

The Truth about Turtles (part 2) - 08.04.2013

Protection of nesting turtles works!

(Response to Mr James Mancham's Letter to the Editor of 26.02.2013)

In his Letter of 26.02.2013 Mr James Mancham expressed concern that "the turtle is a pelagic animal. You catch him today next to Mahé and you are compelled by Seychelles law to return the creature to sea – unfortunately, the same turtle can in a matter of a few days be caught 300 miles away from Mahé and put into a Chinese boat heading for home".



But, Mr Mancham does not take into account many known aspects of turtle biology. In the breeding season, with courtship and mating taking place in near shore waters, turtles spend several months in the vicinity of the nesting beach -- first mating, and then laying eggs. During this time, both males and females may mate with several different partners. As the couples float in 'wedded bliss' at the sea surface they are vulnerable to capture by harpooners.

Only several weeks after mating occurs does the female crawl ashore to nest. On land she is defenceless and vulnerable to human predation. Flipper tagging studies have shown us that the average female lays multiple egg clutches in a season, each clutch separated from the next by two week intervals – with hawksbills laying 3-4 and green turtles even more egg clutches. An added danger is that a female typically emerges two or more times before successfully laying a single clutch of eggs. The practical relevance of this is the following:

a) Female turtles are less abundant than one might guess simply by counting tracks on the nesting beach. At a hawksbill beach, an average female produces about eight sets of tracks during the season; while green turtles on average emerge 10-15 times or more within a single nesting season; and
b) Protection of breeding turtles in the vicinity of the nesting beach is critical to the survival of our nesting populations.

Before 1994, it was legal to kill a nesting female at the nesting beach in Seychelles as long as the hunter buried her eggs in the sand. In fact, few eggs were actually buried under these circumstances. But more importantly, many a female was killed during her first nesting emergence – after having just taken 30-35 years to reach adulthood. Sea turtles reach maturity very slowly. So, to kill a nesting female during the first nesting emergence of her adult life eliminates the possibility that she will lay her full lifetime complement of approximately 40 egg clutches had she been spared. Adult female turtles are precious and require protection.

Mr Mancham expressed concern that "the same turtle can in a matter of a few days be caught 300 miles away from Mahé and put into a Chinese boat heading for home". But, in fact, turtles are far more vulnerable at the nesting beach than they are during their migrations back to their feeding grounds, or at their feeding grounds which typically are in relatively deep water some distance from land.

We know about the vulnerability of nesting turtles, because Seychelles has its own remarkable success stories demonstrating that protection at the nesting beach is very effective. Since about 1970, hawksbills at Cousin and Aride islands and green turtles at Aldabra Atoll have all been well protected. At each of these sites, following the onset of serious protection, the population has increased by approximately eight-fold over a 40-year period.

It is also important to note that in each of these cases the turtle populations had been rapidly heading towards extinction prior to protection. At Aldabra, annual numbers of nesting turtles declined from an estimated 8,000-12,000 at the turn of the 20th Century, to an estimated 800 females in 1968. In each case, over-exploitation at the nesting beach had brought the population to the brink of extinction.

It follows that the turtles Mr Mancham observed in that seafood restaurant in Beijing had not originated in Seychelles, but were probably caught off China in the Pacific Ocean – as both green and hawksbill turtles are also found there.

Basically, protection works. On every protected island in Seychelles we are seeing increases in population, while on every unprotected island numbers are in long term decline.

Contributed by Dr Jeanne A. Mortimer, Pat Matyot, and Adrian Skerrett of Island Conservation Society (ICS)