



Submit by 13 January 2006

## DARWIN INITIATIVE: APPLICATION FOR POST-PROJECT FUNDING 2006

Please read the Guidance Notes before completing this form. Give a full answer to each section; applications will be considered on the basis of information submitted on this form and on the merit of your current / recently completed Darwin Initiative project. The space provided indicates the level of detail required. Please do not reduce the font size below 11pt or alter the paragraph spacing. Please note the additional information requirements (CVs and letters of support as detailed in the Guidance for Applicants).

### 1. Name and address of UK organisation

**Dr. Simon Goodman**  
**Institute of Integrative and Comparative Biology, University of Leeds, Miall Building, Clarendon Way, Leeds, LS2 9JT, UK.**

### 2. Post-Project details

**Project Title:** Integrating disease surveillance with conservation management for Galapagos fauna

**Proposed start date:** 1/10/06

**Duration of project:** 2 years

Darwin funding requested	Total	2006/07	2007/08	2008/09
	£119,696	£53,268	£42,935	£23,493

### 3. Original Project Title and Defra reference number (162/-/---)

Building capacity and determining disease threats to endemic Galapagos fauna (162-12-017)

### 4. Principals in project. Please provide a one page CV for each of these named individuals where different from the original project. Letters of support must also be provided from the host country partner(s) endorsing the partnership and value of the Post-Project funding.

Details	Project leader	Other main UK personnel (working more than 50% of their time on project)	Main project partner or co-ordinator in host country
<b>Surname</b>	Goodman	Cunningham	Cedeño
<b>Forename(s)</b>	Simon James	Andrew Alexander	Virna
<b>Post held</b>	Lecturer	Reader	Senior Research Scientist
<b>Institution (if different to above)</b>	University of Leeds	Zoological Society of London	Galapagos National Park & University of Guayaquil
<b>Department</b>	Institute of Integrative and Comparative Biology	Institute of Zoology	Galapagos Genetics Epidemiology and Pathology Laboratory
<b>Telephone</b>			
<b>Fax</b>			
<b>Email</b>			

**5. Define the purpose (main objective) of the Post-project in line with the logical framework. How is it linked to the objectives of the original Darwin project?**

1) Establish the capacity to respond to specific disease threats identified by the current project (e.g. surveillance for West Nile Virus, Chelonian herpes virus, and tortoise mycoplasma). 2) Further embed disease surveillance in the conservation management culture of the Galapagos National Park by providing further training to a wider range of Park staff. 3) Integrate the current wild tortoise health programme with the tortoise captive breeding programme. 4) Establish broader scientific and conservation education capabilities within the Galapagos community by providing support to local teachers. 5) Develop the laboratory as an international conservation research centre for Latin America. The current project sought to establish the capacity of the Galapagos National Park to be able to identify, carry out surveillance for, and manage disease threats to Galapagos fauna. These have been achieved and we now seek to maximise these benefits by providing continuing training to new and existing staff, and by responding to specific disease management requirements identified by the original work.

**6. What have been the main outcomes (achievements) of the original project to date?**

We have established the first ever genetics and pathology laboratory in the Galapagos which has become an important new scientific research centre for Ecuadorian and international scientists. The staff trained under the programme have enhanced their expertise to the point where they are able to address many wildlife disease issues independently, and will become the future scientific leaders of the Park. The research activities of the project, including our disease surveillance programme, have generated new knowledge about disease threats to Galapagos fauna which have informed critical conservation management decisions. These have been implemented with the support of local stakeholders as the result of outreach and consultation with the local community. For example, changes to Ecuadorian national legislation have been made as the result of our risk analysis for the introduction of West Nile Virus to the archipelago.

**7. What steps have been taken to ensure that project purpose and outputs will be achieved within the original project term?**

The project was initiated with a round of consultation with the main project partners and local stakeholders in order to agree a clear strategy to achieve the project aims, including timetables for the development of infrastructure, training and research programmes. This consultation has continued throughout the project to ensure that milestones have been achieved on time and to resolve cases where deviation has arisen due to circumstances beyond the control of the project. This has been supplemented by regular input from external scientists and feedback from the Darwin Initiative on reports which has ensured the project has met its original aims within the project term. Similar measures will be in place to ensure delivery of the post-project aims.

**8. Please list the overseas partner organisation(s) that will be involved in the Post-project and explain their role and responsibilities in this work and in the original project (if applicable).**

The Galapagos National Park (GNP), and Dept. Biotechnology, University of Guayaquil (UG), Ecuador, have been our main partners in this work since its inception. They have been intimately involved in the design and implementation of the project with the UK partners. They provide space for research labs and contributions to salaries, inter-island transportation, lodging for students, and overheads. These roles will continue in the post-project phase.

**9. Please provide written evidence of commitment and capability of overseas partner in achieving the purpose and outputs of this project. Are formal agreements in place for overseas partner responsibility in this project?**

Our success so far demonstrates the capabilities of the project partners to achieve the project aims. Formal agreements are in place as demonstrated by signed MOUs between the project partners and the attached letters of support.

**10. What other consultation or co-operation will take place or has taken place already with other stakeholders such as local communities. Please include any contact with the government of the host country if not already provided.**

The project has operated in full consultation with all relevant local stakeholders in Galapagos since its inception. The Galapagos National Park is the main government agency responsible for the management of the archipelago, but we also work closely with other government agencies such as SESA-SICGAL the national agency responsible for agricultural health and Galapagos quarantine, local government, and a range of other agencies, including NGOs such as the Charles Darwin Foundation, WildAid, and staff from the United Nations Development Programme. Supportive meetings have been held with SENACYT (Ecuador's National Science Society) and with the current President of Ecuador. Research activities and implementation of conservation decisions arising from the project are undertaken with consultation of all these parties via workshops and meetings. In addition we are engaged in collaborations with many visiting international scientists involved in disease research. Finally, we have received an enthusiastic response in discussions to establish training opportunities for Masters students from the University Javeriana of Bogota, Colombia; the University of Tumbes, Peru and the Regional Network of Latin American Universities (UREL).

**11. Are you aware of any other individuals/organisations carrying out similar work? Are there completed or existing Darwin Initiative projects (other than your original project) which are relevant to your work? Please give details, explaining the similarities and differences. Show how the outputs and outcomes of your work will be additional to any similar work, and what attempts have been/will be made to co-operate with and learn lessons from such work for mutual benefits.**

There are no completed or existing Darwin projects relevant to this work. The Charles Darwin Research Station and a group of international scientists from the University of Missouri, St. Louis, and St. Louis Zoo, USA are also engaged in research on avian disease in Galapagos. We are in regular contact with these groups and collaborate closely to increase the efficiency and impact of the Darwin Project. The St. Louis disease research programme primarily has an evolutionary focus, while our project deals with disease threats to conservation. Results from both programmes are complementary. Our project staff have benefited from training opportunities provided by the St. Louis group in addition to those available through the Darwin project.

**12. How will the project assist the host country in its implementation of the Convention on Biological Diversity? Please make references to the relevant article(s), of the CBD thematic programmes and/or cross-cutting themes (see Annex for list and worked example) and rank the relevance of the project to these by indicating percentages. Is any liaison proposed with the CBD national focal point in the host country? Further information about the CBD can be found on the Darwin website or CBD website.**

The wildlife pathology laboratory and its staff now provide the capacity for Ecuadorian researchers to undertake wildlife disease research and diagnostic tests on the Galapagos islands which previously could only be conducted outside of the country in collaboration with foreign researchers, giving Ecuadorians increased control over their biological and genetic resources. New knowledge has also been generated on the types and prevalence of disease in endemic Galapagos fauna. In the post-project phase these impacts will continue, and will be enhanced by new activities designed to reduce the impact of emerging diseases, such as West Nile Virus, Chelonian herpes and tortoise mycoplasma, in Galapagos, and by enhancing the captive breeding programme for Galapagos tortoises by extending the current wild tortoise health initiative to captive animals. This will maximise the health and welfare of captive animals and minimise the potential for disease introduction to wild tortoise populations. These new aspects will be added to the Park-endorsed management plans arising from the current work. The management plan and enhancement of the current disease monitoring programme are an important contribution to safeguarding endemic Galapagos fauna by providing strategies to minimise existing disease threats, and to mitigate the impact of novel outbreaks. Articles of the CBD relevant to this project are 7 (15%), 8/8h (10%), 10 (5%), 12 (10%), 13 (10%), 14 (15%), 15 (5%), 16 (10%), 17 (5%), 18 (10%), 20 (5%). The "Dry and sub-humid lands" and "Marine and coastal" thematic programmes fit the environment of the Galapagos. The project spans many of the cross-cutting issues identified by the CBD such as: Alien species (30%), Biodiversity and tourism (30%), Impact assessment liability and redress (10%), Indicators (10%), Protected areas (10%) and Public education and awareness (10%).

**13. How does the work meet a clearly identifiable biodiversity need or priority defined by the host country? Please indicate how this work will fit in with the National Biodiversity Strategies or Environmental Action Plans, if applicable.**

The same threats to Galapagos fauna from disease that motivated the original work still exist, as do the potentially catastrophic consequences for biodiversity from disease impacts. The Galapagos National Park is now in a much stronger position to identify and respond to such threats following the initial phase of the project. This capacity needs to be maintained, and new initiatives developed to respond to changing circumstances. For example, in 2004 West Nile Virus invaded mainland South America, so vigilance to prevent introduction to Galapagos is all the more urgent. In our current project we identified a wide range of pathogens in wild and captive Galapagos tortoises that are presently unmanaged. By integrating health surveillance into the tortoise captive breeding programme, we will make the future of Galapagos tortoises more secure by eliminating potential disease transfer from released captive animals into wild populations. Latin America is biodiversity rich but has very little in the way of postgraduate training in conservation biology and practice. The training of Masters students in the laboratory will help to meet this urgent need. Finally we will cement the legacy of the training elements of first phase by establishing continuity of expertise transfer to cope with future staff turnover. As with our past work these new initiatives will be incorporated into the Park management strategy as a whole, so that disease management is integrated in to the response to other issues such as invasive species and regulation of development.

**14. If relevant, please explain how the project work will contribute to sustainable livelihoods in the host country**

The Galapagos economy is driven by ecotourism, which relies on the unique fauna of the archipelago. Moreover, the vast majority of tourist visits to Ecuador are motivated by travel to Galapagos, so that the tourist economy of Ecuador as whole is reliant on the health and maintenance of Galapagos biodiversity. In the past, disease has led directly to the extinction of some Hawaiian avifauna, and similar loss in Galapagos may severely reduce tourist revenue. A small investment in disease management for Galapagos therefore helps to protect the livelihoods of many tens of thousands of people across the whole country.

**15. What will be the impact of the work and how will this be achieved? How will these help to strengthen the long-term impact and legacy of your original Darwin project? Please include details of how the results of the project will be disseminated and put into effect to achieve this impact.**

The impacts of this work will be the full entrenchment of disease management into the conservation strategy of the Galapagos National Park by extending training to those involved in implementation of conservation activities; enhanced capacity to manage specific disease threats identified in the current phase of the project through further training of core project staff; enhanced success of tortoise conservation through integration of our current tortoise health initiative with the captive breeding programme; improved awareness about conservation and improved training in its implementation (in Galapagos and elsewhere in Latin America); increased capabilities for scientific education in Galapagos by enhancing conservation biology expertise and resources for local teachers. The latter is important because it is vital that the local community receive better scientific education so they can make informed choices about environmental issues in the face of growing human development pressures in the archipelago. The current project has developed research infrastructure in Galapagos; this investment will be maximised through further training of project staff and aiding Park managers to transfer new research knowledge into conservation practice. Workshops and on-the-job training will be given to project staff, National Park employees, students and local teachers. As now, outputs will be communicated through meetings, local media, reports, publication in peer reviewed journals and presentations at international conferences. Our website provides dissemination routes on all aspects of the project for scientific and general audiences.

**16. Explain how gains from the Post-project work will be distinct and additional to those of the existing project. Show where possible how these gains require limited resources and could not be achieved without the funding.**

Further to the findings from the current project, the post-project work plan develops areas identified as priorities for disease management and mitigation for Galapagos fauna conservation, and an increased focus on transferring research outcomes into conservation practice. This includes capacity building for priority disease surveillance (e.g. WNV, Chelonian herpes virus, tortoise mycoplasma) in addition to the continuing research and monitoring role of the laboratory established in the first phase, integration of disease management with Galapagos tortoise captive breeding programmes and training key project managers to entrench the project findings into long-term conservation management of the Park. This post-project phase therefore has distinct and additional gains, by enabling new improvements in conservation practice based on the basic research we have already carried out. The success of the current project means our laboratory activities are growing so rapidly that they will require additional capacity. For this reason we propose installation of a prefabricated annex building to house an expanded Galapagos pathology archive (which will be an international research resource into the future) and enhanced necropsy facilities. Additionally, the laboratory will become a focus for local and international training in conservation: we will capitalise on the links established with local schools in the current phase by actively building the capacity of local teachers to deliver higher quality scientific and conservation education and we will develop the laboratory as a postgraduate training centre in conservation for Latin American students. By drawing on the capacity (staff and infrastructure) developed during the current project, these additional lasting gains can be made with limited further resources, but would not be possible without post-project funding, as they are beyond current financial resources of the project partners. Delivery of these additional outcomes would require 2 years funding in order to first build the new capacity required, and then assess that the new components have been taken up effectively.

**17. How will the work leave a lasting legacy in the host country or region?**

Our current project has already yielded a strong legacy in the form of significant research infrastructure and the expertise of staff trained under the project. Post-project funding will build on this by further developing infrastructure, enhancing the skills of existing staff to cope with new challenges and those already identified, and by growing the pool of people trained by the project, both in Galapagos and throughout the Latin American region. This pool of expertise and new knowledge will allow further refinement of the Galapagos National Park conservation strategy (providing lasting tools for managing current and future disease threats to endemic Galapagos fauna), allow robustness in the event of staff turnover, and facilitate Ecuador becoming even more independent in its scientific capabilities as expertise spreads from people trained by the project in to the wider Ecuadorian (and Latin American) conservation professional community.

**18. Please provide a clear exit strategy and describe what steps have been taken to identify and address potential problems in achieving impact and legacy**

The infrastructure to support research capacity, and the training to embed disease management expertise, making it robust to staff turnover, have largely been met by the current project, but will be secured by post-project funding. The outstanding issue is financial security following Darwin funding. Currently, funding has been committed to the project by the University of Guayaquil and the Galapagos National Park which secures most overhead and support costs, and an Ecuadorian organisation, *Concepto Azul*, is likely to part-fund project staff salaries. While negotiations are currently underway with *Concepto Azul* and several other potential donor organisations to cover total costs, this funding has not yet been secured. During the course of extended funding by the Darwin Initiative, it is expected that these negotiations will come to fruition and that NGOs and governmental organisations will commit to the long-term funding of this project, ensuring its continued success. A potential problem in the current phase has been political instability in the National Park due to intervention by Ecuadorian central government. Darwin funding meant our project was shielded from such issues since it was largely independent of Park budgets. Legal changes are now in progress to protect the Park from politically motivated challenges, such as changes in Park director, and post-project funding would secure the future of the programme by maintaining its independence through this transition period.

**19. How will the project be advertised as a Darwin project and in what ways would the Darwin name and logo be used?**

The Darwin name and logo is already used at the lab established in the current project, and will be prominently displayed on the new annex to be funded by this application. Visiting scientists using the facility will see the logo and will be aware that it is supported by the Darwin Initiative. The name and logo will continue to be used on our website, official communication, educational material, reports at conferences and during workshops. The support and aims of the Darwin Initiative will be key features of presentations to local people. The name will be used in all dealings with the media, both in the Galapagos and internationally.

**20. Will the Post-project include training and development? Please indicate who the trainees will be and criteria for selection indicating where they were involved in the original project. How many will be involved, and from which countries? How will you measure the effectiveness of the training and will those trained then be able to train others? Where appropriate give the length and dates (if known) of any training course. How will trainee outcomes be monitored after the end of the training?**

The post-project period includes training and development of existing core staff (the veterinary pathologist and laboratory scientist), and extended training opportunities for Ecuadorian conservation professionals, Latin American postgraduate students and local teachers and school children. As before, the Ecuadorian project staff will be trained by UK members through 2 week long workshops (each year: at least 1 training workshop and 1 monitoring/ research meeting; dates to be confirmed) and practical assignments within the project. This training will be focused on reinforcing existing expertise, and conferring skills specific to critical disease issues identified during the current phase (e.g. techniques for WNV surveillance). The effectiveness of the training will be evaluated by staff gaining independence in key skills and the ability to train other people in these activities.

Each year we will also run 3, week long strategy, training and evaluation workshops for up to 10 National Park project managers (selected because they manage relevant programmes) to aid transfer of project research outcomes into conservation practice (1. Integration of health screening into the tortoise captive breeding programme; 2. WNV surveillance and management; 3. Implementation of disease management strategies not covered by 1 and 2). This will be supplemented by training from our existing core staff in the relevant diagnostic/clinical techniques. Training effectiveness will be assessed by uptake and maintenance of these enhanced conservation programmes by project managers.

Up to 6 Latin American masters students and 8 undergraduate students will undertake research projects within the overall project, and will attend the training workshops. The training success of these students will be judged by regular evaluations by project staff and by the students passing their courses.

With the aid of the Galapagos National Park education department, project staff and Ecuadorian graduate students, a set of resources and seminars will be produced to augment conservation education for local teachers. We anticipate that teachers responsible for science teaching in at least three local high schools will participate in a 6 month programme (part-time, 1 evening per week, and 1 Saturday per month). The success of this programme will be evaluated by the uptake of the information provided into school lessons, and increased awareness of conservation issues in local children.

## LOGICAL FRAMEWORK

21. Please enter the details of your project onto the matrix using the note at Annex 1 of the Guidance Note.

Project summary	Measurable indicators	Means of verification	Important assumptions
<p><b>Goal:</b></p> <p>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</p> <ul style="list-style-type: none"> <li>• the conservation of biological diversity,</li> <li>• the sustainable use of its components, and</li> <li>• the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</li> </ul>			
<p><b>Purpose</b></p> <p>To provide capacity to respond to specific disease threats identified by the current project, to fully embed disease surveillance in the Galapagos National Park strategy, to integrate wild tortoise health initiatives with the tortoise captive breeding programme, and to build conservation education capacity within the Galapagos community and Latin American region.</p>	<p>New knowledge on the nature and prevalence of diseases and their vectors translated into conservation practice.</p> <p>An operating plan for the Galapagos giant tortoise captive breeding programme integrating tortoise disease management, endorsed by the Galapagos National Park authorities.</p> <p>Enhanced conservation science education capabilities of local teachers. Postgraduate students being trained from Latin American countries.</p>	<p>Project reports and workshop reports involving partner organisations, publications in peer reviewed journals.</p> <p>Management plan documents and correspondence.</p> <p>Records of training workshops, and educational programmes, including materials. Increased number of school students taught conservation science. Graduates in masters programmes from other Latin American countries.</p>	<p>Researchers and managers use project findings to help minimise disease impacts on endemic species.</p> <p>Disease monitoring programme receives continued funding to maintain its activities. Note continuing funding from Galapagos National Park Service and University of Guayaquil is already agreed.</p> <p>Local schools continue to seek to teach conservation science.</p> <p>The demand for postgraduate training in conservation continues.</p>
<p><b>Outputs</b></p>			

<p>Capacity of lab to deal with specific identified disease threats is expanded, and development of current programmes.</p> <p>Annex to existing lab for sample archive and necropsy room.</p> <p>Enhanced capabilities of project managers to translate research outputs in to conservation practice</p> <p>Operating plan for disease management in tortoise captive breeding programme.</p> <p>Conservation science taught by local teachers.</p> <p>Graduates in masters programmes from other Latin American countries.</p> <p>Media representation</p>	<p>New findings endorsed by international scientific community and inform conservation strategy.</p> <p>Annex operational and used in extended project.</p> <p>Species conservation in Galapagos enhanced by input from research findings</p> <p>Operating plan reviewed externally and implemented.</p> <p>Participation of teachers in programme, local children value species conservation.</p> <p>Participation of Masters students in the programme</p> <p>Project featured in local media</p>	<p>Papers in peer reviewed international scientific journals, output of data supporting conservation activities.</p> <p>Annual reports, peer reviewed papers, output of data supporting conservation activities.</p> <p>Annual reports, peer reviewed papers.</p> <p>Operating plan document published and distributed.</p> <p>Educational materials, school project reports</p> <p>Students pass their courses, teaching materials, reports</p> <p>Articles &amp; recordings</p>	<p>Research and surveillance programmes generate data required for management plans.</p> <p>Annex operational within one year.</p> <p>Managers participate in training implement recommendations and take up methods for knowledge transfer.</p> <p>Links to educational organisations and media are established (agreements are in place to do this via the Galapagos National Park Service).</p>
<p><b>Activities</b></p> <p>Capacity building and training.</p> <p>Research, Disease Monitoring and Conservation</p> <p>Education programme</p> <p>Dissemination of results</p>	<p><b>Activity Milestones (Summary of Project Implementation Timetable)</b></p> <p>Yr1: Build annex to pathology laboratory and run training workshops for new and enhanced diagnostic protocols; workshops for transfer of research outputs into conservation practice and tortoise health initiative. Yr2 Follow up training workshops</p> <p>Yr1: Implement new diagnostic procedures and surveillance for targeted pathogens, continue with previous research programmes. Implement integration of wild tortoise health initiative into tortoise captive breeding programme. Yr2: Continuation of year 1 with workshop to assess and develop the programme of integrating disease issues into conservation management of the Park. Production of scientific publications and finalised management plans.</p> <p>Yr1: Work with local teachers to develop educational programme and materials in conservation science. Teachers participate in part-time training programme held over a six month period. Masters students trained from Ecuador and other Latin American countries. Yr2: Teachers implement teaching of conservation with support from the project. Masters students trained from Ecuador and other Latin American countries.</p> <p>In each year: Annual reports and project website updated. Engage local and international media interest. Yr2 Presentation of results at international conference, workshops, papers submitted to international peer reviewed journals by 1 year after end of project.</p>		



22. Provide a project implementation timetable that shows the key milestones in project activities.

Project implementation timetable		
Date	Financial Year	Key milestones
	Apr – Mar 2006/07 Apr – Mar 2007/08 Apr – Mar 2008/09	
		<b>Institutional Capacity Building and Training</b>
Oct 2006	2006/07	Project extension initiation activities (equipment procurement etc).
Oct 2006	2006/07	Students begin projects.
Feb 2007	2007/08	Training workshop: Wildlife disease & WNV surveillance (2 weeks, joint with project staff and Park project managers).
April 2007	2007/08	Installation of prefabricated laboratory annex in Galapagos to house new sample archive and necropsy room.
July 2007	2007/08	Training evaluation and project management workshop.
Jan 2008	2007/08	Training workshop: Wildlife disease & WNV surveillance (2 weeks, joint with project staff and Park project managers).
June 2008	2008/09	Training evaluation and project management workshop.
Sept 2008	2008/09	Students complete projects.
Sept 2008	2008/09	Final review meeting, project handover (1 week).
		<b>Research and Disease Monitoring</b>
Oct 2006-	2006/07/08/09	Previous research and monitoring activities continue.
Oct 2006-	2006/07/08/09	WNV surveillance begins (regular sampling and screening of birds).
Oct 2006-	2006/07/08/09	Monitoring Chelonian herpes and tortoise mycoplasma begins.
Oct 2007	2007/08	First year sampling completed.
Jan 2008	2007/08	First year results compiled
July 2008	2008/09	Second year sampling completed
Sept 2008	2008/09	Final results compiled, and used to update disease management strategy plans.
		<b>Integration of disease management into Tortoise Captive Breeding</b>
Feb 2007	2006/07	Initial consultation with captive breeding programme staff to design implementation strategy.
Feb 2007-	2006/07/08/09	Training of tortoise breeding programme staff by existing project laboratory staff begins.
March 2007	2006/07	Initial health screening for tortoises in captive breeding programme.
July 2007	2007/08	Evaluation and development workshop.
Aug 2007-	2007/08/09	On going implementation of health programme for captive tortoises.
Sept 2008	2007/08	Evaluation and review workshop.
		<b>Education and Conservation Awareness Programme</b>
Feb 2007	2006/07	Local community workshop on wildlife disease issues.
April 2007	2007/08	Educational materials prepared (posters, leaflets and presentations) for local teachers in collaboration with Galapagos National Park education department.
April 2007	2007/08	Teacher training course on conservation science teaching skills (part-time 1 evening per week, and 1 Saturday per month) for local teachers begins.
Jan 2008	2007/08	Local community workshop on wildlife disease issues.
June 2008	2008/09	Evaluation and review workshop.
		<b>Dissemination of Results</b>

Oct 2006	2006/07	Initial press releases produced (Darwin Initiative, Institute of Zoology, Galapagos National Park, University of Guayaquil and University of Leeds).
Dec 2006	2006/07	Project featured in Galapagos Conservation Trust Newsletter.
Oct 2006-	2006/07/08/09	News updates released via website concurrent with project reports, further press releases produced as appropriate.
Oct 2006-	2006/07/08/09	Existing website to be updated throughout project
Oct 2007	2007/08	Arrangement of features in broadcast media and popular articles completed.
Oct 2007	2007/08	Year 1: at least one UK seminar on project completed, further talks arranged for UK and internationally.
Sept 2008	2008/09	Year 2: at least one UK seminar on project completed, further talks arranged for UK and internationally.
Sept 2008	2008/09	Features in broadcast media and popular articles completed. Project results presented to at least one international conference by end of project.
Sept 2008	2008/09	Finalised disease management plan completed and submitted for peer review.
Sept 2009	2009/10	At least 4 papers accepted by international peer reviewed journals by end of Darwin funding.
March 2007-	2006/07/08/09	<p><b>Reporting</b></p> <p>Reports produced according to Darwin Initiative schedule</p> <p><b>Administration</b></p> <p>Through out the project the overall co-ordination will be led by SG with significant contributions from AC and VC to ensure the project is implemented according to the timetable. VC will manage the day to day running of project activities in Galapagos. As throughout the current project efficient communication is possible via telephone and email, and regular review and management meetings will take place between the UK staff and project staff during training workshops and other visits to Galapagos. The University of Leeds will be responsible for the financial administration. The project partners will administer matched funds for the purposes specified in section 25.</p>

23. Set out the project's measurable outputs using the separate list of output measures.

PROJECT OUTPUTS		
Year/Month	Standard output number (see standard output list)	Description (include numbers of people involved, publications produced, days/weeks etc.)
2006/10-2008/09	4A	<p><b>Training Outputs</b> 8 undergraduates undertaking projects (4 per year) 104 weeks At least 6 Masters students undertaking projects (at least 3 per year) 78 weeks 12: 2 current project staff, up to 10 project managers from the Galapagos National Park participating in training programmes. Minimum 3 local science teachers in teacher training 6 weeks Minimum 5: Course material for teacher training, education pack for teachers to use in classroom, manuals for disease management workshops (x3).</p> <p><b>Research Outputs</b> Minimum 12 weeks (6 person weeks per year for training, evaluation and research management). 2: Finalised disease management plan produced in phase 1, plus specific disease management plan for Galapagos tortoise. Minimum of 2 Minimum of 2 1: existing project disease database enhanced.</p> <p><b>Dissemination Outputs</b> 6: 4 project workshops/seminars to discuss disease research, management and implementation, 2 local community workshops. Minimum 4, date and location not yet specified. Up to 4 released on project reporting dates. Up to 4 released on project reporting dates. 2, 1 yearly, 200, 100. 1: existing project network, via project website and meetings. One in each category anticipated. One in each category anticipated.</p> <p><b>Physical Outputs</b> Physical assets (Annex building and equipment): £31,050</p> <p><b>Financial Outputs</b> University of Leeds: £26,460 Institute of Zoology: £22,961 Galapagos National Park: £72,000 University of Guayaquil: £51,200</p> <p>~£35,000 per year. Continuing funding by Galapagos National Park and University of Guayaquil after Darwin funding. Further continuing support will be sought during the course of the project</p>
2006/10-2008/09	4B	
2006/10-2008/09	4C	
2006/10-2008/09	4B	
2006/10-2008/09	5	
2007/10	6A	
2007/10	6B	
2008/09	7	
2008/09	8	
2008/09	9	
2008/12	11A	
2009/10	11B	
2008/09	13B	
2006/10-2008/09	14A	
2006/10-2008/09	14B	
2006/10-2008/09	15A/B	
2006/10-2008/09	15C	
2006/10-2008/09	16A/B/C	
2008/09	17B	
2008/09	18A/B/C/D	
2008/09	19A/B/C/D	
2008/09	20	
2008/09	23	
After 2008/09	23	



## MONITORING AND EVALUATION

**24. Describe, referring to the Indicators in the Logical Framework, how the progress of the project will be monitored and evaluated, including towards delivery of its outputs and in terms of achieving its overall purpose. This should be during the lifetime of the project and at its conclusion. Please include information on how host country partners will be included in monitoring and evaluation.**

For the duration of the project progress and delivery of outputs in relation to the proposed timetable will be monitored by visiting scientists with expertise relevant to the project. In addition, specific supervisory visits from UK staff (a minimum of 2 visits per year per UK expert) will ensure that the core elements of the project and associated training are delivered on time and to the required standard. Monitoring activities will match progress to expected outputs using the indicators specified in the Log Frame. Written scientific outputs of the project (Indicators: papers on disease in endemic species, disease management plan) will be peer reviewed before publication thereby ensuring the highest international standards. Infrastructure and training components of the project (Indicators: operational annex, competent staff and students, participation of local communities in educational activities) will also be examined by outside experts, to highlight potential lessons and problems. Monitoring information will be presented as project reports according to the schedule specified by the Darwin Initiative, co-ordinated by the University of Leeds in association with the Galapagos National Park, Institute of Zoology and University of Guayaquil, plus training and workshop reports, and summaries of media coverage (with copies of articles and recordings). The final report will be compiled by all the organisations involved, with comments from outside scientists in relation to achievements of the project, its purpose and management implications

## FINANCIAL ASPECTS

**25. Please state costs by financial year (April to March). Use current prices - do not include any allowance for assumed future inflation. For programmes of less than 2 years' duration, enter 'nil' as appropriate for future years. Show Darwin funded items separately from those funded from other sources.**

**Please note that although three financial years are shown here, funding will only be awarded for a maximum period of two calendar years**

**Table A: Staff time. List each member of the team; their role in the project rate and the percentage of time each would spend on the project each year.**

	2006/2007	2007/2008	2008/2009
	%	%	%
Dr. Simon Goodman (Project Leader)	15%	15%	15%
Dr. Andrew Cunningham (Wildlife epidemiology training)	10%	10%	10%
Ecuador - Dr. Virna Cedeño (Main scientific partner)			
Ecuador - Dr. Marilyn Cruz (Veterinary pathologist)			
Ecuador – Mr. Leandro Patiño (Laboratory manager)			
Ecuador - Laboratory assistants, Other staff (University of Guayaquil)			
Ecuador – Park rangers, Education Officers, Other staff			

**Table B: Salary costs. List the project team members and show their salary costs for the project, separating those costs to be funded by the Darwin Initiative from those to be funded from other sources.**

Project team member	2006/2007		2007/2008		2008/2009	
	Darwin	Other	Darwin	Other	Darwin	Other
Dr. Simon Goodman						
Dr. Andrew Cunningham						
Dr. Virna Cedeño						
Dr. Marilyn Cruz						
Mr. Leandro Patiño						
University of Guayaquil staff						
Galapagos National Park staff						
<b>Total cost of salaries</b>						

**Table C. Total costs. Please separate Darwin funding from other funding sources for every budget line.**

	2006/2007	2007/2008	2008/2009	TOTAL
<b>Rents, rates, heating, lighting, cleaning, overheads</b>				
• Darwin funding				
• other funding				
<b>Office costs eg postage,</b>				
• Darwin funding				
• other funding				
<b>Travel and subsistence</b>				
• Darwin funding				
• other funding				
<b>Printing</b>				
• Darwin funding				
• other funding				
<b>Conferences, seminars etc</b>				
• Darwin funding				
• other funding				
<b>Capital items/ equipment (please break down)</b>				
• Darwin funding Prefabricated laboratory annex building (~40m <sup>2</sup> ). Pathology microscope with phase contrast and accessories. Bench top centrifuge & accessories Microbiology incubator Specialist pinniped capture net				
• other funding				
<b>Other costs (please specify and break down)</b>				
• Darwin funding Laboratory consumables Fieldwork consumables and expenses (e.g. boat hire) Audit costs				
• other funding				
<b>Salaries (from previous) table)</b>				
• Darwin funding				
• other funding				
<b>TOTAL PROJECT COSTS</b>	£88,453	£114,053	£59,410	£261,916
<b>TOTAL COSTS FUNDED FROM OTHER SOURCES</b>	£35,185	£71,118	£35,917	£142,220
<b>TOTAL DARWIN COSTS REQUESTED</b>	£53,268	£42,935	£23,493	£119,696

**25. Please provide a written justification of why alternative funding is not available from within your own organisation or from other sources.**

The University of Leeds and Institute of Zoology are both academic institutions and can only support such endeavours if most of the direct costs originate from external grants. The total cost of this extended project is such that project partners cannot provide the total funds themselves, but in the longer term the total costs for this programme will be supported by the national project partners and other NGOs. The ZSL fundraising support team are now actively seeking support for this project. Funding from the Darwin Initiative will be both timely and necessary to embed the legacy of the current project within Galapagos culture and management enabling the delivery of significant developments from the capacity already built in Galapagos, such as the integration of the Galapagos tortoise health programme into the tortoise captive breeding programme, a conservation education initiative for local schools and an international conservation research training centre for Latin America.

**26. Will matched funding be provided? Provide details of all other funding sources that will be put towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity. Please include any additional funding the project will lever in to carry out additional work during or beyond the project lifetime. Indicate those funding sources that are confirmed.**

**University of Leeds:** £26,460

**Institute of Zoology:** £22,961

**Galapagos National Park:** Covers salary contributions for park rangers, education officers and other staff assisting the project, laboratory space, office costs, contribution to field transport, contribution to lodging for graduate students. Total =£72,000. Support continuing after Darwin funds=£26,933 per year.

**University Guayaquil:** Covers salary for Virna Cedeno and laboratory staff, laboratory space, office and communication costs. Total =£51,200. Support continuing after Darwin funds=£11,467 per year.

**27. Please give details of any further funding resources sought from the host country partner institution(s) or others for this project that are not already detailed above. This will include donations in kind and un-costed support eg accommodation.**

The Galapagos National Park also provides uncosted support to the laboratory in the form of internet access and other communication services.

**28. What was the amount of funding for the original Darwin Project?**

	<b>Total Project Costs £</b>
<b>Amount of original Darwin Initiative project funding</b>	£195,381
<b>+ Funding/Income from other sources</b>	£257,984
<b>= Total original project cost</b>	£453,365



## FCO NOTIFICATION

Please check the box if you think that there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise details of the Darwin Post-project and the resultant work in the UK or in the host country.

## CERTIFICATION 2006/7

On behalf of the trustees

I apply for a grant of £53,268 in respect of expenditure to be incurred in the financial year ending 31 March 2007 on the activities specified in the Logical Framework.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

I enclose a copy of the CVs for project principals and letters of support.

Name (block capitals)	SIMON GOODMAN
Position in the organisation	Lecturer

Signed

Date:

12.01.2006

Please return this form by e-mail to ECTF at [darwin-applications@ectf-ed.org.uk](mailto:darwin-applications@ectf-ed.org.uk) by **13 January 2006**. Please put the title of the proposed project into the subject line of the e-mail. As much of the supporting documentation as possible should be sent along with the e-mailed application. However, if you are e-mailing supporting documentation separately please include in the subject line an indication of the number of e-mails you are sending (eg whether the e-mail is 1 of 2, 2 of 3 etc). **In addition**, hard copies of all applications and supporting documents should be submitted to the Darwin Applications Management Unit, c/o ECTF, Pentlands Science Park, Bush Loan, Penicuik EH26 0PH **postmarked not later than 13 January 2006**.

**DATA PROTECTION ACT 1998:** Applicants for grant funding must agree to any disclosure or exchange of information supplied on the application form (including the content of a declaration or undertaking) which the Department considers necessary for the administration, evaluation, monitoring and publicising of the Darwin Initiative. Application form data will also be held by contractors dealing with Darwin Initiative monitoring and evaluation. It is the responsibility of applicants to ensure that personal data can be supplied to the Department for the uses described in this paragraph. A completed application form will be taken as an agreement by the applicant and the grant/award recipient also to the following:- putting certain details (ie name, contact details and location of project work) on the Darwin Initiative and Defra websites(details relating to financial awards will not be put on the websites if requested in writing by the grant/award recipient); using personal data for the Darwin Initiative postal circulation list; and sending data to Foreign and Commonwealth Office posts outside the United Kingdom, including posts outside the European Economic Area. Confidential information relating to the project or its results and any personal data may be released on request, including under the Environmental Information Regulations, the code of Practice on Access to Government Information and the Freedom of Information Act 2000.