

The Kemp's Ridley: Recovery in the Making

by Bryan Arroyo, Patrick Burchfield, Luis Jaime Peña, Les Hodgson, and Patricia Luevano

The Kemp's ridley sea turtle (*Lepidochelys kempii*) received legal protection in Mexico in the 1960s and in 1970 in the United States. As is often the case, this species' decline began many years before receiving legal protection.

A 1951 article in *Zoologica* by John Werler included notes on Kemp's ridley nesting on the Gulf Coast at North Padre Island, Texas, in 1950. Investigating that account, the late famed naturalist Archie Carr contacted Werler's source—Jessie Lawrence—and determined that Lawrence had also previously observed a nesting ridley in 1948 on Padre Island's Big Shell Bank.

These represented the only scientifically documented Kemp's ridley nests until 1963, when Henry Hildebrand of Corpus Christi, Texas, screened a 1947 film at a conference of herpetologists,

solving the mystery of where Kemp's ridleys came ashore to nest. About 40,000 turtles crawled ashore during that massive nesting aggregation known as an "arribada." The site was at Barra Coma, a sand bar roughly 2 km (1.2 mi) from the small cattle ranching community of Rancho Nuevo in Tamaulipas, Mexico.

Also in 1963, a building contractor from Brownsville, Texas, and his associates from the Brownsville Sportsman Club brought ridley eggs from Rancho Nuevo to South Padre Island and buried them in the sand to establish a second



A Kemp's ridley returns to the sea after nesting.

Photos by Bryan Arroyo



Above and following page: Artisans from the community of Tepehuajes, Mexico, produce quality ceramics inspired by sea turtles, giving them pride in protecting these vulnerable animals.

nesting colony. This was the first time the Kemp's received help outside of the agencies and nongovernmental conservation groups.

In 1966, biologists Humberto Chavez, Martin Contreras, and Dr. Rene Marquez (of Mexico's Instituto Nacional de Pesca) went to Rancho Nuevo to survey the remaining Kemp's ridley population and to establish a conservation effort for the diminishing population. In 1978, experts from Mexico and the U.S. determined that without drastic steps, the species would disappear. Students and biologists from the U.S. were sent to Rancho Nuevo to assist their Mexican counterparts at the primary nesting beach.

The number of protected nests and hatchlings doubled that first season due to increased help and equipment.

Simultaneously, a second nesting beach in the U.S. at Padre Island National Seashore was established by transferring eggs there to hatch. Once experimentally imprinted on that beach, the hatchlings were gathered up and "headstarted" (raised to larger size) at the Galveston National Marine Fisheries Service Lab for several months to lessen the number of predators that are able to eat them.

The first few years of work were disappointing, with the numbers of nests declining to an all time low of 702 nests for 1985 (estimated 270 females). This species requires between 10 and 15 years to reach maturity. Almost the entire nesting population of Kemp's ridleys nested in this small, isolated stretch of beach near Rancho Nuevo. The effort began with five students led by Dr. Marquez and Dr. Peter Pritchard of the Florida Audubon Society. The Gladys Porter Zoo of Brownsville assumed responsibility for the U.S. crew in 1981, one of the few times that a nongovernmental entity has taken the lead for recovery implementation of an endangered species.

The population now appears to be expanding and is probably using historic nesting sites. Accordingly, the Mexican and U.S. teams now operate six camps in Tamaulipas and one in Veracruz, and collectively patrol more than 100 miles (166 km) of coastline several times daily to protect nesting females and eggs. In 2002, we protected more than 6,300 nests. We are on our way to achieving our goal of establishing the downlisting criteria of 10,000 females (as identified in the 1992 Recovery Plan).

Regardless of the legal protections and the potential for violation enforcement, recovery can only be achieved through the cooperation and commitment of the Tamaulipas communities. In the past, some local residents poached sea turtle eggs to sell in the lucrative black market for their supposed magical

and aphrodisiac powers. To deal with this, the traditional approach was to increase law enforcement. But such approaches can cause local resentment without effectively dealing with the problem. Instead, we pursued a nontraditional approach: addressing the need of the residents for a source of revenue to survive.

Thus was sparked the entrepreneurial spirit of the local residents. With the help of partners, the community created a beneficial economic venture that makes more money by protecting the turtles than by harming them.

The project blends the peoples' heritage with art and tourism in the community of Tepehuajes in the State of Tamaulipas. The people learned how to make ceramic items in turtle shapes and designs, such as salt and pepper shakers, wine coolers, and napkin holders. The local jurisdiction donated the lands to build the physical structure. The state donated the construction materials, engineering, and labor. Mexican university ceramic art experts spent three months training the local residents to make ceramic creations. The University of Texas at Brownsville sent expert kiln operator Nancy Slight to teach the people how to use their equipment and helped with the selection of clays.

Partners in the seafood industry and at Ocean Trust are helping with the marketing plans and development of online catalogs to serve as outlets. After almost two years of training and many trials, the artisans from Tepehuajes are producing quality ceramics. When visiting their facility, pride shines in their eyes and their commitment is unmistakable. No longer do they steal turtle eggs, fearful of prosecution and guilt.

The community is also engaged in educational efforts with children. At the La Pesca Camp, a natural history museum was built with contributions from partners. Exhibits on sea turtles emphasize Kemp's ridleys, or *tortuga lora* as they are known in Mexico. The children are learning that their beaches hold the future of the Kemp's ridleys. The children will become the leaders and residents of these communities, and with their commitment to the natural environment, the Kemp's ridley and other species will survive.

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The Turtles' Friends

This project represents a unique partnership of federal, state and local government agencies in both countries; industry; conservation NGO's; and the people of the Tamaulipas coastline: Mexico's Instituto Nacional de Ecología - SEMARNAT • State Government of Tamaulipas- SEDUE • U.S. Fish and Wildlife Service • National Marine Fisheries Service • National Park Service • Texas Parks and Wildlife Department • U.S. Geological Survey • Gladys Porter Zoo • Sea Turtle Inc. • San Antonio Zoo • Aquarium of the Americas • Help Endangered Animals-Ridley Turtles (HEART) • Center for Marine Conservation • CANAINPES • National Fisheries Institute • Texas Shrimp Association • Gulf States Marine Fisheries Commission • Marco Sales • Ocean Trust • fishing and shrimping industries of Mexico and U.S. • Darden Restaurants • Penguin Frozen Foods • Contessa Foods • Ocean Garden Products • Campeche Sea Food Products • Bubba Gump Shrimp Company • Zimco Marine • Eastern Fish • American Honda Motor Company, Inc. • H.E.B. • Phillips Petroleum • API Altamira • Universidad del Noreste • Universidad Michoacana de San Nicolás Hidalgo

