

2016 Terrapin Tally



Calling all citizen scientists! The N.C. Coastal Reserve & National Estuarine Research Reserve and the N.C. Wildlife Resources Commission need your help to estimate the population of diamondback terrapins within the Masonboro Island Reserve!

As part of the program, participants will paddle predetermined routes around the Masonboro Island Reserve and log terrapin sightings using a smartphone application. Teams of two are needed for each of the routes. Participants must have their own smartphone, kayak or canoe, and life jacket. Procedures for logging terrapin sightings will be explained and the paddle routes and times will be assigned during **required** training sessions held in the auditorium at the UNCW Center for Marine Science. To register or if you had additional questions, email marie.davis@ncdenr.gov. Visit the Reserve [event calendar](#) for more information about the trainings and paddle sessions.

Terrapin Tally Trainings:

April 7

6 – 8 p.m.

April 9

10 a.m. – 12 p.m.

Terrapin Tally Paddle Sessions:

April 30

11 a.m. - 1 p.m.

1 - 3 p.m.

3 - 5 p.m.

May 7

7 - 9 a.m.

9 - 11 a.m.

May 14

2 - 4 p.m.

4 - 6 p.m.

About the Diamondback Terrapin

Diamondback Terrapins are found in salt marshes, estuaries, and mangrove swamps along the East and Gulf Coasts of the United States. This particular turtle is unique because it is the only reptile that can tolerate brackish water environments where salinity levels are constantly changing due to fresh water runoff from land and saltwater input from the ocean tides. Terrapins are able to survive in these habitats due to special physical and behavioral adaptations, like having skin that is essentially impermeable to saltwater and choosing to feed more in fresh water versus saltwater to limit their salt intake.



Terrapins feed on fish, snails, crabs, mollusks, clams and worms. They spend much of their time in the marsh buried in mud because it helps maintain their body temperature and offers protection from predators. During high tide they are often more active, swimming through creeks and marshes searching for food. They can also sometimes be seen basking on the banks of tidal creeks, absorbing warmth from the sun.

Like all turtles, terrapins have a soft body between two hard shells. The carapace, or top shell, is gray, light brown or black with dark circular or diamond-shaped markings which give them their name. Growth rings in these patterns can be used to estimate the turtle's age. The bottom shell, called the plastron, varies from yellowish to greenish gray. The color of their bodies range from light gray to black and are spotted or mottled, sometimes appearing "polka dotted" or even "leopard spotted." Male terrapins are much smaller than females, weighing in around a half a pound with a body length of four to five inches, while females weigh roughly one and a half pounds and are six to nine inches long. Males also typically have smaller heads and thicker tails than females.

Mating season occurs in spring, with nesting season following in June and July each year. After mating, females search for a suitable nesting location, either in the sandy shoreline of the marsh or in the dunes of the barrier island. After the female digs a hole, she will lay anywhere from four to eighteen light pink eggs that incubate for roughly 60 days before hatching. If the nest hatches late into the fall season, the hatchlings will spend their first winter on land, often hiding among the piles of marsh grass that wash up on the shoreline. When spring returns, the young terrapin will head to the water. During this early stage in life, hatchlings are vulnerable to predation by shorebirds and fish. Little is known about juvenile stage of a terrapin's life because they are not often observed. Adult terrapins can live for up to 40 years.



Natural predators are not the only threat to terrapin populations. Historically, terrapins were considered a delicacy food item and their numbers sharply declined as a result of overharvesting. In an attempt to rebuild their numbers, the federal government designated terrapins in many coastal states, including North Carolina, as "species of special concern." Even with this designation terrapins face threats from coastal development which has led to a decrease in available habitat for these turtles and has proven to be destructive for female terrapins that wander onto roads while searching for suitable nesting grounds. They can also be victims of bycatch from commercial or recreational crab pots.

Humans can help protect terrapins from extinction by leaving them in their natural environment, reducing speed while boating through tidal creeks, or modifying crab pots with special devices that block terrapins from entering the traps.