

# **2024 Report**

## **Sea Turtle Nest Protection Program**



**Green Island Challenge (GIC)**

*2024*

## ***Introduction***

In February 2001, Honduras ratified the only international agreement in the Americas created specifically to address the protection and conservation of sea turtles. Within this framework, the IUCN (International Union for Conservation of Nature) promotes efforts at the national and community levels to meet goals and commitments.

Understanding the ecological importance of sea turtles is crucial, as they are a fundamental element of marine ecosystems, helping to maintain the health of coral reefs and seagrass beds. However, despite their crucial role, sea turtles are threatened by ocean pollution, especially plastic pollution, bycatch, climate change, and the illegal trade in their shells, pushing one of the planet's most long-lived and charismatic animals to the brink of extinction.

According to the IUCN Red List of Threatened Species, six of the seven species of marine turtles are threatened: the green turtle, the hawksbill turtle, the loggerhead turtle, the leatherback turtle, the olive ridley turtle, and the Kemp's ridley turtle. All of these species are found in Latin America and the Caribbean (IUCN, 2024).

Therefore, the Green Island Challenge (GIC), an initiative dedicated to the conservation and protection of Guanaja Island, is committed to protecting these species. This commitment led to the creation of the "Turtle Nest Protection Program," which runs from June to November each year.

The program aims to work with the community to raise environmental awareness and foster a desire to protect ecosystems among island residents. Participants include senior students from local schools, teachers, hunters, security guards, and volunteers from other communities.

GIC understands that constant patrols, nighttime monitoring, and biometric data collection are essential for the conservation of endangered species, as stipulated by the IUCN. These patrols and data collection are carried out with the help of volunteers, while simultaneously implementing an environmental education program to ensure that the collected information reaches all schools on the island, generating a significant impact not only on the fieldwork but also on the schools.

It's important to note that before beginning night patrols, GIC provides training to volunteers involved in the program to show them how to properly collect biometric data from turtles encountered during monitoring, as well as to explain the importance of this data and highlight the ecological significance of sea turtles, especially on Guanaja Island.

## ***General Objective:***

Conduct night patrols with the participation of senior students from schools on Guanaja Island, Bay Islands, to monitor the population of sea turtles that come to nest on the island's beaches.

### ***Specific Objectives:***

- Prevent nest poaching by hunters and locals by ensuring successful hatching in nests identified during night patrols.
- Provide new learning opportunities for the program's young volunteers, actively raising environmental awareness for the protection and conservation of sea turtles.
- Engage senior students from the island's schools to help them understand the ecological importance of sea turtles.
- Working together with the Guanaja community to promote environmental education, ultimately transforming current hunters into resource guardians.

### ***Background***

Three species of turtles come to Guanaja to lay their eggs: *Eretmochelys imbricata* (Hawksbill Turtle), which is critically endangered; *Chelonia mydas* (Green Turtle), categorized as endangered; and *Caretta caretta* (Loggerhead sea turtle), also classified as endangered by the IUCN.

Reaffirming IUCN recommendations, the first night patrols began in 2018, organized by the community with the support of generous individuals who provided boats and fuel. A total of 26 nests were documented, of which 3 were unviable and 2 were poached. Approximately 4,000 hatchlings reached the sea.

In 2019, patrols were expanded and the participation of former poachers increased, with a stipend added through new donations. None of the 20 recorded nests were poached, although one was lost due to an ant infestation. That year, more than 3,000 hatchlings successfully reached the sea. In 2020, 37 nests were counted, two of which were lost to poaching, three were non-viable, and around 6,000 hatchlings reached the sea.

### ***Justification***

Unlike Roatán and Utila, Guanaja Island lacks significant tourism revenue, and its economy is based primarily on fishing, illegal wildlife trade, agriculture, and livestock. Despite being surrounded by the Bay Islands Marine Park, a protected area, the Honduran government's conservation efforts, particularly for sea turtles, are minimal.

Since its inception in 2018, GIC has trained the community in the protection of sea turtles, especially those that come to nest on the island, to ensure future generations of turtles. Community involvement in these projects is essential, considering the ecological importance of sea turtles for seagrass beds and coral reefs.

Protecting these species can have a positive impact on the local economy through the development of ecotourism, including turtle nesting, which can become an important source of income for local communities. Furthermore, protecting turtles helps maintain the health of marine ecosystems, which are crucial for fishing and other marine-related economic activities.

### *Activities*

#### **Beach cleaning**

- It was done Beach cleanups (West End, East End, Marrows Bay, Nolan Bay, East End Point) to prepare sea turtle nesting sites and allow them to nest freely in the sand. Beach cleanups also make it easier to identify footprints in the sand.
- Plastics, glass, dried seagrass, and other debris such as shoes, toys, and buoys will be removed.

#### **2. Training on Sea Turtle Monitoring**

- The training was led by Dr. Stephen Dumbor of Loma Linda University in California and our GIC staff. Students and volunteers will learn how to collect biometric data (measuring turtle carapace length and width) and how to tag sea turtles. An introductory session on sea turtle conservation and protection was also included, focusing on the species that nest in Guanaja.

#### **3. Monitoring with senior students from the Brisas del Mitch Savannah Bight and Mangrove Bight communities.**

- Night patrols were conducted with senior students to engage in conservation and species protection on the island. These patrols reinforce environmental education taught in schools and spark curiosity about science and the environment.

#### **4. Monitoring with GIC staff**

- Continuous monitoring was conducted with GIC staff and community volunteers at various locations. These patrols aim to identify turtle nesting sites and prevent poachers from plundering nests or hunting sea turtles.

#### **5. Exhumation of damaged nests**

- Damaged nests were exhumed to assess the extent of the damage, viable eggs were counted, and the total number of eggs laid was also recorded.

### *Activity schedule*

- **May-June:** Training on proper turtle handling and data collection.
- **July** Night patrols and educational programs begin to prepare volunteers for monitoring.
- **June to October** Night patrols are conducted every night from 5:30 p.m. to 1:00 a.m. Data sheets are completed for all tracks (false crawl, half-moon, true nest, etc.), and all nesting



turtles are tagged and measured. Educational programs continue in schools, and student volunteers are sent to East and West End beaches.

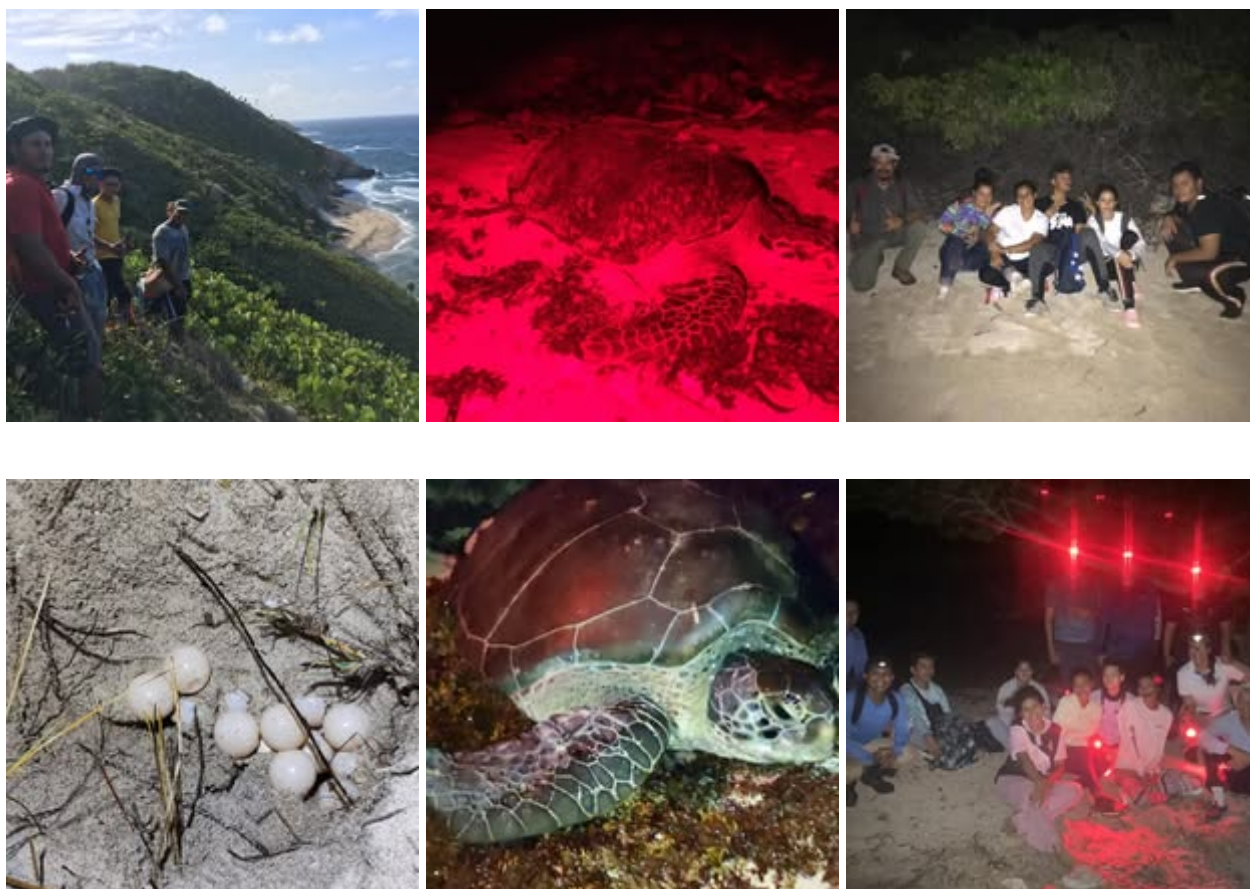
- **October-November** Final weeks of patrols. Data is collected and entered into an Excel spreadsheet, maps are generated, and a final report is written.

### Turtle photos

#### Beach cleaning



#### Night monitoring with school students



#### Monitoring with students



Nests

