

TURTLE PATROL VOLUNTEER

REFERENCE GUIDE

Intro to Loggerhead turtles and the Sunset Beach Turtle Watch Program

This program is a private and non-profit program using volunteers to monitor the nesting of sea turtles on Sunset Beach. Our members hold permits from the **Non-Game and Endangered Wildlife Section of the North Carolina Wildlife Resources Commission**.

The **Loggerhead sea turtle is the most common visitor to our beaches**. They, as well as other sea turtles, are endangered and are granted protection under the **U.S. Endangered Species Act**.

Nesting usually occurs at night between 12 AM and 4 AM when the beach is dark and quiet. The mother turtle will crawl toward the dunes to find dry sand. There she will dig a hole with her front flippers. It may be only a foot wide and 18 to 24 inches deep. After depositing her eggs, she will cover the hole with her back flippers, pat it down with her body, then return to the ocean. The only thing left behind will be the herringbone -like tracks made on her crawl to the nest site and from her return to the ocean. This is what the volunteers will look for on their morning walks. Nesting usually occurs May through August, with the hatchlings emerging July through late October.

The hatchlings emerge in 50-85 days later. Incubation time is dependent on the temperature of the nest throughout the incubation period. Hatchlings usually emerge from the nest under the night skies, as the sand cools and the chances of predation are diminished.

It is believed that the mother turtles return to the same beaches to nest. Now, through DNA studies, it has been found that the hatchlings are returning to the beaches of their birth to lay their eggs when they reach sexual maturity.

Our Job As Volunteers of the Program

Our purpose is to safe guard our beaches and protect the nesting sea turtles and their hatchlings. The program was established because of the endangered status of the sea turtle population. With the monitoring of the nests, keeping accurate records of the numbers, and providing for the hatchlings to safely travel to the ocean, it is hoped that the sea turtle population will increase in time. In addition, it is our mission to educate the public about sea turtles and how to protect our beautiful beaches.

Sunset Beach is divided into 3 sections: The East end, Central, and Bird Island. Each group of designated walkers will be on the beach around 6 AM looking for the tracks left behind by the mother turtle. The nest site is located and confirmed by carefully digging to find the actual egg deposit. One egg is taken and preserved and sent to the lab for DNA analysis. The site is marked, dated, and recorded. The nests are monitored each day during the incubation period. As the hatch date approaches, the nest site and pathway are prepared for the hatchlings to have easy access to the ocean. We will **“sit the nest”** when the hatch is expected. Some signs, such as the nest sinking and becoming soft, or ants and crab activity around the nest, are signs that the turtles may be coming out of their shells under the sand. The hatchlings can remain under the sand for several days once out of their shells. They can breathe and will digest their attached yolk sac to gain strength for their walk across the beach and their long journey in the ocean and out to the Gulf Stream.

The hatchlings usually emerge in the evening. They are attracted to the ocean perhaps because of the smell, but mostly because the ocean is lighter reflecting the moon or night sky. We stress that the houses along the beach turn off their porch lights during nesting season (between May and October) because it may distract the hatchlings and cause them to head away from the ocean.

About 72 hours after the first hatchling emerges from the nest, the nest is excavated. The numbers of babies, egg shells, dead turtles, and undeveloped or damaged, **“pipped”**, eggs are recorded. The remnants are returned to the nest, covered over with sand, and the markers removed.

WHAT YOU NEED TO KNOW

DO NOT WALK ALONE. If you cannot walk on your scheduled day, ask someone on your team to cover for you. If no one in the group is able to walk, let your supervisor or Carmel know so the day can be covered.

Be on the beach by 6 AM or when it is light enough to walk. Finish by 7 AM

Do not walk if there is lightning. Schedule walk for later if weather permits.

Walk close to the high tide line at the beginning of your walk. Return by the water.

If a crawl is found, notify Carmel (910-209-1079) or your supervisor. One person should stay with the nest sighting while the others continue their walk. **NO ONE IS TO START DIGGING UNTIL CARMEL OR THE SUPERVISOR ARRIVES.** Someone from group will call or text Carmel or your supervisor after the walk to report the status of the beach walk.

For every crawl start an “Individual Nest Report.” This form is found on the volunteer website: <http://www.sunsetbeachturtles.org/volunteer.html>. Also, keep a record of the hours and mileage during any turtle patrol activities.

Mileage is from home to the beach and back. The “Volunteer Activity Report” can be found on the website. This form is a Word Doc that can be saved on your computer. When the saved file is opened, it is an interactive form that can be typed on and saved until the end of the month. This form can then be sent as an attachment to an email sent to: matt.godfrey@ncwildlife.org. Or the form can be printed, collected as a group, and sent to: **NC Wildlife Resources Commission, 1507 Ann Street, Beaufort, NC 28516, Attn: Matthew Godfrey.** This will also eliminate a lot of paper work for Carmel and the supervisors. The volunteer hours are recorded by the State of North Carolina and converted into man hours and dollars that would have been necessary to fund this project.

Backpack supplies: At least 2 people on each team should have the following items –plastic marking tape, a sharpie marker, measuring tape, a note pad, a mallet, a small plastic shovel or scoop, wooden paint stirrers (to mark where you have already dug when hunting for eggs), a canvas bag (in case the eggs have to be relocated), latex gloves, bug spray, and a cell phone.

Take plastic bags to pick up the trash along the beach.

Wooden stakes, signs, and cages to mark the nest will be stored on the beach at various locations depending on which section of the beach you are walking.

Marking the nest: Put blue tape around the bottom of the wooden stakes to mark the level of the sand so that the build up can be monitored. Clearly mark the date going down the stake (for instance 050116). The color of the tape at the top of the stakes will designate a nest or a false crawl. Color to be determined.

What the Public Needs to Know

Turtle Nesting: Avoid disturbing the turtles on their way from or to the ocean. Do not crowd, shine lights, or take flash photos. Stay off the turtle tracks. **It is against the law to disturb her in any way**

The nests: Avoid riding or walking around the nest enclosures.

The Hatchlings: LIGHTS OFF. We ask the renters, owners, hotels, etc. to turn off beach lights during nesting and hatching season from May to October.

At the beach: Do not litter. Fill in holes which may trap turtles or hatchlings. Deposit any trash in the receptacles.

Report Turtle tracks, hatchlings, or any activity to Sunset Beach Turtle Watch (910 209 1079 Carmel's cell) or the SSB Police Dept. (910-579-2151)

Tampering with Turtles or their nests is a violation of State and Federal laws, punishable by a fine up to \$100,000, imprisonment, or both.

THANK YOU FOR HELPING TO SAVE THE SEA TURTLES, THE BEACHES, AND THE OCEAN.