

## Project Update: January 2016

### Purchase of Research Equipment

In the first months of the project we purchased the following equipment which are being used for research and community outreach.

- Epson LCD Projector EB-S18
- Books
  - South Pacific Reef Plants, Littler and Littler.
  - Marine Plants of Tanzania, Oliveira Eurico, Osterlund Katrin and Mtolera Matern.
  - Ecological Models and Data in R, Benjamin m Bolker.
  - A Handbook of Statistical Analyses using R Torsten Hothorn and Brian S Everitt.
  - Statistics for Ecologists Using R and Excel, Data Collection, Exploration, Analysis and Presentation Mark Gardener.
  - Biology of rocky shores
- Temperature/light loggers
- GPS unit
- Transect tapes and quadrats

### Research Activities

We have started the research and monitoring part of the project. Three research topics that we are investigating in this phase are: (i) the species composition and population structure of the corals of the intertidal area; (ii) population size structure and ecology of *Anomastrea irregularis* (attached photo); and (iii) human activities being carried out in the intertidal area in Watamu Marine National Park. The first research activities will provide quantitative information on the species assemblage of corals of the intertidal area. Our previous surveys had identified about 13 genera of corals in the area and we were able to identify to species level the species *Anomastrea irregularis*. Corals of the intertidal zone thrive in a rather harsh environment characterised by high wave energy, temperature and light variation and land-based influence. Understanding the assemblage and ecology of the intertidal corals will provide an insight on how corals worldwide might change with the increasing sea surface temperature and predicted frequent bleaching events due to climate change. *Anomastrea irregularis* is a rare coral species endemic to the Indian Ocean, It is the only species in its genus making it evolutionary distinct. We have recorded a relatively high abundance in the intertidal area. Our preliminary analysis is showing higher abundance on the southern part of the protected area, which is characterised by a tidal inlet (Mida creek). The third activity will document on human activities carried out in the area and how this might impact the marine life in the area. This activity will also form the basis of our next stage of the project of capacity building of community groups carrying out activities in the intertidal area.

## **Schools outreach and community awareness**

We have planned for these activities starting January 2016. During the November-December 2015 period people are preparing and going for the holidays so schools are closed. We have made contacts with wildlife clubs patrons/teachers for the planned school outreach and training of patrons/teachers and agreed on the content and tentative dates for all the activities. We have also planned with community leaders on how and when to conduct the capacity building sessions which will also start in February 2016.

## **Challenges**

The project started well without any major challenges. The only challenges we faced was late disbursement of small funds for a camera from funded by another project. However, we have since received the funds and ordered the camera.



*Anomastrea irregularis* (crisp pillow coral)