

A Kemp's Ridley sea turtle is shown from a high-angle perspective, resting on a dark, pebbly beach. The turtle's dark, patterned shell and flippers are clearly visible. In the background, the ocean waves are breaking, creating white foam and splashing water. The overall scene is captured in a natural, somewhat dimly lit environment.

Kemp's Ridley Sea Turtles

Travelers in the Gulf of Mexico



Hatchlings scramble to the sea by orienting to the brightest area

Kemp's Ridley

AN ENDANGERED SPECIES

Kemp's ridley sea turtle (*Lepidochelys kempii*) is the most critically endangered sea turtle species in the world. On December 2, 1970 this majestic sea turtle was listed as endangered. But Kemp's ridley has been a distinct species for the last 3-6 million years and was abundant in the Gulf of Mexico only a few decades ago. Humans caused the decline of Kemp's ridley, but our actions are also helping to bring this turtle back from the brink of extinction.

Most Kemp's ridleys nest on the Gulf coast of Mexico near the village of Rancho Nuevo. However, a few nest in the United States, primarily on the south Texas coast. A film made in 1947 showed an estimated 40,000 females nesting at Rancho Nuevo in a mass-nesting emergence called an *arribada*. Unfortunately, by the time scientists found the primary nesting beach at Rancho Nuevo in the 1960s, the population was already severely depleted.

Egg harvests, accidental turtle deaths in trawl



Eggs hatch after about 45 to 58 days

fisheries, and other human-related factors severely reduced the population.



Kemp's ridleys feed primarily on crabs, although they will eat a variety of marine invertebrates and plants, especially when they are young.

By 1985 scientists documented only 702 nests at Rancho Nuevo. Thanks to intensive protection, studies done on nesting Kemp's ridleys and their eggs, and laws passed in the late 1980s and early 1990s mandating the use of turtle excluder devices on shrimp boats, that number has climbed nearly every year since the early '90s. If the population continues to increase, Kemp's ridley may be re-classified as a threatened species by the year 2020.



Yearling Kemp's ridleys from the experimental project

TURTLE TRAITS

Kemp's ridley is the smallest of the sea turtles. Hatchlings are charcoal gray to black and their carapace (top shell) measures 1.5–2 inches long. Adults are olive green on top and cream colored on the bottom, weigh 80–100 pounds, and measure about 2 feet in carapace length.

The **head** is wide with a short, distinctly hooked upper jaw.

Living tags (white spot) used to mark some of the turtles from the experimental project.

The **carapace** is heart shaped and is commonly wider than it is long.

Kemp's ridley turtles reach **adulthood** at 10–15 years of age.

Hatchlings emerge during the late-evening or early morning hours.

Nesting takes about 45 minutes. The mother turtle crawls onto the beach, digs a hole to lay her eggs, covers the eggs with sand, and returns to the sea, never to see her babies.

An **egg tooth** at the tip of hatchlings' snouts helps them slice a hole in the eggshell so they can climb out.

Kemp's ridley turtles cannot be identified as **males** or **females** based on appearance until they are adults. Adult males have a long prehensile tail that extends well beyond the end of the carapace, a thick curved claw on each forelimb, and a soft, slightly concave plastron (bottom shell). Adult females have a shorter tail that barely extends beyond the carapace, a thinner claw on each forelimb, and a flat plastron.



Eggs are round and white with a soft, leathery shell. Each egg measures about 1.5 inches in diameter. Females lay about 100 eggs each time they nest, with a range from 51 to 185 eggs.

Research

HELPING SAVE KEMP'S RIDLEY

Research has been the cornerstone for Kemp's ridley restoration efforts. In 1978, the United States joined the Kemp's ridley program in Mexico. From 1978 to 1988 the National Park Service worked with a multi-agency, bi-national, experimental program to establish a secondary nesting colony of Kemp's ridley turtles at Padre Island National Seashore, in south Texas.

Kemp's ridley is a native nester to the area and scientists thought that a colony in the United States would help to safeguard these turtles against extinction.

Today the National Park Service, U.S. Geological Survey, and other partners work together to monitor Kemp's ridley nesting in south Texas. Through beach patrols, tagging, and satellite transmitters, researchers can track a turtle's movements. They also collect and incubate eggs to monitor their temperature and hatching success. Biologists then count, measure, and release hatchlings back to the Gulf. Thanks to these continued efforts, we know that the Kemp's



Most mothers return to the beach where they were born to lay their eggs, but it is not completely known how they do this. Research has demonstrated that sea turtles have the ability to orient themselves relative to the earth's magnetic field, and this may play a role in navigation back to the natal beach. However, other factors like imprinting to characteristics of the sand or surf could also play a role.

ridley turtles nesting in south Texas today include a mixture of returnees from the project done in the '80s and other Kemp's ridley turtles.

Other researchers in the United States and Mexico continue to gather data on habitat use, movements, mortality, and other topics in ongoing projects that will help restore this magnificent species.



Researchers at work

From 1978 to 1988, an experimental project included receiving eggs from Mexico and raising the babies to juvenile age before releasing.





Release at Padre Island National Seashore

YOU CAN HELP

You can help restore the Kemp's ridley by remaining alert for nesting activity when you visit south Texas beaches between the months of April and July. If you see a nesting Kemp's ridley turtle, please do not approach her until she is motionless and laying eggs. At that time, you can safely approach her and examine her for tags, photograph her, and place an identification marker beside where she laid the eggs. Immediately notify a beach patroller, park ranger, or a local official. Your report will directly contribute to the collection of vital research data and the protection of these critically endangered turtles and their eggs.



Edited by Abby Mogollón

Written by Donna Shaver

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