

Coral and Coastal Ecology of Seychelles

Jakawan Hoareau, a warden for the Cousin Island Special Reserve in the Seychelles, participated in the *Coral and Coastal Ecology of the Seychelles* project from the 3rd-15th December 2010. Here he tells of his experiences on the expedition and as a part of Earthwatch's Capacity Development Programme:

Going through the various documents sent by Earthwatch, there were a lot of expectations that built up before attending the expedition. Firstly, after finding out that the course will take place on Curieuse, I came to realize that this would be a great opportunity for me to explore the island more and learn more about its ecology and geology. My second expectation was that I would be able to maximize my understanding of Seychelles' coastal ecology: especially about the various fauna in existence; and not just their names but also their specific characteristics, their special features and tips of how to better identify them. Lastly, going to the expedition, I was expecting to develop networking with other people. I saw this as a good opportunity to get to know other people in conservation, share our interests, and discuss means and ways of how we tackle the obstacles we encounter in our daily work, and hopefully maintain the contact to promote exchanges in the future.

My overall experience of the expedition was an excellent one. All my expectations were met and I acquired more than I was anticipating. During the training I learnt not only the objectives of the expedition but also about other issues circulating conservation, worldwide. For example, I learned that Chagos Island is now the biggest M.P.A (Marine Protected Area) in the world, as well as how important Antarctica is for research – it's known to be the 'archive of the Earth'!

Focusing on the training itself: the expedition aim was to carry out baseline surveys around Curieuse island/ Marine Park (and other specific locations). Even though the Project title is



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Jakawan and other participants identifying a sea cucumber

conservation groups on how to map out the richness and diversity of the present fauna in all the selected habitats and sites. This will cultivate better understanding of the importance of the

'Coral and Coastal Ecology of the Seychelles', this expedition was targeting only specific faunas in the intertidal zones. These animals are the invertebrates: worms, sea snails-gastropod molluscs, clams-bivalve molluscs, crabs- decapod crustaceans, sea cucumber- Holothurian echinoderms, and sea stars-echinoderms. Previous Earthwatch expeditions dealt with the coral part of the project.

The purpose of the expedition was to train individuals working in

coastal habitats of the Seychelles. In return, the data generated can be used in the future by local communities, conservation organizations and the Seychelles government for effective management of these areas.



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Conducting a baseline survey on the upper shore

habitat targeted. The mangroves and the 'wall' on Curieuse Island were the other locations the expedition did the species identification. Finally, from the data collected we were explained how to analyse them using different methods.

Curieuse Island was not the only location for the survey. Coco Island/ Marine Park, La Digue Island and specific sites on Praslin were also targeted. The survey on Coco Island was carried out to see if there were any similarities between the fauna found on Curieuse and those on Coco. The La Digue survey took place in front of the newly built hotel 'Orangerie' to assess the impact of the development and constructions taking place at that location. Plus, two more sites were selected on La Digue, serving as controls in order to give weight to the survey. On Praslin, three locations were nominated: in front of the newly built hotel 'Raffle' at Anse Boudin, at Anse Possession (the control) and lastly in front of the hotel of 'La Reserve'. Again, it was carried out to assess the impact of the development made by the construction of the 'Raffle' hotel.

The overview of the training was to select specific sites around Curieuse Island, set out transects, and using the quadrats, identify all the targeted species and make a record of the amount found along the 3 shore heights (upper shore, middle shore and lower shore). All the work was done in accordance with the tide. As the tide went down, we moved with it until reaching the lower shore and the opposite happened as the tide movement went up. The team was equipped with guides, containing pictures of the targeted species which were used as a reference. Any species which could not be identified in the field were photographed. Once the tide had completely come in, the fieldwork was paused.

The second part of the training was identification of unknown species and data entry. Any unknown species from the field were identified by referring to different books and digital media, and any uncertain ones were sent, by email, to experts around the world so they could be identified. All the data collected in the field were entered and updated in the database using Microsoft Excel. The shorelines were not the only

The expedition was successful due to the team that participated. There were a mixture of participants of different fields of work, backgrounds, experiences, cultures and nationalities. It was a very dynamic group. The lead scientists, Dr. David Barnes and Dr. Daniel Smales, were professionals and they knew exactly what they came to do and how to do it. They were always keen to share their knowledge they have about conservation. The surveys were generally exhausting but there was a certain degree of flexibility which gave all the team members the motivation to carry on. Every evening there were presentations given by each participating member. This was the time to discover more about your colleague's professions and vice versa. The presentations stimulated discussions and debates and every evening I was learning something new. After my 13 days with the team I was able to come to the conclusion that I did not learn only the objectives of the expedition but many more bits and pieces of useful and interesting information regarding nature, monitoring, environment and conservation.



Species identification and date entry in the field

On the day of departure, the Earthwatch team visited Cousin Island. I was the one doing the tour. They were impressed with the work taking place on the Special Reserve.

The training has provided me with new insight of how to see things. I was more aware of the more visible creatures in our environment such as the Tropicbirds and Shearwaters but failed to focus on the smaller beings which serve equal (or maybe even more) importance in our colourful ecosystem. I would very much like to share the skills and knowledge I have required with my other work colleagues. After coming back from the expedition, I gave a presentation of my training and it was clear that some staff were very keen to learn. Furthermore, I believe doing a baseline survey on the shore of Cousin Island will give us a more accurate comprehension of the status of the marine zone. However, such a survey needs proper organisation and planning.

Before I conclude, I will take this opportunity to express gratitude to Dr. David Barnes and Dr. Daniel Smales for their patience and devotion for training us. Secondly, I would also thank Earthwatch Institute for organizing such projects; they really benefit various individuals and organisations. A greater appreciation goes to Nature Seychelles for selecting me to attend the training and represent the organisation.