

# Turtle Time at the Masonboro Island Reserve

It has been a busy summer at the Masonboro Island component of the North Carolina National Estuarine Research Reserve, thanks to the many sea turtles that make their nests on the island's wide, sandy beaches. Masonboro Island Reserve staff and interns answer some questions about this summer's turtle activity.

## How many sea turtle nests were found on Masonboro Island this summer?

Interns and volunteers found 32 total nests in 2013, as well as 28 "false crawls", where the female sea turtle crawls up the beach but returns to the sea without making an actual nest.

This year, North Carolina had more total nests than in 2012, and 2013 marks the fourth year in a row of increasing nest numbers.

## How are nests located on Masonboro Island?

Finding and protecting sea turtle nests on Masonboro Island requires team work and some very early mornings. Staff, interns, and volunteers meet around 6:00 am to boat over to either the North or South end of Masonboro Island. Each morning, the entire nine mile island is walked or biked by the dedicated turtle team. If sea turtle tracks are found, staff and volunteers then try to determine whether a nest has been laid based on whether an area of disturbed sand, called a body pit, is present. If a nest is found, staff dig to find eggs, and one egg is taken as a sample for a DNA analysis research project. The egg DNA can identify the mother of the nest, and can help track where females lay their nests year after year. The nest is then covered with a mesh screen to protect the eggs from predators such as foxes, and signs are placed near the nest to educate passersby about sea turtles and provide a marker for continued monitoring.

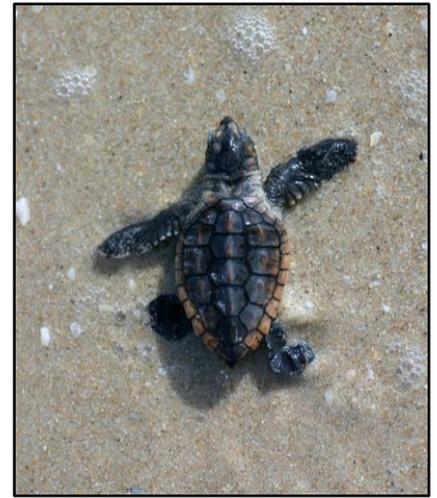


Loggerhead sea turtle eggs

include predation or frequent tidal flooding.

## How can beachgoers at the Masonboro Island Reserve help keep turtle nests safe?

Visitors can help protect sea turtle nests by making sure that pets don't dig holes in the sand, which could disturb sea turtle eggs. If you are lucky enough to see a female turtle or hatchlings, do not use artificial light while you are observing them, as their ability to orient themselves toward the ocean is thought to be related to the reflection of light off the water. Only those working with a permit from the U.S. Fish and Wildlife Service are permitted to handle sea turtle eggs and hatchlings, so please keep a safe distance from nesting activity.



Sea turtle hatchling on Masonboro Island

## How long does it take sea turtle eggs to hatch?

Baby sea turtles hatch 50-70 days after the mother lays the eggs. Staff at the Masonboro Island Reserve calculate an estimated hatch date of 55 days after the nest is located and keep a close eye on the nests after this date. If signs of hatching, such as many tiny turtle tracks are seen, the nest is excavated 72 hours later. If no signs of hatching are seen, the nest is excavated after 80 days to determine whether the eggs hatched, how many hatchlings emerged, or if the nest failed. Common causes of nest failure

**Where can you learn more about sea turtles and their nesting behavior?**

All of the Masonboro Island Reserve sea turtle nesting data is submitted to a global database at [www.seaturtle.org](http://www.seaturtle.org). Researchers, conservation groups, and students access this comprehensive database to learn more about turtle nesting patterns, geographic distribution of turtle species, and sea turtle conservation strategies.