

St. John Times
September 2004

FISH BAY REFLECTIONS

Turtle Monitoring

Besides being the height of hurricane season, August and September are peak months for turtle nesting in the Virgin Islands, and this year I volunteered to participate in the National Park's sea turtle beach patrol. We are primarily looking for evidence of hawksbill turtle nests, since they are the only ones that still regularly nest on St. John, although an occasional leatherback turtle might come by.

I had never seen a turtle nest until last fall when Sheri Caseau, a natural resource manager with the National Park, showed me some old nests that were already hatched out. There were a few leftover crumpled up turtle egg shells, so I have some idea what we are looking for, though we are not supposed to dig around looking for eggs in order to confirm that we have actually found a nest.

There were a few old nests around Fish Bay, and others around the point along Cocoloba beach.

Tom Kelley, another National Park scientist, explained to the group of volunteers what we should do. We are supposed to walk along the beach and look for turtle tracks across the sand, showing that a female came ashore. The males have no reason to come onto land, and the females only come in to nest, so turtle tracks are a good indicator of nesting activity.

I guess probably anyone would notice a 200 pound leatherback heaved up on the sand digging a hole, but the turtles come ashore during the night, in the dark, and will avoid lighted areas.

The hawksbills are also much smaller and dig their nests above the vegetation line, rather than exposed on a sandy beach. By morning, the tracks may have been washed away by the waves, especially on narrow rocky or coral-strewn beaches. If you happened by the very next morning you might notice some traces of turtle activity, but even then you might have trouble seeing, or understanding, the evidence. Sometimes the turtle will come up and crawl around, even start digging, then decide to leave because there are too many roots or rocks, or it is not a good site for some other reason.

The turtles are most likely to go to remote places, and once they have laid their eggs they will try to disguise the location of the nest by scraping up the sand in the surrounding area. Unfortunately for them, turtles and their eggs have long been considered a tasty source of protein.

The abundance of green turtles made it possible for early sailing ships to take on fresh meat in the Caribbean, but now all types of sea turtles are considered endangered due to over-harvesting, habitat loss, and drowning when they are caught in long-line shrimp trawling nets.

Besides sharks, grown turtles have few predators other than humans. Tom Kelley told us that there have been sea turtles on the earth for about 225 million years, whereas people have only been around for 2 or 3 million years. Turtles haven't changed much in all that time, and their reptilian brains never had to develop any real sophistication about escaping capture, so they have been easy prey for humans. There used to be more than 50 species, but there are only 6 species left now, and not too many of those.

Turtles are supposed to be protected under the Endangered Species Act, and on St. John there are few human poachers. However, the odor of the eggs or the hatchlings can attract a variety of predators, including mongoose, rats and birds. Dogs will sometimes dig up a nest and kill all the eggs or hatchlings, so it is important to keep them away from beaches during the turtle nesting season.

Once the eggs are in the nest, the mother turtle heads for the water. She will stay in the area though and may come back to the beach 3 or 4 times, laying a new clutch of eggs every 2 weeks. There might be up to a couple of hundred eggs in each nest. That is a lot of eggs for one turtle to lay, so you would think there is a good chance some would survive. There are a lot of risks, however, before the hatchlings get from the nest to the water, and no parental care to ease the way.

The incubation period lasts about 60 days. Interestingly, temperature affects the sex of the hatchlings. The egg is not either male or female after it is fertilized. If the nest stays cool, more of the hatched eggs will turn out to be males. If it is warmer, there will be more females.

The hatchlings that make it to the water will drift around in the ocean for about six so-called lost years hanging onto drifting sargassum seaweed before they start returning to the islands. Turtles may be spared some of the angst of adolescence because they do not become sexually active until they are in their thirties or forties. On the down side, that long maturing time may be a factor in their extinction, since few now survive long enough to reproduce.

After more than 30 years, the beaches in the Virgin Islands where the turtles hatch this season may be covered by rising sea levels or so changed by development that any surviving turtles will not find a suitable place to crawl ashore. Or maybe their reptilian brains will find a way to keep on reproducing long after our own species has come and gone.

