



BREVARD COUNTY, FLORIDA

TURTLE TALK

SEA TURTLE PRESERVATION SOCIETY

Vol. 13, No 2 - Summer 2009

<http://www.SeaTurtleSpacecoast.org>

From the Chair's Perspective

by Mike Splitt, Board Chair



STPS is now in the heart of sea turtle nesting season and thanks goes out to all our volunteers and staff members that are working hard during this time of year. Let's hope we have improved nesting numbers all around. Summer brings an end to the monthly general membership meetings. This year's speakers series was outstanding and credit needs to be given to Donna Braunlich and Ann Zscheille for coordinating the effort, as well as the other members who helped out (especially for the provision of some great snack food).

Three conservation groups filed a lawsuit this May against the National Marine Fisheries Service and the United States Fish and Wildlife Service over issues related to sea turtles. The groups are The Center for Biological Diversity, Oceana and the Turtle Island Restoration Network. They are hoping to get the western North Atlantic loggerheads listed as distinct population and to "uplist" their status to endangered. Additionally, they are trying to increase protections in the loggerheads' key nesting beaches and marine habitats (*Oceania* press release May 28, 2009). Not unrelated to these issues is the Loggerhead threats analysis discussed in our last issue.

In the last newsletter I touched on the worst threats to Loggerhead sea turtles identified in the National Oceanographic and Atmospheric Administration (NOAA) 2nd revision of the "Recovery Plan for the Northwest Atlantic Population of the Loggerhead Sea Turtle (*Caretta Caretta*)."

These included the categories of fisheries bycatch, ecosystem alterations, pollution, and species interaction. This issue we'll be focusing on the 2nd tier of threats within these categories which NOAA defines by mortality rates (adult female equivalent) of approximately 300 Loggerhead turtles per year, or **code orange**. Also, we will be adding two new categories: resource use, and construction.

Fisheries Bycatch: One category within bycatch is considered **code orange** and affects the juvenile stage turtles in the oceanic zone. The estimate of mortality is about 30,000 juvenile loggerheads which is the adult female equivalent of 870 turtles per year. What's impacting the juveniles way out in the ocean? Pelagic longline fishing! Are you concerned about what you kind of seafood you are eating? For help deciding how to eat seafood smartly, check out the seafood guides made available by the Monterey Bay Aquarium under the Seafood Watch program at the following web address: (<http://www.montereybayaquarium.org/cr/seafoodwatch.aspx>). For example, you may want to avoid most Yellowfin Tuna caught by longline methods.

Resource Use: Juvenile and adult sea turtles are hit hard in the neritic zone under this category. Legal (yes, that's not a typo) harvest is estimated at 3,000 juveniles per year, but the number may be underestimated as data are not available from Cuba and Nicaragua. Illegal harvest and vessel strikes are also a significant impact on the juveniles. When you sum the impacts up for juveniles, an estimated 855 adult equivalent deaths occur per year. Legal harvests and vessel strikes are also the biggest problems for the adult loggerheads as well.

Construction: This category makes **code orange** by impacting a single life stage of the sea turtle – the egg stage. Beach sand placement (including beach nourishment, beach restoration, and inlet sand bypassing) is estimated to destroy 3,000 eggs annually. This is small compared to the whopping 30,000 eggs lost to beach armoring annually. Coastal construction adds another 3,000 annually to the toll. Summed up, an estimated 144 adult equivalent turtles are lost due to the impact of construction on the egg stage.

Ecosystem Alterations: The good news here is that we don't have any **code orange** under this category. The bad news is that the significant loss in this category was under **code red** discussed in our previous issue.

Pollution: This threat category to our loggerhead sea turtles is dominated by impact at the “swimming frenzy/transitional phase” life stage. Marine debris ingestions is estimated to kill 30,000 deaths annually and an equivalent number are estimated to die from oil pollution. The combination causes an estimated adult equivalent loss of approximately 240 turtles per year. Let's give three cheers to our beach cleanup crew (as well as to our beach surveyors who have been helping out in cleaning up trash this summer). The more debris we cleanup on the beaches, the less will get cycled back into the ocean and potentially ingested by our turtles.

Species Interactions: Two **code orange** sub-categories are identified by NOAA under this category and impact the hatchling stage and adult stage. Predation by native species kills an estimated 3,000 hatchlings per year. This turns out to an adult equivalent of 12 sea turtles per year, which seems small compared to the other threats discussed. Nonetheless, predation on sea turtle eggs is taken seriously by many organizations – and these numbers would be worse without their efforts. Also, the adults are impacted by harmful algal blooms (HABs) to the tune of 25 adult equivalents per year. HABs are becoming a recognized threat

in the coastal zone of Florida and some scientists think that human's are causing an increased frequency of these events.

This rounds off the major threats to loggerhead sea turtles as reported by NOAA. As the U.S. moves to stop the overall decline in the Atlantic loggerhead populations, we all need to be keeping in mind how we can help address some of the significant threats to these sea turtles.

STPS Donations

STPS receives donations from a number of individuals, organizations and businesses and we always try to thank them for their generosity. This past Spring we received donations from The Hula Girl Café, with special thanks to owner/chef Darlene Heumann as well as the Surf Chasers who provided the music. We also received donations from Christine Lepore, C. Gartz, Myla Outlaw, Christina Murtha and Jacqueline Campbell as part of the Indialantic Elementary Gifted Student Program. Donations were also received from The Challenger 7 Elementary in Port St. John, Christopher Guglielmo and from Carlos Negron, a student at West Shore Jr/Sr High School, who as a senior project, organized a volleyball tournament for a fund raiser. Thanks to all.

Man Made Beach Erosion

by Ann Zscheile

“Florida's beaches are alive. Some of this beach-life is obvious. Stroll onto the beach, sink your toes in the sand, and look around you.” “Beaches attract, foster and collect life... and are the testament of life.” “Beaches are the easily accessible margins of a spectacular wilderness - the sea.”(Florida's Living Beaches by Blair and Dawn Witherington) This article is about the beach, including its inhabitants, both natural and human and what they contribute to the health and the life of the beach.

Every summer is a busy time for the sea turtle nest survey teams and turtle watchers throughout the state. This is the peak time the sea turtles perform an amazing feat of nature that has been going on for millions of years. Sea turtles are just that - their home is the sea. Even though they breathe air, they have adapted to a life that is for the most part spent under water.

The major difference between sea turtles and other sea creatures is that sea turtles must return to land in order to prepare a place for the next generation of sea turtles. During the spring sea turtles come closer to shore and mate in the ocean. The female must then come ashore and lay her fertile eggs in the sand. Not an easy task for a living sea creature who is adapted to life at sea. The female must use her flippers to pull a 300 pound body up the beach to a suitable spot in the beach for her egg chamber.

The beach sand provides an environment for the eggs to incubate and develop to tiny palm sized hatchlings. These hatchlings emerge from the sand after 7-10 weeks, depending on species and other environmental factors. They are prepared to make a dash to the sea and swim approximately 20 miles to their safe haven in the sargassum (sea weed), floating and circulating in the ocean. There are many hazards and obstacles these tiny hatchlings face in order to survive their first journey. Despite the natural hazards these tiny turtles have flourished and persevered throughout the eons. However the impact of humans has altered this delicate balance of nature and made this journey even more treacherous and difficult.

During the summer nesting season, 600 miles of Florida beaches are monitored daily by various groups. Sea turtle organizations like STPS, University of Central Florida and others count every turtle track on the beach. Whether it is a "false crawl" (the turtle comes ashore, but for some reason decides not to nest) or an actual crawl with a nest, this documentation

goes into a data base for the state of Florida, the United States and into an International data base. This information is valuable for monitoring sea turtle population trends. During these surveys the beaches are also monitored for anything that might impact or alter normal nesting patterns.

In recent years it has been noted that huge holes have appeared on our beaches. These holes are often dug with regular shovels and left unfilled on the beach. Holes in the beach are dangerous for humans as well as for sea turtles. If a human accidentally steps in a hole at night while walking the beach they could be seriously injured.



(STPS nest survey volunteer standing in a 4 foot hole)

For the sea turtle the hazards are many. Since a sea turtle cannot walk backward with flippers, they can easily be trapped in a hole as they trudge up the beach to nest. Hatchlings are even more likely to be trapped in a hole and if the hole is dug above the tide line there is always the possibility of digging up one of the many nests that are hidden approximately 18 inches under the sand.

The beach is a habitat for nature as well as for humans. It is home to ghost crabs, shore birds and other smaller forms of life as well as a "maternity ward" for sea turtles. All of these natural inhabitants give back and add to the life and nourishment of the beach, whether it be left over sea turtle egg shells, ghost crabs aerating

the sand or Sargassum (sea weed) helping with nourishment and rebuilding the beach.

This article is not meant to take away from anyone's fun at the beach. Children (and adults) building sand castles on the beach add another dimension to the beauty and creativity that the beach can provide. But Man made beach erosion, a big gaping hole, is like an open wound.



(Luckily, this nesting sea turtle made it out of the hole)

Remember, when you go to the beach:

1. If you must dig a deep hole, please dig below the tide line where you are less likely to destroy a turtle's nest and the 100+ eggs she has made the huge effort to leave in a safe place.
2. Fill and cover any holes you dig - for all beach inhabitants including the human ones. Leave the beach the way you found it. The beach is alive and should be respected by all who go there. Share the beach it does not belong to just us, but to the generations to come.

STPS Walk Program

As the newsletter went to press, the STPS Walk Program was half way through the walk season. STPS conducts five walks per week during the month of June and 4 walks per week during July. As of the end of June, twenty walks had been conducted and nesting turtles were seen by the walk group on eighteen of

those walks, which is a success ratio of 90%. A cold water upwelling was noticed earlier in the month, but thankfully it wasn't sufficiently cold enough to stop nesting, as has happened in other years.

STPS Upcoming Events & Presentations Calendar

July 7: Presentation at Central Brevard Christian School

July 17: Central Brevard Humane Society Summer camp

Aug. 8: Beach Clean-up at Coconut Point Park

Aug. 18: Presentation at KSC Scuba & Dive Club

Sept. 3: General Meeting

Sept. 5: Beach Clean-up at Coconut Point Park

Oct. 1: General Meeting

Oct. 3: Beach Clean-up at Coconut Point Park

Nov. 5: General Meeting

Nov. 7: Beach Clean-up at Coconut Point Park

General Meeting Speakers

The STPS always strives to have meaningful and interesting guest speakers at the General Meetings. Unfortunately, the speakers for the Fall/Winter meetings had not been scheduled at the time of the newsletter printing. As we approach the meeting dates, you can call the office to know who is scheduled for each meeting date.

Turtle Talk Welcomes Your Calls and Letters

This newsletter relies upon the generous contributions of STPS volunteers and members. If you have an article you would like included in this quarterly newsletter, please submit it for consideration in the next publication.* Drop your article off at the Turtle Office or submit your article with your name, telephone number and mailing address (or internet address) to the following:

Sea Turtle Preservation Society
Attn: Newsletter Editor
P.O. Box 510988
Melbourne Beach, FL 32951-0988
E-mail: stps@bellsouth.net

Turtle Talk

The Sea Turtle Preservation Society (STPS) is a not-for-profit organization incorporated in the State of Florida, whose dedicated members are permitted by the Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service to work with endangered and threatened marine turtles. STPS relies solely on donations from the public, its members and the efforts of volunteers.

The purpose of STPS is to educate the public about marine turtles and the environmental

niche that they occupy. STPS reaches thousands of people each year through lecture presentations and exhibits at area events and through guided walks during the sea turtle nesting season.

Turtle Talk is published quarterly for members and supporters of the Sea Turtle Preservation Society. To contact STPS, call (321-676-1701). To write: P.O. Box 510988, Melbourne Beach, Florida, 32951-0988. E-mail: stps@bellsouth.net

The Turtle Office is located at 111 South Miramar, Indialantic, Florida. Office hours are 11am to 5pm Monday through Saturday. Monthly meetings are held the first Thursday of each month at 7:30pm at the Melbourne Beach Town Hall, with the exception of June, July and August. Visitors are always welcome.

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