

PROJECT PROFILE

STUDENTS SEA TURTLE CONSERVATION NETWORK: 25 YEARS OF CONSERVATION

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Introduction

Students Sea Turtle Conservation Network, commonly known as SSTCN, has completed its 25th consecutive year as a voluntary organisation. We have been working on the beaches of Chennai, Tamil Nadu, India since 1988. Olive ridley turtles nest in this region between January and April. We begin our walks each night around 1am, take a one hour break at 3am if we haven't found a turtle or nest, and then continue monitoring the beach until at least 5am.

Since 2009, we have covered two stretches of beach, north (6km long) and south (8km long) of the Adyar River. The beaches north and south of the Adyar River have very different dynamics. Nesting on the southern beach begins and ends early in the season, while the opposite pattern is observed on the northern beach as nesting begins later and more slowly but lasts for longer. In 2013, the southern beach yielded 120 nests with the last nest found on 10th April; the northern stretch yielded 165 nests with the last nest found on 1st May. Often there were 8-10 nests laid per night on the northern beach and none on the south. SSTCN volunteers are limited to doing walks involving public participants on the southern beach only, due to safety, police permission, and transport availability. After finishing the nightly public walks, some volunteers go to the northern beach to assist the volunteers with the nesting turtles.

This year has been very special. We collected the greatest number of nests ($n=285$), nearly 40% more than our previous record, and subsequently released the largest number of hatchlings ($n=22,000$), 50% more than previously produced in our hatcheries. It is as though the turtles wanted to celebrate our 25 years with us.

SSTCN Hatcheries

As we work within city limits, there are bright lights along entire beaches which disorient the hatchlings, intense

usage of the beach by the city dwellers, and poaching of turtle eggs. Until 10 years ago, there were many stretches of beaches which were quite dark, and we could leave nests in their original location after concealing the turtle tracks. Once concealed from poachers, the eggs were quite safe. But in recent years the entire stretch of beach has become brightly lit with the construction of buildings, resorts, clubs, most of them in violation of existing laws such as the coastal management zone laws. We therefore relocate every turtle nest that we find (Figure 1). Our hatcheries are bamboo-fenced sections of the beach, located about 15-20m from the high tide line. We change the location of the hatchery every year, and move it at least 100m from the previous location to ensure that there are no pathogens or parasites from the previous year's eggs. SSTCN re-uses the same fencing for at least 5 years, with minor repairs between seasons (Figure 2). Once the sand temperature increases in summer, around mid-March, we cover the entire hatchery with jute cloth to prevent the nests from over-heating. Watchmen from the fishing community protect the nests in the hatchery. Hatchlings are released at the time they emerge (Figure 3); when hatchlings are released at night, our volunteers need to guide the hatchlings into the sea with powerful torches to reduce distraction by the city lights.

SSTCN Volunteers

We are lucky to have many inspired and committed volunteers (Figure 4). After a full day of college studies or other work, they always are ready for yet another night of work on the beach. Nishanth, a final year engineering student who wants to pursue wildlife conservation, was personally involved in collecting 72 nests this year. His class mate Robin walked 22 nights without a break. Raghuraman, a young auditor, who has been with us for 7 years, walked through the season and took charge of the Marina Beach hatchery. Shravan, a budding cricketer, who has been with us for 8 years now, took charge of the Besant Nagar hatchery and was there every evening throughout the season. If not for the dedication of these



Figure 1. Counting sea turtle eggs before relocation of the nest to a hatchery

Photo credit: Ashish Tatolu



Figure 2. Constructing a hatchery in Besant Nagar.

Photo credit: Ashish Tatolu



Figure 3. Community spectators during a hatchling release by SSTCN volunteers.

Photo credit: Ashish Tatolu

volunteers, we would never be able to achieve our goals.

Involving Local Fisher folk

We have always explained during our education programmes and turtle-walks that small scale fishermen are not threats to turtles, but trawlers can cause mortality if turtles become entangled in nets. Many local fishermen help us during the turtle nesting season. For example, a fisherman in Marina conceals turtle tracks and marks the nest site. When SSTCN volunteers reach his area at 3-4am they call him and he indicates if there is a nest to find and describes the location(s). If too many people are present when he discovers a turtle nest, he relocates it to a site near his boat to prevent the eggs from being poached.

Disastrous Start to 2013

This year began on an ominous note. Even before the nesting season began, we heard stories and witnessed dead turtles washing ashore. Sadly, this is always the first indication that nesting turtles have begun to arrive on our coast. But the number of dead turtles kept increasing this year and by the third week of January we had already counted more than 30 dead turtles, more dead turtles than nests. Our public walks were

becoming difficult as we tried to explain to a curious public why so many turtles had died. We temporarily called off the public walks for the first time in our history. We ensured that the problem was publicised in all the press, and then went on to petition the Chief Minister of Tamil Nadu to investigate the mortalities. The Forest Department supported our call for action.

Sudden Turn Around

It was the first of February; we had cancelled the public walk that night but a group of engineering students were determined to come on the walk and watched as we found 10 nests on the southern beach and three on the northern beach. We all felt a huge sense of relief. After that night, the number of nesting turtles began to increase rapidly and we soon experienced nights with more than 10 nests laid. There were still dead turtles washing ashore, but these numbers were slowly beginning to reduce. We kept a record of the number of dead turtles, and all volunteers carried a small tube of paint to mark the dead turtles and ensure that we did not count the same ones again.

Formation of Sand Walls

A phenomenon we have noticed in the last 3 years is

the formation of sand walls by tidal action. These walls can be as low as 1 foot or as high as 5 feet. Some turtles unsuccessfully attempted to climb the wall, then nested at its base below the high tide line. These walls were much more pronounced in the southern beach than in the northern stretch; from January till March 2013, the southern beach had sand walls that prevented turtle nesting along 50% of its length. A few nests that were missed when laid were found after collapse of the sea wall; the nests were relocated and demonstrated good hatching success.

Other Finds

We often find marine life such as eels, puffer fish, dolphins, and sea snakes, which are washed ashore after drowning in nets or due to injuries. We once found a 30 foot long baleen whale carcass. The notable find of 2013 was a 7.5 foot long Risso's dolphin.

Future of SSTCN

We intend to remain a small group and not grow too large. Our unique feature has been that we are a voluntary organisation which functions without funding from funding agencies or corporations. We strongly believe that it is important for concerned citizens to participate in conservation and education work in their own surroundings, and encourage the local community to participate when possible.

We would like to focus not just on turtles, but on the state of the entire marine ecosystem. We are working with sea turtles because they happen to nest on our shores, but while interacting with students or participants in the walks we stress the importance of a sustainable lifestyle and an urgent need to reconsider the destructive development path that the world is following. We are hopeful that small organisations like ours will lead to a change in community perceptions and actions. ■



Figure 4. A meeting of SSTCN volunteers.

Photo credit: Ashish Tatolu