

[From Fall 2008]

## **For Refuge Biologists, a Loggerhead Nest Is Worth Many Moments of Joy**

From a distance it looked like another dead turtle but wait this one was moving toward the sea.

This was enough to bring Joelle Buffa, a senior biologist at the Chincoteague National Wildlife Refuge, to a state of full alert. "My emotions went from 'bummed out' to ecstatic in a 10<sup>th</sup> of a second," she said. For the next 20 minutes Joelle watched what turned out to be a mother loggerhead crawl across the sand until she was safely in the water. "It was just me and the turtle and a beautiful sunrise on the beach."

Joelle, who moved to her Assateague assignment recently, was on routine patrol on July 3 as part of her job with the Refuge. She had driven south along Assateague Beach to the area known as Tom's Cove Hook. As was soon discovered, this loggerhead mom had left a full nest of eggs burrowed in the sand. Having survived the usual predators so far, thanks to the efforts of the Refuge biologists and staff, the hatchlings are due to dig out of the sand and head for the Atlantic anytime after September 2.

What got Joelle and her colleagues who came to help so excited was the rarity of this nest discovery. There were no nests found in 2007, seven in 2006 of which all but one was washed out by tropical storm Ernesto, and only two hatched in 2005.

Joelle has been a wildlife biologist for 30 years, the last 12 with the San Francisco Bay National Wildlife Refuge Complex.

Before that position she was employed by three other U.S. agencies, working with bighorn sheep, elephant seals, endangered butterflies and green iguanas in Central America. After all this, Joelle said watching that female loggerhead return to the ocean is one of her top five wildlife encounters.

"One of the things that attracted me about this job was the chance to work with sea turtles," Joelle said. "I knew that Chincoteague is on the northern end of the loggerhead's range and my chances of finding a nest my first year were small. So I feel very lucky." She said one of her co-workers who has been at the Refuge for 20 years has never seen a live adult turtle on the beach.

The loggerhead is not likely to be mistaken for any other turtle. With a red-brown shell, their average size is 4 feet long, with an average weight of 250 pounds. They take 30 years to reach sexual maturity and live around 60 years. There is a good chance the nest Joelle found may hold more than 100 eggs.

Just after discovering the nest, "savoring every minute" of that beautiful early July morning, she called a co-worker to share her excitement. Then the work began.

Measurements were taken of the crawl track. The body pit where the turtle had laid as she dug her nest was studied to find the location of the "nesting chamber." Biological Technician Eva Savage carefully dug in the sand, lifting out one handful at a time, finally reaching the top layer of eggs to confirm there was a nest. The sand was quickly replaced and within 20 minutes more measurements and photos were taken and a protective screen was placed over the nest to deter predators.

The eggs and hatchlings have plenty to worry about. There are raccoons, red foxes and then ghost crabs that can feel the vibrations of the hatchlings through the sand and dig their way to them.

But it isn't only these natural predators the biologists have to protect against. Beginning September 1, the Toms Cove Hook part of the beach reopened to visitors, including off-road four-wheelers. The Refuge staff hopes visitors will pay attention to the protective zone they have built around the nest. The nest is located about 200 feet above the high tide line. A 20-foot wide corridor of black silt fence has been erected, with signs posted that read, "Area Closed. Important Turtle Nesting Site." Visitors are asked not to drive or walk between the turtle nest and the ocean, and to steer clear of this protective zone.

Refuge staff will visit the site daily to check for signs of hatching. "In our area," said Wildlife Biologist Amanda Daisy, baby turtles tend to 'trickle' out of the nest a few at the time over a period of several days or weeks. They don't pop out of the sand all at once like you see on TV."

If all the precautions work, any time now, there could be action coming from the nest. The eggs usually hatch at night, making a bee-line for the water. According to the biologists, the hatchlings move instinctively toward the brightest spot on the horizon, because in nature moonlight reflecting off the water is the direction of the sea. The black silt fence forms a light barrier, hopefully blocking light from vehicle or flashlights which could disorient the hatchlings.

The biologists have some suggestions for the public that may help protect sea turtles. First, report any crawl marks to Refuge or Park Service staff. Then be sure not to walk on the marks and if a live turtle is spotted, watch it from a distance, turning off lights. Also, pick up trash, especially balloons or plastic, from the beach and don't litter.