

## Darwin Plus: Overseas Territories Environment and Climate Fund Annual Report

To be completed with reference to the “Project Reporting Information Note”  
(<https://darwinplus.org.uk/resources/information-notes>)

It is expected that this report will be a **maximum of 20 pages** in length, excluding annexes)

**Submission Deadline: 30<sup>th</sup> April 2023**

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### Darwin Plus Project Information

Project reference	DPLUS126
Project title	Advancing Falklands and region-scale management of globally important whale populations
Territory(ies)	Falkland Islands
Lead Partner	Falklands Conservation
Project partner(s)	National Oceanic and Atmospheric Administration, Instituto Aqualie, British Antarctic Survey, Aarhus Institute of Advanced Studies, Sea Mammal Research Unit, Happy Whale, Falkland Islands Government
Darwin Plus grant value	£499,991.00
Start/end dates of project	1 July 2021 to 30 June 2024
Reporting period (e.g. Apr 2022-Mar 2023) and number (e.g. Annual Report 1, 2)	1 April 2022 to 31 March 2023, Annual Report 2
Project Leader name	Caroline Weir and Andrew Stanworth
Project website/blog/social media	<a href="https://www.facebook.com/FalklandsWhale">https://www.facebook.com/FalklandsWhale</a>
Report author(s) and date	Caroline Weir, 29 April 2023

### 1. Project summary

The Falklands marine environment supports globally significant populations of baleen whales. Endangered sei whales (*Balaenoptera borealis*: Figure 1A) use the region as a feeding ground during the summer and autumn, with inner shelf waters being recognised as a globally-important site for the species in 2021 with the announcement of the *Falkland Islands Inner Shelf Waters Key Biodiversity Area*. During the austral winter, aggregations of southern right whales (*Eubalaena australis*: Figure 1B) occur along the north-east coast of the Falklands for mating and socialising.

While much has been learnt about the distribution and ecology of these two species during coastal boat survey work that commenced in 2017 (including DPLUS082 fieldwork carried out from 2019 to 2021), many uncertainties remain. Amongst these are some key data deficits relevant to the conservation and management of baleen whales around the Falklands, including:

- How both species move around the Falklands and use the available habitats, including potential movements between inshore waters and offshore, pelagic habitats;

- Which other countries or ocean regions are used by Falklands' whales;
- How whales use the water column, with regard to their foraging behaviour and the proportion of time spent in surface waters where they might encounter vessels;
- With regard to southern right whales, whether the wintering aggregations observed in the north-east of the Falklands are also found throughout the Islands, and what kind of numbers are involved; and
- Data on the overall health and body condition of whales in the Falklands.

Additionally, ongoing investigations of the population structure and diet of whales around the Falklands requires larger sample sizes and multi-year datasets.

(a)

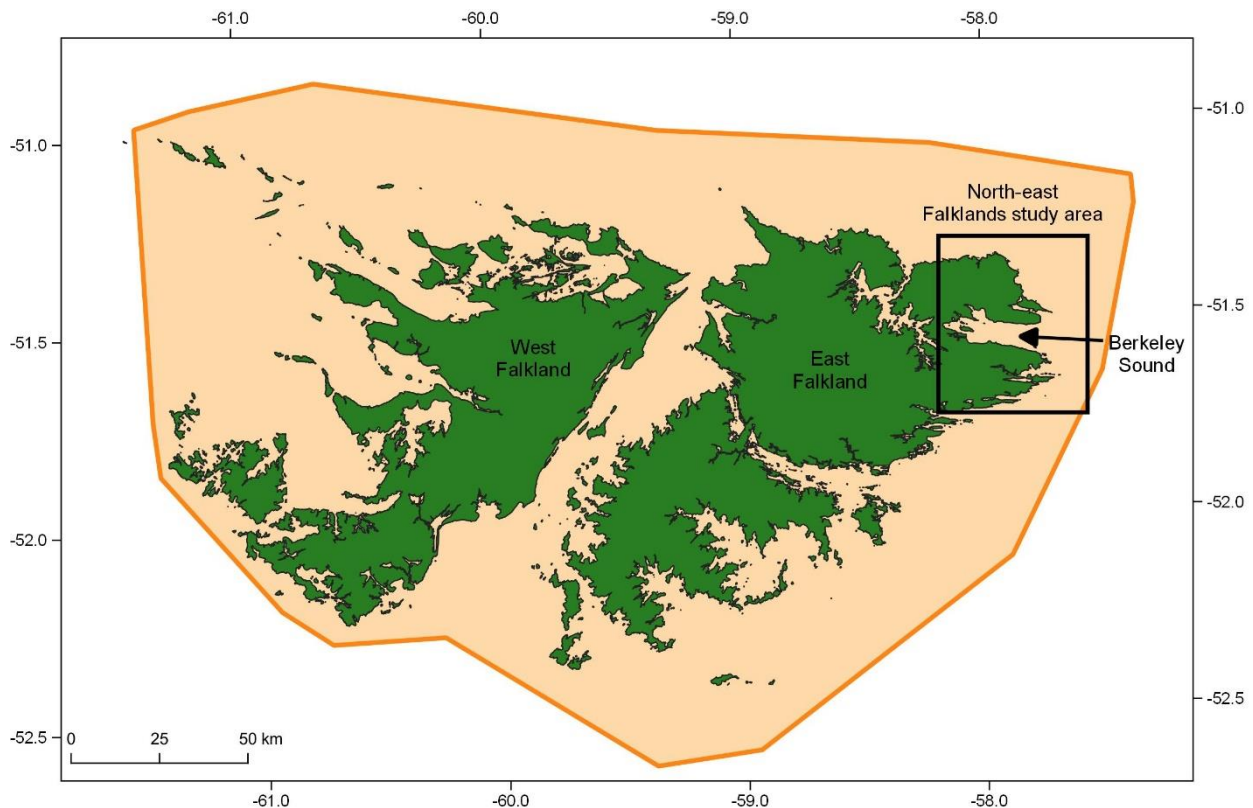


(b)



**Figure 1.** Project study species in the Falkland Islands: (a) sei whale and (b) southern right whale.

DPLUS126 aims to address some of these critical questions, including the first attempt to carry out satellite telemetry on whales in the Falklands, which will provide detailed fine-scale data on the movements and depth profiles of whales in, and potentially beyond, Falklands' waters. A winter aerial survey will be carried out to assess southern right whale abundance in regions adjacent to the north-east Falklands, and calibrated Unmanned Aerial Vehicles (UAVs) will measure the body size parameters of right whales via photogrammetry to assess their health. This suite of work will be carried out over two field seasons (2022 and 2023) using aerial and boat platforms. Boat surveys will focus on the coastal waters of the north-east Falklands, particularly Berkeley Sound during summer and the coastline north to MacBride Head during winter (Figure 2).



**Figure 2.** The Falkland Islands, showing the location of the core study area for boat-based survey work and the location of the Falkland Islands Inner Shelf Waters Key Biodiversity Area for sei whales (orange area).

The data collected during this project will provide a solid evidence base on which Falkland Islands Government will be able to incorporate vulnerable baleen whales into Marine Spatial Planning and other management tools in the Falklands. The marine environment supports a significant part of the Islands' economy, notably the well-established and thriving fishing industry. The hydrocarbon industry has explored and drilled in Falklands' waters, and may be further developed in future. Additionally, the port facility in Stanley is being modernised and expanded, to cater for increased commercial and tourist-related vessel traffic. Many of these activities occur within the *Falkland Islands Inner Shelf Waters Key Biodiversity Area* for sei whales, and overlap with the areas used by right whales for mating activities. Potential direct impacts from these activities on whales include vessel strikes, entanglement in moorings, habitat loss, and noise disturbance. Indirect impacts may also occur if important prey species are affected.

This project will increase understanding of the potential overlap between whales and human activities, providing insight into the most effective methods for industry to evaluate and mitigate interactions. The winter right whale abundance estimate should facilitate a Key Biodiversity Area assessment for that species, which, if it qualifies, would represent a 'key site' for conservation under the Falkland Islands Ecoregions, Habitats, Species and Sites Strategy (2016–2020). A draft Species Action Plan for endangered sei whales will be produced (given their likely inclusion as priority species on a revised National Red List), addressing currently incomplete goals of the Falkland Islands Biodiversity Framework. In combination, these outputs will be available for use by a range of stakeholders (notably industry and government) to guide threat mitigation and facilitate continued population recovery of baleen whales around the Falklands and in the wider south-west Atlantic region.

## 2. Project stakeholders/partners

The project stakeholders (who comprise key decision-makers, landowners adjacent to Berkeley Sound, local research organisations, and marine commercial and recreational users) and the project partners (who also comprise the steering group) have been engaged with the project during Year 2 as follows:

## **Stakeholders:**

Project Lead Caroline Weir has met informally with many stakeholders in Year 2, including landowners while attending the many baleen whale strandings we have had this year, fishing companies who have assisted us with hosting our survey boat Elinor at their pontoons and warehouses, and members of the community who have asked questions about the project at the public talks (Annex 7.15 and 7.16). Additionally, updates on the progress of DPLUS126 were emailed to all stakeholders in May and October 2022 (Annexes 7.18 and 7.19). Generally, there is high awareness of the whale work in the Falklands, due to the legacy from DPLUS082 and the continued work being carried out during DPLUS126, and more than ever we are receiving reports of whales from the community and responding to questions.

Regular updates on the project fieldwork have been posted on the dedicated Falkland Islands Whale Project Facebook page (<https://www.facebook.com/FalklandsWhale>) and frequently shared amongst the local and international community with posts reaching several thousand people (evidenced in Annex 7.17). The progress of DPLUS126 has also been reported in the Penguin News (Annexes 7.10 to 7.12) and in articles in the FC magazine in May and November 2022 (Annex 7.13 and 7.14).

We were able to carry out significant engagement with the younger component of the community during Year 2, including talks on the satellite tracking work that reached the majority of school children at the two schools in Stanley, Watch Group presentations, two Watch Group boat trips to enable children to see whales, and a whale naming competition at the school that had over 160 entries (see Annex 7 for evidence of all of these activities). Since children then went home and spoke about whales with their families, this has resulted in very good awareness of the project in the community including amongst key stakeholders.

## **Project partners:**

The project partners comprise an international team of specialists (Annex 8.1), who are distributed across several countries. Due to the remote and varied locations of the partners, communications are primarily via online video calls and email exchanges, with each partner being involved in their particular area of expertise. During Year 2 this has included:

**Alex Zerbini (Instituto Aqualie):** Alex is the satellite tagging collaborator on the project, and has provided advice and support via multiple meetings and email exchanges over Skype/Zoom in the run up to the 2022 southern right whale tagging season. This included both discussions around the logistics for the season (since the right whale tagger Federico Sucunza is part of Alex's team) and a great deal of correspondence on the programming of the tags for optimal outputs during June and July. Meeting minutes and two recordings of online meeting discussions to program tags are provided in Annexes 8.2 to 8.3. Collaboration with Alex has been fundamental to the success of the whale tagging component of the project, and he has essentially walked the Project Leads through the entire process.

**Jen Jackson (British Antarctic Survey):** Jen's contribution to DPLUS126 has been: (1) provision of five tags for use on southern right whales; and (2) provision of photo-identification images/data on southern right whales from South Georgia. The logistics and discussions to transfer the tags to the Falklands were reported in Year 1. During Year 2, the five tags provided by Jen were all successfully deployed on southern right whales. This year the matching of right whales between the South Georgia catalogue and the Falklands' catalogues has also been completed, with evidence, including email communications, provided in Annex 4.12. Aside from these project deliverables, there have also been regular communications between FC and Jen Jackson regarding the analysis of genetic and faecal samples, and their downstream uses.

**Rachel Cooper (Falkland Islands Government):** A meeting was held with Rachel Cooper and Mike Jervois of FIG on 4 April 2022, with the main aim of discussing the sei whale Species Action Plan (SAP) that will be developed as part of DPLUS126. The minutes of that meeting are provided in Annex 6.1. An additional meeting has been planned for May 2023. FIG are fully aware of the project and during Year 2 there have been regular informal communications with FIG regarding

the many baleen whale strandings we have had in the Islands (which are also sampling opportunities for DPLUS126). There have also been discussions with FIG regarding the research permits and export of samples to the UK, and in particular regarding the permission for the FC Project Lead to take over the sei whale tagging work in April 2022. It is expected that communications with FIG regarding specific end outputs of this project (i.e. the SAP and KBA assessment) will increase during Years 3 and 4, following the completion of fieldwork.

**Phil Hammond (Sea Mammal Research Unit):** Phil is providing guidance on the mark-recapture photo-identification and abundance estimate components of DPLUS126. During Year 2 he has input particularly into the development of the aerial survey design for the right whale abundance surveys that are planned for Year 3, with multiple emails exchanged on this topic to ensure that the project collects the optimal data to facilitate a robust abundance estimate (Annex 8.5). It is expected that Phil's input will increase in Year 3 and Year 4, during the mark-recapture analysis and the abundance estimate analysis that will support the SAP and KBA assessments respectively.

**Fredrik Christiansen (Aarhus Institute of Advanced Studies):** Discussions were held with Fredrik throughout the October 2022 to January 2023 period of Year 2 regarding the planning and logistics for the right whale UAV work that will be carried out in Year 3 (Annexes 8.6 and 8.7). This has resulted in confirmation of his travel dates, a flight booking for the UK to Falklands leg (Annex 4.11), and arrangements with the MoD to facilitate him flying with up to 20 lithium batteries for the UAV work (Annex 4.22). It is expected that communications with Fredrik will continue throughout Year 3, as we approach the fieldwork season in July.

**Ted Cheeseman (Happy Whale):** During Year 2, there was frequent communication between Ted Cheeseman and Caroline Weir regarding the development of an automated algorithm for photo-identification matching of cetaceans via Happy Whale. As part of this process, CW submitted datasets of sei whale and Commerson's dolphin images from the Falklands (Annexes 7.23 to 7.26). This culminated in the submission of a paper to 'Methods in Ecology and Evolution' on 5 February 2023, and the development of an online system in HappyWhale where images can be uploaded and compared to previously-uploaded images using the algorithm. We are still testing the effectiveness of this on the Falklands' sei whale images, but expect that it should reduce the workload of manual matching going forwards. However, the process does require a robust internet connection, which is sometimes a limiting factor in the Islands. TC and CW will continue to work on this development, and more sei whale images will be uploaded to HappyWhale during Year 3 as the analysis of the 2022 and 2023 photo-identification datasets is completed.

Updates to project partners to keep them informed of all project components were provided in May and November 2022 (Annexes 7.20 and 7.21).

### **3. Project progress**

#### **3.1 Progress in carrying out project Activities**

##### ***Output 1. Data on whale distribution and movements are collected and used to identify and assess national and global key sites.***

During Year 2, Activities under Output 1 have all progressed to schedule as outlined by the time-bound indicators in the Annex 1 logframe. This has included successful logistical arrangements (travel, work permits, accommodation etc.) for the three field seasons that occurred in Year 2, the maintenance of research permits and risk assessments, completion of equipment inventories and ordering of new equipment, implementation of the fieldwork (despite weather challenges) and associated data management, the planning of aerial and UAV work, and the matching of the South Georgia and Falklands right whale catalogues. The project Technical Report is due by project completion, but otherwise all Activities have progressed well in Year 2 and according to the project timeframe. All Activities are fully detailed in Annex 1 and evidence is provided in Annex 4.

**Output 2. Photo-identification mark-recapture analysis carried out to generate site-specific abundance estimates and seasonal/annual fidelity data to demonstrate persistent use of sites to fulfil protected area criteria (e.g. for KBAs).**

All of the Activities under Output 2 for Year 2 are progressing to schedule, as outlined by the time-bound indicators in the Annex 1 logframe. The sei whale photo-identification protocol (Activity 2.1) that was slightly behind schedule last year was completed in Year 2. Acquisition of photo-identification images during fieldwork and matching to the earlier catalogues has been carried out throughout Year 2, and has included the processing of a large backlog of sei whale image data collected in 2021 (during DPLUS082) as well as the 2022 and 2023 datasets acquired in DPLUS126. Evidence for the Activities under Output 2 is provided in Annex 5, and is summarised point-by-point in the Annex 1 logframe.

**Output 3. A draft evidence-based Species Action Plan is produced for endangered sei whales in Falklands' waters and recommended to FIG.**

All of the Activities under Output 3 for Year 2 progressed to schedule, as outlined by the time-bound indicators in the Annex 1 logframe. Most Activities under Output 3 are scheduled for Years 3 and 4 of the project, when the draft SAP will be produced and reviewed. However, the initial meeting was held with FIG to discuss scope of the SAP (Annex 6.1), and another meeting has already been scheduled for May 2023. The fieldwork carried out throughout Year 2 will be used to underpin Activity 3.2 in Year 3, and so the project has progressed well towards completing these Activities.

**Output 4. Awareness of whales, and support for their conservation and management, is increased within local and international communities via dissemination of research outputs.**

During Year 2 we have made excellent progress with the Activities under Output 4. A comprehensive evaluation of progress against each Activity is provided in the Annex 1 logframe, and as evidence in Annex 7. All Activities have progressed according to their timeframe, and several of the Activities have progressed either ahead of schedule (e.g. Activity 4.3) or with much greater impact than originally planned (e.g. Activities 4.2 and 4.4).

### **3.2 Progress towards project Outputs**

**Output 1. Data on whale distribution and movements are collected and used to identify and assess national and global key sites.**

The baseline situation for Output 1, was that a single extensive Key Biodiversity Area (KBA) had been successfully designated for sei whales in 2021 during a previous project (DPLUS082), spanning the inshore waters around the Islands to the 100 m depth isobath. However, it remained unclear whether or not sei whales used the entire KBA consistently (or whether the area should be refined), and whether they also routinely forage in Falklands' waters deeper than 100 m. Additionally, an assessment to identify key sites for southern right whales has not yet been carried out. One of the key goals of DPLUS126 was therefore to collect data on the movements of whales through satellite tags, and to conduct vessel and aerial surveys to assess the distribution of both species. Year 2 of DPLUS126 has focussed primarily on carrying out the boat-based fieldwork to achieve those goals, with the deployment of six satellite tags on sei whales by the end of March 2023 (<https://falklandsconservation.com/sei-whale-tracking/>) and the successful deployment of all 10 of the southern right whale tags in July 2022 (<https://falklandsconservation.com/southern-right-whale-tracking/>). The spatial movement data obtained from these tags has already been used to inform and identify Important Marine Mammal Areas (see Section 10 for more information). Extensive planning has been carried out in Year 2 for Indicators 1.4 (aerial abundance survey) and 1.5 (UAV work), which will occur in Year 3. Evidence for all of the Indicators is described in the Annex 1 logframe and provided in Annex 4. We expect that Output 1 will be achieved by the close of the project, and the current Indicators are considered appropriate.

***Output 2. Photo-identification mark-recapture analysis carried out to generate site-specific abundance estimates and seasonal/annual fidelity data to demonstrate persistent use of sites to fulfil protected area criteria (e.g. for KBAs).***

The baseline situation for Output 2, was that previous work in the Falkland Islands (including under DPLUS082) had yielded: (1) five seasons of photo-identification data on sei whales, 2017–2021; and (2) two full seasons of photo-identification data on southern right whales (2019 and 2020), along with two smaller partial datasets (2017 and 2021). Additionally, photo-identification data will be collected on sei whales and right whales during 2022 and 2023 as part of DPLUS126. It is expected that these combined datasets should prove sufficiently large to support a robust mark-recapture analysis that would provide an estimate of how many animals are using the study sites. These data are needed for the identification of significant sites for conservation and management at local and international scales. Mark-recapture work incorporates several stages, including identifying the natural marks suitable for recognising individuals, quality-rating the images to determine which should be included in the analysis, and assessing individual distinctiveness (including the proportion of ‘unmarked’ animals). While most of this Output will be achieved in Years 3 and 4, much of Year 2 has focussed on cataloguing and matching existing image data (including images from 2021 obtained in DPLUS082, and images from Years 1 and 2 of DPLUS126). Indicator 2.1 was completed in Year 2, and Indicator 2.3 has progressed well and should be achieved by the end of the right whale field season in Year 3. Indicators are considered appropriate, and evidence is provided in the Annex 1 logframe and Annex 5.

***Output 3. A draft evidence-based Species Action Plan is produced for endangered sei whales in Falklands’ waters and recommended to FIG.***

The baseline condition for Output 3, is that a Cetacean Species Action Plan (SAP) was adopted by Falkland Islands Government (FIG) from 2008 to 2018, but has not been renewed. Currently, therefore, there are no SAP’s in place for any cetacean species in the Falkland Islands. It was considered that at least the sei whale, a globally Endangered species for which Falklands’ waters comprise an internationally-important feeding area, would warrant a SAP. The delivery of a draft SAP is scheduled for Years 3 and 4 of the project. The Indicators for this Output are appropriate; however, none relate specifically to Year 2. That is because the development of the SAP will use the field data collected during Year 2, particularly the satellite tracking data. A meeting has been scheduled with FIG for May 2023 to further discuss the development and content of the SAP, and we expect that Output 3 will be achieved by the close of the project.

***Output 4. Awareness of whales, and support for their conservation and management, is increased within local and international communities via dissemination of research outputs.***

The baseline situation for Output 4 is that local awareness of whales in the Falklands has grown considerably due to the outputs of DPLUS082. However, there is a high turnover of the local community in the Islands, and we believe that continued highlighting of whales is critical to achieving ongoing support for their conservation. This is aptly illustrated by recent public consultations on salmon farming and Marine Management Areas in the Falklands, where awareness of whales (and other wildlife) has played a fundamental part in feedback. International recognition of the Falklands as a whale ‘hotspot’ was greatly increased by the achievement of the sei whale KBA during DPLUS082, but similar recognition has yet to be realised for southern right whales. During Year 2 we have made significant progress into achieving Output 4, fulfilling all of the stated Indicators that related to this time period and exceeding the Indicators in several instances. This has particularly been the case with school children and the children who attend FC’s Watch Group, who have been engaged with the whale project far beyond what was stated in the Indicators (i.e. 61% of children in one school reached, rather than the Indicator value of 25%). Similarly, outreach to the general Falklands’ community has exceeded the stated Indicators. Evidence for these points is provided in detail in the Annex 1 logframe and in Annex 7. We have very high confidence that Output 4 will be achieved by the end of the project, and the Indicators are appropriate.

### 3.3 Progress towards the project Outcome

The main stated project Outcome for DPLUS126 is *'The conservation of two baleen whale species in the Falkland Islands and South Atlantic Ocean is better understood and management recommendations made to help secure their future.'*

The deliverables for Outcome Indicators 0.1 to 0.3 are not due until the final year of the project in June 2024. However, data collection and preliminary analysis has been carried out throughout Year 2, and those datasets will underpin the achievement of all of these Indicators by the project completion in June 2024. Moreover, the identification of important marine areas for the two whale species (Indicator 0.1) was boosted by outputs from the regional south-west Atlantic workshop of the IUCN's Important Marine Mammal Area (IMMA) programme that was held in December 2022 and attended by the Project Leader. That workshop led to spatial areas of importance being proposed in the Falklands for both sei and right whales (see Section 10 and Annex 9). If achieved, the recognition of both IMMAs and KBAs for these species would serve as useful spatial tools in future marine management discussions in the Falklands.

The Indicators seem appropriate and we continue to be on track to achieve the Outcome by the project completion.

### 3.4 Monitoring of assumptions

We identified a number of Important Assumptions in our project logframe at the start of DPLUS126 (see Annex 2), and they are summarised below. The project includes a significant fieldwork component that is heavily influenced by weather conditions and by the logistical constraints of operating in relatively remote areas and with limited resources. Evidence for the comments below is provided throughout the logframe in Annex 1.

#### Outcome

**Assumption 1:** Government recognises KBAs as a tool within the marine spatial planning process, and thus develops appropriate future management of those areas for whales.

**Comments:** This risk holds true. However, it has been mitigated to some extent by the inclusion of FIG as a project partner on DPLUS126 and repeated promotion of the first sei whale KBA in local outreach such that its existence is well-known.

**Assumption 2:** The IWC (and IWC-SORP) are willing to incorporate the Falkland Islands into the IWC-CMP for southern right whales.

**Comments:** This risk holds true, particularly given geo-political challenges within the south-west Atlantic region. However, project partner Jen Jackson is Chair of the Southern Hemisphere whales sub-committee of the IWC and can help to optimise this possibility.

#### Output 1

**Assumption 1:** Tags will be successfully deployed on whales and will operate correctly to transmit data.

**Comments:** This risk holds true. As expected, we have had very different experiences with sei whales and southern right whales during the tagging work. Not only are the sei whales significantly more difficult to approach, but the tags being used on sei whales require a much greater degree of precision in their deployment in order to ensure they are located high on the dorsal fin and able to make optimal contact with the satellites. Consequently, while we have only been able to deploy six tags so far on sei whales across the two field seasons, we were able to deploy all 10 of the southern right whale tags within a three-week period in the first season. We also had more challenges with receiving data from the sei whale tags than from the right whale tags. Nevertheless, the deployment of six tags on sei whales is considered a huge achievement, and will provide a much-improved knowledge of the movements and behaviour of that data-deficient species in the Falklands and also globally.

**Assumption 2:** Tags will remain attached for sufficiently long duration to provide the intended data on movements and migration routes.



**Comments:** This risk holds true. In practice, we have experienced some challenges with the longevity and quality of data transmission from some of the sei whale tags, due to technical glitches and suboptimal deployments. While some of this was attributed to incorrect tagging equipment being shipped to the Falklands by suppliers (see AR1), the remainder is considered simply to be inherent to the difficulty of the ambitious work being carried out. Deploying tags on specific body parts of a whale (in the case of sei whales, into the dorsal fin) requires calm weather, very close whale encounters, and accuracy of shooting. All of these things were difficult to achieve during the Falklands project, due to lack of calm weather, the elusiveness of sei whales, and the fact that both platform and whale are moving at the time that shots are taken. We have learnt some lessons along the way and amended some aspects of the tagging work (for example, amending the float attachment to reduce potential entanglement with the tag antenna), but it remains very challenging with sei whales. However, the southern right whale tags have generated considerable data on long-range movements and dive behaviour as well as on their movements within the Falklands. We believe that the data that have been acquired so far on both species will make a huge contribution to better understanding their habitat use and movements in the Falklands, and will largely fulfil the goals that we set out to achieve in DPLUS126.

**Assumption 3:** Assumes that all (or most) fieldwork is achieved. Possible constraints include weather, platform availability and breakages (e.g. engine faults), and unforeseen circumstances such as global pandemics.

**Comments:** This risk holds true. However, we have had reasonable success with all three of the field seasons carried out so far on the project, despite unusually windy conditions experienced during the 2023 sei whale season. The purchase of the new boat in Year 1 has provided complete flexibility to operate around weather, and removed one constraint that had affected the achievement of survey coverage during previous years.

## Output 2

**Assumption 1:** Assumes that there will be a sufficient number of photographic recaptures of whales between years following quality control to support a robust mark-recapture analysis.

**Comments:** This risk holds true. The dataset of whale images collected during 2022 and 2023 will potentially be smaller than in previous years (which had longer field seasons), but based on the number of images acquired then it is still expected that the data will be sufficient to support mark-recapture analysis.

## Output 3

**Assumption 1:** Sufficient data exist on species occurrence and threats to develop a robust SAP.

**Comments:** This risk holds true. However, in the Falklands, the sei whale is the cetacean species for which the most extensive dataset exists, and so it is expected that a SAP will be achievable. Considerable data have been acquired during Years 1 and 2 of the project, and the compilation of all available data on sei whales for the SAP will commence shortly in Year 3 as soon as the 2023 sei whale season completes.

## Output 4

**Assumption 1:** Tag-related outputs (e.g. whale track web page) are dependent on tags being deployed on whales and transmitting successfully.

**Comments:** This risk holds true. However, the project has succeeded in deploying tags on both whale species and the tracking pages have been successfully established and used extensively so far in social media outputs (see Annex 7.17).

**Assumption 2:** Improved knowledge and awareness leads to increased support for the conservation and management of whales.

**Comments:** This risk holds true. Previous experience in the Falklands indicates a high level of community support for whales, and that support is increasing annually as outreach continues. We will therefore continue to focus on promoting the whale research in a conservation and management context, to optimise the likelihood of support remaining high.

#### **4. Project support to environmental and/or climate outcomes in the UKOTs**

The primary statement of strategic outcomes intended for the natural environment in the Falklands is the Biodiversity Framework 2016–2030, which integrates delivery of multilateral agreements (e.g. CBD Aichi targets) and defines a number of additional strategies and plans required for delivery in specific areas; however, these are not all complete. The Framework is threat-based with only a single priority - 'biosecurity and invasives.' Medium priority threats include Natural Resource Use, and Visitors/Tourism, with Cross-cutting challenges of 'Lack of awareness' and 'Uncertainty/Lack of information'. These Cross-cutting challenges, in overlap with the medium threats, are those relevant to our current project on whales.

Year 2 of DPLUS126 has focussed on carrying out the fieldwork and associated data management (database entry, QGIS mapping and photo-identification work) that will produce the foundation dataset to fill data gaps and support the key project outputs. This has included the deployment of satellite tags on both focal whale species, and the collection of data on their spatial and temporal distribution, photo-identification, diet (via faecal sampling), and genetics (via biopsy sampling). These data form the basis for significant awareness-raising campaigns (especially the real-time maps of tagged whale movements), and will be available to underpin future conservation and management of whales in the Falklands.

The relevance of DPLUS126 with respect to Natural Resource Use and Visitor/Tourism is in deriving data to support decision-making on potential development impacts on whales, currently including the development of the hydrocarbon and aquaculture industries, and in providing guidance to a small (but growing) whale-watching tourism sector. Assessment of the tagging data acquired during Year 2 will enhance understanding of how to assess the potential impacts of such developments on whales. For example, those data are showing how much time whales spend in particular areas, how they move around the Islands, and how much time they spend in different parts of the water column (for example, in the upper 5 m where they may be more vulnerable to ship strike). This can directly inform assessments of spatial and temporal overlap with a range of human activities, and inform mitigation decisions.

The Ecoregions, Habitats, Species and Sites Strategy is the FIG Framework's mechanism for delivering Aichi Targets 11, 12, 13 and 15. Preventing extinction (Target 12) and improving conservation status is particularly relevant for the Endangered sei whale, and the Strategy specifically notes the requirements for Ecoregion plans for the nearshore environment and Species Action Plans for priority species. The Falkland Islands priority species list is due to be updated, but it is likely that the sei whale would qualify given its global IUCN conservation status as an Endangered species. DPLUS126 will directly support this process, by working with FIG to produce a draft SAP for the sei whale which could be adopted into policy in future. The conservation of marine areas of importance for biodiversity (Target 11) is also particularly relevant and the strategy also has goals for 'key sites' which includes Key Biodiversity Areas. While a sei whale KBA was achieved by DPLUS082, the satellite tracking data acquired during DPLUS126 may result in amendments to the current KBA boundaries to better reflect how sei whales are using habitats. DPLUS126 also aims to carry out the first KBA assessment in the Falklands for the southern right whale, a species for which the south-west Atlantic population has been highlighted as being of conservation concern. The identification of spatial tools such as KBAs, is expected to directly influence subsequent consideration of Marine Protected Areas and Marine Management Areas.

In addition to stated deliverables on KBAs as spatial management tools, Year 2 of DPLUS126 has seen the development of another complementary spatial marine management tool for whales in the Falklands – Important Marine Mammal Areas (IMMAs), developed by the IUCN. We have been involved in the proposal of three marine mammal IMMAs in the Falklands since the south-west Atlantic IMMA workshop in December 2022, including an island-wide inshore sei whale feeding ground and a coastal winter mating area for southern right whales (see Section 10 for more information, and Annex 9). With regard to the right whale IMMA, the delineation and proposal of that site was based largely on the satellite data obtained in Year 2 of DPLUS126. It can be expected that this IMMA will pave the way for a KBA, depending on the results of the

aerial survey taking place in Year 3 of DPLUS126. The identification of IMMAs and KBAs in the Falklands will serve to highlight important areas for whales that can be incorporated into marine spatial planning, and used by industry and other stakeholders to mitigate potential impacts.

## 5. Gender equality and social inclusion

There are no specific barriers to gender equality or social inclusion within DPLUS126.

Please quantify the proportion of women on the Project Board <sup>1</sup> .	The Project Leaders are one female and one male respectively, resulting in a proportion of 0.5.
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women <sup>2</sup> .	Of the six project partners listed in Section 2, two are women resulting in a proportion of 0.3.

The Project Leaders at Falklands Conservation consist of one female and one male. Of the 11 staff currently based in the Stanley office of Falklands Conservation, five are male and six are female. We also have both female and male leads at our Project Partner Organisations.

While our tagging team personnel (boat driver and tag operator) for the sei and southern right whale field seasons have been male, this simply reflected the applicants; the roles were advertised widely in local media and were open to all.

Outreach activities, including Watch Group and school presentations, have engaged participants of both sexes and were organised on a 'first-come, first-served basis' where spaces were limited (e.g. Watch Group boat trips), or provided to entire classes irrelevant of sex ratios (school presentations).

## 6. Monitoring and evaluation

The project logframe (Annexes 1 and 2) provides a clear set of Indicators and Outputs against which DPLUS126 can be continuously monitored and evaluated over time.

The Outputs and Activities of the project clearly contribute to the overall project Outcome, since the project Outcome (better understanding of the conservation and management of two baleen whale species) is based on the collection of a robust evidence base (e.g. by completing distribution/abundance surveys and satellite-tracking) to underpin KBA assessments, the production of a draft Species Action Plan for the sei whale (in collaboration with FIG), and the highlighting of important whale populations around the Falkland Islands at the International Whaling Commission. The four project Outputs and their associated Activities therefore all feed directly into achieving the project Outcome. All Activities and Indicators within the logframe are SMART, making it straightforward to evaluate their success. The Indicators relate either to clear markers of progress (e.g. increasing the number of catalogued whales by 50 animals for each species), or to the project end deliverables (e.g. delivery of the SAP).

There have been no changes to the M&E plan over the course of Year 2.

Falklands Conservation is leading on DPLUS126, and there are two project Co-Leads which provides scope for exchange of ideas and M&E discussions. Given the multi-faceted nature of the project, the project partners are each involved in very specific components and therefore input primarily on their own specialities. For example, during Year 2, there have been discussions

<sup>1</sup> A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

<sup>2</sup> Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

with Phil Hammond regarding the planning of the Year 3 aerial survey, with Fredrik Christiansen regarding the Year 3 UAV work, and with Ted Cheeseman regarding the development of algorithms for automated matching of sei whales from images. Additionally, logistics and budget were extensively discussed with tagging partner Alex Zerbini for the 2022 southern right whale season, with both FC and Alex negotiating and managing changes in budget associated with the changes in travel plans for the right whale tagger.

## 7. Lessons learnt

In general, the project has run smoothly and fairly well to plan this year, following the numerous complex logistical challenges experienced in Year 1. Although we left the travel arrangements for the southern right whale tagger to the very last minute in Year 2 (instead of the bookings being made in Year 1 as originally planned), that worked out well and enabled us to fly the tagger directly from South America to the Falklands instead of the long and expensive route via the UK (see Section 8 for more details). We therefore learnt that sometimes taking a risk can lead to better success (as long as a contingency plan is in place!), although projects like this tend to be otherwise understandably risk-averse.

As always, the shipping of equipment to the Falklands has been lengthy and with many logistics to navigate, and having learnt that in a previous project (DPLUS082) and in the first year of this project, we have been even more cautious in ordering things well in advance and keeping a healthy stock of spares. This has applied particularly to the survey boat purchased in Year 1 of the project, for which oil and spares for the 100 hr services have been ordered well ahead of the existing stocks running out. Lithium batteries remain a challenge to ship to the Falklands, and we have maintained good dialogues with DHL in Stanley, the MoD, and RJI shipping agency, to ensure that lithium batteries for equipment such as satellite tags and UAVs can arrive in time for the field seasons and without delays in customs.

As with DPLUS082 and continuing into DPLUS126, we experience an inherent difficulty each year in the fact that the project financial year ends right in the middle of our sei whale field season, such that our exact expenditure cannot be accurately forecast due to uncertainties about weather and how many boat survey days will be achieved at sea by the end of March. While we cannot do anything to amend the overlap between this deadline and our field season (since March is also the peak time for the sei whale occurrence), we would certainly advise others to consider the financial year deadline in the planning of their own field activities, such that if they have the flexibility to plan fieldwork to avoid that deadline then it will be much easier to manage the budget and submit any change requests well ahead of time.

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

The reviewer of the annual report for Year 1 made six comments, each of which is addressed below.

**Comment 1.** *Given the constraints for international specialists outlined in section 2 of AR1, it is unclear how much these impact collaboration and cooperation among project partners, and between project partners and stakeholders, as well as how this might be mitigated going forward. Reporting on this experience and the actions taken should be provided in AR2.*

The constraints mentioned were primarily the fact that the international specialists who also comprise the project partners are distributed across a number of countries and it is therefore not feasible to have in-person meetings. However, we do not feel that this affects the collaboration or overall management and results of DPLUS126. Indeed, we learnt during DPLUS082 that this scenario can work well and deliver a project that exceeds its stated Outcome. Moreover, the ability to maintain good communications via video calls and email is simply an essential aspect of running an international project from the remote location of the Falkland Islands, where it is costly and logistically-complex to have in-person meetings. We are fortunate on DPLUS126 to have expertise from multiple specialists who work at the highest level in their field, and who are very used to inputting their advice and guidance into international projects across the globe using remote methods such as video calls. Moreover, the Project Lead Caroline Weir has previously met all but one of the project partners face-to-face in other contexts, which greatly helps with

these remote communications. Three of the six project partners also worked with us on DPLUS082, where these same communication arrangements were in place. We find that communicating directly over specific project components in which the partners bring expertise, is the most optimal productive working arrangement, and it has worked well during Year 2 when all Indicators and Activities have been completed for DPLUS126.

**Comment 2.** *As noted in AR1 Section 3, the booking of international travel for the southern right whale season in July/ August of Year 2 did not occur on schedule, due to ongoing uncertainties about flights related to Covid-19. However, it is expected that the travel will be booked in good time for the right whale season and an update should be provided in AR2.*

Because our southern right whale tagger was based in Brazil, we held off booking travel for him until the last minute because there was a lot of indication that the LATAM connection with South America would resume by July 2022 (it had been stopped for over two years due to COVID). It would save a lot of time, logistics, carbon footprint and budget if we could fly him direct from South America rather than via the UK. We did make a booking with the Airbridge (UK to Falklands) in early May 2022 (Annex 4.13), because we were concerned that if we left it any later then the flights might become fully booked and we would be left with no travel option for him at all. But in the end, there was confirmation that LATAM would indeed resume, and on the 18 June 2022 we were able to make the booking with LATAM to bring the tagger on the first resumed flight to the Falklands on the 2 July 2022 (Annex 4.6). We subsequently cancelled the Airbridge booking. While the arrangements ended up being uncomfortably last minute, everything did work out to plan and we made every effort to mitigate by having the Airbridge as the backup option. Although payment for the travel ended up being allocated to Year 2 rather than Year 1 as planned, this was compensated for by underspend in other parts of the budget (see Section 14).

**Comment 3.** *As noted in the Annex 1 logframe, Output 2 Indicator 2.2. is somewhat behind schedule, given the stated deadline of January 2022. It is expected that this Indicator will be completed well before the end of 2022. Reporting on operationalisation of this indicator should be provided in AR2.*

Our Year 1 report (AR1) highlighted two documents that should have been completed in Year 1 but were slightly behind schedule due to the unexpectedly large amount of time that the Project Leader had to spend on logistics at the start of the project to ensure that the boat and satellite tagging equipment made it to the Falklands in time for the 2022 sei whale season. They were Indicator 2.2 (mark-recapture abundance assessment) and Activity 2.1 (the sei whale protocol). Both of these reports were both written, and subsequently updated to newer versions, during Year 2, and are provided as Annexes 5.1 and 5.4 respectively. They will continue to be updated as the photo-identification analysis approaches are refined.

**Comment 4.** *It is noted in AR1 Section 3.4. that two out of five deployed tags on sei whales have yielded limited data due to sub-optimal deployment conditions and delivery of the incorrect equipment for tag injection. AR1 reports that lessons have been learned ahead of the second sei whale tagging season – commentary on the status of deployed tags should be addressed in AR2.*

We would like to emphasise here that tagging whales is inherently challenging, and tags can fail for all kinds of reasons including suboptimal deployments, subsequent entanglements with marine debris, technical failings etc. We were able to have a replacement Dan Inject rifle of the correct pressure delivered free of charge (since the incorrect shipment was due to supplier error) to the Falklands ahead of the 2023 sei whale season, and therefore that particular issue was solved. We also purchased one additional Limpet tag to be used on the sei whales for the 2023 season, to try and compensate for some of the short datasets we experienced in 2022.

Discussions with our tagging partner Alex Zerbini at the end of the sei whale season, indicated that other studies using the same Limpet tags on similar species (specifically fin whales) had average tag durations of 19-20 days. The tags usually stop transmitting before the battery level is low, and clearly come off the animals for some reason (perhaps the high swim speed and associated drag, on these types of rorquals). This indicates that tags can have relatively short duration even when everything seems otherwise optimal. Our sei whale tagger adjusted the method of attaching the float to the tag for the 2023 season to reduce possible entanglements with the tag antenna that could lead to breakages. We also had the correct powered Dan Inject. However, the tag we deployed in March 2023 had a longevity of just under a month, due to factors

that we simply cannot control (in this case only one of the two barbs attached to the fin during the deployment). We would note that our southern right whale tagging was accomplished with ease, due both to the placid nature (and high approachability) of that species and due to the fact that those tags required much less specific placement on the body. The sei whale work was comparatively very challenging, and we feel that much has been accomplished with our tagging efforts to improve knowledge of that species despite the challenges experienced.

**Comment 5.** *AR1 reports that LATAM air travel from South America to the Falkland Islands remains uncertain, and thus air travel through the UK may be the only option for the remainder of 2022. An update on this situation, particularly with regards to the upcoming right whale survey season should be addressed in the next half year report.*

Please see the response to Comment 2, where this situation was explained in detail.

**Comment 6.** *Given that a key Output is a draft Species Action Plan (SAP) for the sei whale, it may be beneficial to report on potential steps to be taken to finalise a SAP, and how will this be integrated into policy/regulation?*

The integration of a SAP into policy/regulation, while desirable, was not a stated aim of DPLUS126. Indeed, as a NGO we can only provide a robust document that provides recommendations for the ongoing management of sei whales and propose it to Government. It will then be their decision how best to incorporate that document into policy. For this reason, Output 3 of DPLUS126 was to produce a *draft* SAP and to *recommend* it to FIG, rather than to deliver a finalised version that would become definitively incorporated into policy. That said, we will work closely with FIG and relevant stakeholders to develop a draft SAP that will be most applicable and have the highest likelihood of being forwarded into policy and decision-making. Indeed, FIG are a project partner on DPLUS126 specifically so that we can work together to produce outputs with the most relevant management impact. As part of this process, meetings are being held with the FIG Environment Department so that we can discuss development and progress of the SAP. Early discussion indicated that FIG do not have a standard template for SAPs for individual species, and so this process will be somewhat pioneering and potentially help to pave the way for future SAPs on other species.

## 9. Risk Management

We have not experienced any new risks in the last 12 months that had not been previously accounted for. Most of the risks to the fulfilment of the project were highlighted in the Assumptions in Section 3.4. We have therefore not made any significant adaptations to project design in light of new risks.

## 10. Other comments on progress not covered elsewhere

The opportunity is taken here to expand on three project components that have surpassed our expectations in Year 2.

### IMMA workshop

An unanticipated opportunity to use the results from DPLUS126 (and earlier datasets including from DPLUS082) to inform a spatial management tool was provided by the announcement of the Important Marine Mammal Area (IMMA) regional workshop for the South-West Atlantic Ocean Region, which was to be held in Praia do Forte, Brazil from 5 to 9 December 2022. The IMMA workshops are carried out region by region, and it was not known at the start of DPLUS126 that the south-west Atlantic region would be covered during the timeframe of the project. The Project Leader Caroline Weir was invited to this workshop as a Falkland Islands representative. The workshop participants list is provided in Annex 9.3 and the agenda is provided in Annex 9.5.

IMMAs are defined as discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation. IMMAs consist of areas that may merit place-based protection and/or monitoring. 'Important' in the context of the IMMA classification refers to any perceivable value, which extends to the marine mammals within the IMMA, to improve the conservation status of those species or populations. IMMAs are identified

in order to prioritise their consideration for conservation measures by governments, intergovernmental organisations, conservation groups, and the general public. Further information on IMMAs can be found on their website at: <https://www.marinemammalhabitat.org/immas/>

Caroline Weir attended the workshop remotely (Annex 9.4), and worked with two Falklands' pinniped specialists to submit three candidate IMMAs (cIMMA) by the end of the workshop that included or focussed on cetaceans. These were:

1. Falkland Islands Inner Shelf Waters cIMMA (Annex 9.1);
2. North-east Falklands Right Whale Wintering Area cIMMA (Annex 9.2); and
3. Sea Lion Islands Group cIMMA (Annex 9.6).

The Falkland Islands Inner Shelf Waters cIMMA largely overlaps with the Key Biodiversity Area that was achieved for sei whales during DPLUS082; however, more marine mammal species qualify for this area using the IMMA criteria. The North-east Falklands Right Whale Wintering Area cIMMA was based primarily on the results of the southern right whale tagging that was carried out in Year 2 of DPLUS126, together with boat-based survey work in both DPLUS126 and DPLUS082. This right whale cIMMA forms the basis also for the KBA assessment that is a deliverable for DPLUS126, and its appropriateness as a KBA will be further assessed during Year 3 through the use of aerial abundance and distribution surveys (planning for those is evidenced in Annex 9.10).

At the end of March, we received email confirmation that all three of the cIMMAs have been accepted as full IMMAs. Following reviewer feedback, these are expected to be finalised and appear on the IMMA website during Year 3 of the project.

### **Southern right whale tagging**

We are delighted to report that the tagging of the southern right whales in Year 2 went significantly better than planned, with all 10 of the purchased tags being deployed on whales over a three-week period in July 2022 (Annex 4.8). Between 1 and 2 tags were deployed on every boat survey carried out following the arrival of the tag specialist, and all 10 tags worked well and sent data. We were also able to encounter most of the tagged whales again during the field season to check that the tags looked okay. The high success of the tagging work with this species has resulted in several benefits to the project:

- We were able to host the whale tagger Federico Sucunza in the Falklands for a shorter time than expected, since he returned home early after completing the tagging. This released some funds that could be used elsewhere, for example in compensating for his travel having been booked in Year 2 instead of Year 1 as budgeted due to the LATAM uncertainty;
- We do not need to bring a tagger to the Islands in Year 3 of the project, since all tags were deployed in Year 2. This releases budget to cover the travel for the UAV operator;
- The successful deployments resulted in a wealth of outreach opportunities, not least the school visits and naming competition which had very high engagement (see below); and
- We have been approached by partner Alex Zerbini about potentially carrying out additional future tag work with right whales, based on the high success achieved during the DPLUS126 project.

An additional positive experience that arose from the right whale tagging, was an encounter on 9 July 2022 with a tagged whale that was not an animal that we had tagged in the Falklands. After discussion with colleagues, it was apparent that this animal had actually been tagged in South Africa in October 2021, and was an adult female with a calf at the time. This was the first time that a whale from the South African calving ground had been shown to cross the Atlantic and appear in an area used by the south-west Atlantic population, and thus changes what is known about right whale movements and population structure. A short note on this whale, led by a South African colleague and including FC co-authorship, was submitted to Marine Mammal

Science on 28 February 2023. Improving awareness with the international community about the occurrence of whales in the Falklands was a goal of DPLUS126, and collaborations such as this are important steps towards that goal.

## **Outreach**

During Year 2 the project delivered a large amount of outreach to the community which surpassed that stated in our Indicators and Activities, and this is detailed in the Annex 1 logframe and in Annex 7. One additional achievement that did not fit under any of the existing Indicators, was the opportunity to present at a live Nature Hour event run by 'Exploring by the Seat of Your Pants' as part of the Darwin200 global voyage, and aimed at children of 7 to 13 years age. This particular event focussed on the Falkland Islands and was held on 28 October 2022 via a live stream that is available on You Tube at:

[https://www.youtube.com/watch?v=JK0aAdCBfow&ab\\_channel=ExploringByTheSeatOfYourPants](https://www.youtube.com/watch?v=JK0aAdCBfow&ab_channel=ExploringByTheSeatOfYourPants)

During the event, Project Leader Caroline Weir spoke for 15 minutes about the whales and dolphins in the Falklands and how we research them, and also answered many questions at the end of the event. The Darwin Plus logo was used on the presentation (Annex 7.28), and the total reach of the event was well over 1,700 children in North America and likely an equivalent amount in the UK (Annex 7.29).

## **11. Sustainability and legacy**

Since DPLUS126 began in July 2021, it has been heavily promoted on the project's Facebook site (<https://www.facebook.com/FalklandsWhale>) from which it has been widely shared both locally and internationally. During Year 2, most posts have reached well over 1,000 people, and several over 8,000 (Annex 7.17). The project has been further promoted within the Falklands via extensive outputs in the Penguin News, in Falklands Conservation magazine articles and outreach, on Falkland Islands Radio, via talks by the tagging personnel, and with school visits and whale watching trips for the FC Watch Group (see Annexes 4 and 7). Interest is high within the community, and in 2023 it has been boosted by an unusual number of whale strandings that have been attended for sampling by the Project Leader and resulted in opportunities to discuss the project with a range of landowners and volunteers.

There has also been considerable international interest in the project, leading to collaborations with other scientists working on right whale tagging, disease/infection, and harmful algal blooms. We expect that international promotion of the project will increase in Years 3 and 4 as the emphasis of the project turns from fieldwork to data analysis with the production of scientific papers, conference attendance and other outputs due towards the project completion date.

The capacity of Falklands Conservation to be able to continue with whale research in the future has been greatly enhanced by the purchase of a dedicated new survey boat as part of DPLUS126. This boat will also form an important legacy element for the Islands, especially since it complies with strict maritime health and safety regulations which are likely to develop over the next year. The international collaborations being established around the whale tagging component will likely continue for years to come, and extend beyond DPLUS126, especially since the Falklands is located in an important geographic location with regard to southern right whales and provides links between feeding and breeding areas that are important to understand for region-wide management of the species.

The project is due to complete at the end of June 2024, and will leave behind long-lasting legacy elements that include:

- (1) A robust two-season scientific dataset on whale occurrence in (and beyond) the Falklands that will be available for future evidence-based management;
- (2) A draft Species Action Plan for sei whales which will form the basis for their ongoing management in the Falklands;



- (3) Key Biodiversity Area assessments for sei whales and southern right whales, that will potentially highlight important sites for global and local conservation that will be submitted for consideration as full status KBAs if appropriate;
- (4) Highlighting Falklands' southern right whales both internationally and regionally (south-west Atlantic), and thus emphasising the need to include the Falkland Islands in regional management plans (e.g. International Whaling Commission); and
- (5) A local awareness of, and interest in, whales, that has been fostered during school visits, public talks and boat trips, and is expected to ensure long-term buy-in to whale conservation in the Islands.

## 12. Darwin Plus identity

There is already a good understanding of the Darwin Initiative and Darwin Plus within the Falkland Islands, as they have funded several previous projects including some of Falklands Conservation's earlier whale work (DPLUS082).

DPLUS126 has been publicised using the same social media page (<https://www.facebook.com/FalklandsWhale>) as a previous Darwin (DPLUS082), because the latter had already built a solid following that we wanted to maintain. However, DPLUS126 was clearly announced on the page as a new entity with funding from Darwin Plus at the start of the project. Over the course of Year 2, Darwin Plus changed their logo and we amended the banner at the top of the social media page to incorporate the new logo (Annex 7.17). Similarly, we have used the new logo in all outputs since it was updated, specifically including:

- Penguin News articles – Annex 7.11 and 7.12
- FC Magazine articles – Annex 7.14
- School presentation – Annex 7.2
- Talk adverts – Annex 7.15 and 7.16
- Stakeholder update – Annex 7.19
- Steering Group update – Annex 7.22

The new Darwin Plus logo was also included on the presentation at the DARWIN200 live Nature Hour event (see Section 10 for information and evidence), which had a reach of over 1,700 international 7–13 year old school children.

We tag Darwin Initiative in our social media updates on a regular basis (see Annex 7.17 for examples). However, we noted that in recent months the Darwin Initiative tag does not show up as a highlighted link, even though we have tagged them same way as before. We have not been able to locate a tag on Facebook specifically for Darwin Plus. During April, we did realise that there is a Facebook page specifically for the Biodiversity Challenge Fund, and we have tagged them in our most recent posts and will continue to do so during Year 3.

We consider that the frequent mentions of Darwin Plus in our outreach (e.g. radio interviews, Annex 7.22) and the use of the logo where possible, have identified the Darwin-funded whale work as a clearly distinct project.

## 13. Safeguarding

Falklands Conservation has in place specific policies for Safeguarding, Code of Conduct for staff and volunteers, Harassment and Bullying, and Whistleblowing, copies of which were provided with our Darwin Plus application and are available on request from the organisation. No concerns have been raised relating to these matters with regard to DPLUS126 in this financial year.

Has your Safeguarding Policy been updated in the past 12 months?	No (last update Feb 22)
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Have any concerns been investigated in the past 12 months	No
Does your project have a Safeguarding focal point?	Yes – Glenn Welch, Community Outreach Officer – [REDACTED]
Has the focal point attended any formal training in the last 12 months?	No – last training was in March 2022
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 93% [14] Planned: 7% [1] (these values are total organisational staff – both DPLUS126 project leads have received the formal training)
<p>Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses.</p> <p>No.</p>	
<p>Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify.</p> <p>No.</p>	

#### 14. Project expenditure

A change request was submitted to Darwin Plus on the 8 March 2023, and was approved on the 16 March. That change request was to reallocate some money between budget lines, and did not affect the total expenditure for Year 2. The values agreed in the change request are those presented in Table 1. All expenditure was +/- 10% of each budget line.

We are still awaiting a couple of final values for this period (due to delays awaiting credit card statements needed for currency exchange rates), but it is not expected that the final values will be significantly different from those reported here. The project will likely have a very small underspend (<£350.00) for this financial year, which will be confirmed in the next claim form.

**Table 1: Project expenditure during the reporting period (1 April 2022 – 31 March 2023)**

Project spend (indicative in this financial year)	2022/23 D+ Grant (£)	2022/23 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)				
<b>TOTAL</b>	<b>£119,188.31</b>	<b>£118,876.79</b>		

**Table 2: Project mobilising of matched funding during the reporting period (1 April 2022 – 31 March 2023)**

	Matched funding secured to date	Total matched funding expected by end of project
Matched funding leveraged by the partners to deliver the project.		
Total additional finance mobilised by new activities building on evidence, best practices and project (£)		

**15. OPTIONAL: Outstanding achievements or progress of your project so far (300-400 words maximum). This section may be used for publicity purposes**

I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here).

During Year 2 of DPLUS126 we advanced and surpassed some of the goals of our project with the achievement of having two Important Marine Mammal Areas (IMMAs) recognised for baleen whales in the Falkland Islands. IMMAs are defined as discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation. 'Important' in the context of the IMMA classification refers to any perceivable value, which extends to the marine mammals within the IMMA, to improve the conservation status of those species or populations. IMMAs are identified in order to prioritise their consideration for conservation measures by governments, intergovernmental organisations, conservation groups, and the general public. We were invited to attend the IMMA regional workshop for the South-West Atlantic Ocean Region, which was held in Praia do Forte, Brazil in December 2022. We submitted two candidate IMMAs that focussed on baleen whales, comprising: (1) Falkland Islands Inner Shelf Waters cIMMA; and (2) North-east Falklands Right Whale Wintering Area cIMMA. The Falkland Islands Inner Shelf Waters cIMMA largely overlaps with the Key Biodiversity Area (KBA) that was achieved for Endangered sei whales in April 2021 during a previous Darwin Plus project (DPLUS082); however, additional marine mammal species qualify for the IMMA. The North-east Falklands Right Whale Wintering Area cIMMA was based primarily on the results of the southern right whale tagging that was carried out in Year 2 of DPLUS126, together with boat-based survey work achieved in both DPLUS126 and DPLUS082. The right whale cIMMA forms the basis also for a KBA assessment that is a deliverable for DPLUS126, and the appropriateness of the area as a KBA will be further assessed during Year 3 through the use of aerial surveys to assess the abundance and distribution of whales. At the end of March 2023, we received email confirmation that both cIMMAs have been accepted as full IMMAs. These are expected to be finalised and to appear on the IMMA website during Year 3 of the project. This result contributes to our project outcome and impact, by providing evidence-based spatial tools that can be used to recognise regionally- and globally-important areas for whales that can be managed to ensure their long-term conservation.

<b>File Type (Image / Video / Graphic)</b>	<b>File Name or File Location</b>	<b>Caption, country and credit</b>	<b>Online accounts to be tagged (leave blank if none)</b>	<b>Consent of subjects received (delete as necessary)</b>
Image - Jpg	Sei_whale_CW_FC_DPLUS126	Sei whales surface in Berkeley Sound, Falkland Islands (Photo: Caroline Weir / Falklands Conservation)	<a href="https://www.facebook.com/FalklandsWhale">https://www.facebook.com/FalklandsWhale</a>	
Image - Jpg	Right_whale_CW_FC_DPLUS126	Southern right whales in the Falkland Islands (Photo: Caroline Weir / Falklands Conservation)	<a href="https://www.facebook.com/FalklandsWhale">https://www.facebook.com/FalklandsWhale</a>	

These images are provided in Annex 10 of this report in a Dropbox folder at the following link:

**[REDACTED]**

## Annex 1: Report of progress and achievements against logframe for Financial Year 2022-2023 – if applicable

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
<p><b>Impact</b></p> <p>Long-term recovery of baleen whale populations is achieved through protection of key habitats, improved understanding of migratory movements, and implementation of management measures in the Falklands and wider south-west Atlantic.</p>		<p>The second year of DPLUS126 has been focussed on carrying out the fieldwork that will underpin the deliverables and achievement of the project outcome in the final year of the project. This has included the completion of the 2022 sei whale season in April 2022, the carrying out of the first southern right whale season in July/August 2022, and the commencement of the 2023 sei whale season in February and March 2023.</p>	
<p><b>Outcome</b></p> <p>The conservation of two baleen whale species in the Falkland Islands and South Atlantic Ocean is better understood and management recommendations made to help secure their future.</p>	<p>0.1 By Jun 2024 important marine areas for two baleen whale species have been identified in Falklands' waters, assessed against Key Biodiversity Area (KBA) criteria (if not already), and submitted to a FIG and stakeholder consultation phase.</p> <p>0.2 By Jun 2024, FIG decision-makers and key stakeholders including industry will have access to a robust evidence-base regarding the occurrence of sei and southern right whales in the Falkland Islands, and a draft Species Action Plan (SAP) will be produced and recommended for the endangered sei whale.</p> <p>0.3 By Jun 2024 regional conservation management agencies, specifically including the International Whaling Commission (IWC), are made aware of the status of sei and southern right whales in the Falkland Islands, and of connectivity with other regions within (and beyond where applicable) the south-west Atlantic.</p>	<p>0.1 – N/A, scheduled for Year 4.</p> <p>0.2 – N/A, scheduled for Year 4. However, a meeting has been scheduled with FIG in May 2023 to discuss the progress of the SAP.</p> <p>0.3 – N/A, scheduled for Year 4.</p> <p>Data collection and preliminary analysis has been carried out throughout Year 2, which will lead to the achievement of all of these Indicators by the project completion in June 2024.</p>	<p>The deliverables for Indicators 0.1 to 0.3 are not due until the final year of the project. However, data collection will be carried out across the southern right whale season from June to September 2023 (Year 3), which is intended to support the Outcome. Year 3 will also see the onset of the production of the SAP, KBA assessment and IWC discussion, and will start to convert the field results into meaningful whale management tools to support the Project Impact.</p>
<p><b>Output 1.</b> Data on whale distribution and movements are collected and used to identify and</p>	<p>1.1 A total of 10 tags deployed on sei whales and associated metadata recorded over two field periods in Feb-Apr of 2022 and 2023.</p>	<p>1.1. Progressing on schedule; Indicator appropriate. In April 2022 at the start of Year 2 of the project, tagging work was underway for the first sei whale season and both the Tagger and the Coxswain ended up remaining in the Falklands until the 22 April due to unavoidable flight delays (evidenced in</p>	

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
<p>assess national and global key sites.</p>	<p>1.2 A total of 10 tags deployed on southern right whales and associated metadata recorded over two field periods in Jun-Aug of 2022 and 2023.</p> <p>1.3 Whale sighting data collected in the field during 2022 and 2023 fieldwork periods and analysed with existing visual datasets and telemetry data to compile spatio-temporal GIS layers for both species by June 2024.</p> <p>1.4 A winter aerial survey conducted for southern right whales by 31 August 2023.</p> <p>1.5 A pilot unmanned aerial vehicle (UAV) study carried out on southern right whales by 31 August 2023.</p> <p>1.6 An assessment of the occurrence of the southern right whale in the Falkland Islands against global KBA criteria is completed by June 2024 including GIS layer of a potential site.</p> <p>1.7 An assessment of the fine-scale movements of sei whales around the Falklands in relation to their potential management via protected sites (especially with respect to any occurrence shown beyond the boundaries of the proposed Falkland Islands Shelf Waters KBA) is completed by June 2024.</p> <p>1.8 An assessment of region-wide movements of southern right whales is carried out by telemetry (by June 2024) and photo-identification matching with South Georgia (by Dec 2022).</p>	<p>Annex 4.1). Three tags were deployed on sei whales in April 2022 (Annex 4.2), bringing the total for the first field season to five tags. The same personnel returned for the sei whale tagging season in 2023, arriving in the Falklands on 23 February for a 6-week stay (Annexes 4.3 and 4.4). By the end of March 2023, one additional tag had been deployed on a sei whale (Annex 4.5). The tracks of the tagged sei whales can be viewed in real-time on the Falklands Conservation website at: <a href="https://falklandsconservation.com/sei-whale-tracking/">https://falklandsconservation.com/sei-whale-tracking/</a></p> <p>1.2. A southern right whale tagger, Federico Sucunza from Brazil, arrived in the Falklands on 2 July 2022 with the first LATAM flight that operated post-COVID (Annex 4.6). He was originally scheduled to depart on 13 August, but since the tagging work completed early then he actually departed on 30 July 2022 (Annex 4.7). We were successful in deploying all 10 of the satellite tags on southern right whales during July 2022, and the deployments are evidenced in Annex 4.8. The tracks of the tagged right whales can be viewed in real-time on the Falklands Conservation website at: <a href="https://falklandsconservation.com/southern-right-whale-tracking/">https://falklandsconservation.com/southern-right-whale-tracking/</a></p> <p>1.3. Progressing on schedule; Indicator appropriate. Standardised survey data were collected throughout both 2022 whale seasons and continuing during the 2023 sei whale season, and the data were entered into spreadsheets immediately following each survey. The vessel tracks and cetacean sightings positions have been cross-referenced, quality-controlled and then mapped in QGIS. Evidence of the database and GIS work carried out to date is provided in Annex 4.9.</p> <p>1.4. N/A – this Indicator is scheduled for Year 3. However, a significant amount of planning and survey design work has been carried out during the latter part of Year 2 to prepare for the forthcoming aerial survey and is evidenced in Annex 4.10 (also see Activity 1.6 below).</p> <p>1.5. N/A – this Indicator is scheduled for Year 3. However, preparations have been made for the UAV work, including booking travel (Annex 4.11) for the UAV operator to the Falklands from Denmark (also see Activity 1.7 below).</p> <p>1.6. N/A – This Indicator is scheduled for completion in Year 4. However, we have already used the tag data to inform the delineation of a potential KBA, which has so far been proposed to, and accepted by, the IUCN as an Important Marine Mammal Area (another important marine spatial</p>	

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
		<p>management tool – see <a href="https://www.marinemammalhabitat.org/immas/">https://www.marinemammalhabitat.org/immas/</a>) named the 'North-east Falklands Right Whale Wintering Area' (see Annex 9.2). Our winter aerial survey in 2023 will further clarify the use of this area by right whales, and should lend further credence to its suitability as a KBA.</p> <p>1.7. N/A – this Indicator is scheduled for completion in Year 4. However, the successful tagging of six sei whales during the fieldwork in 2022 and 2023 (Annex 4.2) provides the data needed to support this assessment.</p> <p>1.8. Ten southern right whales were successfully tagged in July 2022 and have provided a lot of information on spatial movements within the south-west Atlantic (see <a href="https://falklandsconservation.com/southern-right-whale-tracking/">https://falklandsconservation.com/southern-right-whale-tracking/</a>). Analysis of that dataset will commence once the final tag stops transmitting, and will be completed by June 2024. Matching of the Falklands and South Georgia right whale catalogues has been completed, and produced only one conclusive match (Annex 4.12).</p>	
<p><b>Activity 1.1.</b> Recruit personnel, acquire relevant work permits, and make travel arrangements ahead of field seasons.</p>		<p>Significant time has been spent in Year 2 acquiring work permits and making arrangements for recruitment, travel, insurance, and accommodation for: (1) the 2022 right whale season (Jul-Aug 2022 – Annexes 4.6 and 4.13); (2) the 2023 sei whale season (Feb-Apr 2022 – Annexes 4.3, 4.4 and 4.13); and (3) the 2023 right whale season (Jul-Aug 2023 – Annex 4.11). In particular, the 2022 right whale season planning was affected by COVID-19 right up until June 2022. We had originally booked Federico Sucunza (whale tagger from Brazil) on to the Airbridge from the UK (see Annex 4.13) because the LATAM flights from South America remained suspended due to COVID. However, resumption of the LATAM flights was subsequently confirmed, and we were able to book Federico onto the very first flight that came to the Falklands from Chile (Annex</p>	<p>Planning for the 2023 southern right whale season in July/August 2023 will continue. This will include additional travel arrangements and accommodation for the UAV operator, and contractual arrangements for the local boat driver. Planning of these is well underway, with both personnel confirmed to be available for the work.</p>

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
		<p>4.6). This eased a lot of logistical and budget challenges.</p> <p>All arrangements have been completed successfully for team members to arrive into the Falklands for the three field seasons.</p>	
<p><b>Activity 1.2.</b> Ensure relevant research permits are in place for small boat, UAV and telemetry work</p>		<p>All permits for the work are in place, and evidence for them was provided in AR1. The new Dan Inject rifle arrived into the Falklands in October 2022. The Falklands' police were contacted on 29 August 2022 to provide them with the updated serial number for the new rifle (Annex 4.15), as part of our permitting requirements.</p>	<p>The timeframes of these permits include the entire span of fieldwork for DPLUS126, and this Activity is therefore considered completed.</p>
<p><b>Activity 1.3.</b> Produce risk assessment for small boat, aerial, UAV and telemetry work.</p>		<p>Risk assessments were completed for small boat work, UAV and telemetry work during Year 1 and evidence was provided as Annexes 4.13 to 4.17 of the Year 1 Annual Report to Darwin.</p> <p>The risk assessment for the aerial survey is being developed as the arrangements for the surveys become confirmed, and it will be in place well ahead of the aerial surveys commencing in June 2023.</p>	<p>Complete the risk assessment for the aerial survey work.</p>
<p><b>Activity 1.4.</b> Complete list of project equipment requirements and ensure equipment is ordered and shipped in advance of fieldwork seasons. Produce equipment inventories on completion of field seasons.</p>		<p>Equipment inventories were completed in August 2022 on completion of the first southern right whale season (Annex 4.16). Orders for items that needed purchasing were then placed while the Project Lead was in the UK between September and December, so that most could be hand-carried back to the Falklands. As examples, these included sampling equipment (Annex 4.17) and spare parts for the survey boat (Annex 4.18).</p>	<p>A final equipment inventory will be carried out at the end of the 2023 field seasons in Q4 of Year 3. This will be a legacy component of DPLUS126 and used to inform the availability of equipment for future whale work in the Islands.</p>



Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
		<p>It has also been necessary to keep on top of the safety requirements for the survey boat purchased for DPLUS126 to ensure that the fieldwork component of the project can proceed as planned, and in Year 2 this has included, for example, keeping the safety coding up to date (Annex 4.19), and purchasing a new GPS receiver (Annex 4.20).</p>	
<p><b>Activity 1.5.</b> Plan and execute small boat survey work at suitable sites in the Falkland Islands and around key considerations of platform availability, weather, and logistical constraints.</p>		<p>The planning and execution of fieldwork has gone largely to plan, around the constraints of weather and logistics. The completed survey dates for Year 2 are shown in Annex 4.21. During Year 2 we completed the 2022 sei whale season with a final boat survey carried out on 15 April 2022; a total of 12 survey days were completed between 16 March and 15 April 2022. The 2022 southern right whale season commenced on 1 July 2022 and continued until 25 August 2022, with a total of 17 survey days completed.</p> <p>The 2023 sei whale season commenced on 25 February 2023, and a total of six survey days were completed until the end of March. Unfortunately, the 2023 sei whale season has experienced unusually poor weather conditions to date, limiting what could be achieved.</p> <p>Evidence of successful completion of survey work is provided in Annexes 4.2 and 4.5 (sei whale tagging), Annex 4.8 (right whale tagging), Annex 4.9 (databases and QGIS maps), and Annexes 4.13 and 4.14 (logistics for fieldwork personnel). It is also evident in the progress summarised for Output 3,</p>	<p>During Year 3 we will execute a southern right whale season in July/August 2023. Planning for the season is well underway, with the coxswain and UAV pilot already committed to the fieldwork and international flights having been booked for the UAV operator (Annex 4.11).</p>

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
		particularly social media outputs that show fieldwork.	
<b>Activity 1.6.</b> Plan and execute aerial survey, including transect survey design, equipment and aircraft availability planning.		During Year 2 the aerial survey has been planned around budget, logistical constraints and whale distribution considerations. The survey has been designed to meet best practice approaches for estimating whale abundance, using Distance 7.5 software to plan a randomised transect design and with guidance from Phil Hammond of the Sea Mammal Research Unit. Communications have been held with Falkland Islands Government Aviation Service (FIGAS) to ensure that the developed survey design would be achievable in practice with the aircraft available and flying time limitations. Inclinometers have been loaned from a previous Darwin Plus project managed by SAERI. Consequently, everything is in place for the forthcoming aerial surveys. Evidence is summarised in Annex 4.10.	Complete the preparation for the aerial surveys, including training personnel.  Execute the aerial surveys between June and September 2023.
<b>Activity 1.7.</b> Plan and execute UAV pilot study, including equipment and travel for personnel.		Planning is well underway for the UAV study. A highly experienced UAV pilot Fredrik Christiansen has agreed to undertake the work, and his travel has been booked on the Airbridge from the UK to visit the Falklands for 6 weeks from 3 July to 15 August 2023 (Annex 4.11). Fredrik has carried out previous UAV work on right whales on most of their calving grounds globally. Logistical considerations have been discussed, including the feasibility of carrying extra UAVs and batteries on the Airbridge which has been approved by the MoD (Annex 4.22). Planning will continue into Year 3.	Complete the travel arrangements for the UAV pilot.  Execute the UAV pilot study in July and August 2023, to coincide with the expected peak numbers of southern right whales in the Falklands.

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
<b>Activity 1.8.</b> Develop and maintain spreadsheets of effort and sighting databases, photo-identification catalogues/databases, and QGIS mapping layers.		Progressing on schedule. The spreadsheets developed during Year 1 were populated throughout the fieldwork carried out in Year 2, and data are regularly mapped in QGIS to check the accuracy of positions and make any corrections needed. Evidence for this Activity is provided in Annex 4.9.	In Year 3, continue populating the databases with data from the remainder of the 2023 sei whale season and from the second southern right whale season. Additionally, new databases will be developed to host the aerial survey data, which will also be mapped in QGIS.
<b>Activity 1.9.</b> Produce a Technical Report that assesses southern right whale data against the global KBA criteria, and if sufficient to support and application then circulate to decision-makers, stakeholders and the IUCN KBA partnership for consultation.		N/A – this Activity is scheduled for Years 3 and 4.	The mapping and analysis of the aerial data collected during Year 3 will be carried out, with the goal of producing an abundance estimate to inform the KBA assessment that is due by the end of the project.
<b>Activity 1.10.</b> Conduct a photographic comparison using side-on images of southern right whales taken during boat surveys in the Falkland Islands and South Georgia (the latter dataset managed by BAS).		The comparison of the South Georgia and Falkland Islands southern right whale catalogues was completed in Year 2. A single match was identified and confirmed by independent experts (see Annex 4.12).	This Activity was completed in Year 2.
<b>Activity 1.11.</b> Produce a final project Technical Report with relevant project partners, to include details of telemetry work, aerial abundance estimate, photo-identification and mark-recapture results, distribution maps, and recommendations for developing protected areas and related management.		N/A – this Activity is scheduled for Years 3 and 4.	The drafting of this report will commence in the latter part of Year 3 following the completion of all of the project fieldwork components.
<b>Output 2.</b> Photo-identification mark-recapture analysis carried out to generate site-specific abundance estimates and seasonal/annual fidelity data to demonstrate	<p>2.1 All existing catalogue entries for sei and southern right whales in the Falkland Islands (2017–2020) are ranked separately for image quality and individual animal distinctiveness by Jan 2022.</p> <p>2.2 An evaluation is completed by Jan 2022 of the suitability of existing datasets (and of the expected</p>	<p>2.1. Completed, and evidenced in AR1.</p> <p>2.2. This evaluation was completed in Year 2 and is evidenced in Annex 5.1.</p> <p>2.3. Progressing on schedule; Indicator appropriate. In Year 2, a total of 38,664 images have been taken of sei and southern right whales, comprising: 11,548 images of sei whales in April and May 2022; 21,269 images of right whales in June to August 2022; and 5,847 images of sei whales in March 2023. Evidence of photo-identification work can be seen throughout the projects social media</p>	

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
persistent use of sites to fulfil protected area criteria (e.g. for KBAs).	<p>2022/2023 data) to carry out a robust mark-recapture abundance analysis.</p> <p>2.3 Falkland Islands catalogues of both species are expanded by at least 50 animals respectively, using photo-identification collected alongside telemetry boat surveys during 2022 and 2023.</p> <p>2.4 A mark-recapture analysis is completed for sei whales for at least one site of highest anthropogenic overlap (Berkeley Sound) by Jun 2024.</p>	<p>pages at <a href="https://www.facebook.com/FalklandsWhale">https://www.facebook.com/FalklandsWhale</a>, and some examples are also provided in Annex 4.8 and Annex 5.2. The processing and cataloguing of those images is underway and ongoing, and it is expected that 50 individuals of each species will be readily achieved by project completion.</p> <p>2.4. N/A – this Indicator is scheduled for Year 4.</p>	
<b>Activity 2.1.</b> Standardised protocols for assigning criteria for image quality and animal distinctiveness are developed for sei whales (dorsal fin and flank) and southern right whales (side-on head images) respectively.		The draft southern right whale protocol was completed in Year 1 and improved in an updated version in Year 2 (Annex 5.3). The sei whale protocol was completed and updated in Year 2 and a copy is provided in Annex 5.4.	N/A; however, both protocols will be updated as required.
<b>Activity 2.2.</b> Photo-identification images are collected during all boat-based surveys in 2022 and 2023 alongside the telemetry deployment work and on days when tag deployments are not possible.		Photo-identification images of both sei whales and southern right whales have been collected throughout the Year 2 field seasons, with some examples provided in Annex 5.2. Evidence of the collection of images is also evident on the project social media page at: <a href="https://www.facebook.com/FalklandsWhale">https://www.facebook.com/FalklandsWhale</a> .	In Year 3, photo-identification work will be continued for the remainder of the sei whale season (April 2022) and the entirety of the southern right whale season (Jul/Aug 2022).
<b>Activity 2.3.</b> Photo-identification images from each boat survey in 2022 and 2023 are assigned to individual animals. Each individual is cross-checked with other whales from within the same year, and if new then it is entered into the catalogue for that year.		This Activity commenced during Year 2 (see Annex 2) and will continue throughout Year 3.	Matching of whales photographed during the 2022 and 2023 field seasons will be matched with existing catalogues.
<b>Activity 2.4.</b> Matching of individual animals from 2022 and 2023 is carried out with existing catalogues from 2017–2020. Mark-recapture analysis completed.		N/A – this Activity is scheduled for Year 3.	Matching of the catalogues will be carried out.
<b>Output 3.</b> A draft evidence-based Species Action Plan is produced for endangered sei	3.1 Species Action Plan (SAP) scope and criteria established via a meeting/workshop with relevant FIG personnel by May 2022.	<p>3.1. A SAP meeting was held with the FIG Environment Department on 4 April 2022 and is evidenced in Annex 6.1.</p> <p>3.2. N/A – this Indicator is scheduled for Q4 in Year 3.</p>	

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
whales in Falklands' waters and recommended to FIG.	3.2 Draft SAP completed for sei whales and disseminated for FIG/stakeholder review by Mar 2024. 3.3 SAP finalised and recommended to FIG by June 2024.	3.3. N/A – this Indicator is scheduled for Q4 in Year 3 and Q1 in Year 4.	
<b>Activity 3.1.</b> Organise meeting with FIG personnel in person or via Skype to define the scope and criteria of a FIG-adopted AP for a cetacean species.		The initial meeting with FIG was held on 4 April 2022 to discuss the sei whale SAP (Annex 6.1).	A meeting has already been scheduled with FIG for mid-May 2023 to update on the SAP, and work will start on drafting the SAP document at the end of Year 3.
<b>Activity 3.2.</b> Compile relevant information on the occurrence and status of sei whales in the Falkland Islands, including distribution maps, abundance, and threats, and produce a draft AP.		N/A – this Indicator is scheduled for Q4 in Year 3. However, all of the fieldwork carried out on sei whales in Year 2 will contribute to this Activity.	Sei whale fieldwork data collection should be completed by the end of May 2023, after which the compilation of information for sei whales in the Falklands will commence. The draft sei whale SAP should be completed by the end of Year 3.
<b>Activity 3.3.</b> Establish a list of key stakeholders to provide feedback on the draft AP.		A list of key stakeholders to review the SAP was compiled in Year 1 and provided as Annex 6.1 of AR1.	N/A
<b>Output 4.</b> Awareness of whales, and support for their conservation and management, is increased within local and international communities via dissemination of research outputs.	4.1 Web page showing real-time whale tracks receives >500 local and international visits by project completion (Jun 2024). 4.2 At least 25% of children from one school in Stanley have been engaged in the whale project by Sep 2023. 4.3 At least 50% of the local community of ~3,000 people is informed of the project goals and results (twice) by Dec 2022 and Dec 2023 respectively.	4.1. During the 2022 seasons (Year 1), web pages were established to host the tracking data as real-time maps for both sei whales and southern right whales: <a href="https://falklandsconservation.com/sei-whale-tracking/">https://falklandsconservation.com/sei-whale-tracking/</a> <a href="https://falklandsconservation.com/southern-right-whale-tracking/">https://falklandsconservation.com/southern-right-whale-tracking/</a> The maps on the pages have been continuously updated as tags are deployed over the project, to show all of the movements of the individual whales. Metadata for those pages showing number of visits will be compiled at the end of the project.	

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
	<p>4.4 An average of over 1,000 people are shown to engage with the project social media page posts between Jan 2022 and Sep 2023.</p> <p>4.5 Over 1,000 international scientists are aware of the project and its key findings for whale management via a scientific publication and a presentation at an international conference (by Jun 2024).</p> <p>4.6 Images of all sei whales (total number unknown at this stage) taken during the project fieldwork and classified as 'highly distinctive' individuals will be shared to the HappyWhale website by Dec 2022 and Dec 2023 respectively to generate interest among the public and expedition leaders.</p> <p>4.7 Project updates and the final Technical Report are disseminated to local community stakeholders including industry representatives on a bi-annual basis in 2022 and 2023, with a final update at completion of the project in June 2024.</p>	<p>4.2. We engaged the school children with the southern right whale tracking component of the project, using a whale naming competition to name the 10 tagged right whales (see Activity 4.2 below). On 2 November 2022, three talks were provided to different classes (Years 7-9) at the Falkland Islands Community School (FICS). Talks were given at the Infant and Junior School (IJS) to Year 4 on 2 November 2022, and to Year 6 on 4 November 2022. In total, 75 children were engaged at IJS, and 132 students at FICS; the latter comprised 61% of the total school population (Annex 7.1).</p> <p>4.3. The community has been kept informed of the project throughout Year 2, via Penguin News articles (Annexes 7.10 to 7.12), social media posts on the project website (Annex 7.17), and interviews with Falkland Islands Radio Station (FIRS) in July 2022 (Annex 7.22) and February 2023 (Annex 7.27). These combined avenues of disseminating project updates will have reached the vast majority of the Falklands' ~3,300 population. See also the evidence listed under Activity 4.4 below.</p> <p>4.4. Social media posts in Year 2 have regularly engaged more than 1,000 people, and sometimes significantly higher (see examples in Annex 7.17 and the social media site at: <a href="https://www.facebook.com/FalklandsWhale">https://www.facebook.com/FalklandsWhale</a>).</p> <p>4.5. N/A – this Indicator is scheduled for Years 3 and 4.</p> <p>4.6. The list of sei whale images contributed to HappyWhale to date can be found at: <a href="https://happywhale.com/org/392">https://happywhale.com/org/392</a> During Year 2, there have been extensive discussions with HappyWhale regarding the development of an algorithm for automated cetacean photo-identification matching, to which we have contributed 709 images of 213 individual sei whales. Discussions and evidence of this algorithm development are provided in Annexes 7.23 to 7.26. It is expected that this algorithm will revolutionise the matching of sei whales in the future, and is an exciting development to the Darwin Plus work.</p> <p>4.7. Project updates were disseminated to stakeholders and the steering group twice during Year 2, in May 2022 and in October 2022. These are evidenced in Annexes 7.18 to 7.21.</p>	
<p><b>Activity 4.1.</b> A web page is developed (and publicised) that allows viewers to see the real-time tag locations of all sei whales and right whales that are tagged during the project.</p>		<p>The web pages were developed in Year 1 (see AR1) and have been updated and maintained throughout the tracking work with new tags added to the maps as they were</p>	<p>The sei whale tracking page will continue to be updated as tags are deployed in the</p>

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
		<p>deployed. The tracking pages were publicised regularly on the project social media site at <a href="https://www.facebook.com/FalklandsWhale">https://www.facebook.com/FalklandsWhale</a>, and some examples of tag-related social media pages are provided in Annex 7.17).</p>	<p>remainder of the 2023 field season.</p>
<p><b>Activity 4.2.</b> Materials are developed for school engagement with the telemetry project including developing a naming competition for the tagged whales.</p>		<p>A presentation was produced on the tagged southern right whales (Annex 7.2) and presented in the schools (Annexes 7.3 and 7.4; also see Indicator 4.2 above). A total of 163 children completed forms to suggest names for the whales (examples in Annex 7.5). Those were compiled and 10 names were selected for the whales – the results of the whale naming competition were made into a document and shared with the schools (Annex 7.6). The tracking pages on the FC website were also amended so that the maps showed the names of the whales instead of the tag numbers (see webpages, links above). Some of the name suggestions that were not used for right whales are being used for the tagged sei whales instead to further increase engagement with the children.</p>	<p>N/A – Action completed.</p>
<p><b>Activity 4.3.</b> A school or Watch Group boat trip is organised to take children to see whales with educational commentary.</p>		<p>This Indicator was scheduled for Year 3. However, it was fulfilled early and above the stated deliverable. A classroom presentation was provided on 9 June 2022, in which the Project Leader explained the different cetacean species in the Falklands and how FC is researching them. A copy of the presentation is provided in Annex 7.7 and photos of the event are provided in Annex 7.8. This was followed on 25 June 2022 by two boat trips that took 11 children and some of their guardians out to sea to see right whales. Both trips encountered groups of right</p>	<p>Two more Watch Group boat trips will be carried out in Year 3, thus doubling the amount we had hoped to achieve. These are already scheduled for Saturday 24 June 2023 (weather allowing).</p>

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
		whales (Annex 7.9), and the children asked many questions.	
<p><b>Activity 4.4.</b> Engage in local outreach, including publishing both Penguin News and FC magazine articles in 2022 and 2023, a public talk in Stanley by the whale tag expert, and (at least) bi-monthly social media updates over the field seasons.</p>		<p>In Year 2 we have completed the following project community outreach activities:</p> <p>Penguin News articles were published in May 2022 (Annex 7.10), Oct 2022 (Annex 7.11), and February 2023 (Annex 7.12);</p> <p>Articles were published in the FC magazine in May 2022 (Annex 7.13) and November 2022 (Annex 7.14).</p> <p>Public talks on cetaceans including reference to their time on the Falklands project were provided by the sei whale team members in Stanley on 27 March 2023 (Annex 7.15) and 4 April 2023 (Annex 7.16).</p> <p>Social media updates were provided throughout the sei whale and right whale field seasons (see Annex 7.17 and <a href="https://www.facebook.com/FalklandsWhale">https://www.facebook.com/FalklandsWhale</a>).</p>	<p>We aim to publish at least one Penguin News and FC magazine article during Year 3, and will continue with social media outputs until project completion. Additionally, the UAV pilot will do a talk on his work on right whales in July/August 2023.</p>
<p><b>Activity 4.5.</b> Establish list of local stakeholders and steering group members to whom project updates should be disseminated.</p>		<p>Lists of relevant local stakeholders and the steering group members were compiled in Year 1 and evidenced in AR1.</p>	<p>The lists will be updated as people and organisations change over the timeframe of DPLUS126.</p>
<p><b>Activity 4.6.</b> An educational poster and/or leaflet is produced on sei whales and southern right whales and distributed to the school, tourist board, whale-watch launches and other key community recipients.</p>		<p>N/A – this Indicator is scheduled for Year 3.</p>	<p>This will be drafted in Year 3 and distributed no later than Year 4.</p>
<p><b>Activity 4.7.</b> Write and submit an IWC paper on tagging outputs by project completion.</p>		<p>N/A – this Indicator is scheduled for Years 3 and 4.</p>	<p>Work on this activity will commence in Year 3 and be completed in Year 4.</p>
<p><b>Activity 4.8.</b> Present tagging data and management relevance at an international conference.</p>		<p>N/A – this Indicator is scheduled for Year 3.</p>	<p>Conference attendance is planned for Year 3. However, the conference that had been</p>



Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
			<p>intended to fulfil this activity was the Society for Marine Mammalogy biennial originally scheduled for December 2023 in Perth. Unfortunately, that conference has been postponed by one year to Nov 2024 (<a href="https://qdaysmm.com/">https://qdaysmm.com/</a>), due to knock-on effects of COVID-19 on the 2021 conference which could not be held until 2022. Consequently, attendance is now likely to be at the annual European Cetacean Society instead, and the dates and venue of their 2024 conference are not yet announced (it should still be Year 3 but may slip into early Year 4 – this is not expected to affect the budget or logframe).</p>

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

Project summary	SMART Indicators	Means of verification	Important Assumptions
<p><b>Impact:</b> Long-term recovery of baleen whale populations is achieved through protection of key habitats, improved understanding of migratory movements, and implementation of management measures in the Falklands and wider south-west Atlantic.</p>			
<p><b>Outcome:</b></p> <p>The conservation of two baleen whale species in the Falkland Islands and South Atlantic Ocean is better understood and management recommendations made to help secure their future.</p>	<p>0.1 By Jun 2024 important marine areas for two baleen whale species have been identified in Falklands' waters, assessed against Key Biodiversity Area (KBA) criteria (if not already), and submitted to a FIG and stakeholder consultation phase.</p> <p>0.2 By Jun 2024, FIG decision-makers and key stakeholders including industry will have access to a robust evidence-base regarding the occurrence of sei and southern right whales in the Falkland Islands, and a draft Species Action Plan (SAP) will be produced and recommended for the endangered sei whale.</p> <p>0.3 By Jun 2024 regional conservation management agencies, specifically including the International Whaling Commission (IWC), are made aware of the status of sei and southern right whales in the Falkland Islands, and of connectivity with other regions within (and beyond where applicable) the south-west Atlantic.</p>	<p>0.1 Copies of KBA Assessment reports, and of correspondence from FIG and other stakeholder consultations.</p> <p>0.2 Copy of Project Technical Report, and evidence of its presentation to FIG. Metadata catalogue entries on IMS-GIS centre website. Copy of minutes from meeting with FIG re. SAP.</p> <p>0.3 Copy of scientific manuscript and/or project Technical Report submitted to the IWC (including the IWC-SORP right whale programme), with a letter requesting recognition of the Falkland Islands in the current IWC Conservation Management Plan (IWC-CMP) for south-west Atlantic right whales.</p>	<p>Government recognises KBAs as a tool within the marine spatial planning process, and thus develops appropriate future management of those areas for whales. Mitigation: FIG are included as a project partner and are already engaged in whale KBA discussions.</p> <p>The IWC (and IWC-SORP) are willing to incorporate the Falkland Islands into the IWC-CMP for southern right whales. Mitigation: Project partner Jen Jackson is Chair of the Southern Hemisphere whales sub-committee of the IWC and can help to optimise this possibility.</p>
<p><b>Output 1</b></p> <p>Data on whale distribution and movements are collected and used to identify and assess national and global key sites.</p>	<p>1.1 A total of 10 tags deployed on sei whales and associated metadata recorded over two field periods in Feb-Apr of 2022 and 2023.</p> <p>1.2 A total of 10 tags deployed on southern right whales and associated</p>	<p>1.1 &amp; 1.2 Photographs and dates of tag deployments; Copies of travel receipts; Links to real-time tracking data on project website.</p> <p>1.3 Copies of metadata and GIS layers available from FC, and all data</p>	<p>Tags will be successfully deployed on whales and will operate correctly to transmit data. Mitigation: use of experienced tag personnel; proven abundance of whales in the Falklands including successful biopsy work on both species.</p>

Project summary	SMART Indicators	Means of verification	Important Assumptions
	<p>metadata recorded over two field periods in Jun-Aug of 2022 and 2023.</p> <p>1.3 Whale sighting data collected in the field during 2022 and 2023 fieldwork periods and analysed with existing visual datasets and telemetry data to compile spatio-temporal GIS layers for both species by June 2024.</p> <p>1.4 A winter aerial survey conducted for southern right whales by 31 August 2023.</p> <p>1.5 A pilot unmanned aerial vehicle (UAV) study carried out on southern right whales by 31 August 2023.</p> <p>1.6 An assessment of the occurrence of the southern right whale in the Falkland Islands against global KBA criteria is completed by June 2024 including GIS layer of a potential site.</p> <p>1.7 An assessment of the fine-scale movements of sei whales around the Falklands in relation to their potential management via protected sites (especially with respect to any occurrence shown beyond the boundaries of the proposed Falkland Islands Shelf Waters KBA) is completed by June 2024.</p> <p>1.8 An assessment of region-wide movements of southern right whales is carried out by telemetry (by June 2024) and photo-identification matching with South Georgia (by Dec 2022).</p>	<p>summarised in project Technical Report (available to download).</p> <p>1.4 Copy of aircraft charter receipts, project Technical Report (available to download).</p> <p>1.5 Photographs of UAV work; Copies of travel receipts; Analysis included in final project Technical Report (available to download).</p> <p>1.6 Copy of KBA assessment report, and copy of email correspondence with KBA regional representative.</p> <p>1.7 and 1.8 Assessments included in the project Technical Report (available to download).</p>	<p>Tags will remain attached for sufficiently long duration to provide the intended data on movements and migration routes. Mitigation: use of experienced tag personnel; choice of appropriate tag type for each species.</p> <p>Assumes that all (or most) fieldwork is achieved. Possible constraints include weather, platform availability and breakages (e.g. engine faults), and unforeseen circumstances such as global pandemics. Mitigation: purchase of a suitable platform is included in the project budget; number of fieldwork days based on previous experience of weather at the site(s).</p>

Project summary	SMART Indicators	Means of verification	Important Assumptions
<p><b>Output 2</b></p> <p>Photo-identification mark-recapture analysis carried out to generate site-specific abundance estimates and seasonal/annual fidelity data to demonstrate persistent use of sites to fulfil protected area criteria (e.g. for KBAs).</p>	<p>2.1 All existing catalogue entries for sei and southern right whales in the Falkland Islands (2017–2020) are ranked separately for image quality and individual animal distinctiveness by Jan 2022.</p> <p>2.2 An evaluation is completed by Jan 2022 of the suitability of existing datasets (and of the expected 2022/2023 data) to carry out a robust mark-recapture abundance analysis.</p> <p>2.3 Falkland Islands catalogues of both species are expanded by at least 50 animals respectively, using photo-identification collected alongside telemetry boat surveys during 2022 and 2023.</p> <p>2.4 A mark-recapture analysis is completed for sei whales for at least one site of highest anthropogenic overlap (Berkeley Sound) by Jun 2024.</p>	<p>2.1 Copy of spreadsheet containing all image quality and distinctiveness values for catalogued animals.</p> <p>2.2 Copy of report detailing the evaluation.</p> <p>2.3 Copies of photo-identification catalogues for both species for the 2022/2023 field seasons.</p> <p>2.4 Mark-recapture methods and resulting abundance estimate, and details of site fidelity, will be presented in the final project Technical Report (available to download) in a protected area context.</p>	<p>Assumes that there will be a sufficient number of photographic recaptures of whales between years following quality control to support a robust mark-recapture analysis. Mitigation: Unknown factor, but mark-recapture analysis is planned for FC's longest running site and largest photo-identification dataset to optimise the likelihood of success.</p>
<p><b>Output 3</b></p> <p>A draft evidence-based Species Action Plan is produced for endangered sei whales in Falklands' waters and recommended to FIG.</p>	<p>3.1 Species Action Plan (SAP) scope and criteria established via a meeting/workshop with relevant FIG personnel by May 2022.</p> <p>3.2 Draft SAP completed for sei whales and disseminated for FIG/stakeholder review by Mar 2024.</p> <p>3.3 SAP finalised and recommended to FIG by June 2024.</p>	<p>3.1 Copy of minutes from FIG meeting.</p> <p>3.2 Copy of draft SAP and review feedback.</p> <p>3.3 Copy of final SAP submission and recommendations.</p>	<p>Sufficient data exist on species occurrence and threats to develop a robust SAP. Mitigation: Unknown factor, but sei whales have the largest available dataset on which to optimise the likelihood of success of an AP.</p>
<p><b>Output 4</b></p> <p>Awareness of whales, and support for their conservation and management, is increased within local and international</p>	<p>4.1 Web page showing real-time whale tracks receives &gt;500 local and international visits by project completion (Jun 2024).</p>	<p>4.1 Copy of web analytics showing visitor hits.</p> <p>4.2 Copies of whale naming competition entries and outreach work photographs</p>	<p>Tag-related outputs (e.g. whale track web page) are dependent on tags being deployed on whales and transmitting successfully. Mitigation: use of</p>

Project summary	SMART Indicators	Means of verification	Important Assumptions
<p>communities via dissemination of research outputs.</p>	<p>4.2 At least 25% of children from one school in Stanley have been engaged in the whale project by Sep 2023.</p> <p>4.3 At least 50% of the local community of ~3,000 people is informed of the project goals and results (twice) by Dec 2022 and Dec 2023 respectively.</p> <p>4.4 An average of over 1,000 people are shown to engage with the project social media page posts between Jan 2022 and Sep 2023.</p> <p>4.5 Over 1,000 international scientists are aware of the project and its key findings for whale management via a scientific publication and a presentation at an international conference (by Jun 2024).</p> <p>4.6 Images of all whales (total number unknown at this stage) taken during the project fieldwork and classified as 'highly distinctive' individuals will be shared to the HappyWhale website by Dec 2022 and Dec 2023 respectively to generate interest among the public and expedition leaders.</p> <p>4.7 Project updates and the final Technical Report are disseminated to local community stakeholders including industry representatives on a bi-annual basis in 2022 and 2023, with a final update at completion of the project in June 2024.</p>	<p>including whale boat trip (aimed at equal gender opportunity).</p> <p>4.3 Copies of media outputs, including newspaper articles, copies of presentations and photographs, and a copy of educational poster/leaflet.</p> <p>4.4 Copies of web analytics showing engagement figures.</p> <p>4.5 Copies of draft manuscript and conference presentation, with a list of the total number of conference attendees.</p> <p>4.6 Availability of images on HappyWhale website (link provided).</p> <p>4.7 Copies of stakeholder updates and circulation list.</p>	<p>experienced tag personnel; choice of appropriate tag type for each species.</p> <p>Improved knowledge and awareness leads to increased support for the conservation and management of whales.</p>

Project summary	SMART Indicators	Means of verification	Important Assumptions
<b>Activities</b>			
<b><u>Output 1.</u></b>			
1.1 Recruit personnel, acquire relevant work permits, and make travel arrangements ahead of field seasons.			
1.2 Ensure relevant research permits are in place for small boat, UAV and telemetry work.			
1.3 produce risk assessment for small boat, aerial, UAV and telemetry work.			
1.4 Complete list of project equipment requirements and ensure equipment is ordered and shipped in advance of fieldwork seasons. Produce equipment inventories on completion of field seasons.			
1.5 Plan and execute small boat survey work at suitable sites in the Falkland Islands and around key considerations of platform availability, weather, and logistical constraints.			
1.6 Plan and execute aerial survey, including transect survey design, equipment and aircraft availability planning.			
1.7 Plan and execute UAV pilot study, including equipment and travel for personnel.			
1.8 Develop and maintain spreadsheets of effort and sighting databases, photo-identification catalogues/databases, and QGIS mapping layers.			
1.9 Produce a Technical Report that assesses southern right whale data against the global KBA criteria, and if sufficient to support and application then circulate to decision-makers, stakeholders and the IUCN KBA partnership for consultation.			
1.10 Conduct a photographic comparison using side-on images of southern right whales taken during boat surveys in the Falkland Islands and South Georgia (the latter dataset managed by BAS).			
1.11 Produce a final project Technical Report with relevant project partners, to include details of telemetry work, aerial abundance estimate, photo-identification and mark-recapture results, distribution maps, and recommendations for developing protected areas and related management.			
<b><u>Output 2.</u></b>			
2.1 Standardised protocols for assigning criteria for image quality and animal distinctiveness are developed for sei whales (dorsal fin and flank) and southern right whales (side-on head images) respectively.			
2.2 Photo-identification images are collected during all boat-based surveys in 2022 and 2023 alongside the telemetry deployment work and on days when tag deployments are not possible.			
2.3 Photo-identification images from each boat survey in 2022 and 2023 are assigned to individual animals. Each individual is cross-checked with other whales from within the same year, and if new then it is entered into the catalogue for that year.			
2.4 Matching of individual animals from 2022 and 2023 is carried out with existing catalogues from 2017–2020. Mark-recapture analysis completed.			
<b><u>Output 3.</u></b>			
3.1 Organise meeting with FIG personnel in person or via Skype to define the scope and criteria of a FIG-adopted AP for a cetacean species.			

Project summary	SMART Indicators	Means of verification	Important Assumptions
<p>3.2 Compile relevant information on the occurrence and status of sei whales in the Falkland Islands, including distribution maps, abundance, and threats, and produce a draft AP.</p> <p>3.3 Establish a list of key stakeholders to provide feedback on the draft AP.</p> <p><b>Output 4.</b></p> <p>4.1 A web page is developed (and publicised) that allows viewers to see the real-time tag locations of all sei whales and right whales that are tagged during the project.</p> <p>4.2 Materials are developed for school engagement with the telemetry project including developing a naming competition for the tagged whales.</p> <p>4.3 A school or Watch Group boat trip is organised to take children to see whales with educational commentary.</p> <p>4.4 Engage in local outreach, including publishing both Penguin News and FC magazine articles in 2022 and 2023, a public talk in Stanley by the whale tag expert, and (at least) bi-monthly social media updates over the field seasons.</p> <p>4.5 Establish list of local stakeholders and steering group members to whom project updates should be disseminated.</p> <p>4.6 An educational poster and/or leaflet is produced on sei whales and southern right whales and distributed to the school, tourist board, whale-watch launches and other key community recipients.</p> <p>4.7 Write and submit an IWC paper on tagging outputs by project completion.</p> <p>4.8 Present tagging data and management relevance at an international conference.</p>			

### **Annex 3: Standard Indicators**

The Biodiversity Challenge Funds (BCFs) use high quality and accessible Monitoring, Evaluation and Learning (MEL) to enable scaling, replication and increase the impact of the funds and the projects we support.

By asking project teams to align indicators with the Darwin Plus Standard Indicators, we aim to increase our contribution to the global evidence base for activities that support biodiversity conservation, poverty reduction and capability & capacity.

The tables below are provided to assist project teams in reporting against Standard Indicators. Please report against the Standard Indicators that you have selected specifically for your project in Table 1 below. Refer to the Standard Indicator Guidance & Menu available on the [Darwin Plus](#) website for guidance on how to select indicators, as well as how to disaggregate reporting within your chosen indicators.

New projects should complete the Y1 column and also indicate the number planned during the project lifetime. Continuing projects should copy and paste the information from previous years and add in data for the most recent reporting period.

We recognise that our menu cannot cover all the potential monitoring needs for all projects – where necessary you can select indicators from other sources or develop your own. See our BCF MEL guidance on best practices for selecting and developing indicators.



**Table 1 Project Standard Indicators**

Please note that DPLUS126 was funded prior to the requirement for project standard indicators and we were only able to report under four of the core standard indicators (shaded green). However, this is permitted for existing projects in the Standard Indicators Guidance document (p15).

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DPLUS-A01	Number of people from key national and local stakeholders completing structured and relevant training	Number of staff and volunteers from Falklands Conservation who attended training on (1) satellite tag deployment; and (2) aerial survey data collection.	People	None	0	0	–	0	3
DPLUS-A03	Number of local/national organisations with improved capability and capacity as a result of project	Number of local organisations with improved cetacean capacity.	Number of organisations	None	0	0	–	0	1
DPLUS-A07	Number of government institutions/departments with enhanced awareness and understanding of biodiversity and associated local community issues	FIG Environment Department having increased understanding of cetacean biodiversity in Falklands waters and management implications	Government institutions	Govt. Organisation Type	0	0	–	0	1
DPLUS-B02	Number of new/improved species management plans available and endorsed	Number of draft Species Action Plans produced	Number	Species	0	0	–	0	1
DPLUS-B11	Area identified as important for biodiversity	Number of Key Biodiversity Area and/or Important Marine Mammal Areas delineated and proposed	Area	Habitat	0	0	–	0	3
DPLUS-C01	Number of best practice guides and knowledge products published and endorsed	Number of Technical Reports produced on cetacean datasets as evidence for marine management	Number	Knowledge	0	0	–	0	2
DPLUS-C07	Number of projects contributing evidence to biodiversity conservation or associated community benefits to policy/regulation/standards consultations	Number of EIAs, mitigation plans or other consultations in the Falklands that cetacean data collected during DPLUS126 have been used to inform	Number	National	0	1	–	1	2

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DPLUS-C08	Areas of importance for biodiversity identified	Number of Key Biodiversity Area and/or Important Marine Mammal Areas delineated and proposed	Area	Habitat	0	0	–	0	3
DPLUS-C12	Social Media presence	Number of engagements with the Falkland Islands Whale Project page on Facebook	Number of reaches per post	Metric	>1000 reaches	>1000 reaches	–	>1000 reaches	Average of 1000 reaches per post
DPLUS-C15	Number of media related activities	Number of Penguin News articles, FC magazine articles, talks, Radio interviews, TV interviews, and international media articles that specifically relate to DPLUS126.	Number		2	8	–	10	5
DPLUS-C17	Number of unique papers submitted to peer reviewed journals	Number of unique papers submitted to peer reviewed journals	Number	Journal	0	2	–	0	1
DPLUS-C18	Number of papers published in peer reviewed journals	Number of papers published in peer reviewed journals	Number	Journal	0	0	–	0	1
DPLUS-C19	Number of other publications produced	Number of other publications produced	Number	IWC paper	0	0	–	0	1

**Table 2 Publications**

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
A deep learning approach to photo-identification demonstrates high performance on two dozen cetacean species	Journal	Patton et al.	Male	USA	Submitted to Methods in Ecology and Evolution	Submitted

<b>Title</b>	<b>Type</b> (e.g. journals, manual, CDs)	<b>Detail</b> (authors, year)	<b>Gender of Lead Author</b>	<b>Nationality of Lead Author</b>	<b>Publishers</b> (name, city)	<b>Available from</b> (e.g. weblink or publisher if not available online)
Swimming across the pond: First documented transatlantic crossing of a female southern right whale	Journal	Vermeulen, E., Germishuizen, M., Kennedy, A., Wilkinson, C, Weir, C.R., and Zerbini, A.	Female	South African	Submitted to Marine Mammal Science	Submitted
Photo-identification analysis protocols for lateral images of southern right whales ( <i>Eubalaena australis</i> ) in the Falkland Islands	Manual	Weir, C.R. (2022)	Female	British	Falklands Conservation, Stanley	Available from Falklands Conservation, Jubilee Villas, Ross Road, Stanley, Falkland Islands
Photo-identification analysis protocols for sei whales ( <i>Balaenoptera borealis</i> ) in the Falkland Islands	Manual	Weir, C.R. (2023)	Female	British	Falklands Conservation, Stanley	Available from Falklands Conservation, Jubilee Villas, Ross Road, Stanley, Falkland Islands
The potential suitability and preparation of baleen whale photo-identification datasets from the Falkland Islands for capture-mark-recapture analysis	Manual	Weir, C.R. (2022)	Female	British	Falklands Conservation, Stanley	Available from Falklands Conservation, Jubilee Villas, Ross Road, Stanley, Falkland Islands

## Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the <b>correct template</b> (checking fund, type of report (i.e. Annual or Final), and year) and <b>deleted the blue guidance text</b> before submission?	Y
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:BCF-Reports@niras.com">BCF-Reports@niras.com</a> putting the project number in the Subject line.	Y
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:BCF-Reports@niras.com">BCF-Reports@niras.com</a> about the best way to deliver the report, putting the project number in the Subject line.	N
<b>Have you included means of verification?</b> You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Y
<b>Do you have hard copies of material you need to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	N
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 15)?	Y
Have you involved your partners in preparation of the report and named the main contributors	Y
Have you completed the Project Expenditure table fully?	Y
Do not include claim forms or other communications with this report.	