

REPORT ON EXPEDITION/PROJECT/CONFERENCE

**Expedition/Project/
Conference Title:** Operation Wallacea Indonesia 2012 Marine Research

Travel Dates: 18 June to 21 July 2012

Location: Wakatobi Marine National Park, Indonesia

Group member(s): Nicolas Weir

Aims: Acting as a Research Assistant helping PhD students with data collection and analysis

OUTCOME (not less than 300 words):-

**Report for James Rennie Bequest 2012, Operation Wallacea Indonesia, by
Nicolas Weir**

Last summer, between the 18th of June and the 21st of July, I spent 4 weeks working with Operation Wallacea in the Wakatobi Marine National Park in Sulawesi, Indonesia. Operation Wallacea's headquarters in Wakatobi comprises of a marine biology research centre on Hoga Island, a small island in the heart of the park surrounded by numerous coral reef systems. My role during this stay was to act as a research assistant, helping PHD students with their data collection and analysis.



Hoga Island

In order to partake in underwater data collection, I had to obtain my basic PADI scuba diving qualification. This took a week in which I was able to have a first glance at the rich marine life in the area. I was astounded at the health of the coral reef environments and by the ecological biodiversity that surrounded me.



Off diving

The second week of my expedition was spent taking a coral reef ecology course, which taught me the essentials necessary to work as a research assistant. As well as learning about marine ecology, I was taught how to collect data in underwater environments, using transects for efficient data collection in a way that would not harm or disturb the ecology. Furthermore, I was taken to each of the sites that I would be collecting data from. One of these sites was located adjacent to an indigenous community and it was interesting to see that here the coral was not as healthy due to a higher concentration of sediment in the water resulting from anthropogenic activities such as boating, dumping of wastes, and various construction activities. The underwater data collection skills I obtained will continue to be useful to me in the future.



Sanpella, village home to the local indigenous community, who lived entirely off their marine resources

In my third week I began conducting underwater research. Each day I was allocated to a different PHD student to aid them with their data collection. My tasks included setting down grid squares or transects and recording the number and variety of species found, or taking video footage or photos of the reef for later analysis in the computer lab. In the evenings I entered all the data I had collected on to a computer and performed statistical analyses where appropriate. Some of the projects I was involved with included a comparison of reef biodiversity between the village reef and more isolated reefs, an analysis of coral bleaching and its effects on reef biodiversity, and a survey on the crown of thorns starfish.

In my final week I went aboard the Bintang Sedang, Operation Wallacea's research boat that took us around Wakatobi National Park to the different reefs in the national park. In this week we were grouped in to pairs and during our dives we were in charge of conducting a reef check survey, which would be sent to a global database. Reef Check is a charitable organization that uses data collected by volunteers to assess the health of coral reefs around the world. To do this they require a count of certain indicator species along a 100m transect. All in all, reefs in the National Park were in great condition.



The Bintang Sedang

I would like to thank the James Rennie Fund for helping fund this amazing trip. It was a truly great experience from which I have obtained valuable skills and made good friendships.