Darwin Plus:
Overseas Territories Environment and Climate Fund
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: 30th April 2019

Darwin Plus Project Information

Project reference	DPLUS082
Project title	Conserving Falklands' whale populations: addressing data deficiencies for informed management
Territory(ies)	Falkland Islands
Lead organisation	Falklands Conservation
Partner institutions	British Antarctic Survey, University of California Santa Cruz, Sea Mammal Research Unit, Shallow Marine Surveys Group, New England Aquarium, Ketos Ecology, Happy Whale, Fundación MERI
Grant value	£298,552.00
Start/end date of project	2018-04-01 to 2021-03-31
Reporting period (e.g., Apr 2018-Mar 2019) and number (e.g., AR 1,2)	1 April 2018 to 31 March 2019 AR 1
Project leader name	Andrew Stanworth
Project website/blog/Twitter	http://www.falklandsconservation.com/
Report author(s) and date	Caroline Weir, 30 May 2019

1. Project overview

Anecdotal evidence suggests that endangered sei whales (*Balaenoptera borealis*) are increasing in Falklands waters and southern right whales (*Eubalaena australis*) have recently over-wintered. There is considerable interest in whales throughout the local community. Increasing whale numbers provide opportunities for tourism development, but increased human marine activities, such as oil development or tourism, could pose heightened risks. Development of Marine Spatial Planning (MSP) in the Falklands has faltered. Direct approaches for establishing Marine Protected Areas (MPAs) have raised considerable concerns among stakeholders regarding the selection of suggested sites and associated management proposals.

This project aims to ground discussions about MSP, MPAs and Environmental Impact Assessments (EIA) in the context of the importance of inshore areas (candidate Key Biodiversity Areas, cKBAs) for whales and managing human marine activities alongside increasing whale occurrence. The project will collect a range of field data that will help to fill in ongoing data gaps regarding the distribution and ecology of whales in Falklands' waters, with a view to recognising important areas for their long-term management.

This project uses a multi-disciplinary approach to collect the key information relevant to achieving practical management and spatial conservation measures for endangered sei and other whales in the Falklands. The approach includes:

1. Boat surveys at two study sites encompassing coastal cKBAs for sei whales (Figure 1), to assess their spatial distribution, group composition and habitat preferences. Photo-identification will be used to assess population size, inter-annual site fidelity, movements and social affiliation. Faecal and genetic sampling will provide data on diet and genetic diversity. Time-depth-recorder (TDR) tagging will provide information on foraging and dive behaviour.
2. A two-year acoustic monitoring feasibility study, to examine the spatio-temporal occurrence of vocalising whales at the sites.
3. An increase in local awareness, engagement and capacity in the Falkland Islands with regard to sei whales, through media releases, stakeholder meetings and capacity-building.

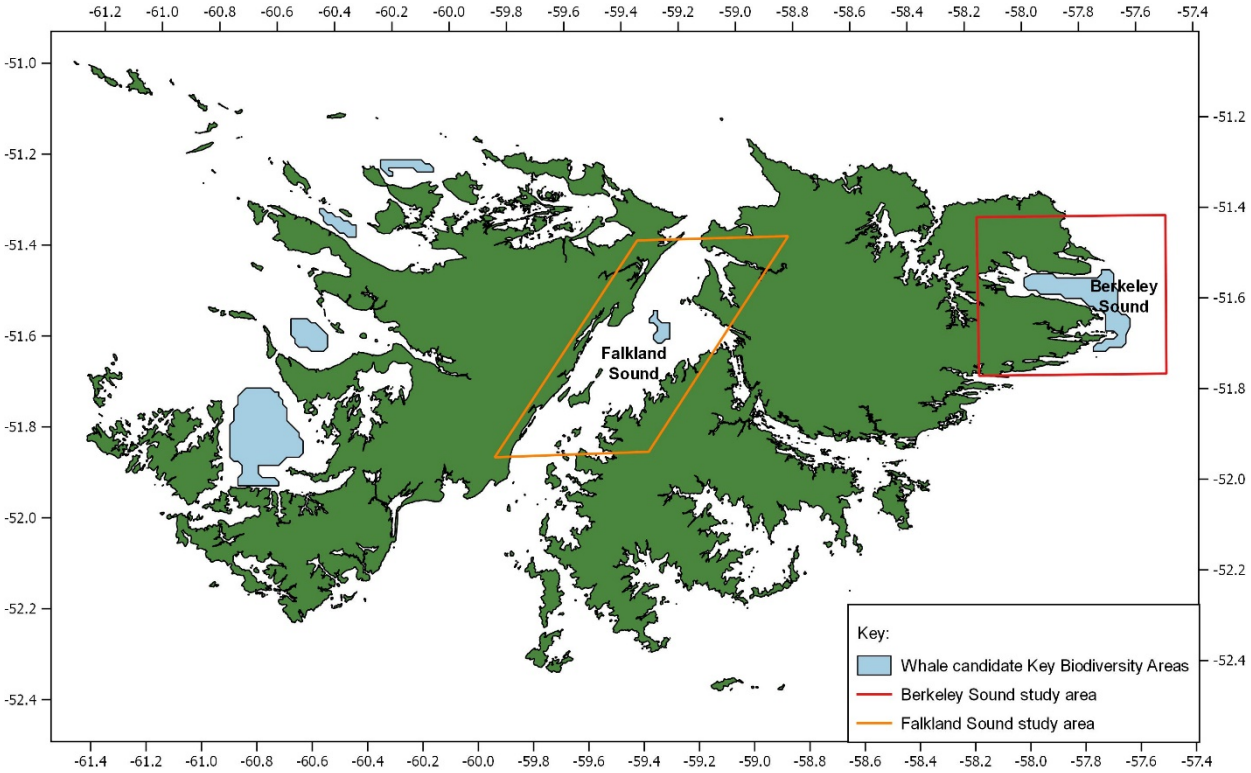

Figure 1. Location of two coastal candidate Key Biodiversity Areas for sei whales, comprising the project study sites in the Falkland Islands: (1) Berkeley Sound and (2) Falkland Sound.

2. Project stakeholders/partners

The project partners (who also comprise the steering group) and stakeholders have been kept informed of the project progress during the first year of the project as follows:

<u>Project partners:</u>

- An initial email update about the establishment of the steering group was sent on 7 June 2018, and the project partners all agreed to form the group.
- A further project update was disseminated to the project partners on 26 October 2018, which announced the recruitment of the Project Officer and acquisition of field equipment.
- On 15 February 2019, a more comprehensive project update was sent to project partners, outlining the first period of fieldwork and progress to date (Annex 3).
- The SMSG (partner) has provided boat support throughout the initial phase of fieldwork covered in the timeframe of this report (January to March 2019), and communications

between the Project Officer and SMSG have consequently been almost daily. A contract for boat provision was signed between FC and SMSG (available on request).

- The Project Officer met with Jen Jackson from BAS (partner) on several occasions in Stanley during January and March 2019, and discussed implementation of the genetics and faecal sampling components. Jen was also able to accompany one field survey to Berkeley Sound to observe the field protocols first-hand.
- Multiple Skype and email discussions have been held between the Project Officer, the FC Conservation Manager, and Sal Cerchio (partner), with regard to the initial acoustic deployments. This included decision-making regarding the choice of method and deployment sites for the acoustic devices and the production of a comprehensive acoustic monitoring deployment protocol (available on request).
- Email and Skype discussions regarding the tagging component have been held between the Project Officer and UCSC (partner) throughout 2018 and into 2019, culminating in the arrival of Paolo Segre for the tagging work in March 2019. During his visit, Paolo provided training to the FC Project Officer and Conservation Manager in suction-cup tagging techniques.
- The FC Project Officer and Conservation Manager presented talks on southern right whales and sei whales respectively at an international workshop titled 'Whales at South Georgia; past, present and future' organised in Stanley by project partner BAS on 6 and 7 March 2019. The Darwin project was highlighted during both presentations (Annex 4, Item 1).
- The project was highlighted by HappyWhale (partner) in the IAATO field staff newsletter in February 2019, along with a request for whale images.

Stakeholders:

Key stakeholders:

- A list of key local stakeholders was developed by the FC Project Officer and Conservation Manager (available on request).
- An initial email to inform all key stakeholders about the whale project was distributed in June 2018.
- A follow-up document was distributed to key stakeholders in February 2019 (Annex 5), which included a comprehensive description of the fieldwork taking place and the contact details for the Project Officer with regard to any queries.
- The Falklands Island Government (FIG) Environmental Officer and Policy Advisor, Denise Blake, has met with the Project Officer several times and received updates on the sei whale work. The project has also been highlighted at the Environment Committee meetings.
- The FC CEO Esther Bertram met with two FIG MLAs during February, and provided an update on the project progress (Annex 6).

Wider stakeholders in the community:

- The Darwin Project was introduced along with previous whale work at the FC Annual General Meeting in December 2018, which was attended by a variety of stakeholders.
- Project bulletins have been posted on the Falklands Conservation Facebook page and twitter account (Annex 4).
- A dedicated Facebook page (https://www.facebook.com/FalklandsWhale) featuring the Darwin logo was established on 13 February 2019 (Annex 4), to engage with stakeholders and provide more frequent project reports and fieldwork notes for interested people. The page currently has 608 followers.
- The Darwin project was announced in the Falklands Conservation magazine (November 2018) and the Falklands Conservation newsletter (January 2019), which were

disseminated to members (including many stakeholders) both in the Falklands and internationally (Annex 4).

3. Project Progress

3.1 Progress in carrying out project Activities

Output 1. Awareness, engagement, outreach and capacity building.

Activities under Output 1 are progressing as planned (see Annex 1 logframe and Annex 4 for examples of outreach). Magazine and newsletter articles have been published (Activity 1.1), a dedicated project Facebook page featuring the Darwin logo has been established (Activity 1.2), a local radio interview and a public talk were provided (Activities 1.3 and 1.5), stakeholder and steering groups were established (Activities 1.7 and 1.9), a project update was provided to two FIG MLAs (Activity 1.8), and the FC volunteer database was expanded and volunteers assisted on several boat surveys (Activities 1.10 and 1.14). Most of these Activities will continue into the second year of the project. Several of the additional stated Activities (1.4, 1.6, 1.12, 1.13) are not scheduled for delivery until a later stage of the project.

Output 2. Key Biodiversity Area (KBAs) assessment.

Activities under Output 2 are progressing as planned (see Annex 1 logframe). A total of 17 boat surveys have been carried out between January and March 2019 (Activity 2.1), and photo-identification data, faecal samples and genetic samples have been collected. The first field season was still underway on submission of this report. Activities 2.2 to 2.4 were scheduled for a later phase of the project.

Output 3. Focal studies of baleen whales at two cKBAs.

Activities under Output 3 are progressing as planned (see Annex 1 logframe). All field methods, study sites and equipment have been finalised, with input from project partners as needed (Activity 3.1). Those are now in place for the remainder of the project. A total of 17 boat surveys have been carried out between January and March 2019 (Activity 3.2), covering both Berkeley Sound and Falkland Sound. Photo-identification, faecal sampling and tagging of sei whales have all been successfully carried out over that period. Activity 3.3 has been completed, with the visit of a tag specialist in March 2019 and successful deployment of two time-depth-recorder tags on sei whales. Activity 3.4 has been completed with the purchase of a freezer. Activities 3.5 to 3.12 are scheduled for later phases of the project but are expected to be delivered on time.

Output 4. Establishment of a passive acoustic monitoring (PAM) study of baleen whales at three sites.

Activities under Output 4 are progressing as planned (see Annex 1 logframe). Extensive discussions have been held between the Project Officer and the acoustic specialist (Sal Cerchio) since May 2018 to determine the best sites and deployment methods for the acoustic devices (Activity 4.1). This resulted in some alterations to the original plan (see Section 7). Activity 4.2 has been completed, with appropriate moorings developed for the acoustic deployments - this required some alterations to the original plans for deployment (see Section 7). Activity 4.3 has been completed, with three SoundTraps deployed in December. Again there were some alterations from the original plan (see Section 7). Activities 4.4 to 4.7 are scheduled for later phases of the project but are expected to be delivered on time.

Output 5. Genetic diversity and isotope study.

Activities under Output 5 are progressing as planned (see Annex 1 logframe). After the Darwin funding was confirmed, a permit (FIG Research Licence R3.2018) was acquired in June 2018 to cover the tagging and biopsy component of the fieldwork (Activity 5.1). Biopsy and faecal sampling has occurred during the boat surveys between January and March 2019 whenever opportunities arose (Activity 5.1). Additionally, samples were acquired from a dead stranded southern right whale on 23 March 2019 to contribute to the genetic work. Activity 5.2 has been completed with the purchase of a freezer. Activities 5.3 to 5.7 are scheduled for later phases of the project but are expected to be delivered on time.

3.2 Progress towards project Outputs

Output 1. Awareness, engagement, outreach and capacity building.

This Output is progressing well, with field training provided to six volunteers up to the end of March and a number of media outputs including magazine and newsletter articles, a radio interview, a public talk, and the establishment of a dedicated Facebook group on the Darwin-funded whale work (see Annex 4). The indicators are appropriate, and it is expected that this Output will be delivered within the project timeframe.

Output 2. Key Biodiversity Area (KBAs) assessment.

Given the early stage of this annual report within the project timeframe, this Output is progressing as expected. Field data collection commenced on schedule in January 2021, and it is expected that the core of the KBA assessment work will occur in the final year of the project.

Output 3. Focal studies of baleen whales at two cKBAs.

The focal studies commenced in January 2019, and a total of 17 boat surveys were carried out between January and March 2019, covering both Berkeley Sound and Falkland Sound. All data collection methods are being implemented as planned. Many of the indicators relate to the data analysis and reporting stages, and it is expected that these will be delivered on schedule by project completion (2021).

Output 4. Establishment of a passive acoustic monitoring (PAM) study of baleen whales at three sites.

This Output is progressing well, although there have been some changes to the planned methods/sites (see Section 7). Three acoustic devices were deployed in Berkeley Sound in December 2018 and were still on site at the end of March over the timeframe of this annual report. The success of this component will not be known until the devices are recovered in April 2019 and the data inspected, but barring unforeseen circumstances then we currently envisage that Output 4 will be completed on time. The Indicators remain appropriate.

Output 5. Genetic diversity and isotope study.

This Output is proceeding on schedule, and both faecal and tissue samples were obtained in the first months of the fieldwork. Most of the Indicators relate to the data analysis stage, and are appropriate but will not be completed until the final stages of the project.

3.3 Progress towards the project Outcome

The main stated project outcome is "*Decision-makers, including community representatives, have up-to-date, robust data allowing them to make better informed, evidence-based decisions for conservation and management of Key Biodiversity Areas and the wider marine environment*." The project is progressing well to meet this outcome according to the stated timeframe. This first annual report covers only the initial phase of the project and the first three months of fieldwork, but boat surveys have been conducted in Berkeley Sound and Falkland Sound and have already generated good data on sei whale distribution, photo-identification and diet. The measurable indicators for the project outcome primarily relate to the production of the final technical report, discussion of the project results with decision-makers, and storage of the meta-data, none of which will be completed until the end of the project in 2021. However, at this stage it is expected that the project Outcome will be achieved by the end of the project reporting deadline.

3.4 Monitoring of assumptions

We identified a number of Important Assumptions in our project logframe (see Annex 2). All of the identified Assumptions in the logframe still hold true. The project includes a large fieldwork component that is heavily affected by weather conditions and by the logistical constraints of operating in relatively remote areas. The potential impact of weather on several of the project Outputs was clearly identified as a major risk throughout the Important Assumptions and has affected the deployment/recovery of the acoustic devices as well as the boat surveys themselves. In particular, working at Falkland Sound has proven to be heavily weather dependent and to incur logistical issues that has resulted in fewer surveys being achieved there compared with Berkeley Sound (see Section 7). Given that only three months of fieldwork had

been completed in the timeframe of this annual report, the affect of weather/logistics on the acquired dataset will be scheduled for further evaluation at the completion of the first sei whale field season (June 2019), and changes implemented ahead of next season as needed.

3.5 Project support to environmental and/or climate outcomes in the UKOTs

This objective of this project is to increase understanding of the Falkland Islands marine environment and inform good decision-making for marine conservation and management. In particular, the project aims to collect robust data on baleen whales that will result in evidence-based management via the designation of Key Biodiversity Areas (KBAs). The project is at an early stage, with only three months of field data collected during the timeframe of this first annual report. That fieldwork has focussed on whale occurrence in two candidate KBAs, and will be continued over the remainder of the 2019 season and the entirety of the 2020 season in order to generate a solid scientific basis for future management decisions. At later stages of the project this information will be analysed and disseminated to decision-makers in the Falklands and also discussed with the KBA committee to ensure that the project delivers strong management outcomes.

4. Monitoring and evaluation

The project logframe (Annex 1 and 2) provides a clear set of Indicators and Outputs against which the project can be monitored and evaluated. Together with the stated timeframe for delivery, it is very clear how the project should progress over time.

The Outputs and Activities of the project clearly contribute to the overall project Outcome, since the project Outcome is based on acquiring an updated dataset on the distribution, abundance and ecology of sei whales at two sites, and then compiling that information into datasets and reports that will result in management actions with regard to KBAs and marine spatial planning in the Falklands. The progress of the project with regard to the Outcome can be clearly cross-referenced with the stated indicators of achievement. In most cases, those are straightforward to measure, for example where it is stated that a certain number of samples will be collected, magazine articles produced, or volunteers trained. Most of the Indicators stated for this project relate either to such clear markers of progress, or to the end deliverables (most notably the technical report and meta-data).

There have been no changes to the M&E plan over the reporting period.

Falklands Conservation (FC) is running the project, and the project partners (also the steering committee) input on their particular areas of expertise. Given the multi-faceted nature of this particular project, the partner organisations are each involved in very specific components of the project and therefore input primarily on their own specialities. For example, BAS are involved in the genetic work, Sal Cerchio the acoustic work etc. All project partners are aware of the stated project deliverables, and updates are disseminated to the group collectively twice-annually and to each partner more regularly with regard to their specific input. Most of the partner organisations will be involved towards the latter stages of the project with regard to data analysis and reporting. However, an example of partner input on M&E during this first year of the project has been the extensive discussions with Sal Cerchio with regard to the acoustic component, in order to determine optimal methods for the deployments (see Section 7).

5. Lessons learnt

The primary lesson learnt in the first period of this project was to allow sufficient time for ordering equipment and having it shipped to the Falklands internationally. Equipment deliveries are slow to the Islands, particularly at certain times of the year when freight is often delayed due to full flights. We experienced some delays to the onset of the acoustic work as a result of such logistical challenges (see Section 7). Other challenges experienced during the first period of the project (such as the logistics of working at the Falkland Sound site - see Section 7) were known risks that were highlighted in the logframe, and will be more fully assessed on completion of the first field season.

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

This is the first annual report that we have submitted for the project, and so we have not yet received any feedbacks or reviews of previous reports.

7. Other comments on progress not covered elsewhere

The overall progress of the project has been good, with the Outputs and Activities on schedule to be delivered within the project timeframe. However, we have two areas of the project to expand upon here, based on logistics and difficulties encountered.

Changes to the acoustic deployment plan

Following initial discussions with project partners (Sal Cerchio and SMSG), the original passive acoustic monitoring (PAM) deployment plan had aimed to use SoundTrap PAM devices at three study sites (Berkeley Sound, Port William and Falkland Sound) using a diver deployment method. However, after more information emerged following the project funding being confirmed, it became clear that diver deployments would be limited to 20 m water depth due to the lack of a decompression chamber in Stanley. However, to maximise whale detections, deploying in the maximum water depth in the centre of the water bodies was desirable (>20 m depth). This led to a proposed change in method from using divers, to using acoustic releases (ARs) which could be triggered from the surface via a hydrophone and would bring the PAM devices to the surface for recovery. The ARs were not limited by water depth, and consequently would be suitable for use throughout the Falklands nearshore environment. Additionally, a different type of SoundTrap model was selected, which was slightly more expensive but had longer deployment capacity and therefore reduced the number of trips needed for deployment/recovery (and therefore reduced logistical challenges). These agreed changes to project equipment and methods resulted in significant changes to the budget line, since the purchase of AR equipment added cost to the capital expenditure for the project. A change request to cover some of that cost was submitted to Darwin on 8 March 2019 and granted on 21 March 2019, and the remainder was paid for by Falklands Conservation.

The discussions about change in method also affected the choice of site for the acoustic deployments. It was agreed during discussions on 21 May 2018 that deploying in Falkland Sound would be aborted due to the far greater logistical challenges associated with that site, particularly with regard to vessel availability and costs. The consensus was that it made most sense for the acoustic component of the Darwin project to focus on Berkeley Sound. Additionally, it was concluded that there were benefits to deploying multiple devices at a single site at least for the first year, given that the detection range of sei whales was unknown and could be limited to a few kilometres around each device in practice (given the nature of the shallow, coastal sites). Also, the presence of the oil-related activities and shipping make Berkeley Sound a good primary focus region. Consequently, it was concluded that all three SoundTraps would be deployed in Berkeley Sound, which was a site of high importance with regard to KBA designation and existing (and future) human impacts on sei whales.

Finally, although the AR and SoundTrap orders were placed in good time (on 3 and 4 July 2018 respectively) for the planned acoustic deployment in September 2018, the arrival in the Falklands was slow. It was then decided that additional extension cables should be purchased for the SoundTraps, which also had to be shipped. All equipment was not received in the Falklands until the first half of November 2018. There was then a further delay due to staff commitments and weather before the acoustic devices could be initially deployed on 5 December 2018. Consequently, the acoustic component commenced at the start of December rather than during September as envisaged. This is likely to have a knock-on effect, and it will be discussed with the steering group whether to continue with a two-year deployment (ending December 2020) or whether to do the final recovery in September 2020 as planned. The trade-off is that it would probably not be possible for data collected after September 2020 to be analysed within the timeframe of Darwin (i.e. before May 2021), and consequently the last portion of the dataset may not be included in the final project technical report. Nevertheless, this would not affect the overall aims of the acoustic component, which were to document spatio-temporal changes in whale call rate.

Survey coverage at the two focal sites

The planned survey coverage between January and March 2019 included 22 boat surveys, of which 12 would be in Berkeley Sound and 10 would be in Falkland Sound. The realised survey coverage was 17 boat surveys, of which 14 were in Berkeley Sound and 3 were in Falkland Sound. This uneven coverage was the result of the much greater logistical difficulties of the Falkland Sound site. That site requires the towing of the survey boat for 3 hrs (each way) along gravel roads, which can only be achieved in non-windy weather. Additionally, Falkland Sound is a large, remote (little other vessel traffic to assist if problems occurred) and very tidal stretch of water, and needed better survey conditions than Berkeley Sound to be favourable for working with whales and to be safe for the boat crew. Because of these constraints, the Falkland Sound surveys could only be scheduled for the few days per month with an excellent weather forecast. Additionally, there was a trade-off with achieving other project aims. This particularly came to light during March, when the tagging work required survey effort to concentrate in Berkeley Sound due to fears about not being able to recover the tags (due to weather and lack of larger vessel availability) if it were attempted in Falkland Sound. Another limitation is the availability of only a single survey boat, which has to be moved between the sites as needed. Consequently, on rare occasions where two good weather days occurred in succession, we were sometimes able to only use one day due to constraints with mobilising the boat to Falkland Sound. As a result of these factors, surveying at Falkland Sound has been challenging. These risks of weather, logistics and boat availability were identified in the Important Assumptions for Output 3, but have had a disproportionately higher impact on data collection at Falkland Sound compared to Berkeley Sound. This will need to be reviewed at the end of the field season.

8. Sustainability and legacy

To date, the whale project has been promoted in local media including Falklands Conservation (FC) magazine and newsletters, FC social media sites, the establishment of a dedicated project Facebook page, a radio interview, a public talk, and dissemination of outputs to the steering group and stakeholders (see Annexes 3 to 6).

Local capacity has already been increased, with a newspaper article in February 2019 recruiting volunteers, and six local volunteers accompanying the boat surveys and receiving training in fieldwork methods. The capacity of Falklands Conservation to carry out whale research in the Islands has been increased via three staff members accompanying the Project Officer on boat surveys and receiving intensive tuition in field methods (photo-identification, faecal sampling etc). Additionally, the Project Officer and the Conservation Manager received training from the tagging specialist during March 2019.

Given that the Project Officer has only been in place since December, and fieldwork only commenced in the second half of January, the project is still at an early stage and it can be expected that the profile of the project will increase over the next year.

The project will have a sustained legacy given the extra capacity achieved within the Falklands over the project timeframe (additional volunteers will be trained over the coming field seasons), and the existence by the project completion of a comprehensive dataset on baleen whales and anticipated headway into the designation of a KBA(s) for sei whales.

9. Darwin identity

The Darwin Initiative logo has been used on project outputs whenever possible, notably at the public talk presented by Paolo Segre on the sei whale tagging efforts on 28 March 2019, and included in the permanent banner on the dedicated project Facebook site at: https://www.facebook.com/FalklandsWhale (see Annex 4). It was also included in the documents distributed to the steering group and the stakeholders during February 2019 (Annexes 3 and 5). The Darwin Initiative was also directly tagged in Facebook and twitter posts on multiple occasions, in order to promote them and make sure that numerous people were aware of the existence of the funding. There is already a good understanding of the Darwin Initiative within the Falklands, as they have funded several previous projects in the Islands including the recent Dolphins of the Kelp project. Given this early stage in the current whale

project (only three months of fieldwork were scheduled within the timeframe of this first report), we envisage a greater use of the Darwin logo and publicity of the Darwin Initiative in subsequent months as more outputs emerge.

10. Project Expenditure

Table 1: Project expenditure during the reporting period (1 April 2018 – 31 March 2019)

Project spend (indicative) in this financial year	2018/19 D+ Grant (£)	2018/19 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others (Please specify)				
TOTAL				

A project change request was submitted to Darwin on 8 March 2019, to ask for reallocation of funds between budget lines (it did not affect the total amount spent in the year). A total of £8,240.00 was moved to Capital Equipment from three other budget lines (Travel & Subsistence, Operating Costs and Other Costs: Table 1). This was largely to compensate for the extra expenditure incurred by the change in acoustic equipment and methods (see Section 7). The change request was approved by Darwin on 21 March 2019, and the amended values are therefore used in the first column of the above table.

Please see actual finance claim forms as final accounting for funds.

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2018-2019 – <u>if appropriate</u>

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
Impact A better understanding of the Falkland Islands marine environment that will inform good decision-making for marine conservation and management by the Falkland Islands' community and those who represent it.		N/A: This first period has concentrated on fieldwork which is ongoing.	
Outcome: Decision-makers, including community representatives, have up-to-date, robust data allowing them to make better informed, evidence-based decisions for conservation and management of Key Biodiversity Areas and the wider marine environment	0.1 Project outputs and recommendations are documented in an accessible format and provided to the FIG Environmental Committee which has government, industry sector and community representatives (FIG EPD). 0.2 Project data are stored on the FC server and metadata are submitted to the IMS-GIS data centre.	0.1 and 0.2 Both indicators relate to the longer-term end results of the project and are not therefore deliverable until the fieldwork is finished and the project completed (March 2021). However, project updates have been provided to key stakeholders at the Environment Committee and during discussions with FIG (Annex 6).	N/A. The project outputs and data will not be available until the final stage of the project in 2021.
Output 1 Awareness, engagement, outreach and capacity building. Information on the project aims, activities and conclusions is provided to the Falklands Community along with opportunities for fieldwork involvement. Decision-makers and stakeholders are engaged with the project and can access information to inform decision making. Capacity to deliver future whale projects is increased.	In accordance with the project timetable: 1.1 FC publications (3 x articles in the FC Magazine and 2 x articles in the FC Newsletter). 1.2 FC digital media (website project page established; weekly Tweets and Facebook posts). 1.3 Local media (3 x Penguin News articles, 1 x Falkland Islands Radio Service interview and 1 x Falkland Islands TV interview). 1.4 Scientific publications (2 x peer review papers submitted to on-line	1.1. A brief introduction to the Darwin Plus project was included in the November 2018 issue of the FC magazine (Annex 4, Item 2) and the January 2019 issue of the FC newsletter (Annex 4, Item 3). The fieldwork had not commenced in that timeframe, and more comprehensive articles will be published in the next financial year. 1.2. Project updates have been published on the main FC Facebook (Annex 4, Item 4) and Twitter (Annex 4, Item 5) sites during most weeks since fieldwork began, with the hashtag #WhaleWednesday. Additionally, on 13 February 2019 the project established a dedicated Facebook page (https://www.facebook.com/FalklandsWhale) featuring the Darwin logo, to engage with stakeholders and provide more frequent project reports and fieldwork notes for interested people (Annex 4, Item 6). The page currently has 602 followers. 1.3. A Penguin News article on 1 February 2019 included a general call for volunteers for whale surveys (and other FC work: Annex 4, Item 7). A full PN article will be produced on completion of the first fieldwork season (probably in	

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
	journals; photo-identification data submitted to HappyWhale.com). 1.5 Presentations (1 x public talk; 1 x school visit). 1.6 Dissemination of final project findings (electronic copy of technical report available for download and circulated to decision makers and stakeholders). ENGAGEMENT 1.7 Steering Group established with update meetings held no less than twice per year. 1.8 Decision-makers (bi-annual meetings with FIG Heads of-Department, Members of Legislative Assembly). 1.9 Stakeholders (users and adjacent landowners of Berkeley Sound and Falklands Sound) updated before during and after fieldwork activities. 1.10 Volunteers, stakeholders or decision-makers included on fieldwork trips (10 people). CAPACITY-BUILDING 1.11 Cetacean field skills training event. 1.12 On-boat field training for volunteers (10 volunteers). 1.13 Equipment catalogue available for future survey work.	June or July 2019). A local radio interview was given by Paolo Segre about the tagging work in March 2019. A TV interview will occur at a later stage of the project once some fieldwork results are available. 1.4. These indicators are scheduled for a later stage of the project, following analysis of at least one field season. 1.5. A public talk was presented by the tagging specialist Paolo Segre during his visit to Stanley (Annex 4, Item 8). The talk, held on 28 March 2019, outlined the results of the tagging attempts on sei whales in the Falklands during March and was well attended (fully booked) by the local community. At least one additional public talk and a school visit are scheduled for a later stage of the project, following analysis of at least one field season. 1.6. N/A - due for delivery at the end of the project. 1.7. The Steering Group consisting of project partners was established and project updates disseminated (see Section 2; Annex 3). 1.8. An update on the Darwin work was mentioned in a meeting between two FIG MLAs and the FC CEO Esther Bertram on 21 February 2019 (Meeting minutes in Annex 6). 1.9. A stakeholder email list was established and project updates disseminated (see Section 2; Annex 5). A presentation introducing the Darwin project was provided at the FC Annual General Meeting in December 2018 (Annex 4, Item 9). 1.10. In addition to FC staff, there have been six volunteers and three project partners (Jen Jackson from BAS, Ailsa Hall from SMRU and Paolo Segre from the tagging partners) that have accompanied the PO on boat surveys up to the end of March 2019. We will continue to try and encourage local landowners and decision-makers to participate in the fieldwork for the remainder of the project. 1.11. This event has not yet been held. 1.12. Field training has been provided to six volunteers up to the end of March 2019 (Annex 4, Item 10). 1.13. An updated equipment catalogue will be developed prior to project completion. 1.14. Following a Penguin News article (1 Feb 2019) and Facebook	

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
	1.14 Volunteer database expanded.	advertisements for volunteers for the whale project (17 Jan 2019: Annex 4, Item 11), over 30 volunteers contacted the PO and signed up. The FC database has therefore been expanded (Annex 4, Item 12), and this will be repeated ahead of the second field season.	
Activity 1.1 The Technical Lead (TL) will liaise with the Community Engagement Manager (CEM), regarding the nature, timing and composition of magazine and newsletter articles aimed at raising awareness of the project and its aims, outputs and recommendations.		In Progress: see Indicator 1.1.	It is expected that magazine and newsletter articles will be produced in the next period.
Activity 1.2 A specific project web-page will be established at the beginning of the project describing the project and its aims, and where outputs/reports can also be accessed. Weekly Tweets and Facebook posts of project activities/stories will occur.		In Progress: see Indicator 1.2.	Social media outputs will continue throughout the next period.
Activity 1.3 The Technical Lead will liaise with the CEM to communicate with local media for article placement and reporting/documentary opportunities, again raising awareness of the project and its aims, outputs and recommendations.		In Progress: see Indicator 1.3.	It is anticipated that a TV output will occur in 2020.
Activity 1.4 Photo-identification images will made available online through the portal HappyWhale.com, which 'engages citizen scientists to identify individual marine mammals, for fun and for science.' This will ensure international open access to photo-identification material and may produce re-sightings of individual whales within the Falklands and further afield. Peer-reviewed scientific publications will be submitted to open access scientific journals.		N/A: Due at project completion in March 2021. See Indicator 1.4.	These activities cannot be completed until data from (at least) the first field season are available and analysed, and probably not until both field seasons are completed.
Activity 1.5 The TL will liaise with the CEM to contact the school regarding visit opportunities to educate and engage younger community members about the project. At least one public presentation will provide a forum for information provision, but also an opportunity for the local community to ask questions about the project.		See Indicator 1.5. One public talk relating to the project and featuring the Darwin logo has already been presented (Annex 4, Item 8).	A second public talk will likely be delivered in 2020, once the results of the first field season are available and have been initially analysed. The school visit will be completed in 2020, unless an earlier opportunity arises.
Activity 1.6 Once fieldwork and data analysed are complete, a draft Project Report detailing the project activities and findings will be circulated to decision-makers and stakeholders for comment before finalising and issue.		N/A: Due at project completion in March 2021.	N/A.
Activity 1.7 A Steering Group will be established and terms-of-reference agreed. Bi-annual meetings will be planned and deliverables to the Steering Group at		Completed. See Indicator 1.7.	Dissemination of information to the steering group will continue during

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
such meetings established; this will include monitoring and evaluation activities.			the next period, particularly with regard to evaluating the acoustic component of the project. In-person meetings with some project partners are anticipated at a conference in December 2019.
Activity 1.8 Appropriate project staff (depending upon the technical requirements) will communicate with decision-makers (bi-annually, as possible) regarding the development of the project findings and implications in the context of MSP, MMAs and EIA.		In Progress: see Indicator 1.8. An update on the Darwin work was provided in a meeting between two FIG MLAs and the FC CEO on 21 February 2019 (Meeting minutes in Annex 6).	Additional meetings will be held when appropriate, including FIG and the Environment Committee meetings.
Activity 1.9 Appropriate project staff (depending upon the technical requirements) will communicate with stakeholders regarding the project activities and aims ahead of fieldwork commencement, with updates on progress during the project and draft outputs for comment towards project completion.		In Progress: see Indicator 1.9. A stakeholder email list was established and project updates disseminated (see Section 2 and Annex 5).	Communications with stakeholders will continue in the next period, with an update on completion of the first field season and a further update on initiating the second field season.
Activity 1.10 The TL will liaise with the CEM to utilise the volunteer database and local media to provide maximum opportunity for people to experience fieldwork trips during the field season.		In Progress: see Indicators 1.10 and 1.14. The Project Officer has established a volunteer database and has already taken six volunteers and three project partners on boat surveys prior to 31 March 2019.	Opportunities for volunteers and stakeholders will continue to be provided for the remainder of the first field season. Volunteers will be contacted again at the start of the second field season in January 2020.
Activity 1.12 The TL will liaise with the CEM to utilise the volunteer database and local media to host a training event.		N/A. This event has not yet occurred, but is being planned for July 2019.	It is likely that this event will be planned for the next period.
Activity 1.13 The FC Office Manager will hold an inventory of equipment that may be used for future cetacean work.		N/A: Due at project completion in March 2021.	N/A.
Activity 1.14 The CEM will maintain and update the FC volunteer database to facilitate volunteer engagement and training opportunities.		In Progress. The CEM has a volunteer database that is continuously updated as new volunteers are recruited.	Volunteers will continue to be added to the FC database.
Output 2 Key Biodiversity Area (KBAs) assessment.	In accordance with the project timetable: 2.1 Collection of field data to document	2.1. Only the first three months of the first field season have been completed in the timeframe of this report. A total of 17 boat surveys have been carried out between January and March 2019, and photo-identification data, faecal samples and genetic samples have been collected. The first field season was	

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
An assessment of the applicability of two candidate KBAs to qualify for full KBA status in Berkeley Sound (sei and fin whales) and Falkland Sound (sei whales only) is provided to the Environment Committee.	whale occurrence in the Berkeley Sound and Falkland Sound cKBAs in order to address current data gaps. 2.2 The whale datasets will be assessed against the qualifying KBA criteria to determine whether the KBAs may qualify for full status. 2.3 The current spatial extents of the Berkeley Sound and Falkland Sound cKBAs (based on two decades of anecdotal sighting data) will be considered in relation to the documented whale occurrence to assess whether the spatial limits are appropriate for managing the whale populations.	still underway on submission of this report. 2.2. and 2.3. These indicators were not scheduled to be addressed during the first phase of the project. The planning phase and establishing the criteria for designating the whale KBAs will commence during the second year of the project, but this component will not be fulfilled until the end of both sei whale field seasons so that the KBAs are based on the most complete datasets possible.	
Activity 2.1 Collection of field data to address data gaps. Please see individual Activities listed under 3, 4 and 5.		In Progress: A total of 17 boat surveys have been carried out between January and March 2019.	Boat surveys will continue until August 2019, and then recommence for the second whale season from January 2020.
Activity 2.2 On completion of field data collection and data analyses, an assessment will be made of whether the two cKBAs may qualify for full KBA status based on documented whale occurrence at each site in relation to the qualifying criteria for KBA status.		N/A: Due at project completion in March 2021.	N/A.
Activity 2.3 On completion of field data collection and data analyses, an assessment will be made of whether the current spatial limits of the Berkeley Sound and Falkland Sound cKBAs reflect the documented spatiotemporal distribution of whales, and whether they are appropriate for long-term management of mobile marine predators such as baleen whales.		N/A: Due at project completion in March 2021.	N/A.
Activity 2.4 The Technical Report containing the assessments in 2.2 and 2.3 will be produced and circulated to decision-makers, stakeholders and the IUCN KBA partnership.		N/A: Due at project completion in March 2021.	N/A.

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
Output 3 Focal studies of baleen whales at two cKBAs. Completed focal studies of baleen whales at two sites. Increased information on the spatio-temporal distribution of whales. Production of the first mark-recapture abundance estimates at two cKBAs. Assessment of underlying habitat use in association with foraging ecology. Overall increased understanding of when, where, why and how many whales are present in the Falkland marine environment to inform marine spatial planning and management.	In accordance with the project timetable: DISTRIBUTION 3.1 Focal studies conducted at Berkeley Sound and Falkland Sound cKBAs during two whale seasons (January to May 2019 and 2020), with extended season to July 2019 and 2020 at Berkeley Sound. 3.2 Cetacean sighting data collected in the field and analysed to produce spatio-temporal distribution maps and a species habitat assessment. 3.3 Spatial and temporal data made available to marine planning and EIA Assessments, and to the KBA process. ABUNDANCE 3.4 Whale photo-identification study carried out at both sites. A catalogue of distinct individuals produced for Falkland Sound. New animals added to the existing Berkeley Sound catalogue and re-sightings examined. Catalogues available to all stakeholders. 3.5 Mark-recapture population estimate produced for sei whales at both sites using photo-identification data, and published to inform the KBA process. FORAGING ECOLOGY 3.6 Collection of 60 whale faecal samples in the field at both sites over both seasons.	3.1. A total of 17 boat surveys have been carried out between January and March 2019, covering both Berkeley Sound and Falkland Sound. 3.2. This indicator is scheduled for a later stage of the project, following completion of both field seasons in August 2020. 3.3. N/A - due for delivery at the end of the project. 3.4. This indicator is scheduled for a later stage of the project, following completion of both field seasons in August 2020. However, photo-identification images have been collected throughout the boat surveys in January to March 2019 and are awaiting analysis and cataloguing. 3.5. This indicator is scheduled for a later stage of the project, following completion of both field seasons in August 2020. 3.6. A total of 15 faecal samples have been collected from sei whales between January and March 2019, including samples from both study sites. 3.7. This indicator is scheduled for a later stage of the project, following completion of at least the first field season and shipment of samples to BAS in the UK. 3.8. Completed. A tag specialist Paolo Segre was in the Falklands from 9 to 30 March 2019, and spent several days on the water attempting to tag sei whales. Despite logistical challenges, two tags were successfully deployed (Annex 4, Item 13). 3.9. Completed. A theoretical training session was held with two FC staff on 29 March 2019. Additionally, both FC staff members observed the tagging attempts in the field and gained practical knowledge. 3.10. N/A: Due at project completion in March 2021.	

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
	3.7 DNA-based identification of whale diet using PCR-amplification and Illumina sequencing, followed by identification of prey using DNA databases. 3.8 Deployment of short-term suction-cup time-depth-recorder (TDR) tags on whales to measure dive parameters and feeding events. 3.9 Training of FC staff in deployment and recovery of TDR tags. 3.10 Project Report including outline of whale foraging behaviour in the Falkland Islands with implications for distribution and management		
Activity 3.1 Survey planning. Including the scheduling of boat survey work (including timing and field methods, with input from project partners), refining of study areas in Berkeley Sound and Falkland Sound, and preparation of boat/crew for field seasons. Preparation of field equipment. Development of HSE risk assessments. Updating of volunteer database for marine work.		In Progress - Survey planning is ongoing, since all boat surveys happen at short notice around weather windows. All field methods, study sites and equipment have been finalised with input from project partners as needed. Detailed protocols have been produced for some components (e.g. the acoustic deployments). The volunteer database has been updated and increased. A pre-season meeting was held with the boat skipper, and all boat surveys have run smoothly according to those discussions. Logistical planning around weather requires frequent communications between the Project Officer and boat skipper, and the established methods work well and will be maintained for the remainder of the project.	Apart from the field methods and equipment (which are now in place for the remainder of the project), this stage will need to be repeated ahead of the second field season in January 2020.

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
Activity 3.2 Boat-based survey work carried out between January and July 2019 and 2020 in Berkeley Sound (32 days per year), and between February and May 2019 and 2020 in Falkland Sound (20 days per year). Planned to coincide with peak expected temporal occurrence of sei and southern right whales in the region. Photo-identification, faecal sampling and tagging efforts to occur throughout boat survey work. A FIG permit (Research Licence No: R11/2017) is already in place for non-invasive whale work over this period.		In Progress - A total of 17 boat surveys have been carried out between January and March 2019, covering both Berkeley Sound and Falkland Sound. Photo-ID, faecal sampling and tagging of sei whales have all been successfully carried out.	Boat survey work will be continued as scheduled (where weather allows).
Activity 3.3 Initial field visit by experienced whale time-depth-recorder (TDR) tag expert for four weeks during February 2019 to oversee initial tagging efforts. At least 1 staff member at FC trained in tag deployment and recovery. The tagging work will be dependent on acquiring a permit from the FIG Environmental Planning Department (FIG is supportive of the project concept note).		Completed - A permit (FIG Research Licence R3.2018) was acquired in June 2018 to cover the tagging and biopsy component of the fieldwork once the Darwin funding was confirmed. Completed - An experienced tagger, Paolo Segre, visited the Falklands from 9 to 30 March 2019 and spent all available weather days at sea attempting to deploy tags. This will be elaborated on in the final Technical Report. Completed - Two FC staff members were trained in the theory and practicalities of tag deployment.	N/A. The tagging effort has completed for the season.
Activity 3.4 Processing and storage of faecal samples at a suitable facility in the Falkland Islands.		Completed - A new freezer was purchased by Falklands Conservation for the storage of whale samples in Stanley.	N/A
Activity 3.5 Compilation of photo-identification images into catalogues per species (and perhaps by site) and logging of associated meta-data. Quality-control of photo-identification catalogues. Images of distinctive whales provided to HappyWhale and incorporated into the HappyWhale online portal for international access and matching potential.		In Progress - The majority of photo-identification analysis and cataloguing will take place on completion of the first field season. The catalogue and associated database have already been designed and initial data entered, but the majority of work related to this Activity will take place between the field	Ongoing photo-identification work during the field season as time allows, and then concerted work on this component over the September to December period between the field seasons.

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
		seasons. N/A - The HappyWhale component is due at project completion.	
Activity 3.6 Analysis of photo-identification datasets to examine for re-sightings (including internationally via HappyWhale). Photo-identification mark-recapture analysis carried out.		N/A: Due at project completion in March 2021.	Some initial matching of the Falklands' catalogues will occur over the September to December period between the field seasons.
Activity 3.7 Analysis of boat survey effort and cetacean sightings data - compilation of GPS track logs into spreadsheets, and GIS projects produced. Habitat parameter analysis.		N/A: Due at project completion in March 2021. However, entry of boat survey data into spreadsheets occurs after every completed survey and initial checks have been made in GIS to check that the data are correct.	The first season of boat data and sightings will be compiled and plotted in GIS in order to inform the survey work in the second field season. Some habitat analysis will be underway in the second period.
Activity 3.8 Analysis of TDR tag data and production of interpretative report.		N/A: Due at project completion in March 2021.	N/A.
Activity 3.9 Export of faecal sample subset shipped to the UK via BAS vessel (or alternative means, e.g. aircraft).		N/A: Due to the limited schedule of BAS vessels moving to/from the UK and Stanley, this Activity was not timed for the first period of the project.	It is envisaged that a number of samples from the first period of the field season will be shipped to the UK on the BAS vessel in May 2019.
Activity 3.10 Prey-based DNA analysis of faecal samples using PCR-amplification and Illumina sequencing (followed by identification of prey using DNA databases) carried out at BAS to investigate whale diet and interpretive report produced.		N/A: Due at project completion in March 2021.	N/A.
Activity 3.11 Production of final Technical Report (open access) including species distribution maps showing spatiotemporal distribution and habitat, discussion of foraging ecology, and the results of tagging work, faecal sample analysis and photo-identification. Report made open access and disseminated to decision-makers and stakeholders (including IUCN KBA regional coordinators).		N/A: Due at project completion in March 2021.	N/A.
Activity 3.12 Boat survey meta-data submitted to the IMS-GIS data centre. Data archived on FC server.		N/A: Due at project completion in March 2021.	N/A.
Output 4 Establishment of a passive acoustic	In accordance with the project timetable:	4.1. Three SoundTrap devices were successfully deployed in Berkeley Sound on 5 December 2018, following revision of the deployment plan (see Activity 4.1.). The devices were still deployed at the end of March, and were not	

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
monitoring (PAM) study of baleen whales at three sites. An assessment of temporal whale presence and also the validity of long-term monitoring of baleen whales using PAM.	4.1 "Sound Trap" passive acoustic monitoring devices will be deployed at three study sites (Berkeley Sound, Port William and Falkland Sound) for two full years to collect data on whale temporal occurrence. 4.2 Acoustic data analysis carried out to assess the temporal variation of sei whale (as "call rate", e.g. calls per day) at the sites over the two year period. 4.3 Assessment of the applicability of PAM for the long-term monitoring of baleen whales in the Falklands.	recovered within the timeframe of this report. 4.2. The process was initiated of developing a contract/MoU between FC and Sal Cerchio for the acoustic data analysis, which outlines the planned analyses and timeframe. No analysis commenced in the timeframe of this report since the devices were still deployed and no data had yet been recovered. The results of the acoustic analysis are not due until project completion in March 2021. 4.3. N/A: Due at project completion in March 2021.	
Activity 4.1 Selection of specific sites for "SoundTrap" deployment within the three focal sites, via reconnaissance trips by SMSG divers to locate suitable seabed areas where the acoustic deployments are most likely to remain on location and in quiet environments (i.e. minimal masking).		Completed - Extensive discussions have been held between the Project Officer and the acoustic specialist (Sal Cerchio) since May 2018 to determine the best sites and deployment methods for the acoustic devices. This resulted in some alterations to the original plan (see Section 7).	N/A. The sites and methods developed during the first period will likely be maintained for the remainder of the project.
Activity 4.2 Design and construction of suitable moorings.		Completed - Appropriate moorings have been developed under the guidance of Sal Cerchio and were used for the first deployment in December 2018. Note that these moorings differ from the original plan in using acoustic releases rather than divers (see Section 7).	N/A. Considerable time and resources have been spent developing the best methods for use in the nearshore environment of the Falkland, and these will be maintained for the remainder of the project.
Activity 4.3 Initial deployment of "SoundTrap" devices by boat at the three focal sites in September 2018 (weather dependent).		Completed - Due to logistical constraints (see Section 7) we deployed three SoundTraps in Berkeley Sound. The deployments occurred on 5 December 2018 which was behind schedule - this was primarily due to	N/A. This activity referred to the initial deployment, which was successfully completed.

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
		delays with equipment being shipped to the Falklands and then weather delays (see Section 7).	
Activity 4.4 Maintenance visits by boat to recover, download data and redeploy "SoundTraps" at 4-monthly intervals for a two year period. Two-year deployments to ensure year-round temporal data are collected on whale species.		N/A. In the timeframe of this report, the first deployment is still underway and no recoveries have occurred.	The first recovery will be scheduled for ≤6 months after the initial deployment on 5 Dec 2018. This will require a scheduled site visit, a successful recovery, data download and the re-deployment. At least two such events should occur in the next year-long period.
Activity 4.5 Acoustic data sent for analysis in batches at 4 to 12 month intervals over the two-year period. Analysis of sei whale call rates (whale calls per hour or day, depending on data suitability) will be ongoing throughout the deployment and post-deployment period to develop and apply automated call detectors. If the total dataset is too extensive or time-consuming (e.g. due to uncontrollable masking of the sound files) then analysis will be reduced to a manageable subset of data (e.g. 18 months instead of 2 years).		N/A. In the timeframe of this report, the first deployment is still underway and consequently no data have yet been assessed or analysed.	Assuming that the first deployment is successful, and data will be downloaded and sent to Sal Cerchio for initial analysis. Shipment of data to the US will take time. Analysis will commence in the next period, but is not scheduled for completion until the end of the project (March 2021).
Activity 4.6 Production of final analysis and reporting of the acoustic dataset and evaluation of the applicability of PAM for long-term monitoring of baleen whales in the Falklands. Report circulated to decision-makers and stakeholders.		N/A: Due at project completion in March 2021.	N/A: Due at project completion in March 2021.
Activity 4.7 PAM meta-data submitted to the IMS-GIS data centre. Data archived on FC server.		N/A: Due at project completion in March 2021.	N/A: Due at project completion in March 2021.
Output 5 Genetic diversity and isotope study. A study to clarify the population identity, structure and genetic diversity of Falkland whales, and determine appropriate scales for management units. An evaluation of the trophic role and	In accordance with the project timetable: 5.1 Biopsy tissue sampling carried out during boat surveys at two cKBAs to collect up to 50 skin/blubber samples per species. Other samples acquired where possible from strandings, faecal matter and bone extraction. 5.2 DNA extraction of samples, and	5.1. Biopsy and faecal sampling has occurred during the boat surveys between January and March 2019 whenever opportunities arose. Samples were also acquired from a dead stranded southern right whale on 23 March 2019 to contribute to the genetic work; this was the only dead baleen whale reported within the timeframe of this report. 5.2. to 5.4. N/A: Due at project completion in March 2021. 5.5. N/A. No samples were shipped during the timeframe of this report. 5.6. N/A: Due at project completion in March 2021.	

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
diet of whales in the Falklands.	laboratory analyses to identify the sex, mitochondrial DNA diversity and individual identity of each whale using microsatellite loci. 5.3 Stable isotope analysis of tissue samples to investigate diet and trophic level. 5.4 Report and interpretation of tissue analysis results. 5.5 Duplicate samples stored in the Falklands and made available for additional future studies (e.g. contaminants). 5.6 Genetic data generated by the project will be published as open access via a platform such as Genbank (DNA sequence data) or Datadryad (microsatellite genotype data).		
Activity 5.1 Collection of biopsy tissue samples from boat during two field seasons at the Berkeley Sound and Falkland Sound cKBAs. Dependent on acquiring a permit from the FIG Environmental Planning Department (previous permits have been granted and FIG is supportive of the project concept note). Opportunistic collection of additional genetic samples using other methods (e.g. stranded whales, faecal samples and extraction from bones) throughout the study. Collection of supporting data on biopsy attempts, including photo-identification and behavioural responses.		Completed - A permit (FIG Research Licence R3.2018) was acquired in June 2018 to cover the tagging and biopsy component of the fieldwork once the Darwin funding was confirmed. In Progress - biopsy sampling was carried out when opportunity arose between January and March. An opportunistic stranding of a southern right whale was sampled. Supporting data were logged for all sampling events.	Genetic sampling will continue throughout the second period, both during boat surveys and opportunistically during stranding events of the relevant species.
Activity 5.2 Processing and storage of tissue samples at a suitable facility in the Falkland Islands.		Completed - a new freezer was purchased to house samples at Falklands Conservation.	N/A

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
Activity 5.3 Acquisition of required international export/import permits for the samples from FIG, UK and CITES.		In Progress - Initial contact was made between FC and BAS with regard to acquisition of the necessary CITES permits to ship the samples to the UK. An initial deadline of 30 March 2019 was established for the Project Officer to send the sample numbers/types/details to BAS to allow the export and import CITES permits to be applied for. This stage was completed. Actual acquisition of the permits will continue into the second period.	Acquisition of CITES permits to export initial batch of whale samples to BAS in the UK for analysis. The BAS vessel JCR is currently scheduled to depart Stanley for the UK on approximately the 23rd May 2019. We plan to have paperwork in place to ship samples at that time.
Activity 5.4 Export of sample subset shipped to the UK via BAS vessel (or alternative means, e.g. aircraft). Duplicate sample sub-set remains in the Falklands for future analysis.		N/A. The BAS vessel was not scheduled to depart Stanley until the second period of the project (May 2019).	As above. It is currently planned to ship all samples rather than retaining a duplicate sample in the Falklands, since BAS are willing to host the duplicate samples in their secure freezer facility and additional analyses would likely occur at overseas institutions.
Activity 5.5 Genetic and isotope analysis carried out at BAS to investigate genetic diversity and trophic level.		N/A: Due at project completion in March 2021.	N/A: Due at project completion in March 2021.
Activity 5.6 Interpretive report of genetic and isotope results produced and disseminated to decision-makers and stakeholders.		N/A: Due at project completion in March 2021.	N/A: Due at project completion in March 2021.
Activity 5.7 Genetic meta-data submitted to the IMS-GIS data centre. Data archived on FC server. 5.8 Genetic digital sequencing data archived with international repository, e.g. GenBank.		N/A: Due at project completion in March 2021.	N/A: Due at project completion in March 2021.

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed) - if appropriate

N.B. if your application's logframe is presented in a different format in your application, please transpose into the below template. Please feel free to contact Darwin-Projects@ltsi.co.uk if you have any questions regarding this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: A better understanding of the Falkland Islands marine environment that will inform good decision-making for marine conservation and management by the Falkland Islands' community and those who represent it.			
Outcome: Decision-makers, including community representatives, have up-to-date, robust data allowing them to make better informed, evidence-based decisions for conservation and management of Key Biodiversity Areas and the wider marine environment	0.1 Project outputs and recommendations are documented in an accessible format and provided to the FIG Environmental Committee which has government, industry sector and community representatives (FIG EPD). 0.2 Project data are stored on the FC server and metadata are submitted to the IMS-GIS data centre.	0.1 Project Report (open access) documenting the project activities, outputs and recommendations is included as an agenda item for the FIG Environmental Committee. 0.2 File listing on FC server and metadata catalogue entries on IMS-GIS centre website.	0.1 The report is reliant on a successful fieldwork component, which in turn relies on weather conditions, project planning and whale presence. Planning and budgeting to incorporate weather downtime should limit these risks. The recruitment of an experienced cetacean researcher to coordinate the fieldwork should maximise fieldwork outputs and ensure relevance of the report. 0.2 None.
Output 1 Awareness, engagement, outreach and capacity building. Information on the project aims, activities and conclusions is provided to the Falklands Community along with opportunities for fieldwork involvement. Decision-makers and stakeholders are engaged with the project and can access information to inform decision making. Capacity to deliver future whale projects is increased.	In accordance with the project timetable: AWARENESS 1.1 FC publications (3 x articles in the FC Magazine and 2 x articles in the FC Newsletter). 1.2 FC digital media (website project page established; weekly Tweets and Facebook posts). 1.3 Local media (3 x Penguin News articles, 1 x Falkland Islands Radio Service interview and 1 x Falkland Islands TV interview). 1.4 Scientific publications (2 x peer review papers submitted to on-line	1.1 Copies of articles in media and reports. 1.2 Access to digital media sites and statistics. 1.3 Copies of articles or links to online TV features. 1.4 URLs for publishers sites. 1.5 Photos and electronic copies of presentations. 1.6 Copy of final Technical Report (open access). 1.7 Copies of meeting minutes. 1.8 and 1.9 Copies of meeting minutes	1.4 Submission of peer reviewed papers depends on field results and timeframe for analysis. Papers should at least have reached the late preparation stages by the project deadline. 1.7, 1.8 and 1.9. Time availability can limit participation by steering group members, decision-makers and stakeholders. Bi-annual meetings should be possible, as well as meetings via Skype and the circulation of electronic updates. 1.10. Commitments and short-notice fieldwork may limit attendance of volunteers and decision makers for outreach activities. Early discussion and

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	journals; photo-identification data submitted to HappyWhale.com). 1.5 Presentations (1 x public talk; 1 x school visit). 1.6 Dissemination of final project findings (electronic copy of technical report available for download and circulated to decision makers and stakeholders). ENGAGEMENT 1.7 Steering Group established with update meetings held no less than twice per year. 1.8 Decision-makers (bi-annual meetings with FIG Heads of-Department, Members of Legislative Assembly). 1.9 Stakeholders (users and adjacent landowners of Berkeley Sound and Falklands Sound) updated before during and after fieldwork activities. 1.10 Volunteers, stakeholders or decision-makers included on fieldwork trips (10 people). CAPACITY-BUILDING 1.11 Cetacean field skills training event. 1.12 On-boat field training for volunteers (10 volunteers). 1.13 Equipment catalogue available for future survey work. 1.14 Volunteer database expanded.	and electronic updates. 1.10 Copies of participation photos and record of attendance. 1.11 Copies of training material and attendees list. 1.12 Copies of participation photos and record of attendance. 1.13 Copy of equipment list. 1.14 Database file stored at FC	well circulated information will aim to maximise attendance.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Output 2 Key Biodiversity Area (KBAs) assessment. An assessment of the applicability of two candidate KBAs to qualify for full KBA status in Berkeley Sound (sei and fin whales) and Falkland Sound (sei whales only) is provided to the Environment Committee.	In accordance with the project timetable: 2.1 Collection of field data to document whale occurrence in the Berkeley Sound and Falkland Sound cKBAs in order to address current data gaps. 2.2 The whale datasets will be assessed against the qualifying KBA criteria to determine whether the KBAs may qualify for full status. 2.3 The current spatial extents of the Berkeley Sound and Falkland Sound cKBAs (based on two decades of anecdotal sighting data) will be considered in relation to the documented whale occurrence to assess whether the spatial limits are appropriate for managing the whale populations.	2.1 A Project Report (open access) documenting project activities, outputs and recommendations. 2.2 A KBA report containing an evaluation of the two cKBAs for managing whales will be produced and submitted to the KBA Partnership. 2.3 As 2.2.	2.1 Weather, vessel availability and whale presence may limit fieldwork success. However, experience from the pilot study indicates that all can be overcome with adequate planning. 2.2 and 2.3 Assessing KBA status may be limited by lack of global population size data for sei and fin whales, which could hinder application of the criteria. The criteria used to assess KBAs may alter over the project timeframe. Communications will need to be maintained with the KBA partnership.
Output 3 Focal studies of baleen whales at two cKBAs. Completed focal studies of baleen whales at two sites. Increased information on the spatio-temporal distribution of whales. Production of the first mark-recapture abundance estimates at two cKBAs. Assessment of underlying habitat use in association with foraging ecology. Overall increased understanding of when, where, why and how many whales are present in the Falkland marine environment to inform marine	In accordance with the project timetable: DISTRIBUTION 3.1 Focal studies conducted at Berkeley Sound and Falkland Sound cKBAs during two whale seasons (January to May 2019 and 2020), with extended season to July 2019 and 2020 at Berkeley Sound. 3.2 Cetacean sighting data collected in the field and analysed to produce spatio-temporal distribution maps and a species habitat assessment. 3.3 Spatial and temporal data made available to marine planning and EIA Assessments, and to the KBA process. ABUNDANCE	3.1 Receipts from boat charters, existence of datasets and reporting. 3.2 As 3.1. Production of Project Report (open access) including species distribution maps. 3.3 Copy of meta-data submitted to the IMS-GIS data centre. Final Project Report disseminated to decision-makers, stakeholders and the IUCN KBA partnership. 3.4 Presence of photo-identification catalogues on website (link provided) and images available at online portal HappyWhale for wider international outreach and cross-matching with other geographic areas. 3.5 Mark-recapture abundance	3.1 and 3.2. Boat-based survey work can be limited by weather and boat availability. These have been accounted for based on previous experience of weather downtime during cetacean work, and sourcing of a suitable boat from a confirmed project partner (SMSG). 3.2 Sightings data may be limited by weather (see 3.1) or absence of the species. Boat survey work has been planned for the key temporal period of whale occurrence. 3.5 Mark-recapture analysis is dependent on the acquisition of an adequate sample size of whales and suitable high-quality images. The pilot study indicated that this should be

Project summary	Measurable Indicators	Means of verification	Important Assumptions
spatial planning and management.	3.4 Whale photo-identification study carried out at both sites. A catalogue of distinct individuals produced for Falkland Sound. New animals added to the existing Berkeley Sound catalogue and re-sightings examined. Catalogues available to all stakeholders. 3.5 Mark-recapture population estimate produced for sei whales at both sites using photo-identification data, and published to inform the KBA process. FORAGING ECOLOGY 3.6 Collection of 60 whale faecal samples in the field at both sites over both seasons. 3.7 DNA-based identification of whale diet using PCR-amplification and Illumina sequencing, followed by identification of prey using DNA databases. 3.8 Deployment of short-term suction-cup time-depth-recorder (TDR) tags on whales to measure dive parameters and feeding events. 3.9 Training of FC staff in deployment and recovery of TDR tags. 3.10 Project Report including outline of whale foraging behaviour in the Falkland Islands with implications for distribution and management	estimates provided in the Project Report (open access). 3.6 Images of faecal sampling in progress provided in the Project Report (open access). Metadata submitted to IMS-GIS data centre. 3.7 Receipts from BAS of analysis costs and production of final Technical Report. 3.8 Receipts from tagging fieldwork, and photographs of tagging efforts in the Falklands. 3.9 Receipts from field visit by tagging expert and documentation (images, video) of practical and theoretical tag method training. 3.10 Production of open access Project Report available online.	feasible. 3.6 The target of 60 samples is based on the pilot study. Actual collection will vary according to number of whales, their behaviour and weather. 3.8 TDRs have not previously been deployed on sei whales and this study is therefore a pilot. The tagging team are highly experienced with similar species.
Output 4 Establishment of a passive acoustic monitoring (PAM) study of baleen	In accordance with the project timetable: 4.1 "Sound Trap" passive acoustic monitoring devices will be deployed at three study sites (Berkeley Sound, Port	4.1 Copies of datasets will be stored on the FC server and metadata submitted to the IMS-GIS centre. Deployment periods and data analysis will be	4.1 Static acoustic devices deployed for long periods may malfunction or may be lost to weather or due to interaction with kelp beds. The mooring system design

Project summary	Measurable Indicators	Means of verification	Important Assumptions
whales at three sites. An assessment of temporal whale presence and also the validity of long-term monitoring of baleen whales using PAM.	William and Falkland Sound) for two full years to collect data on whale temporal occurrence. 4.2 Acoustic data analysis carried out to assess the temporal variation of sei whale (as "call rate", e.g. calls per day) at the sites over the two year period. 4.3 Assessment of the applicability of PAM for the long-term monitoring of baleen whales in the Falklands.	presented in the Project Report (Open Access). 4.2 Data analysis results will be presented in the Project Report (Open Access). 4.3 An assessment of the use of PAM for baleen whale monitoring will be presented in the Project Report (Open Access).	will limit risk by eliminating surface equipment. Mooring sites will be carefully-selected. Spare devices will be available in the event of loss. Device maintenance will occur at 4-month intervals to limit the overall impact of any periods of lost data. 4.2 The time required for acoustic analysis will depend on the effectiveness of the automatic detection classifiers (which in turn depend on ambient noise levels within the sites). If longer than anticipated, analysis may need to be limited to a subset of the total data (e.g. 18 months instead of two years).
Output 5 Genetic diversity and isotope study. A study to clarify the population identity, structure and genetic diversity of Falkland whales, and determine appropriate scales for management units. An evaluation of the trophic role and diet of whales in the Falklands.	In accordance with the project timetable: 5.1 Biopsy tissue sampling carried out during boat surveys at two cKBAs to collect up to 50 skin/blubber samples per species. Other samples acquired where possible from strandings, faecal matter and bone extraction. 5.2 DNA extraction of samples, and laboratory analyses to identify the sex, mitochondrial DNA diversity and individual identity of each whale using microsatellite loci. 5.3 Stable isotope analysis of tissue samples to investigate diet and trophic level. 5.4 Report and interpretation of tissue analysis results. 5.5 Duplicate samples stored in the Falklands and made available for additional future studies (e.g.	5.1 Physical presence of stored samples. Documentation of biopsy attempts (photos and video) in the field. Full description of biopsy work (including responses of animals) in final (open access) genetic Technical Report. 5.2 Invoice for payment from the organisation (BAS) carrying out the proposed analysis work. Report outlining analysis methods and results. 5.3 As 5.2 5.4 The Project Report will include the genetic and stable isotope results and will be distributed to Darwin and all stakeholders. 5.5 Physical presence of stored samples. Metadata submitted to the IMS-GIS centre. 5.6 Receipts of submission into the	5.1 Collection of samples from fast-moving rorquals is challenging and less than 50 samples may be acquired in practice. Smaller sample numbers will still have relevance for the management of Falkland whales, and will be merged with a small number of existing samples and those collected from other sources (e.g. bones). 5.6 Due to limited time available for genetic analysis (due to export and shipment) this stage may happen after the final Darwin reporting, i.e. after March 2021. However, there will be a commitment to complete this stage. An update will be provided in the final Technical Report and links can be provided to where the data will appear post-submission.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	contaminants). 5.6 Genetic data generated by the project will be published as open access via a platform such as Genbank (DNA sequence data) or Datadryad (microsatellite genotype data).	genetic data platform.	

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. AWARENESS, ENGAGEMENT, OUTREACH AND CAPACITY BUILDING

1.1 The Technical Lead (TL) will liaise with the Community Engagement Manager (CEM), regarding the nature, timing and composition of magazine and newsletter articles aimed at raising awareness of the project and its aims, outputs and recommendations.

1.2 A specific project web-page will be established at the beginning of the project describing the project and its aims, and where outputs/reports can also be accessed. Weekly Tweets and Facebook posts of project activities/stories will occur.

1.3 The Technical Lead will liaise with the CEM to communicate with local media for article placement and reporting/documentary opportunities, again raising awareness of the project and its aims, outputs and recommendations.

1.4 Photo-identification images will made available online through the portal HappyWhale.com, which 'engages citizen scientists to identify individual marine mammals, for fun and for science.' This will ensure international open access to photo-identification material and may produce re-sightings of individual whales within the Falklands and further afield. Peer-reviewed scientific publications will be submitted to open access scientific journals.

1.5 The TL will liaise with the CEM to contact the school regarding visit opportunities to educate and engage younger community members about the project. At least one public presentation will provide a forum for information provision, but also an opportunity for the local community to ask questions about the project.

1.6 Once fieldwork and data analysed are complete, a draft Project Report detailing the project activities and findings will be circulated to decision-makers and stakeholders for comment before finalising and issue.

1.7 A Steering Group will be established and terms-of-reference agreed. Bi-annual meetings will be planned and deliverables to the Steering Group at such meetings established; this will include monitoring and evaluation activities.

1.8 Appropriate project staff (depending upon the technical requirements) will communicate with decisionmakers (bi-annually, as possible) regarding the development of the project findings and implications in the context of MSP, MMAs and EIA.

1.9 Appropriate project staff (depending upon the technical requirements) will communicate with stakeholders regarding the project activities and aims ahead of fieldwork commencement, with updates on progress during the project and draft outputs for comment towards project completion.

1.10 The TL will liaise with the CEM to utilise the volunteer database and local media to provide maximum opportunity for people to experience fieldwork trips during the field season.

1.12 The TL will liaise with the CEM to utilise the volunteer database and local media to host a training event.

1.13 The FC Office Manager will hold an inventory of equipment that may be used for future cetacean work.

1.14 The CEM will maintain and update the FC volunteer database to facilitate volunteer engagement and training opportunities.

2. KEY BIODIVERSITY AREA (KBAS) ASSESSMENT

Project summary	Measurable Indicators	Means of verification	Important Assumptions
2.1 Collection of field data to address data gaps. Please see individual Activities listed under 3, 4 and 5. 2.2 On completion of field data collection and data analyses, an assessment will be made of whether the two cKBAs may qualify for full KBA status based on documented whale occurrence at each site in relation to the qualifying criteria for KBA status. 2.3 On completion of field data collection and data analyses, an assessment will be made of whether the current spatial limits of the Berkeley Sound and Falkland Sound cKBAs reflect the documented spatiotemporal distribution of whales, and whether they are appropriate for long-term management of mobile marine predators such as baleen whales. 2.4 The Technical Report containing the assessments in 2.2 and 2.3 will be produced and circulated to decision-makers, stakeholders and the IUCN KBA partnership. **3. FOCAL STUDIES OF BALEEN WHALES AT TWO SITES** 3.1 Survey planning. Including the scheduling of boat survey work (including timing and field methods, with input from project partners), refining of study areas in Berkeley Sound and Falkland Sound, and preparation of boat/crew for field seasons. Preparation of field equipment. Development of HSE risk assessments. Updating of volunteer database for marine work. 3.2 Boat-based survey work carried out between January and July 2019 and 2020 in Berkeley Sound (32 days per year), and between February and May 2019 and 2020 in Falkland Sound (20 days per year). Planned to coincide with peak expected temporal occurrence of sei and southern right whales in the region. Photo-identification, faecal sampling and tagging efforts to occur throughout boat survey work. A FIG permit (Research Licence No: R11/2017) is already in place for non-invasive whale work over this period. 3.3 Initial field visit by experienced whale time-depth-recorder (TDR) tag expert for four weeks during February 2019 to oversee initial tagging efforts. At least 1 staff member at FC trained in tag deployment and recovery. The tagging work will be dependent on acquiring a permit from the FIG Environmental Planning Department (FIG is supportive of the project concept note). 3.4 Processing and storage of faecal samples at a suitable facility in the Falkland Islands. 3.5 Compilation of photo-identification images into catalogues per species (and perhaps by site) and logging of associated meta-data. Quality-control of photo-identification catalogues. Images of distinctive whales provided to HappyWhale and incorporated into the HappyWhale online portal for international access and matching potential. 3.6 Analysis of photo-identification datasets to examine for re-sightings (including internationally via HappyWhale). Photo-identification mark-recapture analysis carried out. 3.7 Analysis of boat survey effort and cetacean sightings data - compilation of GPS track logs into spreadsheets, and GIS projects produced. Habitat parameter analysis. 3.8 Analysis of TDR tag data and production of interpretative report. 3.9 Export of faecal sample subset shipped to the UK via BAS vessel (or alternative means, e.g. aircraft). 3.10 Prey-based DNA analysis of faecal samples using PCR-amplification and Illumina sequencing (followed by identification of prey using DNA databases) carried out at BAS to investigate whale diet and interpretive report produced. 3.11 Production of final Technical Report (open access) including species distribution maps showing spatiotemporal distribution and habitat, discussion of foraging ecology, and the results of tagging work, faecal sample analysis and photo-identification. Report made open access and disseminated to decision-makers and stakeholders (including IUCN KBA regional coordinators). 3.12 Boat survey meta-data submitted to the IMS-GIS data centre. Data archived on FC server. **4. PASSIVE ACOUSTIC MONITORING (PAM) STUDY OF BALEEN WHALES AT THREE SITES** 4.1 Selection of specific sites for "SoundTrap" deployment within the three focal sites, via reconnaissance trips by SMSG divers to locate suitable seabed areas where the			

Project summary	Measurable Indicators	Means of verification	Important Assumptions
acoustic deployments are most likely to remain on location and in quiet environments (i.e. minimal masking). 4.2 Design and construction of suitable moorings. 4.3 Initial deployment of "SoundTrap" devices by boat at the three focal sites in September 2018 (weather dependent). 4.4 Maintenance visits by boat to recover, download data and redeploy "SoundTraps" at 4-monthly intervals for a two year period. Two-year deployments to ensure year-round temporal data are collected on whale species. 4.5 Acoustic data sent for analysis in batches at 4 to 12 month intervals over the two-year period. Analysis of sei whale call rates (whale calls per hour or day, depending on data suitability) will be ongoing throughout the deployment and post-deployment period to develop and apply automated call detectors. If the total dataset is too extensive or time-consuming (e.g. due to uncontrollable masking of the sound files) then analysis will be reduced to a manageable subset of data (e.g. 18 months instead of 2 years). 4.6 Production of final analysis and reporting of the acoustic dataset and evaluation of the applicability of PAM for long-term monitoring of baleen whales in the Falklands. Report circulated to decision-makers and stakeholders. 4.7 PAM meta-data submitted to the IMS-GIS data centre. Data archived on FC server. **5. GENETIC DIVERSITY AND ISOTOPE STUDY** 5.1 Collection of biopsy tissue samples from boat during two field seasons at the Berkeley Sound and Falkland Sound cKBAs. Dependent on acquiring a permit from the FIG Environmental Planning Department (previous permits have been granted and FIG is supportive of the project concept note). Opportunistic collection of additional genetic samples using other methods (e.g. stranded whales, faecal samples and extraction from bones) throughout the study. Collection of supporting data on biopsy attempts, including photo-identification and behavioural responses. 5.2 Processing and storage of tissue samples at a suitable facility in the Falkland Islands. 5.3 Acquisition of required international export/import permits for the samples from FIG, UK and CITES. 5.4 Export of sample subset shipped to the UK via BAS vessel (or alternative means, e.g. aircraft). Duplicate sample sub-set remains in the Falklands for future analysis. 5.5 Genetic and isotope analysis carried out at BAS to investigate genetic diversity and trophic level. 5.6 Interpretive report of genetic and isotope results produced and disseminated to decision-makers and stakeholders. 5.7 Genetic meta-data submitted to the IMS-GIS data centre. Data archived on FC server. 5.8 Genetic digital sequencing data archived with international repository, e.g. GenBank.			

Additional Annexes (see separate documents)

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	
Have you involved your partners in preparation of the report and named the main contributors	
Have you completed the Project Expenditure table fully?	
Do not include claim forms or other communications with this report.	