

# DARWIN INITIATIVE FOR THE SURVIVAL OF SPECIES

## ANNUAL MONITORING FORM

### *Project Details*

*DoE Project Ref No*    162 / 7 / 055

*Project Title*            Marine Environmental Training  
in Seychelles & 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 against the agreed baseline timetable for the project. If some milestones have not been achieved or have slipped, explain reasons for this.*

### **SEYCHELLES:**

<b>Staff recruitment</b>	Three permanent field staff identified and in place. Part-time trainers identified and recruited
<b>Trainee recruitment</b>	Collaborating host nation institutions identified and personnel selected for training
<b>Training</b>	Training commenced and well received <b>Training</b> so far completed: <ul style="list-style-type: none"><li>• Hydrographic surveys</li><li>• Taxonomy</li><li>• Field skills: first aid, boat handling, GPS use etc.</li><li>• Monitoring techniques</li></ul>
<b>Seminars</b>	More than agreed number of seminars held (3 held), and well attended Several more in planning stages
<b>Workshops</b>	Agreed number of workshops held (2)
<b>Poster production</b>	Poster under design
<b>Training manual</b>	Initial modules and chapters in preparation

### **MAURITIUS / RODRIGUES:**

<b>Staff recruitment</b>	Four permanent field staff identified and in place. Part-time trainers identified and recruited (often the same trainers as in Seychelles)
<b>Shoals staff training</b>	Training provided in working with communities, outboard engine maintenance, small boat handling, Land Rover driving and team development
<b>Trainee recruitment</b>	Collaborating host nation institutions identified and personnel selected
<b>Field base</b>	Extensive planning and renovation work on buildings to be used for living accommodation, training and education facilities
<b>Training</b>	Training programmes in preparation – in discussion with stakeholders
<b>Seminars</b>	First seminar planned for May 1999
<b>Workshops</b>	First workshop under design
<b>Poster production</b>	Same poster as Seychelles
<b>Training manual</b>	Same manual as Seychelles

- 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).*

### **SUMMARY OF PROGRESS TO DATE**

The project is still expected to achieve its objectives in the three years as originally scheduled. **Progress** in Seychelles has gone extremely well and, in some instances, has been ahead of schedule. Progress in Mauritius / Rodrigues has been delayed due to constraints on other aspects of the Programme.

Progress is being made in establishing a structured training programme. This has been slightly hampered by the enthusiasm and number of applicants for the training on offer, thereby stretching our resources. This has been resolved by offering shorter courses to more participants upon which we will be able to build as the programme progresses. We therefore expect to achieve our current objectives and, in some cases, surpass them.

More detailed progress in the field is outlined below under the following headings:

- 1 Training to date
  - Biodiversity monitoring techniques
  - Hydrographic training
  - Field skills
  - First aid training
- 2 Training workshops
- 3 Seminars
- 4 Forthcoming seminars

#### **1. TRAINING TO DATE**

##### **• Biodiversity monitoring techniques**

**Ongoing**

*Shoals* field staff and visiting specialists are providing ongoing training in marine monitoring techniques and field skills. Specialist training provided to date includes:

- Manta-board survey techniques & Coral taxonomy  
*Dr Helge Vogt*
- Invertebrate biodiversity & mollusc taxonomy  
*Dr Graham Oliver (Nat. Mus. of Wales)*
- Use of CTD, Sechi disc & seawater monitoring  
*Dr Melanie Summit & Shoals field staff*
- Habitat monitoring & establishment of permanent monitoring sites  
*Drs Bill Burnett, Simon Jennings & Helge Vogt*

*Section b) Progress to date continued*

- Benthic & substrate mapping  
*Drs Jenny Collier, Quentin Huggett, Andrew Jephcoat, Graham Oliver and Peter Schultheiss*
- Reef-fish monitoring training  
*Dr Andrew Jephcoat*

**Training continued:**

- **Hydrographic Training**

**February 1999**

The Royal Navy provided bathymetric research along the Mascarene Plateau as part of the *Shoals of Capricorn Programme* Science Plan. During this visit the Captain and crew of HMS Beagle conducted hydrographic and field training for local personnel under the Darwin Initiative project. The following accompanied HMS Beagle to sea and receive hydrographic training as part of the hands-on research:

Seychelles Fishing Authority	Ralph Jeannevol, Rondolph Payet
Seychelles Coastguard	Captain Nigel Hoareau
Seychelles National Oil Company	Patrick Sampson

- **Field Skills**

**February – March 1999**

A range of marine-related field skills have been taught by *Shoals* field staff and visiting specialists including basic environmental monitoring and theories of pollution control. In addition, a shore party from HMB Beagle conducted training in outboard engine maintenance, boat handling and safety at sea, Global Positioning Systems, HF/VHF radio operation and knots and hitches.

**Attendees** included:

Seychelles Fishing Authority	Andy Dina, Danny Julie, Tony Morel
Marine Parks Authority – Rangers	Bernard Bijoux, Richard Bossy, Tina Dubel, Elvis Hoareau, Kevin Hoareau, Simon Hoareau, Elvis Lawrence, Terence Mahoune, Julianna Melanie, Ettiene Quilindo, Frederick Ravinia, Isabelle Ravinia, Imier Lespoir
Seychelles Coastguard	S/Sgt Lablache, Cpl. Victor, Pte. Victor
Seychelles Harbour Authority	George Laurencine, Christopher Mussard
Birdlife Seychelles	Ahtee Labonte
Maritime School	Michel Savy

- **First Aid Training**

Dr Victor de Lima (Heriot-Watt University, Edinburgh) presented courses on Medical First Aid with emphasis on emergency management of first aid at sea.

**Attendees** included:

Marine Parks Authority	Bernard Bijoux, John Collie, Tina Dubel, Kevin Hoareau, Etienne Quilindo
Coast Guard	Randolph Barra, Pte. Roy Gontier, S/Sgt Lindon Lablache, Vosgan Vativarian
Maritime School	Joliss Esparon, Alan Mathiot, Michel Savy
Seychelles Fishing Authority	David Boule, Dominic Malvina, Imier Sophola

## 2. TRAINING WORKSHOPS

In light of recent coral bleaching events, it was felt that an understanding of the ecology and taxonomy of marine algae would be of primary importance in future assessment of damaged reefs. This would provide an important basis for the study of succession and recovery rates on these reefs. Dr Ian Tittley (Natural History Museum, London) therefore presented two workshops:

### **Workshop 1: Macro-algae – basic taxonomy, collection and preservation techniques**

**Aim:** To promote the need for collection, preservation and accurate species recording for biodiversity inventories.

**Details:** Held at Victoria (Mahe) Natural History Museum to an audience of 30 personnel from the Government, local museum, Marine Parks Authority, Wildlife Club leaders, Birdlife Seychelles and Shoals field staff.

### **Workshop 2: Habitat & biotope mapping**

**Aim:** To outline the techniques applied to accurate habitat mapping for use as a biodiversity management and conservation tool.

**Details:** Held on Ste. Anne Island (Co-ordinating centre for the Marine Parks Authority's headquarters / *Shoals of Capricorn Programme* base in Seychelles.

Attendees included:

Seychelles Natural History Museum

Eugene Anacoura, Berthilde Belle, Alan Camille,  
Barbara Hoareau, Egbert Maraday, Charles Morel,  
George Ravinia, Terrence Vel

Marine Parks Authority - Parks Officer

Steve Pointe

Marine Parks Authority – Rangers

Bernard Bijoux, Tina Dubel, Elvis Hoareau,  
Elvis Lawrence, Imier Lespoir, Julianna Melanie,  
Ettiene Quilindo, Frederick Ravinia

Birdlife Seychelles

Michel Martin

## 3. SEMINARS

Seminars addressing important biodiversity issues have been held in Seychelles, attended by personnel from the Ministry of Environment, Seychelles Fishing Authority, Marine Parks Authority, Seychelles Coastguard, Seychelles Maritime Training School, Seychelles Island Foundation, Seychelles National Oil Corporation and Birdlife International.

### ***Shoals Seychelles Seminar 1:***

#### ***Introduction to Marine Biodiversity***

December 1998 by **Dr Graham Oliver, Dr Helge Vogt & Shoals personnel**

*Section b) Progress to date continued*

Introduction to biodiversity and its importance, and the use of substrate mapping for its management

### ***Shoals Seychelles Seminar 2:***

***Coral Bleaching & its effect on biodiversity***

March 1998 by **Dr Mark Spalding, Dr Claire Bradshaw & Mr Kristian Teleki**  
Results from SY Thalassi cruise, with comparative data from 1998 collected on SY Searcher cruise, provided indications of change over a 1-year period.  
The importance of multi-disciplinary research required to understand the basic process driving biodiversity in the region.

***Shoals Seychelles Seminar 3:***

***Marine Environmental Education***

April 1999 by ***Shoals field staff***

A seminar for over 300 students and teachers at the Seychelles Polytechnic addressing marine environmental education, and leading to the possible creation of environmental clubs, and inclusion of marine environmental education in the national curriculum.

**4. FORTHCOMING SEMINARS**

***Shoals Mauritius Seminar I:***

**7 May 1999**

***Introduction to Marine Biodiversity and Conservation***

by *Shoals* Personnel as part of the

**Forever Blue International Underwater Film Festival – Mauritius**

Introduction to the importance of marine biodiversity and its conservation – the use of film, photography and painting as a medium for schools and community education. *Shoals* keynote address plus poster display

***Shoals Seychelles Seminar 4:*** 24 May 1999

***Shoals Mauritius Seminar 1:*** 28 May 1999

***“Harnessing the Ocean to Economic Development”***

by ***Lord Selborne, President RGS-IBG and Chairman of Shoals Joint Board***

Management, conservation & exploitation of marine resources and biodiversity, & National responsibility for conservation of biodiversity in EEZs

Trans-boundary species and international pollution affecting the local marine environment

***Shoals Mauritius Seminar III:***

**June 1999**

***Introduction to Marine Biodiversity***

To be held in Rodrigues by *Shoals* Personnel

**National Environment Week**

**June 1-7, 1999**

*Shoals* is actively involved with the co-ordination and development of the marine environmental aspects of the Seychelles National Environment week. This is a major initiative by the Government to improve environmental awareness in the general public

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

**Positive points:**

- That both host nation Governments are extremely supportive of the *Shoals* Programme and are investing both time and resources into making it a success. This is because we are working in very close collaboration with them and have met their requests, particularly hands-on training through field research.
- That there is need for long-term training in the region, and both Governments have demonstrated a wish for this to be implemented by *Shoals*, providing capacity building through training future trainers.

**Constructive lessons:**

- That the nature of organising and launching the *Shoals* Programme as a whole has resulted, on occasions, in establishing training programme at short notice often because of trainers not being able to guarantee their availability. Now that the Programme is established, a training schedule is being produced with training projects being allocated in advance.
- That the fundraising for the core *Shoals* Programme cannot necessarily be relied upon to provide additional support for the Darwin Initiative Project, and that the Project must therefore ensure be as self-sufficient as possible within *Shoals* so as to guarantee its objectives are met.

- 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. Where a project is falling behind schedule, details on the revised programme of work should be provided below.*

As per the 6-monthly monitoring form, the overall Project progress slipped a little with the initiation of training beginning 2-3 months later than scheduled. However, particularly due to the efforts of the visiting Royal Navy, organised through the Project, the training provided in Seychelles more than achieved its targets by the end of the year. However, the Mauritius end of the Project will need to implement a more intensive training programme this year to ensure that the end of year II training commitments are honoured.

**Revised Project Implementation Timetable:**

**1999/2000**

asap Production of poster for Seychelles & Mauritius  
May Mauritius seminar I & II  
Seychelles seminar IV  
June- Commence training in Rodrigues  
Sept Ongoing training in Seychelles  
Nov Second poster and Manual part 2 (draft)  
Dec Mauritius seminar III & IV  
Seychelles seminar V  
Mar Second poster printed

**2000/2001**

As per original timetable.

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

April 20001

- 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? 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).*

*Please note you are not expected to report against all the output measures which are listed. We only expect you to report on the outputs which were agreed for your project. However, if further outputs have been generated which relate to one or more of the standard output measures, these should also be reported below. Further outputs which do not fit easily into any of the standard output categories should be reported later in this section (see sub-section b).*

<b>Output Ref. No.</b>	<b>Description/Commentary</b>
6A	<p><i>24 personnel trained in biodiversity, monitoring and resource management</i>  <b>&gt;46 personnel trained in a variety of skills for marine resource management</b></p>
6B	<p><i>4 weeks training per person provided</i>  <b>More people trained on shorter courses – however, majority of trainees have received 1-3 weeks training</b></p>
7	<p><i>1 poster on intertidal key species and techniques</i>  <b>Poster currently under design – delays due to decisions on content</b></p>

PROJECT OUTPUTS continued

Output Ref. No.	Description/Commentary
8	<p><i>Up to 48 weeks spent by 4 UK staff in host country</i>  <b>c. 30 weeks by 3 full time staff in Seychelles</b>  <b>c. 8 weeks by 4 full time staff in Mauritius</b>  <b>c. 50 man weeks by visiting trainers in Seychelles</b></p>
14a	<p><i>Two seminars, one held in Mauritius and the other in Seychelles to give an introduction to marine environmental management and Shoals general progress. Numbers to be decided.</i>  <b>Three seminars given in Seychelles, with a fourth scheduled for end May 1999. Seminar I &amp; II in Mauritius by end May 1999</b></p>
15	<p><i>Estimated 2 press releases</i>  <b>Major RGS-IBG press release, circulated to c. 250 key mainstream press contacts. Highlighted on Shoals WWW pages. Darwin Initiative events in Seychelles received much local media coverage.</b></p>
16	<p><i>The Shoals Programme newsletter will carry regular columns on the Darwin project</i>  <b>Key piece on Darwin Initiative grant written in RGS-IBG newsletter April 1998 (distribution 14,000), plus project update in the first two issues of Shoals Bulletin (distribution to c. 400 people).</b></p>
23	<p><i>£143,500</i>  <b>It is currently very difficult to estimate the amount of support from other sources, particularly as support from the Royal Navy cannot be estimated. In addition, we have had the use of SY Thalassi (charter rates £1,200 per day) for 1 month free of charge, as well as a tremendous amount of support in kind from the host nation Governments including transport, base development and work permits. We therefore estimate that we have far surpassed this figure of additional support.</b></p>

- 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 **profile** of marine environmental education and the understanding of the importance of marine environmental issues has risen within both host nations as the Programme receives coverage and raises its profile within the countries. This is expected to rise substantially this coming year. In addition, local personnel trained through the Darwin Initiative project are active and valuable **participants** on *Shoals* research projects instead of merely observers – this is a major achievement of the Darwin Initiative project so far.

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

Production of poster and training manual: Stakeholder involvement and ownership and are important components to the production of both these resources. This requires considerable co-ordination in the field in order to ascertain their optimal content. Part of the ethos of the *Shoals* Programme is to include and encourage local stakeholder involvement, and ensure that resources are correctly field tested. The price for this is possible time delays, and an accurate schedule of the production of such outputs is therefore difficult.

- d) If the project timetable has slipped or changed, provide an updated timetable for the achievement of outputs over the remainder of the project period. *(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).*

No significant delays are expected.

## PROJECT EXPENDITURE

- a) Grant expenditure last year
- b) Grant expenditure to date £37,900 (first year of grant)
- c) Please provide a breakdown of grant expenditure using the main expenditure headings in the original application form.

Expenditure Last Year	Expenditure to Date

f) Explain any variations in expenditure (+/-10%) from the original application form.

Explanation for variances:

Includes freighting costs

## STAFF RESOURCES

Please provide details on the staff who have worked on the project over the last year.

Name	Institution	Grade/Position	% of time allocated to the project last year
Mr Iain Watt	<i>Shoals</i> Programme	<i>Shoals</i> Programme Director / Training Co-ordinator	c. 20%
Mr Martin Callow Dr Robert Hartnell	<i>Shoals</i> Programme	Country Co-ordinators	40% 50%
Mr Jan Robinson Dr Magnus Johnson Ms Caroline Lawton Dr Jane Dodd Mr Tom Hooper Ms Tara Lynch	<i>Shoals</i> Programme	Field staff	25% 25% 25% 25% 25% 25%
Dr Clare Bradshaw Dr Bill Burnett Dr Jenny Collier Dr Victor De Lima Dr Quentin Huggett Dr Simon Jennings Dr Andrew Jephcoat Dr Graham Oliver Dr Mark Spalding Dr Pete Schultheiss Dr Melanie Summit Mr Kristian Teleki Mr Ian Tittley Dr Helge Vogt	UK Universities & research institutions in association with the <i>Shoals</i> Programme	<i>Shoals</i> visiting researcher / trainer	c. 5 training days per person provided during each field visit

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.

A greater number of trainers have come out to the field providing training for a shorter period of time. More of the Programme Director, Iain Watt's, time has been taken up with hands-on training himself as he had the most relevant skills.

Ref: 9120/FORMS/MF-2.FRM