Submit by Tuesday 1 December 2015

DARWIN INITIATIVE APPLICATION FOR GRANT FOR ROUND 22: STAGE 2

Please read the Guidance Notes 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. Blank cells may render your application ineligible

ELIGIBILITY

1. Name and address of organisation

(NB: Notification of results will be by email to the Project Leader in Question 6)

Applicant Organisation Name:	**Fauna & Flora International (FFI)**
Address:	**The David Attenborough Building, Pembroke Street**
City and Postcode:	**Cambridge CB2 3QZ**
Country:	**United Kingdom**
Email:	
Phone:	

2. Stage 1 reference and Project title

Stage 1 Ref: **3340**	**Title (max 10 words):** **Eradicating invasive species from the highest priority Caribbean island**

3. Project description (not exceeding 50 words)

Redonda has been independently recognised as the Caribbean's priority island for restoration. Feral goats and rats are driving deforestation, desertification and the extinction of endemic and threatened biodiversity. This innovative project will build capacity, fully remove the aliens and protect this unique island to expedite its reforestation and ecological recovery.

4. Country(ies)

Which eligible host country(ies) will your project be working in? You may copy and paste this table if you need to provide details of more than four countries.

Country 1: **Antigua & Barbuda**	**Country 2:** **Montserrat (a UK Overseas Territory)**
Country 3:	**Country 4:**

5. Project dates, and budget summary

Start date: Apr 2016		**End date: Mar 2019**		**Duration: 3 years**
Darwin request	**2016/17** **£ 149,600**	**2017/18** **£ 88,850**	**2018/19** **£ 46,550**	**Total request** **£ 285,000**
Proposed (confirmed & unconfirmed) matched funding as % of total Project cost				**50%**
Are you applying for DFID or Defra funding? (Note you **cannot** apply for both)		**Defra**		

6. Partners in project. Please provide details of the partners in this project and provide a CV for the individuals listed. You may copy and paste this table if necessary.

Details	**Project Leader**	**Project Partner 1**	**Project Partner 2**
Surname	**Daltry**	**Jeffrey-Brown**	**Lawrence**
Forename (s)	**Jennifer Catherine**	**Helena**	**Shawna Natalya**
Post held	**Senior Conservation Biologist**	**Technical Officer**	**Programme Coordinator**
Organisation (if different to above)		**Government of Antigua & Barbuda**	**Environmental Awareness Group**
Department		**Department of Environment**	**Offshore Islands Conservation Programme**
Telephone			
Email			

Details	**Project Partner 3**	**Project Partner 4**
Surname	**Bell**	**Long**
Forename (s)	**Elizabeth Anne**	**Adam**
Post held	**Senior Ecologist**	**Peak Area Access Officer**
Organisation (if different to above)	**Wildlife Management International Ltd**	**British Mountaineering Council**
Department		**Conservation**
Telephone		
Email		

7. Has your organisation been awarded a Darwin Initiative award before (for the purposes of this question, being a partner does not count**)? If so, please provide details of the most recent awards (up to 6 examples).**

Reference No	**Project Leader**	**Title**
2792	Alison Mollon (interim)	Supporting Community Conserved Areas in Uganda for biodiversity and livelihoods.
2324	Sophie Benbow	Enhancement of wellbeing and conservation in Cape Verde's biodiversity hotspots
19-019	Arthur Mugisha	Integrating Batwa cultural values into national parks management in Uganda
19-004	Chloe Hodgkinson	Building capacity of the next generation of Liberian conservation professionals
19-001	Dr. Stephen Browne	Conservation of the newly-discovered Burmese (Myanmar) snub-nosed monkey
19-017	Dr. Robert Bensted-Smith	Building capacity for participatory ecosystem-based marine conservation in Central America

9. Please list all the partners involved (including the Lead Institution) and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development. This section should illustrate the capacity of partners to be involved in the project. Please provide written evidence of partnerships.

Please copy/delete boxes for more or fewer partnerships.

Lead institution and website:	**Details (including roles and responsibilities and capacity to lead the project): (max 200 words)**
Fauna & Flora International (FFI): www.fauna-flora.org	Established in the UK in 1903, FFI will be the lead agency for this project, with overall responsibility for project management, monitoring and evaluation. FFI has worked in the Caribbean since 1994 where we have specialised in building conservation capacity, island ecosystem restoration and the recovery of threatened island endemics. The Project Leader is one of FFI's most experienced staff, Dr Jenny Daltry (cv attached), who brings over 20 years' experience in this region, including leading successful projects to restore more than 20 islands and developing innovative methods to prevent re-invasion: an important component of this project.. FFI will also provide a dedicated Financial Administrator, Protected Area Specialist and a local appointed Project Coordinator. FFI's Communications staff will assist in communicating updates during the course of this project through FFI's website, social media and wide network of media contacts. In addition, FFI employs a number of specialists on many other aspects of biodiversity conservation, such as sustainable financing, who can provide technical guidance if required during the course of this project. Office space, equipment, materials, and logistical support will also be provided.
Have you included a Letter of Support from this institution?	Yes/~~No~~

Partner Name and website where available:	**Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)**
Department of Environment (Government of Antigua & Barbuda): www.environmentdivision.info	The overall mission of the Department of Environment is to provide technical advice and implement projects and programmes on behalf of the Government and the people of Antigua & Barbuda. It seeks to protect and enhance the country's environment, as well as seek common solutions to national, regional and global environmental problems. Importantly, the Department has a key coordinator role, bringing other relevant government agencies together to plan, implement and review projects (which in this case will include Forestry, Fisheries, Livestock, Coastguard, National Parks Authority, Tourism, Education, and Development Control Authority, among others). Technical Officer Dr Helena Jeffrey Brown (cv appended) will serve as the Department's focal point and will be responsible for liaising with other agencies to ensure the project is well supported across the Government and streamlined with government policy and protocols. The Department will provide office space, meeting room facilities and other resources. Equipment purchased for this project will be exempt from import duty charges. Note the Department is at advanced stages of establishing a national environmental fund to help support the management of Redonda and other priority sites and initiatives nationwide.
Have you included a Letter of Support from this institution?	Yes/~~No~~

Partner Name and website where available:	**Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)**
Environmental Awareness Group (EAG): www.eagantigua.org	Established in 1988, the Environmental Awareness Group is the leading environmental NGO in Antigua and Barbuda, with a large public membership and strong track record of successful environmental projects. Some of its many accomplishments include: nationwide inventory of biophysical properties and community use of wetlands; promoting ecotourism and providing training courses for the tourism industry; developing new protected areas; and coordinating the award-winning Offshore Islands Conservation Programme, which restores, protects, monitors and promotes the sustainable use of the globally important islands in Antigua's North East Marine Management Area. Such experience will be invaluable to the Darwin project. EAG staff Natalya Lawrence (cv appended) will lead the project's local outreach and education activities to ensure the public is well informed and supportive of the restoration process. In addition, a wide circle of other EAG staff, board members, volunteers and affiliated students will benefit from organised training opportunities and field experience from this project, and at least four personnel will take responsibility for biosecurity surveillance and biodiversity monitoring after the Darwin project ends. EAG will work with FFI to secure additional matched funding and in kind support, and provide office space, meeting room facilities, field equipment, materials, and logistical support.
Have you included a Letter of Support from this institution?	Yes/~~No~~

Partner Name and website where available:	**Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)**
Wildlife Management International Ltd (WMIL): www.wmil.co.nz	WMIL is a family-owned ecological consultancy, established in 1987 by pioneering conservationist Brian Bell. Its highly skilled team specialises on wildlife research and monitoring, and invasive species eradication, control and auditing. WMIL's Elizabeth Bell will be the Field Team Leader for eradicating rats from Redonda, with specific responsibilities for: preparing the eradication operational plan; selecting, training and supervising eradication fieldworkers; directing the rat baiting and monitoring operations, ensuring close coordination between the ground and aerial units; developing the biosecurity plan; and ensuring work is carried out to high standards of environmental care and health and safety. Ms Bell brings a lifetime of experience in island conservation work (cv attached) and, with FFI, led the largest successful rat eradication operation in the Caribbean (Dog Island, Anguilla, 207 hectares) plus even larger operations elsewhere (e.g. Lundy Island, UK). Together with Dr Jenny Daltry (FFI), she conducted the feasibility study for Redonda and baseline surveys of its wildlife populations and ecology. In addition to providing expert eradication and remote access personnel, WMIL will provide rodent monitoring equipment, GPS technology and GIS support, and specialist remote cliff access equipment, gratis. WMIL will also provide support and advice to the student researchers on request.
Have you included a Letter of Support from this institution?	Yes/~~No~~

Partner Name and website where available:	**Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)**
British Mountaineering Council (BMC): www.thebmc.co.uk	Established in 1944, the BMC is the national organisation for climbers and hill walkers in England and Wales, with 81,000 members. It has substantial expertise in all aspects of the cliff access and safety, and promotes environmental best practice. Realising the lack of mountaineering expertise in the Lesser Antilles, FFI first approached the BMC in 2011 to carry out an expert appraisal of Redonda to advise on how to access and operate on the island safely. Executive Director Dave Turnbull (25 years worldwide mountaineering experience) and Adam Long (founder of industrial rope access company Access Techniques Ltd) conducted the assessment and demonstrated that while much of Redonda can be accessed on foot, only experienced mountaineers should operate on the more challenging perimeter. BMC mountaineers will return to Redonda to assist with the rat eradication operation under this project. With guidance from the Rat Eradication Team Leader, the mountaineers will distribute bait and monitor uptake in areas where specialist climbing equipment and skills are required. The BMC will endeavour to source additional funding and supplies from outdoor companies, and help to communicate this Darwin project through its strong digital communications channels (68,000 on Facebook, 27,000 on Twitter) and quarterly membership magazine.
Have you included a Letter of Support from this institution?	Yes/~~No~~

10. Key Project personnel

Please identify the key project personnel on this project, their role and what % of their time they will be working on the project. Please provide 1 page CVs for these staff, or a 1 page job description or Terms of Reference for roles yet to be filled. Please include more rows where necessary.

Name (First name, surname)	Role	Organisation	% time on project	1 page CV attached?
Dr Jennifer Daltry FRGS	Project Leader	Fauna & Flora International	25%	Yes/~~No~~
Ruleo Carmacho MSc	Project Coordinator	Fauna & Flora International	78%	Yes/~~No~~
Dr Helena Jeffrey-Brown DVM	Government Liaison and Veterinary Advisor	Govt of Antigua & Barbuda: Department of Environment	10%	Yes/~~No~~
Natalya Lawrence MSc	Education and Outreach Officer	Environmental Awareness Group	25%	Yes/~~No~~
Adam Long BSc	Safety and Access Adviser	British Mountaineering Council	12%	Yes/~~No~~
Elizabeth Bell MSc	Rat Eradication Team Leader	Wildlife Management International Ltd	20%	Yes/~~No~~
Astley Joseph MSc	Livestock Relocation Leader	Govt of Antigua & Barbuda: Department of Agriculture	12% (25% in Year 1)	Yes/~~No~~
Andrea Otto BASc	Wildlife Monitor	Environmental Awareness Group	25%	Yes/~~No~~
Shema Roberts BSc	Assistant Government Liaison	Govt of Antigua & Barbuda: Department of Environment	35%	Yes/~~No~~
Michael Appleton MSc	Protected Area Management Advisor	Fauna & Flora International	5% (15% in Year 3)	Yes/~~No~~

Tahambay Smith	Biosecurity Officer	Environmental Awareness Group	15%	Yes/~~No~~
Sean Lee	Biosecurity Officer	Environmental Awareness Group	15%	Yes/~~No~~
Mary Rider MA	Financial Administrator	Fauna & Flora International	8%	Yes/~~No~~

11. Problem the project is trying to address

Please describe the problem your project is trying to address in terms of biodiversity and (essential for DFID projects) its relationship with poverty. For example, what are the drivers of loss of biodiversity that the project will attempt to address? Why are they relevant, for whom? How did you identify these problems?

If your project is working on an area of biodiversity or biodiversity-development linkages that has had limited attention (both in the Darwin Initiative portfolio and in conservation in general) please give details.

Despite covering only 0.15% of the Earth's land area, the Caribbean islands account for 10% of the world's bird extinctions, 38% of mammal extinctions, and >65% of reptile extinctions since 1500. At least two-thirds of extinctions have been attributed to invasive alien species (IAS). Building the case and capacity for tackling harmful IAS is essential, but no Darwin project has addressed IAS on Caribbean islands outside the UKOTs.

Redonda is an uninhabited and biogeographically isolated island 56 km Southwest of Antigua and 23 km Northwest of Montserrat. Britain mined it for some 7,000 tonnes of seabird guano every year from 1865–1914, and it became a dependency of Antigua & Barbuda in 1967. The state-owned island is now rarely visited except by a handful of artisanal fishers and Montserrat Volcano Observatory scientists.

Though only 1.5km across, Redonda supports rare and important biodiversity e.g. five endemic reptile species, four of which are Critically Endangered[1], and is a global Important Bird Area. Surveys have confirmed severe ongoing declines in the diversity and abundance of fauna and flora[2]. The main drivers of biodiversity loss and desertification are feral goats and black rats (*Rattus rattus*) left by the miners.

A regional workshop attended by governments, NGOs and academics from 23 Caribbean nations identified Redonda as the highest priority island for eradicating IAS due to its threatened wildlife and excellent prospects of lasting success. This project will eradicate the rats, translocate the goats to Antigua (where the Department of Agriculture wishes to study and preserve this rare breed), and expedite the recovery of native species and habitats. This project has firm backing from the Governments of Antigua & Barbuda and Montserrat and civil society, who share a common vision for Redonda as an internationally recognised centre for conservation and research[3].

[1] The Redonda ground lizard (*Ameiva atrata*), Redonda anole (*Anolis nubilus*), Redonda skink (*Copeoglossum redondae*) and Redonda pygmy gecko (*Sphaerodactylus sp. nov.)* were evaluated at the IUCN Caribbean Reptiles Red Listing workshop in July 2015 as Critically Endangered due to their depleted population sizes, heavy predation by rats, and severe and ongoing loss of habitat and prey base (Phil Bowles, IUCN Red List Authority, in litt.). Note that the Redonda anole was previously listed as Least Concern in error. The revised species accounts will be posted online shortly. The Redonda iguana (*Iguana* sp.) may also be an endemic species, but has not been seen for more than a century.

[2] Bell, E.A. & Daltry, J.C. (2012) *Feasibility Study for the Eradication of Black Rats* Rattus rattus *From Redonda, with New Observations on the Island's Biodiversity and Ecology*. Wildlife Management International Ltd and Fauna & Flora International, Offshore Islands Conservation Programme, St John's, Antigua. https://www.dropbox.com/s/xlmgiv6l0rt30zf/Bell%20%26%20Daltry%202012.pdf?dl=0

[3] Daltry, J.C. (2014) *Revitalizing Redonda: A Vision for the Third Island of Antigua and Barbuda.* Proceedings of a workshop hosted by Ministry of Agriculture, Lands, Housing and Environment and Offshore Islands Conservation Programme, St John's, Antigua.

12. Biodiversity Conventions, Treaties and Agreements

Which of the conventions supported by the Darwin Initiative will your project support? Note: projects supporting more than one convention will not achieve a higher scoring

Convention on Biological Diversity (CBD)	Yes
Nagoya Protocol on Access and Benefit Sharing (ABS)	Yes
International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)	No
Convention on International Trade in Endangered Species (CITES)	No

12b. Biodiversity Conventions

Please detail how your project will contribute to the objectives of the convention(s), treaties and agreements your project is targeting. You may wish to refer to Articles or Programmes of Work here. Note: No additional significance will be ascribed for projects that report contributions to more than one convention

The CBD recognizes the urgent need to address the impact of invasive alien species (IAS). Article 8(h) states "Each contracting Party shall, as far as possible and as appropriate, prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species", but many small island developing states lack capacity to address IAS on any meaningful scale. This project is designed to create partnerships with international agencies to amass the necessary knowledge and skills to complete a successful IAS eradication operation for a globally-important site, and transfer IAS management skills to ensure that national programmes of work are sustained. The project will also advance delivery of CBD Article 8(a,d,f) (including eliminating the main threats to, and protecting the entire range of, Redonda's Critically Endangered endemic reptiles), and Articles 7, 12 and 13. Redonda is biogeographically unique, and this project will safeguard a significant proportion of the region's biodiversity.

This project also honours ABS requirements and principles. Notably, it will repatriate the goats from Redonda to Antigua where this rare breed—which is inferred to be more drought-tolerant than other local breeds—can be conserved and utilized as an invaluable genetic resource for livestock farmers.

12c. Is any liaison proposed with the CBD/ABS/ITPGRFA/CITES focal point in the host country?

Yes **if yes, please give details:**

The Focal Point in Antigua and Barbuda for the CBD, ABS and CITES Management Authority is the Director of Environment. The Director, Diann Black-Layne, and the Department of Environment as a whole are partners in the proposed project and have assisted in the conceptualisation and development of this project. The project's Government Liaison, Dr Helena Jeffery Brown, has represented Antigua & Barbuda at conferences of the CBD and ABS. A letter of support from Ms Black-Layne is provided (file: <Letter of Support - Department of Environment (Antigua & Barbuda).pdf>), which confirms her Government's commitment to this project.

We have also appended a strong letter of support from Ms Diann Black-Layne's counterpart in the Government of Montserrat, Mr Gerard Gray.

13. Methodology

Describe the methods and approach you will use to achieve your intended outcomes and impact. Provide information on how you will undertake the work (materials and methods) and how you will manage the work (roles and responsibilities, project management tools etc.).

The core implementation team will comprise the Project Leader, Project Coordinator, Education & Outreach Officer, focal points from each partner organisation, and senior technicians for the goat and rat operations. A further 20–40 persons (mainly government and NGO technical staff from Antigua & Barbuda and Montserrat) will receive training and implement fieldwork and outreach. A Project Steering Committee, comprising additional representatives from all relevant government agencies and stakeholder groups, will meet quarterly to review progress and help the core team resolve any issues. At least 45% of participants will be female.

Methods for Output 1 will follow the peer-reviewed plan of Bell & Daltry (2012): Finalise Operational Plan and SOPs; Trap goats using electric fence corrals and ship them under sedation (by the project's qualified veterinarian) to government farm on Antigua (4–6 weeks); Bait rats with 20-g blocks of Klerat®*, manually distributed across 30–40 metre grid, supplemented with aerial broadcasts (from helicopter) on scree areas, and collect all rat corpses (5–10 weeks or until intensive surveys show no rats remain); Establish biosecurity protocols and permanent bait stations to prevent incursions. (*Klerat® contains brodifacoum: a second-generation vertebrate anticoagulant whose effects are easily reversed with Vitamin K_1. FFI has used Klerat to successfully eradicate black rats from 22 Caribbean islands with zero casualties among non-target animals. We use a waxy formulation containing the bittering agent Bitrex® to prevent ingestion by vertebrates other than rats).

Output 2 methods entail standardised surveys of birds (land bird point counts, seabird whole colony A.O.N. counts), lizards (transects), bats (using detectors), invertebrates (pitfall traps, malaise traps), plants/ vegetation cover (e.g. quadrats, fixed point photos), soil composition and microclimate (using data loggers) before and after removing the aliens. Monitoring methods must be relatively rapid and easy for trained local personnel to replicate in the future.

Output 3 methods will include: Complete stakeholder consultations, paying particular attention to anyone from Antigua/Montserrat with customary rights to fish around Redonda; Prepare and submit maps and technical proposal to Cabinet to designate the protected area; Establish area management committee and develop, using a participatory process, the first management plan.

Output 4 methods will include: A media campaign to present and discuss project with the public on Antigua, Barbuda and Montserrat, including phone-in radio and press conferences to directly address any questions or concerns; Temporary signage installed to explain work in progress; Permanent signs installed to mark the protected area and its regulations; a series of practical training classes for local persons on invasive species control and ecological monitoring, including data management and analysis; At least 1 national studies Redondan biodiversity for postgraduate degree.

Although Redonda poses some unusual technical challenges (e.g. high cliffs, exceptionally high density of rats), nearly 5 years of research, consultations and workshops have gone into preparing for this project. We will draw on FFI's experience of successfully removing rats, livestock and mongooses from 22 Caribbean islands since 1995, all of which have had immensely positive outcomes for local people and biodiversity[4].

[4] For example:

- Bell, E.A. & Daltry, J.C. (2014) *Dog Island Restoration Project: Two-year Assessment Following the Eradication of Black Rats (*Rattus rattus*) From Dog Island, Anguilla*. Report from Wildlife Management International Ltd and Fauna & Flora International, New Zealand and UK. https://www.dropbox.com/s/pazfyastzn292i3/Bell%20%26%20Daltry%202014.pdf?dl=0
- Daltry, J.C., James, K.J., Otto, A. & Ross, T.N. (2012) Evidence that eradicating black rats has boosted the recovery of rare reptiles and seabirds on Antiguan islands. In *Biodiversité Insulaire: la Flore, la Faune et l'Homme Dans les Petites Antilles* (eds J.L. Vernier & M. Burac), pp. 141-145. Direction de l'Environnement, de l'Aménagement et du Logement de Martinique et Université des Antilles et de la Guyane, France.
- Lawrence, S.N. & Daltry, J.C. (2015) Antigua announces its 15th island cleared of invasive alien mammals. *Oryx*, 49, 389.

14. Change Expected

Detail the expected changes this work will deliver. You should identify what will change and who will benefit a) in the short-term and b) in the long-term.

- If you are applying for Defra funding this should specifically focus on the changes expected for biodiversity conservation and its sustainable use.
- If you are applying for DFID funding you should in addition refer to how the project will contribute to reducing poverty. Q15 provides more space for elaboration on this.

By eliminating harmful invasive species this project will halt, and start to reverse, the desertification and decline of biodiversity from this biogeographically isolated and unique island ecosystem. The anticipated changes are based on scientific research on Redonda and on the swift and remarkable changes on other tropical islands cleared of invasive mammals by FFI and others.

Short term (by project end):

No invasive alien vertebrates (rats, goats) present on Redonda; Evidence of increasing vegetation cover and tree seedling survival; Evidence of increasing populations of fast-maturing native species, including passerine birds, endemic lizards, herbaceous plants; Rare-breed goats preserved on government farmland on Antigua; Redonda and its surrounding seas are protected and managed for biodiversity conservation; At least 75% Antiguans, Barbudans and Montserratians know about the project and why Redonda merits conservation; Improved communication and cooperation between Montserrat and Antigua & Barbuda regarding the management and use of Redonda; Nationals trained under this project capable of planning and implementing invasive mammal eradications and biodiversity monitoring.

Long term (within 20 years of project end):

Significant increase in vegetation (from <5% to >50% of island vegetated) and corresponding decrease in soil erosion; Increase in trees on Redonda; Significant increase in native animal populations including endemic reptiles (threatened species to be downlisted on IUCN Red List); Healthy reef communities around Redonda due to reduced soil erosion and measures to prevent overfishing; Natural recolonization by at least 20 species of birds; Organised nature tours generate revenue and awareness to support management of Redonda; Plans underway to reintroduce native animals and plants that were historically present e.g. burrowing owls; Project effects on biodiversity and ecological processes of removing rats and goats are well-documented and provide an instructional case study for other island nations with these invasive species; Other island restoration projects cite scientific papers from this project.

15. Pathway to poverty alleviation – ESSENTIAL FOR DFID PROJECTS, OPTIONAL FOR DEFRA PROJECTS

Please describe how your project will benefit poor people living in low-income countries. Give details of who will benefit and the number of beneficiaries expected to be impacted by your project. The number of communities is insufficient detail – number of households should be the largest unit used. If possible, indicate the number of women who will be impacted.

Poverty alleviation is not the primary objective of this project, largely because the project site is remote and uninhabited.

As indicated on the project Theory of Change (Annex I), however, the repatriation of goats to Antigua (Output 1) is intended to have a dual benefit in removing a pest species from Redonda while giving Antigua's livestock farmers some new and potentially useful genetic resources (a need identified by the national Livestock Improvement Project). Redonda's goats are inferred to be more drought-tolerant than other breeds and even capable of drinking salty water: This could be a great adaptive advantage in light of climate change predictions.

Furthermore, by eradicating invasive species (Output 1) and enabling native biodiversity to recover on Redonda, this initiative opens the door to new opportunities to generate revenue

from low-impact, high-paying tourists after the project ends, such as birdwatching tours by boat from Montserrat or Antigua. Many islands restored by FFI and our partners in this region have become tourist attractions, creating new jobs through providing transport, guiding and other services (e.g. islands restored in Northeast Antigua now receive over 60,000 day-trippers annually, enabling dozens of struggling artisanal fishers to switch to more lucrative careers in tourism). With its unique combination of geological, historical and biological features, including some of this region's most spectacular seabird colonies, Redonda could become an outstanding tourism experience that would benefit to both countries.

These and other options for supporting unemployed and impoverished people will be examined further as part of the process of establishing the Redonda EPA and developing its management plan (Output 3). Fishers who have customary user rights to fish around Redonda will in any case benefit from participating in the governance of the EPA and from ensuring the use of its marine resources is sustainable.

16. Exit strategy

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?

By eliminating the invasive alien mammals—the single greatest threat to Redonda's biodiversity and ecological processes—this Darwin project will have a swift, highly positive and permanent impact. The likelihood of this island being reinvaded is minimal because it is uninhabited and remote; and this project will leave in place an effective, affordable biosecurity system to minimise this small risk even further (activity 1.4). No other immediate problems have been identified, but formally protecting the island (Output 3) will serve to pre-empt any future anthropogenic threats.

Having eliminated the greatest threats to biodiversity, the costs of managing this site after the project ends are expected to be low and sustainable. The protected area management plan (activity 3.4) will set out the required actions and costs, and make strategic use of existing resources where appropriate (e.g. the Coastguard to assist with surveillance as part of its routine circuits around Redonda). Funding permitting, however, the project team wishes to continue studying the impacts of removing aliens on the island's ecology, and explore the possibility of reintroducing species that historically occurred here, such as burrowing owls. Such high profile research and conservation will appeal to various sponsors within this region and internationally.

17a. Harmonisation

Is this a new initiative or a development of existing work (funded through any source)? Please give details.

This is a new initiative. No project has focused on conserving Redonda's biodiversity before, although the Environmental Protection and Management Act 2015 brought the island's native birds, reptiles and other species under protection by law for the first time.

While highly original, this applied conservation project can trace its roots to the award-winning Offshore Islands Conservation Programme (OICP), the collaborative Antigua-based programme co-managed by FFI, EAG, Government of Antigua & Barbuda, Durrell and IRF. The OICP focuses on Northeast Antigua and its achievements include eradicating invasive mammals from 15 coralline limestone islands and enabling the recovery of Critically Endangered Antiguan racers (*Alsophis antiguae*) and other threatened species. The present project will learn valuable experiences from the OICP, but the biogeographically unique Redonda presents some novel challenges, and this project entails several new partnerships

accordingly (e.g. BMC mountaineering experts).

Through the project leaders' connections, this initiative will be directly linked to a growing network of island states and organisations interested and involved in invasive species control, both regionally (including the UKOTs of Anguilla, Montserrat and BVI) and globally (e.g. the GLISPA partnership's Invasive Species Working Group). We have already noted immense interest in the Redonda project among invasive species practitioners.

17b. Are you aware of any other individuals/organisations/projects carrying out or applying for funding for similar work? No

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

No other individual/ organisation/ project works on Redonda.

To the best of our knowledge, the most similar project under development is in the UKOT of Anguilla, north of Antigua. The Darwin Plus proposal "*Pioneering a New Model of Marine Park Management in Anguilla*" was submitted by the Department of Fisheries and Marine Resources (Government of Anguilla), Anguilla National Trust and FFI earlier this year (2015). There are arguably some similarities to the present proposal in terms of eradicating invasive rats (albeit *Rattus norvegicus* rather than *R. rattus*) and integrating the management of islands into a surrounding marine protected area. However, the limestone islands in Anguilla are relatively small, flat and low-lying (the opposite of Redonda's rugged volcanic topography) and can be restored using more conventional methods. On the other hand, the Anguilla project entails seeking management solutions and consensus across a more complex landscape of stakeholders, including private landowners, tour operators and many fishers, whereas Redonda is remote, state-owned, uninhabited and little visited, making it far more straightforward for Antigua & Barbuda to establish and manage this area as a wildlife reserve first and foremost.

Overall, we see more differences than similarities between the two projects in their methods and expected results, but because FFI would be directly involved in both, we can aid sharing of skills and lessons learned between the two. If both projects are funded, there may well be opportunities for sharing some camping and other equipment between Anguilla and Antigua, and Anguillians could be invited to participate in training opportunities on Antigua.

Outside of the Eastern Caribbean, a number of other projects and organisations are endeavouring to eradicate invasive alien species (IAS) from islands, including a number of islands around the UK and other UKOTs. Given that IAS are "*the second most significant cause of species extinction worldwide after habitat destruction, and on islands, they are undisputedly first*" (IUCN, 2011), such projects are to be welcomed. Our project team will be glad to host study visits and to exchange methods and findings through existing networks—such as the IUCN/SSC Invasive Species Specialist Group (of which the Project Leader and Rat Eradication Team Leader are long-standing members), Caribbean Seabirds Initiative: Invasives (of which the Project Leader is a Steering Committee member), Cooperative Initiative on Invasive Alien Species on Islands, GLISPA Invasive Species Working Group and the new UK-based Island Eradication Advisory Group—and review each other's operational plans and other key tools.

18. Ethics

Outline your approach to meeting the Darwin Initiative's key principles for research ethics as outlined in the guidance notes.

As a founder of the Conservation Initiative on Human Rights, FFI ensures its projects respect the rights of poor, vulnerable or marginalised people. While nobody lives on Redonda, a few Montserratians fish here periodically and thus have customary user rights that will be respected

by the Government of Antigua & Barbuda. They will be actively supported to engage in the establishment, governance and sustainable use of the Redonda EPA (Output 3). This project will follow FFI's standard approaches towards free, prior informed consent and voluntary participation; basing resource management decisions on local knowledge and customary practices; and establishing grievance mechanisms.

This project was conceived by, and will be jointly implemented by, FFI and host country organisations. All personnel will be properly insured and equipped and required to abide by FFI's H&S guidelines and procedures for Redonda. These include adhering to the island's approved Safety Zones (BMC, 2011, has identified areas unsafe for persons to enter on foot, or where only experienced mountaineers may go). The 'no entry' zones will be clearly demarcated on the ground before fieldwork commences, and Adam Long—one of Britain's leading climbing safety experts—has joined the project team to provide additional guidance.

This project will fully comply with the laws of Antigua, including use of rodenticide (Klerat® is approved by the national Pest Control Board for outdoor use). Indeed this project will go far beyond legal requirements in voluntarily adopting stringent protocols for safe rodenticide use in Antigua[5] to safeguard humans and non-target animals. Detailed SOPs will also be developed by this project to capture and transport goats humanely and safely, guided by the project's Livestock Relocation Leader and Veterinary Advisor.

FFI will retain accountability for project finances and practices a zero-tolerance approach to bribery and corruption. All aforementioned policies are available on request.

19. Raising awareness of the potential worth of biodiversity

If your project contains an element of communications, knowledge sharing and/or dissemination please provide a description of your intended audience, how you intend to engage them, what the expected products/materials there will be and what you expect to achieve as a result. For example, are you expecting to directly influence policy in your host country or is your project a community advocacy project to support better management of biodiversity?

Our core team includes an expert Education and Outreach Officer from the EAG whose main role will be running a campaign to inform and engage the public of Antigua and neighbouring states (Output 4). Most residents are curious about Redonda—often seen on the horizon but rarely visited—but know only that it has "wild goats". Few know of its endemic species, globally important seabird colonies or huge rat population, or that so little plantlife remains that most of the goats have starved. This project will commence with a more thorough survey of knowledge and attitudes to design (and later evaluate, by repeating the survey at the project end) a carefully-targeted outreach campaign to show what Redonda is really like, explain the project's aims, and demonstrate the results. We will use various media—many of them free e.g. phone-in radio shows and social media—and strategically designed posters and other materials (tbd).

Raising public interest will further reinforce calls to protect Redonda (Output 3) and potentially secure additional resources. A similar outreach campaign under the Dog Island Restoration Project, Anguilla, saw local businesses donate supplies and local volunteers came forward, who have continued monitoring the island ever since.

As part of Output 4 we also intend using Redonda and this project to communicate, regionally and globally, the dangers from IAS to island biodiversity, through disseminating blogs, research papers (from Output 2), conferences and other forums: Few sites provide such a shocking

[5] This document details the protocols designed for safe use of rodenticide on offshore islands of Antigua and Barbuda. The protocols were developed by Natalya Lawrence (EAG) with technical guidance from Dr Jenny Daltry (FFI), Karen Varnham, Elizabeth Bell (WMIL) and other invasive species practitioners: http://www.cepf.net/SiteCollectionDocuments/Safeguard_Documents/60933_EAG_Pest_Management_Plan.pdf

illustration of what goats and rats can do when left unchecked. From Year 3, however, Redonda could provide an inspiring case study of how rapidly nature recovers when such harmful IAS are removed, and the methods used. This is important to inform and encourage other island states to take similar measures to protect and conserve biodiversity.

20. Capacity building

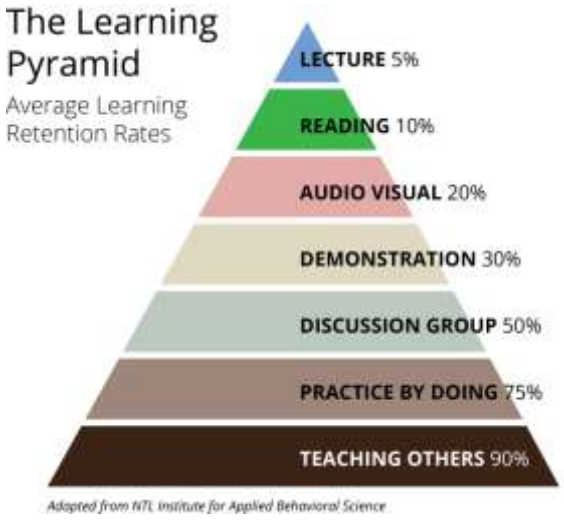
If your project will support capacity building at institutional or individual levels, please provide details of what form this will take and how this capacity will be secured for the future.

This project will significantly strengthen conservation capacity at both individual and institutional levels in Antigua & Barbuda and Montserrat (Output 4). The primary purpose will be to establish strong capacity and 'ownership' to continue monitoring and managing Redonda after the project ends, and build confidence and competence to restore additional islands in this region.

At individual level, short classes and, especially, practical fieldwork (with experienced mentors) will teach (a) at least 20 nationals (Antiguans, Barbudans, Montserratians) safe and effective IAS eradication and biosecurity methods (from operational planning through post-eradication evaluation), and (b) at least 20 standardised methods to monitor wild animals and plants (including species identification and data analysis). With further coaching from FFI, (c) at least 5 nationals learn how to develop and manage conservation projects (including project planning, writing grant proposals, conflict resolution) and (d) at least 5 will learn how to develop a protected area management plan using a participatory process.

Other training needs will be identified using a competences self-assessment questionnaire and addressed during the course of the project where possible. Importantly, most of the persons assessed and trained will be employees of environmental agencies in Antigua & Barbuda and Montserrat, minimizing the risk of their skills becoming lost or irrelevant after the project ends.

The approach to build capacity is based on learning theory illustrated (right), which highlights the importance of active learning and practical application.



At the organisational level, environmental agencies will thus gain more proficient and motivated workforce, supported by increased connections to a wider network of experts, field equipment, high quality tools (e.g. biosecurity plan for Redonda) and new data to support decision making (including GIS shapefiles uploaded to the national Environmental Information Management and Advisory System (EIMAS) through a data-sharing agreement with the Department of Environment).

21. Access to project information

Please describe the project's open access plan and detail any specific costs you are seeking from Darwin to fund this.

Information on activities and outputs from this project will be made freely available online, with approval from the participating staff and Project Steering Committee. Key outputs including the Rat Eradication and Goat Translocation Operational Plans, Biosecurity Plan, Biodiversity Monitoring Manual, wildlife research reports, education materials, teaching materials and, in due course, the finalised Redonda EPA Management Plan will be posted on the websites of the Government of Antigua & Barbuda and EAG. We will also register the project on the Eco-Index database to share project information and documents. Hard or electronic copies will also be disseminated (some printing costs are included in the Darwin request): The availability of these documents will be publicised through press releases and stakeholder meetings.

Throughout, details of this project will also be provided to the Database of Island Invasive Species Eradications, seabird monitoring data will be uploaded directly to the BirdLife International database, and new population and ecology data on Redonda's endemic reptiles will be used to update their IUCN Red List accounts if necessary (which are also openly accessible and incur no charges). Exceptions may be made for species that could be at risk by revealing their localities.

National and international scientists attached to this project will be encouraged to choose Open Access journals where possible and to take advantage of sites that promote and allow for the sharing of scientific papers (e.g. ResearchGate).

22. Match funding (co-finance)

a) Secured

Provide details of all funding successfully levered (and identified in the Budget) towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity.

Confirmed:

£XXX	Government of Antigua and Barbuda: Government technical staff (including veterinarian for goat translocation), office facilities, and some transport (in kind). This is a conservative estimate, and does not include the full costs of all participating staff nor the costs of all future husbandry and study of the feral goats removed from Redonda, which the Department of Agriculture has pledged to take full responsibility for.
£XXX	Species Fund: FFI staff time and travel costs from April through December 2016.
£XXX	British Mountaineering Council. Conservative value of BMC staff time, travel and equipment.
£XXX	Syngenta Lawn & Garden: Rodenticide for rat eradication and post-eradication biosecurity, including shipping costs (in kind).
£XXX	Environmental Awareness Group: Conservative value of EAG staff time (in particular Natalya Lawrence), office costs, field equipment
£XXX	Wildlife Management International Ltd. Conservative value of WMIL staff time, travel and equipment.
£XXX	Disney Conservation Fund: for conservation of Eastern Caribbean reptiles on offshore islands, April through September 2016.
£115,242	Total

The total project cost is £565,735. 20% is already secured, and with support from the Darwin initiative this would rise to 71%. We also have already identified a pipeline of potential match funds with a combined value of 41% of the total project cost (£233,612) and so we are extremely confident that the full project funding amount will be secured, particularly as FFI has an excellent track record of funding and implementing this type of work and given the high priority of this work within the Caribbean.

In the unlikely event that additional funds are not secured, the eradication of invasive species (Output 1) will be 100% funded. Other output activities will be scaled back if required, in line with available resources, but the essential monitoring to verify no rat survival or reinvasion will be 100% funded.

22b) Unsecured

Provide details of any matched funding where an application has been submitted, or that you intend applying for during the course of the project. This could include matched funding from the private sector, charitable organisations or other public sector schemes.

Date applied for	Donor organisation	Amount	Comments
31 Oct 2015	Whitley Award Scheme	£5,000	Part of a total grant of £50,000 applied for by this project's Education Officer Natalya Lawrence (EAG). The request includes £5,000 specifically for stakeholder meetings in 2016 related to restoring Redonda.
18 Nov 2015	Morris Animal Foundation	£34,445	Part of a total grant of $189,890 applied for by FFI for research on short and long-term effects of using brodifacoum to eradicate rats from islands (June 2016–May 2018). If successful, the grant would support some staff time, travel and equipment costs for monitoring wildlife on Redonda, and generate additional outputs (2 students trained to sample and test soils and biological material for toxins in collaboration with the University of West Indies; papers published).
23 Nov 2015	National Fish and Wildlife Foundation (NFWF)	£66,667	$100,000 has been applied for by FFI for this project to restore Redonda. This project has already been shortlisted by NFWF. (NB NFWF funded the highly successful rat eradication by FFI on Dog Island, Anguilla in 2012, and Redonda has been identified as priority island for IAS eradication as part of NFWF's strategic plan for seabird conservation in the Caribbean in 2015).
Mar 2016 (date tbc)	Disney Conservation Fund	£12,000	Disney Conservation Fund has awarded small grants to FFI's Caribbean Programme every year since 1999 to support the conservation of globally threatened reptiles and birds. FFI has already secured a small grant for 2015/2016 and intends to reapply every year throughout this project. While Disney funding may not be used for invasive species control, it can be used for wildlife monitoring, education and capacity building.
May 2016 (date tbc)	Caribaea Initiative	£15,000	Scholarship for at least one national student to conduct research on Redonda for their postgraduate degree (MPhil or PhD).

Date applied for	Donor organisation	Amount	Comments
May 2016 (date tbc)	Environmental Fund (Sustainable Island Resource Financing fund)	£55,000	The Government of Antigua and Barbuda is at an advanced stage of establishing a fund for environmental programmes in this country, with substantial funding from the Global Environment Facility. The Fund will be managed by the Department of Environment and is anticipated to become active in mid-2016. Funds can then be used by the Department of Environment or applied for by local NGOs, including the EAG. Though not guaranteed, this project is well placed to receive funding, particularly because part of the GEF 6 funding is specifically intended for invasive alien species eradications from islands.
Nov 2016 (date tbc)	USFWS Neotropical Migratory Birds Conservation Act	Approx. £45,500	NMBCA sponsored the rat eradication feasibility study on Redonda, and either FFI or EAG will apply to this grant scheme in 2016 to support implementation. NMBCA requires 3:1 matched funding or in-kind support. *Thus for every £3 awarded by Darwin, this project can apply for an additional £1 from NMBCA.*

22c) None

If you are not intending to seek matched funding for this project, please explain why.

N/A

PROJECT MONITORING AND EVALUATION

MEASURING IMPACT

23. LOGICAL FRAMEWORK

Darwin projects will be required to report against their progress towards their expected outputs and outcomes if funded. This section sets out the expected outputs and outcomes of your project, how you expect to measure progress against these and how we can verify this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: (Max 30 words) Significant recovery and regeneration of threatened species and habitats on Redonda is a source of national pride and directly informs and inspires other Caribbean nations to eliminate harmful invasive species.			
Outcome: (Max 30 words) The permanent removal of harmful invasive species triggers the recovery of endemic species, habitats and ecological processes on Redonda, and enhances Antigua & Barbuda's natural capital and conservation capacity.	0.1 No invasive vertebrates remain on Redonda by project end. 0.2 Net increase by at least 10% in abundance of fast-breeding native species by Year 3. 0.3 Net increase by at least 10% in vegetation cover by Year 3.	0.1 Biosecurity monitoring datasheets and quarterly reports. 0.2 Biodiversity monitoring data and reports. 0.3 Fixed point photographs and vegetation plots.	Recent scientific research is correct in identifying rats and goats as the primary drivers of biodiversity loss on Redonda, and that at least some of these changes are reversible if the aliens are removed.
Outputs: 1. Alien invasive vertebrates (rats and goats) successfully removed from Redonda, with systems in place to prevent (re)invasions.	1.1 No goats on Redonda by end of Year 1. 1.2 Rare breed goats from Redonda housed on enclosed government farmland on Antigua by end Year 1. 1.3 No rodents on Redonda by end of Year 2.	1.1 Monitoring reports and site visits by project biologists and biosecurity personnel. 1.2 Photographs and stock books. 1.3 Monitoring reports and site visits by project biologists and biosecurity personnel.	Rats on Redonda are susceptible to the same bait and baiting methods that have been successfully used on other Caribbean islands. No unusual and severe weather events during critical stages (this project will avoid conducting important activities during the hurricane season, especially August through October).
2. Monitoring system established to measure the responses of fauna, flora and ecological processes to the removal of alien invasive vertebrates.	2.1 Rapid methods devised and established for monitoring short- and long-term changes in major taxa and abiotic characters (in Year 1, tested and refine by Year 3). 2.2 Status of major taxa and abiotic characters monitored as per 2.1 before and after removing the goats and rats (every year).	2.1 Biodiversity monitoring manual. 2.2 Data and annual monitoring reports.	Long term monitoring strategy accurately predicts the future human and other resources available to implement it.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
3. Redonda becomes a protected area in accordance with the Sustainable Island Resource Management Zoning Plan for Antigua & Barbuda, with an effective structure to manage its ongoing ecological recovery and sustainable use.	3.1 Management committee established and operational by end Year 2. 3.2 Redonda designated as an Environmental Protected Area, encompassing the land and surrounding sea by end Year 2. 3.3 Management plan prepared (Year 3).	3.1 Redonda Management Committee ToR and meeting minutes. 3.2 Official designation of the protected area. 3.3 Redonda Management Plan (to at least final draft form).	Continued cooperation among stakeholders. Government willingness to protect Redonda, in accordance with its own national land use plan and legislation.
4. National capability to plan, manage and implement and monitor invasive species projects is raised, supported by enhanced technical skills and greater public awareness and cooperation.	4.1 At least 20 persons from Antigua trained on invasive species control and apply their skills towards Output 1 (by Year 2) 4.2 At least 20 persons from Antigua trained on ecological monitoring and apply their skills towards Output 2 (by end Year 2). 4.3 At least 1 local student studies Redonda for postgraduate degree (Years 2 and 3). 4.4 At least 5 persons from Antigua gain increased skills and experience in managing projects and conservation sites (by Year 3). 4.5 At least 75% of Antiguans, Barbudans and Montserratians know about the project and are able to explain why Redonda merits conservation (end Year 2).	4.1 Training workshop and field reports. Names of trainees participating in fieldwork. Self-assessment competence questionnaires by the trainees, and appraisals by trainers and field team leaders. 4.2 As 4.1. 4.3 Student research thesis/ theses. 4.4 Before and after self-appraisals by participating government and NGO staff. 4.5 Interviews of representative samples of general public (out of the total of approximately 90,000 on Antigua, Barbuda and Montserrat).	Trained expertise remains in Antigua & Barbuda and Montserrat. Increased knowledge results in positive attitudes and behaviours.

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

1.1 Complete Operational Plan and SOPs to remove goats and eradicate rats
1.2 Capture and transfer goats from Redonda to enclosed government farmland on Antigua.
1.3 Establish baiting grid on Redonda and eradicate rats.
1.4 Establish biosecurity surveillance system to prevent incursions, and monitor Redonda every 2 months to verify no invasive vertebrates remain
1.5 Publish technical report(s) detailing the methods, results and any lessons learned from Output 1.
1.6 Incorporate biosecurity system into the costed management plan for Redonda (re: 3.4)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
2.1 Project scientists design and agree standardised methods to monitor birds, reptiles, bats, invertebrates, plants, soil and microclimate.			
2.2 Conduct monitoring as per 2.1 during the grant period (before and after removing the goats and rats).			
2.3 Finalise manual detailing the monitoring methods, incorporating lessons learned from 2.2.			
2.4 Publish technical reports detailing the results and lessons learned from Output 2			
2.5 Incorporate ecological monitoring plan into the costed management plan for Redonda (re: 3.4)			
3.1 Complete stakeholder consultations in Antigua and Montserrat.			
3.2 Prepare and submit technical proposal to Cabinet to designate the Redonda Environmental Protected Area (EPA)			
3.3 Quarterly management meetings of the Redonda EPA Management Committee.			
3.4 Develop a costed 10-year management plan for the protected area using a participatory process.			
4.1 Plan multi-media campaign to communicate project to the public on Antigua and Barbuda and neighbouring states			
4.2 Implement campaign, including media releases, signage and phone-in radio shows, and evaluate impact on public			
4.3 Analyse training needs of field personnel.			
4.4 Conduct training classes and on-the-job mentoring for local personnel participating in eradication and biosecurity activities (re Output 1)			
4.5 Conduct training classes and on-the-job mentoring for local personnel participating in biodiversity monitoring (re Output 2)			
4.6 Local technicians participate in project meetings and key field activities with FFI training and mentoring where needed.			
4.7 Evaluate impact of 4.4–4.6 on the competences of local personnel in government and NGO sectors.			
4.8 Student research on Redonda's biodiversity and management for postgraduate degree(s).			
Other Project Management activities:-			
X.1 Project inception meeting			
X.2 Project Steering Committee established and meets regularly to oversee project activities			
X.3 Project biannual reports/ donor technical and financial reports			
X.4 Monthly financial accounts			
X.5 End of project Audit			

24. 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 project (Q1 starting April 2016)

	Activity	No of months	Year 1				Year 2				Year 3			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1														
1.1	Complete Operational Plan and SOPs to remove goats and eradicate rats	2	x	x										
1.2	Capture and transfer goats from Redonda to enclosed government farmland on Antigua.	2			x									
1.3	Establish baiting grid on Redonda and eradicate rats.	4				x	x							
1.4	Establish biosecurity surveillance system to prevent incursions, and monitor Redonda every 2 months to verify no invasive vertebrates remain	24					x	x	x	x	x	x	x	x
1.5	Publish technical report(s) detailing the methods, results and any lessons learned from Output 1.	2								x				
1.6	Incorporate biosecurity system into the costed management plan for Redonda (re: 3.4)	0.5											x	
Output 2														
2.1	Project scientists design and agree standardised methods to monitor birds, reptiles, bats, invertebrates, plants, soil and microclimate.	6	x	x										
2.2	Conduct monitoring as per 2.1 during the grant period (before and after removing the goats and rats).	9		x	x			x	x			x	x	
2.3	Finalise manual detailing the monitoring methods, incorporating lessons learned from 2.2.	2											x	
2.4	Publish technical reports detailing the results and lessons learned from Output 2	3				x				x				x
2.5	Incorporate ecological monitoring plan into the costed management plan for Redonda (re: 3.4)	0.5											x	
Output 3														
3.1	Complete stakeholder consultations in Antigua and Montserrat.	2	x	x										
3.2	Prepare and submit technical proposal to Cabinet to designate the Redonda Environmental Protected Area (EPA)	2						x						
3.3	Quarterly management meetings of the Redonda EPA Management Committee.	>5								x	x	x	x	x

	Activity	No of months	Year 1				Year 2				Year 3			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3.4	Develop a costed 10-year management plan for the protected area using a participatory process.	4									x	x	x	
Output 4														
4.1	Plan multi-media campaign to communicate project to the public on Antigua and Barbuda and neighbouring states	2	x											
4.2	Implement campaign, including media releases, signage on Redonda and phone-in radio shows, and evaluate impact on public	30			x	x	x	x	x	x	x	x	x	x
4.3	Analyse training needs of field personnel.	1.5		x	x									
4.4	Conduct training classes and on-the-job mentoring for local personnel participating in eradication and biosecurity activities (re Output 1)					x	x		x		x		x	
4.5	Conduct training classes and on-the-job mentoring for local personnel participating in biodiversity monitoring (re Output 2)	14		x	x			x	x			x	x	
4.6	Local technicians participate in project meetings and key field activities with FFI training and mentoring where needed.	36	x	x	x	x	x	x	x	x	x	x	x	x
4.7	Evaluate impact of 4.4–4.6 on the competences of local personnel in government and NGO sectors.	1.5											x	
4.8	Student research on Redonda's biodiversity and management for postgraduate degree(s).	>12							x	x	x	x	x	
Output X Project Management														
X.1	Project inception meeting	0.25	x											
X.2	Project Steering Committee meetings	36	x	x	x	x	x	x	x	x	x	x	x	x
X.3	Project biannual reports/ donor technical and financial reports	36		x		x		x		x		x		x
X.4	Monthly financial accounts	36	x	x	x	x	x	x	x	x	x	x	x	x
X.5	Audit	1												x

25. Project based monitoring and evaluation (M&E)

Describe, referring to the Indicators above, how the progress of the project will be monitored and evaluated, making reference to who is responsible for the project's M&E. Darwin Initiative projects are expected to be adaptive and you should detail how the monitoring and evaluation will feed into the delivery of the project including its management. M&E is expected to be built into the project and not an 'add' on. It is as important to measure for negative impacts as it is for positive impact.

FFI, Department of Environment and EAG, and specifically, Dr Jenny Daltry (Project Leader), are responsible for ensuring that the project is on schedule and is monitored. The project will also be overseen by a Project Steering Committee that will comprise the focal points from each project partner as well as independent experts from outside the project. These independent members will be objective in assessing and evaluating the progress of the project against the specified output indicators, timelines and budget. The Project Steering Committee will meet at the start of the project and quarterly thereafter; a progress report will follow each Steering Committee meeting. Additional meetings to discuss specific aspects project components will be called when necessary.

To evaluate and inform project implementation, the operational plans, biosecurity plan (Output 1) and other project tools will be evaluated by independent specialists, notably including the Island Eradication Advisory Group and Island Conservation (who peer-reviewed the feasibility study report that was developed during the project planning phase), to ensure the project methods are robust and follow best practice. Scientific papers and reports will also be rigorously assessed through the peer-review process before being published.

Of particular interest and concern is of course the project's impact on biodiversity, as this project is expected to have major positive impacts (Section 14) and become a well-documented, well-known case study for the rehabilitation of a tropical ecosystem that was severely damaged by invasive alien species. Output 2 will establish measures and protocols for monitoring the flora, fauna and their changing environment on Redonda, including standardised measures of soil, microclimate, plants, invertebrates, reptiles, birds and mammals (bats). These will be measured several times during the grant period to establish the pre-eradication baseline, and to assess short term post-eradication changes, and are intended to be routinely monitoring by trained local personnel long after the project ends. M&E will be an important component of the 10-year management plan for the Redonda EPA (Output 3).

The success and usefulness of training exercises and exchange of knowledge (Output 4) will be assessed through competence self-assessment questionnaires of those taking part before and after training has been undertaken. A number of the target trainees from the EAG have already completed baseline questionnaires with FFI as part of the planning phase of this project.

Total budget for M&E	£41,568
Percentage of total budget set aside for M&E	7.4%

FUNDING AND BUDGET

Please complete the separate Excel spreadsheet which provides the Budget for this application. Some of the questions earlier and below refer to the information in this spreadsheet. You should also ensure you have read the 'Finance for Darwin' document and considered the implications of payment points for cashflow purposes.

NB: The Darwin Initiative cannot agree any increase in grants once awarded.

26. Value for Money

Please explain how you worked out your budget and how you will provide value for money through managing a cost effective and efficient project. You should also discuss any significant assumptions you have made when working out your budget.

This project represents exceptional value for money because it will leverage the combined skills, equipment, staff time and other resources of many interested parties, including the Government of Antigua & Barbuda, Government of Montserrat, EAG, INGOs and local businesses to restore and permanently protect the globally important biodiversity of an entire, biogeographically unique ecosystem from ridge to reef.

Eradicating harmful IAS is more cost-effective and ultimately more successful than trying to suppress their populations indefinitely. Removing goats and rats from Redonda demands significant time and funding, including helicopter hire (see Annex 2), but will be fully achieved by Year 2, and the results of that investment will then grow and flourish forever: The powerful legacy will include saving Redonda's remaining endemic animals and plants from extinction (including Critically Endangered reptiles that occur nowhere else), enabling globally important seabird colonies to recover, achieving significant reforestation and reduction in soil erosion, and creating new nature based tourism opportunities. The recurrent costs of protecting and monitoring Redonda are relatively low, and the tasks will be sustained by increasingly skilled and confident technicians in the government and NGO sectors.

Considerable cost-savings will be made using existing equipment provided by project partners and by capitalising on existing relationships to maximise the project's financial investment and impact. Furthermore, this project will allow for multiplier effects, because methods, skills and connections developed by the host country beneficiaries can help advance the restoration of other Caribbean sites, including other priority conservation areas in Antigua, Barbuda and Montserrat.

The requested grant from Darwin Initiative would cover critical activities and help leverage matched funding, including Antigua's forthcoming Environmental Fund (which includes an allocation for island invasive species projects) and the NMBCA (which funded the feasibility study and would contribute at least £1 for every £3 from Darwin Initiative).

27. Capital items

If you plan to purchase capital items with Darwin funding, please indicate what you anticipate will happen to the items following project end.

Only a relatively small part of this request is for equipment because much of the camping, climbing, office and other gear will be provided by the participating organisations or purchased using matched funding. All items purchased with Darwin funding will be marked with the Darwin Initiative logo and will remain in the host country for use on Redonda and other conservation projects. Towards the end of the grant period, the Project Steering Committee will determine which items will be deposited with the EAG, Department of Environment or other relevant agencies. Given the harsh conditions on Redonda, it is possible some field items will become damaged or worn beyond repair before the project ends, but the computer and other higher value items will be covered by FFI's insurance so they can be replaced during the project lifespan if necessary. The Project Coordinator will be responsible for maintaining the project equipment inventory.

FCO NOTIFICATIONS

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 the project's success in the Darwin competition in the host country.

Please indicate whether you have contacted your Foreign Ministry or the local embassy or High Commission (or equivalent) directly to discuss security issues (see Guidance Notes) and attach details of any advice you have received from them.

~~**Yes (no written advice)**~~ ~~**Yes, advice attached**~~ **No**

We have read the FCO advisory for Antigua & Barbuda (https://www.gov.uk/foreign-travel-advice/antigua-and-barbuda). This is considered to be a relatively safe country and there are no particular security issues that concern this project. FFI has operated in this country for more than 20 years without incident but will continue to apply normal precautions. If this project is supported by Darwin Initiative, we will of course contact the British High Commission in Barbados (which has responsibility for Antigua & Barbuda) for any updates and notify them of this project.

CERTIFICATION

On behalf of the trustees of Fauna & Flora International

I apply for a grant of £ 285,000 in respect of **all expenditure** to be incurred during the lifetime of this project based on the activities and dates 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 applicant institution to submit applications and sign contracts on their behalf.)*

- I enclose CVs for key project personnel and letters of support.
- I enclose our most recent signed audited/independently verified accounts and annual reports (if appropriate)

Name (block capitals)	Svetlana Ignatieva
Position in the organisation	Chief Operating Officer

Signed**	PDF	**Date:**	30th November 2015

If this section is incomplete or not completed correctly the entire application will be rejected. You must provide a real (not typed) signature. You may include a pdf of the signature page for security reasons if you wish. Please write PDF in the signature section above if you do so.

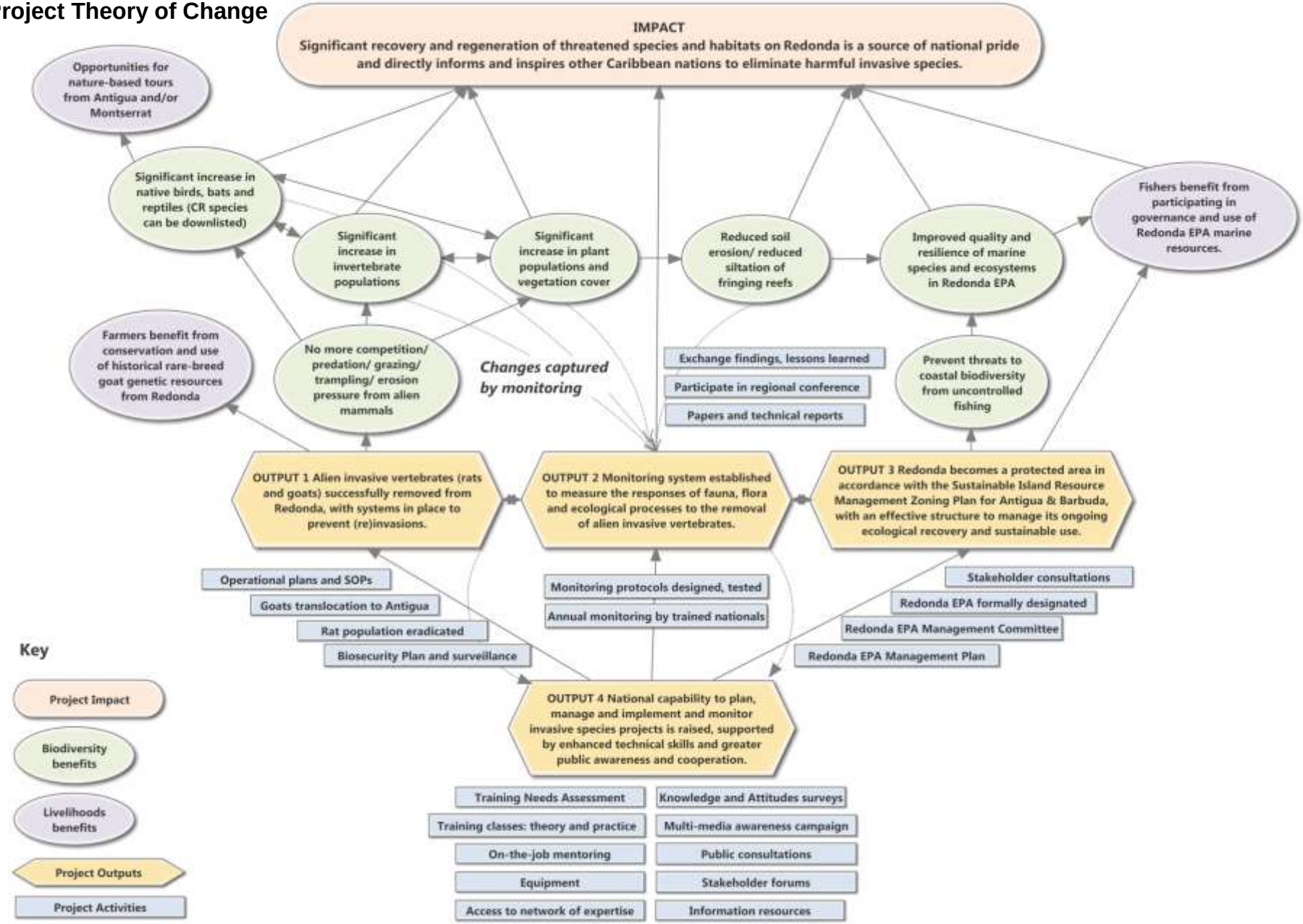
Stage 2 Application – Checklist for submission

	Check
Have you **read the Guidance Notes**?	**Yes**
Have you provided **actual start and end dates** for your project?	**Yes**
Have you indicated whether you are applying for DFID or Defra funding? **NB: you cannot apply for both**	**Yes**
Have you provided your **budget based on UK government financial years** i.e. 1 April – 31 March and in GBP?	**Yes**
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?	**Yes**
Has your application been **signed by a suitably authorised individual**? (clear electronic or scanned signatures are acceptable)	**Yes**
Have you included a **1 page CV for all the key project personnel** identified at Question 10?	**Yes**
Have you included a **letter of support from the main partner organisations** identified at Question 9?	**Yes**
Have you **been in contact with the FCO** in the project country/ies and have you included any evidence of this?	**No**
Have you included a **signed copy of the last 2 years annual report and accounts** for the lead organisation?	**Yes**
Have you **checked the Darwin website** immediately prior to submission to ensure there are no late updates?	**Yes**

Once you have answered the questions above, please submit the application, not later than 2359 GMT on Tuesday 1 December 2015 to Darwin-Applications@ltsi.co.uk using the application number (from your Stage 1 feedback letter) and the first few words of the project title **as the subject of your email**. 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). You are not required to send a hard copy.

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.

ANNEX 1: Project Theory of Change



ANNEX 2: Additional Information on Budget

Operating Costs

We must draw the reviewers' attention to the fact that the budget includes a request of £36,307 from Darwin Initiative for "*Field operating costs (not travel)*" for the Lead Organisation (FFI) and £18,118 for "*Field operating costs (not travel)*" for the Partner Organisations (specifically EAG and Department of Environment). Of this total of £54,525, £900 is for freight (mainly shipping heavy mountain climbing gear from UK to Antigua) and £53,525 is for helicopter hire and, to a lesser extent, boat hire. This is nearly 19% of the requested budget and will be explained here.

This project will necessarily depend on helicopters for much of its operational work on Redonda; this being the safest means of transporting people, equipment and supplies to the island, and essential for distributing bait in areas too dangerous to access on foot. While small boats can land on Redonda, the only route to the top of the island is very steep, crumbling and risky to ascend, especially when carrying heavy gear.

The helicopter costs estimates were calculated based the detailed calculations by Bell & Daltry (2012)[6] and from our recent trips with the Antigua-based Caribbean Helicopters Ltd. To demonstrate the company's support for conservation, this company has offered a highly competitive rate of US$2,025 for one return trip from Antigua to Redonda (for its 6-seater helicopters) and US$1,350 per hour for aerial bait application (this component alone will require an estimated 56 hours of flying time). Helicopters will be used as sparingly and cost-effectively as possible, to ensure that they never travel half-empty. If this grant application is successful, FFI will invite other reputable helicopter companies in this region to bid for this service to ensure that this project secures the best prices. To the best of our knowledge, however, Caribbean Helicopters Ltd is the only helicopter company operating in Antigua and Montserrat, and the only company currently permitted to land on Redonda by Antigua's Aviation Authority.

While helicopter hire constitutes a significant portion of the budget (both requested from Darwin and funded by other sources), it is important to point out that most of this cost is for removing the invasive alien mammals from Redonda. Once Output 1 has been completed, use of helicopters will fall to only around one return trip every quarter for wildlife monitoring, biosecurity surveillance and other essential protected area management purposes.

Sources of Additional Funding

The project has already secured £115,242 of the required co-funding target of £280,735 over the three-year project period, leaving a shortfall of £165,493.

In the budget and Section 22, we have noted other sources of funding that have either been applied for, or that we intend to apply for, to the value of £233,611. Although that sum would in theory exceed the required co-funding target and the identified sources have expressed interest in this project, we must work on the basis that not every grant applied for is received.

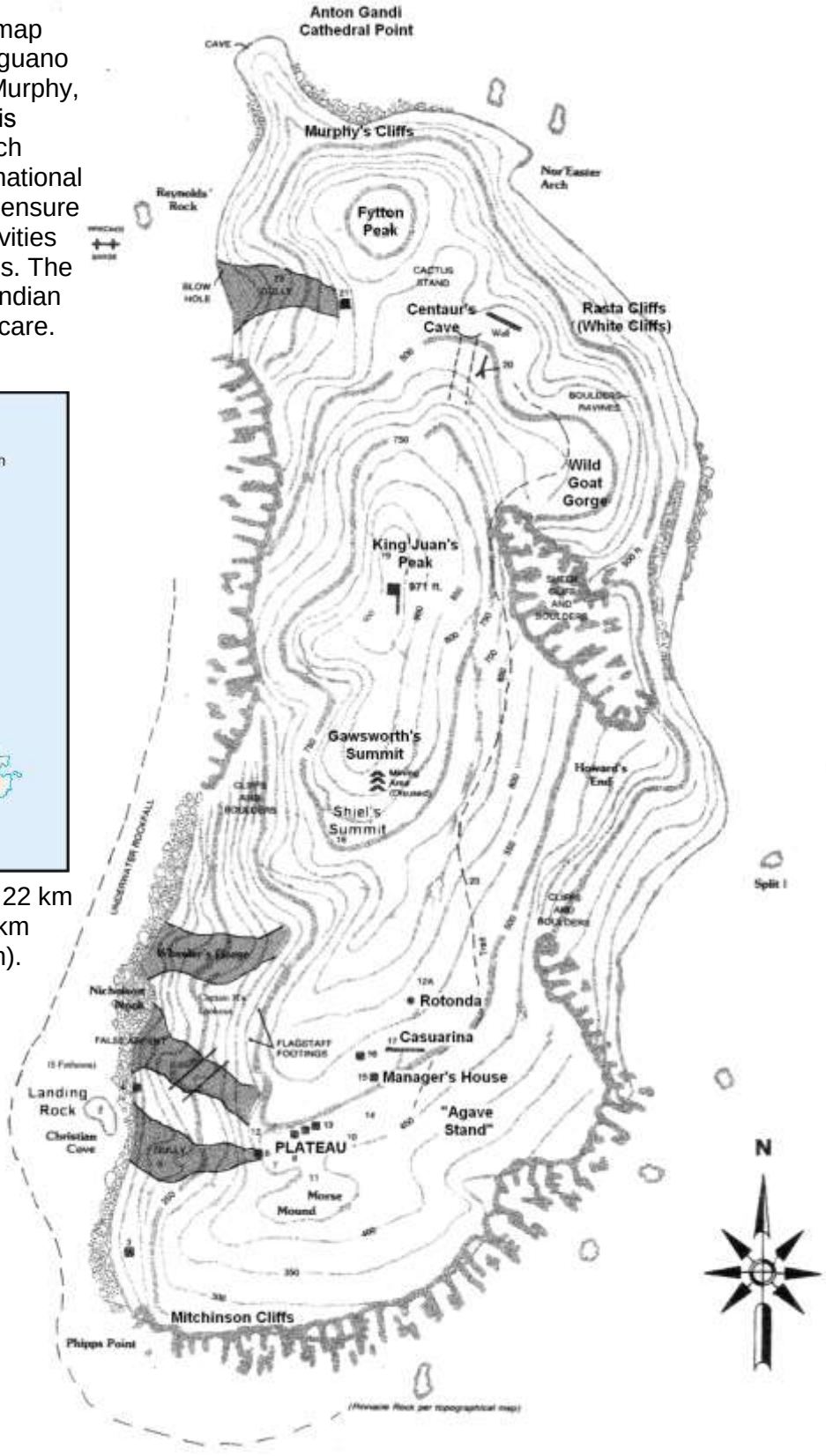
[6] Bell, E.A. & Daltry, J.C. (2012) *Feasibility Study for the Eradication of Black Rats* Rattus rattus *From Redonda, with New Observations on the Island's Biodiversity and Ecology*. Wildlife Management International Ltd and Fauna & Flora International, Offshore Islands Conservation Programme, St John's, Antigua. Https://www.dropbox.com/s/xlmgiv6l0rt30zf/Bell%20%26%20Daltry%202012.pdf?dl=0

ANNEX 2: Topographic map of Redonda

Redonda is 1.6 km long and 0.5 km at its widest point. This topographic map below by Desmond Nicholson contains some errors, but is considered the most accurate available. The island has a planar area of 53 hectares and a surface area of approximately 80 hectares.

The buildings referred to on the map are stone ruins from the original guano mining settlement. Dr Reginald Murphy, Antigua's leading archaeologist, is advising the project team on which buildings or artefacts may be of national historical significance so we can ensure our research and restoration activities will not damage any of these sites. The island also has an ancient Amerindian site that will also be treated with care.

Redonda is 56 km from Antigua, 22 km Northwest of Montserrat and 32 km Southeast from Nevis (not shown).



For further maps and photographs of Redonda and its wildlife, see Bell & Daltry (2012) (link on previous page).