



### 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

Centre for Marine Biodiversity and Biotechnology, School of Life Sciences, John Muir Building, **HERIOT-WATT UNIVERSITY**, Edinburgh EH14 4AS

#### 2. Post-project details

Project Title:			
Conservation management zoning imp	lementation and f	facilitation in Perlas	Archipelago, Panama
Proposed start date: 1st May, 2006	Duration of	project: 23 months	s (end 31 <sup>st</sup> March, 2008)
Darwin funding Total	2006/07	2007/08	2008/09
requested £93,944	£46,617	£47,327	nil

3. Original Project Title and Defra reference number (162/12/021)

Marine biodiversity assessment and development in Perlas Archipelago, Panama

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
Surname	Mair	Agujetas*	Guzman
Forename(s)	James	Julio	Hector
Post held	Lecturer	Postgraduate Research Student	Staff Scientist
Institution (if different to above)			Smithsonian Tropical Research Institute, Panama
Department	School of Life Sciences	School of Life Sciences	Naos Marine Laboratory Division
Telephone			
Fax			
Email			

<sup>\* -</sup> CV for J Agujetas and letters of support supplied as attachments. CVs for Drs Mair & Guzman already with DI.

## 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?

The main purpose of the proposed work in this Post-project application is to ensure that the newly approved conservation management zoning structure ("Las Perlas Special Management Zone") is implemented properly and in a sustainable manner through continued guidance by the Darwin project team - advice based on sound scientific study and understanding of Las Perlas marine environment. The objectives of the original Darwin project ("The main purpose is to build up research and habitat information about the marine and coastal environment of Las Perlas Archipelago, located in the Gulf of Panama, to properly enable it, or an appropriate area of it, to be designated by Panamanian authorities as a National Park") have successfully been met within the lifetime of the project (April 2003-March 2006). It is therefore timely and logical for work to continue, without loss of momentum (i.e. Post-project proposed to start in May 2006), especially since the authorities in Panama (AMP) rely on Dr Guzman and DI project results/advice for specific zoning implementation.

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

With 3 months still to go, most of the outcomes (and all of the main ones) of the original project have already been successfully met (see Year 2 Annual Report, independent review, and 6-month report of Year 3). Major surveys have been conducted in the area by the Darwin team and they have supervised other significant research by associated postgraduate students and networking partners (see Darwin News Issue 3 – pages 3-4, and the October 2005 Thematic Review of Darwin Initiative Contribution to GTI – page 18). Three Darwin Fellows have been trained to MSc level and have contributed significantly to the scientific findings which have enabled the project team to advise the Panamanian authorities on the best areas to include for biodiversity conservation purposes in the "Las Perlas Special Management Zone" (see Darwin News Issue 5 – page 4, and <a href="https://www.darwin.gov.uk/news/projects/las perlas.html">www.darwin.gov.uk/news/projects/las perlas.html</a>). Dr Guzman has developed trusted links with all major stakeholders including the local fishing communities.

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

Fixed plans for the last 3 months of the original project term have been made by the project co-ordinators so that the final outstanding output will be achieved (Darwin Project conference in Panama – 29<sup>th</sup>, 30<sup>th</sup> and 31<sup>st</sup> March, 2006) and this conference will further disseminate more widely the original project's results. Continuous monitoring throughout has ensured that all aspects of the project purpose and major outputs have been, or are about to be, achieved. Two peer-reviewed publications have resulted from the work and several more are "in press" or submitted/in final preparation to be published in 2006. All the scientific analysis from the original project work will be completed in time for presentation at the March 2006 conference.

## 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 main partner organisation is, as in the original project, the Smithsonian Tropical Research Institute (STRI). Dr Guzman (<a href="www.stri.org/english/scientific\_staff/index.php">www.stri.org/english/scientific\_staff/index.php</a>) at STRI will be the main link with other local and related Post-project partners such as stakeholders, relevant organisations and, in particular, he will be the main official scientific advisor to AMP (<a href="www.amp.gob.pa">www.amp.gob.pa</a>), the Panamanian Maritime Authority, which is charged with operating the newly designated Las Perlas Special Management Zone.

# 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?

See Attachments II and III – letters of support from the Directors of STRI and of the National Marine and Coastal Resources section of AMP who fully support the Darwin Post-project work proposed. Both organisations see the importance of formally sharing responsibility to ensure that the Darwin Post-project work facilitates the objectives and initial operation of the new Las Perlas Special Management Zone.

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.

Much consultation with local communities and other stakeholders has taken place and close co-operation has developed throughout the original Darwin project. This consultation and co-operation would continue in the proposed Post-project since it is considered a vital aspect of the work to ensure agreements at this critical stage of setting up and implementing the specific protection zones within the Archipelago. These consultations would be in full collaboration with the Panamanian government and Dr Guzman is taking the lead in co-operating and liaising with other relevant support and funding organisations such as GEF, Inter American Bank, AVINA, Conservation International, etc. (see - <a href="http://striweb.si.edu/darwin\_initiative">http://striweb.si.edu/darwin\_initiative</a>).

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 & 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 & learn lessons from such work for mutual benefits.

No other organisations are directly involved in biodiversity development and protection of Las Perlas (in the specific sense of the Special Management Zone status). Several organisations, including UNDP, WWF and AVINA have general, related interests in the area (see <a href="http://striweb.si.edu/darwin\_initiative">http://striweb.si.edu/darwin\_initiative</a>) and Conservation International (<a href="http://portals.conservation.org/marine">http://portals.conservation.org/marine</a>) supports a 'sustainable development corridor'. The original Darwin project built up an active networking of Darwin projects relevant to this work, e.g. 162/06/029-Ecuador and 162/07/147-Colombia, plus other non-Darwin groups. A new Darwin project (162/14/048-Galapagos) will be added to the network in future. Host country co-ordinators in Galapagos and Panama have met and both UK project leaders have had detailed discussions about potential information and experience exchange. This Post-project proposal will be the only project to work specifically to advise the government, with reliable scientific data, in order to implement the zoning in Las Perlas – but through established (and planned growth) of networking, other more general mutual benefits will come from lessons learned in similar situations. Other organisations will be supporting more "outreach" activities now that the Special Management Zone status has been established and the Post-project work could add to these efforts.

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.

As described in the original Darwin project proposal, Las Perlas Archipelago is included within the humid forest eco-region of the Chocó-Darién, which is considered as one of the eco-regions with the highest diversity of species in the neotropics. Its biological importance, state of conservation, and current and potential threats place it as one of the sites in the Latin American Pacific with the highest priority for conservation initiatives. The continued combination and collaboration of UK and Panamanian expertise on this proposed Darwin Initiative Post-project (to both carry out more vital scientific research and to work in stakeholder participation in management processes) should therefore ensure that the implementation of several aspects of the Convention on Biological Diversity would be assisted, mainly (and in proportional order) including: Articles 12 (research and training); 7 (identification and monitoring); 6 (measures for conservation); 10 (sustainable use of biological diversity); 18 (technical and scientific co-operation); 17 (exchange of information); 14 (impact assessment and minimizing adverse impacts); and 13 (public education/awareness). The project would be relevant to the CBD thematic programme on 'Marine and Coastal Biodiversity' plus several cross-cutting themes such as 'Protected Areas'; 'Access and Benefit Sharing'; Biodiversity and Tourism; - and through current and planned postgraduate student research topics - 'Climate Change and Biodiversity'; 'Indicators' and 'Ecosystem Approach'. Links will be maintained with the Panamanian government's Environmental Authority and CBD national focal point - ANAM (www.anam.gob.pa/portada.htm) - original Darwin link with NFP was established through project 162/10/023 and continued with 162/12/021.

# 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.

As indicated in the original 2002 Darwin proposal, a study carried out by the United Nations' FAO in 1972 concluded that Las Perlas should be included in the protected area system of Panama because of its importance in food production. This led to a National Plan for Protected Areas and Biological Corridors proposing the protection of Las Perlas through a legal basis, under the designation "Las Perlas National Park". However, protected status has only very recently been achieved due largely to the fact that the Darwin project work has supplied the necessary scientific advice and habitat information. The presence of productive activities (forestry and fishing) in the area is causing considerable pressure on the local natural resources. The creation of hotels and other facilities as well as the presence of increasing tourist numbers could cause a significant impact on the site, especially the coral reefs around the Archipelago. The regulation of the economic activities (e.g. the Archipelago's Tourism Development Master Plan) combined with the protection of the natural resources of Las Perlas Archipelago is today seen as a priority for the Republic of Panama. Thus, further work by the proposed Post-project on actually implementing the Special Management Zone for conservation, and Environmental Action Plans, would meet a major need to Panama's Biodiversity Strategy.

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

The Las Perlas Archipelago is located within the main fishery area of the country: the Gulf of Panama. In 1990, it was estimated that about 10,000 people worked in the fishing activity, of which about 65% were subsistence fishers. The mangrove forests along the mouths of rivers in some of the islands constitute important reproduction sites for aquatic species as well as a source of food for fish and shrimp larvae of commercial interest. The Post-project work would be multidisciplinary in nature, would assist in making use of scientific findings in policy making, would take into account land and marine usage (agriculture, fishing, tourism, etc.) in the Archipelago and would consider both conservation and sustainable development issues. This would therefore help local fishers potentially avoid fishery collapses (which have happened in the past due to overfishing and lack of understanding of species life cycles and habitats) or assist them in alternative livelihood opportunities such as well-managed ecotourism (e.g. potential for whale-watching, diving guides). The collected environmental information would also feed into educational material for school leavers who might then be encouraged to remain in economically and environmentally sustainable local employment.

# 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 & 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 impact would mainly be seen "on-the-ground". Robust scientific results (from original Darwin project, plus continued but more focused survey and monitoring Post-project) would provide the basis for stakeholder agreements on new zone implementation and environmental action plans. The results of the new work would be disseminated locally (and so also put into effect) at the planned local stakeholder meetings and community workshops at this vital stage of implementing/adjusting the new management zones. The scientific aspects of the work would be disseminated in the normal way through submission to peer-reviewed scientific journals.

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

The main gains from the Post-project work would be identifiable, on-the-ground, local management areas built on the basic ground work and mapping survey results of the original project. The original Darwin project has identified areas/aspects requiring further focused study and so limited resources can be applied to these more effectively. Darwin Project team reputation means that stakeholders and AMP trust and rely on the team to independently advise on the scientific measures required in management decisions and actual initial implementation of zones. The use of supervised research students (UK-based MSc and PhD), as in the original project, would provide additional cost-effective scientific results that could be used for advice/policy decisions.

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

Following on from the groundwork laid down by the original Darwin project, the Post-project would have an important role in shaping the actual start-up management plans for operating the zoning structure and the Darwin project team would be intimately recognised as key players in this process by all stakeholders and local communities. Trained and project-experienced Darwin Fellows would provide an important legacy for future work and ultimately could include their assistance in the longer-term successful running of the 'Las Perlas Special Management Zone' in Panama. This would be a truly durable legacy of the project.

## 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

With full 'Special Management Zone' designation occurring in early 2006, it is important that the detailed action plans for specific zonings are implemented sustainably and this is why it is particularly important for more detailed, strongly science-based advice from the Darwin project team to be available particularly at the initial set-up stage. An appropriate period for such Post-project work is considered to be 23 months. With full designation, other funding sources will soon become available for STRI and Panama personnel to continue work on area management. (See <a href="http://striweb.si.edu/darwin\_initiative">http://striweb.si.edu/darwin\_initiative</a> for information on other funding being attracted for related 'outreach' and supporting work). Efforts have been (and will continue to be) made to maintain and further develop collaborative research links between Heriot-Watt University and STRI during and after the Post-project to enable continued joint research and training activities (e.g. a £204,000 NERC Research Grant has been submitted – Dec. 2005, and another NERC grant application will be made in July). Externally funded support for continued project-related work would be actively sought throughout the project. STRI has a proven record in obtaining such funding.

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

The proposed Post-project's aims would be to be intimately involved and recognised as a key player in the set-up and participatory management of the new 'Special Management Zone' and the "Darwin Las Perlas Project" would become even more widely recognised. The Post-project would continue to raise awareness of the issues by producing project—related educational material directed at visitors and the local inhabitants of Las Perlas Archipelago (an extension of material already produce in the original project and which uses the Darwin logo). The "Darwin" network of previous and current DI projects and their workers (so that experience and information can be exchanged where relevant to the benefit of all concerned) would continue to be promoted. In the proposed Post-project, Darwin Fellows, technical assistants and student volunteers from local Universities would receive 'Darwin' training certificates with the name of the proposed project and the Darwin logo, as would project reports. All published work would acknowledge the main funding source.

# 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?

Panamanian Ms Inez Campbell (Darwin Fellow 3 in original Darwin project and now employed in the Marine Education Program of STRI) demonstrated through her MSc Course in UK that she has good potential and particular interest in carrying out postgraduate research. It is therefore proposed, during the Post-project phase, that she be registered at Heriot-Watt University as an "off-campus, part-time" PG student (MPhil initially over the 23 months of the Post-Project, but with potential to continue to PhD) and that she would use work on the Darwin Post-project for her research thesis. Tuition fees would be minimal due to "part-time, off-campus" status but she would be able to be closely supervised jointly by Dr Mair and Dr Guzman throughout the period of her HWU registration and progress monitored according to HWU policy. There would be another new Darwin Fellow taken on and, as in the original project, it is anticipated that other students (from perhaps a variety of countries) may receive practical experience on Post-project work as part of their training.

## **LOGICAL FRAMEWORK**

## 21. Please enter the details of your Post-project onto the matrix.

Project summary	Measurable indicators	Means of verification	Assumptions				
<b>Goal:</b> To work with local partners in countries rich in biodiversity but poor in resources to achieve: i) the conservation of biological diversity; ii) the sustainable use of its components; and iii) the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources							
Purpose:							
Conservation management zoning structure implemented sustainably – through continued guidance based on sound scientific study and understanding of Las Perlas marine environment	- Site condition and exploited species monitoring programme functioning efficiently; - Effective participation by local stakeholders in productive workshops and resulting action agreements	endorsement of finalised management plans for protected zones; sufficiently; Effective participation y local stakeholders in roductive workshops and resulting action endorsement of finalised management plans for protected zones; sufficiently; solution in protected zones; sufficiently; suffici					
Outputs:							
Selected site and species monitoring programmes set up from previous baseline surveys	Site condition and species population health assessments produced and used for action plans	PG dissertations/theses and local reports to AMP	Host institution staff remain in post to carry out and supervise studies				
Participatory workshop programme for archipelago communities enhanced and developed	Stakeholders' active attendance/participation and demonstrated support for programme	Records of participation in workshop meetings and minuted actions	Identified local communities remain committed to continued participation				
Issue-specific educational material produced for fishermen, schools and tourism developers/visitors	Draft material approved by all relevant stakeholders and zone communities	Copies of final material sent with DI annual project reports	N/A				
Research findings published and experiences shared through enhanced networking	Quality manuscripts reviewed & collaborative networking formalised	Publication copies sent to Darwin, correspondence files/ network websites available	Networking partners actively participate in experience exchange				
Activities:	Activity Milestones (Su	mmary of Project Implement	ation Timetable)				
Field Research Programme	May-June of Years 1 & 2 – UK Darwin project team (plus other PG research students) travels to Panama to join STRI personnel and Darwin Fellows in scientific survey work around Las Perlas. UK PhD Researcher (Agujetas) carries out fieldwork also in March of Year 2 and at other opportunities as appropriate. Throughout project, Panama team & Darwin Fellows undertake other fieldwork.						
Participatory Workshops	Under guidance of Dr Guzman (STRI Darwin Post-project co-ordinator) 'Darwin' workshops arranged at regular intervals as required, and when judged most appropriate (around 5 per year). Arrangements made for Darwin team members to be involved in other workshop/extension activities supported by other agencies.						
Educational Material Production	From October 2006 onwards, Darwin Fellow B (I Campbell) starts major effort to design and produce information leaflets and material on conservation/biodiversity aspects of Las Perlas for different target audiences and integrates this activity into STRI's Marine Education Program.						
Research Publication and Networking	Planned peer-reviewed journal manuscripts and papers produced as soon as first major survey work (May-June 2006) is carried out, and subsequently over the Post-project period as further data and field results are analysed. Networking activity enhancement starts immediately and continues throughout and after Post-project.						

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

Project implem	entation time	table
Date	Financial Year	Key milestones
	Post-Project Year 1 Apr 2006 – Mar 2007	
April 2006		If Post-project funding approved: set-up and sign renewed memorandum of understanding between HWU & STRI. Select and appoint Darwin Fellow A to join the team. UK team books travel to Panama arrangements.
May 2006		Official start of funded Post-project. Darwin Fellow B (I Campbell) registers for HWU MPhil. UK Project Leader and PG Researchers (Agujetas & Galvis) travel to Panama, accompanied by 3 (estimated) HWU MSc students to initiate and carry out spectrum of Post-project related scientific monitoring, survey and ecological fieldwork and to work alongside STRI team including Fellows A & B. Major effort to expand 'Darwin Network' starts.
June 2006		UK Project Leader returns from Panama. HWU PG Researchers return later as research is completed. STRI personnel and Darwin Fellows start arranging programme of stakeholder and local community 'Darwin' workshop meetings (around 5 per year) as circumstances allow. Darwin team also arrange for team involvement as appropriate in other 'extension' work and community meetings organised by other agencies (again expected to be around 5 per year).
September 2006		HWU MSc students submit their research project dissertations.
October 2006 – March 2007		Panama Darwin team continue field survey and workshop work as required. Darwin Fellow B starts expanding leaflet and educational material design and production. All Darwin team involved in scientific data analysis and reporting from fieldwork programme and all involved to enhance activity of relevant 'Darwin (and non-Darwin) Networking'.
February 2007 – March 2007		Estimated 3 HWU MSc students identified for Post-project related dissertation work in Panama for summer 2007.
	Post-Project Year 2 Apr 2007 – Mar 2008	
April 2007		Year 1 annual report submitted to DI. UK-Panama Travel arrangements made.
May 2007		UK Project Leader, Agujetas and 3 MSc students travel to Panama for field survey scientific studies.
June 2007		UK Project leader returns from Panama leaving HWU researchers to complete work.
September 2007		HWU MSc students submit their research project dissertations
July 2007 - March 2008		Panama Darwin team continue field survey and workshop activities as required. All team continue networking and submitting journal manuscripts of scientific work in Las Perlas. Team works towards smooth exit strategy for Post-project and develop plans for continued STRI-HWU collaboration from other funding sources.
March 2008		UK Project Leader and Researcher (Agujetas) travel to Panama for attendance at Post-project arranged workshops, and for Agujetas to stay for longer period for his research field-work before starting thesis write-up. Similarly Darwin Fellow B (I Campbell) should have sufficient data for MPhil write-up but is expected to continue registration for PhD degree. Post-project practical work completed.

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

PROJECT OUTPU	PROJECT OUTPUTS				
Year/Month	Standard output number (see standard output list)	Description (include numbers of people involved, publications produced, days/weeks etc.)			
Throughout Years 1 & 2  Throughout Years 1 & 2  Throughout Years 1 & 2  Years 1&2/ May Year 2/ March  Year 1  Years 1 & 2  Years 1 & 2	2 - 4C, 4D - 5 8 9 11A, 11B 12B 13B 14A, 14B - 17B 20 22 23	1 Panamanian (Darwin Fellow B) trained to MPhil level. 1 Spaniard (J Agujetas) trained to at least MPhil level. Numerous HWU MSc students (various nationalities) and Panamanian/Latin American graduates on dissertation research – average 6 weeks practical training per student. 1 Panamanian/Latin American – Darwin Fellow A.  UK Project Leader – 12 weeks.  1 Management Plan (to include various individual zones). Anticipated at least 6 out of 7 submitted. Current GIS and result database from original project. Current Darwin species reference collection enhanced. At least 10 workshops organised by Darwin Post-project and at least 10 organised by other agencies in Panama. Current functioning 'Darwin Network' to be extended. £4,000 – satellite/aerial imagery At least 6 'plots' – mainly from original Darwin project. £77,217 confirmed			
Years 1 & 2	15, 16, 18, 19	News of Darwin work to be broadcast on radio, TV, press, etc., will be attempted and encouraged as appropriate.			

#### 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.

Both the UK project leader and host country project co-ordinator for this proposal have experience in managing similar projects. They intend to liaise closely and regularly to ensure that all aspects of the project are kept under evaluation and monitoring. Regular face-to-face meetings would assist in detailed project evaluation and development of an appropriate exit strategy. Postgraduate training outputs would be evaluated by normal Examination Board procedures at Heriot-Watt University. Progress on identification and production of site condition monitoring reports and action plans would be assessed through consultations with stakeholders. The principal project investigators would keep under continuous review the appropriate times and places for result dissemination (e.g. workshops, papers, etc.) and the participation level of the active 'Darwin (information & experience exchange) Network'. STRI personnel have much experience both in running large projects and in liaising with relevant national and international bodies responsible for progress of the CBD (see STRI website – <a href="www.stri.org">www.stri.org</a>). In most respects, the UK project leader would be relying on STRI to have the major role in the on-site monitoring and evaluation of progress of the scientific aspect of the project within Panama as well as monitoring day-to-day management.

#### **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.

note that although three financial years are shown here, <u>funding will only be awarded for a maximum period of two calendar years.</u>

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 %
UK project team members			
Dr James Mair (Project Leader - Heriot-Watt University – HWU))	11%	12%	nil
Julio Agujetas (Research Assistant –HWU)	92%	100%	nil
Nohora Galvis (Research Student –HWU)	30%	5%	nil
Host country (Panama) project team members			
Dr Hector Guzman (Project Co-ordinator - STRI)	27%	30%	nil
Biol. Carlos Guevara (STRI Research Assistant, Marine Ecologist)	36%	40%	nil
Darwin Fellow A - STRI (Researcher/Trainee)	92%	100%	nil
Biol. Inez Campbell - Darwin Fellow B - STRI	23%	25%	nil

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	2006/2007 2007/2008		2008/	/2009	
	Darwin	Other	Darwin	Other	Darwin	Other
James Mair						
Julio Agujetas						
Nohora Galvis						
Hector Guzman						
Carlos Guevara						
Darwin Fellow A***						
Darwin Fellow B						
(Ms Inez Campbell)						
Total cost of salaries						

<sup>\* -</sup> other sources are the EU Alban Programme and HWU SLS Scholarships

\*\*\*.

Darwin Fellow A will be appointed once/if project is approved. Under the discretion and advice of Dr Guzman, this may be one individual or (like Darwin Fellow 1 in original project) individuals may be rotated.

<sup>\*\* -</sup> the other source is STRI, Panama

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

	2006/2007	2007/2008	2008/2009	TOTAL
Rents, rates, heating, lighting, cleaning, overheads				
Darwin funding				
other funding				
Office costs eg postage, telephone,				
Darwin funding				
other funding				
Travel and subsistence				
Darwin funding				
other funding				
Printing				
Darwin funding				
other funding				
Conferences, seminars etc				
Darwin funding				
other funding				
Capital items/ equipment				
Darwin funding				
Satellite/aerial imagery				
other funding				
Satellite imagery				
Other costs				
Darwin funding				
Field sampling costs - boat time STRI Laboratory Bench Costs HWU PG fees for Darwin Fellow B Audit costs				
other funding				
Field sampling costs, boat time (STRI) Laboratory Bench Costs (STRI)				
Salaries (from previous table)				
Darwin funding				
other funding (STRI & HWU)				
TOTAL PROJECT COSTS	85,329	85,832	nil	171,161
TOTAL COSTS FUNDED FROM OTHER SOURCES	38,712	38,505	nil	77,217
TOTAL DARWIN COSTS REQUESTED	£46,617	£47,327	nil	£93,944

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

Heriot-Watt University is an academic teaching and research institution and does not directly fund such projects. It is also required by the Government funding bodies to comply with the 'Full Economic Costing' guidelines. Few other known sources are likely to fund the specific and directly applied work such as this project.

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.

Value for money with respect to the Darwin contribution would be achieved since the STRI in Panama is prepared to continue providing substantial in-kind donations towards the project. This would take the form of covering some proportional salary costs of the host project co-ordinator (Dr Hector Guzman) and his research assistant (Biol. Carlos Guevara). STRI would also provide their research vessels and associated survey equipment at substantially subsidised rates. Laboratory facilities for the Darwin Unit, Darwin Fellows and visiting scientists would also be heavily subsidised and therefore of minimal cost to the Darwin funding of the proposed project. The HWU PhD student (Ms Nohora Galvis, Colombia), who would continue to carry out some of her research (Decision Support Systems for Protected Areas) within the project, already has full EU (www.programalban.org) studentship and HWU funding for her studies. The other HWU PhD student (Mr Julio Agujetas), who it is proposed would carry out 100% of his research on Darwin Post-project related work, has a HWU Scholarship covering fee payments and most maintenance costs and there will only therefore be minimal Darwin funding requested for his involvement in Darwin Post-project work. It is probable that some other individually-funded (e.g. NERC) UK MSc students may be able to contribute to the Darwin Post-project work through short MSc dissertation research studies - as has successfully be demonstrated in the original Darwin project. A UK PhD applicant (with 1st Class Honours Biology degree and with special interest in tropical work) is applying to The Carnegie Trust for full PhD funding (www.carnegietrust.org) and, if approved, would be able to work on the Darwin Post-project, funded independently, from around September 2006. Additional assistance from Panamanian students for work experience will be encouraged. The British Embassy, Panama has provided local company contacts and negotiations are being held with several companies with regards to levering matching funding/sponsorship support for the production/publication of educational material, workshop sponsorship, etc. Attempts to obtain more matching funding will continue and it is expected that this will be more likely to happen now that actual protected status of the Archipelago has been designated through the assistance provided by the original Darwin project. At present £77,217 (45% of total Post-project costs) matched funding is confirmed (see Section 25, Tables B&C).

## 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.

STRI and Heriot-Watt University intend to explore the availability of additional, good quality, nominally-priced/free satellite imagery coverage of Las Perlas area for research purposes and for the marine production work proposed for the PhD student (Mr Julio Agujetas), e.g. such as data like AVHRR, SeaWiFS and MODIS LAC from NASA and RSDAS. SPOT, IKONOS and Quickbird high spatial resolution imagery or aerial photography of specific sites may also be acquired as required.

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

	Total Project Costs
Amount of original Darwin Initiative project funding	£168,154
+ Funding/Income from other sources	£167,116
= Total original project cost	£335, 270

<b>FCO</b>	NO	TIFI	CAT	TION

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 Heriot-Watt University

I apply for a grant of £46,617 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 (blo	ock capitals)			
Position in	n the organisation			
Signed			Date:	13 <sup>th</sup> January, 2006

Please return this form by e-mail to ECTF at <a href="mailto:darwin-applications@ectf-ed.org.uk">darwin-applications@ectf-ed.org.uk</a> 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.