Family: Cheloniidae

Order: Chelonia (Testudinata)

Description

The green sea turtle is a marine species. It is the biggest of the hard-shelled sea turtles. It has a pair of prefrontal scales on its head, and its jaw is serrated. This turtle also has claws on the front flippers. Adult turtles can measure up to 39 inches (1 meter) long, and weigh approximately 350 pounds (159 kilograms). An adult specimen’s carapace is light brown with irregular, dark splotches; it is smooth and uniform and does not have overlapping scutes like its close relative, the hawksbill sea turtle. The ventral area is whitish-yellow, and its head is relatively small and of a light brown color with yellow spots. Hatchlings are about 2 inches (50 millimeters) long, and weigh approximately 0.05 pounds (25 grams). Juveniles have a black carapace and a whitish plastron (ventral area), along with the edge of the carapace and the flippers. The common name of this sea turtle species does not relate to the color of the carapace but rather to the color of their body fat.

Biological Information

The green sea turtle’s lifespan is estimated to last between 15 to 30 years, although there is evidence that suggests that they can live for as many as 50 years. Sea turtles are especially adapted for life at sea. Because they are ectothermic (cold-blooded, with a body temperature regulated by the environment), they have slow metabolism, which translates into less oxygen consumption used for its cellular functions. A green sea turtle can remain underwater for up to 5 hours. It can accomplish this by slowing its heartbeats, with up to 9 minutes between palpitations, thus preserving oxygen.

Reproduction

In the Caribbean, green sea turtle’s mating season is from June to September. Males visit nesting sites every year, although females only mate every 2 to 4 years. After mating in the water, females will climb to shore, going past the high-tide line. Once she is on dry sand, she digs a hole with her back flippers and lays her eggs. A clutch can contain over 100 eggs. Finally, she covers the eggs with sand and returns to the sea. After an incubation period which can last between 45 to 75 days, the eggs hatch during the night and the hatchlings will instinctively head towards the sea. It is estimated that green sea turtles reach sexual maturity after 20 to 50 years.

Habitat

Green sea turtles use three types of habitat: beaches, high seas (pelagic convergence areas) and coastal foraging sites. This sea turtle can mostly be found in shallow waters near reefs, bays, inlets, and seagrass meadows. Peaceful beaches with gentle inclines are their preferred nesting beaches.
Diet
Green sea turtle feeding habits change as the turtle grows through its life stages. This species is mostly omnivorous, feeding on both animal and plant matter, during the juvenile stage. When it becomes an adult, it becomes mostly herbivorous (feeding mostly on plant matter). Its jaws are specially adapted for a vegetarian diet, consuming seagrass and algae.

Distribution
This species is widely distributed, inhabiting both tropical and temperate zones. There is awareness of three subpopulations, in the Atlantic, Pacific and Indian Oceans. Under the United States’s jurisdiction, green sea turtle nesting sites have been identified in Puerto Rico, the US Virgin Islands, and on the continental US, from Texas to Massachusetts. In Puerto Rico, however, green sea turtle populations are small. On Florida’s east coast, on the other hand, populations are much larger.

Threats
Some of the factors contributing to the reduction in the amount of green sea turtles include: excessive poaching for their meat, egg harvesting, nest depredation, loss and modification of nesting and feeding habitats due to coastal developments, and death from becoming entangled in fishing nets or being struck by boats. The green sea turtle, like all other sea turtles worldwide, are negatively impacted by: coastal erosion, artificial lighting (which disorients hatchlings and leads them away from the sea), and pollutants and solid wastes that reach the sea as a result of human action.

Conservation Measures
The green sea turtle is protected by federal and state law. The species was listed under the Endangered Species Act in 1978. In 1998, the National Oceanic and Atmospheric Administration (NOAA) designated several areas as critical habitats for the green sea turtle. These critical areas surround the Culebra island municipality, and include the waters around the neighboring cays. The critical areas are measured from the high tide line, to three nautical miles (5.6 kilometers) into the sea.

To aid in the recovery of the species, the Department of Natural and Environmental Resources (DNER) of Puerto Rico, the United States Fish and Wildlife Service, private associations and citizens and volunteers have taken upon themselves the task of patrolling the beaches during nesting season.

The Endangered Species Act of 1973, as amended, prohibits the killing, harassing, trapping, purchasing or selling any species, as well as parts and products derived from the species.

References


