



Department of Planning and Natural Resources
Division of Fish and Wildlife
U.S.V.I. Animal Fact Sheet #01
Green Sea Turtle
Chelonia mydas



Taxonomy

Kingdom	-	Animalia
Phylum	-	Chordata
Subphylum	-	Vertebrata
Class	-	Reptilia
Order	-	Chelonii
Family	-	Cheloniadae
Genus	-	<i>Chelonia</i>
species	-	<i>mydas</i>

Identification Characteristics

Prefrontal scales	-	1 pair
Claws on foreflipper	-	1 (large in males)
Costal scutes	-	4 Pairs
Carapace	-	smooth, rounded
Gait (on land)	-	parallel
Lower jaw	-	edge coarsely dentate
Upper jaw	-	distinct vertical rib

Description

The green sea turtle (*Chelonia mydas*) is a medium to large sized sea turtle. Nesting females average 3 feet) curved carapace (shell) length and can weigh over 400 pounds. Hatchlings are small, with an average carapace length of 2 inches and a weight of less than 1 ounce. The carapace of adult green turtles is smooth along lateral and posterior margins (edges) with non-overlapping scutes (scales). Hatchlings and juveniles have rounded carapaces.

Coloration of green sea turtles is variable, ranging from green to gray to brown, and carapaces are frequently marked by darker spots or streaks [Their name derives from the color of their green fat tissues - not from external coloration]. The bottom of the carapace (plastron) is usually white or yellow.

Distribution & Habitat

Green sea turtles are circumglobal, occurring in most tropical and sub-tropical waters of the world. In the eastern US, they are found from Texas to Massachusetts, and throughout the U.S. Caribbean.

Green sea turtles have a life history similar to most other sea turtles - adults and juveniles occur in different habitats. Hatchlings and juveniles are found offshore whereas adults occur in coastal waters. Although little is known of their behavior during the first years of life, they are common in sargassum driftlines (oceanic convergence zones). Their strong counter-coloration pattern and their behavior in

laboratory experiments also suggest that juvenile green sea turtles may forage in open waters (unlike hawksbill and loggerhead turtles).

Juvenile green sea turtles eventually recruit to coastal habitats at around 1 foot (\pm 4 inches) carapace length (a significantly smaller size than other sea turtle species). Juveniles show very high site fidelity to their feeding areas. They remain in coastal habitats throughout adulthood. Adult green sea turtles continue to forage in seagrass beds and algal plains, although they may establish permanent sleeping shelters among nearby rocks or on coral reefs.

Diet

The diet of most marine turtles is still poorly understood. The pelagic (living in the open ocean) hatchlings and juveniles are believed to forage as opportunistic carnivores, feeding upon jellyfish, small mollusks, and crustaceans. When juveniles recruit to coastal environments, they shift to an herbivorous diet comprised of seagrasses and algae. They remain herbivores throughout adulthood, although they may ingest gelatinous organisms such as jellyfish or egg cases.

Growth rates of green sea turtles are difficult to determine. Juveniles and young adults (1 to 2 foot carapace length) are thought to grow at about 2 inches/yr. Older turtles seem to grow at a slower rate, and hatchlings grow faster.

Reproduction

Similar to other sea turtles, female green sea turtles emerge from the ocean to lay their eggs. In the Virgin Islands, green sea turtles may nest at any time of the year, however the peak nesting season is from August to October. Nesting almost always takes place at night. Females emerge and crawl up the beach (sometimes covering a considerable distance) to dig their nests at the edge of the open beach, usually near vegetation.

Nest preparation is an elaborate and time-consuming effort. Females first sweep the loose dry sand away from a nest site – a process called “body pitting.” The female then uses her rear flippers to dig a hole by alternately scooping sand with left and right flippers, flinging loose sand forward over her head. Nest depth is determined by the length of the rear flippers. When the flippers can’t reach the bottom, the hole is deep enough. She then proceeds to lay approximately 110 eggs in the hole. The number of eggs laid is directly related to body size, and a large female may lay as many as 200 eggs in one nest. After laying, females disguise their nests by spreading sand over the area.

Female green sea turtles will lay between 1 and 7 clutches of eggs each year. These nests can be spread out on our beaches or on the beaches of neighboring islands. Nesting activities are repeated approximately every 14 days, with an average of 4.5 successful nests per year. Only about half of green sea turtle nesting attempts are successful (eggs are laid) and unsuccessful nests are simply abandoned. This is why one can see numerous body pits on the upper beaches.

The incubation period for green sea turtle eggs averages 55-60 days, after which hatchlings emerge at night from the nest and scramble towards the ocean. Hatchlings need to avoid terrestrial predators by crawling straight to the water. They have evolved a unique way of determining where the sea is located. The hatchlings look for an area on the horizon that is bright. This makes sense for turtles, vegetation creates very dark shadows inland and the combination of starlight and reflections of starlight on the ocean make it much brighter. So the hatchlings crawl toward these brighter areas and into the ocean. Today many people use inappropriate lights near nesting beaches and hatchlings end up crawling toward the beach lights, were many are run over by cars, eaten by dogs, cats and other exotic animals.

Conservation

The green sea turtle is listed by the U.S. Fish and Wildlife Service as a threatened species throughout the Caribbean. CITES (Convention on International Trade of Endangered Species) has listed the green sea turtle under Appendix I – among the most endangered of the CITES-listed animals and plants. All sea turtles are protected by territorial law, which prohibits the harvesting of adults and eggs. Unfortunately, existing regulations have not eliminated poaching of green sea turtles. In the Virgin Islands, this species is the most frequently poached sea turtle.

All sea turtles are susceptible to injury from boats and propellers. They are air breathing reptiles, which means they must come to the waters surface to breath. It is important for boat drivers to realize that they need to be looking for Turtles and other basking animals as well as swimmers while boating in near shore waters.

Sea turtles can ingest or become tangled in fishing line, nets or other marine debris. This can lead to amputation of tangled limbs, digestive problems, and frequently to death.

Green sea turtles are also threatened by habitat modification. Beach erosion and erosion control methods have reduced or altered nesting habitats. Installation of lighting in coastal areas interferes with behavioral responses of hatchlings, thus reducing survival. These factors have also contributed to a decline in green turtle populations.

What you can do to help

1. If you see any turtle nesting or hatching events, please write down the date, time and location you saw the turtles then call the Division of Fish and Wildlife at 340-772-1955 (on St. Croix) or 340-775-6762 on St. Thomas/St. John to report the event.
2. Hatchlings can crawl to the water themselves, if you see hatchlings making their way into the water, please let them complete the journey themselves.
3. Please make an extra effort to keep plastic out of the marine environment.
4. Turtles, especially hatchlings, will head toward the brightest light source on the beach. This used to be star and moon light shining on the ocean, but today it may be street or building lights. If possible turn off lights that shine on and toward the beach, when hatchlings are emerging.
5. Do not take flash pictures or shine lights directly toward the turtles - it will disorient them. Like us, turtle eyes will maintain the ghost image of the flash, only the hatchlings see this as a bright area and will crawl toward it.
6. If hatchlings emerge during the day, you may protect them from predators, and guide them to the waters edge.
7. If you see a nesting turtle do not crowd around it and do not harass it. You may observe nesting from a distance. Be sure to stay behind the front flippers of the turtle so that you do not disturb her. No flash photography.
8. Occasionally turtles will nest during the day. If you see a daytime nesting sea turtle, please call the Division of Fish and Wildlife immediately.
9. Fore more information on this and other animals in the Virgin Islands please visit our web site at:
www.vifishandwildlife.com

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FOR MORE INFORMATION ON
OUR NATIVE ANIMALS CONTACT**

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