



TURTLE TIMES

Turtle Foundation – SEPTEMBER 2016
Protecting sea turtles and their habitats

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On this edition....

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- *Rescued Hatchlings*
- *Community and Education*
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Organização com estatuto de Utilidade Pública - 2012
Isento de impostos conforme a lei Cabo-verdiana

Ramificações:

- EUA
- Suíça
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MAVA Foundation visits Boa Vista

This month we had a very important group coming to visit TF in Boa Vista: the MAVA Foundation. MAVA was founded in 1994 by Luc Hoffman as “an expression of his deep personal commitment to biodiversity conservation”. Based in Switzerland and Senegal they provide support to several NGO’s and environmental groups across West Africa, the Mediterranean, the Alps, and more. MAVA supports more than 750 projects including Turtle Foundation, making it one of our main financiers. Every year the MAVA team makes a trip to one of their projects and this year Boa Vista was the chosen place. They spent 3 days in Boa Vista and took a trip to some other islands of Cape Verde after. While around they visited the camps of Boa Esperança and Lacacão, including a dinner in Lacacão and some very successful turtle watching in Ponta Pesqueira, with 3 nests hatching at the hatchery and turtles nesting on the beach. Their stay also included meetings with local organisations and government representatives. It was a pleasure for Turtle Foundation to welcome MAVA on Boa Vista and to be able to show them our project, work and efforts to save the sea turtles in Cape Verde. Photos by: Thomas Reischig



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Rescued Hatchlings!

A few weeks ago the rangers in Norte were patrolling one of the beaches when they found a section completely covered in trash. As they were passing it they took a closer look and found one hatchling, still alive, struggling through the rubbish in its quest to reach the oceans. They immediately surveyed the beach and found more hatchlings around that were gently picked up and release back in the ocean. One of them was trapped inside a 1,5L plastic bottle, and without the ranger's help, it would have died, along with all its brothers and sisters. Trash is a very big problem in Boa Vista, and particularly serious in some of the beaches. It washes up on the shore every night and even with the beach clean ups initiatives taken by the community departments, it's still not enough as more and more piles up. Not just turtles but other wildlife such as birds and fish are affected by this problem and although these turtles were lucky, many other won't be. Turtle Foundation is constantly working with the local communities to create awareness to this situation in hope to prevent such things from happening. Photos by: Domas



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Exhumations!

During September we started another activity in our camps: nest exhumations. This means literally digging out a nest, after it hatched, to gather different data. Exhumations, or excavations are done on in situ nests (the ones on the beach) and on hatchery nests. The nests are monitored and 3 days after the last hatchling leaves the nests the excavation can be done. The nest is dug up and the volunteers look for signs of predation by crabs. They then see if there are any live hatchlings trapped in the sand, any dead hatchlings and any unhatched eggs. Based on the eggs shells found an estimation of total number of eggs is made, and then a statistics of total eggs laid vs total eggs hatched. In Lacação they also analyse the success of the relocated nests versus the in situ nests. Photos by: Joana Nicolau



Community and Education!

September was a big month for the Community and Education department with a lot of activities happening. Turtle Foundation, Bios CV, Natura 2000, Associação Varandinha, Protected Areas, with Naturália, formed a committee together that focused on Environmental Education and Awareness for Conservation. In order to reach the local communities a series of presentations were made across the island, where the population sat together with these associations and NGO's and were explained in detail the work they are doing, and the importance of conservation work in Boa Vista. So far 6 presentations were given and we got one step closer to the main purpose: creating an atmosphere of cooperation and dialogue between the local communities and NGO's. For these organizations it is very important to learn the ideas of local people about conservation and the work of the NGO's.





On the same subject there was a presentation at the Retirement Home in Sal Rei, where the main topic was the catching of turtles. We learned that all of the elderlies used to kill turtles, or knew someone who did. In those times it was sustainable, as families only did it for self-sustainability, and not for profit. We were happy to see that the killing and eating of turtle meat drastically dropped on the past few years, and that part of the populations knows

that killing turtles is not sustainable anymore. On the subject of trash, there was an initiative to clean the beaches in Sal Rei that gathered around 40 people for a whole morning patrolling the beaches cleaning rubbish. More initiatives on other locations are being planned. Children were also involved in these activities and had their own as well! On the beach of Diante we organised a Turtle Fair with plenty to do, all while creating awareness for Turtle Conservations. There was music, animation, stencilled t-shirts, expositions, quizzes, sand sculpture competition and badges. The kids also made a turtle out of bottle caps that sits now at the Turtle Foundation Office. Last but not least, painting activities!



The children joined a painting workshop during 3 days in Sal Rei. About 17 kids joined the workshop given by 2 designers and learned a few painting techniques: contrast and colour mixture, stencils, wall painting and t-shirts! All this working alone or in pairs, showing the importance of friendship and team work. After the workshop the children used what they learned to paint a mural at Sal Rei's square, showing we all stand for conservation. All this activities were organised by Turtle Foundation's Community and Education department, with the support of Bios CV, Natura 2000, Associação Varandinha, Protected Areas and Naturália. Photos by: Cintia Lima



Light Study!



Howdy folks!! I'd be the AMAZING, UNBELIEVABLE DEREK!! I am 26 years old, I like ice cream, cake, and more cake, and I don't like beetroots, wood, and a cornucopia of other things. Not only am I the most important person in Turtle Foundation as the DATA COLLECTION SUPERVISOR, but I am also simultaneously working on a research project for my Master's degree during the hatchling season. I am investigating the effect of artificial light on the overall nesting and activity patterns of the adult loggerhead turtles and the orientation of hatchlings. The presence of artificial light has proven to have negative effects on the behavioural patterns of sea turtles, for both adults and hatchlings. Studies have shown that adult turtles tend to favour dark, shadowy locations along their nesting beaches, and areas with artificial light or coastal development have

a reduced rate of nesting attempts. For hatchlings, they rely heavily on visual cues to make their way to the ocean. Their tendency is to crawl away from dark, tall objects, normally associated with dune and vegetation on beaches, and towards flat, brighter areas, which is often the sea on dark beaches.



The purpose of this study is to see how much the light from the hotel, the RIU Touareg, on Lacacão beach has on the behavioural patterns of this population of turtles. For my field work, I have constructed seven circular arenas on Lacacão beach that are exposed to different levels of light intensity from the hotel, its construction site, and the AEB desalination water plant. Once a nest

hatches in the hatchery, I will take the baby turtles to Lacacão, place 10-15 in the center of each arena, and have them crawl for 1.5 to 2 minutes. I mark the spot where they exit the arena, then measure the angle of this location using a compass, located in the center of the arena. My goal is to see how the varying amounts of light affect the hatchling's orientation, as well as compare this year to the light studies done in 2012 and 2013 to see if there are any variations between the years. Along with this light study, I am using the nesting GPS data from 2012 to 2016 to see if the adult turtle's nesting behaviour has changed throughout the hotel's existence. Text by: Derek Aoki

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Volunteer Arrivals:

This month we welcome more volunteers into our camps, with countries such as: Cape Verde, Portugal, UK, Germany, Spain, Switzerland, Italy, and Mexico to be present. It was also a month with a lot of departures. Sadly we can't keep our volunteers forever but we hope to count with them next season!

BOY OR GIRL?



In the animal world, the way a baby turns out boy or girl depends on what species it is. In mammals and birds, the baby's sex is determined by the genes from the parents. If the animal is a reptile, such as our loggerhead turtle, then it is a case of TSD: temperature-dependent sex determination. This means that what makes each egg result into a male or a female is simply its temperature at a specific stage of development. It is around the middle third of the incubation period that magic happens, the eggs buried in the nest will have a set temperature, influenced by several factors such as local climate and how deep they are buried, and also if they are at the bottom of the nest, at the top, or in the middle. At this point in development, very special hormones present in the embryo will react to temperature, setting the gender of the baby. In the case of the loggerhead

turtle, where the nest temperatures range from 26°C to 32°C, eggs at higher temperatures will be females, and eggs at lower temperatures will be males. It is different from species to species. Take for example the Nile crocodile. If the egg is below 31.7°C or above 34.5°C, it will be a female, if it is in between these temperatures, it will be a male. A good ratio of males and females is important but sometimes it will happen that a nest will be all one gender. One can only speculate if the females laying the eggs are aware and decide how deep to bury their eggs but one thing we know for sure, nature always finds a balance...



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