



# Darwin Initiative Annual Report

## Important note:

*To be completed with reference to the Reporting Guidance Notes for Project Leaders: it is expected that this report will be about 10 pages in length, excluding annexes*



**Submission Deadline: 30 April 2013**

## 1. Darwin Project Information

Project Reference	18-017
Project Title	Developing knowledge to eradicate house mice from UK OT islands
Host Country/ies	Tristan da Cunha, Falklands and South Georgia
UK contract holder institution	Royal Society for the Protection of Birds (RSPB)
Host country partner institutions	Conservation Department Tristan da Cunha (CD-TDC), Falklands Conservation (FC), The Government of South Georgia and the South Sandwich Islands (GSGSSI)
Other partner institutions	
Darwin Grant Value	£253,636
Start/end dates of project	01/04/2010 to 31/12/2013
Reporting period	April 2012 – March 2013, Annual Report 3
Project Leader name	Dr Richard Cuthbert (RSPB)
Project website	
Report authors, main contributors and date	Author: Richard Cuthbert Date: 30 April 2013

## 2. Project Background

The islands of Tristan da Cunha, the Falklands and South Georgia are some of the most important sites for biodiversity within the United Kingdom Overseas Territories (UKOTs), supporting globally significant populations of seabirds, endemic plants, invertebrates and land birds. Several species of very high conservation concern are threatened by invasive species and, in particular, predation by introduced house mice. On the Gough Island World Heritage Site (Tristan da Cunha), predation by house mice on chicks of the Tristan albatross and Atlantic petrel is unsustainable for these populations, and is almost certainly causing rapid population declines of the endemic Gough bunting. Consequently, both the Gough bunting and Tristan albatross are classified as Critically Endangered by the IUCN. Mice on Gough Island are also likely to be causing ecosystem-wide impacts through predation of invertebrates and plants, and alteration of nutrient cycles. Research suggests that the impact of mice is likely to be most severe where they are the sole introduced rodent species. As a result, two other islands within the UKOTs are of real concern: mice are the sole species of rodent on Steeple Jason Island (Falklands) and on some areas of South Georgia. This project will build knowledge towards the eradication of mice from Gough Island, and will determine whether mice on Steeple Jason and South Georgia are having similar biodiversity impacts as on Gough as well as contributing towards their eradication from South Georgia.

### 3. Project Partnerships

The project's main partners are the Conservation Department on Tristan da Cunha (CD-TDC) responsible for all research and conservation activities that are undertaken on Gough Island and on islands within the Tristan Group, Falklands Conservation (FC) who are the Birdlife partner undertaking research and conservation in this island group, and the Government of South Georgia and the South Sandwich Islands (GSGSSI) who oversee work at South Georgia.

During the second and third years of the project working partnerships have also arisen between the RSPB and the South Georgia Heritage Trust (SGHT) who, in collaboration with GSGSSI, are the lead organisation planning and undertaking the eradication of rats and mice from South Georgia. A further partnership has arisen between the project and the Wildlife Conservation Society (WCS) who own Steeple Jason Island in the Falklands and enabled fieldwork to go ahead in 2012 and who have been consulted over the preparation of a feasibility study for eradicating mice from this island. The Environmental Planning Department, of the Falkland Islands Government have also been involved and consulted on the fieldwork plans and feasibility assessment for Steeple Jason Island.

### 4. Project Progress

#### 4.1 Progress in carrying out project activities

Progress towards project outputs **Output 1**

*1a. Draft Operational Plan for eradication of mice from Gough Island*

*1b. Key remaining areas of uncertainty identified and steps taken to address these*

##### **Activities 1**

- 1.1 Employ two experienced eradication operators to visit and produce draft Operational Plan with project manager for Gough Island*
- 1.2 Operational managers identify key remaining steps that need to be addressed prior to an operation*
- 1.3 Produce and disseminate operational plan*
- 1.4 Produce report identifying key outstanding issues and develop work plans to address these*

Activities 1.1, 1.2 and 1.3 were all completed during the first year of this project and the draft Operational Plan has been published and disseminated via the RSPB's website and from circulating this among the members of the Tristan Biodiversity Advisory Group (T-BAG) and to other international experts. The project is planning to undertake a second visit to Gough Island in September 2013 to undertake a trial spread of bait on the island's cliffs (see below), and this second visit will involve taking two further experienced eradication operators (a helicopter pilot and researcher/manager) to the island. Following their visit the draft operational plan will again be updated.

Progress towards activity 1.4 followed discussions by the project manager and RSPB with two experienced eradication operation managers (Nick Torr and Derek Brown from New Zealand), in order to finalise the remaining outstanding issues. These, reported previously, were to:

- (a) Finalise and test plans for the captive husbandry of vulnerable wildlife species that is likely to be impacted by an eradication operation,
- (b) Assess if a better map of Gough Island can be produced to increase the accuracy of the island's area and special treatment areas
- (c) Evaluate if a "switchable" bait-hopper can be manufactured to allow bait to be spread on alternate sides during an eradication
- (d) Undertake a bait uptake trial on the cliffs at Gough Island testing the effectiveness of a helicopter and bait bucket at delivering a target bait application rate.

Progress on these activities is described below:

- (a) Input on the remaining study and trials for captive management of Gough moorhens was obtained from an experienced aviculturist (Gavin Harrison, from the Royal Zoological Society of Scotland, who managed the RSPB's avicultural facilities on Henderson Island during 2011). Trials are currently underway on Gough Island (supported by the UK Government's Overseas Territories Environment Programme (OTEP)) and will take place from May to September 2013.
- (b) Acquisition of new satellite data has enabled a more accurate GIS map of Gough Island to be prepared with vertical data now accurate to 10 m as opposed the old map where contour data are ~50 m in accuracy. The new data and map has allowed more accurate estimates of the island's total area, the baiting requirements, and the key (steep) areas that will be most challenging.
- (c) Discussions have been had with Otago Helicopters (who manufacture bait buckets) and two very experienced eradication pilots (Peter Garden and Graeme Gale) over the feasibility of a switchable bucket. While it appears to be technically feasible, both pilots expressed strong reservations over developing and operating such a new piece of equipment for flying during an eradication, particularly for operating along steep cliffs where the pilot will want to spread bait only on the pilot's side of the aircraft. Based on this advice we have decided not to pursue this option.
- (d) Agreement has been sought and given from the South African National Antarctic Programme (SANAP) and the Tristan da Cunha Administrator and Conservation Department to undertake a bait uptake trial on the cliffs at Gough Island in September 2013 to test the effectiveness of a helicopter and bait bucket at delivering a target bait application rate on the island's cliffs. This work will be led by the experienced eradication helicopter pilot Peter Garden (currently leading the flying on South Georgia) and by Keith Broome who runs the New Zealand Department of Conservation Island Eradication Advisory Group (IEAG). During their visit the draft Operational Plan prepared earlier by this project will be updated.

## **Output 2**

*2a. Research on conservation impacts of mice on Steeple Jason*

*2b. Mouse bait acceptance trials, non-target species trials and mice ecology research undertaken on Steeple Jason*

### **Activities 2**

- 2.1 Develop and agree research plans for Steeple Jason with Falklands Conservation and Wildlife Conservation Society*
- 2.2 Recruit field biologists to work alongside partners, and train partners in methods studies on mice ecology, bait acceptance trials and mice impacts on high risk bird species*
- 2.3 Organise permits, logistical support and equipment for field research*
- 2.4 Carry out one summer and one winter field season of research on Steeple Jason*
- 2.5 Produce and disseminate research reports from fieldwork*
- 2.6 Incorporate research findings into Feasibility Assessment and produce Draft Operational Plan for mice eradication on Steeple Jason*

Activity 2.1 has been ongoing through the life of the project with regular contact with James Fenton (CEO Falklands Conservation), Graham Harris (WCS Director South America programme) and Nick Rendell (Environmental Officer, Falkland Islands Government).

Activity 2.2 involved the project supporting Falklands Conservation to recruit Kalinka Rexter-Huber to lead the winter fieldwork on Steeple Jason in August 2012. Along with Kalinka the project arranged for Micky Reeves (FC), Andrew Stanworth (FC) and Graham Parker (volunteer) to be involved with the trip, working in collaboration with Robin Woods, David Galloway, Keith Bildstein and Jonathan Meiburg, whose work was funded by Darwin grant 18-

077 “*Falkland Island raptors – reducing conflicts with rural livelihoods*”, and Keith Bildstein (Hawk Mountain Sanctuary).

Activity 2.3, permits to visit and work on Steeple Jason were granted by Graham Harris (WCS) and the project worked closely with Rob McGill (WCS Warden on Steeple Jason). Logistics and equipment for the visit were arranged from the RSPB and by FC.

Activity 2.4 have now been completed with a summer season of fieldwork in January/February 2011 and a winter season of fieldwork in August-September 2013.

Activity 2.5 is complete, with reports from both the summer and winter fieldwork produced and circulated to project partners. Scientific papers from this work are either submitted or in preparation.

Activity 2.6 has been undertaken with a feasibility assessment for the eradication of mice from Steeple Jason written and circulated to project partners and Falkland Islands Government. The final decision on whether an eradication is feasible or desirable ultimately rests with the island’s owners (WCS) and approval from Falkland Islands Government. Consequently, the project is not planning to prepare a draft Operational Plan as this should be commissioned by the organisations involved in leading on any such eradication attempt.

### **Output 3**

#### *3. Mouse bait acceptance trials and mice ecology research undertaken on South Georgia*

Output 3 has now been completed following fieldwork on South Georgia in March 2012 which determined the distribution and relative abundance within the two areas of South Georgia where the species occurs, and undertook bait uptake trials for the species’ eradication. A full report from the fieldwork was prepared and published in 2012, and this report was delivered to the both the project’s partner GSGSSI as well as to the South Georgia Heritage Trust (SGHT) who are leading the rodent eradication operation on the island. The fieldwork and report assisted SGHT in finalising their plans and approach for baiting Cape Rosa and the Nuñez Peninsula and this work is currently taking place on the island (March-April). A scientific paper on the ecology of mice on South Georgia is currently in preparation and will be submitted in May 2013.

### **Output 4**

#### *4. Knowledge, capacity and awareness of conservation threat of mice and invasive species increased in Tristan, Falklands and South Georgia and within UK*

##### **Activities 4**

- 4.1 Organise training for personnel from Tristan Conservation Department on helicopter safety and bait loading*
- 4.2 Carry out training*
- 4.3 Establish remote networks for bi-monthly updates between the project partners to collaborate on project planning*
- 4.4 Produce educational materials and mouse game for use by UKOT children and visitors, disseminate materials to OTs*

Training for Tristan da Cunha (activities 4.1 and 4.2) will be undertaken during the baiting trials planned for September 2013.

Establishment of remote networks and bi-monthly updates has not been formally undertaken. In reality the number of islands and partners where mice eradication operations are feasible or a priority are small, and informal communication between the main partners and agencies are already taking place.

Educational materials in the form of a “South Atlantic mouse game” were produced during the first year of the project and have been distributed to Tristan da Cunha and the Falkland Islands.

## Output 5

### 5. Steps taken to ensure the sustainability of research and action directed at eradicating invasive species on UKOTs beyond end of project

The key step taken towards ensuring the sustainability of the research has been the close cooperation with the project and project partners and with the international eradication community. For example the fieldwork report from South Georgia was utilised by the SGHT to refine their operational planning towards this year's eradication operation. Similarly the Feasibility Study for the eradication of mice from Steeple Jason was used as an example document and example approach at a recent meeting of the New Island Conservation Trust (NICT) and NICT are now exploring options for a similar report to be prepared to assess the feasibility of removing alien species from this island in the Falkland Islands. The global "eradication community" is relatively small and good and close cooperation exists between this and other projects that are of benefit to the UKOTs and other areas of the world.

## 4.2 Standard Measures

**Table 1 Project Standard Output Measures**

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for reporting period	Total planned during the project
6A	Number of people to receive other forms of education/training	2	3	2		7	2	10
6B	Number of training weeks to be provided	5	4	5		14	4	12
7	Number of training materials to be produced for use by host country	0	0	0		0	0	1
8	Number of weeks to be spent by UK project staff on project work in the host country	14	8	0 (16 from FC)		22	4	20
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country	1	0	2		3	1	3
11A	Number of papers to be published in peer reviewed journals	0	0	1		0	1	2
11B	Number of papers to be submitted to peer reviewed journals	0	1	3		4	1	3
14A	Number of conferences/seminars/workshops to be <b>organised</b> to present/ disseminate findings	0	0	0		0	0	1
14B	Number of conferences/seminars/workshops <b>attended</b> at which findings from Darwin project work will be presented/ disseminated.	0	0	0		0	0	2
15A	Number of national press releases in host country(ies)	0	0	0		0	1	3

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for reporting period	Total planned during the project
15C	Number of national press releases in UK	0	0	0		0	0	2
17A	Number of dissemination networks to be <b>established</b>	0	0	0			0	1
19A	Number of national radio interviews/features in host county(ies)	0	0	0		0	0	3
19B	Number of national radio interviews/features in UK	0	0	0		0	0	2
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)	£0	£2260	£1600		£3860	£1400	£6200
23	Value of resources raised from other sources for project work	£36K	£250K	£8900		£295K	£8900	£77,181

**Table 2 Publications**

Type	Detail	Publishers	Available from	Cost £
Scientific paper	Kerguelen petrel ( <i>Lugensa brevirostris</i> ): A new breeding species for South Georgia. Black, A., Parker, G., Rexer-Huber, K., Sommer, E. and Cuthbert, R.J. (2012)	Published in journal <i>Antarctic Science</i>	RSPB, GSGSSI, <i>Antarctic Science</i>	£0
Published Research Report	Field trials for the eradication of House Mice from South Georgia. Cuthbert, R.J., Black, A., Rexer-Huber, K., Parker, G. and Sommer, E. (2012).	RSPB Research Report No. 48. Royal Society for the Protection of Birds, Sandy, Bedfordshire, UK. ISBN 978-1-905601-35-6	RSPB	£0
Published Research Report	Baiting trials, winter biology and non-target species: house mice on Steeple Jason August–September 2012. Rexer-Huber, K., Parker, G.C., Reeves, M., Stanworth, A. and Cuthbert, R.J. (2012).	RSPB Research Report No. 51. Royal Society for the Protection of Birds, Sandy, Bedfordshire, UK. ISBN 978-1-905601-42-4	RSPB	£0
Feasibility assessment	Feasibility Study Report for the potential eradication of mice from Steeple Jason Island, Falkland Islands. April 2013. Brown, D. and Cuthbert R.J. (2013).	Unpublished report, Royal Society for the Protection of Birds, UK.	RSPB	£0
Newsletter	Mouse trap. Cuthbert, R.J. (2012).	South Georgia Newsletter April 2012	<a href="http://www.sgisland.gs/index.php/(h)South_Georgia_Newsletter,_April_2012">http://www.sgisland.gs/index.php/(h)South_Georgia_Newsletter,_April_2012</a>	£0
Newsletter	Mice on Steeple Jason: how many and are they hungry? Rexer-Huber, K. (2012).	FC Newsletter Summer 2012/13	Falklands Conservation	£0
Scientific paper	The abundance, biology and distribution of house mice during the winter months on Steeple Jason island and prospects for their eradication. Kalinka Rexer-Huber, Graham Parker, Richard Cuthbert (submitted).	Submitted to <i>Polar Biology</i> .	Pending review	

Type	Detail	Publishers	Available from	Cost £
Scientific paper	Impact of House mice ( <i>Mus musculus</i> ) on burrowing seabirds on Steeple Jason and Grand Jason Islands, Falklands, South Atlantic. Bolton, M., Stanbury, A., Bayliss, A., and Cuthbert, R.J. (in prep).	In prep	Pending review	
Scientific paper	Low population density and biology of an island population of House Mice <i>Mus musculus</i> on South Georgia. Cuthbert, R.J., Black, A., Parker, G., Rexer-Huber, K., and Sommer, E. (in prep).	In prep	Pending review	
Scientific paper	High rates of predatory behaviour and extreme size in the house mouse <i>Mus musculus</i> on Gough Island are a consequence of enhanced survival and reproduction and high densities of winter-breeding seabirds. Cuthbert, R.J., Wanless, R.M., Angel, A., Burle, M-H., Hilton, G.M., Louw, H., Visser, P., Wilson, J., and Ryan, P.G. (in prep).	In prep	Pending review	

#### 4.3 Progress towards the project purpose and outcomes

The project continues to make good progress towards its main objectives and overall purpose which is “to investigate the impact of mice on Steeple Jason in the Falkland Islands, produce draft operational plans for the eradication of mice from Steeple Jason and Gough Island, refine operational planning for mouse eradication on South Georgia, and create the capacity to undertake mouse eradication operations on all three islands”. Good progress is demonstrated by the fact that several components of project’s purpose have now been achieved and we are working towards the final steps in improving knowledge to eradicate mice from Gough Island. Delays were incurred in Year 2 due to the RSPB’s and project manager’s involvement with an eradication attempt on Henderson Island (in the UKOT of Pitcairn), but the experience of that work has been of overall value for this project.

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

The project has made important progress towards securing biodiversity benefits for the three main islands, and if the eradication of mice from the two infested areas of South Georgia in 2013 is proven to be successful then the project will have contributed key knowledge towards making this happen. Operations to eradicate mice from Gough Island or Steeple Jason are still some way off but these potential operations are now closer to being achieved than they were at the start of this project.

### 5. Monitoring, evaluation and lessons

Monitoring and evaluation of the project’s progress has been made through regular email exchanges, phone-calls and “Skype” sessions between the project manager and project partners. External evaluation of the project’s output has been undertaken through circulating reports and feasibility studies to project partners and international experts.

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

Not applicable.

## 7. Other comments on progress not covered elsewhere

A project change request was made to Darwin in December 2011 and was approved by the Darwin Initiative in early 2012. The change request was made in order to extend the duration of the project (at no extra cost) and to transfer funds from Year 2 to Year 3 of the budget. The project will finish in December 2013.

## 8. Sustainability

The key elements of sustainability that the project has supplied are improved knowledge within Falklands Conservation (FC) and GSGSSI in field research for investigating mice ecology, as well as improved knowledge to FC and WCS on the procedures and steps for a feasibility assessment. Evidence that this is being taken up is demonstrated by the use of the project's feasibility assessment for Steeple Jason as an example of the plan required for another nature reserve in the Falkland Islands. Further evidence towards sustainability has come from the close collaboration with this project and other Darwin projects (e.g. Darwin grant 18-077 "Falkland Island raptors – reducing conflicts with rural livelihoods") and the support of the RSPB to the South Georgia Heritage Trust in their successful application for Darwin funding.

## 9. Dissemination

To date, dissemination of the project's findings has been to project partners, other conservation NGOs and government departments working in the region, and to other eradication experts in the relatively small global eradication community. As the project nears its completion point, further dissemination should happen with the publication (hopefully) of results in scientific journals and the potential for press releases on these.

## 10. Project Expenditure

**Table 3 project expenditure during the reporting period (1 April 2012 – 31 March 2013)**

Item	Budget	Expenditure	Variance/ Comments
Staff costs specified by individual			
K Rexer-Huber (FC)			~
M Reeves/A Stanworth (FC)			~
FC project management			~
R Cuthbert (RSPB)			~
C Stringer (RSPB)			~
Overhead costs			~
Travel and subsistence			~
Operating costs			~
Capital items/equipment			
4 season tent			~
Bait pellets for trials			~
GPS + memory card			~
Mouse traps			~
Waterproofs/protective kit			~
Others: Consultancy			
Consultant Derek Brown			~
Consultant Iso-Analytical			~
Others (sea-freight & import charges)			~
<b>TOTAL</b>			<b>-7%</b>

## 11. OPTIONAL: Outstanding achievements of your project during the reporting period . This section may be used for publicity purposes

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



## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2012-2013

Project summary	Measurable Indicators	Progress and Achievements April 2012 - March 2013	Actions required/planned for next period
<p><b>Goal:</b> <i>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</i></p> <ul style="list-style-type: none"> <li>⇒ The conservation of biological diversity,</li> <li>⇒ The sustainable use of its components, and</li> <li>⇒ The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</li> </ul>			
<p><b>Purpose</b></p> <p>To investigate the impact of mice on Steeple Jason in the Falkland Islands, produce draft operational plans for the eradication of mice from Steeple Jason and Gough Island, refine operational planning for mouse eradication on South Georgia, and create the capacity to undertake mouse eradication operations on all three islands.</p>	<p>P(1) Knowledge on the impact of mice on Steeple Jason enhanced, and next steps in conservation action initiated by end of project</p> <p>P(2) Produce or contribute to the operational planning for mouse eradication from all three islands</p> <p>P(3) Staff on all three OTs have participated in operational planning and/or training by end of project</p>	<p>Winter season of fieldwork on Steeple Jason has assessed eradication of mice and non-target impacts, and feasibility assessment now complete.</p> <p>Project has contributed towards operational planning for South Georgia and Gough Island</p> <p>Staff in GSGSSI and FC have been involved in research on mice impacts and bait trials. Staff on Tristan will be involved in 2013</p>	<p>Publication of research papers on Steeple Jason work and wider publication of results</p> <p>Contribution towards operational planning largely complete, but update of Gough plan will be produced in 2013</p> <p>Training to be delivered to staff from Tristan da Cunha Conservation Department</p>
<p><b>Output 1.</b></p> <p>1a. Draft Operational Plan for eradication of mice from Gough Island</p> <p>1b. Key remaining areas of uncertainty identified and steps taken to address these</p>	<p>1a. Key stakeholders agree and sign off draft Operational Plan for Gough Island published by Year 2</p> <p>1b. Report produced by Year 1 and work plan developed to address remaining steps in years 2 &amp; 3</p>	<p>Draft operational plan produced, published, discussed at IEAG and circulated</p> <p>Work plan developed for remaining questions and research underway in year 3 and 4</p>	
<p><b>Activities</b></p> <p>1.1 Employ two experienced eradication operators to visit and produce draft Operational Plan with project manager for Gough Island</p>		<p>Completed during 2011, planning 2 more operational professionals to visit Gough in 2013</p>	
<p>1.2 Operational managers identify key remaining steps that need to be addressed prior to an operation</p>		<p>Completed</p>	
<p>1.3 Produce and disseminate operational plan</p>		<p>Published and circulated to Tristan Conservation Department, Tristan Biodiversity Advisory Group (TBAG) and the Island Eradication Advisory Group (IEAG)</p>	
<p>1.4 Produce report identifying key outstanding issues and develop work plans to address these</p>		<p>Internal RSPB report produced and discussed with eradication operators</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2012 - March 2013	Actions required/planned for next period
<p><b>Output 2.</b></p> <p>2a. Research on conservation impacts of mice on Steeple Jason</p> <p>2b. Mouse bait acceptance trials, non-target species trials and mice ecology research undertaken on Steeple Jason</p> <p>2c. Feasibility Assessment and Draft Operational Plan of mice eradication produced for Steeple Jason</p>	<p>2a&amp;b. Published report and/or scientific papers produced in Years 2 &amp; 3</p> <p>2c Feasibility study published by Year 3, key stakeholders agree and sign off draft Operational Plan for Steeple Jason published by Year 3</p>	<p>Two scientific reports published on fieldwork from summer and winter seasons.</p> <p>One paper submitted to journal, second paper in preparation</p> <p>Feasibility study completed and published</p> <p>Draft operational plan will not be undertaken by project as this is not considered appropriate by stakeholders</p>	
<b>Activities</b>			
2.1. Develop and agree research plans for Steeple Jason with Falklands Conservation and Wildlife Conservation Society		Work plan to visit agreed between FC and WCS	
2.2. Recruit field biologists to work alongside partners, and train partners in methods studies on mice ecology, bait acceptance trials and mice impacts on high risk bird species		Field teams recruited for summer (2011) and winter (2012) fieldwork, and training delivered via project work on South Georgia	
2.3. Organise permits, logistical support and equipment for field research		Permit granted from WCS, equipment and logistics sorted in 2011 and 2013	
2.4. Carry out one summer and one winter field season of research on Steeple Jason		Summer (2011) and winter (2012) fieldwork undertaken	
2.5. Produce and disseminate research reports from fieldwork		Fieldwork reports from both field visits produced and circulated	
2.6. Incorporate research findings into Feasibility Assessment and produce Draft Operational Plan for mice eradication on Steeple Jason		Feasibility study commissioned and completed	
<p><b>Output 3.</b></p> <p>Mouse bait acceptance trials and mice ecology research undertaken on South Georgia</p>	<p>3a. Published report and/or scientific papers produced in Years 2 &amp; 3</p> <p>3b Results of trials included in to operational planning for eradication on South Georgia</p>	<p>Report on fieldwork published in 2012</p> <p>1 paper published in 2012, second paper in prep for submission to journal</p> <p>Report and results delivered to SGHT and have been utilised in operational planning for 2013 eradication</p>	
<b>Activities</b>			
3.1 Develop and agree research plans with partners in South Georgia Government and with South Georgia Heritage Trust		Research plans agreed between RSPB, GSGSSI and SGHT	
3.2 Recruit field biologists to work alongside partners on mice ecology and bait acceptance trials		Fieldworkers (3) recruited along with 1 GSGSSI and 1 RSPB employee	
3.3 Organise permits, logistical support and equipment for field research		Permit granted from GSGSSI, ship and logistics organised	
3.4 Carry out fieldwork on South Georgia		Completed in March 2012	
3.5 Produce and disseminate research reports from fieldwork		Report produced and published	

Project summary	Measurable Indicators	Progress and Achievements April 2012 - March 2013	Actions required/planned for next period
3.6 Incorporate research findings into Operational Plan for mice eradication on South Georgia		Report delivered to SGHT and incorporated in to operational planning	
<b>Output 4.</b> Knowledge, capacity and awareness of conservation threat of mice and invasive species increased in Tristan, Falklands and South Georgia and within UK	4a. Practical training in helicopter safety and bait loading given to 4 personnel from Tristan da Cunha  4b. Remote network and bi-monthly meetings/reports circulated among project partners during operational planning for Gough trial  4c. Educational game and materials produced Year 1  4d. >6 print and/or radio articles produced in Years 2 & 3	Training in helicopter safety and bait loading planned for September 2013 visit to Gough Island  Remote network and bi-monthly meetings not formally established, but good communication exists between the project, partner UKOTs and wider eradication community  Game and materials produced and circulated in Year 1  2 newsletters from partners report on project's progress in year 3	
<b>Activities</b> 4.1 Organise training for personnel from Tristan Conservation Department on helicopter safety and bait loading		Training in helicopter safety and bait loading planned for September 2013 visit to Gough Island	
4.2 Carry out training		Planned for September 2013	
4.3 Establish remote networks for bi-monthly updates between the project partners to collaborate on project planning		Not undertaken as not deemed necessary	
4.4 Produce educational materials and mouse game for use by UKOT children and visitors, disseminate materials to OTs		Completed	
<b>Output 5.</b> Steps taken to ensure the sustainability of research and action directed at eradicating invasive species on UKOTs beyond end of project	5a. Funding proposals submitted to support eradication programme after end of project  5b. Conservation strategies promoted to other conservation networks within UKOTs, BirdLife partners and other oceanic islands by end Yr 3	Project collaborator SGHT submitted an application to Darwin, with support of RSPB, and were successful in obtaining funds to support mice eradication on South Georgia. Promotion of project and approach has been informal to date but is being taken up and followed by other conservation NGOs	
<b>Activities</b> 5.1 Write and submit funding proposals for supporting full eradication		SGHT led on funding proposal to Darwin, with RSPB support	
5.2 Disseminate results of study and trials at workshops/conferences/meetings		Planned for 2013	

## Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal:</p> <p><b>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.</b></p>			
<p><b>Sub-Goal:</b></p> <p>The restoration of Gough Island, Steeple Jason Island and South Georgia's biodiversity and ecosystem function to a favourable conservation status that is not negatively impacted by introduced House Mice</p>	<p>SG(1) Gough Island, Steeple Jason and areas of South Georgia declared free of House Mice</p> <p>SG(2) Step towards improvement in IUCN threat status of endangered and critically endangered bird species through removal of key terrestrial threat process</p>	<p>Reports to funding agencies document successful eradication of House Mice according to standard criteria for determining success.</p> <p>Revised IUCN Red List assessment document</p>	
<p><b>Purpose</b></p> <p>To investigate the impact of mice on Steeple Jason in the Falkland Islands, produce draft operational plans for the eradication of mice from Steeple Jason and Gough Island, refine operational planning for mouse eradication on South Georgia, and create the capacity to undertake mouse eradication operations on all three islands.</p>	<p>P(1) Knowledge on the impact of mice on Steeple Jason enhanced, and next steps in conservation action initiated by end of project</p> <p>P(2) Produce or contribute to the operational planning for mouse eradication from all three islands</p> <p>P(3) Staff on all three OTs have participated in operational planning and/or training by end of project</p>	<p>Scientific reports/papers on impacts of mice produced, Feasibility Assessment produced for Steeple Jason island, Draft Operational Plan for eradication of mice from Gough Island and Steeple Jason produced and favourably reviewed by New Zealand's Island Eradication Advisory Group (IEAG), results of research incorporated in to operational plan for South Georgia</p> <p>Review of Impacts and scientific papers submitted to journals and accepted by peer review, feasibility studies for mice eradication produced and submitted for review</p> <p>Training reports and activity manuals/handbooks produced</p>	<p>Major new eradication projects in similar environments do not indicate fundamental obstacles for eradicating house mice</p> <p>No other major new terrestrial conservation threats arise on Gough Island, Steeple Jason or South Georgia</p> <p>Continued local and international support for participation of OT personnel in eradication training programme</p> <p>Staff are available to participate in training</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p><b>Outputs</b></p> <p>1a. Draft Operational Plan for eradication of mice from Gough Island</p> <p>1b. Key remaining areas of uncertainty identified and steps taken to address these</p>	<p>1a. Key stakeholders agree and sign off draft Operational Plan for Gough Island published by Year 2</p> <p>1b. Report produced by Year 1 and work plan developed to address remaining steps in years 2 &amp; 3</p>	<p>1. Draft Operational Plan for Gough distributed and favourably reviewed by ISSG and eradication experts</p> <p>1b. Report circulated to relevant experts and remaining steps approved</p>	<p>Favourable outcome from bait acceptance trials and captive husbandry trials of non-target species on Gough Island</p> <p>Expert opinion continues to view mouse eradication as technically feasible</p> <p>Availability of experienced operational managers to visit Gough Island</p>
<p>2a. Research on conservation impacts of mice on Steeple Jason</p> <p>2b. Mouse bait acceptance trials, non-target species trials and mice ecology research undertaken on Steeple Jason</p> <p>2c. Feasibility Assessment and Draft Operational Plan of mice eradication produced for Steeple Jason</p>	<p>2a&amp;b. Published report and/or scientific papers produced in Years 2 &amp; 3</p> <p>2c Feasibility study published by Year 3, key stakeholders agree and sign off draft Operational Plan for Steeple Jason published by Year 3</p>	<p>2a&amp;b. Report circulated to relevant experts and peer-reviewed papers published</p> <p>2c. Feasibility Study and Draft Operational Plan favourably reviewed by IEAG and eradication experts</p>	<p>Suitable personnel recruited/involved to undertake research on Steeple Jason</p> <p>Berths and logistical support available for research programme</p> <p>Continued support from island owner (WCS) for research and plans</p> <p>Research on conservation impacts of mice justifies eradication operation</p> <p>Favourable outcome from bait acceptance and non-target trials on Steeple Jason</p>
<p>3. Mouse bait acceptance trials and mice ecology research undertaken on South Georgia</p>	<p>3a. Published report and/or scientific papers produced in Years 2 &amp; 3</p> <p>3b Results of trials included in to operational planning for eradication on South Georgia</p>	<p>3a. Report circulated to relevant experts and peer-reviewed papers published</p> <p>3b. South Georgia operational plan</p>	<p>Suitable personnel recruited/involved to undertake research on South Georgia</p> <p>Berths and logistical support available for research programme</p> <p>Successful progress on initial stages of South Georgia eradication programme (for rats in 2011 and 2012)</p>
<p>4. Knowledge, capacity and awareness of conservation threat of mice and invasive species increased in Tristan, Falklands and South Georgia and within UK</p>	<p>4a. Practical training in helicopter safety and bait loading given to 4 personnel from Tristan da Cunha</p> <p>4b. Remote network and bi-monthly meetings/reports circulated among</p>	<p>4a. Training reports and photographs published on project partners and RSPB websites</p> <p>4b. Reports, written exchanges and dates of video-conferencing</p>	<p>NZ organisations continue to support project and allow participation in eradication operation for training</p> <p>Interest from local and national press in</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>project partners during operational planning for Gough trial</p> <p>4c. Educational game and materials produced Year 1</p> <p>4d. &gt;6 print and/or radio articles produced in OT and UK press Years 2 &amp; 3</p>	<p>produced and published on project websites</p> <p>4c.Circulation numbers and educational material published on project website</p> <p>4d. Catalogue of published articles and press</p>	<p>project's progress is maintained</p>
<p>5. Steps taken to ensure the sustainability of research and action directed at eradicating invasive species on UKOTs beyond end of project</p>	<p>5a. Funding proposals submitted to support eradication programme after end of project</p> <p>5b. Conservation strategies promoted to other conservation networks within UKOTs, BirdLife partners and other oceanic islands by end Yr 3</p>	<p>5a copies of funding proposals</p> <p>5b Reports taken to meetings, talks given</p>	

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<b>Activities</b> (details in work plan) (n.b. Activities 1.1 to 1.6 support Output 1, Activities 2.1 to 2.2 support Output 2, etc)			
<p>1.5 Employ two experienced eradication operators to visit and produce draft Operational Plan with project manager for Gough Island</p> <p>1.6 Operational managers identify key remaining steps that need to be addressed prior to an operation</p> <p>1.7 Produce and disseminate operational plan</p> <p>1.8 Produce report identifying key outstanding issues and develop work plans to address these</p> <p>2.7 Develop and agree research plans for Steeple Jason with Falklands Conservation and Wildlife Conservation Society</p> <p>2.8 Recruit field biologists to work alongside partners, and train partners in methods studies on mice ecology, bait acceptance trials and mice impacts on high risk bird species</p> <p>2.9 Organise permits, logistical support and equipment for field research</p> <p>2.10 Carry out one summer and one winter field season of research on Steeple Jason</p> <p>2.11 Produce and disseminate research reports from fieldwork</p> <p>2.12 Incorporate research findings into Feasibility Assessment and produce Draft Operational Plan for mice eradication on Steeple Jason</p> <p>3.7 Develop and agree research plans with partners in South Georgia Government and with South Georgia Heritage Trust</p> <p>3.8 Recruit field biologists to work alongside partners on mice ecology and bait acceptance trials</p> <p>3.9 Organise permits, logistical support and equipment for field research</p> <p>3.10 Carry out fieldwork on South Georgia</p> <p>3.11 Produce and disseminate research reports from fieldwork</p> <p>3.12 Incorporate research findings into Operational Plan for mice eradication on South Georgia</p> <p>4.5 Organise training for personnel from Tristan Conservation Department on helicopter safety and bait loading</p> <p>4.6 Carry out training</p> <p>4.7 Establish remote networks for bi-monthly updates between the project partners to collaborate on project planning</p> <p>4.8 Produce educational materials and mouse game for use by UKOT children and visitors, disseminate materials to OTs</p> <p>5.3 Write and submit funding proposals for supporting full eradication</p> <p>5.4 Disseminate results of study and trials at workshops/conferences/meetings</p>			

## **Annex 3 Onwards – supplementary material**

### **Appendix 1**

PDF of “Black, A., Parker, G., Rexer-Huber, K., Sommer, E. and Cuthbert, R.J. (2012). Kerguelen petrel (*Lugensa brevirostris*): A ‘new’ breeding species for South Georgia. *Antarctic Science*, 25: 69-70, Available on CJO doi:10.1017/S0954102012000946”

### **Appendix 2**

PDF of title pages and executive summary of “Cuthbert, R.J., Black, A., Rexer-Huber, K., Parker, G. and Sommer, E. (2012). Field trials for the eradication of House Mice from South Georgia. RSPB Research Report No. 48. Royal Society for the Protection of Birds, Sandy, Bedfordshire, UK. ISBN 978-1-905601-35-6”

### **Appendix 3**

PDF of title pages and executive summary of “Rexer-Huber, K., Parker, G.C. , Reeves, M., Stanworth, A. and Cuthbert, R.J. (2012). Baiting trials, winter biology and non-target species: house mice on Steeple Jason August–September 2012. RSPB Research Report No. 51. Royal Society for the Protection of Birds, Sandy, Bedfordshire, UK. ISBN 978-1-905601-42-4”

### **Appendix 4**

PDF of title pages and executive summary of “Brown, D. and Cuthbert R.J. (2013). Feasibility Study Report for the potential eradication of mice from Steeple Jason Island, Falkland Islands. April 2013. Unpublished report, Royal Society for the Protection of Birds, UK.”

### **Appendix 5**

PDF of Falklands Conservation Newsletter Summer 2012/13 “Rexer-Huber, K. (2012). Mice on Steeple Jason: how many and are they hungry?”

### **Appendix 6**

PDF of title and abstract of “Kalinka Rexer-Huber, Graham Parker, Richard Cuthbert (submitted). The abundance, biology and distribution of house mice during the winter months on Steeple Jason island and prospects for their eradication. *Polar Biology*”



## Checklist for submission

	Check
<b>Is the report less than 5MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	Yes
<b>Is your report more than 5MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	NA
<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	