

Operation Madagascar

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Last summer I volunteered for six weeks in Madagascar as a research assistant with a conservation organisation called Operation Wallacea. I first saw the advertisement for a lecture about their expeditions in the University of Liverpool Guild of Students. I attended to learn more about their trips to conduct research in other countries and decided it was something I was keen to take part in. The only hurdle I could think of was how much money it would cost; however, I had some savings from working over summer and decided to leap at the opportunity to travel to Madagascar since the benefits far outweighed the costs.

Operation Wallacea gave me the opportunity to get a head start in the world of field research and reminded me of the reason why I turn up to my 9am lectures (or try to). Learning about the biodiversity and conservation of various species in the Mahamavo forest and Nosy Be, an island off the northwest of Madagascar, wasn't always easy but was worth every second.

My flight departed from Birmingham on the 13th June. On arrival in Antananarivo, Madagascar, I travelled by taxi to my hotel. The following day we began our journey as a convoy of minibuses to Mahajanga and then transferred to 4x4s for the rough terrain to base camp in Mariarano.

At base camp there was a long house with wooden tables and benches and a generator for electricity, which was only switched on for a few hours a day. Sleeping arrangements were two to a tent beneath the Sifaka (endemic lemurs to the region) inhabited trees. We showered with a bucket of cold water, our bathrooms were long drops, and we ate rice and beans for lunch every day. In spite of these circumstances, it was 100% worth it.

Mist netting in Mariarano was the most interactive survey which studied the distribution of bird species at specific sites in the forest. Huge nets were strung up from bamboo poles in the forest while bird calls were played from speakers in an effort to capture birds of the particular species that the researchers were studying. The nets were checked regularly, and the birds were carefully removed. Taking birds out of the net was a delicate task so we were trained beforehand by Malagasy research staff and observed closely. Often the staff would step in to help if the bird was particularly feisty in order to minimise the stress by making the process quicker as they were very experienced. Measurements such as weight, wing and tail length, as well as tarsus length and diameter were taken and recorded. Certain species had their blood taken for genome sequencing and were given a numbered silver ring. Every captured bird was fitted with a combination of three coloured rings later used to distinguish the individual if recaptured.

Antafiameva was the hottest camp so I took every opportunity available to sleep, in order to avoid the uncomfortable heat in the afternoon. We only spent up to two days there at a time because it was the most off-grid camp. A local boatman, known to us as "the Captain", took us on his boat for several crocodile and wetland bird surveys. During the first crocodile survey, which took place at night, we watched fireflies light up the trees. We hadn't seen anything, and we were on our way back to camp when Randy (an American herpetologist) spotted shining red eyes amongst the mangrove trees. On closer inspection we determined that it was a four-metre-long crocodile, which is pretty huge!

Matsedroy was everyone's favourite campsite. There were numerous reasons for this and to list a few, this included: the beautiful lake, the pancakes for breakfast, scorpion surveys, frog surveys, ghost spiders, and of course the late nights traditional Malagasy dancing around the



Figure 1. Mist netting in Mariarano.

campfire with bottles of Three Horse Beer (a local lager). The most memorable survey was a ghost spider study at Lake 2. Julie (one of the entomologists) picked up a large vibrant red, yellow and blue locust, which crawled from her shoulder onto her face! On the same survey I saw two beautiful Sifakas in the trees as well as tried raw honey from abandoned honeycomb.

Nosy Be was like a different world compared to the forest. It was a tourist island with hotels, resorts and roads. We stayed in a youth hostel with bunk houses, running water and flushing toilets – it was luxury compared to the forest!

“It was the most magical experience.”

Learning to dive involved two sessions in a swimming pool then training sessions in the Indian Ocean. On the boat we set up our buoyancy aids by attaching them to our bottles of air and our regulators. Exercises we were tested on included removing and then putting our weight belts back on underwater, practicing hand symbols that mean things such as “Ok? Ok”, “Out of air”, “Breathe”, “End of dive”, “Share air”, and “Ears not clearing”. We all became qualified open water divers within the first week. I found it very disorientating feeling weightless and being able to spend 50 minutes up to 14 metres underwater. At times I was so excited at the marine life we saw I tried to talk to my dive buddy... then realised no one could hear me as the bubbles erupted out of the regulator in my mouth. The deeper you go below sea level the more light is absorbed so even brightly coloured things seem blue which is why many of the photos I took underwater appear to have a blue filter over the lens.

Although we had real beds, we didn’t have as many opportunities to get involved in research surveys as in the forest. Most of our time was spent with dive masters training to gain our open water qualification. After we were qualified, we weren’t able to lay transects as it takes experienced divers able to maintain neutral buoyancy otherwise the coral could be damaged. However disappointing as this may sound, we learnt a lot about marine life in our lectures including how to identify types of coral and tropical fish which we practiced on our following dives.

Even though Nosy Be was a tougher environment because diving was very tiring, it was the most magical experience. We saw beautiful coral reefs and wonderful



Figure 3. Underwater views at Nosy Tanihely.

creatures including mantis shrimp and lionfish. We went snorkelling at Nosy Tanihely Marine Park and encountered Hawksbill turtles and Moorish idols. Luckily, I had my waterproof camera and was able to capture lots of photos of the marine life. We also got to spend more time relaxing and socialising with sunset walks on the beach, swimming in the sea and a well-deserved pizza night at a small restaurant.

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At the end of the trip, I felt like I had not only gone on a journey of scientific research, but also one of personal growth and discovery. I overcame many fears, such as travelling alone internationally. Escaping the routine of my usual life and settling down into a new one gave me a renewed sense of maturity. The social media purge that resulted from absolutely no internet access and no phone signal was refreshing, and the simple lifestyle in Madagascar inspired me to rethink my priorities.

I made so many lasting memories while in Madagascar and hope to embark on many more research expeditions in the future. I am looking forward to the LIFE 222 Tropical Field Ecology trip to Uganda, an optional module aimed at Zoology students. Personally, I recommend as much travel and new experiences as possible especially when you’re young. I also hope to gain my Advanced Diver qualification on another expedition with Operation Wallacea to Indonesia.

The message I would like to leave you with is a quote from Eleanor Roosevelt: “The future belongs to those who believe in the beauty of their dreams.” ■



Figure 2. Rare ghost spiders found at Lake 2.

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