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The Trustees
The James Rennie Bequest
Faculty of Science and Engineering Office
Weir Building
University of Edinburgh
West Mains Road
Edinburgh

30th October 2001

Dear Sirs,

I have pleasure in enclosing the preliminary report of the Edinburgh University Coral Awareness and Research Expedition (Eucare) which arrived safely back from Madagascar earlier this month after almost 3 months in the field.

The expedition was a great success, and our team managed to overcome almost all of the problems encountered in the field. We have succeeded in establishing a unique collaboration with Madagascar's Marine Research Institute, based at the University of Toliara, as well as with the Office Nationale pour l'Environnement, in Tana. It is our intention to make Eucare an ongoing venture, surveying other unexplored reef habitats in that are currently under threat from various human and environmental impacts.

Our data are currently being processed, and I look forward to passing them on to you with the final report of the expedition as soon as possible. The film of the project is in the process of being edited, and this will also be forwarded to you in due course. It is our intention that the film will give you a better insight into the work carried out by the team in the field. In the mean time, photos of the expedition can be found at www.blobbi.co.uk or www.eucarenet.com.

I would like to take this opportunity to thank the Trustees for agreeing to support this expedition. The funding obtained enabled the collection of data that we hope will be used in support of the establishment of a marine protected area in one of Madagascar's most unique coastal habitats.

Yours faithfully,

Al Harris
Eucare project co-ordinator



Eucare is a registered Edinburgh University society,
dedicated to raising awareness of the need for
coral reef conservation and research





PRELIMINARY REPORT OF THE EDINBURGH UNIVERSITY CORAL AWARENESS AND RESEARCH EXPEDITION, MADAGASCAR 2001

(EDINBURGH, OCTOBER 2001)

The Eucare team arrived in Fort Dauphin in late June 2001, and moved into the expedition base camp on 5th July. A highly successful collaboration was formed with the mining company QMM (QIT Madagascar Minerals) which ensured the loan of an electric compressor and diesel generator to the Eucare base camp in Evatraha, situated some 5km from the dive sites on Lokaro Island.

The waters in the area are on the whole extremely rough, with unpredictable swells and rip currents. The turbulent conditions account for the fact that the identified patch reef is the only substantial coral habitat in the Southeast of the country (the nearest being some 500km further north at Tamatave). Reconnaissance dives showed the habitat to be truly unique: its location in a shallow lagoon on Lokaro Island kept conditions relatively calm and underwater visibility high. Diving from the sandy shore, rocks and boats, The team carried out extensive surveying and mapping of the reef using the Eucare underwater survey methodology.

EARLY COMPLETION OF PROJECT

On July 30th, the surveying of the Lokaro Island reef was completed, fulfilling our primary aims and objectives. It was initially intended that the project be completed by carrying out exploratory surveys further north and south to look for other isolated coral habitats on the coast. However, in view of the unpredictable conditions underwater and following local advice about dangerous shark species common outside the lagoon, it was judged unsafe to continue with the planned execution of the project. The decision was strengthened after consultation with local fishermen, who maintained that the island's lagoon possessed the only well established reef in the area – any other habitats being merely isolated coral heads growing on rock. Reconnaissance dives carried out south of Lokaro at Evatraha point and elsewhere in the area confirmed this observation.

PHASE TWO: IFATY REEF

Once the situation had been explained to Azafady (Eucare's Malagasy host) the team moved from Fort Dauphin to Toliara for consultation with the Malagasy Marine Institute (Institut Haliéutique et des Sciences Marines - IHSM). Eucare had formed a collaboration with the IHSM before arriving in Madagascar, and the purpose of this visit was to discuss the most useful means of using the remainder of the expedition's resources in the time that remained before departure.



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A project was decided upon, surveying the 28km barrier reef in the Baie de Ranobe, 30km north of Toliara. New aims and objectives were set up: to collect the first ever baseline data of the fish, coral and invertebrate species living on the interior and exterior of the reef, and to assess what threats the unknown ecosystem faced from the development of tourism in the region. The logistical aspects of the new project were arranged (including accommodation, food, casualty evacuation and compressor relocation), and the team was moved into its new field camp on the beach north of the coastal village of Ifaty on 15 August. This second phase of the expedition lasted just over 4 weeks.

INTERNATIONAL COLLABORATION

Eucare collected extensive data on both phases of the expedition, identifying almost 300 species of fish and over 200 species of coral and invertebrate. These data are being distributed to all relevant parties in Madagascar. The collaboration with the IHSM enabled Eucare to work with local marine scientists and students, none of whom had any dive training when the team arrived in Madagascar. The Eucare diving officer was able to train and qualify these scientists (to PADI Advanced Open Water Diver level), so that in both phases of the expedition, each underwater survey team included at least one local scientist. These Malagasy researchers lived and worked with the Eucare team, and are helping to contribute to the final report.

SAFETY

In view of the dangerous nature of the work carried out, the Eucare diving protocol was strictly adhered to at all times, and bottled oxygen was carried on the dive boat and on shore. In addition to the dive boats (115hp), 4x4 vehicles with local drivers were kept on standby as close to the dive sites as possible in both phases of the expedition. Phase two included the use of a light aircraft in its casualty evacuation plan, which, in addition to being used for aerial reconnaissance of the reef, was kept permanently on standby near the beach at Ifaty, to fly any casualties at low altitude to Toliara if necessary. Contact was maintained between the dive boat, shore guard and aircraft using VHF radios and satellite phones. No accidents or significant medical problems occurred on the expedition.

EUCARE FILM

A privately funded film crew accompanied the expedition from Late June until mid August. A copy of the film will be forwarded to the James Rennie Bequest with the final report of the project early in the New Year. It is hoped that this film will provide a better insight into the work carried out by the Eucare team both above and below the water.

