

Sea Turtle Conservation in the Southeastern U.S.

In order to detail the conservation efforts of sea turtles, it is first important to address why they are in such desperate need of protection. Sea turtles deal with many human-related threats which can greatly affect their population.

- **Illegal harvesting.** Hunters sell sea turtle shells to those who will use them decoratively. Additionally, consuming sea turtle meat and eggs as food occurs regularly in some cultures.
- **Habitat encroachment.** About 200 years ago, the Earth's population was just around a billion people. Today, there are roughly 7 billion people inhabiting the planet. As a result, more space is being used for human benefit, and less is available for other organisms. Sea turtles rely heavily on open beaches in order to lay their eggs, which has become increasingly difficult due to human-occupied beaches.
- **Pollution.** Sea turtles can mistakenly eat garbage in the ocean. They mainly feed at the surface of the ocean, where 90% of all trash floating is plastic. Plastic is buoyant, and small pieces of plastic mirror the shape and size of food. Sea turtles eat plastic pellets which clog their intestines, which can result in starvation and eventual death. Plastic pollution can also cause sea turtle entanglement, which can be difficult to escape.



Many international, federal, state and local laws have been implemented in order to conserve and hopefully restore sea turtle populations.

International Level

- **The Convention of International Trade in Endangered Species (CITES) of 1973:** The treaty restricts the international trade of endangered and threatened species as well as their products.
- **The Convention on the Conservation of Migratory Species of Wild Animals of 1979:** The treaty addresses endangered species that travel from one government jurisdiction to another and provides a framework on which to base future conservation agreements as well as a mechanism for governments to unilaterally conserve endangered migratory species.

Federal Level

- **Endangered Species Act of 1973:** All sea turtles species found in the US are either listed as threatened or endangered, and are thereby protected under this act.
- **The Sea Turtle Stranding and Salvage Network (STSSN) (1980):** Formed to collect information on and document stranding of marine turtles along the US Gulf of Mexico and Atlantic coasts. This network includes federal, state, and private partners.

- **The Lacey Act of 1900:** Under this law, it is illegal to trade fish, wildlife or plants protected under international, federal or state law.
- **International Convention for the Protection of Pollution from Ships (MARPOL):** States that it against the law for a vessel to dump plastic trash anywhere in navigable waters of the U.S. and restricts dumping of other garbage. Marinas and public and private terminals are required to provide waste reception facilities.
- **The Shrimp-Turtle Law (1989):** This bill made it mandatory year round for commercial shrimpers to insert a frame with an escape door into their shrimp trawl nets (The Turtle Excluder Device (TED)) to allow sea turtles and other non target species to escape from drowning.

State Level

Florida

- **The Florida Fish and Wildlife Conservation Commission (FWC):** This office is charged with managing the state's fish and wildlife resources, regulating its fisheries and wildlife, and enforcing related laws. The state of Florida (through **FWC's Fish and Wildlife Research Institute**) coordinates two sea turtle monitoring programs:
 - **Statewide Nesting Beach Survey (SNBS)** -- The purpose of this program is to document the total distribution, seasonality and abundance of sea turtles nesting in Florida.
 - **Index Nesting Beach Survey (INBS)** — This program measures seasonal productivity of sea turtles (allowing comparisons between beaches and between years).
- **Florida's Marine Turtle Protection Act:** Sea turtles are protected under this act, which restricts the take, possession, disturbance, mutilation, destruction, selling, transference, molestation, and harassment of marine turtles, nests, or eggs. Protection is also afforded to marine turtle habitat. Additionally, a specific authorization from Commission staff is required to conduct scientific, conservation, or educational activities that directly involve marine turtles in or collected from Florida, their nests, or hatchlings regardless of applicant's possession of any federal permit. Both the **Florida Department of Environmental Protection** and **The Florida Fish and Wildlife Conservation Commission (FWC)** dually review permit for coastal construction that affects Marine Turtles. The state of Florida developed a model lighting ordinance to guide local governments in creating lighting ordinances.
- **Gear Specifications and Prohibited Gear (1991):** This policy reduced the length of commercial fishing gill nets to a maximum of 600 yards in order to reduce the capture of sea turtles and other non target species such as dolphins, sharks, big fish, and whales.

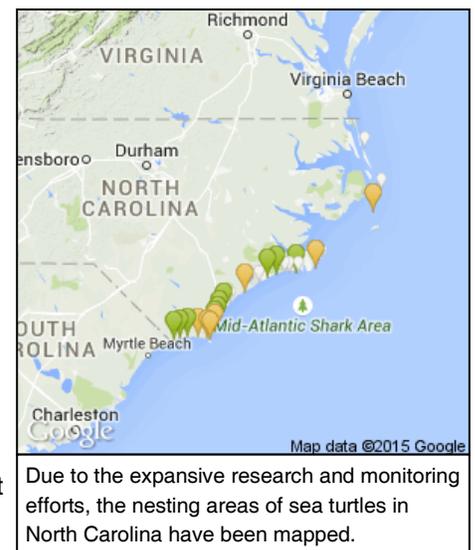
Georgia

- **The Georgia Department of Natural Resources (DNR)** coordinates sea turtle conservation efforts in the state. The DNR maintains a group of cooperators (**Georgia Turtlefolk**) to monitor individual nests during the spring and summer. In addition to monitoring nesting activity, DNR cooperators monitor beaches for strandlings and dead turtles washed up on the beach.

North Carolina

- **The North Carolina Wildlife Resources Commission (NCWRC):** Began monitoring sea turtle nesting activities in the late 1970s.
- **Sea Turtle Protection Program** (administered by the **NCWRC's Wildlife Diversity Program**), and was established through a cooperative agreement with the **US Fish and Wildlife Service** under **the Endangered Species Act**. Information gained from this program contributes to ongoing sea turtle nest management and protection programs on all of the state's beaches. There are two objectives of **Sea Turtle Protection Program:**

1. To monitor, manage, and protect sea turtle nests. There are over 20 sea turtle nest monitoring projects that vary in intensity from counting turtle crawls to full scale nest management.
2. To collect sea turtle mortality data.



South Carolina

- **The South Carolina Nongame and Endangered Species Conservation Act:** Through this act, the state must follow through on regulations for designating land as certified management area for endangered species.
- **South Carolina Marine Resources Act:** This act specified regulations for the use of TEDs (Turtle Excluder Devices) so as to eliminate the bycatch of sea turtles.
- **South Carolina Coastal Zone Management Act:** Because of this act, local governments in South Carolina were forced to take up a local comprehensive beach management plan containing an inventory of turtle nesting areas and important habitats of the beach/dune system. Local governments also had to form a protection and restoration plan if necessary.

County Level

County light ordinances in Georgia, North Carolina, South Carolina, and Florida are common along the coast in order to make sure sea turtles do not become disoriented by human-generated light. When sea turtles are born, they are naturally attracted to the moon light, however, when artificial light is surrounding the beach, sea turtles can become confused and move away from the water instead of towards it. Additionally, county ordinances decide how close a person may be to a sea turtle nesting site.

Case Study: Georgetown County, SC

On June 13, 1989 a **county light ordinance** was put in place in Georgetown County, South Carolina. The purpose of this ordinance is to protect the threatened loggerhead sea turtles, which nest along the beaches of Georgetown County. According to the ordinance the following is true of new development:

- Wall-mounted light fixtures must be fitted with hoods so that no light illuminates the beach.
- Light fixture on poles that raise the source of the light higher than 48 inches off of the ground must be shielded so that the light will be contained.
- Low-profile luminaries must be used in parking lots and the lights are required to be positioned so that no light illuminates the beach.
- Tinted glass is recommended for use in windows facing the ocean above 1st floor.
- Temporary security lights are not allowed to be mounted more than 15 feet above the ground.

The following regulations are put in place for existing development:

- Lights illuminating buildings for decorative purposes must be shielded or screened so that they are not visible from the beach, or must be turned off after 10pm from May 1 to October 31 of each year.
- Window treatments in windows facing the ocean above the 1st floor are recommended so that interior lights are not able to illuminate the beach.

