

JAMES RENNIE BEQUEST

REPORT ON EXPEDITION/PROJECT/CONFERENCE

Expedition/Project/Conference Title: Operation Wallacea 2010, South Africa & Mozambique.....

Travel Dates: 1st July to 13th August

Location: Nsikazi Concession(S.A)/Intebane Game Reserve(S.A)/Ponta du Malongane(Moz)

Group Member(s): Catherine McNicol

Aims: The terrestrial project in South Africa was to investigate the effects of dropping fences between reserves on habitat and biodiversity in the area.

The aquatic project in Mozambique was to identify impacts on reefs and record changes over time.

OUTCOME (not less than 300 words):-

This summer I travelled to South Africa and Mozambique with an organisation called Operation Wallacea. The aim of the company is to perform biological and social science expeditions that aim to identify and improve areas requiring protection or implementation of conservation programmes.

I was there as a research assistant in two project areas, one based in a terrestrial environment and one at an aquatic site. I began in the Mdluli concession, beside the Numbi Gate into Kruger Park in KwaZulu Natal. My first week was spent here at Nsikazi camp undergoing a course in bush craft training and survival before I moved on to Intebane Game Reserve where I spent the next three weeks performing surveys. I then moved on to Ponta du Malongane in southern Mozambique for 2 weeks where I assisted with reef assessments.

Terrestrial Site: The aim of the project in the area was to investigate the impact of elephants on habitat and biodiversity through the dropping of fences between reserves. We studied three different sites, one which had contained elephants for a long time, one in which elephants were beginning to move into and one which contained no elephants at all. We performed 4 bird point counts at ArcGIS selected areas every morning between the hours of 6 and 8am. In the afternoon we would then return to one site and perform a habitat survey. This would involve constructing transect lines mapping out a 100x100m area where we would then survey 20 5x5m quadrants. We would record grass height and density, the number of perching branches available to birds, the tree species present over 1m tall and their condition. Observations about fire damage and elephant and other herbivore damage would also be made. These tasks were performed every day and we achieved our goal of surveying 21 sites in the time we were there. A total of 63 sites were to be surveyed and the remaining sites were to be assessed by groups following us. Once the project is completed the results will be analysed and correlated to identify areas of impact and to suggest management solutions in the areas. The areas will most likely be surveyed for years to come to observe and investigate the changes to areas over time.

Aquatic Site: The research being done on the reefs at Ponta du Malongane is also a long term project with surveys being done annually. The research was run mainly by Dr Caine Delacy, University of Western Australia. The main aim was to identify the importance of the ecosystems the reefs support (due to the pressure our ever changing environment is putting on them) and observe changes in them over time. Before being allowed to assist with research I had to gain my PADI dive qualification. This took a matter of days and I was then able to help with research. Images of fish communities were recorded on dives then assessed in the computer labs each evening where fish could be accurately counted, identified and measured using the computer programmes available. On each reef, coral quality and cover was also assessed using randomly

places 0.25x0.25m quadrants. Much of the work was done on land using data collected on dives with digital cameras.

Due to the complexity and thoroughness of the research, we were unable to draw any immediate conclusions from the brief amount of work we did, however I am very interested to read about the outcome of this years research and await the reports with great anticipation.

I would very much like to thank the James Rennie Bequest for making this fantastic and eye-opening experience possible for me. I hope that I will be able to return the these beautiful areas in the near future and aid with similar projects which I hope can benefit the environment and all of the organisms it hosts. I feel very privileged to have been part of the work Operation Wallacea has carried out and feel that I have helped in a small way to aid them in their work for a more sustainable, productive environment.