

## May 2010 meeting MCSse

At our 11<sup>th</sup> May meeting we had the pleasure of a talk from Dr Frances Dipper entitled “Coral Reef or Coral Grief” based on the development of the Tun Sakaran Marine Park in the Semporna Islands, Sabah, Borneo.

The project has been developed over the last 10+ years under the leadership of Dr Liz Wood the coral conservation officer for The Marine Conservation Society and has been grant-aided by the Darwin project with additional support from many other sources. The original project succeeded in establishing the area as a marine park in 2004 and is now helping to train the local Sabah parks staff to administer the park in the future. As with most projects of this type education of the local community is paramount as they are the most affected by the damage that takes place on the reef and the level of fishing carried out. The project is run in collaboration with Sabah Parks to ensure protection of the fragile reefs in the area.

The park is 35,000 hectares and is centred on the sunken crater of an extinct volcanic crater. The crater forms a lagoon in the centre of the granite rim which forms two main islands. Between 1998 and 2001 the project was to dive and document the area's flora and fauna. This was found to be very diverse so Liz was able to study the corals [400 species] and fish [600 species] while Frances was studying the sponges [250 species] and soft corals. This required the taking of some samples to get accurate species identification. They also took many photos to allow later identification and for use in producing local guides to sponges and soft corals. Many other invertebrates were photographed and identified from Christmas tree worms, squirts, starfish and eels to turtles. Land based studies were also carried out to identify trees, vegetation, snakes, mammals, insects, spiders and reptiles to provide a basis of knowledge about the whole environment.

Between 2000 & 2008 monitoring surveys of the reef were carried out using permanent markers to give more accurate recordings of the changing condition of the reef. Dynamite fishing is a very serious problem and is still widely used even though it is illegal in the area. This has been one of the major causes of reef damage and is extremely hazardous for the fishermen involved, so by showing the local fishermen the damage caused and the alternative income that can be earned from activities such as seaweed farming, giant clam ranching and diver tourism they hope to convince the local population that there are ways to improve not only the reefs but also the livelihoods of the people living within the park area. They are also trying to involve the local population in reporting fish blasting and other illegal fishing practices perpetrated by outsiders.

When compared to the reefs of Sipadan which has had unofficial and some official protection for many years the difference in the populations of fish are very evident – Sipadan has many larger adults and healthy numbers while Semporna has mainly small and juvenile fish and smaller populations.

The reefs have had a number of natural problems that they have had to contend with such as high levels of coral bleaching in 1998 and large outbreaks of the crown of thorns starfish.

Some of the aims of the various stages of the project have been and are to:

- Study and record the species diversity and condition of the reefs
- Search out alternative livelihoods for the locals to reduce their impact on the reefs by providing alternative income from industries such as seaweed farming for the pharmaceutical industry and giant clam fishing from local fishery bred clams given to the islanders
- To identify areas of the park that require full protection and areas that can sustain more impact and set up and implement a zoning use strategy
- Assist the local population in identifying areas for development of tourism which will generate the biggest income and so make the reef a more valuable commodity while it remains intact and in good condition

It was very clear that this is not going to be an overnight success and many more hours of dedication by those involved was going to be needed to achieve the end result. There was no doubt that they would achieve this in the long term to the benefit of the local populations the marine environment and the area in general.