JAMES RENNIE BEQUEST

REPORT ON EXPEDITION/PROJECT/CONFERENCE

Expedition/Project/ Conference Title:	Expedition to South Africa- Operation Wallacea
Travel Dates:	04/07/14 - 01/08/14
Location:	Thunda Game Reserve and Sodwana Bay, South Africa
Group member(s):	Renat Oosthuizen
Aims:	To gain experience in field research and assist in studying the impact
	of the expansion of elephant populations on other species.

OUTCOME (not less than 300 words):

The money provided by James Rennie Bequest allowed me to pay for travel to South Africa as a part of an Operation Wallacea expedition. Operation Wallacea is a network of academics who design and implement biodiversity and conservation management research programs. The purpose of the research program in South Africa was to monitor the effect that the expanding elephant population in the reserve was having on the environment.

I decided to go on this expedition because I intend to do field research for a living. I have spent the last two years studying for a zoology degree and yet despite this I have had little actual experience in field work. This was an opportunity for me to experience what field work is really like and to find out whether I would actually enjoy it or not.

Upon arrival I spent three weeks at the Thunda Game Reserve followed by a week at Sodwana Bay.

At the Thunda Game Reserve I found myself a part of 10 other university students from across the world who had also volunteered to assist with the research. Our activities were directed by 3 researchers under the employment of Wildlife and Ecological Investments. We stayed at a lodge a short drive outside of the game reserve. As our vehicle could only seat 9 people in addition to the game ranger and the researcher/driver we were with, 2 different people would stay back at the lodge every day to put the previous day's data from paper onto a computer while the rest of us went to the game reserve. The standard schedule for those of us who went to the game reserve consisted of getting up at 5 am so that we could leave at 6 am to perform up to 4 bird point counts followed by up to 2 habitat assessments.

We were also given lectures on a daily basis by one of the researchers on the various aspects of savannah ecology, conservation and elephant impact on ecosystems. Some examples of the things that we were taught include ecological census techniques, how the balance between grassland and forest ecosystems is controlled in African savannahs, how this balance is affected by elephants and what kind of challenges conservation programmes face and how they overcome them. These lectures were occasionally accompanied by discussions on various controversial topics relevant to conservation.

The habitat assessments included things like determining what species of trees and bushes were present, measuring plant biomass and analysing degrees of environmental damage and their types such as elephants, fires and grazing. I thoroughly enjoyed my work at the reserve and I feel like the combination of lectures and practical work has taught me a lot

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about conservation and the different techniques used for environmental analyses. While I was at the game reserve it contained a single group of 22 elephants and our research was showing that they were not currently exceeding the currying capacity of the environment. There were however plans to connect the reserve with another area which contained another group of elephants so continued monitoring will be required. Our research was however showing that a certain species of thorny bushes (*Dichrostachys cinerea*) was becoming worryingly widespread leaving large areas nearly impassable for both, people and large animals as well as significantly limiting the diversity of other flora in the area.

After the habitat assessments we would usually spend a bit of time driving around the reserve looking for various animals, of which we saw plenty. Every single day we would see multiple groups of impalas and giraffes. It was amazing and I feel like I have seen every single large African mammal except for leopards and hippos. We got within touching distance of a herd of buffalo, twice, and we were even lucky enough to see two cheetahs chasing down a group of impala.



On the 4th week of the expedition we travelled to Sodwana Bay where I along with 8 other research volunteers spent the week learning to dive culminating in the acquisition of the PADI Open Water Diver qualification. The other two research volunteers were already qualified divers so they spent the week helping with the identification of marine wildlife. We spent the week living in camping tents. During the first two days we did exercises in the swimming pool and learned all the theory behind diving, we had to do a theory test afterwards. For the rest of the week we dived at the Two Mile Reef where we had to repeat and do some new exercises to demonstrate our competence at diving. We had six dives in the Ocean in total, five practise dives and a single fun dive at the end. Across all our dives we ended up reaching the maximum depth of 16 meters. While at Sodwana Bay we were also given lectures on marine wildlife and ecosystems. This complemented our dives in the Ocean very well as during every dive we were seeing hundreds of different species of fish in addition to corals and other marine wildlife. My personal highlight was seeing a puffer fish though it was only one of the many great moments I had while diving.

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Being a part this expedition has been an amazing experience that I will never forget. It has given me a greater understanding of what field work and conservation is really like and as a result I have been able to make a more informed decision on the career path that I intend to take. It has taught me a lot about savannah and marine ecology and the various aspects of how conservation programmes work and what makes them successful or unsuccessful. Furthermore, it has allowed me to make connections with various researchers from across the world and the acquisition of a diver's qualification will allow me to do underwater marine research in the future. I truly believe that this experience has changed my life and I would like to thank the James Rennie Bequest for giving me the opportunity that allowed this to happen.