



Project Ref No. 162/12/023

Darwin Initiative Assessment of the Coastal  
Biodiversity of Anegada, BVI

2nd Annual Report April 2005



# *Darwin Initiative for the Survival of Species*

## *Annual Report*

### **1. Darwin Project Information**

Project Ref. Number	<i>162/12/023</i>
Project Title	<i>Darwin Initiative Assessment of the Coastal Biodiversity of Anegada, BVI</i>
Country(ies)	<i>UK, British Virgin Islands</i>
UK Contractor	<i>University of Exeter</i>
Partner Organisation(s)	<i>BVI Conservation and Fisheries Department BVI National Parks Trust Governor of the BVI H. Lavity Stouff Community College, BVI Royal Botanic Gardens Kew, UK Royal Society for the Protection of Birds, UK</i>
Darwin Grant Value	<i>164,205</i>
Start/End dates	<i>1 October 2003 - 31 March 2006</i>
Reporting period (1 Apr 200x to 31 Mar 200y) and report number (1,2,3..)	<i>1 April 2004 to 31 March 2005 Annual Report 2</i>
Project website	<i>www.seaturtle.org/mtrg/projects/anegada</i>
Author(s), date	<i>A. McGowan 29 April 05</i>

### **2. Project Background**

- Briefly describe the location and circumstances of the project and the problem that the project aims to address.

This project is being carried out on Anegada, British Virgin Islands. It is one of the largest unspoilt islands in the Caribbean and is under extreme development pressure. It hosts a globally important coral reef system, regionally significant populations of marine turtles, is of regional importance to birds and supports globally important endemic plants. The project aims to carry out a detailed assessment of the coastal biodiversity of Anegada leading to a Biodiversity Action Plan.

### 3. Project Purpose and Outputs

- State the purpose and outputs of the project. Please include your project logical framework as an appendix and report achievements and progress against it (or, if applicable, against the latest version of the logframe).

The logical framework is included as Appendix 1. As articulated in the project bid there are three fundamental objectives towards which much has been achieved in the first 18 months of the project:

#### **Objective A. Integrated documentation and scientific monitoring of three important taxa:**

**Marine turtles:-** We have surveyed all possible nesting beaches and recorded 13 turtle nests (6 hawksbill, 8 green) over the course of the nesting season. Six clutches (3 hawksbill, 3 green) successfully hatched with an average hatching success of 95% for the hawksbills and 61% for the greens. With two of the local Anegadian fisherman as part of the project team, an intensive in-water study has been successfully implemented. A total of 209 turtles (140 hawksbill, 69 green) being captured, tagged and released. In addition, biometric data have been collected from a further 9 turtles (1 hawksbill, 8 green) caught by local fisherman as part of the legal turtle harvest. Tissue samples, collected from all captured turtles, are currently undergoing genetic analysis in order to determine the nesting colony of origin the juvenile turtles living in the waters around Anegada. We have also established a turtle specimen reference collection which will be used as a teaching aid in the local schools and college.

**Plants:** This year has seen a continuation of the plant fieldwork. At a habitat level we have started to ground truth the aerial photographs of Anegada to refine the habitat map. Using the habitat classification devised as a result of year 1 fieldwork we have been collecting plot data to confirm habitat type, species composition, plus a few environmental parameters eg vegetation height, ground cover. To date 547 plots have been recorded and geo-referenced. These will be analysed to allow a community classification to be done and will be incorporated into the habitat map.

During the habitat fieldwork, herbarium voucher specimens have been collected of any new species encountered and of any species listed but lacking a flowering/fruitlet specimen. The checklist of Anegada plants and their conservation status is on-going as is the monitoring of threatened plant species. Particular highlights this year include the discovery of new populations of the critically endangered cactus *Leptocereus quadricostatus* and of *Senna polyphylla* var *neglecta*. The *Senna* is Anegada's rarest tree known only from 2 individuals before the discovery of a new population of 30 individuals of this Anegadian endemic. Seed collection continues and several of Anegada's threatened plant species are now safely in cold storage at Kew's Millennium Seedbank and at the JR O'Neal Botanic Garden. These include *Cordia rupicola* and *Acacia anegadensis*, both critically endangered in the wild. Monitoring of invasive plant species also continues. Of particular concern is *Scaevola sericea* which is posing a real threat to coastal vegetation. Decisions need to be made very soon about its control, a subject that will be discussed at the management planning workshop planned for late 2005. Ethno-botanical information is also being collected with the approval of members of the local community. Common names and uses of plants in Anegada are being documented.

**Birds:-** All habitat types in Anegada have been surveyed and the diversity and abundance of bird species present has been recorded. In total, 99 different bird species, from 27 families have been recorded on Anegada and 30 of these species have been confirmed as breeding. Furthermore, a series of point count locations have been established around the island and systematically monitored throughout the year. Data from this study are currently undergoing analysis. We also established the first ever bird banding scheme for the BVI in December 2004. In addition, we have also established a Darwin avian specimen reference collection and bird image library that will be supplemented throughout the duration of the project and function as a teaching aid for the local schools and college. Local common names have been gathered as part of liaison with local community members.

### **Objective B. Institutional strengthening and capacity building.**

**Darwin Steering Group Meetings:-** As this is very much a collaborative project steered and assessed locally through the input and discussion from the Darwin Project Steering Committee. During this period of reporting the steering group has met 2 times in the BVI and the UK project partners have met once in the UK. As well as directing this Darwin project these meetings act as an excellent forum for representatives from all three local biodiversity partners to discuss and strategise. All meetings are fully minuted and distributed to all on the Darwin Project Listserv. The strong consortium of UK partners established as part of this Darwin Initiative project, again joined resources to submit a successful bid in the most recent round of Darwin Funding. This bid, "In Ivan's wake: A Biodiversity Action Plan for the Cayman Islands" draws directly from the experiences of this current project, increasing legacy of the project being reported here.

**Darwin Project Workshops:-** One Darwin project workshop has been conducted during the last year

**Workshop #3: "An Introduction to Bird banding"** consisted of two days of classroom sessions in conjunction with 5 days of fieldwork where 12 project participants received hands-on practical training in the techniques used in bird banding and the monitoring of birds (see Appendix II for workshop structure and detail).

### **Additional Training Opportunities:**

The project has provided funding/support during the last year for the following:

1. Moreen Barrie from the BVI National Parks Trust to attend a media training week in Bermuda held by the RSPB.
2. Arlington Pickering from BVI Conservation and Fisheries Department and Jim White from the Anegada Community to attend the 25<sup>th</sup> International Sea Turtle Symposium 2005 in Savannah, Georgia, USA.

## **Darwin Project Listserv**

A project listserv has been initiated so that members from each of the project partner organisations (30 individuals) are involved in all aspects of the running of the project and provides a forum for raising any project related issues. It is used to circulate draft documents such as minutes, newsletter articles etc, subsequent comments on drafts and then final copies. It should be noted that some project partners do not have online access but information is cascaded from key individuals in each organisation.

## **Engagement of Anegada Community Members**

In the past there has been some resistance to biodiversity conservation projects in Anegada when they have been based in Tortola or overseas. To help redress this and achieve more community involvement in both this project and biodiversity conservation in general, community members have been involved in this project since its inception and are being consulted on an ongoing basis. Three community members are directly employed as fieldworkers and we have engaged as many of the service sector businesses as possible; sharing the spend of the project in all outlets. We feel that this is increasing good will towards conservation on the island and will facilitate the work of BVI project partners in the future. Many other community members have been involved through the extensive involvement with Darwin project activities in the local schools (see below) or through informal conversations within the small community, often resultant from Darwin Newsletter items or wider media coverage.

### **Objective C. Increasing environmental awareness in the general public and key stakeholder groups.**

Activities towards this objective have been diverse:

#### **1. Seminars**

##### **In the BVI**

We have given a variety of Darwin Seminars throughout the BVI and a list of those conducted during this reporting period is as follows:

1. 21-Jul-04 Darwin Initiative Seminar HLSCC Lecture Series.
2. 26-Jul-04 Darwin Seminar BVI Schools Summer Program - Marine Turtles in the BVI.
3. 16-11-04 Darwin Seminar Century House Montessori, Tortola - Marine Turtles in the BVI.
4. 8-Dec-04 Darwin Seminar to undergraduates at HLSCC, BVI. Darwin Initiative Assessment of the Coastal Biodiversity in Anegada.
5. 24-Feb-04 Darwin Seminar HRH Princess Anne, JR O'Neal Botanic Gardens.
6. 25-Feb-05 Darwin Seminar Robinson O'Neal Memorial Primary School, Virgin Gorda.

## **In UK**

In this reporting period we have presented four Darwin Seminars in the UK which are as follows:

1. 5-Aug-04 Cornish Wildlife Trust (Invited Speaker).
2. 16-Oct-04 British Chelonia Group, Annual Meeting (Invited Speaker).
3. 5-Nov-04 University of Plymouth (Invited Speaker).
4. 4-Dec-04 Herpetological Conservation Trust, Annual Scientific Meeting (Invited Speaker).

## **2. School Visits in the BVI**

We carried out several visits to the primary school on Anegada where we gave talks about the project and involved them in a plant common name competition for one of the local threatened plants, *Leptocereous quadricostatus*. A short piece about the latest plant common name competition appears on the project website. We also visited Century House Montessori School, Tortola, and the Robinson O'Neal Memorial Primary School, Virgin Gorda, where we talked about "Anegada and the Turtles in the BVI" with students and school staff, with the project partners having just as much fun as the children. Project staff also lead an educational field trip with the children of the Robinson O'Neal Memorial Primary School to look at the plants of Anegada and the threats they are under. We also took part in the BVI Summer Schools program and talked to a variety of school children from 6-16 years old on Conservation of Marine Turtles in the BVI.

We have also been involved with the biology students at the H. Lavity Stoutt Community College and have given seminars on "Assessment of the Coastal Biodiversity of Anegada" as part of the "Environments in the BVI" course at the college and a seminar for the HLSCC lecture series on "Biodiversity of Anegada - Marine turtles of the BVI".

## **3. Media**

### **In the BVI**

Over the course of this reporting period we issued four press releases in the BVI resulting in 9 national press articles. Also in the BVI we achieved five main features on the national television VITV, two of which were the lead item on the National News, as well as 4 radio features on the national radio stations.

### **In the UK**

In this reporting period we have issued 1 national and 1 local press release. We have achieved press articles in a number of specialist media. The list of our UK press articles in this reporting period is as follows:

International Specialist Publication, Kew Scientist, Issue 25.

International Specialist Publication, Kew Scientist, Issue 26.

International Specialist Publication- UKOTCF Forum News Issue 25.

International Specialist Publications: Botanic Gardens Journal Vol 2, #1 January 2005.

#### **4. Darwin Project Newsletter**

Each edition of the project newsletter "Darwin Anegada" has been circulated to every family on Anegada and local businesses, throughout the BVI, are freely distributing the newsletter to visiting tourists. Currently we have a circulation of 2000 copies of the newsletter in the BVI, 600 copies in the UK and 300 copies internationally. There has also been over 1800 downloads of the project Newsletter from the project website.

#### **5. Darwin Project Website**

Since the launch of the project website in November 2003 we have had 19000 visitors with over 300 individuals signing up for regular project updates. There have been over 14500 viewings of images from the Darwin Initiative project online photo library.

- Have the outputs or proposed operational plan been modified over the last year, for what reason, and have these changes been approved by the Darwin Secretariat? (Please note that any intended modifications should be discussed with the Secretariat directly rather than making suggestions in this report).

No outputs have been modified over the last year and the proposed operational plan remains the same.

#### **4. Progress**

- Please provide a brief history of the project to the beginning of this reporting period. (1 para)

Our approach to data collection and employment of islanders in all aspects of the fieldwork has created an extensive feeling of community ownership and willingness to help the project be successful. The project has had extensive media coverage due to its broad range of project objectives, community involvement and use of effective imagery. A combination of all these factors has meant that the project has been tremendously successful up to the beginning of this reporting period, exceeding expectations in terms of outputs, with all the milestones being achieved on or ahead of schedule.

- Summarise progress over the last year against the agreed baseline timetable for the period and the logical framework (complete Annex 1). Explain differences including any slippage or additional outputs and activities.

The progress of the project over the last year has been excellent. The project has exceeded expectations in terms of outputs for this period (please see Appendix III for a full breakdown of outputs to date. NB this includes outputs over and above those in the agreed project bid). Almost all milestones have been reached on or ahead of schedule. The only key milestone not met to date is the submission of the second peer reviewed publication from this project. Multiple submissions are in preparation and will be completed upon the attainment of a few additional pieces of data. These include papers on the "Status of Seabirds of the British Virgin Islands", "Genetic Profile of Marine Turtles" and "Terrestrial Avifauna of Anegada". In total, it is expected that the scientific outputs of the project will more than fulfil expectations. This is further underscored by the additional complimentary Natural Environment Research Council and Overseas Territories Environment Programme funded research on marine turtles to be carried out by BVI and UK based Darwin Project staff in the summer of 2005.

- Provide an account of the project's achievements during the last year. This should include concise discussion on methodologies and approaches by the project (e.g. research, training, planning, assessment, monitoring) and their consequences and impacts as well as results. Please **summarise** content on methodologies and approaches, and, if necessary, provide more detailed information in appendices (this may include cross-references to attached publications).

We feel the achievements have been significant:

### **Research and Monitoring:**

#### Sea Turtles

- Major involvement of local fisherman.
- Completed surveys of all nesting beaches.
- Collected data from a further 114 turtles (218 in total), 113 (209 in total) of which have been tagged and released.
- Collected additional data from 47 recaptured turtles previously tagged and released.
- Enhanced the Darwin turtle specimen reference collection.

#### Plants

- Mapped and classified all the vegetative types for the entire coastline.
- Constructed an initial habitat map for the entire island.
- Enhanced the Darwin plant reference collection.
- Enhanced the Darwin/FCOEF seed bank.
- Mapped locations of threatened and invasive plants.
- Discovered new populations of several globally threatened species.

#### Birds

- Surveyed all the available habitat types.
- Recorded 99 species, 30 of which have been confirmed as breeding.
- Enhanced Darwin avian specimen reference collection.
- Enhanced online bird image library.
- Established BVI bird banding scheme.

### **Training:**

- Held a Darwin Project workshop for a total of 12 people.
- Moreen Barrie from the BVI National Parks Trust attended a media training week held by the RSPB in Bermuda.
- Arlington Pickering from BVI Conservation and Fisheries Department and Jim White from the Anegada Community attended the 25<sup>th</sup> International Sea Turtle Symposium 2005 in Savannah, Georgia, USA.



## **Awareness raising:**

- Held 9 Darwin Seminars both in the BVI and the UK.
  - Visits to local schools and college giving presentations, seminars and leading educational field trips.
  - In the BVI, 8 press releases, 9 national press articles, 5 national TV features and 4 national radio interviews, special presentation and plant display to HRH Princess Anne.
  - In the UK 2 press releases, 4 press articles, Silver Lindley Medal for "Treasured Islands" display at the Chelsea Flower Show.
  - Over 2900 copies of each newsletter circulated worldwide.
  - Over 19000 visitors to the project website.
- 
- Discuss any significant difficulties encountered during the year and steps taken to overcome them.

We have had no significant difficulties during the last year.

- Has the design of the project been enhanced over the last year, e.g. refining methods, indicators for measuring achievements, exit strategy?

Yes, discussion among project partners raised the issue that to fully facilitate the production of a successful management plan that there would need to be a focussed workshop to help develop this. It has been proposed that this will run in September 2005 with representatives of all BVI and UK partners. In addition, RSPB have proffered a trained facilitator to support this initiative.

- Present a timetable (workplan) for the next reporting period.

July 2005	3rd field season started.
July 2005	4th Darwin Newsletter produced.
July 2005	Submitted 3rd peer reviewed paper.
September 2005	4th Darwin Workshop to be held.

## **5. Actions taken in response to previous reviews (if applicable)**

- Have you responded to issues raised in the review of your last year's annual report? Have you discussed the review with your collaborators? Briefly describe what actions have been taken as a result of recommendations from last year's review.

Yes, we have responded to the single issue that was raised in last years review. The review of last years report has been circulated to all the project partners and discussed. The only slight criticism of last years report was that a little more information could have been provided with regards to the structure of individual workshops. Based on University of Exeter in Cornwall Teaching Accreditation proforma we have provided structured detail regarding the content of teaching of Darwin Workshop #3, and retroactively done the same for the previous two Darwin Workshops that were held in year 2003/2004 (Appendix II)

## 6. Partnerships

- Describe collaboration between UK and host country partner(s) over the last year. Are there difficulties or unforeseen problems or advantages of these relationships?

The collaboration between the host country partner organisations (BVI Conservation and Fisheries Department, BVI National Parks Trust, Governor of the BVI, H. Lavity Stoutt Community College) and the UK partners (Marine Turtle Research Group (University of Exeter), Royal Botanic Gardens, Kew, and Royal Society for the Protection of Birds) has been excellent.

Although the majority of work is carried out during periods of intensive Darwin fieldwork when UK staff are present in the BVI, there is also additional fieldwork carried out in intervening periods. In addition, this project has managed to leverage the involvement of additional partners in Steve Alton, RBG, Kew, Wakehurst Place, involved with the FCO/Darwin Initiative seed bank; Mike Gillman, Open University, who is involved in research on the role butterflies play in plant / pollinator interactions; Angela Easterling, an independent artist, Barrie Blewitt, and Pat Griggs of RBG, Kew who were all involved in creating images that were used as part of the "Treasured Islands" exhibition at the Chelsea Flower Show 2004, which won the Silver Lindley Medal. These images will be used in future publicity material of the project, including an exhibition at Kew currently being planned

- Has the project been able to collaborate with similar projects (Darwin or other) in the host country or other regions, or establish new links with / between local or international organisations involved in biodiversity conservation?

This Darwin project has:

1. Fed genetics samples and marine turtle fishery data into the FCOEF/Defra funded Turtles in the Caribbean Overseas Territories.
2. Enhanced the collaboration of Steve Alton from the Seed Conservation Department, RBG Kew who is involved in the Millennium Seed Bank at Kew, Wakehurst Place. This has resulted in the establishment of a Darwin Initiative/FCO seed bank at the J.R. O'Neal Botanic Garden, Tortola, BVI.
3. Angela Easterling, an independent artist, Barrie Blewitt, and Pat Griggs both of RBG, Kew were all involved in creating the images that were used as part of the "Treasured Islands" exhibition at the Chelsea Flower Show which resulted in the Silver Lindley Medal award. The images will be used in the future publicity material of the project and it is hoped that exhibitions of Angela's work will be displayed in the BVI in the future.
4. We are also collaborating with Dr Mike Gillman from the Open University whose specific areas of research interest are butterflies and the role they play in plant / pollinator interactions. Dr Gillman has identified all the butterfly species encountered on Anegada so far and gathered data on their spatial distribution. This consisted of 17 species in total, two of which are endemic. Mike also recorded and identified a large number of different pollinators of a wide variety of plant species, including several of the Red Data Book plant species. This collaboration will enhance the multi taxa approach and add to the data to be used for the final biodiversity action plan.

5. This Darwin project will harmonise with the project partners on some of the planned educational outputs of an FCO/DfID funded OTEP project which involves turtles and their habitats in a focus on promoting Marine Turtles, MEA's and the Environment Charter in the OT's.

6. We have also disseminated our Newsletter widely in hardcopy courtesy of UKOTCF and by online pdf. It is expected that this will help foster collaboration.

7. This project is in discussion with US based iguana researchers about respective projects, dissemination outputs and possible collaborations. The iguana researchers have already contributed an article to our newsletter Darwin Anegada. . We have also identified those plants which are important components of the diet of the critically endangered Anegada Rock Iguana they are working on.

8. Led to another successful Darwin bid for the Cayman Islands based on the same UK consortium and all key biodiversity partners in the Cayman Islands.

## **7. Impact and Sustainability**

- Discuss the profile of the project within the country and what efforts have been made during the year to promote the work. What evidence is there for increasing interest and capacity for biodiversity resulting from the project? Is there a satisfactory exit strategy for the project in place?

The profile of the project is exceptionally high in the host country. In the last year we have achieved 5 National TV features in the host country and has been the lead item on the National News on 2 separate occasions. We have issued 8 National press releases which resulted in 9 National press articles and conducted 4 National Radio interviews. The project has also been solicited for a series of articles for the National Tourist Board Publication the *BVI Welcome* and has provided an article for the *Liat Islander*, the in flight magazine of the LIAT Airline. The evidence for increasing interest and capacity for biodiversity is evidenced by additional field days in Anegada undertaken by local partners when there has been no UK partner presence in the BVI. The project has already been receiving requests from the community to work on the project and we are seeking alternative income streams to help increase this role. There have been over 19000 visitors to the project website and over 14500 viewings of the pictures from our online image library. A proportion of visitors to the website have also signed up for regular project updates and our project newsletter, Darwin Anegada, has a global circulation of over 2900 copies. The exit strategy for the project is as planned.

## **8. Post-Project Follow up Activities (max 300 words)**

This section should be completed ONLY if your project is nearing completion (penultimate or final year) and you wish to be considered to be invited to apply for Post Project Funding. *Each year, a small number of Darwin projects will be invited to apply for funding. Selection of these projects will be based on promising project work, reviews to date, and your suggestions within this section. Further information on this scheme introduced in 2003 is available from the Darwin website.*

- From project progress so far, what follow-up activities would help to embed or consolidate the results of your project, and why would you consider these as suitable for Darwin Post Project Funding?

Undoubtedly there will be important projects that would benefit from such funding. Prior to the drafting of the Biodiversity Action Plan, it is felt that at this time it may be premature to consider post-project funding until the range and scope of the necessary actions are known.

- What evidence is there of strong commitment and capacity by host country partners to enable them to play a major role in follow-up activities?

The commitment of key partners is obvious by the success and impact of the project. As a result of the project partners are being armed with much of the data and the skills that will allow them to more successfully manage the biodiversity of Anegada and the wider BVI.

## **9. Outputs, Outcomes and Dissemination**

- Explain differences in actual outputs against those agreed in the initial 'Project Implementation Timetable' and the 'Project Outputs Schedule', i.e. what outputs were not or only partly achieved? Were additional outputs achieved?

Considering that this project has only been underway for 18 months it has made remarkable progress towards output targets (Please see Appendix II for a detailed breakdown of all outputs to date). In summary the project has significantly over-achieved attaining 100% or greater of total project targets on outputs 3, 6a, 12a, 13a, 13b, 14a, 14b, 15a, 16b, 16c, 17a, 18a, 19a, 19d and 22. In addition, the project has achieved between 17%-90% of targets for outputs 6b, 8, 11a, 11b, 15c, 15d, and 16a. The outputs that we have not achieved yet are those that are the result of and integration of long-term efforts (e.g. 9,) and given that the project has only been underway for 18 months we would not expect to have achieved any of these outputs at present. We have also achieved 100% or greater on all but the "Darwin Teachers Education Packs" of the additional outputs that were included in the project bid. However we have attained 25% of this output so far and fully expect to attain 100% within the next year.

Outputs achieved above and beyond the project proposal to date are as follows:

- 19 National Press Articles in BVI.
- 1 Press Article in UK popular Media.
- 2 Articles in UK Specialist Media.
- 6 Articles in International Specialist Publications.
- 2 Public Meetings in BVI.
- 6 Darwin Seminars in the UK.
- 1 Online Darwin Initiative Photo Library.
- 1 Darwin Initiative/FCOEF Seed Bank.
- 2 Darwin Initiative Plant Conservation Poster Series.
- 3 Darwin Seminars the BVI.
- 3 Darwin Initiative Project Educational Field Trips.
- 2 Darwin Initiative Plant Common Name Competition.

- 1 National Press Article in UK, BBC News Science / Nature website.
- 1 Silver Lindley Medal Award for "Treasured Islands" display at Chelsea Flower Show.
- 1 Darwin Initiative "Threatened Plants of the BVI" display for HRH Princess Anne.
- 1 DEFRA Darwin Initiative Website - Project News article.
- 1 DEFRA Darwin Initiative Newsletter Article.
- 1 Image used in DEFRA Darwin Initiative website banner.
- 2 Darwin Initiative Resources CD's.

- Provide details of dissemination activities in the host country during the year, including information on target audiences. Will dissemination activities be continued by the host country when the project finishes, and how will this be funded and implemented?

Members from each of the project partner organisations (30 individuals in total) are part of a dissemination network involved in all aspects of the running of the project.

The project has established a website, which has had over 19000 visitors so far, on which visitors can sign up for regular updates on the projects progress. Over 300 individuals have signed up to online updates. There has been 600 downloads of the bird list, over 14500 viewings of images from the Darwin Initiative project online photo library and over 1800 downloads of the project Newsletter. The newsletter has also been circulated to every family on Anegada and local business, throughout the BVI, are freely distributing the newsletter to visiting tourists. Corporate sponsorship has allowed us to produce many more copies of a high quality printed product which is allowing us to reach individuals who may not have online access, be reticent to attend public meetings but have a bona fide interest in their natural environment.

The project has also been targeting the schoolchildren of the BVI and several school visits have already taken place, with more planned for the future. Darwin seminars to the local college undergraduates, local interest groups, and the general public have also taken place throughout the BVI.

All images and materials produced during the project are being stored online and presented on CD's to local biodiversity professionals to allow them to further disseminate the information in the future.

- Please expand and complete Table 1. **Quantify** project outputs over the last year using the coding and format from the Darwin Initiative Standard Output Measures (see website for details) and give a brief description. Please list and report on appropriate Code Nos. only. The level of detail required is specified in the Guidance notes on Output Definitions, which accompanies the List of Standard Output Measures

**Table 1. Project Outputs (According to Standard Output Measures)**

<b>Code No.</b>	<b>Quantity</b>	<b>Description</b>
3	0	Number of people to attain other qualifications
6A	13	Number of people to receive other forms of education/training
6B	13	Number of training weeks to be provided
8	33	Number of weeks to be spent by UK project staff on project work in the host country
9	0	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country
11A	1	Number of papers to be published in peer reviewed journals
11B	1	Number of papers to be submitted to peer reviewed journals
12A	2	Number of computer based databases to be <b>established</b> and handed over to the host country
13A	0	Number of species reference collections to be <b>established</b> and handed over to the host country(ies)
13B	0	Number of species reference collections to be <b>enhanced</b> and handed over to the host country(ies)
14A	6	Number of conferences/seminars/ workshops to be <b>organised</b> to present/disseminate findings
14B	4	Number of conferences/seminars/ workshops <b>attended</b> at which findings from Darwin project work will be presented/ disseminated.
15A	8	Number of national press releases in host country(ies)
15C	1	Number of national press releases in UK
15D	1	Number of local press releases in UK
16A	2	Number of newsletters to be produced
16B	2000	Estimated circulation of each newsletter in the host country(ies)
16C	600	Estimated circulation of each newsletter in the UK
17A	0	Number of dissemination networks to be <b>established</b>
18A	5	Number of national TV programmes/features in host country(ies)
18D	0	Number of local TV programmes/features in UK
19A	4	Number of national radio interviews/features in host county(ies)
19B	0	Number of national radio interviews/features in UK
19D	0	Number of local radio interviews/features in UK
20	0	Estimated value (£'s) of physical assets to be handed over to host country
22	547	Number of permanent field plots to be established during the project
23	120,000	Value of resources raised from other sources for project work

- In Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, e.g. title, name of publisher, contact details, cost. Details will be recorded on the Darwin Monitoring Website Publications Database. Mark (\*) all publications and other material that you have included with this report.

**Table 2: Publications**

Type	Detail	Publishers	Available from	Cost £
Journal	<i>Abundance, distribution and conservation significance of regionally endemic plant species on Anegada, British Virgin Islands</i> , Colin Clubbe, Michael Gillman, Pedro Acevedo-Rodríguez and Raymond Walker, 2004	Oryx, Cambridge, UK		Free
Journal	<i>Building capacity and developing botanical infrastructure for conservation: a case study from the British Virgin Islands</i> , Colin Clubbe, 2005	Journal of Botanic Gardens Conservation International, Richmond, UK		Free
Online	<i>Birdlist v.2</i>		<a href="http://www.seaturtle.org/mtrg/projects/anegada">www.seaturtle.org/mtrg/ projects/anegada</a>	Free
Online	<i>Birdlist v.3</i>		<a href="http://www.seaturtle.org/mtrg/projects/anegada">www.seaturtle.org/mtrg/ projects/anegada</a>	Free
Online	<i>Birdlist v.4</i>		<a href="http://www.seaturtle.org/mtrg/projects/anegada">www.seaturtle.org/mtrg/ projects/anegada</a>	Free
Online	<i>Birdlist v.5</i>		<a href="http://www.seaturtle.org/mtrg/projects/anegada">www.seaturtle.org/mtrg/ projects/anegada</a>	Free
Online	<i>Birdlist v.6</i>		<a href="http://www.seaturtle.org/mtrg/projects/anegada">www.seaturtle.org/mtrg/ projects/anegada</a>	Free
Online	<i>Birdlist v.7</i>		<a href="http://www.seaturtle.org/mtrg/projects/anegada">www.seaturtle.org/mtrg/ projects/anegada</a>	Free
Online	Darwin Anegada Newsletter 2		<a href="http://www.seaturtle.org/mtrg/projects/anegada">www.seaturtle.org/mtrg/ projects/anegada</a>	Free
Online	Darwin Anegada Newsletter 3		<a href="http://www.seaturtle.org/mtrg/projects/anegada">www.seaturtle.org/mtrg/ projects/anegada</a>	Free

## 10. Project Expenditure

- Please expand and complete Table 3.

**Table 3: Project expenditure during the reporting period (Defra Financial Year 01 April to 31 March)**

Item	Budget (please indicate which document you refer to if other than your project schedule)	Expenditure	Balance

- Highlight any recently agreed changes to the budget and explain any variation in expenditure where this is +/- 10% of the budget.

I paraphrase communication from Mike Huggins, Research Accounting Section (University of Exeter).

As was articulated in the finance section of our 6month report Capital Items has exceeded 10% of budget due to the costs of production of bird bands, an essential component of the bird banding scheme. The overspend on 'Others' is caused by the costs of 'laboratory tests' (i.e. laboratory consumables). The overspend on 'Printing' is caused by costs coming in at more than budgeted for. We respectively request that you consider covering the overspends from the underspends.

## 11. Monitoring, Evaluation and Lessons

- Discuss methods employed to monitor and evaluate the project this year. How can you demonstrate that the outputs and outcomes of the project actually contribute to the project purpose? i.e. what are the indicators of achievements (both qualitative and quantitative) and how are you measuring these?

We are just over halfway through the project and have made remarkable progress. We can measure this based on progress towards agreed Darwin output measures, the positive attitude and morale among project partners in the field; with fieldwork being carried out when UK partners are not in the BVI. The progress of the project has been assessed at 2 steering group meetings in the BVI and 1 meeting of UK project partners. All meetings are minuted, reviewed by all partners before finalisation and circulation via project e-mail listserv. On a more ad hoc basis, in Anegada we are in touch with the community through their extensive involvement with the project and are able to gauge local feeling as the project progresses.



The project is carefully designed with the project segments integrally building towards a sound Biodiversity Action Plan, given that we are very much on target based on all the building blocks of this project i.e. Darwin output measures.

- What lessons have you learned from this year's work, and can you build this learning into future plans?

Our main take home messages are much as per last year's annual report after the first 6 months of the project.

Collaboration and consultation among local partners and local community is key.

A sound media strategy yields dividends. Our press releases in BVI are accompanied by a CD of attractive images that have been used by press and TV to illustrate stories.

The very strong and diverse project consortium yields dividends in the depth of skills, knowledge and additional collaborations that can be brought into play.

## **12. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum)**

1. Taking Jim White, Anegadian fisherman and local environmentalist, to his first international conference.
2. Within 18 months setting the baseline for one of the most extensive marine turtle capture-mark-recapture studies of 2 sympatric marine turtle foraging populations.
3. Locations of endemic plants geo-referenced and first island of the BVI to have vegetation mapped.
4. Silver Lindley Medal award for "Treasured Islands" display at Chelsea Flower Show.
5. Special Darwin Seminar and presentation to HRH Princess Anne at JR O'Neal Botanic Garden, Tortola, BVI.
6. First national bird banding scheme for the BVI launched.
7. Additional funding from NERC, OTEP and private business has been secured for work in summer 2005.

### **■ I agree for ECTF and the Darwin Secretariat to publish the content of this section**

In this section you have the chance to let us know about outstanding achievements of your project over the year that you consider worth highlighting to ECTF and the Darwin Secretariat. This could relate to achievements already mentioned in this report, on which you would like to expand further, or achievements that were in addition to the ones planned and deserve particular attention e.g. in terms of best practice. The idea is to use this section for various promotion and dissemination purposes, including e.g. publication in the Defra Annual Report, Darwin promotion material, or on the Darwin website. As we will not be able to ask projects on an individual basis for their consent to publish the content of this section, please note the above agreement clause.

Appendix 1 Report of progress and achievements against Logical Framework for Financial Year: 2004/2005

Project summary	Measurable Indicators	Progress and Achievements April 2004-Mar 2005	Actions required/planned for next period
<p><b>Goal:</b> To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</p> <ul style="list-style-type: none"> <li>• The conservation of biological diversity,</li> <li>• The sustainable use of its components, and</li> <li>• The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</li> </ul>			
<p><b>Purpose</b> <i>Carry out an assessment of the coastal biodiversity of Anegada and create the capacity for its future monitoring and conservation, increase environmental awareness</i></p>	<p><i>Increased knowledge of the patterns of biodiversity of Anegada.</i></p> <p><i>Effective management of biodiversity in Anegada</i></p>	<p>Knowledge greatly increased for all taxa</p>	<p><i>Fieldwork going very well</i></p>
<p><b>Outputs</b></p>			
<p><i>Two partner organisations able to undertake long-term monitoring &amp; management of the biodiversity of Anegada</i></p>	<p><i>Minimum of 15 staff from 3 partner organisations trained in key biodiversity assessment techniques</i></p>	<p>Fieldwork underway</p> <p>1 workshops completed</p> <p>3 attendees at international training events</p>	<p><i>Generally going well.</i></p> <p><i>Expensive to operate so careful planning of UK partner fieldwork to optimise spend will be needed</i></p>

<i>Greatly enhanced knowledge of key biodiversity elements in Anegada</i>	<i>Habitat maps, Population assessments of key species</i>	Habitat maps underway Population assessments underway	<i>As planned</i>
<i>Publications and Presentations</i>	<i>Computer databases, biodiversity action plan, peer reviewed papers, conference presentations, website, conference, research seminars, press releases and articles, radio items, newsletter educational teachers packs</i>	4 databases established and shared with local partners Website established and regularly updated Seminar series underway Numerous press releases and articles 3 editions of newsletter distributed 25 educational teachers packs distributed	<i>Continue as planned</i>

*Note: Please do NOT expand rows to include activities since their completion and outcomes should be reported under the column on progress and achievements at output and purpose levels*

## Appendix II Workshop Structure and Detail

<b>WORKSHOP # 1 TITLE</b>	Methods for Assessing the Biodiversity of Anegada
<b>WORKSHOP DATES</b>	18-24 November 2003
<b>LECTURER(S)</b>	Dr B Godley, Dr G Hilton, Dr C Clubbe, Dr A McGowan and Mr S Alton
<b>DURATION OF WORKSHOP</b>	7 days
<b>TOTAL PARTICIPANT TIME</b>	40 hours
<b>AIMS</b>	<p>The workshop will introduce participants to the overall aims and objectives of the project and how these will be achieved. The workshop will provide participants with a knowledge and first hand experience of all the methods and techniques that will be used to monitor the plants, birds and sea turtles of Anegada over the duration of the project.</p>
<b>WORKSHOP CONTENT</b>	<p><i>Presentations:</i></p> <p>i) Dr Andy McGowan (MTRG):- Darwin Initiative Assessment of the Coastal Biodiversity of Anegada – overall aims and objectives</p> <p>ii) Dr Colin Clubbe (RBG Kew):- Plant Diversity in the BVI: Identification and Conservation.</p> <p>iii) Dr Brendan Godley (MTRG):- Turtle Biology and Research Protocols for Darwin Project: Anegada</p> <p>iv) Dr Geoff Hilton (RSPB):- Avian Biodiversity and Conservation in the British Virgin Islands</p> <p>v) Steve Alton (RBG Kew):- Collection of Seed, Herbarium Specimens and Associated Data.</p> <p><i>Practical sessions:</i></p> <p>Plant specimen identification and voucher specimen collection, Seed assessment, collection and storage Bird identification and census techniques Marine turtle identification, capture, biological data collection and genetic sampling.</p>
<b>INTENDED LEARNING OUTCOMES</b>	<p>It is intended that, on successful completion of the workshop, a participant will:</p> <p>i) have a knowledge and understanding of the overall aims and objectives of this project</p> <p>ii) have a knowledge of the methods and techniques used to assess the 3 major taxa under consideration</p> <p>iii) have field experience of utilising a variety of monitoring and sampling techniques on the 3 major taxa under consideration</p>
<b>LEARNING/TEACHING METHODS</b>	<p>The workshop will be delivered at Marine Science Centre, HLSCC by project staff. It will have a standard format of 5 presentations and daily practical sessions in the field.</p>
<b>ASSESSMENT</b>	<p>Workshop participants will undergo continual assessment during all practical sessions throughout the duration of the workshop.</p>

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<b>WORKSHOP #2 TITLE</b>	Advanced Botanical Identification and Mapping
<b>WORKSHOP DATES</b>	16-24 February 2004
<b>LECTURER(S)</b>	Dr C Clubbe, Dr A Eastwood and Dr M Gillman
<b>DURATION OF WORKSHOP</b>	7 days
<b>TOTAL PARTICIPANT TIME</b>	40 hours
<b>AIMS</b>	
Drawing on the outcomes of Workshop 1, this workshop will further develop and refine participants' abilities and skills to identify and map plants in the field. The workshop will be entirely field-based providing workshop participants with opportunities to collect herbarium specimens, seed collections and associated data, using field keys for family, genus and species-level identification.	
<b>WORKSHOP CONTENT</b>	
The Workshop will consist of practical experience in the field with tutors as well as discussions in the evening on the day's problem taxa. Workshop participants will work in small groups and have the opportunity to: i) collect herbarium specimens and associated data ii) collect seeds specimens and associated data iii) use botanical keys in the field and recognise key characters for identification iv) use GPS to collect data for habitat mapping v) recognise key habitat types for habitat classification and mapping	
<b>INTENDED LEARNING OUTCOMES</b>	
It is intended that, on successful completion of the workshop, each participant will have: i) a broader knowledge and understanding of the principles of plant identification ii) an improved knowledge of field-based plant identification methodology iii) an improved ability to identify key families and common species of plants occurring on Anegada. iv) an improved ability in collecting good quality herbarium specimens v) an improved ability in collecting those data necessary for documenting plant and habitat distribution	
<b>LEARNING/TEACHING METHODS</b>	
The workshop will be based on Anegada and take place in the field. Each small group will have a tutor assigned to them who will lead on the key skills development and will monitor progress and check results.	
<b>ASSESSMENT</b>	
Workshop participants will undergo continual assessment by question and answer techniques throughout the duration of the workshop. An informal field identification test will be undertaken at the end of the workshop to assess overall progress.	

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<b>WORKSHOP # 3 TITLE</b>	Bird banding: What it is, Why we do it and How it's done
<b>WORKSHOP DATES</b>	6-10 December 2004
<b>LECTURER(S)</b>	Dr S Sharp, Dr G Hilton, and Dr A McGowan
<b>DURATION OF WORKSHOP</b>	5 days
<b>TOTAL PARTICIPANT TIME</b>	40 hours
<b>AIMS</b>	<p>The workshop will introduce participants to all the fundamentals of bird banding. The workshop will provide participants with a knowledge and first hand experience of bird capture techniques, bird handling methods, in the hand bird identification, an insight into feather moult and its application in ageing and sexing birds, the scientific uses of bird banding and its use in bird conservation. The workshop will also result in the production of a resources CD that can be used as an educational tool in the future</p>
<b>WORKSHOP CONTENT</b>	<p><i>Presentations:</i></p> <p>i) Dr Andy McGowan (MTRG):- What, Why and How Bird Banding  ii) Dr Geoff Hilton (RSPB):- Conservation Uses of Bird Banding  iii) Dr S Sharp (University of Sheffield):- (a) Knowing Your Birds  (b) Moult and How to Use it to Age Birds</p> <p><i>Practical sessions:</i></p> <p>Setting and dismantling mist nets  General mist netting and bird banding session 1-6  How to set and use a whoosh net</p>
<b>INTENDED LEARNING OUTCOMES</b>	<p>It is intended that, on successful completion of the workshop, a participant will:</p> <ol style="list-style-type: none"> <li>1. have a knowledge and understanding of the basic principles of bird banding</li> <li>2. be able to identify all commonly occurring passerines in the hand</li> <li>3. have practical experience of catching and handling birds</li> <li>4. have a knowledge and understanding of feather moult</li> <li>5. have a basic knowledge of how feather moult can be used in ageing birds in the field</li> </ol>
<b>LEARNING/TEACHING METHODS</b>	<p>The workshop will be delivered at Marine Science Centre, HLSCC by project staff. It will have a standard format of 3 presentations and daily practical sessions in the field at HLSCC and 2 full field days in Anegada</p>
<b>ASSESSMENT</b>	<p>Participants will be assessed by identification tests both at the beginning and end of the workshop to enable individual progress to be monitored.  Project staff will continually assess participants during all practical sessions.</p>

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**Appendix III Outputs of project up to 31<sup>st</sup> March 2005**

<b>Output Code</b>	<b>Specifics</b>	<b>Total No. required in 2.5 years</b>	<b>No. Achieved by 31 March 04</b>	<b>% Achieved by 31 March 04</b>
3	Number of people to attain other qualifications (ie. Not outputs 1 or 2 above) *	1	1	<b>100</b>
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above) *	20	31	<b>155</b>
6B	Number of training weeks to be provided	40	31	78
8	Number of weeks to be spent by UK project staff on project work in the host country	96	65	68
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country	1	0	0
11A	Number of papers to be published in peer reviewed journals	6	1	17
11B	Number of papers to be submitted to peer reviewed journals	6	1	17
12A	Number of computer based databases to be established and handed over to the host country	3	4	<b>133</b>
13A	Number of species reference collections to be established and handed over to the host country(ies)	2	3	<b>150</b>
13B	Number of species reference collections to be enhanced and handed over to the host country(ies)	1	1	<b>100</b>
14A	Number of conferences/seminars/ workshops to be organised to present/disseminate findings	8	13	<b>163</b>
14B	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	4	7	<b>175</b>
15A	Number of national press releases in host country(ies)	5	12	<b>240</b>
15C	Number of national press releases in UK	5	3	60
15D	Number of local press releases in UK	5	3	60
16A	Number of newsletters to be produced	5	3	60
16B	Estimated circulation of each newsletter in the host country(ies)	>500	2000	<b>400</b>
16C	Estimated circulation of each newsletter in the UK	>200	600	<b>300</b>
17A	Number of dissemination networks to be established	1	2	<b>200</b>
18A	Number of national TV programmes/features in host country(ies)	2	12	<b>600</b>

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<b>Output Code</b>	<b>Specifics</b>	<b>Total No. required in 2.5 years</b>	<b>No. Achieved by 31 March 04</b>	<b>% Achieved by 31 March 04</b>
18D	Number of local TV programmes/features in UK	2	0	0
19A	Number of national radio interviews/features in host county(ies)	3	8	<b>267</b>
19B	Number of national radio interviews/features in UK	1		0
19D	Number of local radio interviews/features in UK	2	2	<b>100</b>
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)	>3000	0	
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	>100	747	<b>&gt;700</b>
23	Value of resources raised from other sources (ie. in addition to Darwin funding) for project work	359,167	>250,000	>60
<b>Additional Outputs in bid</b>	Estimated International circulation of Newsletter	>200	300	<b>150</b>
	Darwin Project Website	1	1	<b>100</b>
	Darwin Teachers Educational Pack	100copies	25	25
	Darwin Project Literature Reference Collection	1	1	<b>100</b>
<b>Extra outputs achieved beyond bid commitments</b>	National Press Articles in BVI	0	<b>19</b>	
	Press Articles in UK popular Media	0	<b>1</b>	
	Articles in UK Specialist Media	0	<b>2</b>	
	Articles in International Specialist Publications	0	<b>5</b>	
	Public Meetings	0	<b>2</b>	
	Darwin Seminar Series in the UK	0	<b>4</b>	
	Online Darwin Initiative Photo Library	0	<b>1</b>	
	Darwin Initiative/FCO Seedbank	0	<b>1</b>	
	Darwin Initiative Plant Conservation Poster Series	0	<b>2</b>	
	Darwin Seminar Series in the BVI	0	<b>3</b>	
	Darwin Initiative Project Educational Field Trips	0	<b>3</b>	
	Darwin Initiative Plant Common Name Competition	0	<b>2</b>	
	National Press Articles in UK	0	<b>1</b>	
	Chelsea Flower Show Silver Lindley Medal Award for Darwin Display	0	<b>1</b>	



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Darwin Initiative Threatened Plants of the BVI Display for HRH Princess Anne		0	1	
<b>Output Code</b>	<b>Specifics</b>	<b>Total No. required in 2.5 years</b>	<b>No. Achieved by 31 March 04</b>	<b>% Achieved by 31 March 04</b>
<b>Extra outputs achieved beyond bid commitments</b>	DEFRA Darwin Initiative Website Project news Article	0	1	
	DEFRA Darwin Initiative Newsletter Article	0	1	
	Image used in DEFRA Darwin Initiative website banner		1	