



mozambique reef expedition

PRELIMINARY REPORT

In this brief Preliminary Report, we attempt to outline the data we collected and what we hope to be able to do with these results in the final report. It does not include any of our actual results, but will give a taster of what to look forward to! We hope to have the full report completed by January 2002.

Location

Cabo Delgado Province, Mozambique. Our base was the Provincial capital, Pemba, and field sites were further north in the commission of the Cabo Delgado Biodiversity and Tourism Project (CDBTP).

Logistics

Dr Heather Hall (ZSL) joined our project for part of the time as scientific supervisor for the coral surveys. Boat hire in northern Mozambique is both difficult and expensive, with a serious lack of boats available. To make it as economic as possible we joined forces with other CDBTP interests, including Dr Julie Garnier (ZSL and the director of CDBTP) and Chris Cox (director CDBTP), Mike Murphree (University of Zimbabwe) who is the Community Co-ordinator for CDBTP, and some of the CDBTP Investors. The sites are two days boat journey from Pemba, and we took all the non-perishable foods and equipment we would need for the duration of our stay. Fresh fish was bought daily off the resident and transient fishermen in the area. Throughout the trip, boat staff were employed as part of an economic input into the province, which included two cooks, boat owner, captain, and deck hand. These people were very helpful and fantastic to be working with, and hugely helped our efforts. We contributed towards their costs and our part of the non-perishable foods, and a little towards the cost of the boat hire.

Community work

After our introduction to the resident community by Mike Murphree, we carried out a series of interviews with the fishermen and communities. Initially, people were a little wary of us, mainly because they rarely, if ever, see white people. After introductions by Mike and an explanation of our reasons for our visit, they were particularly friendly and helpful to us. It was an honour to work with them, and our friendships with them were greatly enhanced by two of our team speaking Portuguese as their first languages. Very few spoke Portuguese other than the elders and village presidents who translated for us. The predominant languages were Kimwani and Makonde, with a little Swahili. They were very welcoming to the work we were doing, and helped us in every way they could.

The questions were directed at their use of the sea as a resource. Questions were developed beforehand with Heather and Mike to ensure there were no leading questions and they were asked in a suitable way. We obtained information on where they fish, the fishing structure within the communities, the value of fish to them, target species etc. We worked with the men on their boats to determine what fish they were catching, their techniques, effort, catch size, fishing areas and their local names. We worked with the women and children (greatly aided by having a female in the team) seeing their role in the village with respect to fishing.

At all times we needed to bear in mind their religion (Muslim) and respect their customs. We worked with the transient fishermen as well, but to a lesser extent.

Coral surveys

Under Heather's guidance we carried out habitat and fish snorkelling surveys on the inner reefs round one of the islands in the CDBTP commission at 2km intervals. Fish were identified to family and their size was recorded over a 50 meter transect. A species list was produced. Detailed habitat surveys were line intercept transects (20meters), and rough habitat surveys were 500meter swims out from the beach, recording the percentage of general habitat (eg sand, hard coral, dead coral etc).

From these results we can get a general picture of the reef surrounding the island, the state of the reef (any damage from fishing and bleaching etc), potential areas of interest for guided tourist snorkels, and set up monitoring sites for future. We can obtain a general picture of the fish family diversity around the island, and attempt to relate some fish families and sizes to certain habitats. We can also use information on some of the indicator families, such as butterflyfish (Chaetodontidae). Unfortunately we observed large areas of heavy bleaching (believed to be from 1997/1998 bleaching events) in the shallow areas. There was no sign of Crown-of-Thorns Starfish, and little sign of destructive fishing techniques. However, there is building pressure from transient fishermen from Tanzania and other parts of Mozambique, who more and more frequently are coming to fish around the island, sometimes employing destructive techniques.

Other wildlife

Information for this section was taken from direct observations and interviews with fishermen and villagers. This way we obtained information on turtles that nested in the area, observations of humpback whales and 3 species of dolphin, and information on a surprisingly large population of dugongs. We also collected information on lobster, and what the resident and transient fishermen did with these species. This information is very important to the project as one of the first things that must be done is to protect the turtles and dugongs and other endangered species, and to work with the resident people to help protect them. In one day we observed 3 turtle tracks up the beach to laying sites. All the nests had been dug up. Later that evening we were offered turtle eggs!

Final Report

The final report shall be written up in conjunction with Heather, analysing all the above information and data we collected. The main aim at the end of the report will be to identify priority areas for future work by CDBTP and to make recommendations. This is a fantastic project and we are very lucky to be involved. There cannot be many areas left in the world quite like it, so beautiful and (at present) so unspoilt. There are already outside pressures building on the area. CDBTP, with the help of the experts they have employed and people like us to carry out the required research, should enable the inevitable development of the area, whilst minimising the impact on the culture and environment.

Finally, we should like to thank our sponsors for enabling this project to take place and for their fantastic and vital contributions. We look forward to passing on our final report in due course.