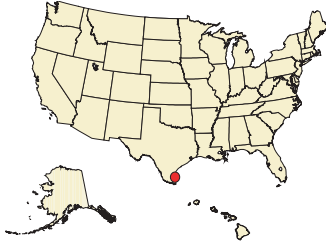


by Darrell Echols

# Turtle Patrol on Padre Island



A frantic radio call came into the Padre Island National Seashore Ranger Station on April 29, 1991: a park visitor reported that a sea turtle was crawling ashore! In a flash, we loaded a 4-wheel-drive truck with all the necessities for excavating sea turtle eggs and drove the mile (1.6 kilometer) of beach to the nest site. In that 20-minute drive, I realized that I was about to witness a nesting sea turtle for the first time in my life.

Ordinarily, National Seashore staff patrolled about 110 miles (177 km) of beach along the south Texas coast daily from March through June to locate the nesting sea turtles or their nests, and have done so since 1990. That day, we had reluctantly decided to cancel the patrol because tides were higher than normal, which limited our driving ability. Luckily, a



**Darrell Echols and NPS staff with nesting Kemp's ridley turtle**

*NPS photo*

visitor had noticed the signs placed along the beach asking that they contact us if a sea turtle was seen.

Despite my training on the characteristics of nesting sea turtles, I was awed by the sight before me. The turtle was a Kemp's ridley (*Lepidochelys kempii*), the most endangered of the world's sea turtles, and she was in the process of digging a nest cavity to lay her eggs. About five minutes after we arrived, she settled down and began laying the first of about 100 white, leathery eggs. I was amazed and curious how she could carry so many eggs inside of her, especially since each one was the size of a ping-pong ball. Once the eggs were laid, she

covered the evidence by using her flippers to sling sand over them. Meanwhile, she rocked back and forth to tamp down the sand. Even though she weighed only about 80 pounds (36 kilograms), I could feel the vibrations from her tamping nearly 20 feet (6 meters) away. Finally she finished, lumbered back across the beach to the water, and swam away.

At Padre Island National Seashore, we have the distinction of being the only location in the United States where all five protected species of sea turtles occurring in the Gulf of Mexico have nested. The rarest of these species is the Kemp's ridley, listed as endangered in 1970. In 1978, Mexico and the U.S. initiated a 10-year project that brought Kemp's ridley eggs from the species' main nesting beach in Mexico to Padre Island as a means of reestablishing the population in Texas. Now, each spring these released turtles nest sporadically along the southern Texas coast.

As a continuing part of the recovery effort, Kemp's ridley eggs from southern Texas nests are carefully removed and placed into artificial incubators for increased hatching success. When left to hatch in the wild, most eggs are lost to predation, poaching, inundation by high tides, or crushing from beach traffic. Among sea turtles, Kemp's ridleys hide their nests the best. Besides being relatively lightweight and not leaving large, noticeable tracks, they nest on windy days, which helps erase any traces. Sometimes patrollers spend an hour finding a nest after seeing a turtle or its tracks in the sand.

Once the nest is located, it generally takes about 15 minutes to pack the eggs gently into styrofoam coolers, insert a

probe for monitoring their temperatures, and cover them with a plastic screen and sand. Eggs can safely be transported for the first 24 hours after laying; after that, the embryo attaches itself to the top of the egg, and it can suffocate if the egg is rotated after attachment. A passenger holds the cooler during transport to the incubators to avoid scrambling the fragile contents.

Hatching success can be less than 40 percent in the wild but up to 90 percent in the incubation facility. Dr. Donna Shaver, formerly with the National Park Service at Padre Island, leads the sea turtle research in her current position with the U.S. Geological Survey's Biological Resources Division. This research extends beyond the boundaries of Padre Island National Seashore. Dr. Shaver developed the standardized egg collection and incubation methods. After seven weeks of incubating, the eggs hatch, and the hatchlings are released onto the beach where the eggs were collected to begin the cycle again.

After 10 years at Padre Island, I have not lost that special feeling I get from doing the right thing for an animal needing help, but it has been difficult at times. It is hard to see what might be the fruits of our labor destroyed after we've put forth such a tremendous effort. I am referring here to the dead turtles that periodically wash ashore along the Texas coast. The cause of death for some of these animals is obvious, but for most it is not.

In addition to the presence of dead turtles, patrol efforts are sometimes hampered by events that are beyond our control. Twice each year, during the spring and fall, ocean currents change along the coast of Texas and cause seaweed (*Sargassum* spp.) mats to come ashore in large masses. This seaweed provides nutrients and food to shorebirds and helps to stabilize sand and build dunes. Although the seaweed doesn't affect the turtles, their tracks are concealed by it, increasing the possibility that our patrollers will miss a nest.

Padre Island National Seashore staff will continue to do what we can to help increase the numbers of nesting Kemp's ridleys. In addition to our partnership with the Geological Survey's Biological Resources Division, we also work with the National Marine Fisheries Service, U.S. Coast Guard, and U.S. Fish and Wildlife Service to increase patrols outside the park, provide data for law enforcement in state and federal waters, and standardize egg collection methods.

It has been more than 10 years since I saw my first sea turtle as a patroller. I knew then that it was a rare treat. Not another sea turtle nested at Padre Island for three more years, and in 2000, there were still only 18 nests. I am now a manager and supervisor of the National Park Service sea turtle monitoring program at Padre Island National Seashore and have been fortunate to remain involved in this program. It is truly a rewarding experience to know that your efforts are helping protect this turtle species and bring it back from the edge of extinction. To all the biologists caring for endangered species, I would like to offer the following quote from *The Lorax* by Dr. Seuss: "Unless someone like you cares a whole awful lot, nothing is going to get better. It's not!"

Keep up the great work!

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**Nesting Kemp's ridley turtle**  
Photo by Stuart Porter/USFWS