Operation Wallacea, July – August 2009

Introduction

At the beginning of July this year, I travelled to Indonesia to work as a volunteer on conservation projects in the Wallacea region. I did this through Operation Wallacea, who run terrestrial and marine expeditions in 7 locations around the world. I had planned to spend 4 weeks in the terrestrial base on Buton Island, off south-east Sulawesi followed by 2 weeks on the marine base on Hoga Island which was a tiny uninhabited island when they set up the research centre there 15 years ago.

Map of South East Sulawesi showing Buton Island and Hoga Island

Travelling to La Bundo Bundo

It took 4 days travelling to arrive at the jungle site as it is very remote, and when we arrived we were shown to our houses. We lived with locals in the small village of La Bundo Bundo which is found about 3 hours along the only main road around the island from the main port of Bau-Bau (Bau-Bau literally means smells in Indonesian as it used to be a port for the Dutch spice trade).

The Terrestrial Base (La Bundo Bundo)

Our accommodation was very simple; while most people's houses were wooden and on stilts, the house I stayed in was made of bricks and mortar with a tin roof and one electric light. The bathroom, called a mandi, consisted of a simple squat loo and a large basin of water with a scoop to wash ourselves with. This was often a welcome relief to the sticky, humid 32 degree heat that was normal everyday.

The village of La Bundo Bundo

It was compulsory to spend the first week in the jungle undergoing jungle training to get used to the new environment, and to get to know our peers who we would be working with for the next few weeks. This meant that we had 2 nights in the village before we re-packed our bags and set off in a cattle truck towards the beginning of our first hike, 45 minutes drive away. The first walk started off with incredibly easy, flat terrain as we made our way through endless and beautiful paddy fields. It soon got more difficult, and when we stopped for our first break after an hour of walking it looked as though everyone had just stepped out of a shower. The

Setting off on Jungle Training

humidity meant that the sweat stayed on our skin and was soaked into our clothes.

It was a huge relief when we arrived at camp one after another hour of walking. We had a quick cup of tea to rejuvenate ourselves, and then we were shown how to set up our hammocks, bashas and mosquito nets, in which we would be sleeping for the next 4 nights. After the camp was set up and our fires were going, we were shown the toilet – a long drop – and our shower which was a fast flowing small waterfall that was extremely refreshing and a lot of fun. We spent 2 nights in the first camp, learning how to cook for ourselves and boil the river water to drink safely (that was particularly difficult as ash kept dropping into the pan). In our teams, we also had to perform an orienteering challenge. We were led through the forest around the camp by one of the local guides while we noted our bearing with a compass and then we had to draw a map of our route when we arrived back. Our map didn't quite match up, but we still came 3rd and won a batch of clean water – a luxury! It was dry the whole time we stayed at camp one, but on the morning that we packed up to leave for camp two, it rained non-stop. This meant that wet hammocks and bashas were packed into our rucksacks and we set off on a very steep path that was now just a mud slide. Most of that walk was done on our backsides!

Bashas and Hammocks

We finally made it to camp two, with some of the guides carrying up to 3 big rucksacks for people who found it too difficult. We were faced with our first challenge pretty quickly; we had to build our own shelter using only natural materials and sleep the whole night in it. Our team promptly rose to the challenge and started constructing a magnificent shelter when a local guide came and chopped the whole thing down with a parang (the local machete). We were feeling a bit low, but then he started to silently help us build an even bigger and better shelter – he knew what he was doing much better we did. We used small trees that had been cut down previously for the main structure, and a local leaf plant called rattan for the roof. Rattan is a type of palm and has similar leaves to tall palm trees, which split exactly down the middle so were very useful for tying together to make a thick roof. Rattan is also used as rope to tie the main structure together and hold it steady. We were very grateful to the guide, as we had won the shelter challenge and therefore had our entire

Making our winning shelter with our guide

dinner cooked for us by our guides. This dinner consisted of rice, soup and omelettes. I then had quite a sleepless night as I listened to the pouring rain (we stayed dry though), and tried to get comfy on my sack which was my bed that night. The rain continued through to the morning and the morning walk when we collected edible foods from the forest, and through breakfast. It stopped in time for us to set off for our walk to camp three, and our final night in the jungle (that week).

All of us at camp 3 tired and muddy.

The walk to camp three was easier than the previous hike and we arrived there in an hour and a half. The last night in the jungle was dominated by a raucous sing song around the campfire, before everyone ran off to the hammocks as the rain began to pour again. In the morning, my hammock was just a puddle, but it didn't matter as we were setting off for the final walk home, back to the village which, by then seemed like luxury.

With jungle training out of the way, we were allowed to pick what we wanted to do each week after all the scientists on site told us about their projects and how many volunteers they would like to help. I chose to do the culture course in the second week. This involved learning some of the local language, which was very useful around the village. We also travelled to the nearby village Lawele to go to the market and walk around the paddy fields. The paddy fields were particularly interesting as we learned about production and transportation of rice. From Lawele, we got a canoe ride to a nearby Bajo village (a village on stilts in the middle of the sea) and met the chief who was fascinated with how tall and pale we were! On the last day of the culture course we walked an hour to the nearest beach and went fishing. Only two of us caught anything, I caught a small yellow damsel fish that jumped out of my hands as soon as I had got it in the boat.

Me at the nearby Bajo village

a Civet

After my relatively easy week doing the culture course, I volunteered to on the Fig Wasp project. The aim of this project was to learn more about the obligate symbiotic relationship that occurs between figs and fig wasps in the Wallacea region. Wasps are the only pollinators of the figs, while the wasp offspring can only develop within the fig flowers. This is an incredibly partner specific system, and it is estimated that there are 10,000 species of fig wasps surviving in tropical environments in all continents around the world. The project involved collecting figs from the forest, hatching the fig wasps, and identifying them into functional groups (pollinators, herbivores, parasites). I enjoyed helping with this

project, although it was difficult to help with the lab work too much as it was extremely specific.

The next three days I spent assisting dissertation students on the Civet project. The civet is possibly Lambusango Forest's only mammalian predator. Over 6 years, a unique picture of civet ecology has been built up, and this project was in place to continue that work and examine the effects of habitat and food resources on civet spatial ecology. I mainly helped to collect data for habitat surveys, and assisted one day in the measuring of captured civets. The civets were captured in traps using fish as bait, and were knocked out using Ketamine (used as a horse tranquiliser here in the UK). I was lucky enough to help in the capture of the largest civet known in the Lambusango Forset, weighing in at 4.4kg.

I spent the final day of the third week doing a canopy access course, where I learnt how to safely climb up a 42m fig tree using ropes. It was a great experience that allowed me to see the canopy from a much clearer angle. I saw many different lizards and a beautiful display by Hornbills.

A Goshawk that we caught in the misnets at Camp Anoa

The fourth week I opted to spend in the jungle at a node camp, where I assisted on the bird project. It took a 5 hour uphill hike to get to the camp and we spent 5 nights there. For the bird project we had to be up between 4-4.30am every morning so that we could have breakfast and be at the start of the transect by 6am to begin the first of the 10 minute point counts. The point count happened at every 150m, and during it every bird call that can be identified was written down, along with the estimated distance to the source of that call. Habitat surveys were done at the site of each point count so that habitat associations could be formed. We were usually back at camp by about 9.30-10am. During that week I learnt to Identify over 10 species of birds by their calls, including hornbills (nicknamed jungle dogs as their call sounds like a bark), several different species of pigeons and parrots, cuckoo shrikes, sun birds and more.

Travelling to Hoga

After another party night, and a very sad farewell to our fellow volunteers and guides a group of us left for Hoga. The journey was very long and tiring; a 3 hour bumpy bus ride to Bau-Bau, followed by a 15 hour overnight trip in a very rocky slave ship. The discomfort was worth it, however, when we arrived at Hoga just after sunrise, picked up by little motor boats from where the slave ship that we were on was moored just off the reef.

The Marine Base (Hoga)

The island is a tiny corallite island located in the middle of the Wakatobi National Park. The Hoga Island Marine Research Station is the most active of its kind

The dive base on Hoga

within the area. Our accommodation was small beach front huts which are rented off the locals by OpWall, and house 2 students each.

I spent my first week on Hoga doing my PADI Open Water diving course. Once I completed this, I was a qualified diver, able to dive to a max depth of 18m. This was an incredible introduction to the reef as we did all our dives in the sea, even the confined dives, because there was no swimming pool.

An Angel Fish

Having spent the first week looking at the reef and fish, I was desperate to learn more about it. I managed to do this by taking the compulsory Reef Ecology course which all volunteers and students are required to do before helping with any research. This involved learning about the local invertebrates, algae, fish and corals. It was an incredible amount to learn, and we had to obtain 80% or more average over the 3 tests to pass, but it was so interesting that everyone did. Unfortunately, I only had 2 weeks on Hoga, so after my Reef Ecology course it was already leaving time, which felt way too soon.

Sunset on front beach – Hoga

<u>Operation Wallacea</u>

Operation Wallacea is a large organisation which works all over the world. It has given me invaluable experience in new areas of science, and of working alongside field scientists and fellow volunteers. The project is very successful. Since starting out, in 1995, they have discovered 21 invertebrates new to science in the terrestrial base, and has had more than 50 peer-reviewed papers published from the marine base. I feel extremely privileged to have been able to participate in their research, and am very grateful to the James Rennie Bequest for their generous contribution.