JAMES RENNIE BEQUEST

REPORT ON EXPEDITION/PROJECT/CONFERENCE

Expedition/Project/ Conference Title: Operation Wallacea Research Assistant

Travel Dates: 30th June – 15th August 2014

Location: Buton and Hoga Island Sulawesi, Indonesia

Group member(s): Abigail Robinson

Aims: To contribute and help out with conservation and research in the national parks of lambasungo rainforest and the Wakatobi marine park.

To receive training in the forest and marine environments, and take part in lectures to increase my knowledge and understanding of conservation and species diversity.

OUTCOME (not less than 300 words):-

Operation Wallacea Indonesia 2014

This summer I was lucky enough to be involved in various biological and conservation research programmes run by Operation Wallacea in Indonesia. Operation Wallacea aims to identify and conserve key biodiversity sites around the world in order to attempt to protect them. Many of these areas, just like Indonesia, are developing countries in which conservation management has not really been applied to vital ecosystems and are therefore becoming increasingly under threat. One greatly important objective of Operation Wallacea is to provide research that can be used to set up schemes in cooperation with local people – who are vital towards coexistence with species – to try and salvage what is left of some ecosystems and assess changes in biodiversity over time.

However, one unique aspect of Operation Wallacea's programme is that university students, like me, are able to volunteer as research assistants for the ecologists, academics and scientists who specialise in various aspects of the ecosystems, as well as anthropological effects and importance to ecosystems.

I spent 6 weeks in Indonesia, in which 3 weeks were dedicated to the forest site in Buton, and 3 weeks on Hoga in the Wakatobi.

During my time in the forest of Lambasungo, I was initially involved in a week of jungle training and biodiversity lectures carried out by various onsite scientists. This was based in the village of Labundo bundo, where all research assistants stayed with a local family. Jungle training involved three days of hiking through the forest to various camps where we slept in hammocks, washed in rivers, and cooked over campfires. The idea of this was to help us to acclimatise to the habitat and teach us about survival in the forest. Once this

week was completed I was referred to as a 'research assistant' and was allowed to pick a project to volunteer on.

I spent my first week volunteering with one of the bat scientists, Nathan Adams. Nathan's work was to ascertain the relationship between forest density and bat echolocation frequency. Also, by recording the echolocation of the bat and identifying the species he was able to match up frequencies with ones already recorded, therefore identifying unknown bats.

My job as a research assistant was to help with the set up and movement of harp traps along transects within the forest, as well as bat detectors. Then in the evening we would go out and check the traps every 30 minutes for bats. Nathan would then process them, measure their wings, sex them, identify the species, and punch a whole in their wing to prevent reprocessing the same captured bat.

The following week I was involved with the Buton Macaque project. Many dissertation students were involved in this project, and their aims were to compare the behaviour of different Macaque groups that live in various different areas of the forest. One troop inhabit Lapargo forest which is not affected by humans whereas the Lambasungo troop spend a lot of time up in the forest, and come down to the plantations and raid for oranges and nuts. One more troop, less used to humans, mainly uses habitats that have become completely plantation, or effected by man in some way. This project involved early mornings that began with a search for the Macaques and thereafter following them wherever they went to the best of our ability. Every ten minutes a scan survey was carried out for two minutes in which social behaviour was recorded and the individual exhibiting the behaviour recorded also. Any aggression that was heard/witnessed in between observations was recorded as well. This data is allowing a behavioural comparison to be made between the three different troops of Macaques in the different habitats. As well as this an assessment of human-macaque conflict can be made, which is crucial towards identifying future species conservation.

After these three weeks I transferred to the marine site where I spent a week learning to dive, followed by a week of Coral reef ecology lectures and dives. I found this week particularly eye opening, especially when it came to ocean habitat destruction, its significance and conservation. Also, the biodiversity lectures from both sites allowed a greater understanding of taxonomic groups and phylogeny, helping me to create a clearer picture in my head of the shear diversity of life in Indonesia, and on Earth.

Due to the fact I had to learn to dive before I could be involved in any research, I was only left with one week in which to become involved in the marine projects. I chose to spend this on the live aboard boat, the Bintang Sedang. Every morning we would do a coral reef check, at different sites around the islands. These reef checks involved transects at five and ten metres deep, both a hundred metres long, that we swam along and recorded the diversity and abundance of the reef, as well as any damage and pollution. This data is then used in a large-scale project that looks at the diversity of various reefs around the world, and how much they are changing from year to year.

I feel like this experience has taught me a lot about species diversity, particularly in the marine site, where I had little knowledge previously. As well as this, I have been introduced to areas of science I can see myself becoming involved in in the future, although it has not made those decisions very easy, I loved everything! However, it gave me the opportunity to learn key field skills which I enjoyed greatly and allowed me to see the whole scientific process from beginning to end, as well as processing data, and the significance of the results to the habitat and future conservation. These are all skills I will never forget, and hope to use in my future career. As well as this I have been able to network with fellow students and work along scientists whom I have learnt a lot from, and hope to work alongside again.

During these six weeks in Indonesia, I felt as if I was instantly seeing the results of my contribution as a research assistant every day. Every time I helped towards collecting data, or even carrying and placing equipment I was doing a service for the scientists who's work has become so crucial. I really do feel like I have done something that will go towards making a difference, no matter how small my part in it was. Also, my contribution through the costs of my trip to Operation Wallacea have, alongside all other contributions, allowed research to be carried out to the extent the scientists want, and this can carry on for years. I think what Operation Wallacea do is quite unique, and very special. Not only the research but also education for students like me, as well as school students and the communities that are learning how to live in coexistence with their fragile environments.

I would like to thank The James Rennie Bequest, MBEC, Adele Beck (Great Glen Ecology) and The Holywood trust for your generous financial support. I hope you feel that your funding was worthwhile, and that you have enjoyed reading about my trip and the work of Operation Wallacea. Please let me know if you would like any more information.

Operation Wallacea website: http://opwall.com/

Some of the many pictures:

My Group heading off for jungle training

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Canopy Access, Strangler fig tree

Hipposideros diadema

Flying Lizard

Tree Frog

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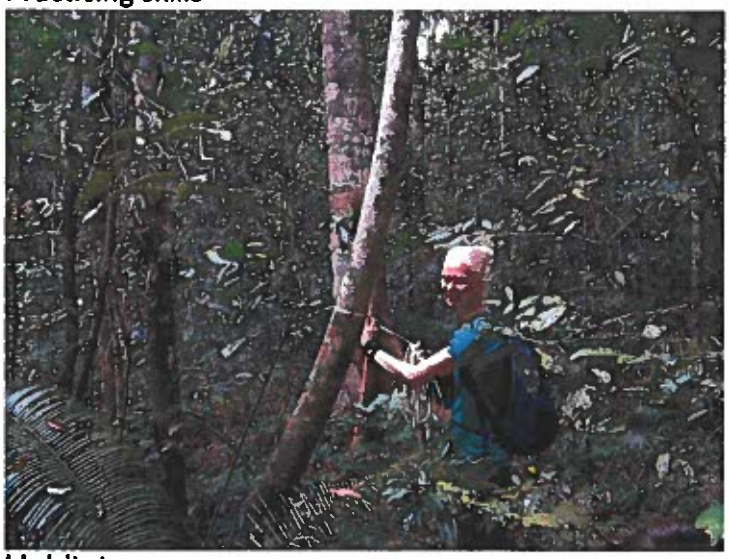
Buton Macaque

Practicing skills



Habitat surveys

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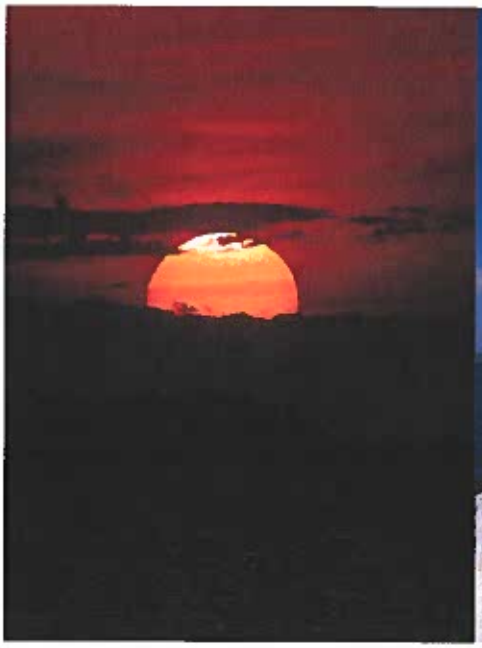
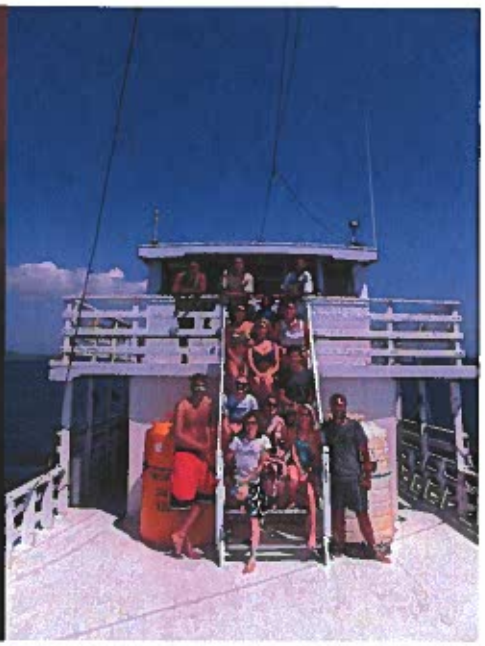


Amazing sunsets



Bintang Sedang team