

DARWIN INITIATIVE FOR THE SURVIVAL OF SPECIES

ANNUAL MONITORING FORM

Project Details

Project Reference No.162 / 7 / 055

Project Title Marine Environmental Training
in Seychelles and Mauritius

Institution Royal Geographical Society
(with The Institute of British
Geographers)

Round 1 (please tick)

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PROJECT IMPLEMENTATION TIMETABLE

- a) **Outline progress over the last year (1999/2000) against the agreed baseline timetable for the project. If some milestones have not been achieved or have slipped, explain reasons for this.**

Key progress of the overall *Shoals* Programme, including achievements specific to this Darwin Project:

SEYCHELLES

Staff Recruitment	Three permanent field staff (UK nationals) (since Oct 1998). Diving Instructor employed for two field visits and conducted extensive training over two main training periods Education Co-ordinator employed part-time, with two field visits for implementation of educational initiatives
Shoals staff training:	2 PADI Advanced Open Water; 1 Rescue Diver
Trainee Recruitment	Collaborating host nation institutions identified and personnel selected for training
Training	Training commenced and well received. Training so far completed: <ul style="list-style-type: none"> • SCUBA-Diving training courses (> 80 students qualified) • First Aid courses (> 30 students qualified) • Taxonomy • Field skills: first aid, boat handling, GPS use etc. • Monitoring techniques
Workshops	Weekly workshops held in marine monitoring techniques
Poster production	“The Hungry Ocean” finished, printed in Mauritius Printed double-sided to be displayed side-by-side Next poster under production
Training manual	Training notes are being compiled for the training manual - ongoing

MAURITIUS

Staff recruitment	One permanent field staff (UK national) and two full-time Mauritian staff Part-time trainers identified and recruited
Shoals staff training	2 staff completed Open Water diving qualification; 3 Medic First Aid 2 staff completed boat handling and training
Trainee recruitment	
Field base	Base established with full office and accommodation facilities
Training	On-going training in Reef Check, and other marine research techniques
Seminars	<i>Shoals</i> Director conducted a seminar at the Mauritius Sugar Research Institute
Workshops	Workshops conducted in Permanent Mooring Buoy surveying techniques and two sensitisation workshops
Poster production	“The Hungry Ocean” finished, printed in Mauritius
Training manual	Training notes are being compiled for the training manual - ongoing

RODRIGUES: *Please note that all activities in Rodrigues dovetail with the existing National Lottery Charities Board International Grants Programme Shoals Rodrigues project.*

Staff recruitment	Three permanent field staff (UK Nationals) and three full-time Rodriguan staff Part-time trainers identified and recruited
Shoals staff training	1 Open Water; 1 Advanced Open Water; 1 Medic First Aid; 1 Rescue Diver; 3 DiveMaster
Trainee recruitment	
Field base	Waterfront, comprehensive MARTEC – Martine Research, Training and Education Centre – established, with wet&dry lab space, and teaching facilities Accommodation facilities also well established
Training	Diver Training; RLSS training; Reef Check surveying techniques;
Seminars	* Dr Helge Vogt on Reef Surveying techniques * Sarah Welton on practical methods for teaching marine awareness to students and youth groups
Workshops	A 20 week course covering the general aspects of marine science
Poster production	“The Hungry Ocean” finished, printed in Mauritius
Training manual	Training notes are being compiled for the training manual - ongoing

- b) **What progress has the project made in achieving its objectives over the last year? Is the project still expected to achieve all the original objectives which were specified? Explain any problems/difficulties which have been encountered to date in achieving the objectives of the project (or any which you envisage may be encountered in the future).**

Overall the *Shoals* Programme has seen excellent progress and real consolidation over the past 12 months, and this has benefited all aspects of the Programme including this Darwin Project. All bases are fully established and have integrated well into the local communities.

SUMMARY OF PROGRESS TO DATE

TRAINING - SEYCHELLES

'Monitoring the Marine Environment' Training Course:

The *Shoals* team in Seychelles has developed a training package, of both practical and theoretical monitoring of the marine environment. This training has been provided for the Marine Parks Authority (MPA), Aride Island Rangers and Seychelles Fishing Authorities. The technique involves training through research, which provides the opportunity to collect important real time data while at the same time offering the opportunity for 'real time' training.

Workshops have been designed to provide the attendees with practical experience in marine monitoring techniques (to compliment the theoretical training already received). Topics have included:

- Tropical Marine Ecology
- Multiple Resource use and human impacts in the coastal zone
- Sampling Design and Monitoring
- Data Management
- Biotope Mapping
- Remote Sensing
- Coral Reefs

Diver Training: - Dive training has been provided to personnel from all levels and aspects of the marine sector in Seychelles. (see attached list of trainees; 84 trained between November 1999 to February 2000)

PADI Medic First Aid Training : Mr. John Nortcliffe conducted 3 PADI first aid courses. The staff of Cousin island, Aride island and club leaders of WildLife Clubs of Seychelles all passed successfully. These persons are now better able to deal with an emergency incident if it occurs.

Hydrographic Training : Major Rosette, of the Seychelles Coast Guard, is currently undertaking a course at the Royal Navy Hydrographic School, Plymouth, UK (under support from the Royal Navy and the Water Conservators). On his return his new skills will be applied and passed on to the Seychelles Coast Guard.

EDUCATION SEYCHELLES

- The *Shoals* display at the National Tourism Exhibition is aimed at encouraging a more responsible attitude towards the marine environment
- Boat and Tour Operators are encouraged to participate in the Marine Parks Authority (MPA) mooring buoy initiative.
- An article written by *Shoals* regarding the safe keeping of the Marine Parks was published in the National Tourism week brochure.

Shoals participated in the **National Tourism Exhibition** at the National Cultural Centre. A display was designed in collaboration with the MPA to raise awareness of the Marine Parks role in conservation, and to show the diversity of habitats within the Ste. Anne Marine Park. A topographic habitat model was developed which, aside from providing information on the habitat content of the Ste. Anne Marine Park, also highlighted the damage caused by unrestricted anchoring. An article was printed in the Tourism Week Brochure highlighting the importance of the MPA, the benefits it provides to the tourism industry, and the need for further protection. This may be developed to provide education to the tourism sector on marine environmental issues.

Bel Ombre School Wildlife Club - visited Ste. Anne/*Shoals* for a weekend to continue their club project (coral reef awareness). *Shoals* field staff provided the group with some information and hosted a classroom discussion on the subject of coral reefs and human impacts.

National School Curriculum - Sarah Welton, *Shoals* Education Co-ordinator has been asked to assist with integrating marine environmental education into the national school curriculum and assist with the development of training and education aspects at the Maritime Training Centre that is currently undergoing a curriculum review.

TRAINING TO DATE – MAURITIUS

Reef Check - Coral Reef Survey Dr Helge Vogt provided training for 10 members of the Mauritius Underwater Group in coral reef survey techniques to gather data concerning the coral and associated fish and invertebrate populations.

Permanent Mooring Buoys: Training was provided for 10 trainees from the Mauritius Underwater Group and the Mauritius Marine Conservation Society in Permanent Mooring Buoy surveying techniques. Two sensitisation workshops were also held.

Diving Training: Open Water training has been provided to two members of the Mauritius Wildlife Foundation and to one member of the Mauritius Sugar Research Institute.

Seminar at Mauritius Sugar Research Institute

Iain Watt gave a talk entitled the *Shoals of Capricorn Programme: Origin, Progress and Prospects* to the Annual General Meeting of the Arts and Science Council of Mauritius at the Boname Hall, Mauritius Sugar Industry Research Institute on 8th March 2000.

Swimming and Snorkelling training with Fraternité de Grand Baie

Swimming and snorkelling lessons for the children of Fraternité de Gand Baie began in February with the help of André Vosthuizen of Fraternité de Grand Baie and Olivier Tyack of the Mauritius Marine Conservation Society. This will be an ongoing programme with the children hopefully being awarded South African Life Saving Association awards.

TRAINING TO DATE – RODRIGUES

Please note that all activities in Rodrigues dovetail with the existing National Lottery Charities Board International Grants Programme Shoals Rodrigues project, and therefore outputs such as those listed below should be considered as supported by both the Darwin Initiative and the NLCB.

Strong links have been formed with numerous Government departments and Non-Governmental Organisations, in addition to the direct employment of three local personnel. Our counterparts have the opportunity to participate in all stages of the planning and implementation of relevant *Shoals* activities.

Our counterpart agencies include the Fisheries Research and Training Unit (FRTU), Fisheries Protection Service (FPS), National Coastguard, Environment Unit, Education Unit, Roman Catholic Education Authority (RCEA), Primary Schools and Colleges, the Rodrigues Underwater Group (RUG), Mauritius Wildlife Foundation (MWF), Association of Rodrigues Tourist Operators (ARTO), Young People's Committee, Association pour le bien-etre des Rodriguais and fishers organisations.

With the assistance of international experts, training has been provided in methods for the study of intertidal, lagoon and reef habitats. 13 counterparts, including representatives from RUG, FRTU, FPS and the National Coastguard, have participated in the subsequent research work. Marine research also requires a knowledge of safety issues, and training has been provided accordingly.

Diver training

9 counterparts have reached PADI Open Water standard, 4 of whom continued to complete their Advanced Open Water Training. Mr John Nortcliffe, *Shoals* diving and first aid instructor, gave dive training to members of the FPS, National Coastguard, and RUG and *Shoals* volunteers.

Reef Check - Coral Reef Survey This training was attended by members of the Rodrigues Underwater Group, Mr Ravanne (Fisheries Training Officer), Coastguard personnel, *Shoals* volunteers and other local divers. Mr Degrément of the Cotton Bay Dive Centre expressed an interest in encouraging his clients to collect data for future surveys. *Shoals* personnel will conduct follow-up projects utilising the techniques taught by Dr Vogt, to provide trainees with further practice in the use of reef survey methods.

Intertidal and lagoon monitoring

1 member of the Fisheries Research and Training Unit received 4 weeks training

Reef Monitoring training

1 member of Fisheries Protection Service; 1 *Shoals* staff; 2 *Shoals* volunteers; 1 member of Rodrigues Underwater Group

Marine Discussion Sessions for Fishers

A series of regular discussion sessions in fishing communities has also been established in conjunction with the FRTU. This is an awareness and information exchange programme primarily for octopus fishers developed jointly by *Shoals* and Mr Archange Ravanne, the fisheries training instructor.

Medic First Aid Training -

Dr Bev Holt, *Shoals* chief medical officer, hosted a day of workshops entitled “The Marine Environment and its Hazards”, discussing the signs, symptoms and treatment of near drowning, problems caused by temperature and pressure, envenomation, and other injuries, and gave practical demonstrations of rescue methods. The seminars were extremely well received, with an audience including staff from the Queen Elizabeth hospital and National Coastguard, members of RUG and other local divers, Mr Ravanne, water sports instructors and sport fishing boat crew. 10 Medic First Aid Certificates have been awarded to members of the above organisations and *Shoals* local volunteers, 13 representatives from fishers associations have received practical First Aid training and 63 people (including hospital staff and sport fishing boat crews in addition to usual counterparts) attended Marine First Aid and Rescue seminars.

Royal Life Saving Society Training -

Trainers from the Royal Life Saving Society (Mauritius) are providing for the first time a series of Life Saving training sessions for teachers and youth group leaders. This course will eventually lead to *Shoals* volunteers and identified trainers from youth and community groups being qualified as Life Saving Instructors and a number of students receiving training to Bronze Medallion level. This will allow teachers and youth group leaders to safely supervise students during swimming and snorkelling activities, which are a key element of marine environmental education initiatives. 26 Royal Life Saving Society Bronze Medallions.

Mr Percy Julien and Mr Maurice Constance from the Royal Life Saving Society (Mauritius Branch) visited Rodrigues in December to provide training in Life Saving to college students and members of the National Coastguard, resulting in 11 people being awarded the Bronze Medallion. Further life saving training is being conducted under the supervision of Mr Jean Reck Moutien, who, it is hoped will become the first lifesaving instructor on Rodrigues following his instructor assessment in April.

Training Manuals -

Work continues on the compilation of training notes that will ultimately provide methods and other practical and theoretical information for application of surveys in the marine environment. The researchers that have contributed towards the training and development of these manuals are from several countries, and several different disciplines. These manuals will provide the basis for the development of future training initiatives in the region.

Collaborative Projects

A scheme initiated in conjunction with the Environment Unit and La Voiree has been launched to collect and recycle plastic soft drinks and water bottles, and so reduce a major source of pollution in Rodrigues.

In collaboration with the Mauritius Wildlife Foundation, the Environment Unit and the Rodrigues Underwater Group, a week of co-ordinated activities with the theme “Discover the natural environment of Rodrigues” has been planned for late July.

EDUCATION RODRIGUES

The aim behind the ***Shoals Education Programme*** is to increase the awareness and understanding of the marine environment, developing local responsibility for the sustainable management of natural resources. To date, more than 130 students have attended marine ecology lessons at the Marine Research, Education and Training Centre, and training has been given to 60 teachers and youth and community group leaders who wish to take marine education into the classroom and the wider community.

Adult Education Workshops

A programme is in place to provide basic training for government staff, teachers and others working in the marine environment. A series of weekly lectures on numerous aspects of marine science are accompanied by demonstration practicals. Local teachers and youth leaders have already attended a 20 week course covering the general aspects of marine science and have been shown examples of practical activities to run with their own classes and youth groups. A second batch of trainees is now attending this course. More specialised, intensive courses, with a larger practical component, are given to appropriate trainees in conjunction with *Shoals* visiting experts.

One such expert is Sarah Welton, *Shoals* consultant education co-ordinator, who was present in Rodrigues during November and December to provide training in marine education for school teachers, youth leaders and co-ordinators of other community groups. Sarah hosted informal education workshops offering participants the opportunity to learn practical methods for teaching children about the marine environment and how to design their own teaching activities. Trainees addressed appropriate ways to provide marine environmental education while fulfilling the requirements of the existing strictures. Participants were invited to participate in the development of the educational and interpretative resources to be provided by *Shoals*.

Colleges

“Club Mer”, *Shoals* extracurricular programme for college students, commenced on 31 July 1999, and now has 135 members. The opportunity to participate in Club Mer activities at the Training Centre was initially offered to students of Rodrigues College, and pupils from Le Chou, Grande Montagne and Marechal Colleges and the IVTB have been included in the club since November. During the initial weeks, the students received a general introduction to the Programme, assisted with the general cleaning, painting and other work required for the completion of the Training Centre, and five excellent artists have designed and painted murals to decorate the interior walls.

Since the course commenced, Club Mer students have attended informal lectures on a variety of marine science subjects. They have also practised survey techniques, produced a chart of the lagoon which will be used to map the different habitats, created a newsletter, and designed a marine education website. Other projects included regular measurement of the height of the tide at Pointe Monier (to illustrate the changes in the tidal range), and the construction of a “Biodegrade-o-meter” – a model containing plastic and metal garbage which is used to demonstrate rates of biodegradation.

Following parental consent, and under strict supervision, competent swimmers are receiving basic snorkelling training by following the *Shoals* "Lagoon Snorkeller" course, while the less confident students are receiving swimming lessons.

In addition to activities arranged by *Shoals* field base staff, a local diving instructor, Mr Jacques Degrément, hosted a session in which he displayed slides of the marine fauna of Rodrigues. Mr Richard Payendee (Mauritius Wildlife Foundation) supervised the planting of examples of endemic coastal flora outside the Centre, Dr Vogt became involved in Club Mer activities during his visit and Mr Greg Holt, former British Young Artist of the Year, held a workshop for the artistic members of Club Mer.

Primary schools

The Government Education Unit and the Roman Catholic Education Authority have been regularly consulted during the development of our primary school education programme, and classes from Terre Rouge government school have attended activity sessions at the Centre.

A **mobile marine education unit** to provide resources for primary teachers wishing to conduct classes at their own schools has been designed following consultation with the teaching staff. Resources for the Mobile Marine Education Unit, including slides, videos, posters, books, lesson plans, debate formats, suggestions for drama sketches, common species and habitat information sheets, mathematical exercises based on marine data and suggested practical activities have been compiled.

c) **What lessons can be learnt from your experiences (both good and bad) over the last year?**

Positive points:

- That both host nation Governments continue to support the *Shoals* Programme to the highest level, and remain particularly interested in the aspects of training through research
- That integration into the community is the most efficient way of getting messages understood and accepted, and that this requires a long-term approach to project planning
- That regular, smaller workshops,

Constructive lessons:

- That greater notice is still needed to plan and correctly implement training projects, as many trainees have other commitments and require time off from full-time jobs
- That the production time and cost for design and printing of educational posters far outweighs any original estimates

- d) If the project timetable has slipped or changed, provide an updated project implementation timetable for the remainder of the project.** *(Please note that projects are expected to adhere to their original timetable and that the timely completion of projects is an important factor taken into account by the Department when assessing project performance. However, from time to time projects may be delayed unavoidably due to circumstance beyond their control. Where a project is falling behind schedule, details on the revised programme of work should be provided below. This will need to be passed to the Department for approval).*

Some aspects of the project have exceeded their original estimations, and have progressed well, as indicated earlier. However, the following aspects have been delayed:

- Production of the Year II educational poster – this has been delayed due to the time it has taken to produce the Poster I – “The Hungry Ocean”. However, poster II is now under consultation and design, and should be produced by October 2000.
- Seminars – due to the successful seminar programme in 1999-2000 there have been fewer seminars than originally intended during this year. However, this will be readjusted in the summer of 2000.
- Training manual – this is under production but will not be printed until the third and final year, as agreed in the initial project plan.

- e) What is the estimated completion date for the project?**

April 2001

- f) Is this different to the completion date set out in the original application form?**

Yes (please tick)

No

PROJECT OUTPUTS

- a) What outputs have been achieved by the project over the last year (1999/2000)? We would like you to work through the list of standard output measures which have been agreed for the Darwin Initiative and to report on those which are relevant to your project. All information provided should be referenced clearly to the appropriate project output reference number, and should provide the level of detail required (requirements are specified in the Guidance Note on Output Definitions which accompanies the List of Standard Output Measures).

Output Ref. No.	Description / Commentary
3	<i>Up to 4 personnel qualify for PADI diver qualifications</i> The training schedule for PADI diver training qualifications has far exceeded the expected six – more than 80 people have successfully completed training courses under support from this Darwin project and other core <i>Shoals</i> funding
6A	<i>24 personnel trained in biodiversity, monitoring and resource management</i> Current estimation of overall trainees is c. 30
6B	<i>4 weeks training per person provided</i> Training has varied between short, half-day periods, through intensive 5-day courses and to on-going weekly lectures over several months
7	<i>1 poster produced on subtidal key species and techniques</i> The poster “The Hungry Ocean” was produced as a legacy from year I Poster II in prep.
8	<i>Up to 48 weeks spent on 4 UK staff in host country</i> c. 30 weeks training time by UK staff in host countries
14A	<i>Two seminars, one held in Mauritius and one in Seychelles covering further biodiversity monitoring and Shoals-related issues</i> Seminars – 2 seminars given on education initiatives and medical-related Issues. More are planned for 2000.
15	<i>Estimated 2 press releases</i> Press releases specific to the Darwin project have not been produced as there was a perceived lack of interesting story for journalists. Instead, efforts have been made to ensure that the Darwin Initiative received coverage in any <i>Shoals</i> media coverage.
23	<i>Value of resources raised from other sources</i> The <i>Shoals</i> Programme has raised an additional total c. £750,000 which contribute to the research, education and training elements of this Darwin Initiative project (particularly £234,000 from the National Lottery Charities Board International Grants Programme for Rodrigues).

b) Please provide details on any further outputs generated by the project over the last year which do not fit easily into the standard output categories for the Darwin Initiative.

The *Shoals* Programme as a whole, including the support from the Darwin Initiative, continues to raise the profile of the marine environment in the Indian Ocean through popular media and press, general debate and community involvement. The UK has seen some excellent media coverage of the Programme, including 3 short pieces in Discovery Channel (in which the Darwin Initiative logo was featured prominently). Discovery have recently confirmed that they are to produce a 1-hour documentary about the work of the *Shoals* Programme in autumn 2000.

c) Explain any problem encountered to date in achieving the output targets specified for this project or any problems you envisage in achieving these outputs in the future.

The main problem has been production of printed outputs (poster and the training manual), but these are being resolved.

One other challenge is the correct representation of sponsors / supporters of the different elements of the overall *Shoals* Programme – i.e. when and how to attribute outputs or media coverage to a specific sponsor (e.g. Darwin Initiative) and when they should come under the overall *Shoals* umbrella. This is currently resolved by ensuring that separate account lines are held (e.g. NLCB and Darwin Initiative), and that most initiatives and outputs carry logos of all sponsors, thus broadening the credit and profile of all sponsors.

d) If the project timetable has slipped or changed, provide an updated output timetable for the remainder of the project. (Please note that projects are expected to adhere to the original output timetable which was agreed with the Department and this is taken into account when assessing project performance. However, some projects may be delayed unavoidably. Where a project is falling behind schedule a revised output timetable should be provided below. This will need to be passed to the department for approval).

The broad timetable for the project remains the same, but that most activity in this forthcoming final year will be towards the end of 2000 and into early 2001.

STAFF RESOURCES

a) Please provide details on the staff who have worked on the project over the last year (1999/2000).

Name	Institution	Grade/Position	Input During 1999/2000
Mr Iain Watt	<i>Shoals</i> Programme	<i>Shoals</i> Programme Director / Training Co-ordinator	c. 20% (Darwin contribution £2,500)
Mr Martin Callow Dr Jane Dodd / Dr Rob Hartnell Mr Tom Hooper	<i>Shoals</i> Programme	Country Co-ordinators	c. 40% (TOTAL Darwin contribution £5,500)
Mr John Nortcliffe	<i>Shoals</i> Programme	Diving Instructor	c. 50% (Darwin contribution £2,000)
Mr Jan Robinson Ms Caroline Lawton Ms Tara Lynch Ms Charlotte Howard	<i>Shoals</i> Programme	Field staff	Funded from core <i>Shoals</i> budget
Ms Sarah Welton Ms Caroline Lawton	<i>Shoals</i> Programme	Education Co-ordinator	Funded from core <i>Shoals</i> budget
Dr Bev Holt	<i>Shoals</i> Programme	Chief Medical Officer	Funded from core <i>Shoals</i> budget

b) Please explain any variations in the composition of the project team or in the inputs of key staff from the details provided in the original application form.

All UK national *Shoals* staff based overseas are included above as their work contributes to the overall *Shoals* Programme and to this Darwin Project.