



EIDPO031

Submit by Monday 1 December 2008



DARWIN200

DARWIN INITIATIVE: APPLICATION FOR GRANT FOR ROUND 16: POST PROJECT

Please read the Guidance Notes for both Main Round and Post Project applications before completing this form. Where no word limits are given, the size of the box is a guide to the amount of information required. Information to be extracted to the database is highlighted blue.

1. Name and address of organisation (NB: Notification of results will be by post)

Name: H Glyn Young	Address: Durrell Wildlife Conservation Trust, Les Augrès Manor, Trinity, Jersey JE3 5BP
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2. Post-Project details

Project Title (max 10 words): Restoration of the Mangrove Finch in Isabela, Galápagos				
Proposed start and end dates:		Duration of project:		
Darwin funding requested	2009/10	2010/11	2011/12	Total
	£ 73,230	£79,714	£18,540	£171,484

3. Original Project Title and Defra reference number (eg 162/-/-- or 10-065)

Conservation of the Mangrove Finch (<i>Cactospiza Heliobates</i>) 15/005

4. Principals in project. Please provide a one page CV for each of these named individuals. Letters of support must also be provided from the host country partner(s) endorsing the partnership and value of the Post Project funding. You may copy and paste this table if you need to provide more than one overseas project partner.

Details	Project Leader	Other UK personnel (working more than 50% of their time on project)	Main project partner and co-ordinator in host country/ies
Surname	Young		Gardener
Forename (s)	Hywel Glyn		Mark
Post held	Deputy Head		Director of Terrestrial Science
Institution (if different to above)	Durrell Wildlife Conservation Trust		Charles Darwin Foundation
Department	Bird Department		
Telephone			
Email			

5. Define the purpose of the Post Project (extracted from logframe) and explain how it is linked to the objectives of the original Darwin project? (Max 200 words)

This Post Project will build on the results of the original project which identified the main causes of decline as parasites and nest predators, to increase the population size in the two well known populations in the west. This will be achieved through an intensive invasive species control programme (conducted by GNP in 2009 in Playa Tortuga Negra, Caleta Black, Cartago) and studies to identify the success of the campaign.

Second, this project will increase knowledge of the eastern population discovered as part of the original project. More study is required to understand breeding status and suitability of this area as a potential translocation site, following invasive species control.

Captive breeding trials conducted in the original project show a susceptibility to disease. Therefore the post project will study the prevalence of bird diseases or their vectors in potential release sites.

Actions taken during the post project will be in line with the Action Plan developed in November 2008. Given the susceptibility to disease, and emergency plan was prepared as well, as the post project will ensure that all the pre-requisites are in place to implement this plan should it become necessary.

6. What have been the main outcomes (achievements) of the original project to date? (max 300 words)

Data gathered in the two main sites during the project showed that the state of the mangrove finch is precarious as the estimated reproductive success is low (2007: 21.7%), with high mortality rates in egg (2007: 47.8%, 2008: 34.4%) and fledging stages (2007: 4.4%, 2008: 15.6%). The main causes of these threats were identified; an introduced fly (*Philornis*) which parasitizes and kills nestlings, and predation by black rats (*Rattus rattus*). We undertook an experimental study that clearly confirmed high levels of predation on eggs by rats. Subsequent rat control (with support from GNP) was effective and significantly increased reproductive success (2008: 37.5%). We have recommended that control is repeated every three months.

We tested a range of census techniques, establishing that point counts were the most reliable. Searches carried out in three historical locations revealed no new populations, but the existence of a third small population in eastern Isabela was confirmed.

We studied feeding behaviour and identified key foraging substrates, where we analyzed the invertebrate community. We will use this method to identify potential release sites (thesis, completed by January 2009). Genetic analyses of the main populations revealed that individuals are highly inter-related and may show evidence of past hybridization with woodpecker finch.

We conducted trials with captive woodpecker finches on Santa Cruz, testing nutrition, holding, transport, endoparasites (thesis completed February 2009) and risk of disease. We have produced husbandry guidelines. Release of adults, a captive-breeding phase including incubating eggs and rearing nestlings is planned for the last quarter of project.

A training course on captive birds was delivered for GNP staff, local volunteers and CDF personnel. An emergency plan and an action plan were developed following a workshop which included all project partners.

Aims and outcomes of project were actively disseminated to journalists, guides and students in Ecuador and overseas.

7. What steps have been taken to ensure that project purpose and outputs of the original project will be achieved within the original project term? (max 200 words)

Field work: results showed the impact of rat predation and disease. Mitigating measures resulted in higher fledging success. The post project contains a more intensive rat control programme (conducted by GNP). Nest monitoring will continue through the new project with training provided for GNP. Due to budget constraints only one park guard was trained in the original project. But GNP has requested that at least two field workers (reproductive success, census), as well as personnel in captive breeding techniques.

Census methods: different techniques were tested and the effect of differing experience of staff was assessed. Measures will be introduced in the post project to enhance census accuracy when conducted by park guards.

Training: the training provided in the original project will be used by CDF and GNP for the captive breeding in the post project.

Re-introduction trials: trial rearing was initiated with a model species in the original project. This highlighted susceptibility to disease in captive populations. Therefore techniques will continue to be perfected with support from Durrell before being applied to mangrove finches.

Disease: threats have been identified but more study is needed to find complete solutions. Project has assisted with Philornis studies but these are ongoing.

8. Please list the UK/collaborative (where there are partners in addition to the applicant organisation) and host country partners that will be involved in the Post Project, and explain their roles and responsibilities in the project and in the original project (if applicable). Describe the extent of their involvement at all stages, including Post Project development. This section should illustrate the capacity of host country partners to be involved in the project. Please provide written evidence of partnerships. Please copy/delete boxes for more or fewer partnerships.

Partner Name:

Charles Darwin Foundation

Details (including roles and responsibilities and capacity to engage with the project):

Charles Darwin Foundation (CDF), and its scientific base the Charles Darwin Research Station (CDRS) are located on Santa Cruz island in the Galápagos Islands, Ecuador, and is the main partner within this project. CDF will provide technical assistance and office support etc. throughout the project. The Project Manager will be employed as a member of CDF staff throughout the length of the project. Students and volunteers, training, staff support and field equipment will be provided by CDF. CDF have been a partner through signed MOU with Durrell for mangrove finch conservation since 2006.

Partner Name:

Galápagos National Park

Details (including roles and responsibilities and capacity to engage with the project):

The Galápagos National Park (GNP) is the Ecuadorian Government body (part of the Ministry of Environment) directly responsible for the running of the national park and overseeing all scientific and other work undertaken within the archipelago. No activities can take part within the National Park without the permission and full support of GNP. CDF works with GNP through a long-standing MOU and this project has full support of both partners.

9a. Have you consulted stakeholders not already mentioned above?

Yes No

If yes, please give details:

9b. Do you intend to consult other stakeholders?

Yes No

If yes, please give details:

The mayor and council of Puerto Villamil will be consulted as plans develop for restoration of the Ramsar site (Wetlands in South of Isabela registration number 1202).

In the event of currently proposed changes in government structure in Galápagos: we will have to work with the Consejo de Gobierno that will replace several existing institutions. We will work too with INGALA (National Institution of Galápagos) and SIGGAL (System of Inspection and Quarantine in Galápagos) when working in Villamil.

Tour operators working in Galápagos have frequently provided support to the project through boat transport and will be consulted about future plans.

Sabine Tebbich of University of Zurich and Patty Parker of University of Missouri will continue to provide support to the project in behavioural and disease studies.

9c. Have you had any (other) contact with the government not already stated?

Yes No

If yes, please give details:

9d. Is liaison proposed with the CBD/CMS/CITES focal point in the host country?

Yes No

If yes, please give details:

The Galápagos National Park (and CDF) are focal point for all matters concerning the CBD, CMS and CITES and are project partners.

POST PROJECT DETAILS

10. Please provide a Concept Note (max 1,000 words). Describe the problem to be addressed, explain why it is a priority for the host country and how its resolution will improve host country ability to meet it's obligations under CBD/CMS/CITES. The proposed strategy and its intended outcomes should be described adequately, including justification for and brief details of the contribution of each UK and host country partner.

We estimate a total population size of no more than 90 mangrove finches distributed in three locations. The two main populations are in western Isabela Island; there are approximately 50 birds in Playa Tortuga Negra (PTN) and 30 in Caleta Black (CB). A further population is located in eastern Isabela at Cartago where only four birds have been recorded, but more information is needed. A PVA analysis (in November 2008) using available demographic parameters, showed that due to the low reproductive success due to predation without intervention the two western finch populations are threatened with extinction in less than 10 decades. The small eastern population is not viable. Urgent remedial actions are therefore needed to conserve this species and this must be a top priority for the host country. Rats are the principal problem followed by the fly parasite. With efficient rat control (as established through the DI project) the two western populations can stabilize and even increase in numbers. However, due to the small extent of these mangrove patches, it is likely that carrying capacity will soon be reached. Because the two sites are within 3km of each other, the species is also susceptible to catastrophic events (volcanic eruption, arrival of new disease etc.) as both sites would probably be affected at the same time. Although the species is still very vulnerable, project partners believe that invasive species, and disease and parasite control, alongside the establishment of a new population, will assist in its recovery.

a. Increase reproductive success in the existing populations

The GNP has agreed to carry out intensive rat controls eventually leading to a local extirpation of rats around the main western populations (intensive poisoning around the forest and inside the forest - as done so far - and establishment of a buffer zone in the lava surrounding the

area). This programme should be initiated mid-2009 and continued thereafter; future efforts will depend on monitoring outcomes. The GNP has also agreed to control other introduced species like cats and smooth billed anis.

Success of such a control will be measured by nesting success as well as through annual censuses of adult birds. We expect the two main populations to reach carrying capacity (after the reproductive phase in 2010) and birds to disperse thereafter. The expectation is that the three mangrove patches interlinking the main sites would be colonized first, from which birds should migrate to Fernandina; thus, at least two visits per season are planned to this island (CDF). A viable population of finches in the main sites could permit harvesting of eggs/ juveniles or even some adults for restocking e.g. at Cartago, or to create a new population (Durrell).

b. Establishing a third viable population.

According to our habitat analyses, two possible sites have been identified for establishing a third viable MF population: One is Cartago with a currently very low number of MF and the other is the Ramsar site close to Puerto Villamil where MF has been recorded historically.

However, intense investigation is needed to assess the suitability of these sites and measures have to be taken to restore them.

In Cartago, only intense control of invasive species and supplementing with birds could restore this site. More information is urgently needed about this site e.g. is it suitable for holding a larger population, current rat and *Philornis* densities, and diseases. We still need to assess whether finches in this area are breeding at all, and whether they are genetically distinct from the western population. Some of this should be done during the last quarter of the current project, however, more time is required to develop and implement a management plan.

Another mangrove site, near Villamil, has habitat features that are important for the species, e.g. leaf litter, high amount of dead wood and separation from the sea. However, this site also poses several problems that have to be addressed such as introduced but little studied species (frogs, wasps), invasive grass that closes the lagoon, closeness to the village and thus problems with contamination, rats, cats, chickens and their diseases etc. However, the closeness to the village would facilitate post-monitoring of a release. The restoration of the site is a political decision and we can thus not guarantee that the existing plan will be fulfilled. However, we would initiate a health study around the site, an invertebrate collection in the key substrates as done in PTN and CB. An intense awareness campaign should be started in 2009 to increase the number of community members aware and concerned with the protection and conservation of the Ramsar site and to strengthen the cooperation between SPNG, CDF and municipality towards its restoration. The campaign includes the design of a mascot (link between mangrove finch project and Ramsar site), posters, banners, interpretation signs at the site, education pack for schools and capacity-building for local guides.

Captive breeding

Two factors make a captive breeding programme necessary.

- 1) According to the PVA (November 2008) the population in Cartago is not viable and will go extinct in the near future (20 years). In order to transform this population into a viable one, restocking with individuals from the two viable populations is necessary. Birds will be reared or bred in captivity and released at Cartago.
- 2) Due to the close proximity of the two viable populations the species is very vulnerable to catastrophic events. An emergency plan, that is being developed, states that remaining birds should be taken out of the wild under certain catastrophic circumstances (e.g. disease, volcanic eruption).

However, the facilities in Santa Cruz are unsuitable as GNP does not allow a translocation from one island to another and, more importantly, a highly infective disease, avian pox, is much more prominent in Santa Cruz and it might even be a different strain. Thus, the only place for a captive breeding/ holding centre is Isabela and the suitable site is near Villamil.

11. Are you aware of any other individuals/organisations/Darwin Initiative projects carrying out similar work? Yes No

If yes, please give details explaining similarities and differences, and explaining how your work will be additional to this work and what attempts have/will be made to co-operate with and learn lessons from such work for mutual benefits:

There are several other projects underway in Galápagos that, while not entirely similar, are providing data that are useful for this project. We work very closely with Simon Godman (University of Leeds, UK: DI 12017 *Building capacity and determining disease threats to endemic Galápagos fauna* (2003-006)) and EIDP0015 *Building capacity and integrating disease surveillance with conservation management for Galápagos fauna*), the GNP Lab (Marilyn Cruz) and University of Missouri on prevalence and control of diseases. Kenneth Petren (University of Cincinnati) is undertaking genetic analyses of Darwin's finch species and has included samples of mangrove and woodpecker finches collected by project.

12. Please indicate which of the following biodiversity conventions your project will contribute to:

At least one must be selected.

- Only indicate the conventions that your project is directly contributing to.

- No additional significance will be ascribed for projects that report contributions to more than one convention

Convention on Biological Diversity (CBD) Yes No

CITES Yes No

Convention on Migratory Species (CMS) Yes No

What problem is this project addressing and how was it identified? (150 words)

The MF has a highly localised distribution. The first project showed that it was possible to protect the two main populations. However, they are too close together and vulnerable to the same threats. Therefore it is essential to establish a geographically distinct third population in the east of the island. Little is known about how to restore this tiny population.

In Isabela, there are problems with the local community (it is the only island where tortoises are still eaten) which is not very open for conservation ideas. Education has been focused on children, little is done with adults. This community is growing and there are problems with cutting of mangroves and the village is getting closer to the Ramsar site with little done to mitigate negative impacts. A targeted education campaign by CDF is planned, probably linked to the Ramsar site.

What will change as a result of this project? (150 words)

- MF Action Plan (November 2008) implemented.
- Park guards trained to independently census birds and control invasive species.
- Captive holding/breeding programme established (if necessary) with assistance from Durrell. Birds could be kept in case of catastrophic events and for translocation to the remnant eastern population.
- Field research will have clarified the state of Cartago population, the suitability of at least three other historical sites for a translocation and risk for putting birds close to human populated area (Ramsar site).
- Community in Villamil integrated into the project and understands importance of mangroves and that the bird is "theirs".
- Implementation of Action Plan for Ramsar site restoration (2003) enhanced through the project and with collaboration from Ramsar Secretariat, UNESCO and other organisations, thus giving further importance to this fragile site.
- Project will give baseline data for bigger project on value of mangroves in Galápagos.

Why is the project important for the conservation of biodiversity? (150 words)

In first three years of the project we have identified threats and made a significant impact in halting these. However, two of the three populations of mangrove finch are still fragile, close to carrying capacity and very close to each other. Little is known about the third site and more knowledge is, therefore, needed to develop a management plan that could than be implemented in the GNP annual plan. Without any further effort in mangrove finch research, the third population would very likely disappear within the next 20 years leaving the species in the Critically Endangered category.

We aim to get a holistic acceptance of the importance of mangroves using the mangrove finch project as a flagship species.

How does this relate to one or more of the biodiversity conventions? (150 words)

These activities support the implementation of Articles 8(d,f,h), 9(a-d), 12(a-c) and 13(a,b) of the CBD, the programmes of work on Island Biodiversity (Dec. VIII/1 COP8) and Protected Areas (Dec. VII/28), the goals of the Global Island Partnership (GLISPA, Strategies 1 & 2) and the commitment to significantly reduce the loss of biodiversity by 2010.

13. 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. (max 200 words)

The original project developed the basic understanding of the threats and actions to support the existing main populations. This project will implement the Action Plan developed in November 2008 and focus on establishing a third population that is geographically separated and therefore safer from any catastrophic events that may hit the other populations.

The post project will undertake the captive breeding and reintroduction that was prepared in the original project using the skills developed in the first project. Further staff training, urgently needed in this field will be undertaken.

The current project will see the completion of the Action Plan, but there remains a risk that it will not be fully implemented without additional support. The main activities of the post project: for an education/awareness campaign, for more research on Cartago to develop clear guidelines for the GNP, for research assisting the GNP in their ambitious control programme for introduced species and to test control agents developed for the parasitic fly *Philornis*, the Action Plan's requirements will be considerably fulfilled.

14. What will be the long term benefits of the project in the host country or region and how will these help to strengthen the impact and legacy of your original Darwin project? Have you identified any potential problems to achieving these benefits? (max 250 words)

Darwin's finches are an iconic species group for the Galápagos Islands. Preventing the extinction of one of the Darwin's finches is certainly of utmost importance for Ecuador.

Restoration of the Ramsar site allows the integration of the local human population and has implications for a wide range of species that live in this habitat (e.g. flamingos, lava gull, breeding fish species) and for the local human population as a recreational area. Although not receiving direct funding from this proposal, the site can be of great importance to mangrove finch and the project aims to encourage and support its restoration.

The control of introduced species in mangroves poses very new and specific problems due to the impenetrability of the habitat and the constant possibility of remigration of invasive species. Control and possibly eradication of introduced species in the mangrove areas will benefit other species living in this area and will be a showcase for subsequent eradication programmes of similar nature.

The project will give baseline data for a larger project on value of mangroves in Galápagos.

Education/awareness programmes in Villamil and on mangroves in Galápagos will enhance the survivability of this localised and threatened habitat.

Park guards and locals (in Villamil) will be trained especially for visits into the mangroves.

Eventually there will be long term employment in the continuous restoration of the Ramsar site and in caring for captive birds.

This project can be linked to other projects such as the Floreana mockingbird restoration project and skills and staff exchanged.

15. State whether or not the project will reach a stable and sustainable end point. If the project is not discrete, but is part of a progressive approach, give details of the exit strategy and show how relevant activities will be continued to secure the benefits from the project. Where individuals receive advanced training, for example, what will happen should that individual leave? (Max 200 words)

At the end of the two years project the GNP should have sufficient capacity to independently monitor mangrove finch population as well as to monitor and control invasive species. We need more background information for Cartago, the third site, before a management plan for invasive species control can be fully put in place.

Only one park guard is so far trained in bird census and nest surveys. The park would like to get more people trained to be able to continue independently with the follow up of the project. CDF and Durrell will be kept involved for data analysis.

At the end of the two years, the captive breeding programme will be running. Even so external expertise might be necessary occasionally. The routine of holding/rearing birds should be done completely by the local authority, e.g. GNP. Within the next two years, husbandry staff will have sufficient capacity through workshops and direct training.

If the Ramsar site is restored, management and invasive species control can be maintained by GNP and municipality.

16. How will the results of the project be disseminated; how will the project be advertised as a Darwin project and in what ways will the Darwin name and logo be used? (max 200 words)

The Darwin Initiative will be fully acknowledged in all reports and scientific papers and the logo displayed on the cover of all reports and on materials used throughout the project. Press offices in Durrell, CDF and GNP who are regularly involved in publicising the project will make reference to the contribution made by DI in all publications and on their websites with the DI logo displayed. The Project Manager will continue to produce and circulate monthly reports. 2009 is the Bicentennial of the birth of Charles Darwin (and the 50th anniversaries of CDF, GNP and Durrell): the restoration of this Darwin's finch will be publicised throughout the year.

17. If your project includes training and development, please indicate how you will assess the training needs in relation to the overall purpose of the project. Who are the target groups? How will the training be delivered? What skills and knowledge do you expect the beneficiaries to obtain. How will you measure training effectiveness. (max 300 words)

You should address each of these points.

Target groups are 1) National Park wardens: they will be trained in the field (for bird census and nest monitoring) by the Project Manager. Counts will be done in parallel to assess reliability. Park wardens need no training in invasive species control; however, they need training in the scientific background which they will receive in the form of presentations and information material. If Park wardens who carry out the control of invasive species are also doing the bird census they will be able to evaluate the impact of the effort in invasive species control and might identify more with the project. These two or three people should be more than capable of continuing census work supervised by GNP and CDF. Data will be communicated between institutions including Durrell.

One training course per year will be given for captive care (park wardens, local volunteers and CDF staff). These people will further be involved in daily care and supervised by the trained staff (either Durrell or CDF). Cross capacitating is possible with the Floreana mockingbird project.

2) Ecuadorian student: one student should complete university degree (bachelor): the project manager is responsible for content and supervision with help from the student committee established at the CDF.

3) Locals: the education team will try to engage a group of volunteers in environmental education. Natural history guides from Isabela Island will receive a special training in identification and biology of the mangrove finch and the ecology of the Ramsar site.

LOGICAL FRAMEWORK

18. Please enter the details of your project onto the matrix using the note at Annex 3 of the Guidance Note for Main applications.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal:</p> <p>Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>			
<p>Sub-Goal:</p> <p>Assure stabilization of two main mangrove finch populations and establishment of a third viable population.</p>	<ul style="list-style-type: none"> Restored populations are self-supporting and need minimal intervention. A third viable population established. 	<p>Field survey reports and publications from CDF and GNP.</p>	
<p>Purpose</p> <p>Increase of population size in the two well known populations in the west; increase of knowledge of the eastern population and establishment of an additional viable population.</p> <p>Implementation of the Action Plan and, if needed, the emergency plan developed during the original Project.</p>	<p>Intensive rat eradication programme and establishment of a buffer zone in year 1. Population growth confirmed by field research in all three sites Y2. Health assessment in historical sites (including Cartago) Y1. Establishment of aviaries in Villamil (if necessary) Y2. of birds to Cartago if research proves it necessary (Y2). Ramsar site restored (part one) : depending on co-funding from other organisations Y2 Education programme started and continued throughout Y1+2. Supplementation</p>	<ul style="list-style-type: none"> Husbandry guidelines finished New invasive species management in the areas implemented in long term work plan of GNP. Local guides trained. Park guards trained in census techniques. Scientific papers Project reports Education material Ramsar site Action Plan implemented Mangrove finch Action Plan implemented 	<p>Full cooperation from GNP and CDF will be required. The restoration of the Ramsar site is dependent on external funding. Invasive species control in inhabited area (Villamil) needs support from municipality.</p>
<p>Outputs (add or delete rows as necessary)</p> <p>1. The three existing mangrove finch populations are restored and healthy</p>	<ul style="list-style-type: none"> Population has grown by at least 25% in all known sites (PTN, CB, Cartago Y2 Monitoring programme implemented by GNP Y2 Populations of rats, cats and anis reduced drastically Y1 	<ul style="list-style-type: none"> Bird census and monitoring of breeding success Rat monitoring 	<ul style="list-style-type: none"> Extreme weather conditions or other catastrophic events (e.g. volcanic eruption) Political decision preventing GNP actions

2. Population size, breeding status, habitat suitability and disease risk known for eastern population	<ul style="list-style-type: none"> • Invertebrate community in key substrates assessed Y1 • Population size and breeding status known Y1 	<ul style="list-style-type: none"> • Bird census and monitoring of breeding success • Health report • Invertebrate community in key substrates analysed 	
3. Ramsar site restored and evaluation finished for suitability	<ul style="list-style-type: none"> • Introduced species eradicated or drastically reduced Y1+2 • Natural hydrological conditions restored Y1 • Disease risk assessed Y1 • Invertebrate community in key substrates assessed Y1 	<ul style="list-style-type: none"> • Monitoring of introduced species • Monitoring of aquatic community • Health report • Invertebrate community in key substrates analysed 	<ul style="list-style-type: none"> • No co-funding obtained • Municipality and/or community opposed to project
4. Birds released in suitable site	<ul style="list-style-type: none"> • Aviary built in Villamil Y1 • Suitable site identified (see also point 2, 3). Y1 • Captive Management Plan established and implemented and birds released Y2 • 4 GNP & CDF staff fully trained Y1+2 	<ul style="list-style-type: none"> • Captive Management Plan • Workshop of captive breeding • Assessment of survival of released birds 	Health risks prevent captive breeding and/or translocation
<p>Activities (details in workplan)</p> <p>1 Predator control, censuses and capacity building</p> <p>2 Bird ringing and blood sampling for genetic analysis and disease check and habitat surveys</p> <p>3 Reduce significantly invasive species (rats, cats, ani, domestic chicken, <i>Paspalum vaginatum</i> (a grass) and work with restoration of Ramsar site. Impact study of introduced competitors and health risks.</p> <p>4 Building aviaries and harvesting of eggs/chicks or adults (according to captive management plan).</p> <p>5 Diagnostic study of community perception of conservation.</p> <p>6 Awareness campaign.</p>			
<p>Monitoring activities:</p> <p>Indicator 1 Density of rats in areas after intense control measurements</p> <p>Indicator 2 Mangrove finch population estimate established through point count method</p> <p>Indicator 3 Breeding success established through direct nest observations</p> <p>Indicator 4 Survival of translocated birds through telemetry</p> <p>Indicator 5 Prevalence of disease vectors in birds in relevant mangroves areas</p> <p>Indicator 6 Attitude of local community towards conservation aims before and after awareness campaign</p>			

19. Provide a project implementation timetable that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your Post Project.

Activity	Months	Year 1				Year 2				Year 3			
		1	2	3	4	1	2	3	4	1	2	3	4
1.1 Intense rat, cat and ani control campaign		■				■							
1.2 Population estimate updated and breeding success study						■				■			
1.3 2 GNP guards trained in bird monitoring						■	■	■	■	■			
2.1 Status of eastern (Cartago) population assessed				■	■	■							
2.2 Disease risk analysed for Cartago site						■	■						
2.3 Habitat suitability of eastern site assessed						■	■	■					
3.1 Co-funding obtained (triggering other activities) – open													
3.2 Aquatic community assessment completed					■								
3.3 Health study on passerines and domestic chicken (as well for decision for aviaries)					■								
3.4 Habitat suitability of Ramsar site assessed							■						
4.1 Aviary construction						■							
4.2 2 GNP and 1 local staff trained in captive care							■	■	■				
4.3 First birds/ eggs brought into aviary									■	■			
4.4 First birds translocated									■	■			
5.1 Diagnostic study completed				■	■	■							
6.1 Awareness campaign started and continued throughout the project			■	■	■	■	■	■	■	■	■	■	■

20. Please indicate which of the following Standard Measures you are likely to report against. You will not necessarily plan to cover all these Standard Measures in your project.

Standard Measure No	Description	Tick if Relevant
1A	Number of people to submit thesis for PhD qualification (in host country)	
1B	Number of people to attain PhD qualification (in host country)	
2	Number of people to attain Masters qualification (MSc, MPhil etc)	
3	Number of people to attain other qualifications (ie. Not outputs 1 or 2 above) licenciatura	✓
4A	Number of undergraduate students to receive training	
4B	Number of training weeks to be provided	✓
4C	Number of postgraduate students to receive training as volunteers	✓
4D	Number of training weeks to be provided	✓
5	Number of people to receive at least one year of training (which does not fall into categories 1-4 above) GNP guards	✓
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	
6B	Number of training weeks to be provided	
7	Number of (ie different types - not volume - of material produced) training materials to be produced for use by host country from CDF education team (includes puppets etc.)	✓
8	Number of weeks to be spent by UK project staff on project work in the host country	✓
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	
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording Husbandry guidelines	✓
11A	Number of papers to be published in peer reviewed journals	✓
11B	Number of papers to be submitted to peer reviewed journals	✓
12A	Number of computer based databases to be established and handed over to host country	✓
12B	Number of computer based databases to be enhanced and handed over to host country	
13A	Number of species reference collections to be established and handed over to host country(ies)	
13B	Number of species reference collections to be enhanced and handed over to host country(ies)	
14A	Number of conferences/seminars/ workshops to be organised to present/disseminate findings Captive breeding and translocation workshop	✓
14B	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	
15A	Number of national press releases in host country(ies)	✓
15B	Number of local press releases in host country(ies)	✓
15C	Number of national press releases in UK	✓
15D	Number of local press releases in UK	✓
16A	Number of newsletters to be produced	
16B	Estimated circulation of each newsletter in the host country(ies)	✓
16C	Estimated circulation of each newsletter in the UK	✓
17A	Number of dissemination networks to be established	
17B	Number of dissemination networks to be enhanced/ extended	
18A	Number of national TV programmes/features in host country(ies)	✓
18B	Number of national TV programmes/features in UK	
18C	Number of local TV programmes/features in host country(ies)	
18D	Number of local TV programmes/features in UK	
19A	Number of national radio interviews/features in host county(ies)	✓
19B	Number of national radio interviews/features in UK	
19C	Number of local radio interviews/features in host country(ies)	
19D	Number of local radio interviews/features in UK	
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)	✓
21	Number of permanent educational/training/research facilities or organisations to be established and then continued after Darwin funding has ceased aviaries	✓

22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	
23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	✓

PROJECT BASED MONITORING AND EVALUATION

21. 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 the monitoring and evaluation.

The effectiveness of the invasive species control will be assessed by direct monitoring of invasive species and by measuring egg and nestling predation.

The ability of trained individuals to conduct their own bird surveys and their ability to train colleagues in basic field techniques and husbandry skills will be assessed by the Project Manager and Durrell staff.

Results of the initial disease study will determine the translocation/re-introduction site. The success of translocation will be assessed by measuring survival rates and the numbers of successful breeding attempts.

Annual reports on progress will also be submitted to the host partners and an official meeting with all partners will be conducted to discuss progress, the effectiveness of training, and to address any problems or concerns.

This project will achieve its purpose by continuous monitoring, whilst creating greater conservation awareness, and strengthening the capacity of the host partners to continue the restoration of the Ramsar site.

FUNDING AND BUDGET

Please complete the separate Excel spreadsheet which will provide the Budget information for this application. Some of the questions below refer to the information in this spreadsheet.

NB: Please state all costs by financial year (April to March). Use current prices – and include anticipated inflation, as appropriate up to 3% per annum. The Darwin Initiative will not be able to agree increases in grants to cover inflation on UK costs once grants are awarded.

22. How is your organisation currently funded? (max 100 words)

Durrell is a non-profit organisation dedicated to saving species from extinction with a worldwide membership of >10,000. Its headquarters in Jersey has a conservation-oriented animal collection which is open to the paying public. It does not receive regular government funding, either from the States of Jersey or the UK, and depends on entrance fees to the animal collection, membership contributions, and restricted funding from different sources. Legacies make up a proportion of income, but additional funding is received from individuals, multilateral institutions, government bodies (Jersey States, UK-DEFRA, US-Fish and Wildlife), and non-government research institutions (IUCN, FFI, CI, The Royal Society).

23. Provide details of all **confirmed** funding sources identified in the Budget 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 **unconfirmed** funding the project will attract to carry out additional work during or beyond the project lifetime. Indicate those funding sources which are confirmed.

Confirmed:

Durrell £12,900
 Charles Darwin Foundation £12,030
 Galápagos National Park £119,700
 Kenneth Petren Lab (University of Cincinnati) £4,000
 University of Missouri £2,250

Unconfirmed:

Ramsar £26,000
 NASA £31,000
 FOGO Suiza £2,000

24. Please give details of any further funding resources (confirmed or unconfirmed) sought from the host country partner (s) or others for this project that are not already detailed in the Budget or Question 22. This will include donations in kind or un-costed support eg accommodation. (max 50 words per box)

Financial resources:

All financial resources required are costed in the budget

Funding in kind:

The Charles Darwin Foundation will provide administrative and accounting support for the project in addition to supporting students. The Galápagos National Park will provide boat transportation to field sites, support at field camps, staff for predator control and censuses and rodent poisons and traps etc.

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

	Total Project Costs £
Amount of original Darwin Initiative project funding	£173,500
+ Funding/Income from other sources	£93,080
= Total original project cost	£266,580

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 2009/10

On behalf of the trustees of

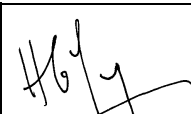
Durrell Wildlife Conservation Trust

(*delete as appropriate)

I apply for a grant of **£171,484** in respect of expenditure to be incurred in the financial year ending 31 March 2010 on the activities specified in the above application.

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. (This form should be signed by an individual authorised by the lead UK institution to submit applications and sign contracts on their behalf.)

I enclose a copy of the organisation's most recent audited accounts and annual report, CVs for project principals and letters of support.

Name (block capitals)	HYWEL GLYN YOUNG		
Position in the organisation	DEPUTY HEAD (BIRD DEPARTMENT)		
Signed		Date:	1 st December 2008

Post Project Application - Checklist for submission

	Check
Have you provided actual start and end dates for your project?	✓
Have you provided your budget based on UK government financial years ie 1 April – 31 March?	✓
Have you checked that your budget is complete, correctly adds up and that you have included the correct final total on the top page of the application?	✓
Is the concept note within 1,000 words?	✓
Is the logframe no longer than 2 pages?	✓
Has your application been signed by a suitably authorised individual? (clear electronic or scanned signatures are acceptable)	✓
Have you included a 1 page CV for the Project Leader, any other UK staff working >50% on this project, and for a main individual in each overseas partner organisation?	✓
Have you included a letter of support from the main overseas partner organisations?	✓
Have you checked with the FCO in the project country/ies and have you included any evidence of this?	
Have you included a copy of your most recent annual report and accounts? An electronic link to a website is acceptable.	✓
Have you read the Guidance Notes for both Main projects and Post Projects ?	✓