

A STORY OF FIELD ASSISTANTS AND SEA TURTLE RESEARCH IN THE ANDAMAN AND NICOBAR ISLANDS

MANISH CHANDI

Andaman and Nicobar Islands Environmental Team, Wandoor and Nature Conservation Foundation, Mysore, Karnataka, India

manishchandi@yahoo.com

In the beginning, there was a man called Satish Bhaskar from the Madras Crocodile Bank in India. He arrived in the Andaman Islands in the mid-1970's to survey sea turtle nesting beaches. At this time, the Andaman Islands were very unlike what they are today, with thousands of people, helicopters, speed boats, buses and extensive roads. There were few opportunities for transportation and communication, but there were, as there are now, 'dungy's'. A 'dungy' (an Andaman creole adaptation of the word Dinghy) is a motorised dugout canoe that can sail in rough, calm and shallow seas. These machines were operated by various kinds of people, usually fishermen and others, to reach destinations across the islands. Very few operators were familiar with the many beaches on the islands and able to navigate along the foreshore. Satish Bhaskar was on a good boat with three other men, Saw Paung (at the tiller), Saw Nelson and Saw Waller. These three Karen men were from Webi village in Middle Andaman Island. There had been previous contact with these men when Rom and Zai (also from the Madras Crocodile Bank) had arrived a few years earlier to look for saltwater crocodiles, king cobras and other herpetofauna.

The first surveys for sea turtle nesting beaches took place in the Andaman Islands with these four men in a boat. Saw Paung still recalls that they used to drop Satish at a beach, and watch him disappear with long strides, a packet of biscuits in hand and a tube for a float if he needed to cross a large creek *en route* with equipment. They would eventually pick him up further down the coast. It was a tiresome project but a very fruitful one, as they mapped the sea turtle nesting beaches on the islands. Saw Paung had visited nearly all the locations previously, and was a good boatman (he'd spent many years at sea fishing, shark fishing, skin diving for shells, living with the Andamanese for a few years) and an expert dungy craftsman. His experience and Satish's nerves of steel extended the survey across the entire archipelago, the only exceptions being the distant Barren and Narcondam Islands.

Satish proceeded to the Nicobar islands in the 1980's, and received help from various villagers in the islands, but he was not able to use a single team or boat to conduct the survey as he did in the Andamans. I re-surveyed 13 beaches on the Southern Nicobar Islands between 2000 – 2006, with an assortment of Nicobarese on Great Nicobar, Little Nicobar, Treis, Trak, and Meroe Islands, and there was always an elderly person asking if I knew Satish Bhaskar. As recently as a few months ago, a Nicobarese man named David Owen asked me if I knew Satish Bhaskar; during his survey about 25 years ago, Owen had transported Satish in his boat.

South Reef Island was the location at which Satish conducted his final monitoring program for green sea turtles, tagging to identify individuals and calculate re-nesting intervals. Saw Boney (a Forest Department Ranger), Saw Paung and Allen Vaughan organised supplies for Satish year after year while he stayed mostly alone on South Reef for months at a time. Saw Boney braved an extremely rough sea to evacuate Satish during an extended storm, after he ran out of supplies on the island and was relying on food cooked five days earlier and refrigerated in the cool, deep sand. Satish was a strong swimmer and reached the rope and ring buoys thrown into the sea, as Saw Paung dexterously manoeuvred the boat in those choppy conditions close to shore.

In 1994, Harry Andrews and a team from the newly established ANET began sea turtle surveys again, following some of the routes that Satish and team took, as well as charting new ones. I joined the boat crew in 1996, often with as few as five of us on a team (three field/boat crew included). For the next five years we explored the Andaman Islands. Saw Paung, Saw Shwether, Saw Agu and Saw Pambwein formed our main boat and field crew, and helped us piece together information about birds of the shore and mudflats, crocodile habitats, as well as visiting settlements and encroachments of an expanding human population in the islands. Often in far

flung hamlets, Saw Shwether or the Uncle's (as both Saw Paung and Saw Pambwein are referred to) introduced us to local residents, some known to them or with whom we made friends. In many locations *en route*, Saw Paung would steer the boat into a cranny or cove despite our looks of surprise at a change in a planned navigational course. He would stop at places, known only to him, to refill our water supplies, or on his own prediction of rough weather ahead.

In May 1997, we encountered our first cyclone while at sea. We had hired a dungy for our survey and on the last leg of our expedition sailed from Wandoor, south to Little Andaman Island. That morning we sailed past Rutland Island and the Cinque Islands on a regular rolling sea. It was overcast, similar to days during the pre-monsoon showers. A few hours later in the journey the sky darkened and the horizon turned black. Uncle Paung gestured for us to arrange our supplies under the tarpaulin in expectation of rain. Within a few minutes all hell broke loose, with the sea swell rising and our tiny dungy tossed by the waves and an extremely strong southern wind. Only Uncle Paung looked out, his eyes shielded by his large 'kamau' or Burmese bamboo hat. We climbed thirty feet waves that broke as we reached their crest, and bailed out knee deep water from the boats with buckets. When we were in a trough with water towering over us, Uncle sped the dungy to climb a swollen wave, and on reaching its crest slid the dungy down sideways, like a surf board, so that we did not plunge into the next trough bow first. With no sight of land and just a strong arm holding on to our tiller, we thought we were inching southward. However, the wind buffeted us back to Cinque Island in about 15 minutes, though we had crossed the island almost an hour before. Not giving in, we set sail for Little Andaman again the next day, on what looked like a calm sea after the storm. As early morning became day, we were back in that morass of huge swells, crests breaking over our bow and the howling wind screaming into our ears. There were unexpected waves throwing us about and nearly sinking our little dungy. A journey of usually five hours took us nine, but Saw Paung did not give in and we returned to Wandoor to tell our tale to those worried others who had sent us off a week earlier.

These adventures aside, the boat and base crew of Saw John (Base Manager) and Montu Bhowmik gave themselves wholeheartedly in support of what we were trying to achieve. During those five years of periodic and yearly surveys, we produced maps of nesting beaches for four species of sea turtle, and habitats for additional species as well. We assisted researchers who were new to the islands and without the logistical support that our

crew provided us. Through this work, that was initially labelled 'sea turtle surveys', Harry Andrews and Dr Rauf Ali from ANET, with others from various organisations, were able to contribute to two books on the islands, the 'National Biodiversity Strategy and Action Plan A&N Islands', and the 'State of the Environment Report- A&N Islands'. The contribution by our field assistants in the past three decades to research on the natural history of the islands is unsurpassed by any other crew across the Andaman and Nicobar Islands.

By the new millennium, three camps were set up across the islands to monitor nesting sea turtles. Two camps were in conjunction with the Andaman and Nicobar Forest Department at Cuthbert Bay, on Middle Andaman, another at Galathea beach, South Bay on Great Nicobar Island, and the third at Jahaji beach on Rutland Island. A total of thirteen men, including two researchers, manned these camps over the next three to five years. We met Saw Shwether in the northern tip of North Andaman Island during a crocodile survey in 1993. Saw Agu joined ANET to help with construction and soon was engaged in sea turtle research. Naveen Ekka, who lived on Rutland Island, helped maintain our camp there. Data collected during those years helped to identify important turtle nesting sites and gave us an indication of periodic variation in nesting green, olive ridley and leatherback sea turtles (Saw Pambwein was proud that he watched leatherback sea turtle nesting at Jahaji beach). The interest of our local contacts in sea turtles and their conservation significance slowly snowballed. We hope that with continued work, and the involvement of other islanders, sea turtles can still arrive to nest safely on those beaches.

The camp at Galathea, on Great Nicobar Island, was the last to remain until the Asian tsunami of December 2004 struck. The camp was originally established in 2000 and maintained by Saw Agu, Saw Glen, and Shreyas Krishnan; in 2004, Dr. Ambika Tripathy replaced Shreyas after spending the previous season at the Cuthbert Bay camp. Saw Glen had left the camp to visit his family in December 2004, and only Ambika and Saw Agu remained with four visiting naturalists from Pune when the tsunami struck. Ambika, a young man from the state of Orissa, was dedicated to sea turtle conservation and joined this camp despite its logistical difficulties and not being able to contact his wife and young child regularly. He has not been seen since the tsunami destroyed the camp, road, primary forest and mangrove. Saw Agu miraculously survived, after being marooned alone on a pile of logs in a desolate landscape for two and a half weeks without food, water or clothes, to tell his tale. He returned a few years later, with Dr. Naveen Namboothri,

to relocate nesting sites at the post-tsunami beaches.

After this catastrophic event, all turtle camps were closed and ANET conducted its last boat survey in 2006. In 2007, Dr. Kartik Shanker, from the Indian Institute of Science and Dakshin Foundation, collaborated with ANET to set up a camp to monitor leatherback sea turtles on Little Andaman Island. This project has seen a new order of field assistants, young Karen boys and Saw Burney, the elderly boatman on his boat the MV Powmay (named after his daughter in-law). In the first year, the camp was run only by our Karen crew, and two research assistants, Devi Subramaniam and the energetic Adhith Swaminathan, eventually expanded the camp to two beaches, on South Bay and West Bay.

It is to the team's credit, despite all odds over the past five years, that work and interest on sea turtles and their conservation has continued. From ingenious use of flotsam and jetsam found on the beach, and of coastal resources on the island, this crew have made comfortable camps and collected valuable data on leatherback turtles. They have also extended the conservation program by reinvigorating it with fresh energy and ideas. It is this curiosity and energy that sparked Satish Bhaskar's first sea turtles surveys in the region to become a conservation and research program, and it is rewarding to see it continuing in young (and old) islanders. Our field assistants have included:

Original surveys across the islands and monitoring at South Reef Island led by Satish Bhaskar:

- Saw Nelson, Saw Paung and Saw Waller, Allen Vaughan, Saw Boney.

Periodic surveys with Harry Andrews and Team (ANET 1995-2001), and monitoring at 3 nesting sites for 4 years:

- Boat surveys- Saw Paung, Harry Andrews, Saw Shwether, Saw Palaiwa, Saw Pambwein, Allen Vaughan, Saw Poricha, Saw Agu, Manish Chandi.

- Rutland Island, Jahaji beach Camp- Naveen Ekka, Paritosh Biswas, Saw Pambwein, Saw Chi-Maung, Saw Sa-thaw.

- Middle Andaman Island, Cuthbert Bay Camp- Saw Paul Pee, John Kumar, Saw Tintu, Saw Johnny, late Ambika Tripathy.

- Great Nicobar Island, Galathea Camp: - Saw Agu, Saw Glen, Shreyas Krishnan and late Ambika Tripathy.

Leatherback sea turtle work at Little Andaman Island with Kartik Shanker and IISc/Dakshin/ANET:

- Saw Burney, Saw Thesarow, Saw Pambwein, Devi Subramaniam, Saw Standly, Saw Lulay, Saw Willy, Saw Columbus, Saw Kenick, Saw John, Sonu and Adhith Swaminathan. ■

POST-NESTING MIGRATORY ROUTES OF LEATHERBACK TURTLES FROM LITTLE ANDAMAN ISLAND

*NAVEEN NAMBOOTHRI^{1&2#}, ADHITH SWAMINATHAN², B.C. CHOUDHURY³

& KARTIK SHANKER^{1&2#}

¹Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India

²Dakshin Foundation, Bangalore, India

³Wildlife Institute of India, Dehradun, India

#naveen.namboos@gmail.com, kshanker@iisc.ernet.in

INTRODUCTION

Among the seven species of sea turtles, leatherback turtles (*Dermochelys coriacea*) are known to undertake some of the longest migrations (Pritchard and Trebbau, 1984). Over the last two decades, there has been concern about the drastic decline in the nesting populations of this species in the Pacific Ocean (Spotila *et al.* 2000), though some

nesting populations have increased in the Atlantic Ocean. In India, leatherback turtles are listed under Schedule I of the Indian Wildlife (Protection) Act 1972, which offers the highest degree of protection to wildlife in India.

Current leatherback nesting sites in India are restricted to the islands of the Andaman and Nicobar archipelago