# 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 2011**

**Darwin Project Information**

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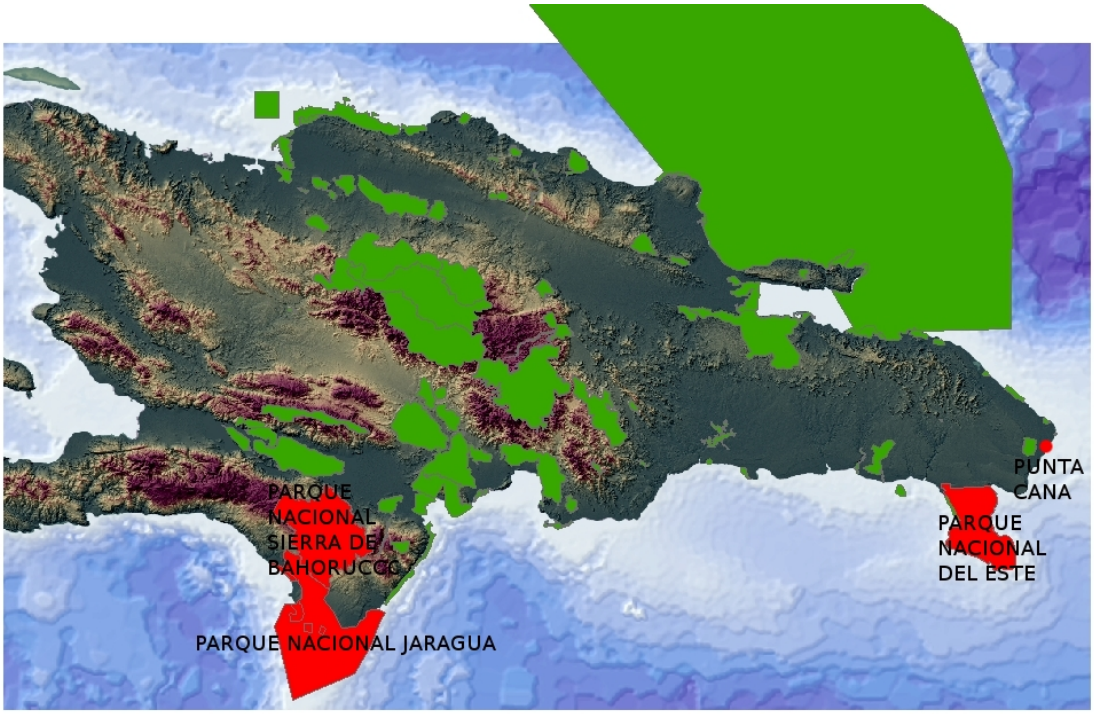
| Project Reference | 17-025 |
| Project Title | Building evidence and capacity to conserve Hispaniola's endemic land mammals |
| Host Country/ies | Dominican Republic |
| UK contract holder institution | Durrell Wildlife Conservation Trust (DWCT) |
| Host country partner institutions | Sociedad Ornitologica de la Hispaniola (SOH)<br>Parque Zoológico Nacional (ZOODOM)<br>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 | 1st October 2009 to 30th September 2012 |
| Reporting period (eg Apr 2010 – Mar 2011) and number (eg Annual Report 1, 2, 3) | 1st Apr 10 to 31st Mar 11<br>Annual report #2 |
| Project Leader name | Richard Young |
| Project website | www.thelastsurvivors.org |
| Report authors, main contributors and date | Richard Young, Jorge Brocca, Pedro Martinez, Jose-Nunez Mino and Sam Turvey<br>20th April 2011 |

## 1. Project Background

The Caribbean region once supported a very diverse land mammal fauna containing 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 three National Parks (Jaragua, Sierra de Bahoruco and Del Este) and one private reserve (Punta Cana); see map 1.




**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).

## 2. 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. There has been a focus on enabling **SOH** to take on more management responsibilities through the counterpart Field Project Manager, Pedro Martinez. SOH's Executive Director, Jorge Brocca, continues to play an essential role in assisting leadership of the project and liaising between the project and government, local community leaders and other stakeholder organisations within the Dominican Republic. In addition to Nicolas Corona and Dionis ('Lleyo') Espinal, we have now recruited Jose Ramon ('Moncho') Espinal onto the project as a field biologist, and he is showing outstanding promise in this role. Like the other field biologists he is employed by SOH and works on the project full-time.

The project headquarters continue to be at the offices of SOH within the national zoo (**ZooDom**) in Santo Domingo, which have recently been extended and modernised. Jose has developed the pivotal role of maintaining all project partners informed on progress and updates via both direct contact and through email 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.

This year has seen the Educational Department at ZooDom become actively engaged in the project by raising awareness of the two species and the project work to visitors coming to the National Zoo. We made major advances on the educational front partly thanks to the close collaboration with an educational officer, Dr Rebecca Coe from ZSL, who was awarded the Michael Brambell award to facilitate a trip to the DR. Rebecca worked with the project team (including the national zoo educational staff) for a period of three weeks in August/September 2010, resulting in provision of training and the production of a variety of materials to facilitate educational work.

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

**Other collaborations:** This year, the project has rapidly developed a number of collaborative relationships with a wide range of organisations and individuals, thanks to a much enhanced profile at both national and international level. We have continued to develop links and receive support from a variety of organisations from within the Dominican Republic. During the course of this year **The Nature Conservancy** and a local NGO (**FUNDEMAR** - http://www.fundemar.org.do/) asked us to carry out a survey for solenodon and hutia on Catalina Island as part of their development of a management plan for this protected area. 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. We have also received support from the **British Embassy** in the Dominican Republic who hosted a reception for the project in October 2010 to mark the first year of the project as part of International Year of Biodiversity. The reception consisted of a photo exhibition and a presentation of our work. A range of people across government, private business and other interested organisations/institutions attended the event. The photographic exhibition (put together by the project with the help of several local photographers) launched at the reception, but was then hosted by the **Botanical Gardens** and **Dominican Natural History Museum** (DNHM), which lasted until the end of 2010 and was part of International Year of Biodiversity celebrations. We have been nurturing a good working relationship with DNHM which includes one member of their staff attending a GIS course set up and run by the project in March 2011.

We have developed a strong collaboration with the **University of Reading** through a BBSRC funded 4 year PhD studentship (Ros Kennerley) who is now investigating the ecology and habitat use of the Hispaniolan solenodon in forest-agriculture frontier areas, and at local scales to complement the larger-scale assessment of the species' status http://www.reading.ac.uk/caer/student_project_ros_kennerley.html. The UK-based company, **Ecological Research & Training**, has provided training and support to develop the species distribution models. **Funk Productions** has been producing short infomercial films using video footage taken by both the project team and journalists.

We have had substantial contributions to the project from a number of individuals who have volunteered with us and which have allowed us to make faster progress than would have otherwise been possible. **Nadine Trahan** from **Gaiaspatial** ran a GIS and remote sensing training course for both project staff and other individuals from the Dominican scientific/conservation communities. **Alejandra Oliver & Leah Berry** translated the project website so it is now available in both English and Spanish. **Kate Wallace** from **Tody Tours** has not only allowed us to use her camp site facilities in northern Sierra de Bahoruco but has also been very active in promoting the solenodon, including knitting toy solenodons which have proved very popular within the DR.

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/)

Both field project managers (Jose and Pedro) and the project co-leader (Jorge) were asked by the Ministry for Environment and Natural Resources to participate in the National Red List assessment process.

For future collaborations, our strategy is to form links with existing and future large scale natural resource management and conservation projects so that we can maximise the impact of the Last Survivors project and the knowledge it generates. We have already had initial series of meetings and discussions with Bridget Wooding OBE (Director, Caribbean Migrant Observatory - Observatorio Migrantes del Caribe) and have planned meetings with Sophie Richmond (Country Manager, Christian Aid) in order to find appropriate local scale organisations with which to work. We continue to have active and regular contact with international NGOs working on Hispaniola (e.g. Island Conservation) but are also continuing to strive to forge stronger links with other local NGOs (e.g. Grupo Jaragua and Fundacion Quita Espuela) and international projects (Caribbean Biodiversity Corridor) as the project enters this next phase.

## 3. Project Progress

### 3.1 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

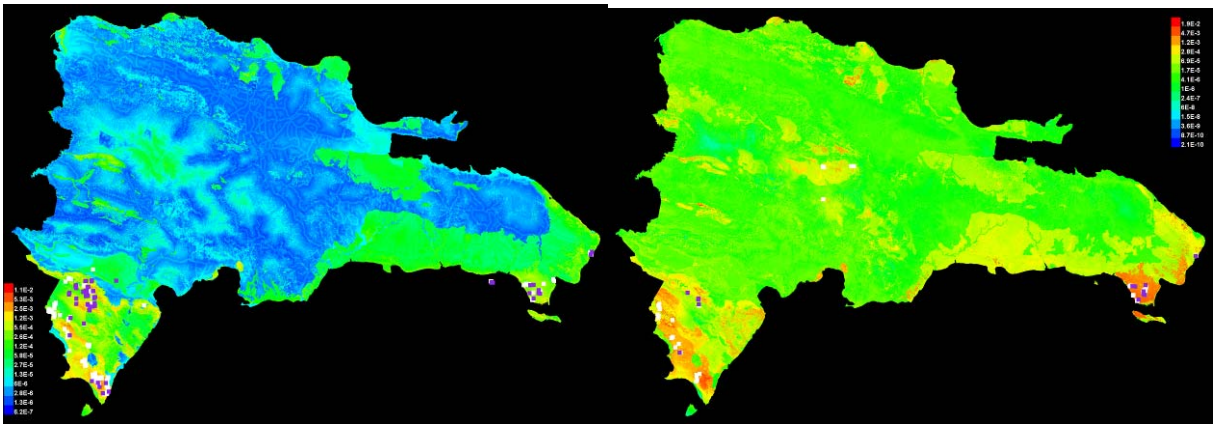
The surveys we have carried out have taken us into increasingly remote areas. We have been able to carry out our research within planned timeframes and also extend into other areas of the Dominican Republic. A total of 144 sites have been surveyed since April 2010 (the total since the beginning of the project is 211 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 four national parks (Sierra de Bahoruco, Jaragua, del Este and Isla Catalina) 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/.

During the past year, the field teams made a number of observations and gathered reports in the forest-agriculture boundary of Hispaniolan solenodon being attacked and killed by dogs. We also gathered evidence of the species being mistakenly identified as agricultural pests. It was clear that we needed to understand more about human-wildlife conflict and to what extent solenodon populations are impacted by these threats. Through a collaboration with the University of Reading, we were successful in establishing a BBSRC CASE funded 4 year PhD studentship to investigate the ecology and habitat use of the Hispaniolan solenodon in national park buffer zones. Ros Kennerley started in October 2010 and is currently in the field establishing the first study sites and has already been able to radio-track 5 individuals (the first time ever these species have been radio-tracked). This ecological research at localised scales will complement the larger-scale assessment of the species' status in order to more accurately quantify the threat factors and identify possible conservation interventions. Richard and Sam are co-supervisors of the PhD along with Prof. Ken Norris and Dr Malcolm Nicoll of the University of Reading.

1.2 Data analysis, construction of GIS and mapping

We have made excellent progress in this area: all data are stored and managed in a customised Access database and a GIS. We have gathered all available and relevant GIS layers which, in combination with our survey data, has allowed us to produce the first ever species distribution models for solenodon and hutia using MAXENT (developed by Princeton University). This means 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 (ground truthing) and development (including further variables) over the coming months but provide an initial platform from which to design the next stage of field work.



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

Genetic analysis of the Hispaniolan hutia has been completed, with 41 hair, blood, faeces, soft tissue and bone samples collected from seven sampling localities covering all three of Hispaniola's biogeographic regions (samples from new field collections and historical museum specimens). Of these, 27 samples successfully yielded mitochondrial DNA which resulted in identification of three evolutionarily distinct units within the genus Plagiodontia, with lineage separation c. 0.5 million years ago and major division between northern and southern parts of the island. The research clarifies the taxonomy of Plagiodontia, with two highly distinct subspecies recognized. A manuscript has been submitted to 'Molecular Ecology' and is under review. This research has been carried out through collaboration with Royal Holloway University of London. Morphometric analysis of hutia craniodental specimens from across Hispaniola has also been conducted, and supports the genetic division of Plagiodontia into northern and southern subspecies. A suite of morphometric measurements, mostly associated with the feeding musculature, are statistically different between the two hutia subspecies that were independently identified using genetics. A manuscript is being finalised for submission to 'Journal of Mammalogy' through collaboration between Sam and the University of York.

The Hispaniolan solenodon genetic analysis is underway with 38 hair, blood, soft tissue and bone samples from >10 sampling localities covering all three of Hispaniola's biogeographic regions (samples from new field collections and historical museum specimens); DNA now extracted from all specimens, and analysis underway. (Research carried out through collaboration with Royal Holloway University of London.)

1.3. Preparation of scientific and other technical documents

As well as the manuscript submitted to Molecular Ecology, and one in preparation for Journal of Mammalogy, we are also drafting a paper on the status and conservation requirements of all the hutia and solenodon species. The target journal is Oryx and we expect it to be submitted within the next three months. We have also drafted protocols for field methods employed on the project, including the capture and handling of solenodon and hutia, which are stored in the project dropbox.

*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

Not planned for this period

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. Geographical Information Systems (GIS)** - We organised and executed a 10 day GIS training course which was attended by both project staff as well as representatives from the Punta Cana Ecological Foundation and the DNHM (total number of participants: 6). Nadine Trahan (volunteer GIS expert) ran the course while Mark O'Connell (Ecological Research an Training) produced a training document for species distribution modelling which was used as a training template. A GIS training seminar was also held at the ZooDom, which was attended by project staff and 4 ZooDom staff members. The project team in the DR is now very competent in handling satellite imagery, managing a GIS, and modelling species distributions.

**B. Presentation skills** training for both counterpart project manager and research assistants have been carried out. This was one of the areas identified as needing further help during appraisals (see 2.3). Training of the counterpart Field Project Manager has focused on both giving presentations to a wide variety of the general public while also giving scientific presentations. Pedro presented at the recent VII Congress of Caribbean Biodiversity in Santo Domingo. All project staff are now being encouraged and supported to design and give their own presentations for a range of target audiences.

**C. Radiotelemetry training** – all project staff have now had initial training on the use of radio telemetry equipment with Ros Kennerley in the field. This was the first time that Pedro and the field biologists had used this type of technology and they are now reasonably competent.

**D. Field skills** – on the job field skill training continues with a particular focus on: expedition planning/execution, scientific field skills, health & safety, use of GPS, map reading & orienteering. The impact of this training is tangible as Pedro and Moncho are increasingly working independently of Jose and planning and executing field surveys.

**E. Fund raising/applications** – Pedro has been assisting and involved with a number of grant applications and with a variety of fund raising efforts by the project. Over the next year we expect Pedro to have acquired the skills and confidence to produce high quality funding proposals.

We have also delivered two structured training courses throughout the year:

1. Jose taught a two day training course for Dominican field guides organized by SOH and hosted at Punta Cana Ecological Foundation. There was a total of 13 students from a range of backgrounds who received theoretical and practical training in a range of scientific planning skills (GPS, planning & map reading) and methods (sampling design/techniques/methods).
2. In January 2011, Jose and Ramon ran a one day field course for students at the Punta Cana International School as a way to introduce them to field methods and ecological research. Fifteen students accompanied the field team.

Local park guards have accompanied our research expeditions on a number of occasions but, additionally, we have now secured funds from the Spanish foreign aid office (Oficina Tecnica de Cooperacion Espanola – AECID) via the Ministry for Environment and Natural Resources to run a series of formal training courses over the course of the next 12 months. This training will be particularly aimed at park guards working in the south-west of the country (Sierra de Bahoruco National Park).

2.3. Performance appraisals of host-country project staff

Performance appraisals were carried out with Nicolas and Lleyo in August 2010 and for Pedro in February 2011 to document skills progression and identify areas for development. This process highlighted the rapid development of skills for planning and executing field research but skills gaps, such as presentation skills and basic IT skills (use of computers). Pedro identified a training requirement of

specialised IT skills, such as the use of Geographical Information Systems (GIS), and this has already been partly addressed.

*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 project has significantly scaled up local and national awareness-raising within this reporting period. ZooDom has made good progress with devising a programme of educational and awareness-raising activities based at the National Zoo. They have facilitated the visit of 23 schools to learn about the two species and The Last Survivors Project. They have produced a range of materials including PowerPoint presentations and pamphlets and they have given over 60 lectures and presentations to over 9,000 people. Their Education Department has also created a game called "Barajas solenodonte" (solenodon cards) in which every card contains important data about the species. These cards are offered as gifts to the Zoo's visitors. As part of this strategy, the education department has designed little flags and matches all of them with information about the solenodon to be distributed among the Zoo's visitors.

These efforts were further enhanced by the visit to the project of Dr Rebecca Coe from ZSL in October 2010. She spent time with ZooDom's Education Department and assessed their needs and made recommendations on the further development of activities.The project has also been implementing a series of talks and presentations to a range of rural public and private schools in the focal study areas, using materials developed by both ZooDom and the core project team. We have distributed over 3000 information leaflets at a number of events in the DR and in rural communities. The information leaflet has also been made available from the project website: http://www.thelastsurvivors.org/wp-content/uploads/Folleto-Los-Ultimos-Sobrevivientes.pdf

Jose and Pedro have given talks at 3 universities, 5 schools & one presentation for all zoo staff members in addition to scientific presentations at the VII Congress of Caribbean Biodiversity and the Dominican Academy of Sciences.

Thanks in part to wide coverage of the species in the international media the project has received much attention from the Dominican media. In the last project year, 16 press articles in the national media have covered the project. Another important event was the use of the solenodon as one the nation's official stamps by the Dominican Postal Service (Servicio Filatélico Inposdom).

Finally, we have held a number of other awareness-raising events over the last 12 months which include:

- **A.** A series of three talks and accompanying photographic exhibition at the London Apothecary Centre. Talks were given by Jose and Sam. This event was attended by general members of the public in addition to the Dominican ambassador to the UK. It both raised awareness of the project and raised some additional funds.
- **B.** Stand at the Flora and Fauna Festival (4 days) held at the Dominican Republic Botanical Gardens.
- **C.** Reception for invited guests (key stakeholders from NGOs, government & business) at the UK Ambassador's residence in the Dominican Republic.
- **D.** Photographic exhibition at the Dominican Natural History Museum.

3.2. Programme of international awareness raising

The project has been very busy in delivering activities to raise awareness of these species at international level, and with great success. In particular, Rebecca Morelle, a Science reporter from the BBC News, and a cameraman/producer spent a week in the Dominican Republic accompanying the project team during a field survey. As a result, the BBC put together a 3 day multi-media package which resulted in excellent coverage of the project and the species. The articles on the BBC website (e.g. http://news.bbc.co.uk/1/hi/science_and_environment/10149148.stm) received 770,000 hits and the story was covered by Radio 4 Today Programme http://news.bbc.co.uk/today/hi/today/newsid_8717000/8717439.stm and a range of TV programmes http://news.bbc.co.uk/1/hi/sci/tech/10216354.stm. A Brazilian TV crew from "Wild Adventure" (http://www.sbt.com.br/aventuraselvagem/), one of the most widely viewed wildlife programmes in Brazil, also visited the project and made an hour long programme.

In total, the project has been covered by 7 printed newspaper/magazine articles (1UK & 6DR), 4 radio programmes (Radio Svizzera, Italy; Today programme Radio 4 and 5 Live, UK, Science in Action, BBC World Service), and TV (BBC & Brazil) in addition to over 15 articles on various web based services (BBC, BBC Mundo and many Dominican Republic focused services). For further details: http://www.thelastsurvivors.org/the-project/in-the-news/.

The project webpage, which is regularly updated, is now also available in Spanish (www.losultimossobrevivientes.org) and is currently receiving approximately 1000 visits a month from 59 countries (30% from Dominican Republic, 26% USA, 18% UK & 26% others).

We also contributed profiles for both our target species to the IUCN's Species of the Day campaign which ran to celebrate the International Year of Biodiversity. The profiles can be found at http://www.iucnredlist.org/sotdfiles/plagiodontia-aedium.pdf and http://www.iucnredlist.org/sotdfiles/solenodon-paradoxus.pdf

Project infomercials produced by Funk Productions are nearing completion with two already being available on line (target audiences: general public in DR, 10 minutes http://vimeo.com/18604440 & 4 minutes http://vimeo.com/20015567). Once the final two (target audiences: children and conservation community) are completed and received as DVDs we will have an easily distributable resource that can be used in a variety of settings.

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

We engaged an MSc student to conduct a baseline survey of attitudes towards and awareness of our focal species and the wider environment in both Dominican and Haitian communities in the Sierra de Bahoruco. Cristina Secades (Imperial College, MSc Conservation Science) conducted questionnaire interviews of 360 people across 9 communities on public awareness, perceptions and attitudes towards solenodons and hutias. Significant differences in spatial and cultural patterns of knowledge were found for both species, with low awareness levels and strong evidence of misperceptions of solenodons as agricultural pests. Predation by hunter and farmer dogs was found to be a major source of mortality in forest-agriculture frontier areas. This research was submitted as an MSc thesis in September 2010, http://www.iccs.org.uk/thesis/consci/msc10-secades,cristina.pdf, and is currently being developed into a scientific publication, to be submitted to a conservation journal in 2011. The methodology for the awareness survey can be found in the Methods section of the thesis report, with the full English language questionnaire in Appendix 2.

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

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

Not planned for this reporting period

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

Not planned for this reporting period

## 3.2 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 have made excellent progress towards this output. We have collected a substantial amount of new data on the status of and threats to solenodon and hutia across large areas in the southern and eastern parts of the Dominican Republic. The field team have surveyed some very remote areas, including areas of forest that have rarely been explored previously. This has resulted in a number of significant new findings, including the discovery of a previously unknown population of Hispaniolan solenodon on an offshore island, Isla Catalina. Further and prompt research is required to establish if these are a sufficiently genetically distinct population to merit specific conservation attention. Given the presence of a variety of invasive mammals, including recently arrived raccoons, this population is likely highly threatened. We have also found Hispaniolan hutia (and solenodon) in significant areas from which they were previously unknown, including Del Este National Park and a small patch of coastal dry forest in the very east of the Dominican Republic, in the Punta Cana private reserve. This extends the known range (as defined by the Red List of Threatened Species) of the species by around 250km in an eastwards direction, and raises the possibility the species is present in a number of other fragments of coastal dry forest in this region, all of which are highly threatened by the expanding tourist industry.

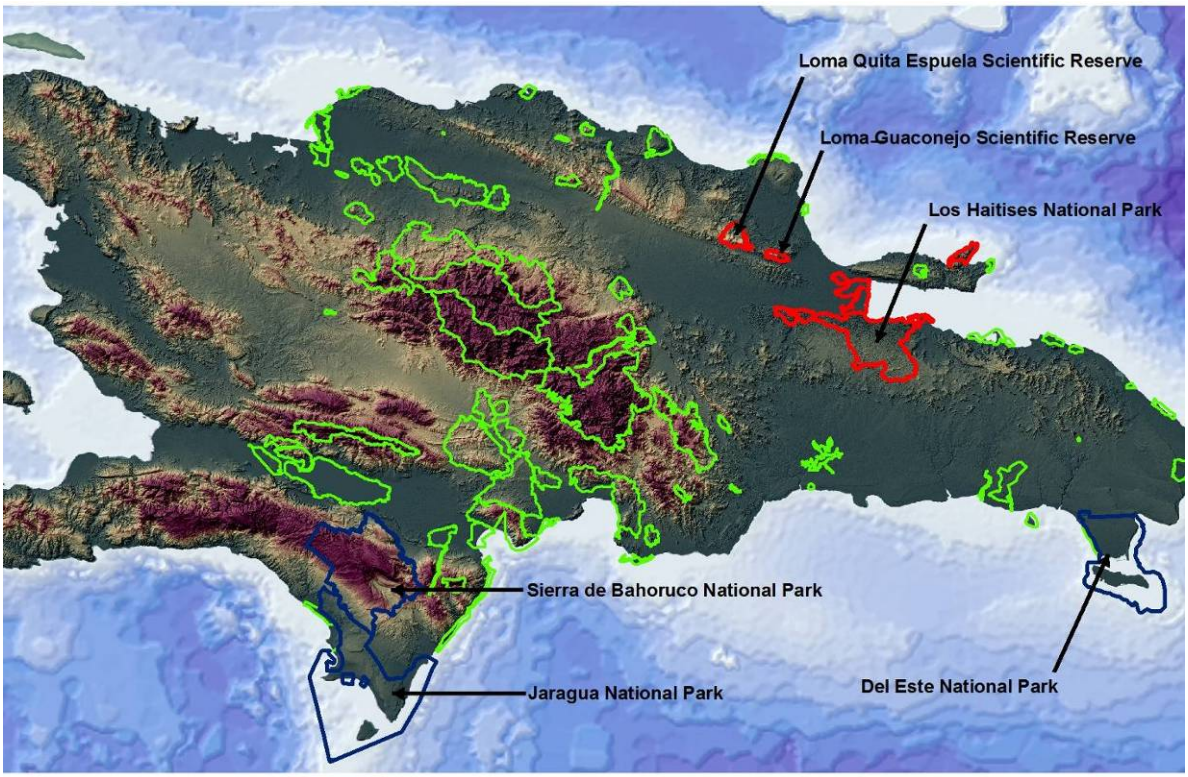
Our dataset on the species' distributions has allowed us for the first time to make statistically-based predictions of the animals in presence across the Dominican Republic (this will be extended to incorporate Haiti, once we have generated the land cover maps). The distribution models and associated maps form a good foundation for the next phase of work on Hispaniola as we roll out the survey to the whole of the DR in order to verify and refine the effectiveness of the preliminary species distribution predictions. A successful application to the BBC Wildlife Fund (BBCWF) enables us to start working immediately in the northern part of the DR (Los Haitises, Guaconejo and Quita Espuela; see

map 3) by recruiting new field staff. The genetic work continues but we have already identified three lineages of Hispaniolan hutia with divergence times of c. 500k years between two of the populations, which is set out in a manuscript submitted to Molecular Ecology. We expect the phylogeographic patterns within the solenodon to be broadly similar.

We now understand much more of the likely short and longer term conservation requirements of these endemic mammals. We have evidence of the high mortality rates of solenodon through feral and domestic dog predation. The next steps in the coming year of the project will be to investigate sustainable approaches for reducing this threat. On Isla Catalina, the presence of raccoons is likely to be devastating to the previously unknown solenodon population. Island Conservation is now looking at this island for a potential invasive mammal eradication project, which would be supported by The Last Survivors project. In some regions of the DR, worrying levels of deforestation are occurring, with obvious consequences for the endemic mammals. We have begun consultation with a variety of forest protection and restoration projects to scope out the possibility. The future of these species is clearly going to rely on long term forest protection.

Strenuous efforts have been made to disseminate our preliminary findings to as wide an audience as possible both through the use of a variety of media and by giving presentations (see output 3). Jose and Pedro gave presentations of the findings so far at the VII Congress of Caribbean Biodiversity hosted at the National Autonomous University of Santo Domingo (Spanish acronym: UASD) in February 2011. The initial distribution models (see map 2) were presented at the Dominican Republic National Academy of Science in March 2011 to a wide cross section of the local science community. Jose and Pedro, and the project co-leader (Jorge), were asked to participate in the National Red list assessment process by the Ministry for Environment and Natural Resources where the project's initial findings were disseminated.

Though a range of Conservation Programmes evaluation and planning meetings, we have invited informal peer review by colleagues at both Durrell and ZSL to ensure that our science is robust and that our research strategy in well designed. We are confident that our original plans for field research and associated assumptions remain valid.




**Map 3 –** Protected areas system of the Dominican Republic (green) with areas where work has already been carried out (blue) and new focal areas for next phase of the project (red)

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

Over the past year, we have substantially increased our understanding of levels of conservation science and planning capacity within the DR, and the possible barriers to skills development and the potential solutions. There appears to be a very small pool of people in the DR with the required combination of the field and desk-based research skills and project management attributes to effectively lead conservation science projects. As such, there are few projects in the DR delivering field research to underpin

conservation efforts and the knowledge of the biodiversity of the DR is surprisingly limited. One of the main barriers to conservation science skills development is the very limited opportunities in the DR for vocational and specialized training in conservation science. For example, there is only one undergraduate biology course taught in the whole country and graduates of this course look outside of the DR for further training. In the next year, Durrell's International Training Centre will lead an Island Species Led Action course which as well as delivering focused training to around 20 conservation professionals, will also help further assess the skills levels and gaps within the Dominican conservation community. The project can have a realistic impact on skills development by ensuring targeted training of project staff is broadened out to students and individuals employed by other agencies. The GIS course was very effective in this respect. In terms of strengthening skills within SOH and ZooDom, the majority of training that has been carried out during the course of the project has been on the job instruction, mentoring and skills teaching. We can see this training already bearing fruit, with both Pedro and Moncho working increasingly independently of Jose and Jorge. Pedro will now lead the design and delivery of the surveys in the northern part of the Dominican Republic, including identifying and training local field assistants. In the next project year, Pedro will have the opportunity to attend the Postgraduate Diploma course in Endangered Species Management hosted at Jersey Zoo where he will have the opportunity to further develop his conservation science knowledge and skills. We will continue regular performance appraisals of staff to measure our progress in skills development.

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

The project has far exceeded its targets in terms of international awareness-raising, as a result in part of the BBC's multi-media coverage which in turn stimulated much press attention within the DR and elsewhere. We have capitalised on international awareness-raising campaigns, such as IUCN's Species of the Day, to further raise the profile of the species and have used social media tools such as Facebook and Twitter to increase traffic to our project website, which now typically receive 1000 hits per month. In 2010, the project website received 22,000 unique visitors. However, enhanced local and national awareness is clearly vital in terms of catalysing meaningful conservation action for these species. There are indications that awareness levels of the endemic mammal species and support for their conservation have been significantly increased. For example, there has been an unprecedented level of reporting of both the solenodon and hutia within the Dominican media, with the project title (The Last Survivors or Los Ultimos Sobrevivientes) proving an effective message to communicate the context of the project. Since Rebecca Coe's visit to the project, the solenodon and hutia are now a central part of ZooDom's presentations to visiting school groups and others audiences. It is very encouraging to see that the highest proportion of visitors to our project website is now from within the DR. It was also very encouraging to see the current Minister for the Environment, Dr Jaime David Mirabal, recently make a public statement in a press interview acknowledging the importance of engaging society at large in conservation efforts for solenodon and hutia (Diario Libre 9th of March 2011: http://www.diariolibre.com/noticias_det.php?id=282185&l=1).

At the local level, the MSc research of local communities revealed large variation in people's awareness levels of both species. For example, the proportion of people that correctly identified hutias ranged from 20-80%. We have distributed 3000 information leaflets in these communities, as well as a small number of t-shirts and caps at a large number of community meetings at which the project's objectives were explained. In the next few months, we will scale up the awareness-raising campaign as we complete and distribute the infomercial films across the communities in the buffer zones of the national parks in which we work. In the final stages of the project, we will be repeat the questionnaire surveys to more precisely understand the project's impact on awareness levels in our focal sites.

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

Activities were not planned for this reporting period. However, we have made progress towards this output by establishing the basis of a project steering committee (planned for the third project year), which we intend will ultimately oversee a monitoring programme for the target species as well as championing the Species Action Plans. The leading expert in solenodon and hutia ecology, Dr Jose Ottenwalder, and Katarzyna Grasela of The Nature Conservancy have agreed to sit on the committee along with Jorge, Jose and Pedro. The steering committee has met once to date, and is first charged with identifying other relevant stakeholders to sit on the full committee.

### 3.3 Standard Measures

**Table 1 Project Standard Output Measures**

| Code 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 application |
|---|---|---|---|---|---|---|---|---|
| 3 | Number of people to attain other qualifications (ie. Not outputs 1 or 2 above) | 0 | 0 | | | | 0 | 1 |
| 5 | Number of people to receive at least one year of training (which does not fall into categories 1-4 above) | 0 | 3 | | | | 0 | 3 |
| 6A | Number of people to receive other forms of education/training (which does not fall into categories 1-5 above) | 0 | 0 | | | | 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 | 2 |
| 10 | Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording | 0 | 1 | | | | 0 | 1 |
| 11A | Number of papers to be published in peer reviewed journals | 0 | 0 | | | | 0 | 3 |
| 11B | Number of papers to be submitted to peer reviewed journals | 0 | 2 | | | | 0 | 3 |
| 12A | Number of computer based databases to be **established** and handed over to host country | 0 | 1 | | | | 1 | 1 |
| 14A | Number of conferences/seminars/ workshops to be **organised** to present/disseminate findings | 0 | 0 | | | | 0 | 2 |
| 14B | Number of conferences/seminars/ workshops **attended** at which findings from Darwin project work will be presented/ disseminated. | 0 | 2 | | | | 0 | 1 |
| 15A | Number of national press releases in host country(ies) | 1 | 16 | | | | 1 | 5 |
| 15C | Number of national press releases in UK | 0 | 2 | | | | 0 | 2 |
| 17B | Number of dissemination networks to be **enhanced/ extended** | 0 | 0 | | | | 0 | 1 |
| 18A | Number of national TV programmes/features in host country(ies) | 0 | 1 | | | | 0 | 3 |
| 19A | Number of national radio interviews/features in host county(ies) | 1 | 0 | | | | 0 | 3 |

| Code 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 application |
|---|---|---|---|---|---|---|---|---|
| 19B | Number of national radio interviews/features in UK | 0 | 4 | | | | 0 | 1 |
| 19D | Number of local radio interviews/features in UK | 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 | 1 |
| 22 | Number of permanent field plots to be established during the project and continued after Darwin funding has ceased | 30 | 50 | | | | Wasn't specified | Wasn't specified |

**Table 2 Publications**

| **Type** **(eg journals, manual, CDs)** | **Detail** **(title, author, year)** | **Publishers** **(name, city)** | **Available from** **(eg contact address, website)** | **Cost £** |
|---|---|---|---|---|
| Project website* | n/a | n/a | www.thelastsurvivors.org ww.losultimossobrevivientes.org | £0 |
| Blog | Various | EDGE of Existence | http://www.edgeofexistence.org/edgeblog/ | £0 |
| Blog | Various | Durrell | http://blog.durrell.org/ | £0 |
| Species profile* | Species of the Day: Hispaniolan hutia | IUCN | http://www.iucnredlist.org/sotdfiles/plagiodontia-aedium.pdf | £0 |
| Species profile* | Species of the Day: Hispaniolan solenodon | IUCN | http://www.iucnredlist.org/sotdfiles/solenodon-paradoxus.pdf | £0 |
| MSc thesis* | Fernandez Secades, C. (2010) Analyzing human-wildlife conflict reports and public awareness and perceptions of Solenodon paradoxus and Plagiodontia aedium, Hispaniola's last endemic mammals (West Indies). | Imperial College London | http://www.iccs.org.uk/thesis/consci/msc10-secades,cristina.pdf | £0 |
| Leaflet* | Various | The Last Survivors | http://www.thelastsurvivors.org/wp-content/uploads/Folleto-Los-Ultimos-Sobrevivientes.pdf | £0 |

| Type<br>(eg journals, manual, CDs) | Detail<br>(title, author, year) | Publishers<br>(name, city) | Available from<br>(eg contact address, website) | Cost £ |
|---|---|---|---|---|
| Infomercial films* | Various | The Last Survivors & Funk Productions | (http://vimeo.com/18604440 & http://vimeo.com/20015567 | £0 |
| For more details on articles arising from the project, go to http://www.thelastsurvivors.org/the-project/in-the-news/ | | | | |

### 3.4 Progress towards the project purpose and outcomes

We believe that the project is firmly on track to meet its overall purpose. In particular, we have made excellent progress in expanding the evidence-base for the conservation of the Hispaniolan solenodon and hutia, and in raising awareness of their values and status at local, national and international levels. The research is on target to ensure that the required evidence will be available to stakeholders at the Species Action Planning workshops, and we believe the project has significantly elevated the species on the Dominican conservation agenda. The purpose level assumptions remain valid with excellent working relationships between the project partners. We must continue to work hard to further build support for the project within the Ministry for Environment and Natural Resources to ensure the Species Action Plans will be incorporated into national level conservation planning. In the main, the measurable indicators remain valid.

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

It is too early in the project to report meaningfully on progress towards this highest level goal.

## 4. Monitoring, evaluation and lessons

Most of the information on how project progress is monitored and evaluated is given in sections 3.1-3.4. 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 learned, we have found that engaging with the Dominican Government is a more nuanced process than we anticipated and it has taken time for the project to learn how best to conduct government liaison. Their administrative procedures are restrictive and are a barrier to making quick decisions, something we need to incorporate into how we approach the Species Action Planning in the final year of the project. We had planned to conduct the SAP workshops in early 2012, which coincides with a planned general election which could lead to a change in government. The timing of the SAP workshops therefore is important, and we may need to adjust out plans to ensure they take place after the elections.

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

*1. Inclusion of a baseline of host country capacity in conservation science and planning would have been very informative (See 4.2). Can this be expanded upon in the next annual report?*

See section 4.2.

*2. Have there been any notable barriers to skills development in host country pre-project?*

See section 4.2.

*3. A copy of or further detail of the methodology for the attitude survey would have been informative. Please provide.*

Links to a MSc thesis that describes the methodology in detail is provided in the report.

*4. What is the nature of the evidence for an appetite for biodiversity conservation (Output 4)?*

Within the scope of the project, this question is hard to address. However, the local partner, SOH, believes it is very encouraging that the Environment Minister has made public statements about engaging society in conservation efforts for solenodon and hutia.

## 6. Other comments on progress not covered elsewhere

In late 2010, Richard Young was asked by the IUCN's Species Survival Commission to take up the role of Co-Chair of the IUCN/SSC Small Mammal Specialist Group. The SMSG covers over 2700 species of rodent, sorciomorph, erinaceomorph and tree-shrew and includes the Hispaniolan solenodon and hutia. Sam Turvey will serve as Deputy Co-Chair of the SMSG. These appointments will enhance the profile of The Last Survivors project and increase its ability to deliver its goals and develop a network within the wider Caribbean to facilitate solenodon and hutia conservation and research.

Sam Turvey has been awarded £30,350 by the Royal Society for a project on the evolution of the insular Caribbean mammal fauna, which will target the evolutionary relationships between highly threatened extant Cuban hutia populations (e.g. Mesocapromys) and assess how many of these represent valid species for conservation attention.

## 7. Sustainability

As discussed in the sections above, we believe the project has established a high profile with the DR. For example, we have been invited to contribute to high profile national and regional conservation science events, including the national Red Listing process, and were asked by the Minister of Environment to advise on, and contribute to, public statements on the target species. The project has been very successful in developing a number of effective collaborations with a range of stakeholders in the conservation, development and business sectors. The Nature Conservancy and a local NGO (FUNDEMAR) engaged us to carry out mammal surveys on Isla Catalina to support their development of a management plan for this protected area.

In the last project year, we have raised around $60k of restricted funding which has allowed us to expand our activities. We also aim to engage with the recently commenced Critical Ecosystems Partnership Fund to enable the project to ensure that rural development, forest and watershed management projects taking place in Dominican Key Biodiversity Areas and Conservation Corridors take into account the conservation of Hispaniolan solenodon and hutia.

At a regional level, correspondence has been initiated with Cuban and Jamaican research scientists into appropriate ways that The Last Survivors project can engage with these countries and target the highly threatened hutia and solenodon species found in these neighbouring Caribbean islands, using the field protocols and expertise developed in the Dominican Republic. In May 2011, project staff will be visiting the Darwin Initiative funded project in the Massif de la Hotte (Haiti) to start to expand the Last Survivors project across the entirety of Hispaniola.

During the next year, we will plan in detail our exit strategy, including how we ensure the knowledge and skills generated by the project are taken up by both the government and NGO community and guarantee SOH has the capacity and capabilities to play a significant role in solenodon and hutia conservation in the long term.

## 8. Dissemination

Many of our dissemination activities are outlined in Section 3. We will scale up wide-ranging dissemination of project results in the final year of the project, once the full results of the field research are available. However, we have been keen to ensure the project has communicated its objectives and its results as they arise. We now have a Spanish and English language website which has been a very useful tool for communication and will continue to be so after the project finishes. In the next year, we will seek a sponsor from the Dominican business community for the management of the project website.

## 9. Project Expenditure

**Table 3 project expenditure during the reporting period (1 April 2010 – 31 March 2011)**

| Item | **Budget** (please indicate which document you refer to if other than your project application or annual grant offer letter) | **Expenditure** | **Variance/ Comments** |
|---|---|---|---|
| Staff costs specified by individual | Richard Young, Project Leader - £<br>Sam Turvey, Assistant Project Leader - £<br>Mark O'Connell, GIS and modeller - £<br>Jose Nunez Mino, Field Project Manager - £<br>Pedro Martinez, Counterpart Project Manager - £<br>Jorge Brocca, Assistant Project Leader - £<br>Patricia Toribio, Communications - £<br>Field Biologist - £<br>Field Biologist - £ | | 0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% |
| Overhead costs | | | 2.5% |
| Travel and subsistence | | | -1.6% |
| Operating costs | | | |
| Capital items/equipment (specify) | Consumables - £<br>Radiotracking equipment - £ | | 4.8%<br>-2.3% |
| Others: Consultancy | n/a | n/a | |
| Others: Other Costs, Services | | | -0.01% |
| TOTAL | | | -0.003% |

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

I agree for LTS and the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

- We have surveyed large and very remote areas of the DR for the Hispaniolan solenodon and hutia leading to discovery of new and important populations of both species, outside their previously known range.
- The first statistically based species distribution models of the Hispaniolan solenodon and hutia have been produced, which allows us to design an efficient nation-wide survey.
- Genetic analysis has revealed three highly distinct lineages of the Hispaniolan hutia, with divergence times of 0.5Mya between the northern and southern populations.
- We have exceeded our expectation in having a substantial impact, both nationally and internationally, in raising awareness of the Hispaniolan solenodon and hutia and the profile of the project, with excellent media coverage.

- We have been successful in raising further funds for the project from a variety of sources, including from the BBC Wildlife Fund and the Oficina Tecnica de Cooperacion Espanola.
- A BBSRC CASE funded 4 year PhD studentship, based at the University of Reading, is now embedded within the project to investigate the ecology and habitat use of the Hispaniolan solenodon in forest-agriculture frontier areas. This has resulted in the Hispaniolan solenodon being radiotracked for the first time.
- A highly successful MSc project has provided essential evidence on people's awareness levels and attitudes towards the target species in agricultural communities in the buffer zones of the Sierra de Bahoruco National Park.
- Both the Hispaniolan solenodon and hutia featured as IUCN's Species of the Day.

## 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 |
|---|---|---|---|
| ***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*<br>⇒ The conservation of biological diversity,<br>⇒ The sustainable use of its components, and<br>⇒ The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources | | | |
| ***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 | 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 | The evidence-base for solenodon and hutia conservation has grown substantially with new ecological, social and genetic knowledge. We have developed models allowing us to predict the species' distributions, and we now have an effective survey methodology which will form the basis of the monitoring protocols. A nascent steering committee has been established. Awareness of the species and the project has been much enhanced through excellent media coverage, and through project activities at local levels.<br>In terms of sustainability, the project has achieved a prominent profile within the DR, established a large number of collaborations and partnerships and is starting to raise significant co-funding. | • Scale up the survey to sample the entire predicted distribution of both species<br>• Complete analysis of solenodon genetics and pursue the local-scale ecological research through the PhD and two MSc student projects<br>• Analyse and write-up all data to produce spatial conservation priority maps in preparation for Species Action Planning process<br>• Establish full steering committee for monitoring programme and SAP implementation and to identify key stakeholders for SAP workshops<br>• Increase intensity of awareness-raising at local levels through use of infomercial films and other materials<br>• Increase skills development with project staff through formal training opportunities and mentoring<br>• Further strengthen partnerships with government and Dominican NGOs implementing rural development, forest and watershed |

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| | | | projects |
| **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.a. Ecological and socio-economic research at field sites, baseline species occupancy survey and genetic analyses completed<br>1.b. GIS built and biological, environmental and national scale socio-economic data synthesised to allow mapping of key conservation zones<br>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<br>1.d. Triannual project progress meetings with OPNRD and partner NGOs<br>1.e. Easy-to-read pamphlet produced to summarise relevant science and distributed to stakeholders in advance of SAP workshops<br>1.f. Minimum of 2 articles published in IUCN Specialist Groups literature | Excellent progress on building the evidence base of solenodon and hutia conservation, with discovery of previously unknown and important solenodon and hutia populations, some of which fall outside of legally protected areas. This significantly increases the eastern limits and size of the hutia's geographic range. Good progress in our understanding of people's attitudes to target species as well as the species' short and longer term conservation requirements. Dissemination of preliminary project results started within the Dominican scientific and conservation sectors. Two formal project progress meetings conducted. Indicators are still considered relevant to measure progress towards this output. | |
| Activity 1.1 Data collection at target field sites | | Over 200 sites visited to sample mammal presence and habitat characteristics in Sierra de Bahoruco, Jaragua, Parque del Este, Punta Cana and Isla Catalina. 360 local people surveyed for attitudes to and awareness of endemic mammals. Genetic sampling now complete. | |
| Activity 1.2. Data analysis, construction of GIS and mapping | | Preliminary species distribution models built and guiding design of the next phase of mammal survey. 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 | | Two scientific papers in preparation and one submitted. Data collection and animal capture and handling protocols written up. | |

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| **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<br><br>2.b. Minimum of 20 Hispaniolan conservationists attend Durrell-led ISLA course run in Dominican Republic.<br><br>2.c. Counterpart project manager leads drafting of 1 article for peer-reviewed journal<br><br>2.d. Counterpart project manager plays key role in leading SAP process<br><br>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 | Formal training courses are planned for the next reporting period. Nicolas and Lleyo received their EDGE fellows training in-country via Jose, which was felt the most cost-effective way of developing their skills. The performance appraisals have allowed project staff to identify skills gaps and prioritise training requirements. This led to the development and delivery of the 10 day GIS course with our collaborators from Gaiaspatial and Ecological Research & Training, and Jose focusing on developing project management and presentation skills. Indicators are still considered relevant to measure progress towards this output. |
| Activity 2.1. International training courses for Hispaniolan project participants | | This is planned for the next reporting period. |
| Activity 2.2. Ongoing skills transfer for counterpart project manager and other key project staff | | The mentoring and informal training provided by Jose to the SOH staff is already bearing fruit with both Pedro and Moncho working increasingly independently and taking on more responsibility for the delivery of the ecological and socioeconomic data collection and dissemination of results. |
| Activity 2.3. Performance appraisals of host-country project staff | | Jose has used performance appraisals to identify priority skills gaps and prioritise on the job and formal training. These appraisals need to be repeated regularly to more precisely understand and provide evidence for skills development. |
| **Output 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<br><br>3.b. 'Infomercial' film on Hispaniolan mammal conservation broadcast on Dominican Republic television and at local community meetings<br><br>3.c. Surveys of attitudes to endemic mammals shows improved awareness of solenodon and hutia in communities local to project field sites and significant | Progress towards this output is beyond target. We have had extensive press coverage of the project in both national and international media. The project website has seen a steady increase in hit rates – typically receiving 1000 hits per month compared with roughly 200 per month when we first set up the website. In 2010 the project website received 22,000 unique visitors. Two of four planned infomercial films have been completed but have not yet been broadcast on TV or at local community meetings. ZooDom now routinely includign solenodon and hutia in their educational activities. Baseline survey of attitudes to endemic mammals has been completed. The indicators remain informative and useful. |

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| | decrease in erroneous perception of native mammals as pests<br><br>3.d. Solenodon and Hutia children's day held at ZOODOM, Santo Domingo<br><br>3.e. Minimum of 3 national radio and TV interviews, 3 national and 1 international newspaper articles. Minimum of 3 scientific papers submitted<br><br>3.f. Increasing number of hits on EDGE and other project partner websites | |
| Activity 3.1. Programme of local and national awareness raising | | An unprecedented press attention on these species occurred with 16 stories running within the last project year. Over 3000 project leaflets have been distributed in local communities in the field sites. |
| Activity 3.2. Programme of international awareness raising | | Excellent progress with this activity, with extensive media coverage and both species featuring as IUCN's Species of the Day. |
| Activity 3.3. Surveys of attitudes towards focal species and habitat conducted in local communities | | This was conducted through an MSc project who collected data via questionnaire surveys in the Sierra de Bahoruco, and analysed data collected by project staff. |
| **Output 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<br><br>4.b. SAPs adopted into Dominican Republic NBSAP<br><br>4.c. Priority SAP activities incorporated into OPNRD and NGO annual workplans within two years of project completion<br><br>4.d. Monitoring data collection protocols and experimental design developed and fully tested and manuals produced<br><br>4.e. Steering committee established and prepared to oversee implementation of endemic land | Activities towards Output 4 are mainly planned for the third reporting period. However, we decided to start setting up a steering committee (whom will ultimately manage the ongoing mammal monitoring programme and champion implementation of the Species Action Plans) in order to formally engage two Dominican experts in solenodon and hutia ecology, and the Dominican biodiversity conservation sector. |

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| | mammals monitoring programme | |
| Activity 4.1. Species Action Planning workshops, consultation with local communities and adoption of SAPs into Dominican Republic's NBSAP | | This is planned to start in the next reporting period. |
| Activity 4.2. Design of monitoring programme and supporting materials, and launch of steering committee | | This is planned to fully start in the next reporting period. |

## Annex 2 Project's full current logframe

| Project summary | Measurable Indicators | Means of verification | Important Assumptions |
|---|---|---|---|
| **Goal**:<br>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: The probability of long-term survival of Hispaniola's endemic land mammals and their habitats is significantly improved | 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 | Dominican Republic National Biodiversity Strategy documents<br>▪ OPNRD and local NGO partner workplans | |
| 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 | 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 | 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 | Close collaboration and communication between project partners ▪<br>Dominican Republic government support continues throughout project |
| Outputs<br>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.a. Ecological and socio-economic research at field sites, baseline species occupancy survey and genetic analyses completed<br>1.b. GIS built and biological, environmental and national scale socio-economic data synthesised to allow mapping of key conservation zones<br>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<br>1.d. Triannual project progress meetings with OPNRD and partner NGOs<br>1.e. Easy-to-read pamphlet produced to summarise relevant science and distributed to stakeholders in advance of SAP workshops<br>1.f. Minimum of 2 articles published in IUCN Specialist Groups literature | Peer-reviewed scientific literature ▪ Project annual reports ▪ Project progress meeting minutes ▪ Project partner websites ▪ OPNRD annual reports ▪ IUCN Specialist Group website and associated literature | Dominican Republic government continues to provide permits for field research |

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| 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<br>2.b. Minimum of 20 Hispaniolan conservationists attend Durrell-led ISLA course run in Dominican Republic.<br>2.c. Counterpart project manager leads drafting of 1 article for peer-reviewed journal<br>2.d. Counterpart project manager plays key role in leading SAP process<br>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<br>3.b. 'Infomercial' film on Hispaniolan mammal conservation broadcast on Dominican Republic television and at local community meetings<br>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<br>3.d. Solenodon and Hutia children's day held at ZOODOM, Santo Domingo<br>3.e. Minimum of 3 national radio and TV interviews, 3 national and 1 international newspaper articles. Minimum of 3 scientific papers submitted<br>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<br>4.b. SAPs adopted into Dominican Republic NBSAP<br>4.c. Priority SAP activities incorporated into OPNRD and NGO annual workplans within two years of project completion<br>4.d. Monitoring data collection protocols and experimental design developed and fully tested and manuals produced<br>4.e. Steering committee established and prepared to oversee implementation of endemic land mammals monitoring programme | SAPs published on project partner websites ▪ Government biodiversity strategy documents ▪ OPNRD and NGO annual workplans ▪ Monitoring field manuals available on project partner website ▪ Project annual reports ▪ Steering committee meeting minutes | Effective facilitation at SAP workshops ▪<br>Majority of invited stakeholders attend workshops ▪ Continuing support from Dominican Republic government and NGOs for monitoring endemic mammals |

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| **Activities** (details in workplan)<br>1.1. Data collection at target field sites<br>1.2 Data analysis, construction of GIS and mapping<br>1.3. Preparation of scientific and other technical documents<br>2.1. International training courses for Hispaniolan project participants<br>2.2. Ongoing skills transfer for counterpart project manager and other key project staff<br>2.3. Performance appraisals of host-country project staff<br>3.1. Programme of local and national awareness raising<br>3.2. Programme of international awareness raising<br>3.3. Surveys of attitudes towards focal species and habitat conducted in local communities<br>4.1. Species Action Planning workshops, consultation with local communities and adoption of SAPs into Dominican Republic's NBSAP<br>4.2. Design of monitoring programme and supporting materials, and launch of steering committee |
| **Monitoring activities**:<br>Indicator 1: Scientific delivery evaluated biannually by Durrell's and ZSL's Head of Conservation Programmes<br>Indicator 2: Monitoring of increased skills/capacity of in-country conservationists/host-country project staff<br>Indicator 3: Surveys of attitudes towards native mammals among local communities<br>Indicator 4: Triannual project progress meetings with SOH, OPNRD and ZOODOM |

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

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 |
| **Is your report more than 5MB?** If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line. | N |
| **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. | Y |
| **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. | N |
| Have you involved your partners in preparation of the report and named the main contributors | Y |
| Have you completed the Project Expenditure table fully? | Y |
| Do not include claim forms or other communications with this report. | |