

JAMES RENNIE BEQUEST

REPORT ON EXPEDITION / PROJECT / CONFERENCE

**Expedition/Project/
Conference Title:** Analysis and comparison of the abundance of Spiny Lobster, Panulirus argus, in living and degraded coral reef habitats in Tela Bay, Honduras

Travel Dates: 27th June-8th August

Location: Tela Bay, Honduras

Group member(s): Vasudha Saraogi

Aims: To act as a research assistant for Operation Wallacea in Honduras.

OUTCOME (not less than 300 words):-

The aim of my six weeks' expedition was to assist Operation Wallacea on their research on the Caribbean Spiny Lobsters. The first week was spent getting my beginners open water PADI license. The second week was spent on a crash course on the ecology of the Caribbean and fish, coral and algae dissertation. The rest of the weeks were spent on data collection in the reefs of Honduras. The research was based on the data collection for the following criterias:

1. Assess the population of spiny lobsters in living and degraded coral reef habitat.
2. Identify the food sources in both habitats and assess its importance for spiny lobster population
3. Determine if the population is denser in living coral reefs than degraded coral reefs in Tela Bay due to food availability or predation pressures.

Study Site

The entire expedition took place in the Tela Bay region of Honduras. Little information is available about the shallow continental shelf north of the Honduran. The coral reef in this region is a newly discovered coral reef system called the Banco Capiro which is located off the north coast of Honduras in Tela Bay.

Data Collection

2 kinds of reefs were studied off the shore of Honduras: Ensanada (degraded patch of reef) and Banco Capiro (healthy patch of reef). Two different kinds of data were collected: one for abundance and one of coral reef diversity. Transects and photographs were used to calculate the lobster population and the coral diversity. This was done in three different locations of nine sites in the two reef systems. Along with lobster population, site preference of the lobsters was

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analysed. This was done by actively searching for lobsters and their aggregation and lying down the quadrat and taking a video. For the data processing, I learnt three new softwares: Agisoft Photoscan, Rhinoceros and Coral Point Count.

The entire duration of actual research and diving was for 4 weeks. It was a fun and educational experience as it helps me to develop my skills as a researcher and learn more about the marine ecology. I got to pursue my life long dream of diving which would not have been possible without the help of the funding provided. I hope to build these skills and use it in the future as a budding ecologist for marine conservation.