

JAMES RENNIE BEQUEST

REPORT ON EXPEDITION/PROJECT/CONFERENCE

**Expedition/Project/
Conference Title:** Conservation expedition with Operation Wallacea

Travel Dates: 14.06 – 29.07.2014

Location: Mexico, Yucatan Peninsula

Group member(s): Karolina Maria Czechowska

Aims: Assisting in wildlife conservation research of tropical
rainforest and of coral reef on Yucatan Peninsula

OUTCOME (not less than 300 words):-

This summer I spent 6 weeks in Mexico with Operation Wallacea; 3 weeks in the Mayan Jungle in the Calakmul Biosphere Reserve and 3 weeks on marine site by the Caribbean Sea. It was an amazing experience. I have seen for the first time ecosystems of tropical rainforest and of coral reef, I have learnt a range of biodiversity sampling techniques and learnt how to scuba dive, that was necessary for performing underwater reef ecology surveys. I met academics and students from all around the globe, and the local people from Mexico. We were working all together contributing to saving these rich Mexican ecosystems. I used the funds from the James Rennie Bequest toward my travel expenses.

My first week in the jungle was spent in the main camp, Km20, where I completed the forest ecology course. Through the series of lectures accompanied with practical sessions I learnt about the abundance and diversity of species living in the Mexican rainforest, and also about the species endemic to the Calakmul Reserve. I was introduced to species surveying and habitat monitoring as well as to data entry and analysis. Together with all other research assistants, we were joining every day different scientific teams to try ourselves in different fields; large mammals tracking, looking for reptiles and amphibians, bird mist netting and point counting, bat mist netting, forest structure and habitat assessment, as well as butterfly trapping.

The second week, I moved to La Mancalona camp. The living conditions and humidity were even harsher than in the main camp, but we all get use to them quickly. In La Mancalona, we were conducting the same surveys. After gaining experience and knowledge in different fields of conservation, I could choose what surveys I would like to conduct. I split most of my time between bird and bat monitoring. Bird surveys included point counting and early morning as well as afternoon mist netting. Bat surveys were carried out only after the dusk; these were mist nets. After catching an individual (bird or bat) we identified the species and sex if possible (birds are sometimes hard to state), reproductive status, then measured and weighed it, finally marked with nail polish on lower limb and released. Except for these surveys, I was still taking part in habitat, mammal and herpetofauna monitoring. The forest coverage and diversity data gathered by us in the reserve will be used to determine the efficiency of the ecological management strategies, which were already implemented in the region.

JAMES RENNIE BEQUEST



For the third week of my expedition, as the only one from the research assistant group I came back to Km20 camp to study spider monkeys. This is additional study carried out by Operation Wallacea outside its ecosystem monitoring tasks. I joined the spider monkey team to try myself in the behavioural research. Together with two dissertation students and our two local guides, we were crossing transects and the thick Mayan jungle to find monkeys. Then we were following them and writing down each five minute what they were doing; foraging, moving, playing, kissing, embracing, fighting, etc. The data obtained from this annual study will help us understand the complicated relations in spider monkeys about which we still do not know a lot.

The fourth week started my marine part of the expedition in Akumal, the town which is quickly becoming a very popular touristic resort. That week I got my PADI Open Water certification so I could perform underwater surveys after that. The fifth week I spent on taking the Caribbean Reef Ecology Course. I was introduced to the key topics of coral reef biology and ecology as well as identification and taxonomy of algae, coral, invertebrate and vertebrate key species.

After passing the course exam, I became officially a marine research assistant and I could take part in data collection. Till the end of my expedition, I was carrying out underwater surveys about sea urchins, young corals, sea grass, fish and benthic diversity. Besides, we were carrying out the invasive lion fish counts and occasionally hunting for them. Moreover, I took part in a night sea turtle (all three species abundant in Akumal: loggerheads, green and hawksbill) observation. We were looking for nesting turtles and when we found them, we made measurements of the nest and then mark it with a date so none destroys it and so we know approximately when the hatching will start so Wallacea people can accompany it. The aim of Operation Wallacea is to determine the carrying capacity of tourism in Akumal to make sure the sensitive ecosystem is protected and sustainable income made possible for locals. This way, all the data we collected will be used to determine the impact of tourism

JAMES RENNIE BEQUEST

and water quality on coral reef system and to assess the importance of Akumal beaches and sea grasses for sea turtle populations there. During my marine expedition, I realised I am really interested in marine biology and conservation, and I would like to gain more knowledge in this field.



In overall, my research expedition with Operation Wallacea was an unforgettable experience and supplied me with a lot of knowledge about the wildlife conservation and field work in real life. Now, I have a better idea of what conservation is and that gave me some guidance of what I would like to do in the future. I would like to thank the James Rennie Bequest for their funding which allowed me to take part in conservation project and contribute to saving of rich reserves of Mexico.