



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

1. Darwin Project Information

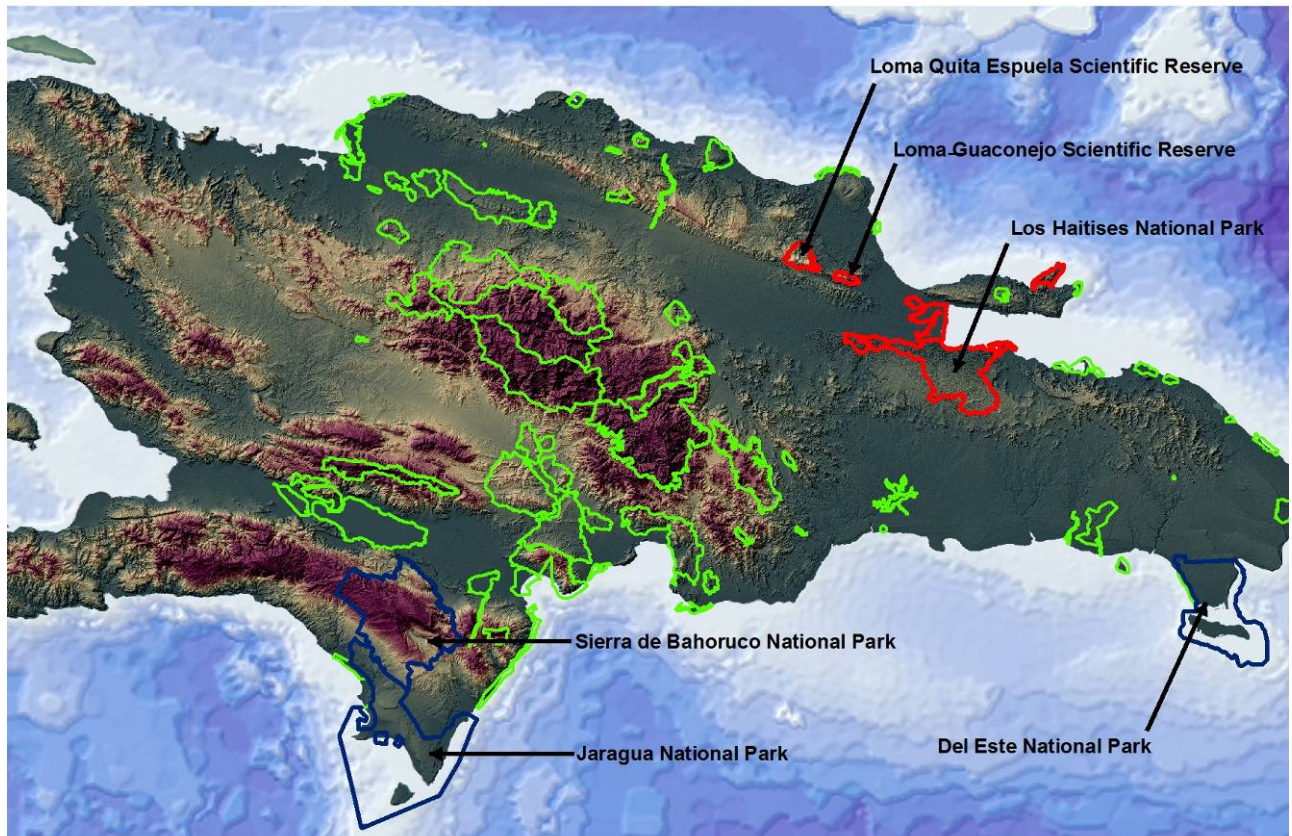
Project Reference	17-025
Project Title	Building evidence and capacity to conserve Hispaniola's endemic land mammals
Host Country/ies	Dominican Republic
UK contract holder institution	Durrell Wildlife Conservation Trust (DWCT)
Host country partner institutions	Sociedad Ornitológica de la Hispaniola (SOH) Parque Zoológico Nacional (ZOODOM) Ministerio de Medio Ambiente y Recursos Naturales
Other partner institutions	Zoological Society of London (ZSL)
Darwin Grant Value	£223,341
Start/end dates of project	1 st October 2009 to 30 th September 2012
Reporting period (e.g. Apr 2010 – Mar 2011) and number (e.g. Annual Report 1, 2, 3)	1 st Apr 11 to 31 st Mar 12 Annual report #3
Project Leader name	Richard Young
Project website	www.thelast survivors.org
Report authors, main contributors and date	Richard Young, Jorge Brocca, Pedro Martinez, Jose-Nunez Mino and Sam Turvey 20 th April 2012

2. Project Background

The Caribbean region once supported a very diverse land mammal fauna of around 120 endemic species, but today only 15 are thought to survive and nearly all of them are threatened with extinction. Two of these species, the Hispaniolan solenodon *Solenodon paradoxus* and Hispaniolan hutia *Plagiodontia aedium*, are classified by the IUCN Red List of Threatened Species as Endangered. However, very little is known about the status and ecology of both of these species. It is highly probable they are both in decline as forest environments continue to be degraded and destroyed in the Dominican Republic and particularly Haiti through human activities. However, with such little information on even their most basic ecology, and with very low levels of public awareness, it is extremely difficult to design and deliver comprehensive conservation actions and to evaluate the success of any management efforts.

Following scoping trips by Durrell and ZSL partners to the Dominican Republic in 2008, a collaboration of UK and Dominican partners was formed to initiate a project to gather evidence and build capacity for the conservation of these mammals. Starting in 2009, the project's purpose is to enable the long-term conservation of the Hispaniolan solenodon and hutia through participatory species action planning, a strengthened evidence-base, an island-wide monitoring programme, and improved awareness. In the Dominican Republic, the project is now known as "Los Ultimos Sobrevivientes – salvando el Solenodonte y la Jutia de la Hispaniola" which translates as "The Last Survivors – saving the Hispaniolan solenodon and hutia". The title is designed to emphasize the project's context and the importance of these species - before humans arrived in Hispaniola about 25 species of endemic land mammals lived on the island, many of them surviving until Europeans arrived a few hundred years ago, but only the solenodon and hutia survive today.

Fieldwork over the last twelve months to build the evidence-base has primarily been in five National Parks (Sierra de Bahoruco, Del Este, Loma Quita Espuela, Guaconejo and Los Haitises) see map 1. Further fieldwork has also been carried out in areas outside national parks, primarily radio telemetry work in agricultural zone outside Sierra de Bahoruco National Park and ground truthing of distribution models both within and outside protected areas, namely: Nalga de Maco, Cerro Chacuey, La Isabella and Jose Armando Bermudez



Map 1. The Protected Area System in Dominican Republic (green) with areas where project fieldwork has been carried out from April 2010 – March 2011 (red). Blue areas highlight areas where the project has previously focused and continues to do work.

3. Project Partnerships

Project partnerships: The roles defined at the beginning of the project have in large part continued as planned, with the DWCT providing overall leadership of the project via Dr Richard Young. On the ground day to day project management is handled by Dr Jose Nunez-Mino (Field Project Manager) and Dr Sam Turvey of ZSL leads the paleobiological and genetic aspects of the science. SOH has taken on more management responsibilities through the counterpart Field Project Manager, Pedro Martinez who now runs the project in the northern part of the country (Loma Quita Espuela, Loma Guaconejo and Los Haitises) funded by a BBC Wildlife Fund grant. Pedro has not only gained substantial field experience but has also attended two DWCT courses: Island Species-Led Action (ISLA) course and the 12 week Durrell Endangered Species Management Graduate Certificate (DESMAN) course run at the DWCT HQ in Jersey (Channel Island). SOH's Executive Director, Jorge Brocca, continues to play an essential leadership role in liaising between the project and government, local community leaders and other stakeholder organisations within the Dominican Republic. We have two excellent research assistants employed by SOH. Nicolas Corona is one of our most experienced research assistants with a range of exceptional field skills. Jose Ramon ('Moncho') Espinal is proving to be an outstanding field biologist and all round conservationist as he has gained knowledge, experience and confidence throughout his engagement with the project (including attending the ISLA course). „Moncho” has led the training of field biologists from Haiti who have engaged with the project and he has also become increasingly involved in educational and promotional work. SOH has been able to take on two new research assistants in the northern part of the country thanks to the BBC Wildlife Fund grant that was awarded to the project in April 2011. Jose Rafael de la Cruz (based near Loma Quitaespuela) and Timoteo Bueno (based near Los Haitises) have had extensive field research training and have more recently been carrying out questionnaire surveys and educational talks in the areas where they are working. A fifth SOH research assistant, Yimel Corona, has been working very closely with Ros Kennerley (PhD candidate, University of Reading) and has gained substantial knowledge on radio-tracking both solenodon and hutia.

The project headquarters continue to be at the offices of SOH within the national zoo (**ZooDom**) in Santo Domingo. Jose has developed the pivotal role of maintaining all project partners informed on progress and updates via both direct contact and through email, facebook and Twitter. Communications between project partners and colleagues remains frequent and effective with skype conference calls every other month between the team in DR, and Richard and Sam in the UK. Jose has continued regular fortnightly skype meetings with Richard.

The Educational Department at ZooDom continues to raise awareness of the two species with visitors coming to the National Zoo. Research assistants employed by SOH are also increasingly actively involved in organising and executing educational presentations in rural areas where solenodon and hutia populations are found.

To find out more about the full project team go to <http://www.thelastsurvivors.org/people/>.

Other collaborations: In addition to continuing to foster those relationships forged in the first 18 months of the project we have also taken proactive steps to increasingly engage and involve a wide range of stakeholders in order to make the project as inclusive and representative as possible:

- The **Punta Cana Ecological Foundation** has continued to support our work in the eastern part of the island in a variety of ways: access to their private reserve, providing accommodation and supporting our educational efforts, in particular hosting the ISLA course in September 2011. Students from Vermont Technical Collage (USA) based at Punta Cana Ecological Foundation have also assisted in carrying out camera trapping at the private reserve in the area. The **British Embassy** in the Dominican Republic, led by ambassador Steven Fisher, has also continued to help and support the project. The project was showcased as part of a video presentation during the queens birthday celebrations in June 2011. We have been continuing to nurture a good working relationship with Dominican Natural History Museum (DNHM) and have been exploring the possibility of developing a short course on mammal research skills with them..
- The **University of Reading**, through Ros Kennerley (a BBSRC funded 4 year PhD student; http://www.reading.ac.uk/caer/student_project_ros_kennerley.html), has continued to carry out some ground breaking radio telemetry work to investigate the ecology and habitat use of both solenodon and hutia in forest-agriculture frontier areas. Ros has been able to obtain further funding for her research via the **Mohamed bin Zayed Species Conservation Fund** which a particular focus on purchasing GPS tags to be used on the Hispaniolan Hutia. A local MSc student, Claudia Llibre, from **Instituto Tecnológico de Santo Domingo (INTEC)** is currently doing here thesis research as part of the project. The thesis is establishing the awareness and perceptions of solenodon and hutia, along with a range of other species, in Los Haitises national park. The UK-based company, **Ecological Research & Training**, provided further support to develop the latest version of species distribution models for the species. **Funk Productions** completed the production of infomercial films in September 2011, these have been and continue to be distributed and used in educational presentations.
- **Island Conservation (IC)** has engaged very actively with the project over the last 12 months and played a crucial role in the teaching of the “Island Species-Led Action” (ISLA) course that was run in September 2011. There has been further discussions with IC in order to explore future training collaborations and capacity building.
- **Rosanna Carreras** from **Paraíso Caño Hondo**, a hotel near Los Haitises national park, has provided logistic support by allowing us to use her accommodation facilities
- We have also increasingly worked in collaboration with the Darwin initiative project in Haiti (“**Building a future for Haiti’s unique vertebrates**”; **REF 18011**) which we visited in May 2011. Two research assistants employed by the main local partner for the project (**Audubon Society of Haiti**) were trained in the Dominican Republic in June 2011, primarily by this projects research assistants as well as Pedro Martinez and Ros Kennerley. Further training was provided to three members of a **Haitian Conservation Youth Group** (from Anse-a-pitre) who were hosted by the project for a week as they accompanied our field teams and received field skill training.
- We have continued to engage with a range of NGOs (e.g. **Grupo Jaragua** and **Fundacion Quita Espuela**) by keeping them informed of our progress and discussing lessons learnt with them directly. These organisations are likely to play an absolutely crucial role in both the development and applications of the Species Action Planning which will be our focus during the final part of the project.

Some collaborations have still not developed to the stage we would have wanted to for a variety of reasons. For example, the **Caribbean Biodiversity Corridor**, could play a crucial role in the long term sustainability of the project but has until recently not had an appointed permanent leader although this has recently changed providing a good opportunity for the project.

A second **BBC Wildlife Fund** grant awarded in December 2011 has enabled us to start initial contacts with organisations and individuals in other Caribbean islands with endemic land mammal species (namely Cuba, Jamaica and Bahamas). The intention is to visit these islands in order to ascertain how the lessons learnt during the Hispaniolan project can be shared and contribute to designing research and conservation efforts where these are needed. Ultimately, the idea is to form a collaborative Caribbean network that will support efforts to conserve the unique Caribbean land mammal species. Expeditions to all these island will be planned over the coming months.

To get more information about other organisations that have engaged with the project please see project website (<http://www.thelastsurvivors.org/the-project/supporting-organisations/>)

4. Project Progress

4.1 Progress in carrying out project activities

Output 1. Scientifically robust data on conservation status and requirements of the Hispaniolan solenodon and hutia and their key threats are collected, analysed and disseminated

1.1. Data collection at target field sites

- Mammal surveys were carried out in the following locations in this reporting period: Sierra de Bahoruco (10 sites), Parque del Este (1 site), Loma Quita Espuela (20 sites), Loma Guaconejo (20 sites) and Los Haitises (35 sites). See <http://www.thelastsurvivors.org/the-project/species-distribution-maps/> for more details. A total of 84 sites have been surveyed since April 2010 (the total since the beginning of the project is 294 sites) using standardised sampling methods which include habitat assessments and looking for signs of both target species (for methods see <http://www.thelastsurvivors.org/the-project/the-survey/>). The survey sites are across five national parks (Sierra de Bahoruco, Jaragua, del Este, Guaconejo, Quitaespuela and Los Haitises) and one private reserve (Punta Cana). Over 400 opportunistic records of hutia and/or solenodon have also been recorded in these areas as we traversed across them to access our standardised sampling points. The results of all the records (standardised and opportunistic) where we have recorded solenodon and hutia have been presented on the project website where they are available to view - <http://www.thelastsurvivors.org/the-project/species-distribution-maps/>.

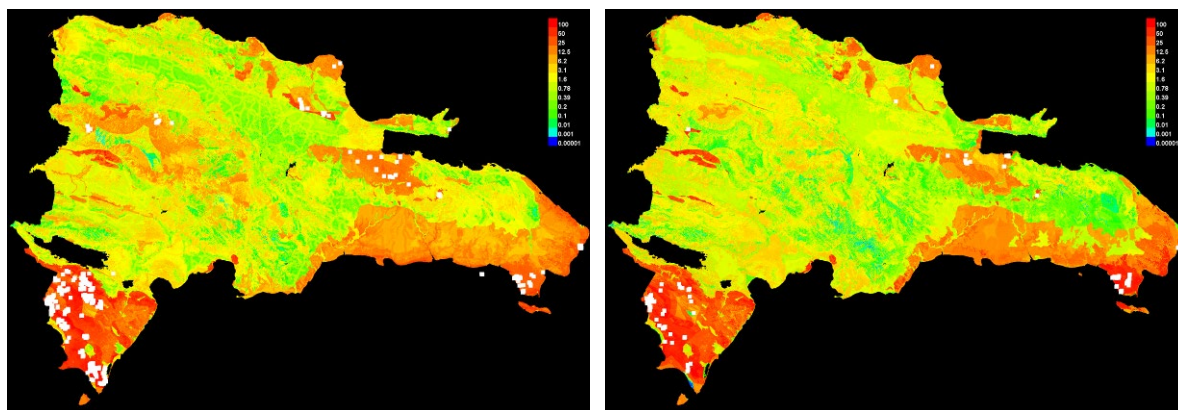
- A collaborative expedition to Haiti between this Darwin project and the Darwin Initiative funded project in Haiti (Ref 18011 "Building a future for Haiti's unique vertebrates") took place between the 7th and 15th May of 2011. The main aim was to establish protocols to survey Massif de la Hotte (during this expedition we established that solenodon and hutia are still present in some localities). Two Haitian field team members then embedded themselves with the Dominican Republic field team to gain the field skills necessary to find evidence of solenodon and hutia presence.

- Two MSc projects were completed: 1. "Foraging habitat preference of the Hispaniolan Solenodon (*Solenodon paradoxus*).” by Sarah Rose Hoy (MSc in Ecology, Evolution and Conservation. Imperial College London. 2. "Habitat-species association in the Hispaniolan solenodon (*Solenodon paradoxus*); a quantitative study of an endangered Caribbean mammal” by Rocío A. Pozo Rodríguez (MSc Conservation Science. Imperial College, London). Two further MSc projects are currently under way: 1. "Community perceptions of endemic species in Los Haitises National Park” by Claudia Llibre (MSc in Environmental Science, INTEC) 2. Jessica Louise Knapp (MSc Applied Ecology and Conservation, University of East Anglia) "Human-wildlife conflict in the Dominican Republic: Investigating the predation risk to *Hispaniola solenodon* and hutia from domestic dogs”.

- Ros Kennerley from the University of Reading has continued to build on her PhD research from last year. Particularly notable is her successful GPS tracking of hutia for the first time. A total of eight solenodon were tracked for over 3 months, 11 solenodon currently being radio-tracked at a new site and 3 hutia GPS tracked.

1.2 Data analysis, construction of GIS and mapping

– Species distribution models have continued to be developed using opportunistic and standardised data. Results continue to suggest geology and forest as major drivers behind solenodon and hutia distribution. Ground truthing of models is now underway. We have made excellent progress in this area: all data are stored and managed in a customised Access database and a GIS. We have developed a new layer (Topographical Wetness Index – TWI), in combination with our survey data, has allowed us to produce species distribution models for solenodon and hutia using MAXENT (developed by Princeton University). We now have the first set of maps (see map 2), based on quantitative data, predicting the distribution of the two target species across the Dominican Republic. These models have highlighted the environmental characteristics that appear to be closely related or influencing distribution of the species. The models will need further testing.



Map 2 – Solenodon (left) and Hutia (right) MAXENT distribution maps for the Dominican republic (Data through to January 2012). Warmer colours (red) represent higher likelihood of having populations.

- Genetic analyses of solenodon and hutia phylogeography continues with a total of 19 DNA samples (4 hutia & 15 solenodon) delivered to Sam Turvey in June 2011. The analyses will be completed in time to report to the Species Action Planning workshop in 2012.

1.3. Preparation of scientific and other technical documents

Past understanding of the taxonomy of Hispaniolan hutias has been extremely confused, making it difficult to determine appropriate management strategies for different hutia populations across the island. Phylogenetic analysis using cytochrome b (mitochondrial genome) of *Plagiodontia* populations across Hispaniola has been completed through collaboration with the Zoological Society of London (ZSL) and the ancient DNA group at Royal Holloway University of London (RHUL), using 20 recent field-collected samples and 21 historical (up to 100 yrs old) museum samples from three American museums. This analysis has revealed a pattern of historical allopatric lineage divergence within *Plagiodontia* reflecting the ancient geotectonic history of Hispaniola into three distinct palaeo-islands, with near-complete genetic isolation of these three biogeographically separate populations. Lineage divergence in *Plagiodontia* is interpreted as representing two distinct subspecies, a southern subspecies comprising both the southeastern and southwestern populations (*Plagiodontia aedium aedium*) and a northern subspecies (*Plagiodontia aedium hylaeum*). However, all three *Plagiodontia* populations should all be treated as distinct management units for conservation, with particular attention required for the northern population (low haplotype diversity) and the southwestern population (high haplotype diversity but highly threatened). This genetic analysis has now been published (Brace et al. 2012). Further morphometric analysis of 48 craniodental characters measured from modern, historical, and fossil hutia specimens across Hispaniola supports a main northern-southern split within *Plagiodontia* congruent with the results of genetic analysis, providing morphological as well as genetic characters with which to distinguish different hutia populations, and further supports the distinction of northern and southern populations at the subspecies rather than the species level, through comparison of relative levels of morphometric differentiation between different living and extinct hutia taxa (Hansford et al. in prep.).

- Brace S, Barnes I, Powell A, Pearson R, Woolaver LG, Thomas MG, Turvey ST. 2012. Population history of the Hispaniolan hutia *Plagiodontia aedium* (Rodentia: Capromyidae): testing the model of ancient differentiation on a geotectonically complex Caribbean island. *Molecular Ecology* doi: 10.1111/j.1365-294X.2012.05514.x

- Hansford J, Nunez-Mino J, Young R, Brace S, Brocca J, Turvey ST. In prep. Taxonomy-testing and the Goldilocks hypothesis: morphometric analysis of species diversity in living and extinct Hispaniolan hutias. For submission to Systematics and Biodiversity.

Rosalind Kennerley produced a report summarising the results of the first ever radio telemetry work carried out on solenodon. This has been submitted to all project partners, external reviewers and to other stakeholders. The "Island Species-Led Action" course had a handbook as one of its outputs which has been distributed to all course participants and further a field. Two further reports have been produced for the Ministry of Environment and National Resources. The first in the summer of 2011 summarised the results to that point and the second for a regional office of the same ministry to summarise the results of an expedition which revealed a substantial population of solenodon and hutia outside a protected area.

Output 2. Skills in conservation biology and planning are strengthened in local partner organisations and more widely in Dominican Republic

2.1. International training courses for Hispaniolan project participants

- We ran the 10 day long 'Island Species Led Action' course in the Dominican Republic, with trainers from all over the world working with 18 participating conservationists from the Caribbean - 6 from 4 different Dominican NGOs (Grupo Jaragua, CEBSE, Fundacion Loma Quita Espuela & SOH), 1 from the Dominican Republic Natural History Museum, 2 from Audubon Society Haiti, 2 from Montserrat's Dept of Environment, 1 from Puerto Rico (Island Conservation) and 6 from the Dominican Republic Ministry for the Environment)

- Two Haitian field biologists (Anderson Jean & Enold L Jean) from the Audubon Society of Haiti, employed by the Darwin Initiative funded project in the Massif de la Hotte, were trained in solenodon and hutia research field techniques by the team in Dominican Republic. This took place from the 1st to the 10th of June 2011 at one of our field sites in the west of the DR. Training included: use of GPS (including map reading), surveying for signs of solenodon and hutia, carrying out habitat assessments and radio telemetry. Three young Haitian conservation volunteers involved in a project in Anse-a-pitre (Evanita Sanon, Pierre Richard Sanon & Johnny Jeudy) undertook similar training from the 13th to the 17th of February.

- Pedro Martinez (Field Project Manager, SOH) attended the 3 month long DESMAN course (<http://www.durrell.org/Training/Courses/Durrell-Endangered-Species-Management-Graduate-Certificate-2012/>) in Durrell's International Training Centre in Jersey. Pedro has stated that: "I feel that as a Dominican, it is my duty to try my best to prevent the extinction of the last two endemic species of Hispaniolan land mammals. I feel honoured to have attended the Durrell International Training Centre and received the management training and critical thinking skills required to help protect these two animals."

2.2. Ongoing skills transfer for counterpart project manager and other key project staff

We have made very encouraging progress in our skills transfer programme both for project staff and more widely in the Dominican Republic. Notable amongst these are:

A. Presentation skills training has focused on the team of research assistants working with the project. The main drive has been to teach our research assistants to communicate effectively with rural communities by adapting presentations to their audience. Although the Field Project Managers have continued to carry out the bulk of presentations to government and technical audiences, most of our rural talks are now being designed, organised and executed by the research assistants.

B. Radiotelemetry training – this training has continued and Moncho, Nicolas and Yimell are now able to do radio telemetry (including taking triangulation angles) independently. Haitian field biologists have also been given radio telemetry training (see 2,1).

C. Field skills – On the job training of both of our new research assistants (Jose Rafael and Timoteo) in the north of the country has enabled them to lead and execute their own expeditions.

It is worth noting that Moncho has been particularly active in teaching and passing on his knowledge whenever possible. Apart from the two field teams from Haiti that he has trained, he has also taught undergraduate students from Vermont Technical College to set and maintain camera traps.

D. IT skills – some initial IT training has been provided for Moncho who has no previous experience of using computers. He has been able to grasp many of the basic principles but further training still needs to be provided.

2.3. Performance appraisals of host-country project staff

Moncho had a performance appraisal in August 2011, one of the areas he had identified was a lack of IT knowledge (having never used a computer before). We have already started to address this issue by providing initial training and access to a field computer (Panasonic Toughbook) purchased with the BBC Wildlife Fund grant. Moncho also identified his lack of English language skills as a possible hindrance to gaining further training, we have provided Moncho with materials to learn English but further work is needed in this area. Pedro was due a performance appraisal in February 2012 but was in the UK attending the 3 months DESMAN course, an appraisal will be carried out in June 2012.

Output 3. Awareness of status and conservation needs of Hispaniolan endemic land mammals substantially improved at local, national and international level

3.1. Programme of local and national awareness raising

The National Zoo (ZooDom) continues to give talks to large numbers of groups that visit the zoo on a daily basis (we are currently awaiting final figures for the reporting period). The field team have given talks at 1 university (Universidad Autónoma de Santo Domingo – Hato Mayor; 143 people), 3 general public talks (Las Terrenas with 22 people, Los Limones with 57 people and Cristal with 34 people) and at 6 mostly rural schools: Avila (30), Menica (75), Alta Gracia (22), Aguas Negras (57), Punta Cana International School (163) and Los Limones (107). Presentations have involved talking and engaging with the audience in addition to showing an appropriate project infomercial (where electricity was available) and question/answer sessions.

Over 3000 project leaflets (<http://www.thelastsurvivors.org/wp-content/uploads/Folleto-Los-Ultimos-Sobrevivientes.pdf>) have been widely distributed in all rural areas where we have worked and individuals are now contacting us to report sightings and request further information.

Over the last 12 months we have had 1 newspaper article, 10 web based articles, 2 book sections, 1 TV programme and 1 radio programme. We have also been visited by a UK independent journalist (Malcolm Smith) who is currently preparing an article about the project.

3.2. Programme of international awareness raising

- The last year has seen the project covered by 5 web based articles and 1 national TV programme (<http://www.youtube.com/watch?v=54xFSmQwqo4>) and a book section on the Hispaniolan solenodon "Saving the World's weirdest mammal" in "Life is Good: Conservation in an Age of Mass Extinction" (see <http://www.thelastsurvivors.org/the-project/in-the-news/>).

- We have had 6,822 unique visitors to the project website (1 April 2011 – 30 March 2012) from 129 countries. We have written 9 blogs for the project website which were also published in EDGE and Durrell websites and now have 460 followers on Facebook and 180 followers on Twitter.

- The project's infomercial films were completed and are now being used nationally and internationally to raise awareness of the species and the project:

- The Last Survivors International (English) version infomercial – <http://www.youtube.com/watch?v=BGRNWhAJ8x4> (YouTube 1726 views since launch on 4 September 2011. Vimeo: 110 views since 30 July 2011)
- The Last Survivors Spanish (full) version infomercial – <http://www.youtube.com/watch?v=IPkRGpGiQ4s> (YouTube 808 views since launch on 29 April 2011. Vimeo 97 views since 9 January 2011)
- The Last Survivors Spanish (short) version infomercial – http://www.youtube.com/watch?v=oL_-IXQ9pZ8 (YouTube 88 views since launch on 29 April 2011. Vimeo 178 views since 16 February 2011)
- The Last Survivors kids version (Spanish) infomercial – <http://www.youtube.com/watch?v=AAf8FEjtYZE> (YouTube 387 views since launch on 30 April 2011. Vimeo 41 views since 27 March 2011. The infomercial has now also been seen by 523 school students).

3.3. Surveys of attitudes towards focal species and habitat conducted in local communities

Building on the work done by Cristina Secades in the second year of the project, we now have a local MSc student, Claudia Llibre (INTEC university) carrying out similar surveys (120 surveys carried out so far) in a very different part of the country (Los Haitises) where the human-wildlife conflict is more intense. The work that Claudia is carrying out will aid in shaping the different conservation strategies that might be needed.

Output 4. Strengthened capacity for conserving and monitoring the Hispaniolan solenodon and hutia

Joe Nunez-Mino was appointed as the Caribbean Coordinator for the IUCN/SSC Small Mammal Specialist Group (SMSG). This role will provide a platform from which to scale-up lessons learned in the Dominican Republic to other countries with solenodons and hutias. Joe will soon be appointing SMSG Species Coordinators within the Dominican Republic, Haiti, Jamaica, Bahamas and Cuba whose role it will be to promote conservation for Caribbean mammals in their home countries.

4.1. Species Action Planning workshops, consultation with local communities and adoption of SAPs into Dominican Republic's NBSAP

This activity is not planned for this reporting period. However, we are holding preparatory meetings with key individuals in the Government and NGO sectors to ensure they are engaged in our plans and to decide when and how the workshops should be held.

4.2. Design of monitoring programme and supporting materials, and launch of steering committee

The final six months of the project will focus on the design of an appropriate monitoring programme in conjunction with crucial stakeholders. We already have the skills and knowledge to develop the programme in addition to documents detailing the methods we use and where the focus of long term conservation efforts should be. Although the final members on the steering committee remain to be decided, we already have good contacts with all appropriate candidates, it remains to be decided what criteria will be used to select from all those available

4.2 Progress towards project outputs

Output 1. Scientifically robust data on conservation status and requirements of the Hispaniolan solenodon and hutia and their key threats are collected, analysed and disseminated

We are now approaching the end of the field research phase of the project and we have achieved our goal of conducting an extensive and robust nationwide survey of the Hispaniolan solenodon and hutia. For the first time we now have fine scale predictive maps of the distribution of both species and the next step is to overlay these with a set of environmental and management layers to start identifying priority conservation zones. Our understanding of their basic ecology is much enhanced thanks to an ongoing PhD project and two MSc projects. Our work has revealed a range of threats to both species that were hitherto unknown. We must now focus on analysis and interpretation, and a strategy for disseminating these data in the lead up to the species action planning workshops.

Output 2. Skills in conservation biology and planning are strengthened in local partner organisations and more widely in Dominican Republic

This past reporting year has seen significant progress towards this output with Pedro attending the 3 month long DESMAN course in Jersey, the 2 week Island-Species Led Action course held in the Dominican Republic for 18 government and NGO conservationists. In terms of strengthening skills in our local partner, the field project manager, Joe Nunez-Mino, has been very effective in mentoring and training Pedro, Moncho and Nicolas in a range of technical and professional skills. Pedro is now leading the project in the north of the island, and will take a leadership role in coordinating the Species Action Planning process - a real indication of his development. Moncho is proving to be an excellent field biologist and with increasingly effective communication skills, will be an advocate to Hispaniolan mammal conservation for many years to come.

Output 3. Awareness of status and conservation needs of Hispaniolan endemic land mammals substantially improved at local, national and international level

The project continues to deliver very effectively in this area. Awareness at local and national level in the Dominican Republic of these species and their conservation requirements is increasing as evidenced by local awareness surveys and through the rising number of media enquiries. A good indicator of the international awareness levels of the hutia but particularly the solenodon was their coverage in a book on threatened species published by the IUCN and the solenodon featuring in chapter called "Saving the World's weirdest mammal" of the book *Life is Good: Conservation in an Age of Mass Extinction*. Further, the solenodon was selected as one of 10 species from around the world to appear on a high profile BBC TV programme towards the end of 2012 and the BBC Natural History Unit film team recently visited the DR to film the animal and the project. The IUCN/SSC Small Mammal Specialist Group along with ZSL's EDGE programme will continue to drive awareness-raising at international level through websites and social media.

Output 4. Strengthened capacity for conserving and monitoring the Hispaniolan solenodon and hutia

A steering committee meeting was held in January of 2012. Project results were presented to the committee which is made up of Dr Jose Ottenwalder (a leading expert in solenodon and hutia ecology) and Katarzyna Grasela of The Nature Conservancy. The committee agreed that the project had made significant advances over the proceeding period and has already got the skills and knowledge required to shape the Species Action Plans and implement a monitoring programme but they highlighted the challenges ahead in terms of setting up an effective group of stakeholders that will help create and oversee implementation of the plans. Key personnel across the main stakeholders have expressed an interest in serving on this committee and in the next two months we must form the committee to be in position for the Species Action Planning process.

4.3 Standard Measures

Table 1 Project Standard Output Measures

Cod e No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for this reporting period	Total planned from applicati on
3	Number of people to attain other qualifications (i.e. Not outputs 1 or 2 above)	0	0	1		1	1	1
5	Number of people to receive at least one year of training (which does not fall into categories 1-4 above)	0	3	2		5	0	3
6A	Number of people to receive other forms of education/training (which does not fall into 1-5 above)	0	0	18		18	0	20
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	0	0	0		0	0	2
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording	0	1	0		0	0	1
11A	Number of papers to be published in peer reviewed journals	0	0	1		1	0	3

Cod e No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for this reporting period	Total planned from applicati on
11B	Number of papers to be submitted to peer reviewed journals	0	2	0		2	0	3
12A	Number of computer based databases to be established and handed over to host country	0	1	0		1	0	1
14A	Number of conferences/seminars/workshops to be organised to present/disseminate findings	0	0	0		0	0	2
14B	Number of conferences/seminars/workshops attended at which findings from Darwin project work will be presented/ disseminated.	0	2	1		3	0	1
15A	Number of national press releases in host country(ies)	1	16	1		18	1	5
15C	Number of national press releases in UK	0	2	0		2	0	2
17B	Number of dissemination networks to be enhanced/ extended	0	0	0		0	0	1
18A	Number of national TV programmes/features in host country(ies)	0	1	1		2	0	1
19A	Number of national radio interviews/features in host county(ies)	1	0	1		2	0	1
19B	Number of national radio interviews/features in UK	0	4	0		4	0	1
19D	Number of local radio interviews/features in UK	0	5+	0		5+	0	1
21	Number of permanent educational/training/research facilities or organisations to be established and then continued after Darwin funding has ceased	0	0	0		0	0	1
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	110	100	84		294	Wasn't specified	Wasn't specified

Table 2 Publications

Type (e.g. journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (e.g. contact address, website)	Cost £
Project website*	n/a	n/a	www.thelast survivors.org ww.losultimos sobrevivientes.org	£0
MSc thesis	Foraging habitat preference of the Hispaniolan Solenodon (<i>Solenodon paradoxus</i>).”(2011) Sarah Rose Hoy. MSc in Ecology, Evolution and Conservation. Imperial College London.	Imperial College London	http://www.iccs.org.uk/	£0
MSc thesis	Habitat-species association in the Hispaniolan solenodon (<i>Solenodon paradoxus</i>); a quantitative study of an endangered Caribbean mammal. (2011). Rocío A. Pozo Rodríguez (MSc Conservation Science. Imperial College, London)	Imperial College London	http://www.iccs.org.uk/	£0
Infomercial films*	Various	The Last Survivors & Funk Productions	http://www.youtube.com/watch?v=BGRNWhAJ8x4 http://www.youtube.com/watch?v=IPkRGpGiQ4s http://www.youtube.com/watch?v=oL_-IXQ9pZ8 http://www.youtube.com/watch?v=AAf8FEjtYzE	£0
Manual	Island Led Species Action – Hispaniola: Course handbook	Durrell Wildlife Conservation Trust	http://www.thelast survivor s.org/wp-content/uploads/ISLA-Hispaniola-2011-Course-Handbook.pdf	£0
Journal article	Brace, S., Barnes, I., Powell, A., Pearson, R., Woolaver, L.G., Thomas, M.G. & Turvey, S.T. (2012). Population history of the Hispaniolan hutia <i>Plagiodontia aedium</i> (Rodentia: Capromyidae): testing the model of ancient differentiation on a geotectonically complex Caribbean island. <i>Molecular Ecology</i> DOI: 10.1111/j.1365-294X.2012.05514.x	Molecular Ecology	http://www.ucl.ac.uk/mace-lab/publications/articles/2012/brace-2012-hispaniolan.pdf	£0
For more details on articles arising from the project, go to http://www.thelast survivors.org/the-project/in-the-news/				

4.4 Progress towards the project purpose and outcomes

The purpose of the project is to provide a platform for the long-term conservation of the Hispaniolan solenodon and hutia through participatory species action planning, a strengthened evidence-base, an island-wide monitoring programme, and improved awareness. We are very close to achieving this. We have very effectively raised awareness of the plight of these species at various levels and are currently working hard to engage with key decision-makers in the national government. Our knowledge of the ecology of, and threats to, the species is much improved with previously unknown populations discovered, population hotspots identified and areas with high threat and little conservation management delineated. Transferring this knowledge to relevant stakeholders is the next challenge. The final phase of the project will see the Species Action Planning process will start in earnest along and with development of multi-stakeholder committee to oversee the SAPs and a long-term monitoring programme.

The purpose level assumptions remain valid with excellent working relationships between the project partners.

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

Given the timing and importance of the Species Action Planning process to impacts on biodiversity conservation, it won't be until the final project report until we can meaningfully evaluate and report on progress towards this highest level goal.

5. Monitoring, evaluation and lessons

Most of the information on how project progress is monitored and evaluated is given in sections 3.1-3.4. As reported last year, of the four original monitoring indicators outlined in the proposal, Indicator 1 has not proved informative. We are monitoring our progress towards development the evidence-base by the number and quality of our scientific outputs rather than through periodic evaluation by senior colleagues.

In terms of lessons, we continue to learn how to best engage with the Dominican Government in terms of protocols of communication and building working relationships with key individuals. The Species Action Planning workshops have been pushed back to August 2012 to account for the anticipated change in Dominican Government.

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

Not applicable as the last annual report was not subject to external review.

7. Other comments on progress not covered elsewhere

Richard Young continues to Co-Chair the IUCN's Species Survival Commission and has appointed Joe Nunez-Mino as the Caribbean Coordinator. Joe is currently appointing Species Coordinators for all the solenodon and hutia species. These appointments will enhance the profile of The Last Survivors project and increase its ability to deliver its goals and develop a long-lasting network within the wider Caribbean to facilitate solenodon and hutia conservation and research.

Project partners from ZSL, DWCT and SOH visited Cuba from 8-27 April 2012, to develop collaborative relationships with Cuban researchers, present data from the Darwin Initiative "Last Survivors" project at the Second Symposium of Ecology and Systematics (Santiago de Cuba, 9-12 April), and identify ways to transfer skills from the Hispaniolan project to build conservation capacity for Cuban solenodon and hutias and expand the "Last Survivors" network across the western Caribbean. Strong relationships were developed with the University of Oriente (Santiago de Cuba) and the Instituto de Ecología y Sistemática (La Habana), permitting collection of museum samples of a range of Cuban mammal species for future genetic analysis, and scoping trips to key Cuban mammal field sites (Sierra Maestra, Cienega de Zapata, Sierra de Cristal). Methods for developing future collaborative Cuban mammal conservation field projects, building on capacity developed in Hispaniola, are now being discussed by the "Last Survivors" team and Cuban stakeholders.

8. Sustainability

The project has achieved many of its original goals. Particular successes have been in building a highly effective team of conservation practitioners and raising awareness of these unique species. There is a desire by all stakeholders and supporters of the work that has been done so far for this to be used as a foundation for building a long term project. However, the exact mechanism that might be used to do this remains to be decided. The project has great potential to be expanded in order to share what has been done on Hispaniola with the neighbouring Caribbean islands that also have endemic land species (Cuba, Jamaica and Bahamas) and we have already started to develop strong links with organisations on these islands. A regional project may offer an opportunity to create a stronger coalition to lever the resources that will undoubtedly be required. One initial exploratory trip to Cuba (with BBC Wildlife Funds) has already been carried out and further exploratory trips are planned for Jamaica and Bahamas.

The Critical Ecosystem Partnership Fund (CEPF) which has a current grant round in the Caribbean has shown considerable interest in such a proposal although we have so far failed to secure funding support. However, the CEPF have invited us to resubmit a proposal in the next few months.

The project aims to achieve long term sustainability through a broad coalition of stakeholders headed by an independent chair that can oversee implementation of the Species Action Plans. This coalition needs to include both the national governmental authorities but will also include the locally active NGOs. The intention is to empower and support the local project manager, Pedro Martinez, to lead in the creation of a committee to head up the Species Action Planning creation and implementation. This process was intended to have begun earlier but after seeking local advice it has been strongly suggested that we postpone this process until the forthcoming national election on the 20th of May 2012.

9. Dissemination

The project has managed to retain a high level of attention at the local, national and international level. This has been reflected in both the number of press articles that have been released as well as the increasing number of visitors to the website and increasing number of reports of species sightings that are reported to project team members. At the local level, our team of research assistants have been particularly effective at increasing the level of awareness of both solenodon and hutia along with changing perceptions of these species. This effort needs to be sustained and promoted in the long term by using the momentum that it currently has in order for it to continue succeeding in disseminating results.

10 Project Expenditure

Table 3 project expenditure during the reporting period (1 April 2011– 31 March 2012)

Item	Budget	Expenditure	Variance/ Comments
Staff costs specified by individual			
Overhead costs			
Travel and subsistence			
Operating costs			
Capital items/equipment (specify)			
Others: Consultancy			
Others: Other Costs, Services			
TOTAL			

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

- The BBC are making a TV programme called Attenborough's Ark, due to be aired in late 2012, where Sir David Attenborough selects 10 species from around the world to place in a hypothetical ark. The Hispaniolan solenodon was chosen as one of the ten and a BBC film crew visited the DR in March to film the animal in the wild and the project. This is a huge achievement for the project and will be excellent opportunity to further raise the profile of this once obscure mammal.
- The project won a second round of BBC Wildlife Fund money to start scaling up the knowledge, skills and tools developed by the Last Survivors project to the other Caribbean states with threatened endemic land mammals.
- The project field staff are now the first people ever to radiotrack the Hispaniolan solenodon and Hispaniola hutia.
- For the first time we understand at reasonably fine scale the phylogeography of the Hispaniolan hutia, with three clearly defined conservation units, as published in an article in the journal Molecular Ecology.

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2010-2011

Project summary	Measurable Indicators	Progress and Achievements April 2010 - March 2011	Actions required/planned for next period
<p>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</p> <ul style="list-style-type: none"> ⇒ 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 			
<p>Purpose Enabling the long-term conservation of the Hispaniolan solenodon and hutia through participatory species action planning, a strengthened evidence-base, an island-wide monitoring programme, and improved awareness</p>	<p>Data on conservation status and requirements of solenodon and hutia analysed and reported ▪ Key conservation zone maps produced and agreed across stakeholders ▪ Long-term monitoring protocols and survey design developed and guidelines drafted; monitoring steering committee established ▪ SAP workshops held and documents published ▪ SAPs adopted into the Dominican Republic NBSAP ▪ Evidence disseminated to stakeholders through awareness-raising programme ▪ 'Infomercial' film on Hispaniolan mammal conservation produced and broadcast on Dominican Republic television</p>	<p>We are very close to achieving the purpose of the project. We have very effectively raised awareness of the plight of these species at various levels and are currently working hard to engage with key decision-makers in the national government. Our knowledge of the ecology of, and threats to, the species is much improved with previously unknown populations discovered, population hotspots identified and areas with high threat and little conservation management delineated. Transferring this knowledge to relevant stakeholders is the next challenge. The final phase of the project will see the Species Action Planning process will start in earnest along and with development of multi-stakeholder committee to oversee the SAPs and a long-term monitoring programme.</p>	<ul style="list-style-type: none"> • Complete the nationwide survey, analyse data, and write-up. Produce maps to show priority conservation zones for mammal conservation in preparation for Species Action Planning process • Complete analysis of solenodon genetics and write-up • Prepare and disseminate other knowledge products in advance of SAP workshops • Establish full steering committee for monitoring programme and SAP implementation and to identify key stakeholders for SAP workshops • Hold SAP workshops and draft plans. Hold brief consultation process with local communities, and other key stakeholders • Complete scoping missions to other Caribbean nations to start scaling up the knowledge, skills and tools developed by the Last Survivors project. • Further strengthen partnerships with government and Dominican NGOs implementing rural development, forest and watershed

Project summary	Measurable Indicators	Progress and Achievements April 2010 - March 2011	Actions required/planned for next period
			projects <ul style="list-style-type: none"> • Design monitoring programme and prepare supporting technical manuals • Full hand over of equipment, databases, documentation etc to local partner
<p>Output 1. Scientifically robust data on conservation status and requirements of the Hispaniolan solenodon and hutia and their key threats are collected, analysed and disseminated</p>	<p>1.a. Ecological and socio-economic research at field sites, baseline species occupancy survey and genetic analyses completed</p> <p>1.b. GIS built and biological, environmental and national scale socio-economic data synthesised to allow mapping of key conservation zones</p> <p>1.c. Minimum of 3 scientific papers submitted to international peer-reviewed journals describing distribution, density, habitat associations, phylogenetics and conservation requirements of endemic mammals</p> <p>1.d. Triannual project progress meetings with OPNRD and partner NGOs</p> <p>1.e. Easy-to-read pamphlet produced to summarise relevant science and distributed to stakeholders in advance of SAP workshops</p> <p>1.f. Minimum of 2 articles published in IUCN Specialist Groups literature</p>	<p>We are now approaching the end of the field research phase of the project and we have achieved our goal of conducting an extensive and robust nationwide survey of the Hispaniolan solenodon and hutia. For the first time we now have fine scale predictive maps of the distribution of both species and the next step is to overlay these with a set of environmental and management layers to start identifying priority conservation zones. Our understanding of their basic ecology is much enhanced thanks to an ongoing PhD project and two MSc projects. Our work has revealed a range of threats to both species that were hitherto unknown.</p>	
<p>Activity 1.1 Data collection at target field sites</p>		<p>A total of 84 sites have been surveyed since April 2010 (the total since the beginning of the project is 294 sites) using standardised sampling methods. The survey sites are across five national parks (Sierra de Bahoruco, Jaragua, del Este, Guaconejo, Quitaespuela and Los Haitises) and one private reserve (Punta Cana). Over 400 opportunistic records of hutia and/or solenodon have also been recorded in these areas as we traversed across them to access our standardised</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2010 - March 2011	Actions required/planned for next period
		sampling points.	
Activity 1.2. Data analysis, construction of GIS and mapping		Second draft of the species distribution models have been developed and await final validation with new ground-truthing data. Data management and communication tools developed, with a GIS built to store ecological, environmental, geological and socioeconomic data.	
Activity 1.3. Preparation of scientific and other technical documents		One scientific paper on hutia phylogeography published in Molecular Ecology, with one further paper nearly ready to submit.	
Output 2. Skills in conservation biology and planning are strengthened in local partner organisations and more widely in Dominican Republic	2.a. Counterpart project manager attains DESMAN post-grad certificate; 2 in-country conservationists attend EDGE Fellows training workshop at ZSL 2.b. Minimum of 20 Hispaniolan conservationists attend Durrell-led ISLA course run in Dominican Republic. 2.c. Counterpart project manager leads drafting of 1 article for peer-reviewed journal 2.d. Counterpart project manager plays key role in leading SAP process 2.e. Regular management reviews of capacity of in-country project staff by UK field scientists shows successful transfer of skills and responsibility through project	This past reporting year has seen significant progress towards this output with Pedro attending the 3 month long DESMAN course in Jersey, the 2 week Island-Species Led Action course held in the Dominican Republic for 18 government and NGO conservationists. In terms of strengthening skills in our local partner, the field project manager, Joe Nunez-Mino, has been very effective in mentoring and training Pedro, Moncho and Nicolas in a range of technical and professional skills. Pedro is now leading the project in the north of the island, and will take a leadership role in coordinating the Species Action Planning process - a real indication of his development. Moncho is proving to be an excellent field biologist and with increasingly effective communication skills, will be an advocate to Hispaniolan mammal conservation for many years to come.	
Activity 2.1. International training courses for Hispaniolan project participants		We ran the 'Island Species Led Action' course with 18 participating conservationists from the Caribbean - 6 from 4 different Dominican NGOs (Grupo Jaragua, CEBSE, Fundacion Loma Quita Espuela & SOH), 1 from the Dominican Republic Natural History Museum, 2 from Audubon Society Haiti, 2 from Montserrat's Dept of Environment, 1 from Puerto Rico (Island Conservation) and 6 from the Dominican Republic Ministry for the Environment Two Haitian field biologists (Anderson Jean & Enold L Jean) from the Audubon Society of Haiti, employed by the Darwin Initiative funded project in the Massif de la Hotte, were trained in solenodon and hutia research field techniques by the	

Project summary	Measurable Indicators	Progress and Achievements April 2010 - March 2011	Actions required/planned for next period
		<p>team in Dominican Republic.</p> <p>Pedro Martinez (Field Project Manager, SOH) attended the 3 month long DESMAN course (http://www.durrell.org/Training/Courses/Durrell-Endangered-Species-Management-Graduate-Certificate-2012/)</p>	
Activity 2.2. Ongoing skills transfer for counterpart project manager and other key project staff		<p>We have made very encouraging progress in our skills transfer programme both for project staff and more widely in the Dominican Republic. Notable amongst these are the development of presentation, radiotelemetry, field expedition and IT skills within SOH.</p>	
Activity 2.3. Performance appraisals of host-country project staff		<p>Moncho had a performance appraisal in August 2011, one of the areas he had identified was a lack of IT knowledge (having never used a computer before) and English language skills and training for these is now being provided. Pedro was due a performance appraisal in February 2012 but was in the UK attending the 3 months DESMAN course, an appraisal will be carried out in June 2012.</p>	
<p>Output 3. Awareness of status and conservation needs of Hispaniolan endemic land mammals substantially improved at local, national and international level</p>	<p>3.a. Minimum of 500 endemic mammal calendars and posters produced and distributed at meetings with communities local to project field sites</p> <p>3.b. 'Infomercial' film on Hispaniolan mammal conservation broadcast on Dominican Republic television and at local community meetings</p> <p>3.c. Surveys of attitudes to endemic mammals shows improved awareness of solenodon and hutia in communities local to project field sites and significant decrease in erroneous perception of native mammals as pests</p> <p>3.d. Solenodon and Hutia children's day held at ZOODOM, Santo Domingo</p> <p>3.e. Minimum of 3 national radio and TV interviews, 3 national and 1 international newspaper articles. Minimum of 3 scientific papers submitted</p> <p>3.f. Increasing number of hits on EDGE and other project partner websites</p>	<p>The project continues to deliver very effectively in this area. Awareness at local and national level in the Dominican Republic of these species and their conservation requirements is increasing as evidenced by local awareness surveys and through the rising number of media enquiries. A good indicator of the international awareness levels of the hutia but particularly the solenodon was their coverage in a book on threatened species published by the IUCN and the solenodon featuring in chapter called "Saving the World's weirdest mammal" of the book Life is Good: Conservation in an Age of Mass Extinction. Further, the solenodon was selected as one of 10 species from around the world to appear on a high profile BBC TV programme towards the end of 2012 and the BBC Natural History Unit film team recently visited the DR to film the animal and the project. The IUCN/SSC Small Mammal Specialist Group along with ZSL's EDGE programme will continue to drive awareness-raising at international level through websites and social media.</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2010 - March 2011	Actions required/planned for next period
Activity 3.1. Programme of local and national awareness raising		<p>The National Zoo (ZooDom) continues to give talks to large numbers of groups that visit the zoo on a daily basis (we are currently awaiting final figures for the reporting period). The field team have given talks at 1 university (Universidad Autónoma de Santo Domingo – Hato Mayor; 143 people), 3 general public talks (Las Terrenas with 22 people, Los Limones with 57 people and Cristal with 34 people) and at 6 mostly rural schools: Avila (30), Menica (75), Alta Gracia (22), Aguas Negras (57), Punta Cana International School (163) and Los Limones (107). Presentations have involved talking and engaging with the audience in addition to showing an appropriate project infomercial (where electricity was available) and question/answer sessions.</p> <p>Over 3000 project leaflets (http://www.thelastsurvivors.org/wp-content/uploads/Folleto-Los-Ultimos-Sobrevivientes.pdf) have been widely distributed in all rural areas where we have worked and individuals are now contacting us to report sightings and request further information. Over the last 12 months we have had 1 newspaper article, 10 web based articles, 2 book sections, 1 TV programme (http://www.youtube.com/watch?v=54xFSmQwqo4) and 1 radio programme. We have also been visited by a UK independent journalist (Malcolm Smith) who is currently preparing an article about the project.</p>	
Activity 3.2. Programme of international awareness raising		- The year has seen the project covered by 5 web based articles and 2 books. - We have had 6,822 unique visitors to the project website (1 April 2011 – 30 March 2012) from 129 countries. We have written 9 blogs for the project website which were also published in EDGE and Durrell websites.	
Activity 3.3. Surveys of attitudes towards focal species and habitat conducted in local communities		Building on the work done by Cristina Secades in the second year of the project, we now have a local MSc student, Claudia Llibre (INTEC university) carrying out similar surveys (120 surveys carried out so far) in a very different part of the country (Los Haitises) where the human-wildlife conflict is more intense. The work that Claudia is carrying out will aid in shaping the different conservation strategies that might be needed.	
Output 4. Strengthened capacity for conserving and monitoring the Hispaniolan solenodon and hutia	<p>4.a. Two participatory Species Action Planning workshops and consultation with local communities held, and documents published before project end</p> <p>4.b. SAPs adopted into Dominican Republic NBSAP</p> <p>4.c. Priority SAP activities incorporated into OPNRD and NGO annual workplans within two years of project</p>	A steering committee meeting was held in January of 2012. Project results were presented to the committee which is made up of Dr Jose Ottenwalder (a leading expert in solenodon and hutia ecology) and Katarzyna Grasela of The Nature Conservancy. The committee agreed that the project had made significant advances over the proceeding period and has already got the skills and knowledge required to shape the Species Action Plans and implement a monitoring programme but they highlighted the challenges ahead in terms of setting up an effective group of stakeholders that will help create and oversee implementation of the plans. Key personnel across the main stakeholders have expressed an interest in serving on this committee and in the next two months we must form the committee to be in position for the Species Action Planning	

Project summary	Measurable Indicators	Progress and Achievements April 2010 - March 2011	Actions required/planned for next period
	<p>completion</p> <p>4.d. Monitoring data collection protocols and experimental design developed and fully tested and manuals produced</p> <p>4.e. Steering committee established and prepared to oversee implementation of endemic land mammals monitoring programme</p>	process.	
Activity 4.1. Species Action Planning workshops, consultation with local communities and adoption of SAPs into Dominican Republic's NBSAP		This activity is not planned for this reporting period. However, we are holding preparatory meetings with key individuals in the Government and NGO sectors to ensure they are engaged in our plans and to decide when and how the workshops should be held.	
Activity 4.2. Design of monitoring programme and supporting materials, and launch of steering committee		The final six months of the project will focus on the design of an appropriate monitoring programme in conjunction with crucial stakeholders. We already have the skills and knowledge to develop the programme in addition to documents detailing the methods we use and where the focus of long term conservation efforts should be. Although the final members on the steering committee remain to be decided, we already have good contacts with all appropriate candidates, it remains to be decided what criteria will be used to select from all those available.	

Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>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.</p>			
<p>Sub-Goal: The probability of long-term survival of Hispaniola's endemic land mammals and their habitats is significantly improved</p>	<p>Species Action Plans (SAPs) adopted into Dominican Republic National Biodiversity Strategy and Action Plan and priority activities from the SAPs are initiated within 2 years of project end</p>	<p>Dominican Republic National Biodiversity Strategy documents ▪ OPNRD and local NGO partner workplans</p>	
<p>Purpose: Enabling the long-term conservation of the Hispaniolan solenodon and hutia through participatory species action planning, a strengthened evidence-base, an island-wide monitoring programme, and improved awareness</p>	<p>Data on conservation status and requirements of solenodon and hutia analysed and reported ▪ Key conservation zone maps produced and agreed across stakeholders ▪ Long-term monitoring protocols and survey design developed and guidelines drafted; monitoring steering committee established ▪ SAP workshops held and documents published ▪ SAPs adopted into the Dominican Republic NBSAP ▪ Evidence disseminated to stakeholders through awareness-raising programme ▪ 'Infomercial' film on Hispaniolan mammal conservation produced and broadcast on Dominican Republic television</p>	<p>Project annual reports, newsletters and partner websites ▪ Scientific literature ▪ SAPs published in conjunction with IUCN and on project partner websites ▪ Government biodiversity strategy documents ▪ Radio and TV transcripts, newspaper articles ▪ Project partner websites hit-count</p>	<p>Close collaboration and communication between project partners ▪ Dominican Republic government support continues throughout project</p>
<p>Outputs 1. Scientifically robust data on conservation status and requirements of the Hispaniolan solenodon and hutia and their key threats are collected, analysed and disseminated</p>	<p>1.a. Ecological and socio-economic research at field sites, baseline species occupancy survey and genetic analyses completed 1.b. GIS built and biological, environmental and national scale socio-economic data synthesised to allow mapping of key conservation zones 1.c. Minimum of 3 scientific papers submitted to international peer-reviewed journals describing distribution, density, habitat associations, phylogenetics and conservation requirements of endemic mammals 1.d. Triannual project progress meetings with OPNRD and partner NGOs</p>	<p>Peer-reviewed scientific literature ▪ Project annual reports ▪ Project progress meeting minutes ▪ Project partner websites ▪ OPNRD annual reports ▪ IUCN Specialist Group website and associated</p>	<p>Dominican Republic government continues to provide permits for field research</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	1.e. Easy-to-read pamphlet produced to summarise relevant science and distributed to stakeholders in advance of SAP workshops 1.f. Minimum of 2 articles published in IUCN Specialist Groups literature	literature	
2. Skills in conservation biology and planning are strengthened in local partner organisations and more widely in Dominican Republic	2.a. Counterpart project manager attains DESMAN post-grad certificate; 2 in-country conservationists attend EDGE Fellows training workshop at ZSL 2.b. Minimum of 20 Hispaniolan conservationists attend Durrell-led ISLA course run in Dominican Republic. 2.c. Counterpart project manager leads drafting of 1 article for peer-reviewed journal 2.d. Counterpart project manager plays key role in leading SAP process 2.e. Regular management reviews of capacity of in-country project staff by UK field scientists shows successful transfer of skills and responsibility through project	Post-graduate certificate awarded by University of Kent ▪ Peer-reviewed literature ▪ Course attendance records and feedback forms ▪ Project annual reports ▪ SAP document authorship	Core project staff remain in post throughout project ▪ Project offers appropriate training for local partner staff
3. Awareness of status and conservation needs of Hispaniolan endemic land mammals substantially improved at local, national and international level	3.a. Minimum of 500 endemic mammal calendars and posters produced and distributed at meetings with communities local to project field sites 3.b. 'Infomercial' film on Hispaniolan mammal conservation broadcast on Dominican Republic television and at local community meetings 3.c. Surveys of attitudes to endemic mammals shows improved awareness of solenodon and hutia in communities local to project field sites and significant decrease in erroneous perception of native mammals as pests 3.d. Solenodon and Hutia children's day held at ZOODOM, Santo Domingo 3.e. Minimum of 3 national radio and TV interviews, 3 national and 1 international newspaper articles. Minimum of 3 scientific papers submitted 3.f. Increasing number of hits on EDGE and other project partner websites	Project annual reports ▪ Radio and TV transcripts, newspaper articles, scientific papers ▪ Project partner websites and hit-count	Media willing to publicise plight of Hispaniolan endemic mammals
4. Strengthened capacity for conserving and monitoring the Hispaniolan solenodon and hutia	4.a. Two participatory Species Action Planning workshops and consultation with local communities held, and documents published before project end 4.b. SAPs adopted into Dominican Republic NBSAP 4.c. Priority SAP activities incorporated into OPNRD and NGO annual workplans within two years of project completion 4.d. Monitoring data collection protocols and experimental design developed	SAPs published on project partner websites ▪ Government biodiversity strategy documents ▪ OPNRD and NGO annual workplans ▪ Monitoring field manuals available on project partner	Effective facilitation at SAP workshops ▪ Majority of invited stakeholders attend workshops ▪ Continuing support from Dominican Republic government and NGOs for monitoring endemic

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	and fully tested and manuals produced 4.e. Steering committee established and prepared to oversee implementation of endemic land mammals monitoring programme	website ▪ Project annual reports ▪ Steering committee meeting minutes	mammals
<p>Activities (details in workplan)</p> <ul style="list-style-type: none"> 1.1. Data collection at target field sites 1.2. Data analysis, construction of GIS and mapping 1.3. Preparation of scientific and other technical documents 2.1. International training courses for Hispaniolan project participants 2.2. Ongoing skills transfer for counterpart project manager and other key project staff 2.3. Performance appraisals of host-country project staff 3.1. Programme of local and national awareness raising 3.2. Programme of international awareness raising 3.3. Surveys of attitudes towards focal species and habitat conducted in local communities 4.1. Species Action Planning workshops, consultation with local communities and adoption of SAPs into Dominican Republic's NBSAP 4.2. Design of monitoring programme and supporting materials, and launch of steering committee 			
<p>Monitoring activities:</p> <ul style="list-style-type: none"> Indicator 1: Scientific delivery evaluated biannually by Durrell's and ZSL's Head of Conservation Programmes Indicator 2: Monitoring of increased skills/capacity of in-country conservationists/host-country project staff Indicator 3: Surveys of attitudes towards native mammals among local communities Indicator 4: Triannual project progress meetings with SOH, OPNRD and ZOODOM 			

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

Front page of one of two MSc theses completed in the reporting year

Molecular Ecology article on Population history of the Hispaniolan hutia *Plagiodontia aedium* (Rodentia: Capromyidae): testing the model of ancient differentiation on a geotectonically complex Caribbean island

Front page of a field manual developed by Ros from the University of Reading (left) and front page of a progress report to the Government of the Dominican Republic

List of selected media coverage

- March 2012 [Conservation students from around the world gather in Jersey](#) Wildlife Extra
- 14 March 2012 [Durrell's flagship course helps next generation of conservationists hit the ground running](#) Durrell Website
- 22 January 2012 Book chapter "Saving the World's weirdest mammal" [Life is Good: Conservation in an Age of Mass Extinction](#) by Jeremy Hance, writer for mongabay.com
- 11 December 2011 [Los Ultimos Sobrevivientes \(in Spanish\)](#) GeoVida TV program – Canal 6
- 21 September 2011 [Island Species-Led Action: conservation training in the Dominican Republic](#) greenantilles.com
- 11 September 2011 [Featured video: the Caribbean's last mammals](#) mongabay.com
- 7 September 2011 [ARKive's Top 10 EDGE species](#) EDGE website
- 7 September 2011 [The last Survivors in the Dominican Republic's wild!!!](#) dr1.com
- 25 August 2011 [Species on the Edge of Survival](#) Harper Collins/IUCN Book
- 12 August 2011 "Milagros desde la Z" radio program on Z101 station (7-8pm) Milagros Ortiz interviewed Jorge Brocca (Executive Director, Sociedad Ornitológica de la Hispaniola) on "The Last Survivors Project" and others
- 22 July 2011 [Strange Prehistoric Mammal Protected in Dominican Republic](#) International Business Times
- 12 July 2011 [Species of the Week: Hispaniolan solenodon \(*Solenodon paradoxus*\)](#) Evolutionary Distinct and Globally Endangered (EDGE) website
- 28 May 2011 [¿Los últimos sobrevivientes?](#) by Arismendy Calderon in the HOY newspaper

The project was also visited by a film crew from the BBC for a programme due to be aired end 2012

Photos from the ISLA course



Pedro Martinez receiving his DESMAN certificate from Durrell's CEO, Paul Masterton. And photo of the DESMAN course attendees



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.	Y
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