



## Natural Heritage & Endangered Species Program

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*Massachusetts Division of Fisheries & Wildlife*

## Green Sea Turtle *Chelonia mydas*

State Status: **Threatened**  
Federal Status: **Threatened**

**DESCRIPTION:** Green Sea Turtles are the largest of the hard-shelled sea turtles, but their heads are relatively small, especially in comparison to the Loggerhead Sea Turtle. Adults grow to about three feet long and over 300 pounds. Their shells are dark brown or reddish-brown and smooth, with lighter streaks radiating from the posterior edge of each shell scute. Green Sea Turtles have one pair of prefrontal plates between the eyes and a single claw on each front flipper. Hatchlings generally have a black carapace, white plastron, and white margins on the shell and limbs.

**SIMILAR SPECIES:** Green Sea Turtles may be confused with Hawksbill, Loggerhead, and Kemp's Ridley Sea Turtles. However, the Green Sea Turtle is the only sea turtle with four large costal plates on each side of its shell. The nuchal scute on the front of the carapace is separated from the costal scute in both Green and Hawksbill sea turtles, while the nuchal scute touches the first costal scute in Loggerhead and Ridley's sea turtles. The Green Sea Turtle has one pair of prefrontal plates between the eyes, while the Hawksbill has two pairs.

**HABITAT IN MASSACHUSETTS:** Green Sea Turtles occur along the northwest Atlantic coast from Massachusetts south to Florida and throughout the Gulf of Mexico and Caribbean Sea. They generally inhabit shallow waters, including lagoons, inlets, bays, and estuaries where they have access to seagrass beds. Most nesting occurs in Florida, but a few regularly nest as far north as the Outer Banks of North Carolina, and in 2011 one nested at Cape Henlopen State Park in Delaware. In Massachusetts, juvenile Green Sea Turtles are found on the southern and eastern beaches of Cape Cod Bay in December and January as the water temperatures drop. These juveniles are usually about 30 to 40 cm long.

**RANGE:** The Green Sea Turtle has a worldwide distribution in tropical and subtropical waters, although



*Photo courtesy of United States Fish & Wildlife Service*

nesting only occurs between 35 degrees north and south latitude in waters that remain above 68 degrees F. throughout the coldest months. Major nesting grounds are in Mexico, Costa Rica, Guyana, Suriname, and Ares Island in the West Indies. The largest Green Sea Turtle nesting aggregation occurs on Raine Island, Australia, where thousands of females nest nightly in an average nesting season.

**LIFE-CYCLE AND BEHAVIOR:** Sexual maturity is not reached until at least 20 years, and some individuals may not become sexually mature until they are 50 years old. Their shells are about 35 inches in length at maturity. Breeding takes place on a two- to four-year cycle, with three years being most common. Green Sea Turtles typically seek out beaches with a sloping aspect and minimal disturbances for nesting, while foraging and nesting grounds are often great distances apart and require long migrations. Females deposit 80-200 eggs during nesting; the eggs hatch in 48-70 days. Females can lay as many as nine clutches within a nesting season in about 13-day intervals. Actual documentation of the Green Sea Turtle age is rare; however, their lifespan is

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

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Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.

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estimated to be 50 years or more. The Green Sea Turtle's diet changes throughout its life. At shell lengths less than 8 to 10 inches, they eat marine worms, young crustaceans, aquatic insects, grass, and algae. Once they reach 8 to 10 inches, their diet begins to switch to seagrass and algae. The Green Sea Turtle is the only sea turtle that is herbivorous as an adult and has finely serrated jaws that aid in tearing vegetation.

**THREATS:** The primary threat to the Green Sea Turtle range-wide is the commercial harvest of eggs and adults for human consumption. Similar to other sea turtles, they are also threatened by heavy nest predation, light pollution which can misguide hatchlings on their migration to the sea, and interactions with commercial fishing gear. Fibropapillomatosis is a viral disease, confined to Green Sea Turtles, that causes benign skin tumors that can become so large and numerous that they cause mortality. This disease has significantly affected some populations in Florida, Hawaii, and other parts of the world. In addition to these threats, Green Sea Turtles are also threatened by cold-stunning in Cape Cod Bay and by boat strikes.

**MANAGEMENT:** In response to cold-stunning in Cape Cod Bay, 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.

**REFERENCES:**

Atlantic Green Sea Turtle Fact Sheet. Connecticut Department of Energy and Environmental Protection. URL:

<http://www.ct.gov/deep/cwp/view.asp?a=2723&q=325956>

Green Sea Turtle (*Chelonia mydas*). NOAA Fisheries. URL:

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

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