



LOGGERHEADLINES

Sea Turtle News from South Carolina

June - July, 2004

Greetings!

As the sea turtle season progresses, it continues to be unusual, as you will read in this issue of *Loggerheadlines*.

Strandings

Strandings during June and July were similar to last season except June was slightly higher and July was slightly lower. Strandings were distributed along the entire coastline, but with nearly half in Charleston County. Most were either victims of boat/ship strikes or sick. There were 49 loggerheads, eight Kemp's ridleys, one green turtle and no leatherbacks. The total for the year is running above last year, due mostly to the debilitated turtles that stranded in April. The number of debilitated, emaciated loggerheads, dropped to just three during June. There were none in July.

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Necropsy Summary

Nine turtles were necropsied in June and July. Seven were loggerheads and two were Kemp's ridleys. One Kemp's was a female; the other could not be determined. For the loggerheads, there were five males, two females. As the season has progressed, we have seen more acute mortalities than chronic ones. There were six acute cases and three chronic. There were four acute cases where there was no apparent injury and the animals were in good physical condition. One of the acute cases was a boat strike.

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Rehabilitation at the SC Aquarium

The South Carolina Aquarium continues to care for six turtles, the maximum that they can house. Three look quite healthy with good body scores and behavior and have been scheduled for bloodwork in mid August. If the tests are encouraging, they will be cleared for release, which would open the way to accept any late season strandings.

Two turtles are involved in a special toxicology and immunology study. Researchers from National Institute of Standards and Technology (NIST) and the Marine Biomedicine and Environmental Science Center are investigating the "debilitated turtle" syndrome. By examining specific blood values and contaminants at the time of stranding through recovery, the team hopes to establish a valid cause for these mysterious strandings.

Here is an update on the condition of the three turtles that are not ready for release.

In June, the DNR in-water sampling trawl captured a 74 cm loggerhead with two deep propeller wounds across the carapace. The carapace fracture was stabilized with surgical screws and wire. Healing appears to be occurring and the turtle's appetite is good.

The loggerhead from Blackbeard Island, GA was very anemic. It is currently on antibiotics, de-wormers and iron. Its appetite has increased from poor to good. This turtle is in the toxicology study.

The juvenile loggerhead from Hamlin Sound is improving. The large loss of tissue covering the front flipper will require the development of

extra skin to bridge a 4-inch gap. Its appetite and activity level are good. – **Bruce Hecker**, Director of Husbandry and Facilities, South Carolina Aquarium.

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Nesting Update

Thru 7/31	2002	2003	2004
Myrtle Beach S. P.	0	4	2
Huntington Beach S. P.	7	17	9
S.C.U.T.E.	76	88	26
South Island	85	93	16
Cape Island	691	808	242
Lighthouse Island	174	300	91
Deweese Island	19	13	3
Sullivans/Isle of Palms	37	33	10
Folly Beach	43	54	20
Kiawah Island	179	221	58
Seabrook Island	28	32	4
Botany Bay Isl & Plan	156	268	75
Edingsville Beach	56	59	16
Edisto Beach S. P.	57	85	20
Edisto Beach	90	59	11
Harbor Island	33	44	22
Hunting Island	45	65	18
Fripp Island	24	52	9
Pritchards Island	90	118	28
Hilton Head Island	169	163	67
TOTAL	2,059	2,576	747

Note: 2003 does not include 2 Dc nests.

The nesting effort that was off to a slow start in May did not show any recovery, and this will be the lowest year since records were begun in 1980. The number of nests laid through the end of July is down 71% compared to last year.

We believe that the reasons put forth in the previous *Loggerheadlines* are still valid. One other piece of the puzzle comes from the DNR Marine Resources in-water study. Although their protocol for sampling differed this year from the past four years, they noted no decline in their catch rate of juvenile loggerheads. Therefore, the low abundance of turtles

appears to be only in the breeding adults. This would lend credence to the third factor, i.e. the cold-water upwelling affected the whelks and crabs on the resident foraging areas of adult loggerheads. This either reduced the amount of food available or reduced the metabolism of breeders or both, so that they did not come into reproductive condition this season.

Journey of the Loggerhead available September 2004

Environmental Media has produced films to support the work of environmental and education organizations for more than fifteen years. Until we began working on *Journey of the Loggerhead*, we had not come in contact with so many people with such passion for one goal: the worldwide conservation of marine turtles.

We designed and filmed this interactive DVD with countless staff and volunteers of local nesting beach monitoring programs, domestic and international agencies, colleges and universities, aquaria, nature centers, and rehabilitation programs.

The sum of our work is this interactive DVD containing GIS data, satellite tracking information, still photographs, extensive interviews and a 26-minute video about the loggerhead and other marine turtle species.

In spite of eighteen months of work on the DVD, its content does not begin to capture the devotion, intelligence, and passion of those with whom we worked. We thank them all for their ongoing labors, and hope that *Journey of the Loggerhead* will help advance their cause.

For more information or to order: Contact **Katy Garland** at kgarland@envmedia.com or 800-368-3382, ext. 12 or log onto www.envmedia.com

Environmental Media is offering special discounts to marine turtle organizations and conservation groups. – **Katy Garland**

Nesting News

Fripp and Harbor Islands

Liz Rigg, Karen and Tony Natoli and myself recently returned from an excursion to the Archie Carr National Wildlife Refuge hosted by The Ocean Conservancy.



On the first full day of our adventure, we joined **Dr. Lew Ehrhart** and his students from the University of Central Florida.

They took us out in boats into the Indian River Lagoon to capture, measure and tag juvenile sea turtles. For those of us participating, it was a very hands-on experience, as **Liz Rigg**, Beaufort Gazette staff photographer and volunteer with the Fripp Island Loggerhead Patrol, can attest.

That afternoon, an unscheduled surprise awaited us. An ambulance transporting four rehabilitated green turtles arrived from The Turtle Hospital in Marathon Key. They let us carry the turtles down a rock revetment to the water and release them. This was such a moving experience seeing them tentatively make their way back into the wild.

Over a fine barbecue meal at the home of Professor Ehrhart and his wife Carol, we mingled with his research students while Doc, as he is affectionately known, entertained and educated us with stories about his 35 years of work with sea turtles.

That night, while observing the amazing and age-old process of a loggerhead nesting, the students showed us the bioluminescence on her carapace. By running their hands across her shell, we were treated to a sparkling show of "sea glow". As she disappeared beneath the dark waves, I noticed that several onlookers' cheeks were wet with tears.

I plan to join The Ocean Conservancy at www.oceanconservancy.org and lend my

support monetarily and through my daily actions.

I know that my life was changed forever by this trip. I have a stronger appreciation and respect for people who dedicate their lives to conservation and educating people like us about our environment.

The education of children is very important, as they are the future and the key to sustainability. – **Ellen Hiller**



Hunting Island State Park

The turtle in the picture nested twice but left eggs on top of the sand. She also "false crawled" three times before nesting. She made a very distinctive track. She was unable to dig the egg chamber deep enough, so when she was covering, she was kicking the eggs around and left four on top of the sand.



Most of her right front flipper was missing, and part of her left rear flipper was also gone. We

understand now, having seen her, why the eggs were not in the egg chamber. She was nesting when we found her at 6:20 AM and made it back to the water just before 9:00 am. – **Amanda Howard**, Interpretive Ranger.

Sullivan's Island and Isle of Palms

Helen German, a ninth grader at Wando High School and a volunteer at the SC Aquarium has been going door to door on Sullivan's Island handing out Turtle Team brochures while educating the residents about our Lights

Out for Turtles campaign and local lighting ordinances.

The **City of Isle of Palms** has put full cut-off streetlights as part of the renovation of the streetscape on Ocean Blvd. Between 10th and 14th Avenues. These shine down and not outward or up into the sky. We are most grateful for this and to **Dick Johnson** for his hard work on this as well as other light fixture improvements on the Isle of Palms. – **Mary Pringle**

Regional News

North Carolina

Matthew Godfrey, State Coordinator for the North Carolina Wildlife Commission, reports that they are also experiencing low numbers of loggerhead nests this year. There have been about 300 nests reported so far, only half the usual number by this time of the year.

Compared to 2003, strandings are down with only 251 reported to date. Thirty-five stranded turtles have involved boat strikes and many of these have been taken to the Topsail Sea turtle Rehabilitation Facility for treatment.

There are a number of different satellite tagging projects being done this year in North Carolina, including nesting turtles from Bald Head Island and rehabilitated turtles released after treatment. Maps and information are available at www.seaturtle.org and at www.ncaquariums.com/turtletrails/

National

On July 2nd, **President Bush** signed H.R. 3378, the Marine Turtle Conservation Act of 2003, into Law. The purpose of this law is to assist in the conservation of sea turtles and their nesting habitats in foreign countries by supporting and providing financial resources for projects to conserve nesting habitats, conserve sea turtles in those habitats, and address other threats to sea turtle survival. The law authorized up to \$5 million a year for projects in foreign countries.

Texas

According to **Donna Shaver-Miller** (National Park Service, Padre Island Field Research Station), as of July 26th, 42 Kemp's ridley nests have been documented on the Texas coast this year. Four possible Kemp's ridley nests also have been laid in Northwest Florida this year. Attempts will be made to verify that they are ridley nests at the time of hatchling emergence or during nest excavations.

Florida

On July 14th, the Beeman Lights Company held a meeting in Daytona Beach, Florida, to share information on their LED lighting technology for use on or near sea turtle nesting beaches. Red LED-based light emits 100 percent pure red wavelength (650 nanometers), which has been shown to be minimally disruptive to sea turtle nesting and hatchling emergence activities. In addition, LED lights use half the energy and will not have to be replaced for up to 10 years. Additional information about this LED lighting technology is available at:

<http://www.beemanenterprises.com>

--**Sandy MacPherson**, National Sea Turtle Coordinator with the U.S. Fish and Wildlife Service.

Research

Satellite Tracking of Nesting Loggerheads - Update

Five nesting loggerheads were instrumented with satellite transmitters in July, 2003. Cowgill's Charm, Marlow's Maiden and Lofton's Lass migrated north of Cape Hatteras for the summer/fall, returned to warmer waters off the North Carolina coasts for the winter, and have now migrated back to their summer/fall foraging areas. Lofton's Lass actually bypassed her 2003 summer/fall area to take up a new resident foraging off New Jersey.

Baldwin's Belle migrated to an area approximately 100 km east of the nesting

beach and has remained there. She stopped transmitting this spring.

Currently, we are still receiving data from only two loggerheads, Marlow's Maiden and Lofton's Lass. They have remained in their summer/fall resident foraging areas.

You can follow the turtles' migrations at www.dnr.state.sc.us/marine/turtles.

Wire tags in Kemp's ridleys

In December of 2002, **Amber VonHarten** gathered data on a small dead Kemp's ridley that had stranded on Little Capers Island in Beaufort County. There was propeller damage to the head and the front of the carapace. She froze the turtle and **Charlotte Hope** picked it up later. We shipped the flippers to the National Marine Fisheries Laboratory in Galveston, Texas, so that they could be scanned for wire tags. This July, we heard from **Shanna Kethan** of NMFS that the turtle had been tagged as a hatchling in 1997 at Rancho Nuevo, Mexico. At the time of its death, a little over 5 years later, it weighed 17 pounds and was 15.6 inches long.

Beach Vitex Update

On June 23rd, members of the Beach Vitex Task force and volunteers successfully dug up 179 plants along a 0.5-mile stretch of Hobcaw Beach on Debidue Island. The group included: **Jennifer Koches** and **Melissa Bimbi** (U.S Fish and Wildlife Service), **Wendy Allen**, **Beth Thomas** and **Jeff Pollack** (Baruch Marine Lab) and **George Chastain** (Baruch Foundation) and myself.

Seedlings on the beachfront had deep taproots that took a great deal of effort to remove. Those on washover areas had extensive shallow lateral roots as well. We also discovered well established plants intertwined with native plants that could not be removed without causing damage to the native plants, so we left them for now. – **Betsy Brabson**

South Carolina Marine Turtle Conservation Program Web Site

The South Carolina Marine Turtle Conservation Program web site provides extensive information about the program, news and events, and research. It also provides resources to our South Carolina Sea Turtle volunteers.

Several of the stories mentioned in this newsletter, along with photos, appear on the web site.

<http://www.dnr.state.sc.us/marine/turtles>

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Cover Photo of Green turtle in Florida and of Liz Rigg with Green turtle: **Ellen Hiller**.

Photo of Ellen Hiller with loggerhead hatchling: **Liz Rigg**.

Photo of loggerhead with missing flipper: **Amanda Howard**.