

Progress Report
Field Trip
**Building Capacity for Community-Based Conservation of the Eastern
Pacific Leatherback in Colombia**

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Background of Project:

Eastern Pacific leatherbacks (*Dermochelys coriacea*) have declined by more than 90% in the last two decades (Wallace et al. 2011). Causes are, among others, unintended capture in commercial fishing gear, particularly longlines and gillnets, as well as poaching (Alfaro et al. 2007; Alfaro et al. 2010). The perilous conservation status of leatherbacks in the Pacific requires the identification of unknown nesting beaches and the establishment of community-based conservation projects in these sites, where there is incidence of poaching and bycatch.

Considering the urgent need to understand the region's importance for harboring marine turtle nesting habitat, in 2015 a joint research project was carried out by WWF, in partnership with Center for Environmental Management and Development (CIMAD), Eastern Pacific Hawksbill Initiative (ICAPO) and Panamanian Ministry of Environment (MIAMBIENTE). The project explored some beaches in the Pacific coast for marine turtle nesting activity after conducting community surveys. In late 2017 and the beginning of 2018 with funds provided by USFWS, the same institutions conducted nesting beach assessment and workshops with local organizations and inhabitants.

The project team has identified key nesting sites in Colombia, though the presence of leatherbacks was not confirmed across the region in 2015, the project did find nesting activity of leatherbacks in Colombia in 2017-2018, with support of funding from the MTCF. For this reason, we want to focus a last effort to search for leatherback nesting activity in the beaches where we registered tracks in the last phase. We will build on the primary results and records from the last nesting season.

Note:

Due to the contingency caused by the pandemic, field activities and the project, in general, were delayed for several months. This delay changed the activities initially planned concerning field trips and the training to be implemented. To solve this event, we evaluated which activities were critical within the project's development, and we put an alternate plan in place.

As a first measure, we sent the money to the local community to adapt and construct the artificial hatcheries. Later, a telephone training was given (because the internet in the region is deficient) on the construction of said nurseries.

In October 2020, the government reactivated the flights to Chocó (place of the local communities). Two people from this project team traveled to implement the training and accompany the day and night patrols for 15 days.

* The photographs of this project bear the logo of the environmental brand @juantortugas, made up of biologist Juan Sebastián Ayala (project leader) and Mauro Valencia (audiovisual producer and social media trainer)

Field trip aims:

1. Verify the conditions of the artificial nurseries where sea turtle nests are relocated for their protection
2. Train the local community in theoretical and practical workshops about the protection of sea turtles and the promotion of ecotourism activities that help finance these conservation programs
3. Patrol the beaches of El Valle - Bahía Solano in search of nesting turtles for the relocation of nests in artificial nurseries

Results:

Sea turtle monitoring and training

In conjunction with the Caguama Association, we established three artificial hatcheries, two located in Cuevita beach (Figure 1 and 2) and a third in Almejal beach (Figure 3). The hatcheries protect sea turtle nests from local consumption and facilitate future interaction with visitors that might contribute to this conservation program.

Despite efforts to search for leatherback sea turtles (*Dermochelys coriacea*) on nesting beaches, the local community has found and relocated olive ridley sea turtle nests (*Lepidochelys olivacea*). This species is also in a threatened category (VU-IUCN) and are an object of looting eggs and consuming meat in the region. We will include the complete and processed data in the final report.

We patrolled the beaches with Caguama Association to relocate natural nests and place them into the artificial hatcheries. We tagged sea turtles (Figure 4), recorded body measurements, replied the same deep and width for each relocated nest and, counted eggs (Figure 5) to calculate statistics after the hatchling process.

We also conducted workshops in other local communities from the surrounding area (Figure 6 and 7). In this theoretical experience, we encouraged implementing conservation efforts to protect sea turtles and improve livelihood in those areas through ecotourism activities.

Regarding practical training we exhumed a nest (Figure 8) to gain experience recognizing the procedure, embryo phases, fertile eggs, infertile eggs, and what to do with hatchlings found in the nest (dead or alive). We also encourage children to join this activities to increase local awareness and maybe future conservationist.

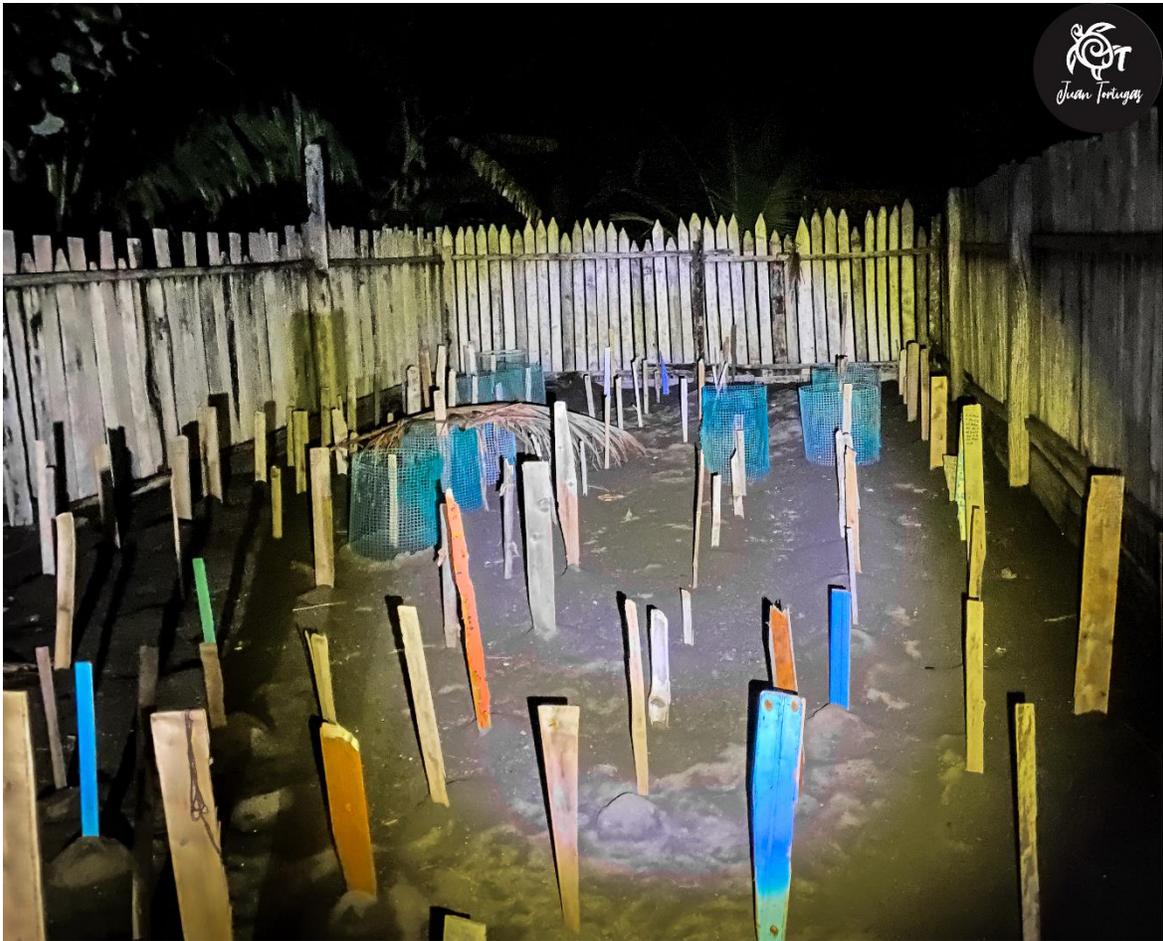


Figure 1. Artificial hatchery to protect sea turtle nests in Cueva beach.

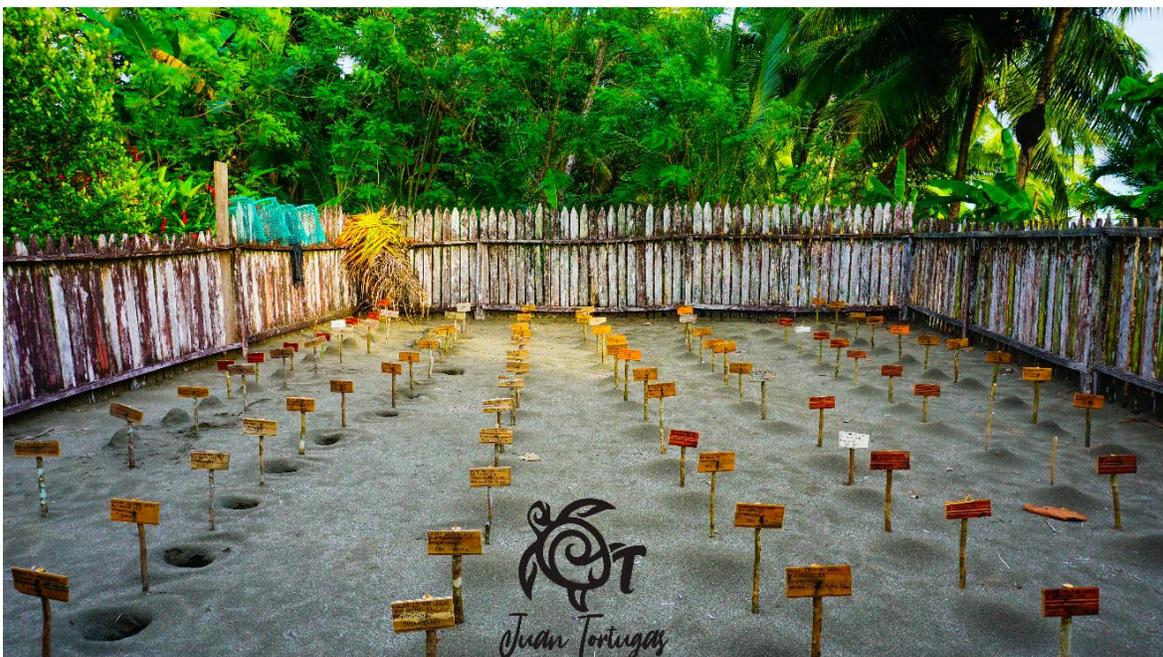


Figure 2. Artificial hatchery to protect sea turtle nests in Cueva beach.



Figure 3. Artificial hatchery to protect sea turtle nests in Cueva beach. The trainer (Juan S. Ayala) demonstrates the best spatial distribution to implement in a reduced area.



Figure 4. Trainer explaining how to tag a sea turtle with inconel tags.



Figure 5. Bag with eggs ready to be transported to the hatchery.



Figure 6. Training workshop implemented in Nuquí Choco, Colombia Pacific.



Figure 7. Training workshop implemented in Nuquí Choco, Colombia Pacific.



Figure 8. Exhuming a nest three days post hatching process.

Virtual Component

We train Caguama Association in social networks. They created and enhanced profiles in Instagram and Facebook, showing activities and different services offered to tourists who were interested in environmental and species conservation. An example was the contribution, sightings, and adoption of sea turtles. It is here where the association gives a special mention to tourists, allowing them to name a protected animal within the conservation program. This process can be seen in the networks (Instagram post <https://www.instagram.com/p/CHOjfnDDaUa/>, Figure 9), as mentioned earlier.



Figure 9. Painting sign in the artificial hatchery.

Interaction with local inhabitants that used to poach sea turtles

During one of the nocturnal monitoring, we encountered an inhabitant of the local community who used to loot the eggs of sea turtles and consumes sea turtle meat. The first impression of the inhabitant was to get angry and say that he had the right to the turtle's eggs. Followed by this, I started a friendly conversation with him; I told him that I only wanted to transfer the eggs to protect the offspring of this animal and understood his situation when wanting to ensure his food and that of their family. Finally, we decided to distribute the eggs 60% for the conservation project with Caguama Association and 40% for him (Figure 10).



Figure 10. Local inhabitant that used to poached sea turtles and project leader after making a deal about the sea turtle eggs.

Acknowledgements

Caguama Association and CIMAD are grateful for the valuable contribution of Rufford Small Grant to this field trip for the conservation of sea turtles in Chocó. In the same way, this contribution have been a fundamental piece for the development of the conservation project that will be explained in the next report.