

# Darwin Initiative for the Survival of Species

## Half Year Report

<b>Project Ref. No.</b>	162/13/027
<b>Project Title</b>	Developing reserves for biodiversity conservation and sustainable fisheries in Rodrigues
<b>Country(ies)</b>	Mauritius
<b>UK Organisation</b>	University of Newcastle upon Tyne
<b>Collaborator(s)</b>	Shoals Rodrigues (primary collaborator); Fisheries Research and Training Unit (FRTU), Fisheries Protection Service (FPS), National Coastguard, Rodrigues Regional Assembly (RRA)
<b>Report date</b>	27 October 2006
<b>Report No.</b>	HYR 2
<b>Project website</b>	<a href="http://www.ncl.ac.uk/tcmweb/tmr/aje_darwin_rodrigues.html">http://www.ncl.ac.uk/tcmweb/tmr/aje_darwin_rodrigues.html</a>

### 1. Progress over the last 6 months (April – September)

A critical issue highlighted in the Annual Report and noted by its reviewer as needing to be addressed in the next half-year report to ECTF has been the lack of progress in gazetting the 4 marine reserves. This complex issue is addressed in some detail in Annex 1. In summary, the new regulations have now been vetted by the State Law Office, agreed by the Coordinating Committee for Fisheries and Marine Resources and the new Chief Commissioner hopes that they will be passed by the RRA in November (letter attached). The reviewer also raised concerns about collaboration with other NGOs in Mauritius and the region and post-Darwin funding. These are addressed below.

*Shoals Rodrigues* is the only environmental NGO based in Rodrigues; it is much called upon by the RRA on account of its unique marine research and educational capacity. In the reporting period it has had active collaborations on education projects with Reef Conservation Mauritius and Blue Ventures (Madagascar) and on education and training with the Mauritius Wildlife Foundation. It has also worked with the SocMon (socio-economic monitoring) project of CORDIO (Coral Reef Degradation in the Indian Ocean) East Africa with a pilot study of the Rivière Banane site, which will be important in the development of alternative livelihoods.

Support for on-going monitoring of the marine reserves in the long-run (post-Darwin Initiative project) is being sought from the Indian Ocean Commission, European Union (alternative livelihoods project), Dubai International Award and the Royal Caribbean Ocean Fund.

#### Training visits

Dr Fiona Gell made her second visit to Rodrigues between 27 March and 16 April. Dr Gell developed further recommendations for the management strategy for the marine reserves relating to: 1) awareness raising, 2) stakeholder concerns, 3) responsibility for reserve implementation, 4) the intermediary (between RRA and fishing communities) and facilitating role of Shoals Rodrigues, and 5) the urgent need for research into alternative livelihoods. She also met with FRTU to develop a collaborative monitoring programme of the basket trap and line fisheries; gave a presentation to Club Mer students about marine reserves and a presentation on “Key issues in marine reserve development”, concentrating on the need for enforcement and alternative livelihood projects to an audience of FRTU, FPS and the National Coastguard. She also met with the Departmental Head, Thomas Genave, to discuss the progress of the marine reserves regulations (Annex 1).

Dr Alasdair Edwards visited from the 3-12 September. The visit had originally been intended to focus on developing a database to automate much of the FTRU data collection and analysis activities as requested by Mr Sylvio Perrine, the officer in charge and agreed by his Department Head, Mr Genave in March. However, Mr Perrine is still having to carry out two jobs, his previous one as head of statistics and that of his previous immediate superior. He thus was unable to find any time for the necessary collaborative work and appeared harassed. Dr Edwards thus undertook a range of fisheries analysis and database

training activities requested by Shoals Rodrigues, FPS and UNDP Marine Protected Area project staff. Following the change in government, a meeting was also arranged with the new Chief Commissioner, Mr Johnson Roussetty, to discuss the Darwin Initiative project and the delays in implementing the Marine Reserves (Annex 1).

### ***Shoals Rodrigues education campaign***

Fisher Training has progressed well and there have now been 20 sessions at 3 fishing villages (Roseaux, Grand Baie and Songes), discussing topics such as coral reefs, octopus and fish biology and fisheries management. Further training sessions are planned at another village (Baie du Nord or Petite Butte).

*Club Mer* (a weekly club for young Rodriguans) has also progressed well and Saturday sessions have included presentations on topics such as 'Coral Reefs', 'Rocky Shores' and 'Pollution' as well as coral reef, seagrass and rocky shore field studies. There has also been a beach trail and swimming sessions are given to *Club Mer* members and the general public every Saturday. Environment Week took place between 3 and 10 June and involved a Coastal Clean-up at Pointe Monier, in collaboration with Club Mer, FRTU, FPS and the National Coastguard; an Open Day and film presentation at the Shoals Rodrigues Centre and a Try Dive session in the swimming pool, which was attended by approximately 30 Club Mer students. School groups from Rodrigues and Mauritius have also visited the *Shoals Rodrigues* Centre and in July, 50 students from Lorette College, Curepipe in Mauritius were taken on a rocky shore walk. *Shoals Rodrigues* won the \$100,000 AGFUND International prize for pioneering development projects for their "Discovering the Ocean World" primary school pack. There were 37 nominated projects from 23 states. The education team is 25% funded through the Darwin Initiative.

### **Educational poster**

The second poster (scheduled for September 2006) is entitled "Too Small to Die" ("Trop Tipiti Pou Mort" in Creole) and shows why fish shouldn't be caught before they reach maturity. 200 posters are being produced and distributed to all primary and secondary schools, FRTU, FPS as well as the fishing communities. To maximize impact the poster is in French with a Creole title.

### ***Shoals Rodrigues Fisheries monitoring programme – lagoon seine net fishery***

A key effect of the marine reserves should be additional protection for fish species targeted by the lagoon seine net fishery. A better understanding of the population dynamics of these species is being built up using *Shoals* monitoring data on length-frequency distributions and gonads and FRTU data on catch and effort. The Darwin Initiative grant is providing 30-40% support to several *Shoals* staff to ensure this vital monitoring data continues to be collected.

Assessments of the seine net catches have been carried out on 27 fishing days to date between 1 March and 30 September, working with 4 fishing teams (Port Sud Est, Pointe Corail, Pointe l'Aigle and Baie du Nord). The lengths of 17,676 fish were measured and fish were also brought back to the laboratory for length-weight measurements and assessment of gonads. The data are currently being analysed using the database system developed by Dr Edwards. With five years of fisheries data now available, we propose to prepare two papers on the lagoon fishery and its status.

Assessments of the line and basket trap fishery were started in September working in collaboration with FRTU enumerators. Surveys are carried out at one fish landing station per week and so far have been undertaken at 5 stations. Fishers are asked questions about time spent fishing, where they were fishing, and techniques used. The catch is measured.

### ***Shoals Rodrigues Habitat monitoring programme***

The first round of coral reef monitoring was carried out during March-April at the 13 monitoring sites using the Line Intercept Transect (benthos) and Belt Transect (fish and invertebrates) techniques. Temperature loggers were also placed at 10 sites to record changes in sea surface temperature. The second period of coral reef monitoring is currently being carried out and surveys have been carried out at 7 sites. Monitoring of the lagoon habitats took place at 8 sites during May (following recommendation to discontinue surveys of fine sediment areas), using a timed-swim technique to survey three 500m transects at each of the sites.

### **Dive Training**

Jovani Raffin gained his PADI Instructor and Emergency Response Instructor qualifications with Dive Mauritius on 13 August. He is now in charge of dive training activities at *Shoals Rodrigues*.

Five students (M.M. Azie, F. Bernard, J.C. Jean, M. Perrine, (Mauritius Wildlife Foundation) and C. Speville (*Club Mer* member)) gained their PADI Open Water qualification on 22 July and S. Perrine, H.

