



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**Kemp's Ridley Sea Turtle
*Lepidochelys kempii***

State Status: **Endangered**
Federal Status: **Endangered**

DESCRIPTION: This is the smallest of all the sea turtle species of the world. Adults are only about two feet long and 100 pounds, with a fairly flattened and round-shaped shell. The carapace is as wide as it is long. The carapace is olive-grey and heavily ridged. The Kemp's Ridley Sea Turtle's paddle-like front flippers each have a single claw; the rear flippers have two claws. The turtle's head is triangular, with a hooked beak and two pairs of prefrontal scales. Hatchlings are born with a black carapace and plastron.

SIMILAR SPECIES: The four species of hard-shelled sea turtles found in Massachusetts are usually fairly simple to identify. Kemp's Ridley Sea Turtle is small, rounded in shape with five costal scutes, and the color of wet cement. The Loggerhead is fairly large with a proportionately big head, five costal scutes, and the color of a wet paper bag. Hawksbills and Greens both have only four costal scutes, but the Hawksbill has overlapping scutes on its carapace, and the Green is the only one with a serrated lower jaw.

RANGE: The Kemp's Ridley's range is primarily within North America, along the Gulf coasts of Mexico and the US, as well as the Atlantic coast of North America and as far north as Nova Scotia and Newfoundland. Mainly, the Kemp's Ridley inhabits muddy or sandy bottom waters nearshore or inshore of the northern Gulf of Mexico. There are a few records for the species in waters off the coast of Morocco and within the Mediterranean Sea; however, most of the population is in North America. Nesting only occurs in beaches off the Gulf of Mexico, with the three main nesting sites in Tamaulipas, Mexico.

HABITAT IN MASSACHUSETTS: This is the rarest and most endangered of the North Atlantic sea turtles, but numerically the most abundantly occurring sea turtle in Massachusetts. These turtles are almost never seen in

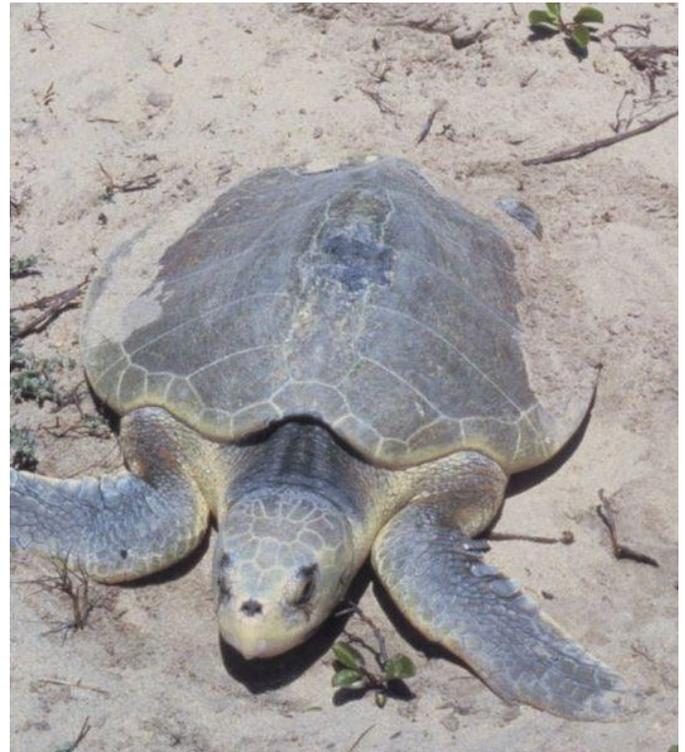


Photo courtesy of the United States Fish & Wildlife Service

the summer in Cape Cod Bay when they are healthy and active. Nearly all Kemp's Ridley Sea Turtles seen in Massachusetts are small, 2- and 3-year-old juveniles that have washed ashore on a 50-mile stretch of coast along the south and east shores of Cape Cod Bay, from Barnstable to Provincetown, during November and December when the water temperatures drop. Small Ridley's begin to show up cold-stunned when the water temperatures dip below 65° F and all of the turtles are affected once the temperatures go below 50° F. Below 40° F, turtles that wash ashore are already dead. Since Loggerhead and Green Sea Turtles are larger, they are more cold-tolerant and are cold-stunned at temperatures lower than those that affect the small Kemp's Ridley.

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw

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LIFE CYCLE AND BEHAVIOR: This is the only Atlantic sea turtle known for their mass nesting events called “arribadas,” where as many as 20,000 females came to nest on a short stretch of beach at Rancho Nuevo, Mexico in 2011. The clutch size averages about 100 eggs, with incubation lasting between 45 and 70 days. Some females breed annually and nest around 2.5 times a season waiting 10 to 28 days between nesting. Sexual maturity is believed to be 12 years of age, and the lifespan is about 50 years.

The diet consists mainly of spider crabs, shrimps, snails, sea stars, and occasionally jellyfish and sea plants. Hatchlings inhabit a very different environment than adults, and quickly swim out to open water within the Gulf of Mexico, floating with Sargassum seaweed and feeding on a variety of floating organisms. This developmental period lasts about 2 years until the turtle's carapace reaches 8 inches in length. At this point, they return to shallow waters to transition to the adult diet.

THREATS: Kemp's Ridley Sea Turtles are threatened in both their marine and nesting habitats. Far greater numbers nested historically nested at Rancho Nuevo, but the population crashed as a result of unrestricted harvest of eggs and adults. It is only recently begun recovering as a result of enforcement at the nesting beach. Just as for other species of sea turtles, boat strikes and interactions with commercial fishing gear, especially shrimp trawls, gill nets and longlines, cause a significant level of mortality.

MANAGEMENT AND RECOMMENDATIONS: In response to the cold-stunning phenomenon, staff and volunteers of Mass Audubon's Wellfleet Bay Wildlife Sanctuary mount an annual effort to search the beaches after every high tide during the late fall and early winter. All of the recovered turtles are brought to the Sanctuary for evaluation and emergency care. Live turtles are then taken to the New England Aquarium where they are given more rigorous medical evaluations and treatment. In years with larger numbers of stranded turtles, many are distributed as soon as they are stable to other aquaria and care facilities as far away as Texas and Florida. During the 1980s, about ten Kemp's Ridley Sea Turtles were recovered per year, but since 2000, the numbers have averaged over 100 annually. The largest cold-stunning event, by far, was in late 2014 when over 1,150 Kemp's Ridley Sea Turtles were recovered on Cape

Cod, 157 in one day. The good news is that these increases in recent years also reflect improvements in the nesting success in Mexico and the southern U.S.

As a result of releasing thousands of headstarted hatchlings in the U.S., small numbers of Ridley's Sea Turtles nest on Gulf Coast beaches, especially in Texas, and occasionally even on the Atlantic Coast as far north as Cape Hatteras, NC, and one in Virginia in 2012. Federal regulations now require shrimp trawlers in the Gulf of Mexico and Atlantic Ocean to use turtle exclusion devices (TEDs) year-round. In addition to this, there is also an increasing effort to protect nesting beaches in Mexico and the US. Mexico is protecting nesting sites by fencing off heavily used areas, in addition to increasing law enforcement to prevent the harvesting of eggs.

Wellfleet Bay Wildlife Sanctuary's Sea Turtle Hotline:
508-349-2615

NOAA Fisheries Marine Animal Hotline: 866-755-6622

New England Aquarium's Marine Animal Hotline: 617-973-5247

Provincetown Center for Coastal Studies'

Disentanglement Hotline: 800-900-3622 (mostly to disentangle leatherbacks)

REFERENCES:

Kemp's Ridley's Turtle (*Lepidochelys kempii*). NOAA Fisheries. URL:

<http://www.nmfs.noaa.gov/pr/species/turtles/kempstridley.htm>

Kemp's (Atlantic) Ridley Seaturtle (*Lepidochelys kempii*). Connecticut Department of Energy & Environmental Protection. URL:

<http://www.ct.gov/deep/cwp/view.asp?a=2723&q=326026>

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