



NOAA Fisheries
Office of Protected Resources



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Kemp's Ridley Turtle (*Lepidochelys kempii*)

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Status

ESA Endangered - throughout its range
CITES Appendix I - throughout its range

Taxonomy

Kingdom: Animalia
Phylum: Chordata
Class: Reptilia
Order: Testudines
Family: Cheloniidae
Genus: *Lepidochelys*
Species: *kempii*

Species Description

Weight: 100 pounds (45 kg) for adults; hatchlings are 0.5 ounce (14 g)

Length: 24-28 inches (60-70 cm) for adults; hatchlings are 1.5 inches (3.8 cm)

Appearance: grayish-green, nearly circular, top shell with a pale yellowish bottom shell

Lifespan: unknown

Diet: crabs, fish, jellyfish, and mollusks

Behavior: "arribada" nesting, where large groups gather and come ashore and nest all at once

Adult Kemp's ridleys are considered the smallest marine turtle in the world. Their top shell (carapace) is often as wide as it is long and contains 5 pairs of costal "[scutes](#)". Each of the front flippers has one claw while the back flippers may have one or two.

Similar to [olive ridleys](#), Kemp's ridleys display one of the most unique synchronized nesting habits in the natural world. Large groups of Kemp's ridleys gather off a particular nesting beach near Rancho Nuevo, Mexico, in the state of Tamaulipas. Then, wave upon wave of females come ashore and nest in what is known as an "arribada," which means "arrival" in Spanish.

There are many theories on what triggers an arribada, including offshore winds, lunar cycles, and the release of pheromones by females. Scientists have yet to conclusively determine the cues for ridley arribadas. Arribada nesting is a



Kemp's Ridley Turtle
(Lepidochelys kempii)
Photo: NOAA

Did You Know?

- Since March 2011, a notable [increase in sea turtle strandings](#) has occurred in the northern Gulf of Mexico.
- The species is named after Richard M. Kemp, a fisherman from Key West, FL, who first submitted the species for identification in 1906.
- The Kemp's ridley is only one of two species of sea turtles that nest in arribadas (the other is the olive ridley).
- Kemp's ridleys are the only sea turtle species that nests predominantly during daylight hours.

After the Deepwater Horizon Oil Spill

behavior found only in the genus *Lepidochelys*.

Female Kemp's ridleys nest from May to July, laying two to three clutches of approximately 100 eggs, which incubate for 50-60 days.

Habitat

Adult Kemp's primarily occupy ["neritic"](#) habitats. Neritic zones typically contain muddy or sandy bottoms where prey can be found. Their diet consists mainly of swimming crabs, but may also include fish, jellyfish, and an array of mollusks.

Depending on their breeding strategy, male Kemp's ridleys appear to occupy many different areas within the Gulf of Mexico. Some males migrate annually between feeding and breeding grounds, yet others may not migrate at all, mating with females opportunistically encountered.

Female Kemp's have been tracked migrating to and from nesting beaches in Mexico. Females leave breeding and nesting areas and continue on to foraging zones ranging from the Yucatán Peninsula to southern Florida. Some females take up residence in specific foraging grounds for months at a time, leading scientists to suggest that females have a goal-oriented migration, opposed to the suggested wandering strategy employed by olive ridleys. Kemp's ridleys rarely venture into waters deeper than 160 ft (50 m) (Byles and Plotkin, 1994).

Newly emerged hatchlings inhabit a much different environment than adult turtles. After emerging from the nest, hatchlings enter the water and must swim quickly to escape near shore predators. There is strong evidence that many sea turtle species employ an open ocean developmental stage because encounters with healthy, neonate sea turtles are extremely rare in near shore waters. Some hatchlings remain in currents within the Gulf of Mexico while others may be swept out of the Gulf, around Florida, and into the Atlantic Ocean by the Gulf Stream.

Juveniles of many species of sea turtles have been known to associate with floating sargassum seaweed, utilizing the sargassum as an area of refuge, rest, and/or food. This developmental drifting period is hypothesized to last about two years or until the turtle reaches a carapace length of about 8 inches (20 cm). Subsequently, these sub-adult turtles return to neritic zones of the Gulf of Mexico or northwestern Atlantic Ocean to feed and develop until they reach adulthood.

Critical Habitat

On February 17, 2010, NOAA Fisheries and USFWS were jointly [petitioned to designate critical habitat](#) [pdf] for Kemp's ridley sea turtles for nesting beaches along the Texas coast and marine habitats in the Gulf of Mexico and Atlantic Ocean.

Distribution

Kemp's ridleys are distributed throughout the Gulf of Mexico and U.S. Atlantic seaboard, from Florida to New England. A few records exist for Kemp's ridleys near the Azores, waters off Morocco, and within the Mediterranean Sea.

There is only one confirmed Kemp's ridley arribada in the state of Tamaulipas, Mexico, where nearly 95% of worldwide Kemp's ridley nesting occurs.

The three main nesting beaches in Tamaulipas, Mexico are



Dr. Brian Stacy, NOAA veterinarian cleans a young Kemp's ridley turtle
Photo: NOAA/GADNR

• [Sea Turtles, Dolphins, and Whales and the Gulf of Mexico Oil Spill](#)

• [Natural Resource Damage Assessment \(NRDA\)](#)



Kemp's Ridley Turtle
(*Lepidochelys kempii*)
Photo: National Park Service



Kemp's Ridley Range Map
(click for larger view PDF)

- Rancho Nuevo
- Tepehuajes
- Barra del Tordo

Nesting also occurs in Veracruz, Mexico, and in Texas, but on a much smaller scale. Occasional nesting has been documented in North Carolina, South Carolina, and Florida.



Kemp's Ridley Turtle
(*Lepidochelys kempii*)
Photo: Kim Bassos-Hull,
Mote Marine Laboratory

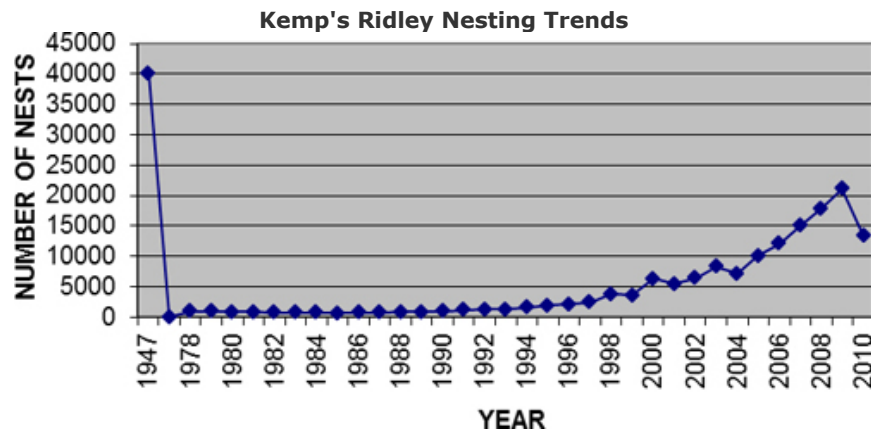
Population Trends

The Kemp's ridley has experienced a historical, dramatic decrease in arribada size. An amateur video from 1947 documented an extraordinary Kemp's ridley arribada near Rancho Nuevo. It has been estimated that approximately 42,000 Kemp's ridleys nested during that single day! The video also provided evidence of Kemp's ridley egg collection. Dozens of villagers are seen on the beach excavating the nests and subsequent interviews have suggested that 80% of the nests, about 33,000, were collected and transported to local villages (Hildebrand, 1963).



[Kids' Times: Kemp's Ridley](#) [pdf]
Credit: NOAA

This video has also served to measure the species' collapse. In the late 1960s, twenty years after the video was filmed, the largest arribada measured was just 5,000 individuals. Between the years of 1978 and 1991, only 200 Kemp's ridleys nested annually. Today the Kemp's ridley population appears to be in the early stages of recovery. Nesting has increased steadily over the past decade.



On the Texas coast, 251 Kemp's ridley nests were recorded from 2002-2006. For the 2007 nesting season, 127 nests have been recorded in Texas, with 73 of those nests documented at [Padre Island National Seashore](#). Those 127 nests are a record for the Texas coast, passing the 2006 record of 102 nests.

Threats

- incidental capture in fishing gear
 - primarily in shrimp and other trawls, but also in gill nets, longlines, traps/ pots, and dredges
- egg collection (historically)
- [general threats to marine turtles](#)

Kemp's ridleys face threats on both nesting beaches and in the marine environment. The greatest cause of decline and the continuing primary threat to Kemp's ridleys is incidental capture in fishing gear, primarily in shrimp trawls, but also in gill nets, longlines, traps and pots, and dredges in the Gulf of Mexico and North Atlantic.

Egg collection was an extreme threat to the population, but since nesting beaches were afforded official protection in 1966, this threat no longer poses a major concern.

For more information, please visit our [threats to marine turtles](#) page.

Conservation Efforts

Kemp's ridley turtles are protected by various international treaties and agreements. They are listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Flora and Fauna ([CITES](#)), which means that international trade of this species is prohibited. Kemp's ridleys are listed in Appendices I and II of the Convention on Migratory Species ([CMS](#)). Kemp's ridleys are also protected under Annex II of the Specially Protected Areas and Wildlife ([SPA](#)) Protocol of the Cartagena Convention. Additionally, the U.S. is a party to the Inter-American Convention for the Protection and Conservation of Sea Turtles ([IAC](#)), which is the only binding international treaty dedicated exclusively to marine turtles.



Kids' Times: Kemp's Ridley [pdf]
Credit: NOAA

In the U.S., NOAA Fisheries and the U.S. Fish and Wildlife Service (USFWS) have joint jurisdiction for marine turtles, with NOAA having the lead in the marine environment and USFWS having the lead on the nesting beaches. Both federal agencies, and a number of state agencies, have promulgated regulations to eliminate or reduce threats to sea turtles. In the Atlantic and Gulf of Mexico, We have required measures (for example, gear modifications, changes to fishing practices, and time/area closures) to reduce sea turtle bycatch in mid-Atlantic gillnet, Chesapeake Bay pound net, and southeast shrimp and flounder trawl fisheries.

We have worked closely with the shrimp trawl fishing industry to develop [turtle excluder devices \(TEDs\)](#) to reduce the mortality of sea turtles incidentally captured in shrimp trawl gear. TEDs that are large enough to exclude even the largest sea turtles are now required in shrimp trawl nets. Since 1989, the [U.S. has prohibited the importation of shrimp](#) harvested in a manner that adversely affects sea turtles. The import ban does not apply to nations that have adopted sea turtle protection programs comparable to that of the U.S. (for example, require and enforce the use of TEDs) or to nations where incidental capture in shrimp fisheries does not present a threat to sea turtles (for example, nations that fish for shrimp in areas where sea turtles do not occur). The [U.S. Department of State](#) (DOS) is the principal implementing agency of this law, while we serve as technical advisor. We have provided extensive TED training throughout the world.

We are currently involved in cooperative gear research projects designed to reduce sea turtle bycatch in non-shrimp trawl fisheries in the Atlantic and Gulf.

In 1991, NOAA Fisheries and USFWS finalized the recovery plan for Kemp's ridleys in the U.S. Caribbean, Atlantic, and Gulf of Mexico. Since that time, a wealth of new information has been gained regarding Kemp's biology, distribution, and population status as well as threats to the species. Therefore, NOAA Fisheries and USFWS have initiated a revision of the Kemp's ridley recovery plan for the U.S. Caribbean, Atlantic, and Gulf of Mexico. The joint [Final Recovery Plan](#) published in September 2011.

The Mexican government has played a vital role in the conservation of the Kemp's ridley. The Kemp's ridley has benefited from legal protection by Mexico since the 1960s. In 1977, a refuge was established at the only known nesting beach and included the Rancho Nuevo nesting beach as part of a system of reserves for sea turtles. On May 28, 1990, a complete ban on taking any species of sea turtle was implemented by the Mexican government. In 2002, the beach at Rancho Nuevo was designated as a Natural Protected Area under the category of Sanctuary; and in February 2004, it was included on the list of [RAMSAR](#) sites.

Regulatory Overview

The Kemp's ridley turtle was first listed under the Endangered Species Conservation Act of 1970 on December 2, 1970, and subsequently under the Endangered Species Act (ESA) of 1973.

We implement measures to reduce sea turtle interactions in fisheries by regulations and permits under the ESA and [Magnuson-Stevens Fishery Conservation and](#)

[Management Act](#). In 1992, We finalized regulations to require TEDs in shrimp trawl fisheries to reduce interactions between turtles and trawl gear. Since then, we have modified these regulations as new information became available on increasing the efficiency of TEDs (for example, larger TEDs are now required to exclude larger turtles). Since the early 1990s, We have implemented sea turtle conservation measures including, but not limited to, TEDs in trawl fisheries, large circle hooks in longline fisheries, time and area closures for gillnets, and modifications to pound net leaders. Click here for a list of our [regulations to protect marine turtles](#).

Key Documents

(All documents are in PDF format unless otherwise noted.)

Title	Federal Register	Date
NMFS Initiates 5-year reviews of four sea turtles (Kemp's ridley, olive ridley, leatherback, and hawksbill)	77 FR 61573	10/10/2012
2011 Final Bi-National (U.S. and Mexico) Revised Recovery Plan in English and Spanish (2nd revision) Supporting Documents: » Threats Assessment [xls] » Peer Review Comments » Addendum to Peer Review		09/22/2011
2010 Draft Revised Recovery Plan	75 FR 12496	03/16/2010
Petition to designate critical habitat for Kemp's ridley sea turtles for nesting beaches along the Texas coast and marine habitats in the Gulf of Mexico and Atlantic Ocean	n/a	02/17/2010
5-Year Review	n/a	08/31/2007
Virginia Pound Net Fishery Regulations	71 FR 36024	06/23/2006
Status Review of Sea Turtles Listed Under the Endangered Species Act of 1973	61 FR 17	01/02/1996
Review of the Kemp's Ridley Sea Turtle Headstart Program (NOAA Tech Memo NMFS-OPR-3)	n/a	08/1994
TED Regulations for Shrimp Trawls	57 FR 57348	12/04/1992
1991 Recovery Plan - U.S. Caribbean, Atlantic, and Gulf of Mexico	56 FR 38424	08/13/1991
ESA Listing Rule	35 FR 18319	12/02/1970

More Information

- [Kids' Times: Kemp's Ridley Sea Turtle](#) [pdf]
- [Sea Turtle Recovery Planning](#)
 - [Recovery Plan Revision for Kemp's Ridley](#)
- [U.S. Fish and Wildlife Service Kemp's Ridley Turtle Species Profile](#)
- [Kemp's Ridley Sea Turtle at Padre Island National Seashore](#)
- [More Sea Turtle Related Links](#)

Literature Cited

- Byles, R.A., and Plotkin, P.T. 1994. Comparison of the migratory behavior of the congeneric sea turtles *Lepidochelys olivacea* and *L. kempii*. In Schroeder, B.A., and Witherington, B.E. (compilers). *Proceedings of the Thirteenth Annual Symposium on Sea Turtle Biology and Conservation*. NOAA Technical Memorandum NMFS-SEFSC-341, p. 39.
- Hildebrand, H.H. 1963. Hallazgo del área de anidación de la tortuga lora *Lepidochelys kempii* (Garman), en la costa occidental de Golfo de Mexico (Rept., Chel.). *Ciencia, México* 22: 105-112.

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