Learning from Experience : A Report from Mexico's Turtle Trip 2000

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On October first at about five in the morning I found myself on a small plane with 15 other students and chaperones. After almost a year of planning, I was finally going. Our group was the Turtle Trippers of 2000. We had researched, planned, raised money, and we, the dedicated students and adults from Moscow High School Environmental Club (in Moscow, Idaho), were finally going to Mexico, the trip offered by the One World Workforce (OWW). (1)

Our Goal: learn about endangered sea turtles.
Our Mission: help the newly laid eggs and hatchlings.
Our Focus: the Olive Ridley Sea Turtle (*Lepidochelys olivacea*).
Our Sight: La Gloria Beach in Jalisco, Mexico.

After landing safely in Puerta Vallerta and doing a bit of sight seeing, our little group traveled three hours south to the gorgeous beach of La Gloria. An immediate orientation and pitching of tents commenced, and in about half an hour we were ready to go. The camp was set up right on the beach with the nursery for the baby turtles out in front. A long clay building with open-air rooms occupied most of camp leaving space for our tents pitched up right in front of it. To the left of the shelter stood a large sink made of stone and a faucet. Out back were the four pieces of rusty tin and some tarp put together to form a space for washing, and on the right about 30 feet away was the outhouse.

For a bit of clarification, conditions were less then comfortable. We were allowed one bucket of water a day to be used at our expense (including for showers). The outhouse was little more then a hole in the ground that stank quite a bit and after doing your business, paper was only allowed to be thrown into a small bin on the side, which you had to burn later. You also had to check for scorpions before sitting down. In fact you had to check for scorpions before doing much of anything. Heat was another issue, as most know who have been to Mexico. Maybe it was not such an issue of heat, but of humidity. No matter what we did, we became covered in sweat.

We soon got to learning about OWW and what we would be doing. Our guides from the organization were named Deb and Heather. The OWW is an organization that sets up conservation programs (like this) in different parts

of the world and then has different groups of people (like us) come and help. Antonio was the head of the camp, a biologist from the University of Guadalajara. While his English was sometimes hard to follow we soon grew to like him. We would be staying there along with the rest of the people at camp: Mexican students who were working for Antonio and helping with his research, a wife of one of the students, her two children, her new born baby, and a volunteer from Great Britain.

We would be working mainly with the olive ridley. Of the eight species of sea turtle left, the olive ridley (*Lepidochelys olivacea*) is the smallest and most abundant. They range from 51 to 75 cm long and weigh from 33 to 43 kg. Living mostly in the northern hemispheres, the olive ridley can be found by Mexico, Costa Rica, Nicaragua, Madras and Orissa States (India). Their favorite places to breed are Mexico and Costa Rica. La Gloria Beach also has other species of turtles, yet these are much less common like the leatherback (*Dermochelys coriacea*), the pacific green (*Chelonia mydas agassizii*), and the hawksbill (*Eretmochelys imbricata*).

When it began to get dark, our anticipation grew. At about 10 in the evening, we would be going out with Antonio and starting to patrol the beaches. Which meant we would walk down the beach for about two hours and then turn around and walk back. Exciting, huh? Not really, the exciting thing was what we were looking for; either tracks of a mother sea turtle, or the actual turtle coming up from the beach to dig out her nest and lay her eggs. Flashlights, long pants, sneakers, bug repellant, canteens, and cameras were put on, applied, or clipped on, and at about 9:30 p.m. we were ready to go.

Our first stop was the nursery to see if any of the baby turtles had hatched out yet. Although I was in the back of the procession, the squeal of joy from my tent friend told me enough. As I pushed my way through, the sudden sight of a tiny baby sea turtle filled my eyes. It was so little, yet already on its mission to the sea, pushing it's way through the sand to where it is biological compass said it should be. I do not know what it is about baby animals, but even the guys began to croon. Antonio swooped down to pick it up, and then plopped it into my hands. The little turtle, or *tortugita* as the Mexicans call them, squirmed in my hands. The flippers were amazingly strong for something so tiny. He was passed around, and more squeals were heard around the nursery as all his brothers and sisters were discovered with the flashlights. These were the olive ridley babies we had heard so much about. They ranged from 34.7-44.6 mm and about 12-22.3 g. These turtles will normally nest from summer to late autumn. Since the sex of the turtle depends on the temperature, usually at the beginning of the season mostly females are born (bias at 32C). The middle of the season is half and

half (at about 30C), and the end goes to the males (bias at 28C). Incubation periods take about 45 days, so it is generally known when the hatchlings will come up.

The problems for hatchlings begin while still eggs. Turtle eggs fetch high prices especially now that they are outlawed. Poachers will patrol beaches looking for turtles about to lay the eggs and then take the eggs for themselves. Millions of eggs yearly are lost this way. Once the *tortugitas* hatch, they have other problems waiting for them. Birds find them as a tasty treat as do larger fish or animals in the sea. Only about 1% of all turtles mature to adulthood. One of our jobs is trying to increase these chances of survival. The first step is patrolling, which began soon after visiting the nursery. Once out our group began to get serious. No flashlights were allowed to be lit as not to scare off any turtles, and any talking was to be with low voices. The pace was very quick, and soon we were drenched with sweat, or at least I was. After about an hour, I began to wonder if we would ever see a turtle. After two, I was so tired I began to wonder if I would even survive to see a turtle if any did come. After three, I was only thinking of my bed and how comfortable it would be right then.

Finally Antonio stopped us, pointing down to the sand. It was so dark I couldn't see a thing, but he led us up farther inland and sure enough there was a giant black outline. A flashlight came on, and there lay an olive ridley mother sea turtle kicking up sand with her hind flippers. Nobody spoke a word as we got in a circle around her. "She has already laid the eggs, now she is trying to hide her nest," says Virginia, our Spanish-speaking chaperone who goes on the trip yearly. The turtle was kicking sand everywhere, shoveling it from right to left. "By the time she is done, even if you watched her lay the eggs, you won't know where the nest is." Sure enough, when the mother turtle made her way back to the ocean, I had no clue as to where the nest was or could be. From all the times my group found a nest or a turtle, only once did we see the whole process of her coming to the beach, digging her nest, and then leaving. It is amazing.

The process of reproducing starts in the ocean when a female and male mate. Then the female will lay her eggs on the shore of a beach. Some years ago, when there were enough turtles, the olive ridley would lay their eggs in *arribabdas*, which is when many hundreds of turtles gather together and nest at the same time on the same beach. This is very uncommon now. Most females will lay eggs on an average of 1.5 times per year, and they do show a habit of returning to the same beach every year. By using her sense of humidity a turtle will find a suitable spot far away enough from the ocean so

the nest does not get flooded, but close enough so that the babies can get to the water once they hatch. Once ready to lay her eggs, she clears the area and then begins to dig a hole in the sand using her hind flippers. She uses the back flippers as scoops and then shovels the sand out. The turtle we saw digging her nest unfortunately did not have one of her hind flippers; this could have been from a shark attack, or any other thing that could happen in the ocean. So we got instructions from our guide to help her. It was amazing to help this animal that normally wouldn't have had a chance to reproduce by simply helping her dig a hole in the ground. The hole is usually about 40-45 cm deep, 15-20 cm wide at the top, and 20-25 cm wide at the bottom. Because of the natural shape of the flippers, it looks like a vase with the bottom scooped out more. When she is done digging, she begins to lay. This is when the turtle will go into a trance, and nothing you could do will bother her. Since we collect the eggs, we had the opportunity of simply reaching our hand out and catching the eggs while she laid them. Because of the trance, the turtle does not even notice that her eggs are being taken. Usual clutch sizes are from 80 to 120 eggs. The eggs are a bit smaller then ping-pong balls and they are not hard but more like leather. They weigh in the range of 30-38 grams. When she is done, she will bury the hole, pat it down, and then start kicking sand around the area to cover the nest up. Then she returns to the sea.

Our job and the camp's efforts were focused on finding these turtles or their nests, and getting to them before poachers do. The camp does have a RV that the people who work there year round use to get up and down the beaches quickly. Once the eggs are collected and counted, they are taken to the nursery. The nursery is a fenced off area on the beach in front of the camp where the eggs are reburied in nests similar to the ones built by their mothers. Dates and numbers are kept straight so that everyone knows when and how many eggs should hatch. Other than patrolling the beaches, we also had nursery duty. Two or three people stayed behind in the nursery and made sure that any turtles that came out would be taken into a box to be released later into the ocean. One nest will yield anywhere from one up to thirty hatchlings. Also once the nest hatches, there is the dirty business of cleaning the nest out. This was my least favorite part of the whole trip. In the middle of the weak, Antonio got all of us together with our latex gloves, and off we went to clean out the nests. When the nest hatches, many of the turtles either do not get up to the surface or the eggs do not fully mature. Many things can cause this: temperature, humidity, what was on a person's hands when collecting the eggs, sometimes even larvae are found in the nests. When cleaning the nest out, you take out all the eggs or dead baby turtles and count them to see how many did not hatch. It is very disgusting to say

the least, and sad that so many baby turtles do not survive. Every now and then though, you find a little turtle that is still alive, and it gives at least a little hope. These turtles need all the hope and help that they can get. While 116 countries have already banned killing turtles or taking egg, every species of sea turtle is still endangered. Loss of habitat, poaching or killing for food and leather, pollution, getting caught in fishermen's nets, and the taking of eggs all contribute to the dwindling numbers. Research is hard because tagging turtles is nearly impossible. Also poachers are a huge problem. Yet what to do? These people are not the scary big guys with guns as many imagine them to be. These are every day people who simply do not have an income but do have a family to feed. While patrolling we even saw some of these people, but did not bother them. Some were young boys; some were old men. In any case, the eggs are money for people who desperately need it.

The OWW is trying very much to help with this problem. They go around the towns in the area to different schools teaching children about sea turtles and why we need to help save them. Hopefully their influence will diminish poaching a lot in future generations, and maybe inspire some people to help out at the camp. There is already a very enthusiastic response to the program. By educating more and more people about the issue, we can eliminate at least some of the friction between the needs of society and the needs of nature, and hopefully get a sea full of turtles back in the process.

On coming home, even though I was dirty, smelly, tired from so much lack of sleep, and overall exhausted, I considered this one of the greatest learning experiences of my life. I not only learned that these past three years of Spanish were not a complete waste, or that it is possible to take a shower with one bucket of water, but a lot about myself. I now knew that I could rough it out and live to tell the tale. I learned that conservation of any animal has a lot more aspects to it then just how to save the animal. I learned Mother Nature is very harsh. I learned that education is the key to helping any animal survive. Maybe most importantly I learned I could do anything if I really wanted to, like helping to save these endangered sea turtles.

1. For more information about the OWW or donation please contact them at: One World Workforce, PO Box 20006, Boulder, CO 80308, USA. TEL/FAX: 1-800-451-9564, 1-303-444-6094. E-mail: lworld@infomagic.com, URL: http://www.wizard.com/1ww/

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