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## Discovering Diamondback Terrapins

*By Tony Mills, Naturalist, LowCountry Institute*



See the Coastal Kingdom Video "Winter in the Lowcountry" on [Bluffton.com](http://Bluffton.com)

If you were a Lowcountry artist, looking for a beautiful subject, you might look closely at one of our resident salt marsh reptiles, the diamondback terrapin. Terrapins have ornately-patterned shells, light-gray bodies with contrasting black spots, and a pleasing mug that would highlight any canvas. These turtles are relatively common in the Lowcountry but also appear from Cape Cod, Massachusetts down the entire eastern seaboard, around the Florida peninsula and across the Gulf Coast to Texas. As full-time inhabitants of the salt marsh ecosystem, terrapins are the only turtle species in the U.S. that live in the saltmarsh for their

entire life. Diamondback terrapins feed on a variety of crustaceans, fish, mollusks and insects, but in South Carolina, their most common snack is periwinkles (salt marsh snails). I get the impression from captive specimens that shrimp and fiddler crabs are probably preferred, but much harder to capture. At high tide, terrapins often leave the tidal creeks to feed in the spartina marsh.

Mature female diamondbacks are about the circumference of a cantaloupe, with large heads and strong jaws. The males (about half the size of females) have narrower heads and reach maturity at an earlier age. Females are capable of eating larger animals like crabs and other invertebrates because of their bigger heads and jaws.

We know that terrapins are capable of living for a long time. We discovered first-hand evidence of this through fieldwork in coastal South Carolina in 1987. I was part of a team of researchers at the Savannah River Ecology Lab conducting a natural history study on turtles. We captured many terrapins in the saltwater creeks around Kiawah Island including one particular adult female. We weighed, measured and individually marked her "BKX" by filing three notches in the edge of her shell. These file marks correspond to letters of the alphabet and give the turtle a specific code for later identification. Adult terrapins are very difficult to age. We estimated that she was at least 15 years old, but likely much older. After her workup, she was released back into the saltwater creek where she was captured.

In 2012, Kristen Mattson (a member of our staff from the LowCountry Institute on Spring Island) was asked to participate in fieldwork at the same long-term study site. As the group sampled turtles in the saltmarsh, they captured many terrapins including an adult female marked "BKX." After consulting the data files they realized that this was in fact the same animal that was collected in 1987! She appeared to be healthy and her length and weight had changed only slightly. The most amazing fact was that she was captured within a couple hundred yards from where she was originally found 25 years earlier. Most turtle biologists are convinced that terrapins may live for more than 60 years in the wild.

The LowCountry Institute on Spring Island has initiated a study of the terrapins in Chechessee Creek and surrounding waterways. We have captured lots of turtles, done a complete workup, marked

them and then released them back into the wild. This data will give us baseline information on population size and other pertinent information that we can compare to other South Carolina populations.

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Terrapins spend most of their time in the water and only come onto land to bask or lay eggs. Diamondback terrapins breed in the water early in the spring. In the late spring and early summer, females will lay 4-18 eggs in the sand above the high tide line. The inch-long babies hatch about two and a half months later but often don't emerge from the nest until the following spring.

In the late 1800s and early 1900s, diamondback terrapins were considered a delicacy. Terrapin soup was served in many of the finer restaurants on the East Coast. The over-harvesting of these turtles led to a major decline in terrapin numbers throughout much of their range. Once terrapins were no longer harvested on such a large scale, many populations had opportunities to recover. However, the diamondback terrapin now faces significant new threats, including estuarine pollution, highway mortality and drowning in commercial and recreational crab traps. Turtle excluder devices are available for crab traps and these devices will keep adult terrapins out of your trap and minimize accidental drowning.

I have to admit, I am a bit partial to diamondback terrapins; I think they may well be one of the most beautiful turtles in the world. Besides, there is something kind of comforting to the knowledge that the terrapins we see in our local creeks might just be swimming around 30 or 40 years from now.

*Tony has been working in the field of environmental education for over two decades with emphasis on southeastern animals and plants. He is currently the education director for the LowCountry Institute on Spring Island and his duties include co-teaching the LowCountry Master Naturalist Program, producing and conducting educational programs for local schools, field trips and teacher workshops. He has written numerous newspaper columns and articles on local plants and animals for the popular media and co-wrote the book "Lizards and Crocodilians of the Southeast" (UGA press June 2009). Tony writes and hosts the award winning TV nature program "Coastal Kingdom" that airs on SCETV, The South Carolina Channel and The County Channel.*

