

# Sea Science

A Series by SCDNR Marine Resources Division

## Sea Turtles

Sea turtles are among the largest reptiles in the world and inhabit almost every ocean. Fossil evidence indicates sea turtles shared the Earth with dinosaurs over 210 million years ago. There are seven species of sea turtles that live across the globe. Four of those species are native to South Carolina including the Loggerhead, Leatherback, Green and Kemp's ridley. The other three species are the Australian Flatback, Hawksbill and Olive Ridley. These creatures can streamline effortlessly through the water and range in size from 100 to over 1000 pounds. These creatures spend most of their lives in the ocean, surfacing to breathe. All species of sea turtle are either threatened or endangered.

All species of sea turtles have a similar life cycle. The cycle begins in early spring when males and females meet in the sea to mate. Between May and August, a female will crawl onto the beach, typically during the night. In the dry sand above the high tide line, she will dig a cavity with her hind flippers that is about two feet deep. In this sanctuary, she will lay a clutch of around 120 eggs before burying them and returning to the sea. She might nest several times during a single season. Her eggs remain buried beneath the sand where they will incubate for approximately 60 days. During this time they are vulnerable to racoons, coyotes, feral hogs and ghost crabs. The temperature of a nest will determine the sex of the hatchlings. A warm nest will produce female hatchlings while a cooler nest will produce males. Sea turtle biologists are concerned that rising sand and water temperatures and rising tides from climate change could have significant impacts on sea turtle populations.

After incubation, the hatchlings will emerge from the nest, often at night when there is less of a threat of predators and heat. They will follow the moonlight into the ocean to begin 36 hours of swimming out to the open ocean. They will live offshore in large clumps of Sargassum seaweed in the N. Atlantic Ocean gyre, feeding on a variety of small invertebrates. When they reach more than a foot in length, they will return to coastal waters near the continental shelf. Loggerhead sea turtles reach sexual maturity between 25 and 30 years of age when they will begin the cycle again.

## Help Protect Sea Turtles

### Watch Out for Wildlife



Travel slowly in coastal waterways to avoid striking wildlife such as sea turtles, manatees and dolphin.

### Leave No Trace



Before leaving the beach, fill in holes and collect your trash to avoid creating obstacles for hatchlings headed to the sea.

### Lights Out

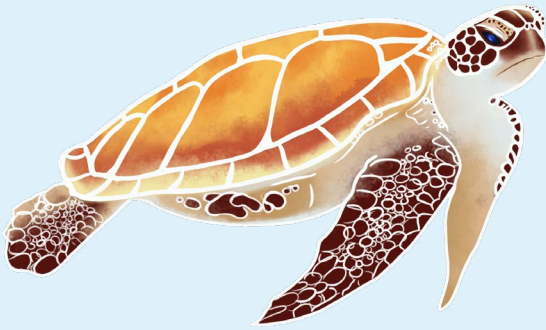


Turn out all lights visible from the beach from dusk till dawn, May-Oct. Avoid flashlights and flash photography on the beach at night.

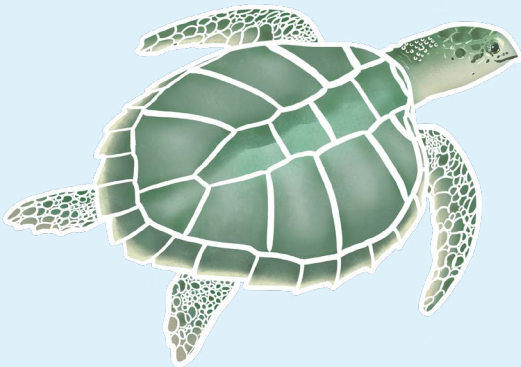


Find the full Sea Science Series by SCDNR at [bit.ly/seasciences](http://bit.ly/seasciences)

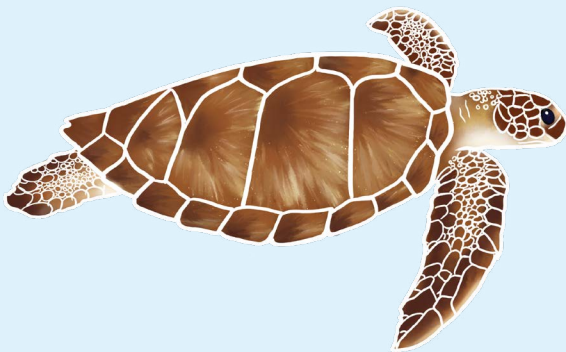
## Sea Turtles of South Carolina



**Loggerhead** (*Caretta caretta*) is the most common sea turtle in South Carolina and is the state reptile. Their carapace (top of shell) is a dark reddish-brown while their flippers and plastron (bottom of shell) are light yellow. Loggerheads were named for their very large head and can reach up to 300 pounds and four feet in shell length. Their jaws are extremely strong and used to crush their prey which includes a variety of crustaceans and marine snails.



**Kemp's ridley** (*Lepidochelys kempii*) are the smallest and rarest of the seven sea turtle species, growing to approximately 100 pounds and two feet in shell length. They have a round grayish-black to olive carapace which lightens with age. They typically nest on the Gulf coast of Mexico and it is extremely rare for them to nest further north. There have been five nests recorded in South Carolina in the past 40 years. Juvenile kemp's can be found in South Carolina waters from April to November, where they will feed mainly on blue crabs and other small invertebrates.



**Green sea turtles** (*Chelonia mydas*) are the largest hard-shelled sea turtle species, growing up to 350 pounds and five feet in shell length. Their green coloration results from their herbivorous diet. They have beautiful patterns on the carapace which are olive to black in color. They have a serrated jaw for tearing sea grass and lettuce. Although green sea turtles only rarely nest in South Carolina, juvenile turtles utilize South Carolina waters as foraging grounds from April through November.



**Leatherback** (*Dermochelys coriacea*) are one of the largest reptiles in the world, can reach up to 2,000 pounds and can be as long as seven feet. They are the widest ranging sea turtles, traveling an average of 3,700 miles between feeding and breeding areas. Leatherbacks can dive up to 4,000 feet. These turtles are unique because they have a black, leathery shell with distinct longitudinal ridges instead of scutes. It is rare for Leatherbacks to nest in South Carolina with only one or two Leatherback nests found here every other year.

At SCDNR, Sea Turtle biologists and hundreds of volunteers work to protect the sea turtles that visit our coast. Learn more at [www.dnr.sc.gov/seaturtle](http://www.dnr.sc.gov/seaturtle).