Darwin Initiative Annual Report

Important note:

To be completed with reference to the Reporting Guidance Notes for Project Leaders – it is expected that this report will be about 10 pages in length, excluding annexes

Submission deadline 30 April 2012

Darwin Project Information

Project Ref Number	18-011
Project Title	Building a future for Haiti's unique vertebrates
Country(ies)	Haiti
UK Contract Holder Institution	BirdLife International
Host country Partner Institution(s)	Société Audubon Haiti
Other Partner Institution(s)	Zoological Society London, Durrell Wildlife Conservation Trust
Darwin Grant Value	£286,436
Start/End dates of Project	1 April 2010 – 31 March 2013
Reporting period and annual report number	1 April 2011 – 31 March 2012 Annual Report No.2
Project Leader Name	David Wege
Project website	http://www.birdlife.org/haiti-threatened-vertebrates/
Author(s) and main contributors, date	David Wege, Sam Turvey, Rich Young, Joel Timyan, Philippe Bayard

1. Project Background

The Massif de la Hotte is a mountainous area in south-westernmost Haiti, and is one of the few areas still retaining forest cover, albeit reduced to a patchwork of remnants within the Macaya National Park. These forests represent one of the most important places in the world for the conservation of threatened vertebrates – 42 globally threatened mammals (Hispaniolan solenodon and Hispaniolan hutia), birds, reptiles and amphibians occur there. Even more significantly, it is the world's most important Alliance for Zero Extinction site, supporting populations of 15 Critically Endangered and Endangered *Eleutherodactylus* frogs that are unique to the massif.

This Darwin Initiative project is helping to ensure that the unique biodiversity also has a sustainable future in these forests. Drawing on UK biodiversity expertise represented by the Zoological Society of London and Durrell Wildlife Conservation Trust, BirdLife is coordinating a broad program to build institutional capacity and strengthen critical skills in Haiti (within Société Audubon Haïti, Fondation Macaya and at the Université Quisqueya) through experiential learning focused on field research, project planning, monitoring and management. This will be enhanced through formal university-based courses, UK training opportunities, and mentorship.

The project is aiming to strengthen the evidence-base on the distribution, population status, ecology and conservation requirements of globally threatened vertebrates and their habitats in the Massif de la Hotte. Conservation plans for mammals, birds, reptiles and amphibians, and

strategic habitat restoration plans will be developed. In the process, Haitian capacity for conserving and monitoring vertebrates and their habitats, and skills in conservation biology, planning, advocacy and management will be strengthened. A targeted media and outreach programme is raising awareness of Haiti's unique vertebrates and their habitats across a range of local, national and international audiences. Specific community-level awareness-raising programmes in the Massif de la Hotte are being conducted in parallel with field research programmes, and will also be used to identify community resource needs for developing longer-term sustainable-livelihood strategies that ensure regional biodiversity conservation.

Fig 1: Darwin project area: Massif de la Hotte, south-west Haiti.

2. Project Partnerships

BirdLife has worked closely with Société Audubon Haïti (SAH) during the past year. The relationship embraces a number of other projects, thus communication with SAH is on a “more than weekly” basis, primarily by email, but also by skype. SAH has developed significantly during the last 12 months. SAH was without an Executive Director for the first half of the year, and then hired Joel Timyan as an interim Executive Director to cover the position until Arnaud Dupuy finished his work with UNDP-Haiti before starting as permanent Executive Director in April 2012. Jean Vilmond Hilaire (previous Executive Director) continued his work developing the National System Plan for Protected Areas (in close collaboration with this project). SAH also hired two permanent field staff early in the year – Anderson Jean and Enold Louis-Jean – which quickly helped advance the delayed fieldwork component of this project. The project year ended with SAH establishing a permanent office at the Université Quisqueya.

BirdLife is the pro-active lead for this project, working in close collaboration with the UK partners ZSL and Durrell. Communication with the UK institutions is done through regular email and phone calls, and then quarterly face-to-face meetings to review project progress. During this second year, Durrell has facilitated the critical mapping aspects of the project, and also led on a comprehensive training program for SAH field staff. ZSL continues to lead on the biodiversity informatics. These roles will continue to meet the project outcomes in year 3. SAH takes fully responsibility for in-country logistics and implementation/ execution on the ground. Their work is supported by the UK partners.

BirdLife has been the primary liaison between the UK institutions and the Haitian partner (SAH), with all parties copied on email correspondence as appropriate. Durrell’s thematic role in coordinating the training aspects of the project (field training) has led them to develop bi-lateral communications with SAH during the year, although again – all parties are copied on correspondence as appropriate. Both ZSL and Durrell are new project partners for the BirdLife

Caribbean Program. The partnership has continued to develop well during the year – communication has been regular and open, and new project collaborations are being discussed as a result. The idea of de a formal steering or project committee has been dropped as the informal structure currently being utilised is serving the project well, with collaborators included in communications as appropriate.

Other collaborations

A range of highly productive collaborations have continued to develop during this second year of the project.

The Darwin project (17-025) "Building evidence and capacity to conserve Hispaniola's endemic land mammals", led by Durrell, has been particularly helpful to the work in Haiti. The in-country project manager has provided training in mammal surveys during the May 2011 project coordination field trip, and facilitated intensive training on mammals at the Dominican project site during June 2011. The mammal survey protocols developed in the Dominican Republic have been built into the design of fieldwork in Haiti (and have been used in the training provided). A number of other synergies are being explored to bring maximum benefit to both projects.

The Darwin project (15-033) "Monitoring Bat Biodiversity: Indicators of Sustainable Development in Eastern Europe", led by Institute of Zoology (IoZ), developed a bat monitoring protocol and technology (www.ibats.org.uk/: Tranquillity detectors) that are being used in the field to evaluate – for the first time – the bat fauna of the Massif de la Hotte. The results to date are being analysed by an intern at ZSL/ IoZ.

In order to develop and deliver on the project's mapping needs, Durrell have worked closely with the GIS department at the University of Bath, and also with ex-University of Bath lecturer, Mark McConnell, now at the institution Ecological Research and Training. These have been productive relationships for the project, with the forest mapping work nearing completion (and of great interest to a number of other collaborators).

Blair Hedges at Penn State University (USA: www.hedgeslab.org/) is the foremost expert on Haiti's amphibians, and has been very supportive of this Darwin project. The project has been able to provide support to an expedition into the Massif de la Hotte in July 2011, resulting in further amphibian discoveries and more professional video footage that has been used in the three video essays found on www.caribnature.org/). Blair Hedges' extensive records of threatened amphibians in the Massif de la Hotte, dating back to the 1980s are being databased and geo-referenced (almost complete) ready for mapping onto the forest maps for the region in Year-3.

The local partner – SAH – is working in close collaboration with CNIGS (national GIS lab), the national system of protected areas (NSPA), and the Université Quisqueya. These collaborations have been very productive during the year, and have delivered a number of key outputs for the Darwin project. Formal MOUs are under development but seem to take a long time in Haiti. In the meantime, collaborative work continues!

CBD focal point

The in-country partner (SAH) has a close relationship with Haiti's CBD focal point and new Minister of Environment). Jean Vilmond Hilaire (SAH's past Executive Director) has been leading the work (in collaboration with the Ministry of the Environment) to develop the National System of Protected Areas. Priorities from field research have been built into the national system plan and have been communicated directly to the Ministry of Environment. As more outputs are generated during Year-3, these will be communicated to the CBD focal point as a matter of course.

3. Project progress

3.1 Progress in carrying out project activities

Evidence-base on distribution, population status, ecology and conservation requirements of globally threatened vertebrates and their habitats strengthened and disseminated

1.1. Collect baseline data at target field sites

Published distributional data, and data from museum specimens has been collated in spreadsheets to be built into the GIS and presented on the forest map once the forest mapping has been completed. The unpublished data held by Blair Hedges at Penn State University has been databased by an intern supported by this Darwin project. Many thousands of amphibian records have been databased and the geo-referencing verified for records dating back to "pre-GPS" days.

Targeted field surveys were undertaken in May, July, November 2011 and the end of March 2012. These surveys targeted known areas of forest within which random survey points were allocated. Surveys focused on structured collection of presence/ absence data for all vertebrate species. A survey in July 2011 was conducted in collaboration with Penn State University – using a helicopter to access remote forest patches that have never before been biologically sampled. Genetic analysis from these expeditions is still underway, but new species of frogs (and potentially plants) were discovered.

1.2. Build GIS and populate with data

Significant investment of time was made in developing a vegetation map for the Massif de la Hotte from Landsat 7 imagery. However, as the analyses progressed it became increasingly clear that the end result would not deliver what we needed, namely a clearly-defined map of forest remnants which could be used to target field work and on which to overlay threatened species data for prioritisation purposes. The Landsat analyses combined with GoogleEarth imagery allowed generic "forested areas" to be defined and prioritised for field surveys (and for random survey points to be allocated within the polygons). However, a more detailed alternative was needed.

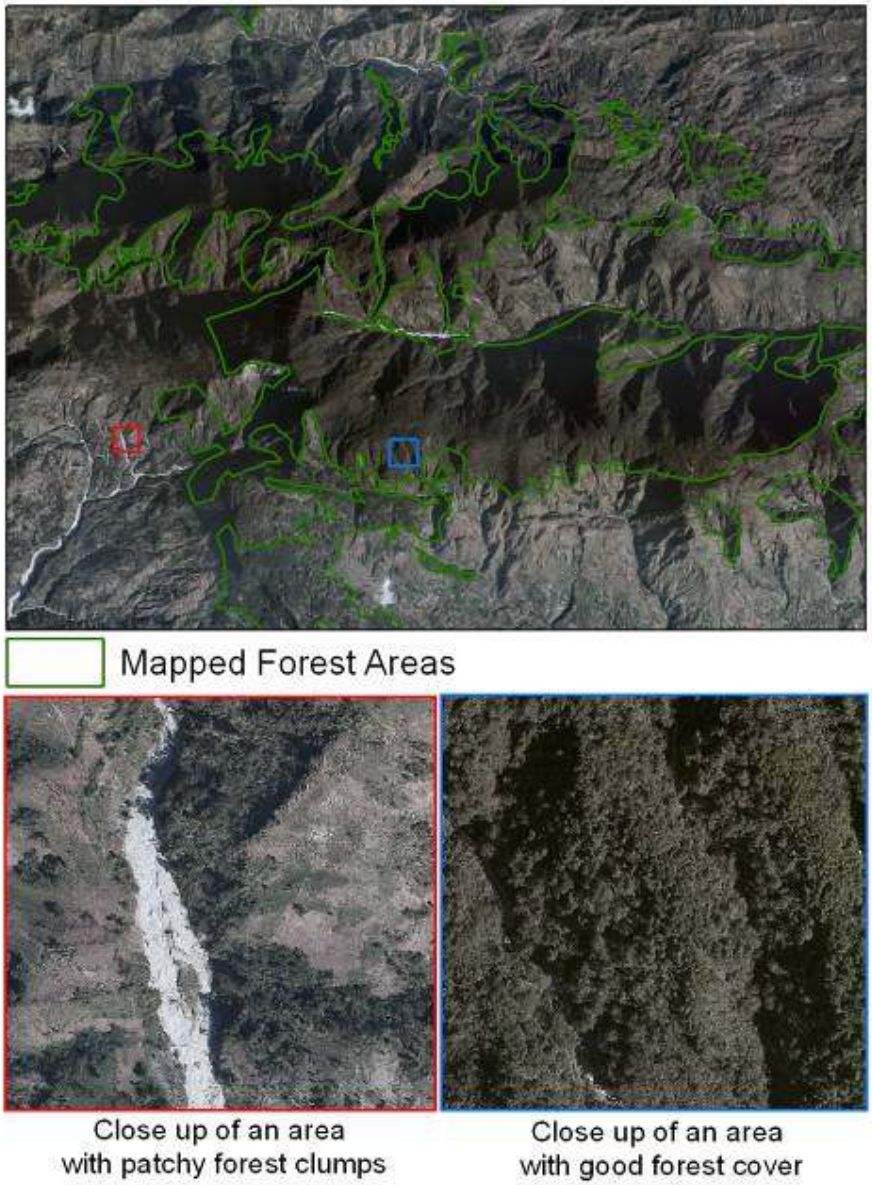
Fig 2: Orthophotos stitched together for Haiti's "south island"

Orthophotos (aerial photos, with a resolution of 30 cm) taken for the whole of the southern peninsula of Haiti (in 2010) were provided to us by CNIGS (the national GIS lab) and the team

working on developing the National System of Protected Areas. Working through Durrell with Bath University and in partnership with Ecological Research and Training, the orthophotos have been stitched together, and work has started on defining forest patches. The mapping team have been trialing various forest mapping techniques to overcome problems caused by cloud cover and hill-shade. A preliminary estimate of the extent of the main blocks of forest on the upper slopes of the Massif de la Hotte suggests that only around 50 km^2 of forest is now left. The analytical technique allowing us to map forest at a high spatial resolution within the Massif de la Hotte area will be finalized by June 2012, at which point the output will be made available to our local partners in Haiti.

All of the map data (GIS and associated biological data) have been managed in the UK to date. However, a draft MoU between SAH and CNIGS is under review, and the mapping data will be repatriated during the summer of 2012. The techniques used to analyse the orthophotos will also be detailed and passed on to CNIGS, and support provided to enable CNIGS to continue the analysis for the rest of Haiti.

Fig 3: Close-up of the orthophoto analysis (showing the issue of hill-shade)



1.3. Analyse occupancy and habitat data

This activity was scheduled for Year-2, but due to the delay in delivering a comprehensive forest map for the Massif, analysis of the forest patches in terms of threatened vertebrate occupancy will be done during the first half of Year-3. The project GIS will be ready to manage field ecological data by June/ July 2012 and will be a valuable tool for the biodiversity assessment in Year-3 of the project. Occupancy by *Eleutherodactylus* frogs will be the subject of a scientific paper being led by Penn State University, in collaboration with the Darwin project.

1.4. Prepare scientific and other technical documents

Protocols for mammal surveys developed by the Darwin project (17-025) "Building evidence and capacity to conserve Hispaniola's endemic land mammals" were trialled during the May 2011 field trip. Protocols for amphibian surveys were also tested in May 2011, including the practicality of collecting toe-clippings from frogs for genetic analysis; vocalisation recordings and photographing individual frogs found. Recording vocalisations (for set periods of time at the random field survey points), combined with photographic evidence of frogs found appears to be the most practical approach to survey this group. Bird surveys are being conducted using a standard point-count approach.

A field monitoring manual has been drafted and is being refined during each of the early field expeditions. The document will be finalised during Year-3 and will be used as the basis for future field surveys by the Haitian team. The same protocols are already being used during expeditions looking at vertebrate occupancy in the Massif de la Selle, south-east Haiti.

A basic template for field survey reports was drafted and provided to the SAH field team. This is being used to standardise the outputs from each field trip and to make the results readily available to a wide audience. The template is being refined during the process of drafting reports for Year-2 field expeditions. These reports will be posted on the web when they are completed during May 2012.

Strengthened Haitian capacity (at local community, local and national levels) for conserving and monitoring globally threatened vertebrates and their habitats

2.1. Establish national biodiversity database and clearing-house

CNIGS (national GIS lab) have been given the responsibility to host and develop the national biodiversity database for the National System of Protected Areas (SNAP, a program funded by UNDP-GEF). SAH (catalysed by this Darwin project) have drafted an MoU with CNIGS in terms of making project data available and in terms of support to the database. The generation of this biodiversity database nationally will have significant benefits for long-term sustainability and use, although it does mean that this particular project Output has been delayed. The Darwin project – through SAH – will support the development of the database.

2.2. Develop steering committees, networks and mentorship systems

There is close collaboration on training opportunities, mentorship, strategic support to SAH, and field expeditions between ZSL, Durrell, Bath University, BirdLife, Conservation International, Penn State University and Vermont Center for Ecostudies. Key individuals from these institutions communicate actively over a range of projects executed by SAH and provide coherent support to SAH staff and activities. Individuals from this network form part of a mentorship system that has delivered skills transfer benefits during Year-2 (see 3.1 and 3.2 below), and will continue to do so during Year-3.

2.3. Facilitate MCP Planning workshops and community participation

Activity not scheduled for Year-2. However, four young adults participated in, and were trained during the field expedition to Duchity in March 2012. These locals have formed a conservation group to continue observations and data collection of endemic mammals in the Duchity area. Environmental education presentations were made to local elementary teachers, students and a youth group in the Duchity area (March 2012). Thirty students (7-11 years) and 26 teenagers

interacted with SAH with native animal posters, live-handling of amphibians and reptiles and lessons in natural habitat requirements.

2.4. Produce best-practice, MCP and monitoring manuals
A field monitoring manual has been drafted and is being refined during each of the early field expeditions. The document will be finalised during Year-3 and will be used as the basis for future field surveys by the Haitian team. The draft manual is already being used on expeditions to the Massif de la Selle, south-east Haiti.

Monitoring and Conservation Programs (MCPs) will be documented for each taxonomic group during Year-3.

2.5. Ensure adoption of MCPs into Haiti's NBSAP
Activity not scheduled for Year-2.

Skills in conservation biology, planning, advocacy and management are strengthened in local partner organisations and more widely in Haiti

3.1. Implement UK- and Haiti-based university training for local conservationists
One of the SAH field staff (Enold Louis-Jean) attended Durrell's Endangered Species Management Graduate Certificate (DESMAN) – a 12-week course (accredited by the University of Kent) designed to equip conservationists with the skills needed to manage species recovery. This ran from February through April 2012.

SAH established an office on campus at the Université Quisqueya in December 2011. The office is used by the faculty of environmental and agricultural sciences as an auxiliary location to prepare course materials, access internet resources and exchange information with SAH staff. SAH databases, training materials and personnel are available as resources to faculty and students alike. The Academic Council of the University is still considering a formal partnership with the Environmental Masters Program, although this is looking doubtful as to whether it will be secured before the end of the project. SAH assisted SNAP in a July training course for 20 students (including students from government institutions) on acquisition of geo-spatial data and GIS analysis (including biodiversity sampling, socio-economic sampling, field evaluation etc.). Skills transfer (from ZSL, Durrell and BirdLife) to field staff and local conservationists started in earnest during the May 2011 field trip.

Four young adults participated in, and were trained during the field expedition to Duchity in March 2012. These locals have formed a conservation group to continue observations in the Duchity area.

3.2. Ensure ongoing skills transfer for Haitian project staff
SAH field project staff benefitted from practical field techniques, project design and equipment training (from Durrell, ZSL and BirdLife staff) during the May 2011 field trip. This training was built on through an intensive 10-day (June 2011) training visit to Durrell's Darwin project site (Mencilla, Pedernales) in the Dominican Republic where they learnt about radio tracking solenodon and hutia, experienced a diversity of mammal tracking techniques (and identification of "sign"), and using the data to build GIS models. The two field staff also attended the week-long "Island Species-Led Action" (ISLA) training course in September 2011 (also run by Durrell in association with their Darwin project in the Dominican Republic).

3.3. Undertake regular performance appraisals of Haitian project staff
Two Haitian project staff were hired early in Year-2 and their performance will be appraised early in Year-3 (after 12 months of employment). However, feedback has been sought from each of the training events that these staff have attended, and the feedback has been unreservedly positive. We are waiting for a formal assessment of Enold Louis-Jean from the DESMAN course in Jersey, although again, informal feedback suggests that he performed well and was considered an "outstanding student".

Awareness of status and conservation needs of globally threatened Haitian vertebrates substantially improved at local, national and international level

4.1. Implement a programme of local and national awareness raising
Project field staff have engaged locals during field work to educate/ raise awareness of the biodiversity within their local environs, and to explain the purpose of the field work. Field work results (and recommendations) have been shared with the Ministry of Agriculture and Ministry of Environment. The close working relationship with the SNAP, CNIGS and the University has also provided many opportunities to raise the awareness of individuals concerning particular species, vertebrates in general and the critical importance of the Massif de la Hotte for biodiversity conservation.

SAH is in the process of re-designing their webpage to feature the Darwin Initiative activities (http://audubonhaiti.org/). SAH are also in the final stages of preparing an endemic vertebrate calendar for 2013 with a local studio (Blue Mango Studios) – supported through the Darwin Initiative (and by a number of other sponsors).

Environmental education presentations were made to local elementary teachers, students and a youth group in the Duchity area (March 2012). Thirty students (7-11 years) and 26 teenagers interacted with SAH with native animal posters, live-handling of amphibians and reptiles and lessons in natural habitat requirements.

4.2. Implement a programme of international awareness raising
International media coverage for the project has been achieved as follows:

- Two web articles (URLs pasted below)
- A profile of the project is available through the Eco-Index website of over 1,000 conservation projects (URL below: the Eco-Index website receives over 30,000 hits a month).
- Video essays: "Saving Haiti's Frogs" (which was shown during the Darwin Initiative 20 years celebration event), and "Haiti's Grande Coline" produced by Penn State University, but made on expeditions supported by the Darwin Initiative (with videography supported by the Darwin project) and available at www.caribnature.org/. The Darwin Initiative and BirdLife are acknowledged at the end of these videos.
- Scientific project poster presented at the biennial Society for the Conservation and Study of Caribbean Birds conference in Grand Bahama, July 2011. The poster is shown in Annex 3 below. This poster has been widely circulated to donors, program partners and other international NGOs involved in Haiti. It has also been on show at various venues in the UK, Ecuador and in Haiti.

Project news stories/ weblinks:
http://www.birdlife.org/community/2012/02/more-petrels-discovered-in-haiti/
http://www.birdlife.org/community/2012/04/building-capacity-to-save-haitis-biodiversity/
http://www.fws.gov/birds/waterbirds/petrel/pdfs/Black-capped_Petrel_Note_Nov_Expedition_2011_FINAL.pdf.
www.eco-index.org/search/results.cfm?projectID=1427
http://www.caribnature.org/essays/eng/index.php

4.3. Survey attitudes towards threatened vertebrates and habitat in local communities
The "Awareness and perceptions of Hispaniola's threatened vertebrates" questionnaire developed for the Darwin project in Dominican Republic (threatened endemic land mammals) is being used to direct interviews with locals during each of the field trips. The primary message coming back from locals is that most people don't have first hand knowledge of the mammals and can't differentiate between Nelong, Zagouti, rat and mangoost. There is also confusion in interpreting animal names. However, they know very well the "negative" impact of Zagouti or Nelong on their crops, and consider these animals as pests.

Mammal surveys/ questionnaires were conducted with Duchity area farmers (in March 2012) to gather information on their knowledge and perspectives of *Solenodon paradoxus* and *Plagiodontia aedium*.

A broader survey has been developed to study socio-economic, land occupancy and peasant perceptions of conservation issues along an altitudinal transect in the southern and western buffer zones of Macaya National Park. This is being done by SAH in collaboration with Fondation Macaya and the SNAP. These surveys will be used to develop the most appropriate conservation and sustainable livelihood actions for the communities living in this critical biodiversity area.

Progress towards Project Outputs

Output 1. *Evidence-base on distribution, population status, ecology and conservation requirements of globally threatened vertebrates and their habitats strengthened and disseminated*

Progress (as defined by the Measurable Indicators) has been made as follows:

- Baseline data (from published literature and museum specimens) has been collated for all globally threatened vertebrates. These data have not been analysed in a systematic way yet, although historic records of species have been followed up on with targeted investigations in the field.
- Baseline occupancy data have been generated through site-based surveys targeting mapped forest remnants (and using random survey points) across the Massif de la Hotte. Surveys have also been conducted (using the same methodology – to test appropriateness) in the Massif de la Selle.
- A GIS has been built. Forest mapping (which had to abandon Landsat 7 imagery, and analyse 2010 orthophotos) is almost complete. Once completed, the GIS for Haiti can be repatriated through CNIGS, and used to analyse vertebrate taxa distributions, present data and start the process of developing conservation plans.
- Databases of the vertebrate locality records have been collated (in basic excel format to give the greatest flexibility). Ongoing developments by the SNAP, CNIGS and SAH for a national biodiversity database will continue in Year-3, with project data being used to populate the national biodiversity database at an appropriate time.
- A Monitoring Manual has been drafted, with protocols for each taxonomic group detailed. The manual is in use by the field team and being refined as a result of field testing. The manual will be finalised in Year-3 and made available widely within Haiti. The protocols used for mammal surveys in the Dominican Republic Darwin project have been used to ensure compatibility between the surveys.
- Various committees have developed over the last 18 months in relation to the Massif de la Hotte, scientific surveys within it, and the long-term conservation of it. SAH is an active member of these committees, ensuring that project outputs are taken into consideration. In particular, the SNAP is leading on an active program to develop a long-term plan for the sustainable conservation of the Massif, and the outputs from this Darwin project are being directly fed into this process. At the present time, there appears to be no necessity for a formal, additional steering committee although this is being reviewed on a regular basis.

Output 2. *Strengthened Haitian capacity (at local community, local and national levels) for conserving and monitoring globally threatened vertebrates and their habitats*

Progress (as defined by the Measurable Indicators), anticipated in Year-2 has been made as follows:

- Conservation and sustainable resource use agreements between local families and SAH have been established (linked directly to provision of schooling) in the community of Formon (Macaya). Monitoring the efficacy of these agreements (in terms of changing habits and mitigating impacts on the forest) is proving challenging.

- A (small) local community group has been formed in Duchity, with individuals committed to recording observations of mammals. This model will be duplicated wherever possible/ appropriate during future field expeditions and monitoring efforts.
- Local community members have participated in each of the expeditions – either as assistants, guides or as "trainees" (as was the case with the nascent community group members in Duchity).
- Monitoring data collection protocols and experimental design have been developed for the field survey component of the project and are being tested. A manual has been drafted, and will be finalised once the protocols have been tested and refined as necessary. A framework for field survey reports has been developed and is in the process of being refined with the collation of reports for the field expeditions undertaken during Year-2.
- No formal steering committee has been established. However, there is a coherent "informal" network of senior individuals from a wide range of institutions active within Haiti (and working in collaboration with SAH) who communicate on a regular basis. This is functioning as an informal steering committee.
- A national biodiversity database is under development by CNIGS (on behalf of the national system of protected areas). SAH is working closely with both CNIGS and the SNAP to ensure data from this project are integrated into this nationally driven initiative.
- SAH is one of the driving forces behind the establishment of the Rezo-Ekolo network of environmental NGOs in Haiti. The consolidation of this network has been the focus of a BirdLife administered project (using CEPF funding), thus the Darwin project has featured heavily within discussions and strategic planning.
- The mentorship of Haitian conservationists has developed strongly during Year-2, with formal training sessions for two key field staff and ongoing support to all SAH staff. The support has been provided across a wide range of disciplines from scientific to institutional development. This system is working well and will continue for Year-3 and beyond.

Output 3. *Skills in conservation biology, planning, advocacy and management are strengthened in local partner organisations and more widely in Haiti*

Progress (as defined by the Measurable Indicators), anticipated for Year-2 has been made as follows:

- One Haitian (SAH) conservationist has attended and completed the 3-month DESMAN training course in Jersey
- Two Haitian (SAH) conservationists attended the one-week ISLA training course in the Dominican Republic.
- Two Haitian (SAH) conservationists attended a 10-day informal training course on field techniques for surveying, monitoring and aping mammals at Durrell's Darwin project site in the Dominican Republic.
- Skills transfer (which started in May 2011 with the visit by BirdLife, ZSL and Durrell) has continued through mentorship and formal training.
- Two Haitian (SAH) conservationists are involved in drafting/ refining the monitoring manual (and the protocols therein) and the field survey report framework.
- Formal collaboration with the Université Quisqueya postgrad program has not been established. However, SAH now has an office at the University and informal exchanges with students are on a daily basis. Formal training (in conjunction with the University, CNIGS and the SNAP) has been given to 20 students on the acquisition of geo-spatial data and GIS analysis. Student interns have participated in field expeditions and will continue to do so.

Output 4. *Awareness of status and conservation needs of globally threatened Haitian vertebrates substantially improved at local, national and international level*

Progress (as defined by the Measurable Indicators), anticipated in Year-2 has been made as follows:

- The “unique vertebrates” 2013 calendar is in final draft form and will be printed during 2012, ready for distribution towards the end of the year.
- Two video essays have been produced that detail the plight of the forests in Haiti and the unique amphibians the forests support. These video essays are available on the web at CaribNature and were produced with video supported by the Darwin project, and on expeditions supported by this project. They have not yet been used on Haitian TV or at local meetings.
- The survey of attitudes has so far demonstrated what the pervasive attitudes are towards the threatened mammals.
- A number of web articles have been produced (internationally), and the SAH website is undergoing a re-design to feature the Darwin project. National Haitian media has not been utilised yet.

3.2 Standard Measures

The project application mentioned some planned numbers of Standard Output Measures, but not in the format of the table below. The figures in the table reflect as best possible the intentions of the project although some areas (such as the distinction between national and local radio/ TV/ media) will need to be reviewed as the nature of the Haitian media system becomes more apparent. Many Output Measures were scheduled to be delivered in Year-3.

Table 1 Project Standard Output Measures

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Number planned for this reporting period	Total planned from application
3	Number of people to attain other qualifications (i.e. not outputs 1 or 2 above)	0	1		0	0	1
4C	Number of postgraduate students to receive training	0	20		0	0	20
5	Number of people to receive at least one year of training (which does not fall into categories 1-4 above)	0	0		0	0	1
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	0	2		0	2	2
9	Number of species/habitat management plans (or action plans) to be produced for governments, public authorities, or other implementing agencies in Haiti	0	0		0	0	3
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording	0	1		0	0	3
11A	Number of papers to be published in peer reviewed journals	0	0		0	0	1
11B	Number of papers to be submitted to peer reviewed journals	0	0		0	0	3

12A	Number of computer based databases to be **established** and handed over to Haiti	0	0		0	0	2
14A	Number of conferences/seminars/ workshops to be **organised** to present/disseminate findings	0	0		0	0	3
14B	Number of conferences/seminars/ workshops **attended** at which findings from Darwin project work will be presented/ disseminated.	0	1		0	0	4
15A	Number of national press releases in Haiti	0	0		0	0	6
15B	Number of local press releases in Haiti	0	0		0	0	?
15C	Number of national press releases in UK	1	2		1	1	3
17B	Number of dissemination networks to be **enhanced/ extended**	0	1		0	0	1
18A	Number of national TV programmes/features in Haiti	0	0		0	0	2
18C	Number of local TV programmes/features in Haiti	0	0		0	0	?
19A	Number of national radio interviews/features in Haiti	0	0		0	0	4
19C	Number of local radio interviews/features in Haiti	0	0		0	0	?
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	0	3		0	0	3
New-measure							

Table 2 Publications

Type (e.g. journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (e.g. contact address, website)	Cost £
Poster	David Wege, Verónica Anadón Irizarry, Philippe Bayard, Jean Vilmond Hilaire, Anderson Jean, Jose Nuñez-Miño, Samuel Turvey, Richard Young (2011) *A prioritized biodiversity framework for conservation in Haiti's Massif de la Hotte*	BirdLife, Cambridge, UK		£125 (layout and printing)
Video essay	Blair Hedges (2011) *Saving Haiti's Frogs*	Penn State University, US	www.caribnature.org/ Shown during the Darwin Initiative 20 years celebration event	No direct cost to project

Video essay	Blair Hedges (2011) *Haiti's Grande Coline*	Penn State University, US	www.caribnature.org/	No direct cost to project

3.3 Progress towards the project purpose and outcomes

At the level of the project purpose "*Improve the conservation management and status of Haiti's globally threatened vertebrates, and the integrity of the forest habitats they depend upon, within the key biodiversity area of the Massif*" no quantitative progress has been made against the Measurable Indicators. However, progress towards achieving the project outputs (as outlined above) is tangible, and provides an essential foundation for progress in Year-3. The close collaboration between SAH, CNIGS and the developing national system of protected areas will ensure that the findings (research outputs) and recommendations from this project are built into the management strategy for the Massif de la Hotte/ Macaya National Park. The Indicators and Assumptions may need to be refined.

3.4 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

Similarly to the project purpose, solid progress against high level goals is not anticipated to be achieved until Year-3.

4. Monitoring, evaluation and lessons

Many of the monitoring efforts are outlined above (3.1 – 3.4), and broadly follow the planned Monitoring Activities, the indicators for which are:

- Indicator 1: Establish Project Implementation Team and report on progress against the Measurable Indicators and individual institutional workplans.
- Indicator 2: Undertake 6-monthly formal project evaluations to feed into the 6-month and annual (end of year) reports to Darwin.
- Indicator 3: Assess increased skills/capacity of in-country conservationists/host-country project staff on a regular basis.
- Indicator 4: Assess attitudinal change towards threatened vertebrates and habitat conservation in local communities.

The Project Implementation Team has functioned well in the UK (BirdLife/ ZSL/ Durrell), and increasingly well in Haiti. However, the absence of an Executive Director at SAH proved problematic for the first half of the year, although this was countered by the field project staff starting at the start of Year-2. Towards the end of Year-2 the Project Implementation Team has become more dynamic as the Haitian staff have settled in. Formal evaluations have been undertaken against the logframe and proposed activities. This is done on a 3-monthly basis and has led to a number of "adaptive management" decisions to address emerging issues (primarily in Haiti). The increase in skills and capacity (resulting from training courses) will be assessed when field survey reports are finalised, and the monitoring manual is completed – these will reflect the extent to which the training has succeeded. Attitudes towards threatened vertebrates and conservation will be assessed although the assessment of *change in attitude* may need to be re-assessed as a project output (i.e. it may not be possible to demonstrate within the life-time of the project).

The lessons learnt from Year-2 project implementation are as follows:

- New staff (i.e. the two field staff) take time to come up to speed and function at maximum efficiency.
- The absence of an in-country project manager (in this case the Executive Director) makes project implementation extremely difficult, putting the emphasis on remote management from the UK.

- Residential training initiatives (e.g. the 3-month DESMAN training) removes capacity from the national project team (in this case one of the two field staff) which can have a significant impact on field survey output during the period of training.
- The evolving institutional/ political landscape in Haiti makes for a dynamic situation for project management. Rapidly developing initiatives emerging from post-earthquake Haiti mean that a number of project outputs need to be altered. Refined. For example, the momentum behind the development of a national biodiversity database clearly makes this output redundant in terms of an output created through the Darwin project. However, it is an output that the project can strongly support in other ways. A formal change request to address such alterations will be submitted in due course.
- Adaptive project management in Haiti is still critical to keep this project (and other projects) moving forward. Darwin Initiative staff has been both understanding and flexible to this need.
- Taking a long-term, sustainable view is the only viable approach to project development in Haiti. Slower progress is a sacrifice worth making if it allows for the generation of buy-in and ownership "in-country".

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

N/A

6. Other comments on progress not covered elsewhere

Mapping has proven a significantly bigger challenge than predicted. The Landsat 7 imagery was thought to be the answer to our needs in terms of analysis for forest mapping, but due to the faulty sensor on Landsat 7 and the deep shadows in the mountains at the time of day the satellite passes over Haiti, the imagery was hopelessly inadequate. Orthophoto analysis seems to be the answer and this is being analysed now, but the creation of a forest map has taken 2 years.

The collaboration with Penn State University, Conservation International and others has meant that field expeditions have been supported from other institutions – providing excellent opportunities for interactions with world experts on various taxonomic groups; opportunities to reach very inaccessible areas (e.g. by helicopter). These collaborations will leave a lasting legacy in Haiti, and are developing such that future field expeditions by any of these institutions will aim to fill "agreed to" information gaps, thus maximizing the impact of each institution's efforts.

7. Sustainability

Collaboration with multiple international NGOs to help achieve the project outputs and more importantly sustain the impacts long-term continues to be a major project output. These collaborations and partnerships are described in section 2, but they demonstrate the interest in the focus that this Darwin project has and our success in promoting this. The convergence of interests between international NGOs active in Haiti will be critical to long-term sustainability, and the maintenance/ development of local capacity. BirdLife managed to secure funds in October 2010 from the MacArthur Foundation for institutional capacity building of SAH. This, combined with support from the US Forest Service (March 2011) is helping to build a strong institutional foundation (e.g. through strategic planning) to ensure sustainability. BirdLife is working with SAH to develop into a strong (and formal) BirdLife Partner. It is the BirdLife Secretariat's responsibility to support its partners, so in terms of our commitment to SAH, this is long-term. However, in developing their institutional capacity, we would aim to scale back our direct support or field activities as soon as they were taking this on directly with donors.

8. Dissemination

There has been relatively little dissemination in Haiti during Year-2 (as described under the Activities and Outputs sections above). However, SAH has been a leading institution within the development of the Rezo-Ekolo network of (13) Haitian conservation NGOs, and the Darwin project has featured regularly within the network's planning meetings. SAH has also actively participated with the developing national system of protected areas, feeding information and priorities from the Darwin project into that process. BirdLife's project funding relationship with a number of key donors in Haiti (including MacArthur Foundation, US Forest Service and the Critical Ecosystem Partnership Fund) means that these donors are fully aware of the Darwin project and the outputs it is delivering. The same is true of the international Black-capped Petrel Working Group, and the Bicknell's Thrush Conservation Working Group – both key species that attract much international interest and both of which are present (and have been recorded) during Darwin project field expeditions.

The project was profiled to a large international audience (over 200 individuals) at the biennial Society for the Conservation and Study of Caribbean Birds conference in Grand Bahama, July 2011. A scientific project poster was produced and was on display for the whole conference.

9. Project Expenditure

Table 3 Project expenditure <u>during the reporting period</u> (Defra Financial Year 1 April 2011 to 31 March 2012)

Item	Funds carried forward 2010/11	Budget 2011/12	Expenditure 1April 2011- 31 March 2012	Variance
Rent, rates, heating, overheads etc				
Office costs (eg postage, telephone, stationery) Operating costs				
Travel and subsistence				
Printing				
Conferences, seminars, etc				
Others (specify)				
Salaries (specify by individual)				
TOTAL				

A carry forward of £12,048 was requested in January 2012, and agreed to by LTS on 27 February 2012. However, the underspend (within Haiti) during Year-2 was actually higher than forecast by £5,860. This discrepancy was primarily due to field expedition costs being less than predicted: firstly because of the last minute cancellation of a trip during February, and secondly because of the level of support provided by Penn State University during their field expeditions (with Penn State University covering field costs that were in the Darwin budget).

10. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

There were no outstanding achievements in Year-2, just solid progress with tangible outputs that will contribute well to the achievement of the project goals.

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2008/09

Project summary	Measurable Indicators	Progress and Achievements April 2011 - March 2012	Actions required/planned for next period
Goal: *To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve* *The conservation of biological diversity,* *The sustainable use of its components, and* *The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources*		Solid progress against high level goals is not anticipated to be achieved until Year-3.	*(do not fill not applicable)*
Purpose Improve the conservation management and status of Haiti's globally threatened vertebrates, and the integrity of the forest habitats they depend upon, within the key biodiversity area of the Massif	MCPs for globally threatened vertebrates implemented and producing monitoring data • Rate of loss of critical habitat for globally threatened vertebrates reduced/ halted • State, Pressure, Response variables gathered each year for the massif and its globally threatened vertebrates • MCPs for globally threatened vertebrates built into Haitian National Biodiversity Strategy – Year 3	No tangible progress at the level of the project purpose indicators. Progress against the Outputs is described below.	State, Pressure, Response variables will be gathered for the massif and its globally threatened vertebrates Forest extent will be mapped as a baseline against which to monitor. Monitoring and conservation programme(s) will be drafted for the threatened biodiversity of the Massif de la Hotte.

Output 1. Evidence-base on distribution, population status, ecology and conservation requirements of globally threatened vertebrates and their habitats strengthened and disseminated	Scientifically robust baseline data for globally threatened vertebrates collated, analysed and reported – Year 1 • Baseline occupancy survey completed and GIS built and populated with data as part of a Haitian biodiversity database and clearing-house – Year 2 • Habitat suitability models, key conservation zone maps, and long-term species/ habitat resiliency plans produced – Year 2 • Long-term monitoring protocols and survey design developed and guidelines drafted – Year 2 • National MCP steering committee established • Draft MCPs for globally threatened vertebrates published, and implementation started.	• Baseline data has been collated for all globally threatened vertebrates. These data have not been analysed in a systematic way yet. • Baseline occupancy data have been generated through site-based surveys targeting mapped forest remnants. • A GIS has been built. Forest mapping using 2010 orthophotos is almost complete and will be used to analyse vertebrate taxa distributions, present data and start the process of developing conservation plans. • Databases of the vertebrate locality records have been collated. Ongoing developments by the SNAP, CNIGS and SAH for a national biodiversity database will continue in Year-3. • A Monitoring Manual has been drafted, with protocols for each taxonomic group detailed. The manual is in use by the field team and being refined as a result of field testing. The manual will be finalised in Year-3 and made available widely within Haiti. • Various committees have developed over the last 18 months in relation to the Massif de la Hotte, scientific surveys within it, and the long-term conservation of it. SAH is an active member of these committees, ensuring that project outputs are taken into consideration. In particular, the SNAP is leading on an active program to develop a long-term plan for the sustainable conservation of the Massif, and the outputs from this Darwin project are being directly fed into this process.
Activity 1.1 Collect baseline data at target field sites		In addition to the collation of existing published and museum specimen data, field data have been generated through targeted field trips in May, July and November 2011, and March 2012. The field surveys are targeting mapped forest patches within which random survey points are allocated.
Activity 1.2. Build GIS and populate with data		A GIS with all available coverages for southern Haiti has been pulled together (in the UK). Defining forest patches using Landsat 7 imagery has been abandoned and aerial/ orthophotos from 2010 are being analysed. The analysis should be complete by July 2012.
Activity 1.3. Analyse occupancy and habitat data		Due to a delay in the delivery of a comprehensive forest cover map, occupancy analysis will be done in Year-3.

Activity 1.4. Prepare scientific and other technical documents		A field monitoring manual (including protocols for each taxonomic group) has been drafted and is being tested in the field.
Output 2. Strengthened Haitian capacity (at local community, local and national levels) for conserving and monitoring globally threatened vertebrates and their habitats	Conservation and sustainable resource use agreements made between local communities and national project partners • Conservation networks of local community groups created • Local community members participate in project activities • Three participatory MCP Planning workshops held and documents published – Year 3 • Monitoring data collection protocols and experimental design developed and fully tested (and manuals written) • Cross-sectoral steering committee • Haitian biodiversity database and clearing-house established • National network of conservation practitioners and experts established – Year 2 • UK – Haiti mentoring system established	• Conservation and sustainable resource use agreements between local families and SAH have been established in the community of Formon. • A (small) local community group has been formed in Duchity, with individuals committed to recording observations of mammals. • Local community members have participated in each of the expeditions – either as assistants, guides or as "trainees". • Monitoring data collection protocols and experimental design have been developed for the field survey component of the project and are being tested. A manual has been drafted, and will be finalised once the protocols have been tested and refined as necessary. A framework for field survey reports has been developed and is in the process of being refined with the collation of reports for the field expeditions undertaken during Year-2. • No formal steering committee has been established. However, there is a coherent "informal" network of senior individuals from a wide range of institutions active within Haiti who communicate on a regular basis. This is functioning as an informal steering committee. • A national biodiversity database is under development by CNIGS (on behalf of the national system of protected areas). SAH is working closely with both CNIGS and the SNAP to ensure data from this project are integrated into this nationally driven initiative. • SAH is one of the driving forces behind the establishment of the Rezo-Ekolo network of environmental NGOs in Haiti. The consolidation of this network has been the focus of a BirdLife administered project (using CEPF funding), thus the Darwin project has featured heavily within discussions and strategic planning. • The mentorship of Haitian conservationists has developed strongly during Year-2, with formal training sessions for two key field staff and ongoing support to all SAH staff. This system is working well and will continue for Year-3 and beyond.

Activity 2.1. Establish national biodiversity database and clearing-house	A national biodiversity database is under development by CNIGS (on behalf of the national system of protected areas). SAH is working closely with both CNIGS and the SNAP to ensure data from this project are integrated into this nationally driven initiative.
Activity 2.2. Develop steering committees, networks and mentorship systems	There is close collaboration on training opportunities, mentorship, strategic support to SAH, and field expeditions between ZSL, Durrell, Bath University, BirdLife, Conservation International, Penn State University and Vermont Center for Ecostudies. Key individuals from these institutions communicate actively over a range of projects executed by SAH and provide coherent support to SAH staff and activities. Individuals from this network form part of a mentorship system that has delivered skills transfer benefits during Year-2, and will continue to do so during Year-3.
Activity 2.3. Facilitate MCP Planning workshops and community participation	Activity not scheduled for Year-2.
Activity 2.4. Produce best-practice, MCP and monitoring manuals	A field monitoring manual has been drafted and is being tested before it is finalised. MCPs will be documented for threatened vertebrate groups during Year-3.
Activity 2.5. Ensure adoption of MCPs into Haiti's NBSAP	Activity not scheduled for Year-2.

Output 3. Skills in conservation biology, planning, advocacy and management are strengthened in local partner organisations and more widely in Haiti	Collaboration with Université Quisqueya postgrad program established • 1 Haitian conservationist receives two-year fellowship on EDGE Fellows programme, including UK training course • Minimum of 20 Haitian conservationists attend the postgraduate course run in Haiti • 1 Haitian conservationist attends DESMAN course in Jersey • 20 students from the postgrad program participate in preparation of MCP documents • Counterpart project manager leads drafting of 1 article for peer-reviewed journal, and 1+ media articles • Haitian project manager plays key role in leading MCP workshops and drafting documents • Successful skills transfer/ responsibility	• One Haitian (SAH) conservationist has attended and completed the 3-month DESMAN training course in Jersey • Two Haitian (SAH) conservationists attended the one-week ISLA training course in the Dominican Republic. • Two Haitian (SAH) conservationists attended a 10-day informal training course on field techniques for surveying, monitoring and aping mammals at Durrell's Darwin project site in the Dominican Republic. • Skills transfer has continued through mentorship and formal training. • Two Haitian (SAH) conservationists are involved in drafting/ refining the monitoring manual and the field survey report framework. • Formal collaboration with the Université Quisqueya postgrad program has not been established. However, SAH now has an office at the University and informal exchanges with students are on a daily basis. Formal training (in conjunction with the University, CNIGS and the SNAP) has been given to 20 students on the acquisition of geo-spatial data and GIS analysis. Student interns have participated in field expeditions and will continue to do so.
Activity 3.1. Implement UK- and Haiti-based university training for local conservationists		One SAH field staffer attended the 3-month DESMAN training course (accredited by the University of Kent). Four young adults participated in and were trained during the field expedition to Duchity in March 2012. Formal collaboration with the Université Quisqueya postgrad program has not been established. However, SAH now has an office at the University and informal exchanges with students are on a daily basis. Formal training (in conjunction with the University, CNIGS and the SNAP) has been given to 20 students on the acquisition of geo-spatial data and GIS analysis. Student interns have participated in field expeditions and will continue to do so.

Activity 3.2. Ensure ongoing skills transfer for Haitian project staff		SAH field project staff benefitted from practical field techniques, project design and equipment training (from Durrell, ZSL and BirdLife staff) during the May 2011 field trip. This training was built on through an intensive 10-day training visit to Durrell's Darwin project site in the Dominican Republic. The two field staff also attended Durrell's 1-week "Island Species-Led Action" (ISLA) training course in the Dom. Rep.
Activity 3.3. Undertake regular performance appraisals of Haitian project staff		Two Haitian project staff were hired early in Year-2 and their performance will be appraised early in Year-3. Feedback has been sought from each of the training events that these staff have attended, and the feedback has been unreservedly positive.
Output 4. Awareness of status and conservation needs of globally threatened Haitian vertebrates substantially improved at local, national and international level	5,000 threatened vertebrate calendars and posters produced and distributed at meetings with local communities, and in local schools • 'Informational' film on Haitian vertebrate conservation (and its relevance to sustainable-use and livelihoods) produced and broadcast on Haitian television and at local community meetings/ schools • Survey of attitudes shows improved awareness and perception of globally threatened vertebrates in communities local to project field sites during the project (baseline Year 1 compared with Year 3) • 6 national radio and TV interviews, 6 national and 1 international newspaper articles • 6 articles and regular blogs published on partner websites • Increasing number of "Haiti" hits on partner websites	• The "unique vertebrates" 2013 calendar is in final draft form and will be printed during 2012, ready for distribution towards the end of the year. • Two video essays have been produced that detail the plight of the forests in Haiti and the unique amphibians the forests support. These video essays are available on the web at CaribNature and were produced with video supported by the Darwin project, and on expeditions supported by this project. They have not yet been used on Haitian TV or at local meetings. • The survey of attitudes has so far demonstrated what the pervasive attitudes are towards the threatened mammals. • A number of web articles have been produced (internationally), and the SAH website is undergoing a re-design to feature the Darwin project. National Haitian media has not been utilised yet.

Activity 4.1. Implement a programme of local and national awareness raising	Project field staff have engaged locals during field work to educate/ raise awareness of the biodiversity within their local environs, and explain the purpose of the field work. Field work results (and recommendations) have been shared with the Ministry of Agriculture and Ministry of Environment. The close working relationship with the SNAP, CNIGS and the University has also provided many opportunities to raise the awareness of individuals concerning particular species, vertebrates in general and the critical importance of the Massif de la Hotte for biodiversity conservation. SAH is re-designing their webpage to feature the Darwin Initiative activities. SAH are also in the final stages of preparing an endemic vertebrate calendar for 2013. Environmental education presentations were made to local elementary teachers, students and a youth group in the Duchity area. Thirty students (7-11 years) and 26 teenagers interacted with SAH with native animal posters, live-handling of amphibians and reptiles and lessons in natural habitat requirements.
Activity 4.2. Implement a programme of international awareness raising	Two web articles published. A profile of the project is available through the Eco-Index website. Video essays: “Saving Haiti’s Frogs” (which was shown during the Darwin Initiative 20 years celebration event), and “Haiti’s Grande Coline” are available at www.caribnature.org/. The Darwin Initiative and BirdLife are acknowledged at the end of these videos. A scientific project poster presented at the biennial Society for the Conservation and Study of Caribbean Birds conference in the Bahamas.

Activity 4.3. Survey attitudes towards threatened vertebrates and habitat in local communities	The “Awareness and perceptions of Hispaniola’s threatened vertebrates” questionnaire is being used to direct interviews with locals during each field trip. Mammal surveys/ questionnaires were conducted with Duchity area farmers to gather information on their knowledge and perspectives of the two terrestrial mammals. A broader survey has been developed to study socio-economic, land occupancy and peasant perceptions of conservation issues along an altitudinal transect in the southern and western buffer zones of Macaya National Park.

Annex 2 Project's full current logframe

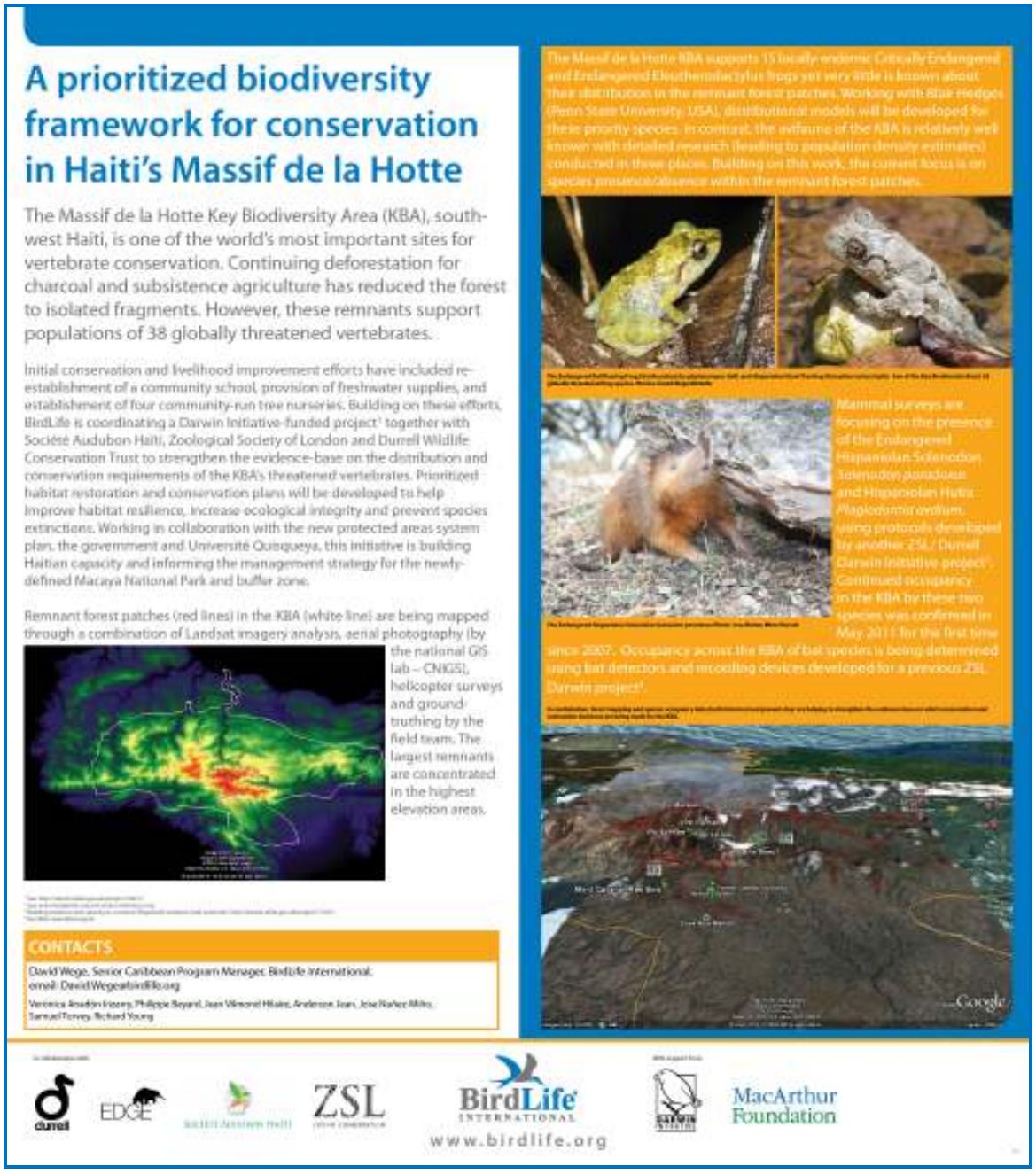
Project summary	Measurable Indicators	Means of verification	Important Assumptions
Goal: Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.			
Sub-Goal: Conservation status of Haiti's globally threatened vertebrates and their habitats significantly improved	Progress on implementing Monitoring and Conservation Programmes (**MCPs**) for all of Haiti's globally threatened vertebrates made within two years of End of Project • MCPs for globally threatened vertebrates built into Haitian National Biodiversity Strategy - Year 3 • Priority MCP activities incorporated into government and NGO annual workplans within two years of End of Project • National Steering committee established and overseeing implementation of all globally threatened vertebrate MCPs within two years of End of Project	National Biodiversity Strategy monitoring reports	
Purpose Improve the conservation management and status of Haiti's globally threatened vertebrates, and the integrity of the forest habitats they depend upon, within the key biodiversity area of the Massif	MCPs for globally threatened vertebrates implemented and producing monitoring data • Rate of loss of critical habitat for globally threatened vertebrates reduced/ halted • State, Pressure, Response variables gathered each year for the massif and its globally threatened vertebrates • MCPs for globally threatened vertebrates built into Haitian National Biodiversity Strategy – Year 3	MCP reports, database and GIS • Annual State, Pressure, Response reports for Massif de la Hotte and threatened vertebrates • Scientific literature • Government reports to CBD • National Biodiversity Strategy monitoring reports • Project progress reports	Close collaboration and communication between project partners • Haitian government support continues throughout project

Outputs 1. Evidence-base on distribution, population status, ecology and conservation requirements of globally threatened vertebrates and their habitats strengthened and disseminated	Scientifically robust baseline data for globally threatened vertebrates collated, analysed and reported – Year 1 • Baseline occupancy survey completed and GIS built and populated with data as part of a Haitian biodiversity database and clearing-house – Year 2 • Habitat suitability models, key conservation zone maps, and long-term species/ habitat resiliency plans produced – Year 2 • Long-term monitoring protocols and survey design developed and guidelines drafted – Year 2 • National MCP steering committee established • Draft MCPs for globally threatened vertebrates published, and implementation started.	Project progress and annual reports, newsletters and partner websites • Scientific literature – project publications (minimum of 3 articles submitted to peer-reviewed journals and 4 articles in IUCN Specialist Group literature) • 3 MCPs, protocols and guidelines published/ on project partner websites • Long-term species/ habitat resiliency plan for massif • Steering Committee meeting minutes • Haitian biodiversity database and clearing-house	Haitian government continues to provide permits for field research
2. Strengthened Haitian capacity (at local community, local and national levels) for conserving and monitoring globally threatened vertebrates and their habitats	Conservation and sustainable resource use agreements made between local communities and national project partners • Conservation networks of local community groups created • Local community members participate in project activities • Three participatory MCP Planning workshops held and documents published – Year 3 • Monitoring data collection protocols and experimental design developed and fully tested (and manuals written) • Cross-sectoral steering committee • Haitian biodiversity database and clearing-house established • National network of conservation practitioners and experts established – Year 2 • UK – Haiti mentoring system established	NGO–Community agreements • Community network meeting reports • Government biodiversity strategy documents • Government and NGO annual workplans • Monitoring field manuals available on project partner websites • Project annual reports • National network e-group traffic and new collaborations • Mentoring network/ e-group	Communities recognise livelihood – biodiversity link • Effective workshop facilitation • Stakeholders attend workshops • Govt and NGOs continue monitoring/ conservation support • Stakeholders participate in network
3. Skills in conservation biology, planning, advocacy and management are strengthened in local partner organisations and more widely in Haiti	Collaboration with Université Quisqueya postgrad program established • 1 Haitian conservationist receives two-year fellowship on EDGE Fellows programme, including UK training course • Minimum of 20 Haitian conservationists attend the postgraduate course run in Haiti • 1 Haitian conservationist attends DESMAN course in Jersey • 20 students from the postgrad program participate in preparation of MCP documents • Counterpart project manager leads drafting of 1 article for peer-reviewed journal, and 1+ media articles • Haitian project manager plays key role in leading MCP workshops and drafting documents • Successful skills transfer/ responsibility	Postgraduate certificates awarded by Université Quisqueya • Post-graduate DESMAN certificate awarded by University of Kent • Peer-reviewed literature • Course attendance records and feedback forms • EDGE Fellows training course and report evaluation • Project annual reports • MCP document authorship	Core project staff remain in post throughout project • Project offers appropriate training for local partner staff

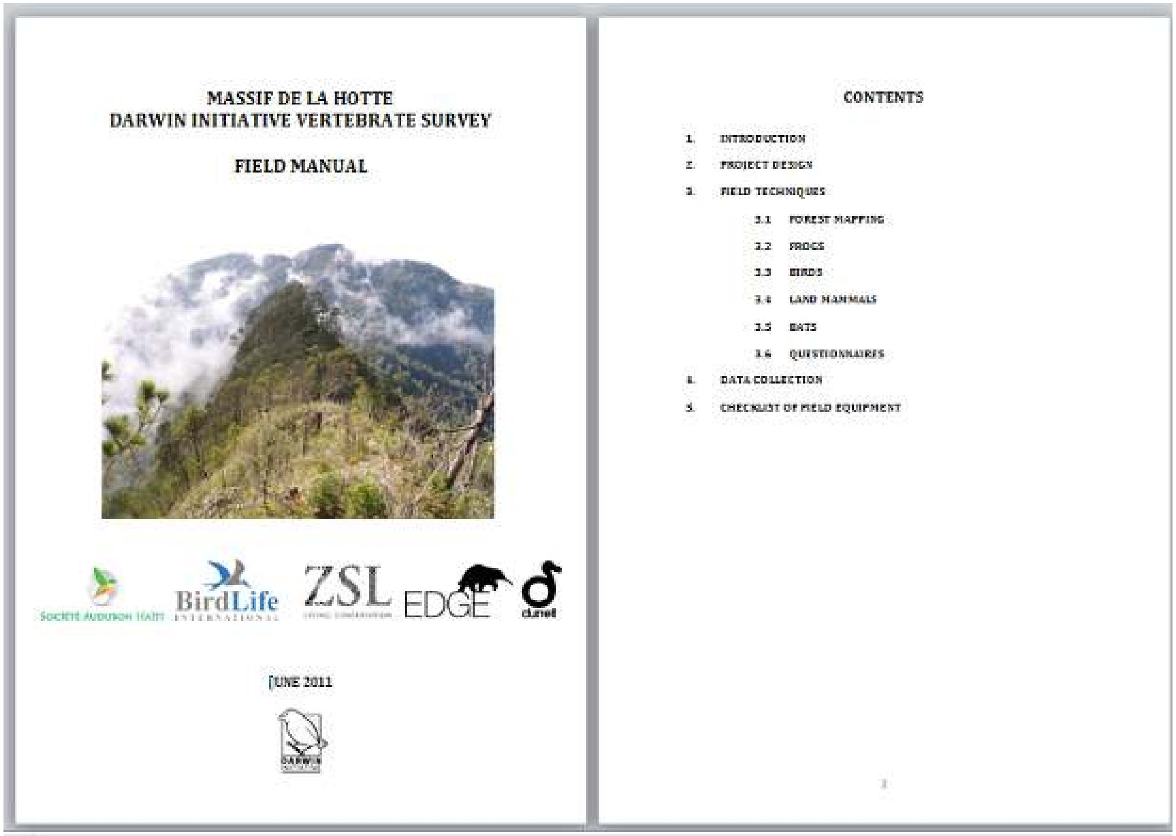
4. Awareness of status and conservation needs of globally threatened Haitian vertebrates substantially improved at local, national and international level	5,000 threatened vertebrate calendars and posters produced and distributed at meetings with local communities, and in local schools • 'Informational' film on Haitian vertebrate conservation (and its relevance to sustainable-use and livelihoods) produced and broadcast on Haitian television and at local community meetings/ schools • Survey of attitudes shows improved awareness and perception of globally threatened vertebrates in communities local to project field sites during the project (baseline Year 1 compared with Year 3) • 6 national radio and TV interviews, 6 national and 1 international newspaper articles • 6 articles and regular blogs published on partner websites • Increasing number of "Haiti" hits on partner websites	Project annual reports • Radio and TV transcripts, newspaper articles, scientific papers • Project partner websites and hit-count • Awareness survey reports	Posters, calendars and film are appropriate media to influence attitudes and change perceptions/ behaviour • Media willing to publicise plight of globally threatened Haitian vertebrates

Annex 3 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Project "poster presentation" launched at the biennial Society for the Conservation and Study of Caribbean Birds (SCSCB) conference in Grand Bahama, July 2011.



Working draft field manual (detailing protocols for each taxonomic group). This draft is being revised and refined during the first field expeditions



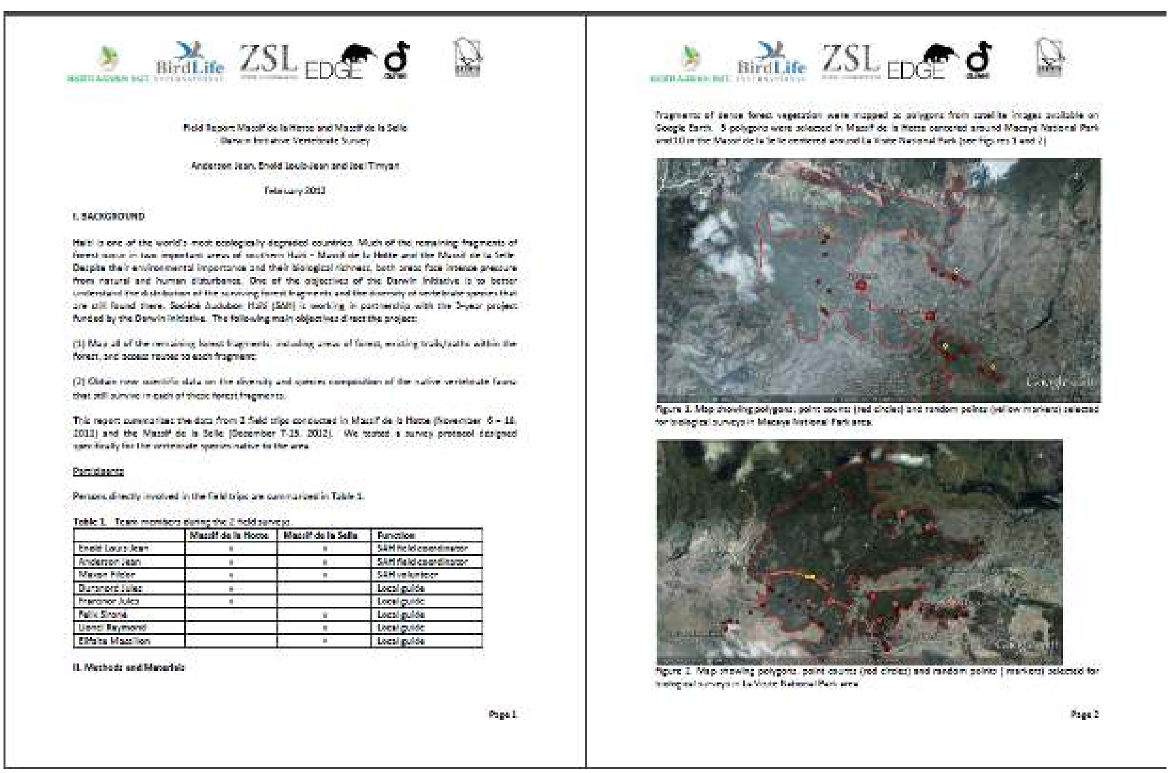
MASSIF DE LA HOTTE
DARWIN INITIATIVE VERTEBRATE SURVEY

FIELD MANUAL

JUNE 2011

CONTENTS

Draft field report from February 2012. The field report structure is being refined and finalised



Field Report Massif de la Hotte and Massif de la Selle
Darwin Initiative Vertebrate Survey

Anderson Jean, Enold Louis-Jean and Joel Timyan

February 2012

I. BACKGROUND

Haiti is one of the world's most ecologically degraded countries. Much of the remaining fragments of forest occur in two important areas of southern Haiti – Massif de la Hotte and the Massif de la Selle. Despite their environmental importance and their biological richness, both areas face intense pressure from natural and human disturbance. One of the objectives of the Darwin Initiative is to better understand the distribution of the surviving forest fragments and the diversity of vertebrate species that are still found there. Société Audubon Haïti (SAH) is working in partnership with the 3-year project funded by the Darwin Initiative. The following main objectives direct the project:

(1) Map all of the remaining forest fragments, including areas of forest, existing trails/paths within the forest, and access routes to each fragment;

(2) Obtain new scientific data on the diversity and species composition of the native vertebrate fauna that still survive in each of these forest fragments.

This report summarizes the data from 2 field trips conducted in Massif de la Hotte (November 6 – 18, 2011) and the Massif de la Selle (December 7-15, 2012). We tested a survey protocol designed specifically for the vertebrate species native to the area.

Participants

Persons directly involved in the field trips are summarized in Table 1.

Table 1. Team members during the 2 field surveys.

	Massif de la Hotte	Massif de la Selle	Function
Enold Louis-Jean	x	x	SAH field coordinator
Anderson Jean	x	x	SAH field coordinator
Maxon Fildor	x	x	SAH volunteer
Duranord Jules	x		Local guide
Francnor Jules	x		Local guide
Felix Sirone		x	Local guide
Lionel Raymond		x	Local guide
Elifaite Maxillon		x	Local guide

II. Methods and Materials

Page 1

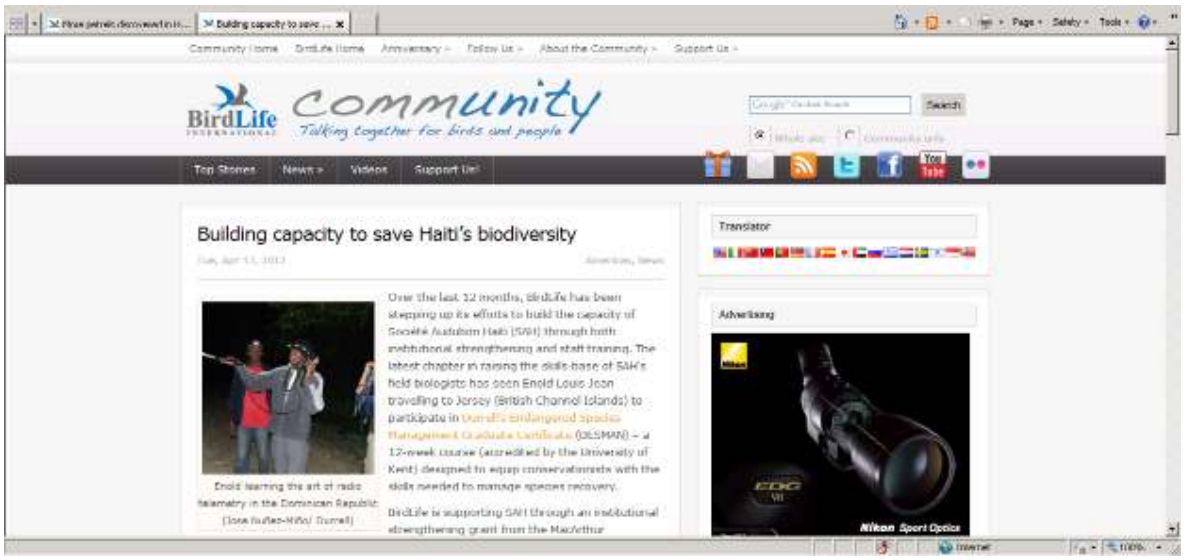
Fragments of dense forest vegetation were mapped as polygons from satellite images available on Google Earth. 5 polygons were selected in Massif de la Hotte centered around Macaya National Park and 10 in the Massif de la Selle centered around La Visite National Park (see figures 1 and 2)

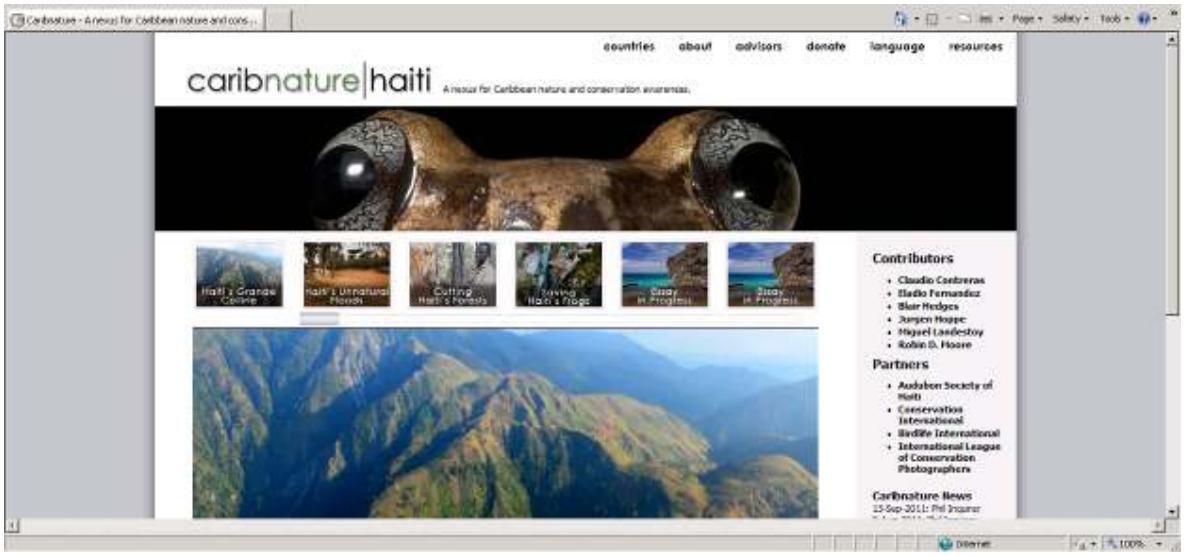
Figure 1. Map showing polygons, point counts (red circles) and random points (yellow markers) selected for biological surveys in Macaya National Park area.

Figure 2. Map showing polygons, point counts (red circles) and random points (markers) selected for biological surveys in La Visite National Park area.

Page 2

Media coverage of the Darwin Initiative project





Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	√
Is your report more than 5MB? If so, please advise Darwin-Projects@ltsi.co.uk that the report will be send by post on CD, putting the project number in the Subject line.	√
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	√
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	√
Have you involved your partners in preparation of the report and named the main contributors?	√
Have you completed the Project Expenditure table fully?	√
Do not include claim forms or other communications with this report.	