 17 coming ashore in the Charleston area.

There were six dead turtles recorded in September, two in October and four in November. This is very similar to the numbers for these months in 1999. For the September to November time period, there were eight loggerheads, two Kemp's ridleys and two green turtles.

As predicted in the last issues of *Loggerheadlines*, we ended the 2000 season with 136, which is slightly above the 1999 total of 131. We are envious of Georgia where the strandings were much lower than in previous years. More about this later in the newsletter.

Necropsy

Three sea turtles were necropsied since the last issue of *Loggerheadlines*. Two were loggerheads and one was a Kemp's ridley with a recreational fishhook that pierced the trachea. A female loggerhead that stranded in August on the Isle of Palms had been tagged by the MRD in-water survey crew 24 days prior, 4.8 miles to the southwest at the end of the Charleston Harbor entrance channel's north jetty. This turtle appeared to have died from a chronic condition, while the other two died of acute causes.

Rehabilitation

The Story of "Stinky" and "Tiderunner"

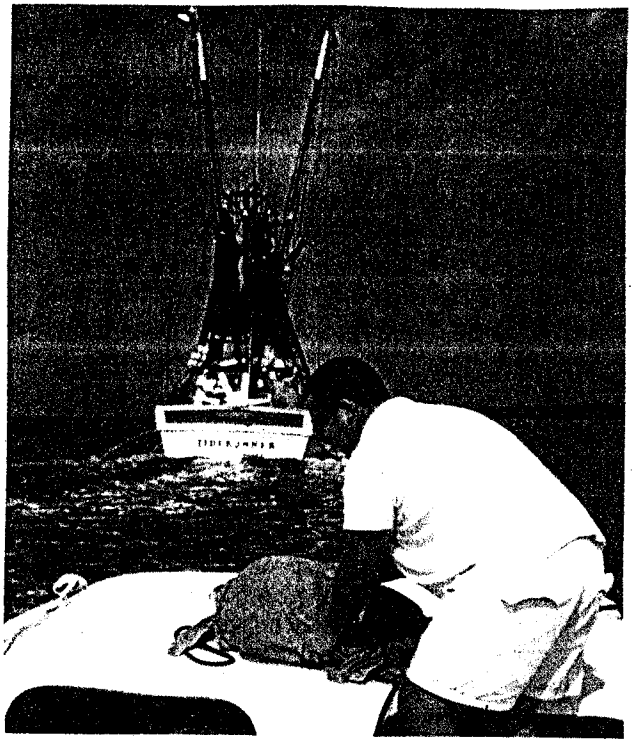
Two loggerhead "floaters" were picked up this August and thanks to the efforts of a host of individuals, are ready for release. Here are their stories.

"Stinky" was picked up in Port Royal Sound, Beaufort County on August 22nd by Marine Patrol Officer, Van Horton. This sub-adult, 94-pound male had a heavy barnacle load but no external wounds. He was transported by DNR staff to veterinarian Dr. Anne Beck (Sea Islands Vet Clinic) for radiographs to determine if there was any intestinal blockage. None was seen, so he was taken to the South Carolina Aquarium Animal Holding Facility for rehabilitation where he became CCRH100.

Aquarium staff and volunteers headed by Andrea Stephens (SC Aquarium) removed a heavy barnacle load (even from inside his mouth) and bathed him with betadine twice a day.

Throughout this period, Jean Beasley at The Topsail Beach Sea Turtle Hospital gave guidance and moral support. Shortly after, the first feces appeared (a good sign), he began to eat squid, a few crabs and lots of mackerel. He settled into a more permanent seawater tank with filtration, and antibiotic therapy continued.

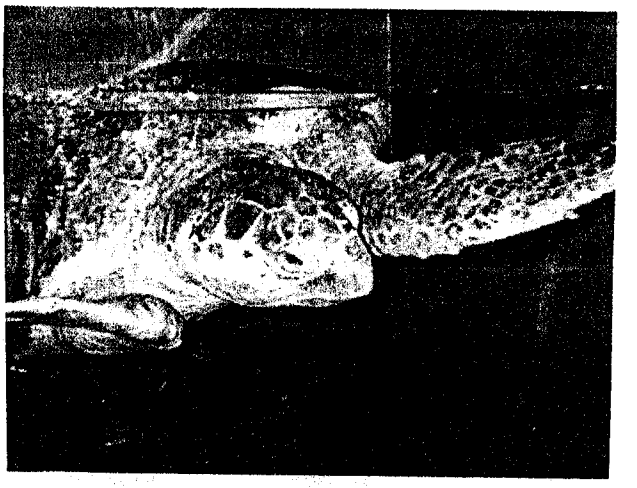
A week later on the August 28, Emmett Paul and Bubba Dennis, the crew of the shrimp trawler, "Tiderunner", telephoned Amber VonHarten, Sea Turtle Project Coordinator for Pritchards Island, to let her know that there was a loggerhead floating back and forth in Trenchards Inlet and that it had been there for about a week. After notifying our DNR office, Amber, her husband Bo and Eric Graves of Fripp Island, took a skiff to rendezvous with the shrimp boat. In the meantime, the two shrimpers had pulled the turtle onto their boat using a cast net. The turtle was transferred to the skiff and covered with a wet towel. The rescue crew named it "Tiderunner" after the boat that helped save it.



Eric Graves with "Tiderunner" and her namesake in the background.

The turtle was taken to a holding tank at the DNR Green Pond office where it was given antibiotics until the weather turned too cold to keep it outside.

On October 5, the 85-pound female (Tiderunner) arrived at the South Carolina Aquarium's Animal Holding Facility and became CCRH200. The smaller female arrived in worse shape than the male; she had apparently been hit by a boat propeller, so in addition to the bloating and buoyancy, she had a series of deep gashes along the side of her carapace and rear flipper.



Floating high in the water and listing to one side is typical posture of a "floater".

On October 11 the two loggerheads were laparascopically examined by Dr. Dave Owens (University of Charleston), a team of veterinarians (Drs. Al Segars of DNR and Tom Sheridan, SC Aquarium), aquarium staff (Andrea Stephens and Bruce Hecker), SCDNR staff (Tom Murphy, Charlotte Hope and Bruce Stender) and Dr. Owens' graduate student, Michelle Lee. In this procedure, a small incision is made and an optic endoscope is inserted in the peritoneal cavity.

Both turtles had some sort of infection brewing inside. The turtles' peritoneal cavities were full of air, which everyone agreed was the source of their floating, as well as a frothy covering on the organs. Small white nodules were present on various organ tissues in both turtles. The veterinarians and aquarium staff administered

sterile fluids directly into the peritoneal cavity. Next, a second batch of fluids that included antibiotics was injected into each turtle. At this same time, blood, fluid, and tissue samples were collected and cultured for bacterial and fungal growth. To date, bacterial and fungal cultures have been negative. Any remaining air was forced out with pressure applied to the plastron while the opening was sutured.

A video through the optic endoscope was recorded for future reference. Following these procedures, the turtles were able to regulate their buoyancy, and steadily improved.

The two turtles were monitored for approximately one month. Both were diving and eating well! Due to the apparent success of the treatment, the group decided to laparoscope the turtles one more time in order to assess the progress of the internal infection.

On November 15 follow-up laparoscopies were performed on Stinky and Tiderunner. Both turtles showed great improvement since the previous laparoscopy. Although a small amount of the "frothy" material remained, Stinky had definitely made progress in his healing. He showed no signs of the infection (the white nodules) and organ tissues seemed very healthy. Tiderunner did not seem to be as far along in the healing process as Stinky. A small amount of gas was present in her body cavity, possibly due to the white nodules that were still present throughout the peritoneum. The overall number of nodules had decreased in Tiderunner, but they had not completely disappeared as they had in the other turtle. The veterinarians again irrigated the body cavity of each turtle with sterile fluids and antibiotics in hopes to fight off whatever infection still may have been present. Stinky and Tiderunner continue to be maintained at the SC Aquarium Holding Facility and are diving and eating well The group hopes to release the two loggerheads back to their natural environment very soon. This rehabilitation effort was a great show of cooperation among the shrimping community, the sea turtle community, DNR, the University of Charleston and the SC Aquarium. Thanks to all who contributed an account of their part in the turtles' story and to Amber and Andrea for the photos.

Nesting News

Here are the nesting totals as sent in by each of the nest protection projects. This represents the total for the year.

Nesting Activity Update

Through November 30, 2000

Waites Island	7
Myrtle Beach State Park	3
Huntington Beach State Park	15
S.C.U.T.E.	77
South Island	125
Cape Island	629
Lighthouse Island	227
Dewees Island	1
Sullivans Island/Isle of Palms	42
Folly Beach	46
Kiawah Island	242
Seabrook Island	15
Botany Bay Island/Plantation	182
Edingsville Beach	34
Edisto Beach State Park	54
Edisto Beach	50
Harbor Island	54
Hunting Island	36
Fripp Island	37
Pritchards Island	107
St. Phillips Island	14
Hilton Head Island	137
TOTAL	2,134

Regional News

North Carolina

Ruth Boettcher, North Carolina Sea Turtle Coordinator, sent a final update on nesting and stranding activities. This year, a total of 772 nests (744 loggerhead, 23 green turtle and four leatherback nests and one unknown) have been reported through August 31. This represents about a 30% decrease from the record setting year they had in 1999.

North Carolina's stranding totals from January 1 through October 30 stands at 669, a 50% increase over last year's total of 445 for this same time period, and an 11% increase over last year's record annual total of 605.

We also would like to extend our congratulations to Ruth for being named "Biologist of the Year" by her peers with the North Carolina Wildlife Commission.

Georgia

Mark Dodd, Georgia DNR, reports they had an average nesting year and ended up with 1,072 nests statewide. Their 11-year average is 1,033 nests. There was one green turtle nest on Ossabaw Island.

As of September, Georgia strandings were 40% below the previous year (258 in 1999 compared to 151 in 2000). This is also 27% below the previous six-year average (208 during 1994-1999 compared to 151 for 2000). They average approximately 13 stranded nesting females per year in Georgia. In 2000 they had only three. Mark is continuing a survey to determine if the use of the leatherback TED configuration is responsible for this change or if there is some other change in commercial fishing activity.

Florida

This was a record-setting year for green turtle nesting in Florida. There were 2,396 nests laid with 740 in the Brevard County portion of the Archie Carr National Wildlife Refuge. This is 45% more than the previous nesting record for this area, according to an Associated Press story in *The Orlando Sentinel*. (It was not clear from the story if the 2,396 nests were a statewide total). – *The Orlando Sentinel, Dec. 4, 2000*

U. S. Fish & Wildlife Service

Sandy MacPherson, National Sea Turtle Coordinator for the U.S. Fish and Wildlife Service provides the following report. On October 12, President Bill Clinton signed the instrument of ratification for the Inter-American Convention for the Protection and Conservation of Sea Turtles, making the United States the seventh country to ratify this important treaty. The treaty can enter into force once it is ratified by one more nation. The Convention requires parties to:

- protect and conserve sea turtle populations and habitats, and foster international cooperation in the research and management of sea turtles;
- reduce the incidental capture, injury, and mortality of sea turtles associated with commercial fishing; and
- prohibit the intentional take of, and domestic and international trade in, sea turtles, their eggs, parts and products. – *Sandy MacPherson*

Beachfront Lighting – Problems and Solutions

The U.S. Fish and Wildlife Service/South Carolina Electric & Gas Company partnership has produced the beachfront "lights out" signs, which arrived just after the turtle season was completed. According to Paula Sisson, (FWS), the signs are "gorgeous", blue, black and white. They say "Beachfront Lights Out" and "Let's Help the Sea Turtles". The FWS also has 60,000 light switch plate stickers that are the exact replica of the signs. You will find one of these included with this copy of the newsletter. Laura Blake-Orr, with SCE&G will be passing these out at the December Lighting Workshop meeting. – *Paula Sisson*

The lighting manual by Witherington and Martin has been revised. The text itself remains the same as the original edition. The key changes are to a couple of Appendices, particularly Appendix G, the list of manufacturers and distributors. There are 500 copies available at the FWS Jacksonville Field Office and can be sent to anyone desiring a copy. The old version is still fine for distribution to users, but insert a copy of the revised Appendix G into it first. – *Sandy MacPherson*

Education and Outreach

On December 5, the ACE Basin and North Inlet-Winyah Bay National estuarine Research Reserves (NERR) sponsored a coastal issues workshop on improving coastal lighting for sea turtles and communities. Local planners, code enforcement officers, electric providers and sea turtle project leaders were invited to participate.

Bob Gent from the International Dark Sky Association (IDA) presented information on the effects of lighting pollution and the remedies that are being used around the country.

Representatives from SCANA and South Carolina Electric and Gas explained their efforts to work with communities. Matt Adair and Ginger Martin, code enforcement officers with the Town of Hilton Head Island, reported on their successful program to reduce problem lighting. They are a great example of committed municipality employees working with the sea turtle patrol!

Carol Bennett, sea turtle Project Leader of Folly Beach provided information about how a volunteer turtle program can enact changes in the community. Carol stressed the importance of working together with the local government, police, as well as the residents and visitors to the beach.

There is no single source for lighting products or designs, but the information is available. IDA has a very informative web site at www.darksky.org.

The summary of the workshop included:

- Poor lighting and light pollution negatively impact sea turtles and other wildlife; it wastes energy and money; it destroys the night sky.
- Simple solutions are available either through changing the type of light or shielding the light.
- The electric providers are willing to work with communities to solve their lighting problems.
- The electric provider can only alter an existing light if the request comes from the owner of the light.
- Light poles have numbers on them that identify each pole. If provided with the pole number, the electric provider can identify the owner.
- Consolidating all the problem lights into one service call will cut costs.
- Effective enforcement of lighting ordinances takes diligence on the part of the municipality and the sea turtle project.
- Cooperation among the sea turtle project, the municipality and the electric provider is necessary for improved lighting in a community.
- Municipalities are often lacking human power to identify problems lights. Sea turtle projects can help provide the leg work for the municipality.

We hope that this workshop will inspire other communities to improve their lighting, not just for the sea turtles, but also for the many positives that result from better lighting. – *Meg Hoyle*

There is another source of information on the web regarding lighting and sea turtles. You can get to it directly at:

http://www.state.fl.us/fwc/psm/turtles/lighting/
Kristen Nelson, Florida Fish and Wildlife Conservation Commission, Tequesta Field Lab

New Research

Marine Resources Division In-water Study

The first season of the Marine Resources Division's new, in-water study of sea turtles was completed this summer. The project objective is to develop a methodology to establish a scientifically valid index of abundance for the northern population of the loggerhead turtle along the south Atlantic coast.

Analyses are continuing on the samples and data taken in year-one of the study. A report is

being prepared and data will be presented at the 21st Annual Sea Turtle Symposium in Philadelphia, Pennsylvania in February.

Final numbers are:
Loggerheads – 224 captured, weighing between 34 and 290 pounds with the average = 103.2 pounds.
Kemp's ridley – 26 captured, weighing between 7 and 95 pounds with the average = 30.0 pounds.
Green turtles – 3 captured, weighing between 6 and 7 pounds with the average = 6.7 pounds.

Recaptures:
- from this project, during the summer = 0
- from other projects = 5, with 4 from the SEAMAP program last year
- 2 are being checked with suspected "living" tags from 1985.

One turtle, tagged by our study, was recaptured by the DNR SEAMAP project after being at liberty for 4 months. It had moved only 5.4 miles to the southwest. The tags were completely encrusted, with the barnacle growth on one causing the tag to be pried open. The internal tag was fine.

Initial reports from the work-ups thus far:

Sex determination (based on 15 samples) = 10 females and 5 males.

Contaminants (based on 7 completed samples) – none found. Blood is being used as negative controls for samples from the Pacific.

Internal parasites (based on 7 completed samples) – minimal numbers.

mtDNA (based on 217 samples) – Most appear to be a mix of northern and south Florida sub-populations. A small percentage (<10%) probably originated from beaches in the Gulf of Mexico from Mexico to southwest Florida.

Blood chemistry and length and weights – data are still being processed, but all looks normal so far.

Slides and a video are being prepared for future presentations. – *Bruce Stender*

Notes from the Field

More innovations from the Isle of Palms. One of the volunteers, Barbara Bergwerf, is an artist and a professional photographer who has had pictures published in *The Chicago Tribune* and *People Magazine*. She has complied a Turtle Calendar for 2001 that has her digital photographs. They include nesting loggerheads, hatchlings and inventories being performed. If any one is interested, they can send $15 per calendar plus $3.50 for postage to: Barbara Bergwerf at 1100F Pine Street, Glenview, Illinois 60025. It is a beautiful calendar and a great Christmas gift idea for sea turtle enthusiasts. The deadline for orders is December 31. - *Mary Pringle.*

Announcements

All are invited to attend the 21st Annual Symposium on Sea Turtle Biology and Conservation (24 February – 28 February, 2001, Adam's Mark Hotel, Philadelphia, Pennsylvania, USA. The Symposium is being hosted by Drexel University and is expected to attract well over 800 participants including sea turtle researchers, resource managers, educators, policy-makers, students and enthusiasts from all over the world.

Agenda:

On Friday evening, February 23, there will be a pizza social at the Adams Mark Hotel.

Saturday, February 24, sessions begin with invited, contributed, oral presentations. Poster sessions also begin on this day. There will be a "Philly-style" social at 6:30p.m. with complimentary beer and wine, cheese steaks and pretzels and a great Latino band. A ticket is required.

Sunday, February 25, a special session of invited oral presentations on leatherback

turtles will take place in the morning and early afternoon. Regular sessions will continue in the afternoon.

Monday, February 26, a special session of invited panel participants will discuss past, present and future challenges in sea turtle conservation from 9 – 11a.m. Regular sessions will continue in the afternoon. The live auction will take place starting at 8pm.

Tuesday, February 27, regular contributed sessions continue until 3:30p.m. The Plenary session will be held from 3:30-4:30p.m. The awards banquet will begin at 6:30p.m. There will be a live dance band from 8pm to midnight.

Wednesday, 28 February, the IUCN Marine Turtle Specialist Group Annual Meeting will take place from 10a.m. – 12p.m. Several field trips and workshops will also occur throughout the day.

You may register online at the Web site: http://www.seaturtle.org/symposium/. If you do not have Internet access you may also register by post mail. The Symposium Registration Coordinator is Donna Broadbent (E-mail: zenith@citlink.net; Tel: 304-947-5366; Fax: 304-947-5364; Address: 480 Williamsport Pike, Suite 3; Martinsburg, West Virginia, 25401, USA.) A hard copy Symposium announcement and registration form will be mailed to all who have registered for previous Symposia.

What started out as a small workshop of about 50 people has grown into a major international meeting of almost a thousand. This will be a time to reflect on our accomplishments through the adolescence of the Symposium and look to the future of its adulthood. – *James R. Spotila, President of the 21st Symposium*

Wishing all of you a joyous Holiday Season and a prosperous New Year. We'll be in touch again next spring in preparation for when the sea turtles return to South Carolina beaches!

Sally, Charlotte & Joan

Equal Opportunity Agency

If you have questions or comments, please contact:

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