



**DIAMONDBACK TERRAPINS** are being studied by Rockefeller Wildlife Refuge biologist Dr. Will Selman. Males (left) are smaller than females (right), and there is quite a variation in skin color between individuals, from mostly gray to mostly black.

(Photo by Cyndi Sellers.)

## Diamondback Terrapins are studied at Rockefeller Wildlife Refuge

By **CYNDI SELLERS**

Everyone in Cameron Parish is familiar with the red-eared turtles that are now reappearing on sunny logs and banks, and quite a few folks will stop their cars to pick up a road-crossing turtle, destined for the stew pot. Most residents know about the alligator snapping turtles that can grow very large and be dangerous to handle. Not many are aware of another local species, the Diamondback Terrapin (*Malaclemys terrapin*), a brackish-water turtle that lives in salt marshes from Texas to Massachusetts, as well as the island of Bermuda.

Rockefeller Wildlife Refuge staff have been studying the terrapins since 2011, to learn more about the local population's numbers and distribution. Research Coordinator and Research Biologist Dr. Will Selman shared the following information about these fascinating creatures.

Terrapins have scales with concentric rings on top of their shells (hence the name diamondback), and display varying levels of black spots on whitish-gray skin. The females are much larger than the males (females up to 3.5 pounds, males up to 14 ounces), and the females have considerably larger heads, needed to crush their primary prey, salt marsh periwinkle snails.

Of all the states in its range, Louisiana likely holds the most available salt marsh habitat for the species, with over 160,000 acres of which 300,000 are in southwestern Louisiana. However, little is known about terrapin distribution and abundance in coastal Louisiana. Knowledge has been especially lacking about southwestern Louisiana, where only 12 specimens had been recorded, the most recent being from 1972.

To remedy this lack of knowledge, RWR staff initiat-

ed a study to determine if terrapin populations still exist in historical collection sites, if terrapin populations are present in other salt marsh sites, and if terrapin abundance differs among sites in SWLA. Even though there were no documented records or employees that had ever seen terrapins on the refuge, it appeared that suitable salt marsh habitat was present on the property and it would be a good place to start.

So in the spring of 2011, Selman and Brett Baccigalopi began a study to determine the best methods of capturing and studying the species. On the first day of the study, they captured four individuals going across the marsh in an airboat, so they knew terrapins were present on the refuge. That spring, they captured 134 terrapins on Rockefeller, 10 times the number of all prior records for SWLA.

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## TERRAPINS

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They found both males and females and most sizes except hatchlings.

In 2012-2013, Selman, Brett and Chance Baccigalopi expanded the sampling across multiple properties in southwestern Louisiana (see map). All of the sites were near historical records or other apparently suitable salt marsh habitats. A total of 490 terrapins were captured at 13 of the 16 sample sites, with terrapin abundance varying considerably, averaging from zero to 7.06 per net day per site.

High terrapin abundance was always associated with large expanses of natural salt marshes, while low abundance was usually found with smaller marsh sizes and channels or bayous that are no longer connected to the Gulf of Mexico. All sites with terrapin captures represent either a new locality or the first record for a locality in over 40 years.

Selman says the results of this study emphasize the continued need for better distribution and abundance data for poorly studied portions of a species' range, especially those that are of conservation concern. He recognized several private landowners and managers in SWLA who graciously permitted access to their properties, including David Richard, Lonnie Harper, Albert Crain, Martin Miller, Iris Broussard, and Jerome Carter. A number of people at RWR also assisted with the project, including Brett Baccigalopi, Chance Baccigalopi, Gerard Nunez, Adrian Savoie, Ruth Elsey, Ryan King, and Bruce Davis.

Results for this study will be published in 2014 in the

international journal, *Chelonian Conservation and Biology*. More information about diamondback terrapins, is available on the Diamondback Terrapin Working Group website, [www.dtwg.org](http://www.dtwg.org). Anyone having information about terrapins and/or terrapin locations in Southwest Louisiana is asked to call the office number at Rockefeller, 337-491-2593.