

## Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus Half Year Report

*Note: If there is any confidential information within the report that you do not wish to be shared on our website, please ensure you clearly highlight this.*

**Submission Deadline: 31<sup>st</sup> October 2023**

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| <b>Project reference</b>                  | <i>DPLUS174</i>  |
| <b>Project title</b>                      | A cross-UKOT camera network to enhance marine predator conservation  |
| <b>Country(ies)/territory(ies)</b>        | British Antarctic Territory, Falkland Islands, Gibraltar, Montserrat, Ascension Island, South Georgia and the South Sandwich Islands   |
| <b>Lead partner</b>                       | Oxford Brookes University  |
| <b>Partner(s)</b>                         | Ascension Island Government<br>Antarctic Research Trust (Falklands)<br>British Antarctic Survey (Antarctica)<br>Gibraltar Botanic Gardens<br>Montserrat National Trust and Government of Montserrat<br>Department of the Environment<br>SGSSI Government |
| <b>Project leader</b>                     | <i>Tom Hart</i>  |
| <b>Report date and number (e.g. HYR1)</b> | <i>HYR2</i>  |
| <b>Project website/blog/social media</b>  | <i><a href="https://www.zooniverse.org/projects/penguintom79/seabird">https://www.zooniverse.org/projects/penguintom79/seabird</a></i>   |

**Outline progress over the last 6 months (April – Sept) against the agreed project implementation timetable (if your project has started less than 6 months ago, please report on the period since start up to end September).**

Although we are not looking for specific reporting against your indicators, please use this opportunity to consider the appropriateness of your M&E systems (are your indicators still relevant, can you report against any Standard Indicators, do your assumptions still hold true?). The guidance can be found on the resources page of the relevant fund website.

**1. Marine species health index guidelines established to support the development of partners conservation priorities and UKOTs conservation policy**

1.1 Sign a memorandum of understanding with all the OTs involved. ✓

1.2 Train field staff to maintain camera network and fly drone safely and legally. ✓

1.3 Run time-lapse camera over selected species and sites for at least 2 consecutive years.

This will have to be revised. Due to the nature of fieldwork in those remote locations, the cameras will not be in place for 2 consecutive years by the end of the project. The last evaluation of the HY1 report found that we were behind on implementation and M&E.

In part, this was intentional and the monitoring and evaluation needs to reflect that we are adapting in response to conditions on the ground and co-evaluation of these techniques to the local conditions and needs which took longer than anticipated. In the application methodology, we explained that “the aim of these workshops will be to (1) finalise and adapt the project strategy and implementation including the selection of the sites and species, and (2) provide the field staff with the protocols and training required for the implementation phase.”

Therefore, we need scope in the evaluation to be able to respond to the needs of the OTs in light of the test of technology under local conditions and in consultation with their needs. We aim to submit a change request now that we have consulted with all OTs and have firmer plans on exact deployments. We have reached out to NIRAS to discuss next steps.

We would also like to ask for a no-cost extension to ensure the collection of two strong years of data prior to project end to allow us to fully analyse a baseline. This proposition will be part of a change request to be submitted asap together with a review of the activities, timeline and M&E. These changes come as the project’s first year was slower than originally planned and we have reviewed priority objectives for each territory based on our first field visit which has forced us to rethink the project’s activities to match pressing needs locally.

In Montserrat, following our visit, we have agreed that we need to change the methodology to survey cave nesting birds with individual cameras and have run a test which has already highlighted the immediate major threat posed by feral cat predation on adult and chick tropicbirds. We have also positioned two long range cameras that will be in place for two consecutive years. We are also testing the use of thermal drone imagery to monitor Audubon's shearwaters; the technique has shown some success so far. Additionally, we have tested using drone imagery to assess sea turtle nesting and have deployed two cameras on fresh nests as a pilot study.

In Gibraltar, we have finalised the sites and authorisations to position four cameras on yellow-legged gulls in breeding sites controlled by Gibraltar Museum. They should be positioned before the end of the year pending local government approval. We are also working on an additional proposal for the government of Gibraltar to allow us to monitor the subspecies of European shags present in Gibraltar which nests in cliff caves. To date, Gibraltar has no knowledge of the population size or phenology of the species. Unfortunately, the original suggestion of monitoring it with thermal drones did not seem to work in Gibraltar as the practicality of line of sight given the topography meant it was impractical.

In Ascension, time-lapse cameras did not provide appropriate results on sooty terns due to the species' phenology. Our partner has managed to obtain authorisation from the military for drone use instead (after years of refusal). After a protracted negotiation with the RAF and USAF, they have obtained permission to use the drone everywhere other than the runway, which has opened monitoring for sooty terns. Two of our long range cameras have been shipped to Ascension but deployment has been delayed due to the road access being cut following weather conditions. The time-lapse cameras have been received by the government and are waiting for deployment. Monitoring sea turtles in Ascension using cameras did not appear appropriate after further consultation with the local partner due to the terrain and turtle nesting behaviours. Early drone footage collected by our partner as part of the project have been rapidly analysed for a government proposal to extend a protected area which was approved.

In the Falklands, South Georgia and the Antarctic Peninsula are in place and will run for three consecutive years. Some training with partners will occur during this field season (Dec 23 - Jan 24) and during a drone workshop in Spring 24.

#### 1.4 Conduct a drone survey over each species colony for at least 2 consecutive years.

- Montserrat - team is trained and the first survey was conducted in Spring 2023. One to two more surveys can be conducted by the end of the project (depending on extension). This is already confirming new breeding species in Montserrat.
- Gibraltar - team is trained and the first independent survey will occur in Spring 2024 and Spring 2025 (assuming extension).
- Ascension - the team is in training and will be ready before the end of 2023. The first survey is occurring in the fall of 2023 with their current pilot (leaving the island by December 2023) and at least one more survey will be conducted by the end of the project. We have upgraded their drone capacities and will be delivering further training on the island in April/May 2024.
- Falklands - three consecutive surveys will have been conducted by the end of the project.
- South Georgia - three consecutive surveys will have been conducted by the end of the project. We have
- Antarctic Peninsula - three consecutive surveys will have been conducted by the end of the project.

#### 1.5 Historical records collected and processed.

- Montserrat - historical data has been collected and is to be processed this year as part of a master's student project (possibly a Montserratian).
- Gibraltar - historical data has been collected and is to be processed this year as part of a master's student project (based in Gibraltar).
- Ascension - outstanding - we are working with the team on formatting and will be able to do this directly during our Spring 24 visit.
- Falklands - historical data has been collected and processed.
- South Georgia - historical data has been collected and processed.
- Antarctic Peninsula - historical data has been collected and processed.

#### 1.6 Project data processed via citizen science platforms (i.e., Penguin Watch, Seal Watch, Seabird Watch).

- Data has yet to be uploaded for Montserrat, Ascension and Gibraltar due to delays in deploying the cameras.
- Data has been uploaded for the Falklands, South Georgia, and the Antarctic Peninsula.

1.7 Raw and processed data (including distribution maps) uploaded on data portal and existing repositories. Y3

1.8 Health index guidelines discussed at workshop 1 and revised at workshop 2 following local partner feedback. Y2-Y3

1.9 Peer reviewed publications submitted for review (minimum of three publications during the lifespan of the project). Y3

1.10 Research brief sent to key stakeholders for each significant project findings. Y3

1.11 Conduct comprehensive reviews of OT conservation strategy and legislations. Y2-Y3

#### 1.12 Conduct interviews with partner organisations.

Although no formal interviews have been conducted, we have collected historical data and learnt more about the existing monitoring (if any) and political context linked to territory management strategy of seabirds.

## 2. Artificial Intelligence (AI) tool development for data processing to speed up access to evidence made accessible in the time frame of the project

2.1 Finalise the coding and testing of the AI recognition algorithm on Seabird Watch existing data for shags, cormorants, and boobies. Y3

2.2 Code and start testing a new recognition algorithm for Sooty tern using data collected from Ascension and Montserrat during the first two years of the project. Y3

2.3 Challenging project data processed using the algorithm to refine its training. Y3

2.4 Produce progress reports to the steering committee. Y3

2.5 Sign a data agreement with partners. Y3

Note that this is dependent on other activities. To start developing and training the AI on specific species, we will need a large enough dataset from camera and drone surveys.

### **3. Online open access web portal to fill critical knowledge gaps in UKOT and improve policymakers access to marine health research evidence**

#### **3.1 Discuss UKOT gaps and evidence needed to agree on portal requirements.**

In progress.

#### **3.2 Write and publish a R package for data access.**

In progress.

#### **3.3 Design a front-end and application mapping tools back-end for data entry tools (i.e., portal).**

In progress.

3.4 Publish and promote an online database for UKOT marine monitoring data to key stakeholders (i.e., governments, conservation NGOs, researchers, and relevant fishing and tourism industry stakeholders).

Y3

#### **3.5 Conduct user and prospective user surveys.**

In progress.

### **4. Establish a cross-UKOTs network aimed at facilitating knowledge exchange, cross training and lowering barriers to marine predator conservation**

**4.1 Host a series of workshops (yearly) to first set up and review the network's strategy and terms of reference, provide the training needed to field staff and partners (e.g., drone use, set up and maintenance of camera network) and definition of mechanism for knowledge exchange between participating partners.**

This has turned in a series of short meetings with each territory (Y1-Y2) to understand their specific issues (e.g., political, terrain). We aim to have a workshop at the end of the project followed by the creation of a steering committee as a sub-group, possibly as a formal working group within the UK Overseas Territories Conservation Forum.

**4.2 Make training resources freely available on the project portal.**

In progress, we have shared Google Drives with OTs to continually update training and share useful resources.

**4.3 Designate secondment for steering committee coordinator position.**

Not planned at this point due to the difference in local challenges. This may be revised as the project evolves. Edits in activities based on learning from early project workshops will be submitted in a formal Change Request.

**4.4 Collect updates, success and failures and write a yearly report on the OTs involvement in the project. This report will inform the adaptation of the project strategy from year to year based on lessons learned.**

This has been informally collected territory by territory due to the diversity of issues across territories. We aim to organise a more formal committee once everyone is up to the same speed on camera and drone training. This group will particularly focus on a UKOT seabird strategy (particularly on monitoring methods and reporting goals) to be proposed to UKOTCF.

**4.5 Host regular steering committee meetings and publish progress reports.**

Not planned currently, see 4.3. A change request will be submitted with a proposal to update the log frame and activities based on the pilot Y1 results.

**4.6 Draft UKOT marine monitoring strategy by steering committee.**

Y3, possible in partnership with the UK Overseas Territories Conservation Forum.

**2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.**

As per the project proposal, we have held a series of small workshops with key stakeholders on each of the territory partner. “The aim of these workshops will be to (1) finalise and adapt the project strategy and implementation including the selection of the sites and species, and (2) provide the field staff with the protocols and training required for the implementation phase.” Following these workshops, we have identified the need to adapt our method to the need of each territory. For example, while we are piloting sea turtle monitoring in Montserrat, the terrain in Ascension has rendered the technique proposed inappropriate. Similarly, while camera monitoring of whole colonies overall is deployed, we are working on an updated method for cave nesters like tropicbirds in Montserrat and seabirds with no specific nesting grounds like sooty terns in Ascension. Following our visit to Montserrat, we have also identified cats has a major immediate threat to seabird species. As such, this is becoming a focus of our project there alongside cameras and drone surveys. We have reached out to NIRAS office to discuss the need to submit a change request covering the evolution of the project in term of indicators, activities, and timeline for each territory. The project outputs will remain unchanged.

The last Annual Report Review has asked for us to review our project timeline prior to the Half Year Report. While we attach to this report an updated version of the original timeline, a new timeline reflecting more significant changes in the project will be submitted in with the change request following consultation of NIRAS.

**3. Have any of these issues been discussed with NIRAS and if so, have changes been made to the original agreement?**

Discussed with NIRAS: Yes

Formal Change Request submitted: No

Received confirmation of change acceptance No

Change request reference if known:

**4a. Please confirm your actual spend in this financial year to date (i.e., from 1 April 2023 – 30 September 2023)**

Actual spend: ██████████

**4b. Do you currently expect to have any significant (e.g., more than £5,000) underspend in your budget for this financial year (ending 31 March 2024)?**

Yes  No  Estimated underspend: £

**4c. If yes, then you need to consider your project budget needs carefully.** Please remember that any funds agreed for this financial year are only available to the project in this financial year.

**If you anticipate a significant underspend because of justifiable changes within the project, please submit a re-budget Change Request as soon as possible. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to make appropriate changes if necessary. Please DO NOT send these in the same email as your report.**

**NB: if you expect an underspend, do not claim anything more than you expect to spend this financial year.**

**5. Are there any other issues you wish to raise relating to the project or to BCF management, monitoring, or financial procedures?**

If you are a new project and you received feedback comments that requested a response, or if your Annual Report Review asked you to provide a response with your next half year report, please attach your response to this document.

All new projects (excluding Darwin Plus Fellowships and IWT Challenge Fund Evidence projects) should submit their Risk Register with this report if they have not already done so.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also** be raised with NIRAS through a Change Request. **Please DO NOT send these in the same email.**

Please send your **completed report by email** to [BCF-Reports@niras.com](mailto:BCF-Reports@niras.com). The report should be between 2-3 pages maximum. **Please state your project reference number, followed by the specific fund in the header of your email message e.g. Subject: 29-001 Darwin Initiative Half Year Report**