

# LOGGERHEADLINES

Sea Turtle News from South Carolina

**January - May, 2003**



## **Greetings!**

Welcome to the 2003 sea turtle season. Thus far it has been a “mixed bag” as you will read in this issue of *Loggerheadlines*.

## **Strandings**

There were 52 strandings in the past five months compared to 45 last year and only 27 for this same period in 2001. There were 45 loggerheads, three Kemp’s ridleys, three leatherbacks and one unidentified. Forty-four strandings in May represent the highest total for the month since we began keeping records.

Many of the loggerheads were emaciated and covered with barnacles and other epifauna. These “Barnacle Bills” seem to be a spring event, but they have never been as numerous as this year. The three Barnacle Bills in April were in Charleston County. However, 12 of the 18 in May stranded in Georgetown and Horry counties. Some came in alive but with rotting flesh and had to be euthanized. Others died on the beach or en route to the vet. (See Necropsy Summary below). Were it not for these Barnacle Bills, stranding levels would be about average this spring. A total of 21 “Barnacle Bills” have stranded since mid April.

Ten of the turtles that stranded on Sullivans Island and in and near Charleston Harbor were the victims of ship strikes. Other boat strikes were noted at Folly Beach, Seabrook Island and in the Myrtle Beach area.

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## **Necropsy Summary**

In December, 2002 and January of this year, three loggerheads were found in impoundments along the South Santee River. Two were still alive but cold-stunned and also had puncture wounds from alligator bites. One survived after rehabilitation at the North Carolina Aquarium in Manteo and the other died soon after admittance to the Marine Science Center in Florida.

Thirteen (26%) of the 50 additional sea turtles that have stranded in 2003 were necropsied. Ten were loggerheads, two were Kemp’s ridleys, and one was a leatherback. The leatherback was the only adult. She was not gravid, but had laid eggs in the past. Eight of the thirteen died from long-term chronic illnesses. They were emaciated, dehydrated, had heavy barnacle loads, ulcerated skin and rotting flippers. Five of these animals stranded alive and had to be euthanized.

One of the “Barnacle Bills” was taken to North Carolina State University Veterinary School for a complete necropsy. **Dr. Greg Lewbart’s** team included a parasitologist and pathologist. Many tissue samples were taken for further analysis. The findings from a preliminary report by the team at NC State are as follows:

Histological and gross findings support a diagnosis of severe endoparasitism involving the digestive tract, liver, spleen, lung, kidney and urinary bladder. Whether the endoparasitism was the initiating event rather than secondary remains open. Bacterial, fungal, and viral culture, as well as toxicological screening, may aid in providing a

better understanding of the cause of this animal's deterioration and in turn provide information for the other turtle mortalities.

The remaining five turtles were in good body condition. Four died from boat strikes and a Kemp's ridley drowned when it became entangled in fishing line attached to an artificial reef ball off the Folly Beach pier

### Rehabilitation at the SC Aquarium

"**Edisto Mama**", an adult female loggerhead turtle was released off of Edisto Beach, South Carolina on Wednesday, April 30, 2003. She stranded on September 18, 2002 and was taken to the South Carolina Aquarium for rehabilitation. Her release attracted more than 200 people. When the 240-pound loggerhead turtle stranded on Edisto Beach, **Judy Hartman** and **Merelyn Devers** with the Edisto Beach Loggerhead Turtle Project, **Elaine Freeman** with the Edisto Beach State Park and **Charlotte Hope** with SCDNR came to her rescue. The loggerhead was a "floater" and could not dive under the water.

The turtle was taken to the South Carolina Aquarium where she was under the care of **Tom Sheridan**, DVM, **Bruce Hecker**, and the aquarium husbandry staff. **Dr. David Owens**, Director of the Grice Marine Biology Graduate program at the College of Charleston performed two laparoscopic exams to administer antibiotics into the body cavity and remove the gases that were keeping the turtle afloat. While at the aquarium she gained weight to reach 266 pounds. Once the turtle was able to dive under the water, she was tagged and released.

Four juvenile Kemp's ridley sea turtles arrived at the Aquarium on January 7th. Flying in on a private plane via the Executive Airport (Johns Island), these imports from the northeast had an interesting story: The four turtles were originally found stranded off the coast of Massachusetts in November 2002 suffering from complications of hypothermia, a condition also called "cold-stunning." In this condition they have a lowered ability to fight off

diseases, and thus are prone to numerous infections.

In this particular episode, over 100 Kemp's ridley sea turtles were found stranded on outer Cape Cod beaches. The New England Aquarium rescued these turtles, provided first aid, and quickly contacted aquariums across the country to help rehabilitate them. The South Carolina Aquarium took in four of the turtles for long-term rehabilitation, treating them for pneumonia and frostbite. All four turtles made rapid recoveries, virtually doubling in size from their arrival weights. On May 19<sup>th</sup> two were released off Folly Beach and on June 6<sup>th</sup>, the third turtle was released off the Isle Palms. The remaining turtle may be released in early July.

On March 29, a 10-lb. green turtle stranded in Myrtle Beach in the vicinity of 44<sup>th</sup> Ave, N. The many groups who came together to help this little turtle illustrate how logistically complex a rescue can be. The turtle was removed from the beach Saturday morning by the police department and given to the Myrtle Beach State Park staff, which in turn, contacted SCDNR. It was then transported to the South Carolina Aquarium by **Debra Andrews**, DMV, Ark Animal Hospital of Surfside Beach.

The weak and emaciated turtle was admitted to the Aquarium encrusted with a large number of barnacles on the shell, flippers, and head. It was responsive to touch. Over the next few weeks, the turtle made a rapid recovery. Aquarium staff noticed bits of plastic in the turtle's stools, including a large number of shredded plastic pieces, such as bubble wrap, brush bristles, plastic bags, and other unidentified scraps.

The turtle has been PIT tagged, seems clear of gut obstructions, and pending the results from a fungal culture (3-4 weeks), may be ready for release. A site within Charleston Harbor, where small greens are seen in summer, has already been chosen.

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## Regional News

### North Carolina

**Dr. Matthew Godfrey**, North Carolina Sea Turtle Coordinator, reports it has been a busy spring in North Carolina. Since the beginning of May, there have been more than 141 strandings (118 loggerheads, 11 Kemp's ridleys, 7 leatherbacks and 5 green turtles). The leatherback strandings all occurred in a span of about 12 days, and five of the leatherbacks showed signs of boat collision/propeller wounds. On June 4, 13 rehabilitated turtles were released from the Topsail Rehabilitation Center. The nesting season is slowly picking up speed, with more than 70 recorded nests throughout the state, all exclusively loggerheads.

Although not directly related to sea turtles, the NC State Legislature recently passed a bill protecting all freshwater and terrestrial turtles from uncontrolled harvest. In the previous year, more than 20,000 turtles in NC were reported as being taken from the wild for sale or export.

### Georgia

**Mark Dodd**, Georgia Sea Turtle Coordinator, reports that they have recorded 91 stranded sea turtles through the first week in June. This is a lot lower than 161 in 2002, but still higher than in 2001 and 2000, with 55 and 66, respectively. Also, a higher number were boat struck or diseased turtles with fewer fisheries-related mortalities. Nesting is slightly above average, but it is not a big year.

### Florida

In his weekly stranding evaluations, **Dr. Allen Foley** (Florida Fish and Wildlife Conservation Commission) reported that there have been more strandings in Florida through May 10<sup>th</sup> than in any previous year (beating the previous worst year by nearly 100). Dr. Foley reported that an unusual proportion of the strandings showed signs of disease (20 to 25 % this year versus 10% in an average year).

Along the west coast, the number of strandings is more than two times the previous 10-year average and is at least partly attributable to an on-going red tide event. The Florida Panhandle has also experienced elevated strandings and many of the turtles had been mutilated.

**Dr. Blair Witherington** provides some "seat-of-the-pants" assessments of the Florida nesting season so far:

1. It looks like an "average" loggerhead nesting season so far, but that could change.
2. They are expecting a low green turtle nesting year (from 15 years of a biennial pattern) but there have been several green turtle nests already laid in late May.
3. There is a very good chance that leatherback nesting will set a record above the previous one in 2001. Brevard County, for instance, has a record number for this year and there is still some leatherback nesting left to go.

### Recovery Team News

On March 20, the Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) published a joint notice in the *Federal Register* to announce their intention to revise the Atlantic loggerhead sea turtle recovery plan. Several meetings of the Recovery Team have been held. On April 8-9, forty-one representatives attended a "stakeholder" meeting in Silver Spring, Maryland. The purpose of the meeting was to exchange information and discuss the recovery planning process, major threats to the species, and stakeholder concerns. **Sarah Dawsey** and **Paula Sisson**, FWS and **DuBose Griffin** and **Sally Murphy**, SCDNR represented South Carolina. A summary of the meeting will be posted on the Team's web page:

<http://northflorida.fws.gov/SeaTurtles/loggerhead-recovery/default-loggerhead.htm>.

In April, the Florida Senate and House decided to toughen the penalties for poaching sea turtle eggs. Senate Bill 174 creates a \$100 per egg penalty for illegal possession of any sea turtle

eggs. And, any person, firm or corporation in possession of more than 11 eggs, or who knowingly commits, solicits or conspires to commit, a violation of Florida's Marine Turtle Protection Act commits a third-degree felony and is subject to imprisonment for up to 5 years and/or a fine of up to \$5,000. If approved by the Governor, the law will take effect on July 1, 2003. --**Sandy MacPherson**, National Sea Turtle Coordinator with the U.S. Fish and Wildlife Service.

### Nesting Update

Thru 5/31	2002	2003	Inc/Dec
Myrtle Beach S. P.	0	1	
Huntington Beach S. P.	0	1	
S.C.U.T.E.	12	6	-50%
South Island	14	9	-36%
Cape Island	153	132	-14%
Lighthouse Island	15	37	147%
Deweese Island	5	5	0%
Sullivans/Isle of Palms	9	7	-22%
Folly Beach	11	6	-45%
Kiawah Island	49	50	2%
Seabrook Island	7	11	57%
Botany Bay Isl & Plan	48	47	-2%
Edingsville Beach	16	17	6%
Edisto Beach S. P.	15	22	47%
Edisto Beach	19	12	-37%
Harbor Island	6	12	100%
Hunting Island	8	16	100%
Fripp Island	6	9	50%
Pritchards Island	33	17	-48%
St. Phillips Island	7	4	-43%
Hilton Head Island	47	36	-23%
<b>TOTAL</b>	480	457	-5%

### Nesting News

The loggerheads surprised us again this season by nesting early despite the cold winter. The first nest called into the office was on Botany Island on May 1<sup>st</sup>. Soon after that, more beaches were reporting that they had early nests as well. However, the overall

nesting effort is below last year for this same time period.

Another surprise was finding a leatherback track on Hilton Head Island during the morning of May 28<sup>th</sup>. No eggs were found, even with the use of shovels. On May 30<sup>th</sup> and again on May 31<sup>st</sup>, leatherback crawls were found on Hunting Island State Park beach. Both were non-nesting as well.

On Tuesday, June 3<sup>rd</sup>, a leatherback was spotted during an aerial survey about 1.5 miles off the north end of Fripp Island. Whether this was the same turtle is anyone's guess.

### New South Carolina Marine Turtle Conservation Program Web Site

We are pleased to announce that the South Carolina Marine Turtle Conservation Program now has an official web site. The site provides extensive information about the program, news and events, and research. It also provides resources to our South Carolina Sea Turtle volunteers. Please visit our web site at <http://www.dnr.state.sc.us/marine/turtles>.

### Research

#### Satellite Tracking of Nesting Loggerheads

Last July, coastal staff of the Wildlife Diversity Section of DNR assisted by Cape Romain staff attached satellite transmitters to five nesting females. The goal of the project is to determine post-nesting movements, migration routes, and the size and location of foraging areas. Maps of the turtles can be viewed on the Marine Turtle Conservation Program web site <http://www.dnr.state.sc.us/marine/turtles>.

Signals from the four turtles that migrated north became very intermittent, due to problems with the electronics. "Sarah" and "Celeste" the only ones still sending signals, have begun their migrations back to the foraging grounds they occupied in the fall.

Continuing this story...The turtles only came as far south as Cape Fear, North Carolina. The last signal from **Sarah** was on November 20, 2002. The last signal from **Big Mama** was on February 27, 2003. **Jessamine** had moved around Cape Hatteras, but when she encountered cold water, she came back south of Cape Hatteras. The last signal from her was on May 11, 2003.

**Celeste** stayed east of Cape Fear most of the winter, and then moved north in March. In mid April she entered the main current of the Gulf Stream and got swept off the Continental Shelf into the Atlantic. She made a couple of big circles, was swimming west toward her foraging area when she got swept out again. She ended up farther north, which enabled her to approach her foraging area without encountering the Gulf Stream again. As of this writing, she is nearly back.

Sirtrack Limited, the manufacturer, replaced the four transmitters that did not work with a better design and we purchased one more. So, five more loggerhead females will be instrumented this July.

### Notes on Folks

Congratulations to **Mary-Catharine Martin** for being nominated for the Second Annual Dana Beach Outstanding Service to the Community Award. Their peers in the MES nominated students who had substantial service contributions to the Master of Environmental Studies Program and their community.

Harbor Island has a new project leader, **Ellen Hiller**. **Chad Denny** will assist her. They both work for the Harbor Island Property Owners Association.

**Laura Mills** in this year's student intern at Yawkey Wildlife Center. She is a rising senior at Warren Wilson College where she is majoring in Environmental Studies and concentrating in Conservation Biology.

Sally Murphy, *State Coordinator*  
Charlotte Hope, *Biologist*  
DuBose Griffin, *GIS Analyst, Sea Turtle Desk*  
Joan Seithel, *Technical Assistant*

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### COVER PHOTO

Miss Edisto's release taken by SC Aquarium staff.