



Department of Planning and Natural Resources  
Division of Fish and Wildlife  
U.S.V.I. Animal Fact Sheet #02  
**Hawksbill Sea Turtle**  
*Eretmochelys imbricata*



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### Taxonomy

Kingdom	-	Animalia
Phylum	-	Chordata
Subphylum	-	Vertebrata
Class	-	Reptilia
Order	-	Chelonii
Family	-	Cheloniadae
Genus	-	<i>Eretmochelys</i>
Species	-	<i>imbricata</i>

### Identification Characteristics

Mouth	-	projecting, beak-like
Carapace	-	thick overlapping scutes
Rear of carapace	-	serrated along margin
Prefrontal Scales	-	2 pairs
Foreflipper	-	2 claws
Costal scutes	-	4 pairs (anteriormost costal scute does not contact nuchal scute)
Gait (on land)	-	alternating

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### Description

The hawksbill sea turtle (*Eretmochelys imbricata*) is a small to medium sized sea turtle. Nesting females average 2 feet 9 inches carapace length, measured along the curve, and can weigh as much as 215 pounds. Hatchlings are quite small, averaging 1-3/4 inches carapace length and weighing about 1/2 ounce. The elongated carapace is sharply serrated along lateral and posterior margins. The thickened scutes overlap, with greater overlap toward the rear of the carapace. Hatchlings have a heart-shaped carapace that elongates with maturity. Hawksbill sea turtles have a narrow elongated head and, of course, a distinctive “hawk-like” beak.

The hawksbill carapace is a dark amber color with radiating brown streaks. This beautiful “tortoiseshell” pattern led to the wide harvest of hawksbills during the early part of this century.

### Distribution & Habitat

Hawksbill sea turtles are widely distributed in tropical and subtropical oceans of the world. In the Western Atlantic, they are found in the Bahamas and from Florida to Texas, as well as areas where the Gulf Stream passes close to shore. Hawksbills occur throughout the Caribbean Sea.

Several different habitat types are used by hawksbills throughout their life cycle. During their first years of life,

hatchlings are pelagic - that is, they live in the open ocean far from shore. In the Caribbean, hawksbill hatchlings are thought to stay within a central, rotating oceanic current known as the Caribbean gyre. There, they take shelter in weed lines formed by the convergence of currents.

Juveniles (8 to 10 inch carapace length) reenter coastal waters where coral reefs provide foraging habitat. Juveniles generally reside on shallow reefs (<60 feet deep), but as they mature the adults move to deeper habitats and may forage to depths greater than 300 feet. Ledges and caves found in and around the coral reefs provide refuge and nighttime sleeping shelters.

### Diet & Growth

During their pelagic phase, the diet of most sea turtles is poorly understood. Hawksbill hatchlings and young juveniles probably feed opportunistically in the weed lines where they live.

Once the juveniles enter coastal habitats, their dietary preference changes to sponges. Sponges are a difficult meal, filled with silicious spicules (literally spines made of glass) and occasionally with toxins. Hawksbills are the only sea turtles, and one of only a few vertebrates, who feed on sponges. Although hawksbills periodically feed on other organisms, their dietary specialization on sponges makes them especially vulnerable to degradation of coral reef habitats.

Little is known about the growth rates of hawksbills. We believe that juveniles and young adults (1 to 2 feet carapace length) grow about 1-1/2 inches/yr. Older turtles presumably grow at a slower rate, and the hatchlings grow faster. Hawksbills are believed to live for a long time (perhaps 80 years) but there is currently no accurate way to determine sea turtle age.

### **Reproduction**

In the Virgin Islands, hawksbill sea turtles may nest throughout the year, however the peak nesting season is from July to October. Nesting usually takes place at night, but may occur during daytime as well. Owing to their small size and relative agility, female hawksbills can negotiate rocks and other obstacles to crawl high up onto beaches. In contrast to other sea turtles, hawksbills will dig nests under sea grapes or other vegetation beyond the edge of the beach.

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. She then proceeds to lay approximately 130 eggs in the nest. 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 hawksbill sea turtles will lay between 1 and 7 clutches each year. Nesting activities are repeated approximately every 14 days, with an average of 2.7 successful nests per year. Only about half of hawksbill 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 hawksbill sea turtle eggs averages 55-60 days, after which hatchlings emerge from the nest and scramble towards the ocean.

### **Conservation**

Decades of intensive harvesting of hawksbills for their “tortoiseshell” have led to severe population declines. The U.S. Fish and Wildlife Service has listed the hawksbill as endangered throughout its range. CITES (Convention on International Trade of Endangered Species) has listed the hawksbill 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 hawksbills. In the U.S.V.I., hawksbill eggs are frequently poached.

All sea turtles are susceptible to injury from boats and propellers. They are air-breathing reptiles - they must come to the water’s surface to breath. Boaters must watch

out for sea turtles and other basking animals (as well as swimmers!) 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. The turtle shown in the photo (opposite page) had part of its left flipper amputated after becoming entangled in fishing line.

Hawksbill 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 the behavioral responses of hatchlings, reducing their survival. These factors have also contributed to a decline in hawksbill sea 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. For more information on this and other animals in the Virgin Islands please visit our web site at:  
[www.vifishandwildlife.com](http://www.vifishandwildlife.com)

**BY WILLIAM COLES AND WES TOLLER, 2003  
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FOR MORE INFORMATION ON  
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