

## green pages

newsletter of the Department of Environment & Coastal Resources

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BRIAN RIGGS

TCI's turtle fishery could be landing one of the largest legal turtle harvests in the Caribbean. The new TCI Turtle Project hopes to change that for the protection of the turtles.



# A Promising Prognosis

## Tackling TCI's turtle fishery.

By Peter Richardson, Biodiversity Programme Manager, Marine Conservation Society (MCS)

Humans have hunted turtles in the Turks & Caicos Islands for centuries. Yet turtles still thrive here, in good numbers too. With their extensive, pristine coral reefs and vast swathes of seagrass beds, lagoons and tidal creeks, the low lying

Turks & Caicos Islands (TCI) provide valuable feeding grounds for thousands of green and hawksbill turtles. The Islands' human settlers have exploited this rich turtle bounty since their arrival in about 700 AD.



Archaeological digs at ancient Taino Indian settlements throughout the Islands have revealed middens stacked full of turtle bones. After Europeans discovered the Islands in the 16th century, the Tainos' subsistence hunting would likely have been replaced by commercial turtle harvests, which provided meat and shell for regular export right up until the onset of the Great Depression in the 1930s. Nowadays, the economic value of TCI's turtle harvest is relatively unimportant. Most of the Islands' fishermen depend on the more lucrative conch and lobster fisheries, which supply the export markets in the USA.

But despite an apparent decline in the demand for turtle meat in recent decades, many folk in TCI still enjoy it. A few fishermen regularly harvest turtles intentionally to satisfy local demand from restaurants and private customers, but most turtles taken in TCI are caught opportunistically, by fishermen fishing for other species. If these fishers encounter turtles and can catch them easily, often they will be taken home for personal consumption. To date TCI's turtle fishery has been largely ignored, perhaps because few, if any fishers depend on what is perceived as a largely incidental harvest. Nevertheless, in 2004 a provisional assessment carried out by the Marine Conservation Society (UK) and the University of Exeter with the Department of Environment & Coastal Resources (DECR) estimated that the Islands' annual harvest of green and hawksbill turtles was likely to involve hundreds, and possibly thousands of turtles per year. TCI's turtle fishery could be landing one of largest legal turtle harvests in the Caribbean.

### Time for change

Over the years, the turtle harvest regulations contained in subsequent drafts of TCI's fishery legislation have not kept pace with our growing understanding of marine turtle biology and are now in need of change. For example, the current Fishery Protection Ordinance states any turtle that weighs over 20 pounds, or measures 20 inches "from the neck scales to the tail piece," can be caught at any

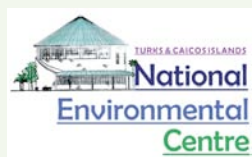


TOM STRINGELL

Amdeep Sanghera, the turtle project field officer, managed to catch, tag and release the first loggerhead turtle ever to be tagged in TCI.

time of the year. Female turtles and their eggs are protected above the high water line, but as soon as those same females return to the sea they are fair game to the fishers. Unlike the conch and lobster fisheries, there is no closed season for TCI's turtle fishery and therefore there is no real protection for the reproductively valuable adult turtles in TCI's waters.

Our previous research suggested that most of the turtles present in TCI's waters are juveniles or sub-adults, and genetic analysis of the relatively small numbers of green and hawksbill turtles sampled during those studies indicate that most originated from nearby, or larger nesting populations in the region. Many of these larger nesting populations in the Caribbean, such as Costa Rica's green turtle rookery at Tortuguero and the hawksbill rookeries in Puerto Rico, are showing strong signs of





AMDEEP SANCHERA, MCS

Besides being an excellent boatsman, South Caicos fisherman Tommy Philips has been trained in the biometric measuring, tagging and tissue sampling techniques used to assess the status of TCI turtles.

recovery despite centuries of harvest in the TCI. These encouraging results are largely due to concerted conservation efforts at the nesting beaches far away from the TCI, where nesting females and their eggs are protected from illegal poaching.

The TCI itself also has a nesting population of hawksbills, as well as the occasional nesting green and loggerhead turtle. But our research found that the historical and ongoing harvest of adult turtles in TCI waters has almost certainly led to these nesting populations being wiped out from the inhabited islands. We found that fishers tend to target larger sub-adult and adult turtles, perhaps not surprisingly as these animals yield more meat, and there lies the key problem with today's turtle fishery in TCI. With no change in the management of the fishery, it is likely that TCI fishers will whittle away the country's remnant population of reproducing adult turtles until it disappears, perhaps forever. This has happened elsewhere in the Caribbean in recent history, but it doesn't have to happen in the Turks & Caicos Islands.

### The way forward

The TCI has a sovereign right to use its natural resources for domestic consumption, but it is clear that something has to be done to reverse the apparent decline in TCI's nesting turtles while balancing the needs of the community. An outright ban on turtle fishing would be impractical, unenforceable and inequitable, and is therefore not an option. Instead, we believe a solution can be found through an inclusive, participatory approach that involves turtle fishers. This approach is essential to inform much-needed changes to the Fisheries Protection Ordinance, and establish a more sustainable, yet stakeholder-led turtle fishery management strategy. In 2007, DECR Director Wesley Clerveaux recognised the need for action and invited MCS and the University of Exeter to return to TCI to follow up on our research recommendations.

At about the same time, long-term Marine Conservation Society members Anne and Simon Notley were looking to get involved with a meaningful conservation project after having sold their very successful business. A chance encounter with the MCS Fundraising Manager aroused their interest in our tentative ideas for a follow-up project in TCI. "Having sold our company a few years ago, we wanted to get involved in a conservation project, but neither of us had a research background," says Anne. "My training was in law and Simon's was in yacht and boatyard management. We have been members of MCS for 15 years, so it was natural to talk to the Marine Conservation Society about which projects we could help. We had always wanted to have an excuse to visit warmer climes during the winter, so when the Turks & Caicos Islands project idea was mentioned it wasn't very difficult to make a decision. We are both keen divers and sailors, so turtle conservation was a no-brainer for us!"

After 18 months of planning and deliberation, MCS, Anne and Simon, the University of Exeter's Marine Turtle Research Group and the DECR committed to making the project become reality. The School for Field Studies in South Caicos, which has continued collecting data on turtles around South Caicos since 2005 when they assisted with our previous research, also pledged its support. So, with the Notley's financial backing in place, and local and international project partners engaged, the Turks & Caicos Islands Turtle Project was born. The project will



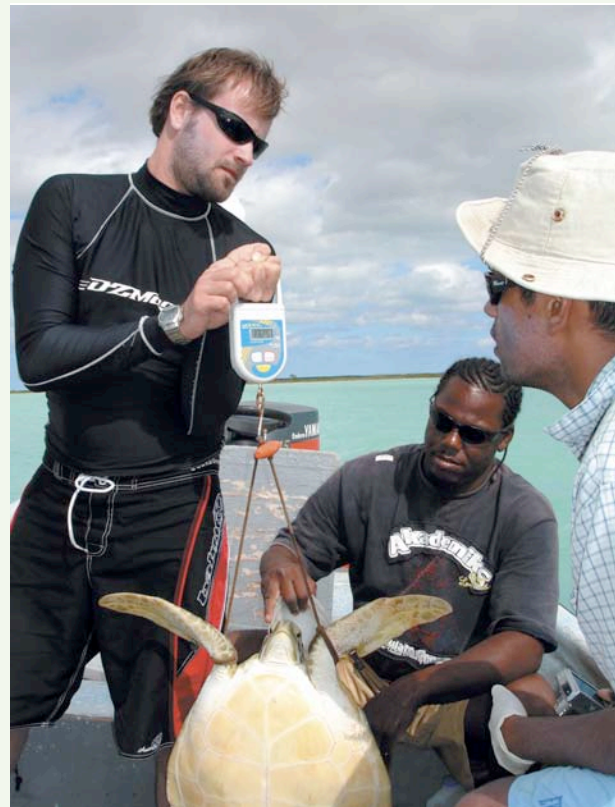
thoroughly assess the status of the Islands' turtle foraging and nesting populations, understand the turtle nesting seasons in TCI, and generate a comprehensive analysis of the TCI's turtle harvest, including biological, economic and social evaluations. After two years of fieldwork, which will include extensive consultation with turtle fishers, the project will have developed a comprehensive draft turtle fishery management plan and detailed recommendations for appropriate amendments to the existing legislation.

### New faces

As the project gained momentum last year, the University of Exeter recruited PhD student Tom Stringell to coordinate the biological data collection and analysis, while MCS recruited social scientist Amdeep Sanghera as the project field officer. Amdeep handles the logistics of day-to-day biological data collection on the ground, but given the participatory nature of the project's aims, social science is a major aspect of his work. He has extensive experience of assessing wildlife use, especially in Africa where he investigated several situations including turtle hunting in Ghana. He was therefore attracted to the proposition of using his skills in the Caribbean. "My background has involved working with resource users to investigate ways to better manage the very resources they rely upon," says Amdeep, "so the TCI project really attracted me, especially the project duration and the participatory nature of the work. In two years, you can really get to the core of the issues and get a strong grasp of what people feel and think. With strong emphasis on fisher participation, the project should allow stakeholders to have a voice in matters that are close to them, and hopefully facilitate changes that are, as much as possible, reflective of their views." Amdeep will build a thorough understanding of the socio-economic factors that need to be considered in shaping the future of turtle use in TCI.

### Life in the "Big South"

While Tom Stringell makes four, month-long research trips each year, Amdeep is based full time in South Caicos, the traditional home of fishing in the TCI. Wesley Clerveaux arranged desk space for Amdeep at the DECR's office there, and gave him a room in "The Lab", the renovated DECR accommodation a stone's throw away from the beautiful azure sea on South Caicos' rocky southern



PETER RICHARDSON

From left: Tom Stringell, Tommy Philips and Amdeep Sanghera weigh a hawksbill turtle prior to tagging and releasing it.

coast. Wesley also recruited local fisherman Tommy Philips as Amdeep's project assistant. Tommy has made sure that Amdeep had all the right introductions in the fisher communities when he first arrived in November 2008. Already Amdeep has made significant inroads into the South Caicos community, making good friends, gaining fisher confidence and understanding more about the dynamics of the harvest and what it means to the fishers. Tommy is an excellent boatman who knows the local reefs and banks like the back of his hand and has been catching turtles all his life. While he teaches them the tricks of his trade, Amdeep and Tom have trained Tommy in the biometric measuring, turtle tagging and tissue-sampling methods needed to assess the status of TCI's turtle stock. Together they work on the South Caicos dock, sampling harvested turtles as they are landed and chatting to the fishermen about their day.

By Amdeep's own admission, this work, with its almost daily exposure to the realities of an active turtle fishery, has taken some getting used to after a spell of living in urban Birmingham. But The Lab is set away from



the main town, meaning that while Amdeep is integrated within the tight South Caicos community, he also manages to find that all-important personal space. "After a hard day's work at the dock, there's nothing better than going back to The Lab and enjoying a long stare into the open ocean," he says. When Tom Stringell is on island for his research trips, Tommy takes him with Amdeep out in the DECR boat to the project's research sites to survey nesting beaches, or catch, sample, tag and release turtles on the reefs and seagrass beds.

Despite his sociological leanings, Amdeep admits that these sampling trips are some of the most enjoyable days on the job. "I particularly enjoy the catch, tag and release sampling trips. It's pretty exciting work and very rewarding, because very little research has been directed towards turtles here in TCI. I caught, tagged and released a loggerhead turtle in February. It was the first loggerhead turtle ever to be tagged in TCI and a very exhilarating experience for me. In fact every turtle we tag, sample and release during this project has the potential to bridge the gaps in our knowledge about these amazing creatures."

The biological research also benefits from the School for Field Studies' generous support. Research associate Marta Calosso takes Amdeep, Tom and Tommy to sites close to the School to catch, tag and release turtles. In addition, the School's students and staff go out and collect these data as part of their program.

Anne and Simon Notley's practical involvement is also integral to the scope of the research throughout the Islands. As well as funding the project, they bought *Salt Dog*, a 50-foot Lagoon catamaran yacht. Anne and Simon regularly visit the Islands, when they use *Salt Dog* to assist with nesting beach surveying and turtle sampling at the more remote cays and reefs in the archipelago, and to indulge Simon's life-long passion for sailing! He explains, "I don't need an excuse to get out on the water. I love it, always have. But the most enjoyable thing about our involvement with this project is the sense of real purpose, having hands-on input and constantly learning about the turtles and the Islands. Anne and I feel unbelievably privileged to part of this ground-breaking project."

The project is still in its infancy and there is a long way to go. But with two years of full-time presence in the fishing communities, Amdeep and the project team will be well placed to develop legislative change and a new, participatory and sustainable turtle fishery management

strategy for Wesley and the DECR to take forward. Amdeep does not pre-empt the results, but is optimistic about the project outcome. "At the moment I imagine that the turtle harvest will eventually be managed by standard fishery measures such as size limits and closed seasons, measures that the fishers already know in the other, more economically important fisheries," says Amdeep. "But the main challenge for me is whether fishers will be prepared to adhere to such measures. Turtles have been a traditional resource for many Turks & Caicos Islanders and the introduction of new, top-down management measures may cause some alarm, which in turn could lead to non-compliance. This project acknowledges the dangers of that approach and that is why we are working at the fishers' level. It's rare to find projects that put so much emphasis on the meaningful participation of all stakeholders. I'm confident that after extensive local consultation, any changes in the management of the fishery will not only be a product of the research, but will also embody the desires and opinions of the people most dependent on the turtles. And if we really get it right, the fishers will be actively engaged in the management of the fishery too."

In order to complement the data gathered by the project team, the DECR is requesting public cooperation and requesting that any sightings of turtles, turtle nests or turtles landed for consumption be reported to the TCI Turtle Project at (649) 243-4895 or on e-mail to [amdeep.sanghera@mcsuk.org](mailto:amdeep.sanghera@mcsuk.org). All information will be treated in confidence and will be of great value in ensuring that the project has national coverage and provides a full assessment of the Turks & Caicos Islands' turtle populations.

To find out more, go to [www.mcsuk.org](http://www.mcsuk.org), where we will also be featuring regular updates from the project. 🌿



BRIAN RICCIS



These two to three day old ducklings were found near South Base in Grand Turk, seemingly abandoned by their parents.

## Lucky Ducks

A pair of orphans get a second chance at life.

By Jodi Johnson, Environmental Officer, DECR & Eugene "O.J." Badresingh, Oasis Divers

Sunset in the TCI brings to mind the elusive "Green Flash," but sunset on February 9, 2009 proved to have something better in store for Captain Eugene "O.J." Badresingh of Oasis Divers in Grand Turk. As O.J. prepared to close up the dive shop at South Base and head home after a long day, Anthony Marks (fondly known as Captain Marks) pulled him aside and said, "Look what I found." Attempting to waddle towards the shower used to rinse after a dive were two tiny ducklings. By all indications they were only two to three days old and had never been

in water. Where were the parents? It seemed strange to see these babies out on their own, since hatchlings generally stay close to mother and father well into maturity. Both O.J. and Capt. Marks were mystified and it seemed much too sad to leave them on their own, for although O.J. searched the area for days, he was never able to locate their parents. It was then that a 10-week love affair developed between O.J. and these two orphans, when he decided to try to find a home for them until they could be released.



### No vacancy

When O.J. placed a call to the DECR the following day seeking assistance in finding the orphans a home, it was quickly realized that no staff member was able to offer a safe haven. One member of staff had a cat who would be sure to gulp them up in no time, while everyone else was just plain clueless and afraid that they might do more harm than good to the ducks. To make matters worse, the DECR office was still displaced from hurricane Ike and in the process of trying to find a new space.

What next? Calls to other persons who seemed like ideal foster parents due to their proximity to the salinas or one of the creeks didn't work out either. It looked like O.J. was stuck with a new set of youngsters to add to his already large brood of wife and two young daughters in an apartment. But all was not lost. A plan was hatched and it was decided that both O.J. and DECR Grand Turk Environmental Officer Jodi Johnson would document the growth and eventual release of these two gems over the next couple of weeks.

### Mother hen

Over the almost 10 weeks that followed, O.J. became a real "mother hen," and cared for these ducks around the clock with the help of his wife Lurline and daughters Régene (10) and Renéé (16). The ducks started out in his

kitchen in a small loaf tin filled with water, feeding on their favorite foods of white bread or oatmeal, turning up their beaks decisively on brown bread. Though he plied them with a variety of other foods, such as boiled yam, other ground provisions and even cornmeal, their favorite meal never changed.

O.J. admits that he has a soft spot for all baby animals and this wasn't the first time he rescued newborns. Growing up, he was always involved in the rescue and care of other species. His father was an avid bird enthusiast who reared every Jamaican bird imaginable at their family home in the small community of (ironically) Duckenfield in the parish of St. Thomas. O.J. as a youngster often assisted his father in the care of turkeys, turtle doves, parrots, peacocks, various species of ducks and geese.

As the weeks passed and the duo grew, they graduated to a large, water-filled four by two foot plastic basin (still in O.J.'s kitchen). It further became obvious that they were White-Cheeked Pintails (*Anas bahamensis*)<sup>1</sup> and not Northern Pintails (as previously suspected). O.J. recalls that once they started to change their down feathers and develop flight wings, they became even more of a handful. "I would have preferred human children," he once remarked fondly. They never slept. At all hours of night they could be heard splashing about merrily and eating



The 10-week old ducks readily took to their new home in Hawke's Nest Salina, and displayed all the skills needed to survive in the wild.



in their makeshift pond, and with an ever-increasing wingspan (almost 2 1/2 feet upon release) they created a “windy situation” while exercising their wings indoors, spreading all sorts of debris in the process.

### Who’s the boss?

Just like any other siblings, clear differences in personalities became increasingly obvious. Maturity revealed that they were brother and sister, with the boy being larger than the girl and displaying a mottled geometric design on his plumage, as is common to these ducks. The passing of time revealed even further who was in charge — the girl, of course! She was “full of attitude” as O.J. put it and much more outgoing. She was also often observed preparing her brother’s food (who like the typical male was always in the food dish, even if he wasn’t eating).

O.J. in his dedication ensured that they had outings at least three times a week to a salina or creek<sup>2</sup> to develop their natural instincts in preparation for a successful release. On their first trip at around nine days old, it was the girl who caught her first worm, which she readily shared with her brother. Future outings followed the same script, with both foraging and catching various grub, but with the girl succeeding in catching the finer foods like tiny baby fish (fry).

### Special and final moments

Cat food is usually for cats, right? Not according to these White-Cheeked Pintails. O.J. believes he made a fatal error when he decided to tempt the ducks with a tin of cat food. They didn’t react badly or become fatally ill — rather, they stuffed themselves so much that neither could move or get into their makeshift pond. Thereafter and into their final weeks, white bread and oats were downgraded, and it was strictly cat food (but in smaller proportions).

From a mere 2 1/2 inches (when they were found) to over 20 inches with very long necks upon their release at midday on April 19 in the Hawke’s Nest Salina, these two ducks remained healthy through out their time with O.J. Though they were reared in an apartment without the interaction of other ducks, O.J. believes they have adapted quite well to their natural habitat, displaying all the tendencies and skills needed to survive in the wild.

Personality differences were again obvious when they were released — the female didn’t even think twice and was gone in no time, while her brother was much more



Duck foster parents Jodi Johnson and Eugene “O.J.” Badresingh, made a difference in the lives of two orphaned ducks.

hesitant, seeming not to want to leave O.J.’s care. He did eventually build up the courage to fly away and when O.J. visited the spot a few days later, he was happy to see them still together wading merrily in the water. The pair did not allow him to approach —like any other wild ducks — so it may be safe to say that O.J. raised them well not to trust strangers.

In the end, this story is a true reflection of the difference we can make by being just a little kinder to nature.



<sup>1</sup> According to *A Guide to the Birds of the West Indies*, White-Cheeked Pintails are year-round residents of the Bahamas, Greater Antilles, Virgin Islands and Northern Lesser Antilles and move among the islands when conditions warrant. Formerly common, the species has dramatically declined throughout much of its range and is considered threatened due to overhunting, habitat destruction and mongoose predation on nests. It is now only locally common in places such as the Bahamas.

<sup>2</sup> White-Cheeked pintails have habitats in both fresh and hypersaline water.



## Facelift for Governors Beach . . . Mission Possible?

Story & Photos By Jodi Johnson, Environmental Officer, DECR

Like many areas across the nation's capital, Governors Beach in Grand Turk was not spared the wrath of Hurricane Ike. Signage, infrastructure and landscaping were badly damaged, which put a damper on the various tours that took place regularly by passengers of cruise ships visiting the Grand Turk Cruise Ship Centre (GTCC). Short of a miracle, it did not seem possible that Governor's Beach would be resuscitated any time soon, given the economic recession and other difficulties bombarding the TCI Government. The shutters and doors for the refreshment cabana remained shut, benches and fencing stood in disrepair and the numerous beach chairs chained and fixed as they were prior to Ike's passage seemed to await compassionate release from bondage.

Yet where there is a will, there is a way, and so the idea was conceptualized to "Beautify Governors Beach" for Earth Day — celebrated worldwide on April 22 to promote environmental awareness and sustainability with the theme for 2009 being "The Green Generation." Though it seemed like an easy enough task for the staff to undertake, it soon became increasingly obvious that additional assistance would be needed to make this initiative successful, including the input of funds, materials and manpower.

As luck would have it, the GTCC decided to undertake repairs of the restrooms, boardwalk and water supply system for the beach around the time that the DECR intended to carry out its beautification exercise. That meant less materials and, therefore, less spending for the department. Could things get any better?

Provo Landscaping International Ltd. who "just happened" to be working on a project in Grand Turk, on the department's kind request agreed to provide a few plants, minor landscaping and a general clean-up of any debris that remained from the hurricane, at no cost. Following this stroke of good fortune, Turks & Caicos Utilities consented to make one of their trucks available at 6:30 AM to dig holes for the light posts that were to be recycled and used for fencing. GTCC further facilitated the effort by cutting the 30 foot posts with their chainsaw (one of the few that could be found on Grand

Turk), while Engineering and Maintenance Services undertook the task of clearing the road leading to the beach of gravel and sand that had accumulated. Oasis Divers, in their ongoing support of DECR activities, donated extra cases of water to supplement the few bottles that the department managed to purchase.



From top: TCI's own "Green Generation" — 12 students from H.J. Robinson High School in Grand Turk, offered their support to work alongside DECR staff in revitalizing Governors Beach. The tasks involved painting and repairing benches and putting in new fencing using recycled light posts.

