



LOGGERHEADLINES

Sea Turtle News from South Carolina

August - November, 2003

Greetings!

The unusual sea turtle season continued into late summer and fall, as you will read in this issue of *Loggerheadlines*.

Strandings

There were 30 strandings in August compared to only seven last year and this was the highest August since 1982. September and October were at more normal levels with eight and five respectively. November was high compared to the past decade with seven and this may have been related to mild weather and warmer water temperatures. This season, there have been a total of 159 sea turtle strandings. This is above the five-year average of 138.8.

Mostly debilitated loggerheads (Barnacle Bills) contributed to this major increase. Overall, these diseased turtles comprised 22.6% of 2003 South Carolina strandings.

The Georgia Department of Natural Resources (GADNR) and St. Catherine's Island Wildlife Survival Center hosted a regional Sea Turtle Mortality Workshop in November, which was attended by southeastern stranding network coordinators and veterinarians.

Although the number of debilitated turtles has been increasing over the last five years, everyone in attendance agreed that 2003 was an unusual year. There did not appear to be a single cause throughout the region. Better documentation in the future may shed more light on this situation.

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Necropsy Summary

Two loggerheads, four leatherbacks, two Kemp's ridleys and one green sea turtle were necropsied from August through November 2003. Three leatherbacks stranded within eleven days of each other in October during their annual fall migration.

There was one male and three female leatherbacks. Three were adults and the fourth was too damaged from a boat strike to determine reproductive status. One of four had plastic in the gut. They all indicated acute mortality.

Two loggerheads were immature females. One died from chronic causes. The other had no apparent injuries and died acutely. The male and female Kemp's ridleys suffered from acute mortality with no apparent cause.

In 2003, we necropsied 32 or 20% of the 159 stranded turtles. Twenty-two or 68.7% died from acute causes, eight from boat strikes, one from fishing line entanglement, 12 had no apparent injuries indicating drowning and one died of cold-stunning.

Rehabilitation at the SC Aquarium

On November 7th, the immature loggerhead which stranded in July on Fripp Island with a damaged front flipper, was released to the delight of about 100 observers.

Currently the South Carolina Aquarium is treating three sea turtles. The loggerhead that stranded at Harbor Island in July with an aeromonas infection may be released before

the end of the year, but in warmer waters offshore.

The aquarium veterinarian and staff have worked hard to isolate the specific ailment, which may be regenerative anemia, in the lethargic and anemic loggerhead from Hilton Head. The juvenile green, which has been in rehabilitation since March, may stay at the aquarium over the winter.

Nesting News

Hilton Head Island

We had a nest laid on September 17th and it may possibly be that of a green turtle. We participated in the sex determination study with Duke and Florida Atlantic Universities with 80 hatchlings sent to Beaufort, North Carolina. We look forward to the results in the spring. The beach matting that was installed to allow handicap access did not seem to affect the turtles in any way. In fact, we did not log one interaction between a nesting female and the mats all summer long. – **Kim Washok Jones**

Folly Beach

Bob Neville was on his pre-dawn rounds when he discovered at least 30 tracks leading from the center of a nest to the ocean. When he looked back at the nest, he was very surprised to see a hatchling looking back, then another and one more. When the inventory was made three days later, a total of 67 leatherback hatchlings had made it to the sea. Thanks to Bob, we can share the event through his photos and video. – **Carole Bennett**

Sullivan's Island and Isle of Palms

Since April our project has reported 28 strandings. Most of these occurred on the harbor end of Sullivan's Island. Four were leatherbacks that were necropsied on the beach. Three were Kemp's ridleys, two were green turtles and the remaining 19 were loggerheads. We collected tissue biopsies from

all 13 of the loggerheads that stranded after June 1st for the genetics study. – **Mary Pringle**

South Island

My most memorable experience this summer was when I found a female who had crawled up on a dune then flipped off it landing four feet below on her carapace. She must have been lying there for about three hours when I found her and righted her. She seemed to be in fine health as she headed back to the water, but I don't think she was too pleased with her visit to South Island. – **Laura Mills**

Pritchards Island

Pritchards Island staff and visitors tagged a total of 43 nesting females for the 2003 season. The staff would like to thank the more than 500 program participants that assisted with the project this year. – **Amber VonHarten**

Hunting Island State Park

We saw an increase in nesting, up to 67 nests, the highest number since 1995. Our newly renourished area near South Beach showed a dramatic increase in activity over last year. We had one nesting in that zone last year and 27 this year! – **Amanda Howard**

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.

We try to include new items at regular intervals, so visit soon and often at <http://www.dnr.state.sc.us/marine/turtles>.

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Nesting Update

Nesting numbers are complete for this season. All but three beaches had increases in nesting over last season, but unlike Georgia, most were at or below the 1999 season.

Thru 10/31	1999	2002	2003
Myrtle Beach S. P.	5	0	5
Huntington Beach S. P.	14	7	19
S.C.U.T.E.	101	77	100
South Island	166	89	101
Cape Island	1,256	702	836
Lighthouse Island		176	314
Dewees Island	14	20	14
Sullivans/Isle of Palms	39	41	35
Folly Beach	54	42	50
Kiawah Island	262	191	225
Seabrook Island	27	32	34
Botany Bay Isl & Plan	303	157	269
Edingsville Beach	61	54	62
Edisto Beach S. P.	63	60	87
Edisto Beach	137	94	63
Harbor Island	66	34	47
Hunting Island	55	49	67
Fripp Island	40	24	54
Pritchards Island	134	94	124
Hilton Head Island	218	170	173
TOTAL	3,015	2,144	2,679
Note: 2003 does not include 2 Dc nests.			

Regional News

North Carolina

Dr. Matthew Godfrey, North Carolina Sea Turtle Coordinator, reports the nesting season is over, although a few late nests are still incubating on two beaches. There were 769 confirmed loggerhead nests laid in the 2003 season. There was also one nest laid by a Kemp's ridley and one by a leatherback. There have been more than 420 stranded turtles observed in North Carolina this year and more are anticipated as inshore winter waters continue to cool.

All four nesting female loggerheads that were outfitted with satellite tags continue to transmit information about their whereabouts. Three of the four appear to be moving south after spending late summer and most of the fall in waters north of Cape Hatteras. Details on an ongoing satellite telemetry project involving nesting female loggerheads from Bald Head Island can be found at this web site:

www.seaturtle.org/tracking

Georgia

Mark Dodd, Georgia Sea Turtle Coordinator, reports that during late October and November they documented an unusually high number of stranded leatherbacks on Georgia beaches (n=6). Four adult loggerheads also stranded during the same period. Necropsies indicated turtles were healthy and actively foraging prior to death suggesting interactions with a commercial fishery. As a result of high stranding rates, they conducted two aerial surveys to determine the distribution of leatherbacks and shrimp trawlers. High densities of leatherbacks were observed within three nautical miles of the beach. Several large Gulf of Mexico-type shrimp trawlers were also seen during the survey. On November 17, Georgia DNR Law Enforcement boarded two of these Gulf trawlers near the Brunswick Ship Channel to check TED compliance. Numerous violations were documented. In fact, all eight TEDs had opening sizes that were too small and two of the TED openings were sewn partially closed.

Reports from nesting projects indicated loggerhead turtles deposited a record number of nests on Georgia beaches in 2003. Cooperators located 1,498 nests topping the previous 15-year record of 1,417 nests set in 1999. Long-term loggerhead nesting trends from three representative islands (Wassaw, Blackbeard and Little Cumberland) show a 1% annual decline over 30 years. The 2003 nest total is not likely to significantly change the long-term trend. Two leatherback nests on St. Catherine's and Cumberland islands were confirmed during the summer of 2003.

Florida

Dr. Allen Foley, Florida state stranding coordinator, reports 1765 dead or debilitated sea turtles, not including 70 cold stunned turtles and 12,865 hatchlings that were affected by cold water upwelling during the summer. This is the worst year since 1980. Our previous record was 1351 strandings in 2001.

Loggerhead strandings are almost double the average and this is a record year. Green turtle strandings have increased almost 70% over the average and this is also a record year. We've had almost 350 live strandings, also a new record.

Along the Atlantic coast, we've seen twice the number of emaciated turtles (22% this year versus the 11% average). The increase of apparent disease is probably responsible for increased strandings along the Atlantic. Increased strandings along southwest Florida is speculated to be from a persistent and extensive red tide.

Increased strandings in northwest Florida was mostly attributable to shrimping because they coincided with shrimping season during late April and early May. Several turtles were mutilated with their heads and flippers cut off.

Other News

A new book entitled *Loggerhead Sea Turtles* is now available from the Smithsonian Institution Press (www.sipress.si.edu or 1-800-233-4830). The editors of this book are Alan B. Bolten (Archie Carr Center for Sea Turtle Research, University of Florida) and Blair E. Witherington (Florida Marine Research Institute, Florida Fish and Wildlife Conservation Commission).

The book brings together international experts to compile the knowledge of loggerhead biology and conservation, and sets the stage for future ecological, biological, and conservation research. Highly detailed

coverage includes diet, growth, nesting, migration, habitat selection and conservation.

Recovery Team News

Don't forget you can review drafts of the new Loggerhead Recovery Plan at this web site <http://northflorida.fws.gov/SeaTurtles/loggerhead-recovery/default-loggerhead.htm> --**Sandy MacPherson**, National Sea Turtle Coordinator with the U.S. Fish and Wildlife Service.

Research

Satellite Tracking of Nesting Loggerheads

2002

Jessamine, a 2002 satellite instrumented turtle, has surprisingly resurfaced (no pun intended). Jessamine was last heard from on May 11, 2003 when she was returning to her summer/fall foraging area off of Assateague National Seashore. Since October 19, 2003, we have been receiving signals from her. Both Jessamine and Celeste have been very interesting turtles to monitor because they returned to their summer/fall foraging areas. If we continue to hear from Jessamine, we may be able to follow her migration back to her winter foraging area. Both these turtles have shown strong foraging site fidelity.

2003

Five nesting loggerheads were instrumented with satellite transmitters on July 10th. Cowgill's Charm, Marlow's Maiden and Lofton's Lass migrated north of Cape Hatteras for the summer/fall and have just recently returned to warmer waters off the Carolina coasts.

Samworth's Seafarer left the nesting beach and is the only turtle that migrated southward. When she reached waters off north Florida, the signals suddenly reversed course, which none of our loggerheads has ever done. During certain times the speed of travel was greater

than five km/hour. This is twice the speed of migrating loggerheads. Just off the south tip of Hilton Head Island, South Carolina, the signals turned and headed towards shore as if following the channel into Calibogue Sound. The signals ceased here. These movements and velocity would suggest that the transmitter (turtle?) was involved with a boat. This atypical migratory track is a mystery.

Baldwin's Belle migrated to an area approximately 100 km northeast of the nesting beach and has remained there. You can follow the turtles' migrations at www.dnr.state.sc.us/marine/turtles.

A New Invader

Beach vitex (*Vitex rotundifolia*) is a recently introduced woody vine, native to Korea, which has been documented on a number of beaches in South Carolina. This new invasive plant poses a serious threat to native plants and animals along the southeastern coast. It totally crowds out native beach grasses such as sea oats and sea beach amaranth (an endangered species) and can deter nesting of loggerhead turtles (a threatened species).

The South Carolina Beach Vitex Task Force has been established in cooperation with the South Carolina Exotic Pest Plant Council. Over the next year, we will be conducting an ecological assessment to document apparent impacts of *Vitex*. It is expected that the Clemson University Plant Industry Department will conduct a regulatory assessment to determine if beach vitex should be listed as a state noxious weed in South Carolina.

Sea turtle volunteers will be a vital component of the Task Force for documenting the locations of plants and in removing seedlings from the dunes.

Photo Gallery

This year many of our volunteers have furnished digital photos to document their strandings, using either their own cameras or those provided by NMFS. We now have 302

photo files in our database and will furnish Wendy Teas, National STSSN Coordinator, with a CD at the end of the year. These photos have assisted in confirming species as well as documenting injuries. Thanks to all of you who have made the effort to furnish this valuable documentation.

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

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Thanks!

We wish to thank all the members of the network, both those involved with nest protection and with strandings, for your tireless efforts this past season. You are a vital part of sea turtle conservation in South Carolina.



LEATHERBACK HATCHLING PHOTOS
Bob Neville

*Bon Voyage to the hatchlings and to all of you
until next season!*