

Loggerhead Turtle

Caretta caretta

Natural History

The ancestors of modern marine turtles have inhabited the earth for at least 180 million years. Evolutionary changes have enabled marine turtles to better adapt to their ocean environment. Turtles have a streamlined body, paddle-like limbs, and a hard bony shell. A higher reproductive potential compensates for the high mortality of hatchlings and eggs.



Species Characteristics

The loggerhead is one of only seven species of marine turtles still in existence today. Adult loggerheads can be up to 3 feet in length and weigh as much as 350 pounds. These turtles are believed to have a life span of 50-65 years. The loggerheads' name refers to the size of its head, which is larger in proportion to its body than other marine turtles. The head and upper shell (carapace) are dark and reddish brown; the flippers and lower shell (plastron) are light yellow. The outer layer of plates on the shell and head, called scutes, can be used to distinguish the various species of marine turtles. In coastal waters the loggerhead feeds mainly on whelks, crabs, fishes, sponges, and jellyfish.

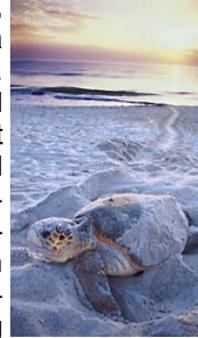
Species Status

On June 28, 1978 the U.S. Federal Government listed the loggerhead turtle as threatened worldwide. Loggerhead turtle population numbers have declined due to many factors, including: direct harvest of eggs and turtles, incidental har-

vesting in fishing gears (long lines, gillnets, trawls, traps, pots, and dredging), coastal development, beach erosion, beach armoring, artificial lighting, and pollution.

Nesting

The Southeastern United States, from North Carolina to Florida, is a major nesting area for loggerheads. A combination of extensive ground and aerial surveys estimate that there are 68,000-90,000 loggerhead nests annually in the S.E. U.S. Florida's beaches account for approximately 90% of all nesting area in the U.S., with South Carolina, Georgia, and North Carolina accounting for the rest.



In South Carolina, the primary nesting area is between North Inlet (near Georgetown) and Prince Inlet (southern end of Cape Romain National Wildlife Refuge). Beaches in the southern part of the state including Kiawah and Hilton Head islands, also have moderate nesting densities. Loggerhead nests on Kiawah's beach average 180 per year, and have been continuously protected since 1972.

Mating takes place in early spring in coastal waters. Adult females come ashore at night to nest from mid-May to mid-August. They typically lay several clutches of eggs a season at approximately two-week intervals. Turtle tagging studies have shown that females return to nest every two to three years. The female crawls ashore after dark to lay her eggs at the base of the dunes. The nest cavity is



constructed by alternately digging with the hind flippers to create a deep hole. The cavity is flask-shaped and approximately 18 inches deep. An average clutch contains 120 white spherical eggs, which have a leathery shell. After depositing the eggs in the nest cavity, the female replaces the

sand over the eggs and disguises the location by throwing sand over the spot with her front flippers. If the nest escapes predation, poachers, and spring tides, it will incubate for approximately 60 days before hatching. When the eggs hatch, the hatchlings remain in the nest for several days to absorb their yolk sacs and to allow their shells, curved from being in the egg, to straighten. Then the hatchlings all begin to dig their way to the surface in a united effort. This causes sand to sift down through the mass of hatchlings and helps to raise the turtles out of the nest. It can take several days for all of the hatchlings to emerge. The hatchlings leave the nest as a group in order to increase their chance of making it to the ocean.

Onward to the Ocean...

Hatchlings usually emerge from the nest at night in response to cooler sand temperatures. They head toward the sea, attracted by the light reflected off the surf. Artificial light from homes behind the dunes can attract turtles leading to their demise. Please keep beachfront lights out from May-October.



Hatchlings must travel across the beach on their own. Biologists believe the journey to the sea imprints the magnetic field of the earth on their brain. This gives them a sense of direction, which allows them to return to the same area when they mature in 20 to 30 years. The hatchlings swim continuously for up to 24 hours after entering the water to reach the Gulf Stream. There they drift with the current, hiding in the sargassum weed, where they are protected and have ample food for growth.

Some turtles from the Southeastern United States stay in the Azores, west of Spain, until they are 10 to 12 years old. Then they select a feeding area in sub-tropical waters until they reach maturity and return to their birth area to breed and nest.

Other Marine Turtle Species

Three other species of marine turtles also inhabit South Carolina's coastal waters. While loggerhead nests are common on Kiawah, nesting occurrences along the South Carolina coast are extremely rare for the other 3 species. The leatherback, green, and kemp's ridley sea turtles can be found just offshore where they travel and feed.

Leatherback Sea Turtle

The leatherback sea turtle is the biggest of all turtles, weighing up to 2000 pounds and reaching lengths of greater than 8 feet. The leatherback's diet consists of jellyfish and other aquatic animals and plants.



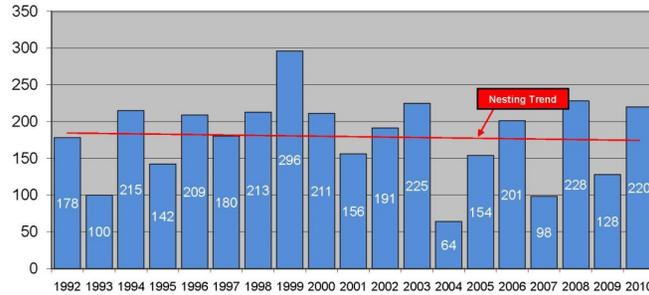
Green Sea Turtle

The green sea turtle can measure up to 3 feet and weigh up to 220 pounds. Young green sea turtles are omnivorous, but when they reach 8-10 inches in length they become completely herbivorous. They are the only sea turtles to exhibit this feeding behavior.



Kemp's Ridley

The kemp's ridley, the smallest marine turtle, can measure up to 2 feet and weigh up to 100 pounds. This turtle is a shallow water benthic (bottom) feeder, with a diet consisting primarily of crabs.



The nesting data in the above graph is collected by the Kiawah Island Turtle Patrol. The turtle patrol consists of over 100 Kiawah Island resident volunteers who patrol the entire length of Kiawah's beach every morning during the nesting and hatching seasons. Data are reported to the South Carolina Department of Natural Resources and are used to monitor state and regional nesting trends.

Remember...

- All sea turtles are protected by the U.S. Endangered Species Act. It is against the law to harass, handle, or disturb them in any way.
- Never shine lights, take flash photography, or approach nesting females at night.
- Observe turtles on the beach from a distance, and DO NOT interfere with their activity.
- Visit the displays at the Kiawah Island Nature Center, located in Night Heron Park, and attend a free turtle talk during the summer months.
- Observe the activities of the Turtle Patrol on the beach, but DO NOT interfere.
- DO NOT pick up or handle any hatchlings.
- LIGHTS OUT ON THE BEACH DURING THE NESTING SEASON (MAY-OCTOBER).

KIAWAH ISLAND NATURE SERIES

MARINE TURTLES



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