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: 30th April 2023

Submit to: BCF-Reports@niras.com including your project ref in the subject line

Darwin Plus Project Information

Project reference	*DPLUS174*
Project title	A cross-UKOT camera network to enhance marine predator conservation
Territory(ies)	British Antarctic Territory (BAT) Falkland Islands (FI) Gibraltar Montserrat St Helena, **Ascension** Island and Tristan da Cunha South Georgia and the South Sandwich Islands (SGSSI)
Lead Partner	University of Oxford (project moving to Oxford Brookes University on April 1st, 2023)
Project partner(s)	Ascension Island Government, Antarctic Research Trust (Falklands), Gibraltar Botanic Gardens, Montserrat National Trust, SGSSI Government, British Antarctic Survey (Antarctica)
Darwin Plus grant value	GBP 397,772
Start/end dates of project	01/05/2022-30/03/2025
Reporting period (e.g. Apr 2022-Mar 2023) and number (e.g. Annual Report 1, 2)	Apr 2022-Mar 2023 Annual Report 1
Project Leader name	Tom Hart
Project website/blog/social media	https://www.zooniverse.org/projects/penguintom79/seabirdwatch https://twitter.com/seabird_watch https://www.instagram.com/seabird_watch
Report author(s) and date	Tom Hart and Laure Cugnière, 24th April 2023

1. Project summary

Seabird and other marine species are threatened globally by anthropogenic pressures like pollution, bycatch, and climate change. Seabird numbers, our primary taxa, have declined by nearly 70% over the past 50 years. While there are many local efforts to protect marine species, access to evidence is hampered by logistical constraints and a lack of reporting tools. We aim to produce tools to be applied across UKOTs to lower the barrier to entry of modern techniques to spatially map and monitor key marine species.

The ability of UKOTs to collect and analyse evidence at the scale required to inform the conservation of marine species remains significantly limited by resources and the logistical constraints linked to remote monitoring. Current monitoring efforts are opportunistic, expensive, and inconsistent and data processing techniques, like AI or distributed citizen science require specific expertise, hence many marine colonies are data deficient and their conservation inadequate. Local conservation strategy and international treaties highlight the need to boost monitoring to better inform conservation. A previous Darwin Plus project (DPR9S2\1016) also noted that financial and logistical hurdles limited the feasibility of automation for territories, an issue that we can now address.

Recent technology applications of drones and timelapse cameras to land nesting marine species have huge potential to provide such evidence at a modest cost. We have demonstrated the feasibility of this novel approach and successfully trained numerous partners in the polar regions and the UK. If we can train OTs, help them test new methods to collect the evidence needed on their priority taxa and set up a reporting structure across a range of UKOTs, this can serve as a proof of concept to expand to all UKOTs and significantly boost UK marine conservation.

2. Project stakeholders/partners

British Antarctic Territory (BAT)

- During this year's Antarctic season, we have organised eight expeditions to the Antarctic Peninsula:
    1. 20th Oct 2022 and 10th Nov 2022
    2. 19th Nov 2022 and 29th Nov 2022
    3. 28th Nov 2022 and 8th Dec 2022
    4. 7 h Dec 2022 and 22nd Dec 2022
    5. 10th Nov 2022 and 30th Nov 2022
    6. 20th Dec 2022 and 30th Dec 2022
    7. 30th Dec 2022 and 9th Jan 2023
    8. 9 h Jan 2023 and 19th Jan 2023
- These expeditions were designed to service the existing network of timelapse cameras as well as collect population data for monitoring. The camera data is currently being submitted as a manuscript showing widescale change across the Scotia Sea to climate change.
- The population data is being prepared as a manuscript showing the impact of tourism on penguin colonies, as revealed by the Covid-19 pandemic and the cessation of visits to sites.
- We have also responded to the Avian Flu crisis in the northern hemisphere by using the camera network and sampling effort to monitor the risk of an outbreak within the territory: https://ecoevorxiv.org/repository/view/3686/. We have provided advice to IAATO and the FCDO to limit the risk of tourists, researchers and National Programmes being vectors of an outbreak. At this stage, H5N1 has not yet reached the peninsula though we anticipate it will likely be next year as it is present in both Chile and Argentina and seems to have spread into both their seabird and pinniped populations. Both populations visit/migrate to the Peninsula.

South Georgia and the South Sandwich Islands (SGSSI)

- During this year's Antarctic season, we have organised two expeditions to SGSSI from the 7th to the 22nd of November 2022 and from the 16th of January to the 16th of February 2023 as well as a major expedition to the South Sandwich Island from the 12th of January to the 15th of February. This collected population data since the last eruption and found that there have been small declines across the South Sandwich Islands. We were also able to collect Giant Petrel data to report to ACAP.
- One of our partners at the British Antarctic Survey has also been awarded a Darwin Plus (DPLUS186) award for evidence-based biodiversity conservation in the South Sandwich Islands. As a formal partner on this proposal, we will lead the seabird drone and ground surveys and derive counts from images through our citizen science network. We will also be responsible for the logistics of the yacht charter for input and support of

the field team based on our PL extensive experience of organising field expeditions to the archipelago and making successful landings on the challenging Zavodovski island. The overlap between those two Darwin Plus projects will increase efficiency for both PLs.

Falkland Islands (FI)

- We are working on strengthening our partnership with the Falklands Conservation and government to guarantee the continuation of the existing seabird monitoring on the island Staff turnover means that our contacts have now moved on to new positions. During this year's Antarctic season, we have managed to have face-to-face discussions with both partner organisations to discuss needs and expectations and explore interest to take full ownership of the network. The Falkland Islands have the advantage, compare to SGSSI and BAT to be inhabited all year round, thus putting less pressure on local staff to service the network and conduct drone surveys.
- During this year's Antarctic expedition, we met with the Falklands Conservation organisation, and we have agreed on a longer-term servicing strategy with Falklands Conservation to service the cameras. The funding to ensure this continues after the life of this project has been secured via private donations. We are in the process of drafting an MoU.

Gibraltar

- We first visited Gibraltar between the 25th and the 28th of September 2022. The territory has been very receptive and appeared ahead in terms of equipment and training, so we decided to use them as proof of concept. The trip was very positive and allowed us to identify gaps for our methods to be adapted to monitoring seabirds in warmer climates and to prove that the method should be reproducible with a few edits.

1. Eastern catchment slopes with gull colony, Gibraltar Gov.

During our visit, we realised four drone surveys at:

1. The Gorham's Cave, a UNESCO World Heritage site on a military base with a geotagged gull colony and shag colony.
2. The Eastern Catchment Slopes, an extensive area of consolidated windblown sands above Sandy Beach, with a gull colony.
3. Rosia Bay Landside and Rosia Bay Oversea, a natural bay in the heart of town monitoring the surrounding gulls nesting on roofs and the seaside.

2. Flying from Parson's Lodge, a Gibraltar historical landmark to monitor urban gulls in Gibraltar

Those sites were selected as key for seabird monitoring on the island by our partners. We assessed each site for the possibility to set up a time-lapse camera. We are planning to set up 8 cameras - 2 telephoto and 6 standards during our next visit in September 2023.

- We are now planning to update our environmental risk assessment with the support of our Gibraltar partner which then will be shared with the other territories for feedback. The core team we are working with includes Keith Bensusan and his team, who lead Gibraltar seabird monitoring out of Gibraltar Botanic Gardens, and Stephen Warr (Environment Officer) and his team from the Gibraltar Government. We have also met with the Directory of Civil Aviation of the Gibraltar Government which was extremely helpful in terms of better understanding needs and gaps for drone surveys in urbanised areas.

3. Field trip to Gibraltar with our colleagues at the Gibraltar Botanic Gardens and Dr Rhiannon Austin (DPLUS PI for DPLUS164)

- We took this opportunity to invite fellow DPLUS Project leader, Dr Rhiannon Austin, (DPLUS164: Conservation Actions for Seabirds on the Turks and Caicos Cays) on our field visit to Gibraltar. Considering the similarities and partial overlap between our projects in the Caribbean, this visit allowed us to better explore collaboration and exchange knowledge on methods, the Caribbean context and how we could help each other reach our targets.

- During our first visit, we started exploring the possibility to monitor the cave-nesting shag populations of Gibraltar. This would help further their conservation strategy. While our method isn't currently adapted to cave-dwelling birds, we would like to put our partner in touch with one of our regular collaborators, Alasdair Davies, from the Project Arribada of the Shuttleworth Foundation. The goal of his project is to design, develop and produce open hardware to be used in animal conservation and he may be interested to tackle this new challenge. Gibraltar is a small territory with good phone coverage and decent weather conditions for solar panels, hardware could easily be set up and serviced remotely (apart from hardware failure). This could also be used as a proof of concept for cave/den-nesters across UKOTs and the UK.
- We are planning a second visit to support our partners in a second drone survey but also to set up cameras overlooking key colonies as per decisions made during our first visit.

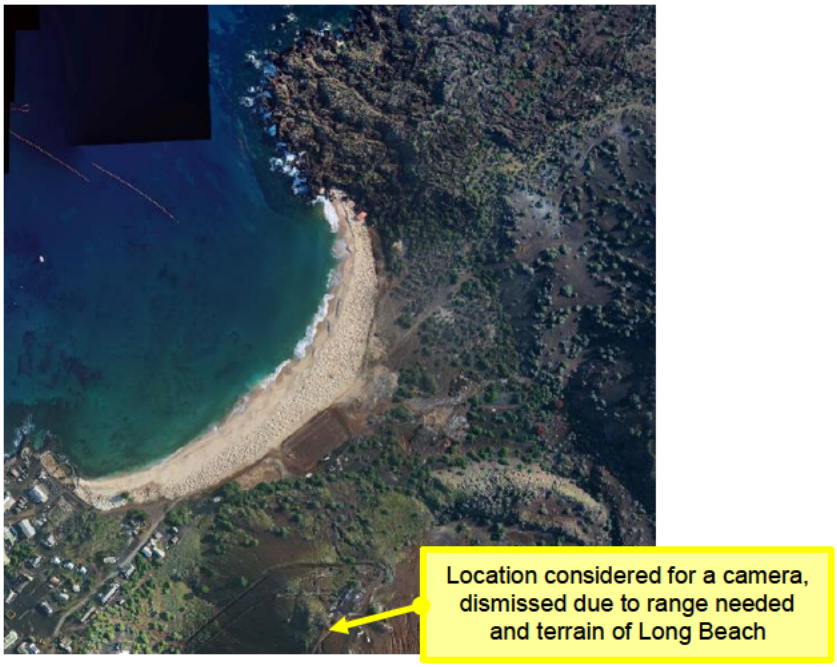
Ascension Island

- We have been working with our local partner to ship 12 time-lapse cameras, chargers, and memory cards) before the seabird breeding season. Unfortunately, it is not currently practical for us to visit the territory as flights remain limited due to runway refurbishment. We trust that our partner has the right skills and have provided some remote training and resources for camera set-up and positioning. Some have already been installed in Mars Bay Nature Reserve to capture the 2023 breeding season and we aim to send long-range cameras in the next few months too.

4. Time-lapse camera on Mars Bay Nature Reserve overlooking a Sooty tern colony, Ascension Island

The time-lapse camera on the Sooty tern colony is unfortunately likely not to deliver the desired results (phenology) for the target species. The species being a ground nester with no specific nest to follow means that while we could get arrival and departure date, we likely won't get any other phenological data. We are looking at alternatives to simplify the further study of breeding timing and success.

- Our partners at the Ascension Island Government are looking at obtaining key evidence to propose the expansion of their protected area boundaries using drone data from two sites. We will be working closely with them (in Q1Y2) to produce counts from the images for proposal submission to the Island Council in June/July 2023. This would be a great success for seabird conservation, island partners and this project.
- While we continue to explore the possibility to transfer our monitoring method for sea turtles, the terrain (hilly) in Ascension seems more challenging than originally foreseen.



5. View of Long Beach with sea turtle nesting, Ascension Island Gov.

- We would like to put our partner in touch with one of our regular collaborators, Alasdair Davies, from the Project Arribada of the Shuttleworth Foundation. The goal of his project is to design, develop and produce open hardware to be used in animal conservation and he may be interested to tackle this new challenge. This could also be used as a proof of concept for sea turtle monitoring in Montserrat. This would help further both territories' conservation strategies.

Montserrat

- We are currently visiting Montserrat (May 2023) on time to set up 10 time-lapse cameras and 2 long-range cameras on key breeding colonies (i.e., *Phaethon aethereus, Sula leucogaster, Fregata magnificens, and Puffinus lherminieri*) on the following sites (Trants, Pinnacle Rocks and Rendezvous Bluff and Hell's Gate).
- We have deployed the first camera on a tropicbird nest at Hell's Gate. A few bird species on the island are cavity nesters and as we learn about the monitoring techniques employed by our partners and the logistical limitations, we feel nest-based monitoring will be key to better understanding breeding success and assessing the level of threats by invasive species such as cats and rats. We will return to Oxford and raise funding to purchase more cameras so that a larger number of nests can be monitored.

6. Field trip to Montserrat with our colleagues at the Montserrat Department of the Environment

7. Time-lapse camera overlooking a red-bellied tropicbird nest as a pilot for cavity-nester monitoring. This method will help local partners to better assess breeding success and the level of invasive species predation.

- After discussing with Montserrat, we have also decided to attempt to create an artificial colony for the least terns (*Sternula antillarum*). They have been observed nesting on an industrial jetty within the local protected area in 2022 but, unfortunately, the eggs were destroyed by construction vehicles. We aim to place an extension to the jetty which can be fenced to avoid disturbances from passing vehicles. We would be using a playback device to attract the breeding pairs and a camera to observe any attempt at nesting. To date, it is not clear if and where on the island the species may be breeding despite having been observed foraging around the island.

8. Map of Montserrat

- As part of the visit, we will also conduct a recce of the sea turtle colony to better understand the terrain and explore what monitoring technique can be used or if, like Ascension Island, we would need to explore the possibility to develop new hardware with the help of Project Arribada.

9. Testing infrared to monitor nocturnal seabirds like Audubon's Shearwaters with the team from the Department of the Environment.

- We are thrilled to learn that Ms Ajhermae S. White has been accepted for a fully funded MSc degree at the University of Exeter for 2023-24. While she will be based on Jersey Island, we would like to harness this opportunity to host her in our lab and provide her with specific data training and we are discussing the possibility of her research project being linked to our effort for this DPLUS project. We will support Ms White to the best of our capacity and hope it will further guarantee the continuation of the project post-grant lifespan.
- As part of our joint effort, we have identified the need to work together with the Montserrat Department of Environment on funding proposals for project continuation beyond the lifespan of this Darwin Plus project.

3. Project progress

3.1 Progress in carrying out project Activities

Output 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.

- Comments: Delayed due to a change in leading institution. To be signed with the new institution, Oxford Brookes University, and our partners in Spring 2023 (Y2Q1).

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

- Comments: We have had an initial discussion with Ascension and Gibraltar about camera needs and Ascension has started positioning cameras based on remote advice. We will review initial data to see if the positioning needs correcting and wish to visit the island in 2024 (Y2Q4) and in the meantime, the field staff will continue flying with their own drone and collecting preliminary camera data. In Gibraltar, we have flown the four key sites and are exploring the possibility to automatise the flights. Following a discussion with the Gibraltar Civil Aviation Authority, the staff at the Gibraltar Botanic Gardens is looking into the possibility to get flight accreditations in Mainland Spain to increase piloting capacity on the island. We are planning a second visit, in 2023 in Gibraltar, to focus on cameras (Y2Q2).

1.3 Run timelapse camera over selected species and sites for at least 2 consecutive years.

- Comments: Due to various logistical constraints, not all cameras have been up yet, but we believe to remain on track to run the cameras on all territories for two consecutive years. Montserrat and Gibraltar are the two territories with no camera positioned yet and

we have visits scheduled for both in the Spring of 2023 (Y2Q1-2) to set them up and train the staff in continuing this effort.

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

- Comments: Due to various logistical constraints, we have yet to fly over all territories, however, all territories have historical data, and we are scheduling a visit to Montserrat to conduct an extensive drone survey of the selected sites (Y2Q1).

1.5 Historical records collected and processed.

- Comments: In 2022 and early 2023, we have focused on setting up our partnership and better understanding territories' needs. We aim to discuss the availability of historic records with all our partners in the next six months to better understand if the format is suitable to be included in the baseline analysis (Y2Q1-2).

1.8 Health index guidelines discussed at workshop 1.

- Comments: Delayed. The organisation of the first online workshop was delayed. Now that we and our partners have a better understanding of data types and needs, we aim to schedule a Y1-Y2 workshop with all our partners for the summer of 2023 (Y2Q2).

Output 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.

- Comments: We are still collecting and annotating data for the AI to learn. This deliverable is likely to come in year 3.

2.5 Sign a data agreement with partners.

- Comments: Delayed due to a change in leading institution. We are working on a draft agreement to be approved and signed by all territories, and Oxford Brookes University in Spring 2023 (Y2Q1).

Output 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.

- Comments: Delayed. Blackbawks Data have a prototype and are currently creating a survey and presentation to show partners and get feedback.

3.2 Write and publish an R package for data access.

- Comments: Delayed. This is nearly complete and will be presented to collaborators in Y2Q1.

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

- Comments: Delayed. This is in the prototype stage.

Output 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.

- Comments: Delayed. Developing the project has taken more time than originally planned considering the number of territories involved. We are however confident that it will not impact the success of the project in the long-term, though it may mean a greater

involvement of the research team in the lead institutions and the partners during Y2 (2 workshops in Q2 and Q4) to ensure appropriate capacity is built and the monitoring system is in place and successfully tested by end of the project (end of Y3).

4.2 Make training resources freely available on the project portal.

- Comments: Delayed. Each territory new to this type of monitoring method (i.e., Gibraltar, Montserrat, and Ascension) has received some key information over online meetings. However, more should be done in Y2 to ensure an appropriate level of capacity is built by the end of the project (end of Y3).

4.3 Designate secondment for the steering committee coordinator position.

- Comments: Delayed. While key staff involved in each territory has been informally identified, we have yet to formalise the roles and host the first steering committee meeting to introduce all the members and start cross-capacity building and resource development. We aim to formalise these roles while drafting the MoU and host the first meeting around the time of signatures (Y2Q1).

4.4 Collect updates, successes 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 learnt.

- Comments: Due to various constraints on the lead institution's schedule (including an unusually long Antarctica field season and a project lead institution change for Y2), we have faced delays in deploying the project's activities including the preparation of the end-of-year report. We have requested an extension for the Darwin Committee to submit the report and have contacted all our partners. We aim for the formal steering committee to lead this effort for Y2 and to collect the information in January-February 2024 to limit the added load on our partners.

4.5 Host regular steering committee meetings and publish progress reports.

- Comments: Once the first committee meeting is held, we will agree together on the frequency of the meeting with an original proposition of quarterly.

3.2 Progress towards project Outputs

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

To create a health index and consistently monitor marine populations' health, we are required to:

- Set up a monitoring network across the OTs involved – ongoing with some delays. Three of the six territories will have data for Y1 (i.e., 6 colonies in the Falklands, 10 in SGSSI, and 50 in BAT). Gibraltar (target at least 4 colonies), Ascension (target at least 6 colonies), and Montserrat (target at least 5 colonies) should be fully deployed by the end of Y2.
- Collect any historical records available through partners to produce a baseline for each territory (Y2Q1).
- Service the cameras (not before Y2) and fly drones (all territories have some drone surveying capacity but only three have been flown by the lead research team by the end of Y1) forming the Y1 dataset (Y1-Y2) for each territory.
- Process the data on Zooniverse Seabird Watch (yearly from Y2Q3-4).
- Upload onto the online reporting platform to test its capacity (including primary indicators) and train each territory to do so independently (Y3Q1).
- Publish a research brief (local and regional) with the partners to report on preliminary results (Y3Q1).

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

- This is delayed and it is unlikely we will be able to deliver until year 3.

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

- The development of the R package is nearly complete, and we are about to start the testing phase. Based on policymakers' feedback, we will complement the key indicators.
- Portal requirements definition? This is complete for the prototype, but we need to test it against partners' needs to ensure it delivers what they want.

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

- While this has been done individually with each partner territory, we have yet to introduce the different members of our steering committee to initiate the cross-UKOTs network. With the MoU and data agreement being prepared, we aim to set up the committee and hold a first introductory meeting by Y2Q2.
- We will take the opportunity of the first meeting of the steering committee to discuss training and resource needs and which territory can support others if the existing experience is identified to address needs. We will work together to assess the policy requirements for the reporting portal and any feedback or lessons learned from Y1 from the partners. This will also be the opportunity to establish the priorities of the committee for the project (e.g., draft a UKOTs seabird strategy).
- We have also faced delays in making sure that at least one field staff per territory is trained to fly drones and service cameras by Y1. After visiting a couple of territories, we think that each territory requires more than one trained staff to limit pressure on a single individual and account for the risk of turnover. We aim to identify and train as needed at least 2 individuals per territory by the end of Y2.

3.3 Progress towards the project Outcome

Outcome: Produce a field-to-policymaker evidence pipeline enabling UKOT governments and stakeholders to obtain near-real-time evidence (local and regional) on marine population trends and reduce monitoring costs.

- Progress: While there are some delays in formally setting up the steering committee and signing MoUs and data ownership agreements with the six territories. We believe that the advancement in setting up the monitoring network is reasonable, and the delays are partially due to the leading team getting to know the partners' needs and the variabilities in species and ecosystems on the use of the methods. In the long run of the project, this delay will allow us to have a stronger network which addresses the need of the territories rather than focusing on data collection. We have revised the outcome SMART indicators in the logframe to account for Darwin Committee reviewers' feedback and our increased understanding of the territories' context. We have also decided to focus part of our capacity-building effort on supporting the territories that are interested in applying for continuation funding to bring the lifespan of the project beyond the end of the Darwin Plus funding. After Y1, we feel this is a key addition in ensuring the outcome of the project is reached and maintained by the end of funding and beyond.

3.4 Monitoring of assumptions

Outcome assumptions

1. Industry stakeholders and local management agencies are amenable to incorporating the evidence produced into their conservation strategies and policy.

- Comments: Stakeholder involvement remains the main assumption for the success of the project. We are to improve capacity development within each territory. To ensure the monitoring network evidence does feed into strategies and policy, the network will need to continue well beyond the lifespan of this project funding, to collect sufficient data for a strong evidence base.

2. Additional evidence available sufficiently improved OTs' conservation management capacity to benefit marine predator populations.

- Comments: While this assumption remains true, the outcome of the project may need to focus, beyond the evidence, on our success in building capacity within each territory (via engagement, training, fundraising, and monitoring network in place) by the end of funding to continue the effort rather than the number of full-year datasets already collected. The project team feels that this would mean the project outcome is successful.

3. There is government support for enacting new conservation regulations.

- Comments: This remains crucial for project success though formal regulation changes may not occur by the end of funding, particularly as we focus our effort on increasing capacity development rather than data collection. But we would like to formalise government support by the end of funding.
- Ascension Island Government is using drone data collected and processed as part of this project for changes to Nature Reserve boundaries and the time-lapse camera monitoring methodologies have been adopted into the new Nature Reserve Management Plans.

Outputs assumptions

1. Sufficient data collected for the aggregated evidence to be representative of the key project species populations' health.

- Comments: Still hold true and partially critical for the success of the project on the policy front. However, as stated in the outcome assumptions, we would like to move away from data collection as an indicator of success and focus on capacity development which is the indicator that will highlight the project will last beyond the lifespan of this funding cycle.

2. Partners can provide access to historical records.

- Comments: Still hold true though not critical for the success of the project it would delay our capacity to take strong conclusions on specific populations' health until enough breeding seasons are collected.

3. Sufficient data was collected to train the computer vision tool for the project species.

- Comments: Still hold true, computer vision will take time and its training will go beyond the length of this project funding.

4. Continued support from local management agencies and industry stakeholders.

- Comments: This still holds true and is crucial for the long-term legacy of this project. Staff retention and partners' continued support are key for the set-up of the monitoring network to continue long enough to collect multiple years of data and thus produce an evidence health index.

5. No technical challenges delay the development of the database.

- Comments: Still hold true though not crucial, the database is based on an existing model, MAPPPD, which reduces the risk of new technical challenges delaying our output. We will work closely with the programmer and researcher linked with MAPPPD to limit this risk.

6. Partners and key stakeholders perceive the value of using the database and agree to support the development and testing of the platform.

- Comments: This still holds true and cannot be verified until the reporting platform is online. We aim to involve the key stakeholders throughout the development process to ensure that the tool produced best-fit needs and thus increase the chances of it being used on a regular basis to strengthen data feeding into policy.

7. Partners and users are aligned in terms of portal requirements.

- Comments: This still holds true. We will make sure to consult both the project partners as well as the end users (via interviews) throughout the development process to limit the risk of developing a tool that doesn't fit the needs of the key stakeholders.

8. Selection and retention of qualified volunteer coordinators among member organisations.

- Comments: This still holds true, particularly, as all partner staff appear to be working in just in time basis. We will explore the possibility to keep this role in-house or work in tandem with a limited term of service.

9. Practitioners see value in attending and are willing to connect with other UKOT practitioners and share experiences.

- Comments: This still holds true and the feedback from the first workshop will be key in understanding the best format for this cross-UKOT knowledge exchange network to serve its purpose.

10. UKOT governments are willing to start a discussion with the project steering committee (supported by successful project results) on UKOT-wide Marine Monitoring Strategy.

- Comments: Still hold true. We aim to reach out to Overseas Territories Conservation which has years of experience working across territories to jointly coordinate this effort.

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

Capacity development as well as this type of monitoring, requires multiple years of effort to support environmental shifts.

We note, however, that the project team is actively supporting its Montserrat partners in their participation in the 2023 Caribbean Seabird Survey in the whole capacity they see fit.

As soon as we have the prototype database and website, we will be surveying partners to check that this fits with their reporting and agreement priorities.

5. Gender equality and social inclusion

Please quantify the proportion of women on the Project Board[1].	60%
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[2].	50%

6. Monitoring and evaluation

Due to logistical delays in implementing fieldwork and formally forming the steering committee and hosting the first workshop, the M&E plan has been pushed to Y2. Following test runs, partners are ready to start fieldwork and collect data.

From Q1Y2, we aim to schedule a quarterly steering committee meeting to revise the project strategy as a group and monitor implementation as well as evaluate progress to the outcome. We also aim to host two large workshops in Y2 and one in Y3 which will include a section on Monitoring and evaluation. Our first task on the topic (Q1Y2) will be to agree on a theory of change for the project. The indicators of achievements have been revised as per reviewers'

[1] 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.

[2] 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.

comments and are laid out in the logframe SMART indicators together with the means of verifications for measurements.

The Y2 workshops agenda will include the following considerations:

- Memorandum of understanding and Data management agreements.
- Assess gaps and needs with territory partners including a review of conservation strategy and legislation linked to the target species.
- Agree on project theory of change and debrief M&E work and process.
- Define species health index guidelines and data repository/evidence visualisation platform requirements.

Discuss best-suited mechanisms for knowledge exchange between partners.

7. Lessons learnt

Delays in delivering Y1.

What worked well, and what didn't work well this past year?

The Antarctic season involving the Antarctic Peninsula, the Falklands and South Georgia and the South Sandwich Islands was a lengthy, tumultuous, field season this year due to weather conditions. While this has created delays in our capacity to deliver some of the equipment and activities to the other territories, we have collected a broad dataset on those three territories and reconnected with key partners on the Antarctic Peninsula and the Falklands thanks to a prolonged presence south. We aim to focus the next few months on the other three territories involved in this project and reduce the length of the Antarctic season next winter to deliver the needed activities in those new territories for us. We have reached out again to all three territories since the return of the PL to the UK and aim to visit all three as soon as possible while providing online support and training and sending equipment ahead of our visit whenever needed.

If you had to do it again, what would you do differently?

The project was slow to start last year as the funding was secured halfway through seabird breeding season in three of the territories (Ascension, Gibraltar, and Montserrat) and half a year away from the Antarctic season. If we had to do it again, we would probably work harder in providing online training and sending equipment without visits to deploy the monitoring equipment earlier (particularly considering delays related to the pandemic).

What recommendations would you make to others doing similar projects?

Consider purchasing and shipping equipment as early in the project lifespan as possible even if storage must be secured until deployment. Lead strategic planning meetings involving all the territories as early as possible to ensure the best use of the timeline.

How are you going to build this learning into the project and future plans?

We are going to spend the next quarter focusing on strategic planning, remote training, and equipment installation to attempt and catch up with some of the delays. By putting all the territories in contact, we also aim to create a support structure between territories and a longer-term seabird conservation strategy for UK overseas territories.

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

Application reviews

Reviewer's comment – The application states that 'all governments are formal partners and consider this project as their priority'. However, there are only two OT Governments included as partners, while you discuss six OTs. Please clarify.

- Response – As the award is moving institutions, we are working with Oxford Brookes University and our partners to set up formal MoUs. We have met regularly with representatives of each government (except BAT) virtually and whenever possible face to face (Falklands, GSGSSI, Gibraltar, and Montserrat in May 2023). We have been in regular contact with the Ascension Island Government representatives, however, it has not yet been possible to visit due to remaining flight restrictions during the military runaway refurbishments. Once the work has formally started on all territories, we plan to organise a biannual networking meeting for the point of contact on each territory to foster cross-training and knowledge exchange.

Reviewer's comment – In the logframe, some indicators could be improved: some read as activities; 2.2 is not measurable; and 0.3 is out with project control.

- Response – While no specific indicators were highlighted by the reviewer, we have attempted to address this issue and have proposed updated SMART indicators in the logframe in annexe (changes in ORANGE).
- We have reframed the SMART indicators 0.3 and 2.2 to take the reviewer's comments into consideration.
    - Before:
        - 0.3 By project end, 10% more key marine species habitat receives adequate legal protection (compared to Y1 baseline).
        - 2.2 Computer vision algorithm for Sooty terns 50% developed by Y3.
    - Updated:
        - 0.3 By project end, all 6 UKOT governments will have received evidence supporting further legal protection of species and/or habitat.
        - 2.2 By Y3, computer vision algorithm training dataset built for Sooty terns.

9. Risk Management

COVID-19 and the Ukraine war have created financial and logistical challenges with increases in equipment and flight cost, unreliable flight routes and general strain on OTs and Project team staff to keep up with Y1 when it is also the first year back to business as usual and we are all still playing catch-up. We have requested a financial change in December 2022 to account for some of the challenges, but time remains a struggle we need to address in Y2.

10. Other comments on progress not covered elsewhere

As mentioned earlier, to improve our exit strategy, we would like to focus part of our effort on the territories that wish so, to support them in identifying funding sources and writing proposals for the continued financial support of their team as part of this network. We have already identified a foundation interested in receiving a proposal from Montserrat.

The main difficulty encountered during this first year is time. Both the project leadership team and the partner teams are working on an in-time basis and with six territories involved and the travel time needed to visit some of those, it has proven difficult to launch all territories in the first year.

We are in the process of shipping all the cameras to OTs other than Montserrat, which we are hand-carrying in May 2023.

11. Sustainability and legacy

Exit Strategy from proposal: If successful, the project will see the development of a semi- to fully automated network to monitor seabirds and possibly other marine predators on the OTs.

The local teams will be trained and provided protocols (and online support) to implement and service the camera network and conduct drone surveys yearly. Meanwhile, the PL's citizen science and AI processing tool will be used to process the data collected and provide summaries at no cost to the OTs.

The research team and OTs are working on the assumption that the network and processing tools will be sustainable long-term if successfully implemented. The OTs will benefit from long-term evidence to manage the local marine environment and have a support network and evidence baseline in case of sudden change while the PL and the broader research community will benefit from the aggregated dataset to improve the understanding of broader changes in and the resilience of the UK marine ecosystem.

Comments: As part of our exit strategy, the PL team will focus efforts with willing territories to identify funding bodies and support the writing of proposals to secure continuation support whenever possible before the end of Darwin funding. We strongly feel that with the monitoring network and funding in place by the end of funding, the project continuation, and territories by-in more likely guaranteed.

12. Darwin Plus identity

This Darwin Plus project is part of a larger seabird monitoring programme based at Oxford Brookes University. Seabird Watch was initially set up in 2009 to monitor seabird populations in the Palearctic region, namely Svalbard, the UK, and the Republic of Ireland. With this Darwin Plus project, we are hoping to expand the data to the UK Overseas Territories for regional studies while increasing capacity in regions with some of the most important seabird populations of the UK.

We have been in direct contact with most of the key actors in each territory involved including but not limited to leading local non-profit and government representatives to ensure a good understanding of our goals with this Darwin Plus grant.

13. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?		Yes
Have any concerns been investigated in the past 12 months		No
Does your project have a Safeguarding focal point?	No	
Has the focal point attended any formal training in the last 12 months?	No	
What proportion (and number) of project staff have received formal training on Safeguarding?		Past: 50%. Both the PL and PC have received safeguarding training in the past. Planned: 0%
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses. No Note that the PL and PC have changed institutions which has a new Harassment and Bullying Policy (https://www.brookes.ac.uk/staff/working-at-brookes/employment-policies/equality-diversity-and-inclusion/harassment-and-bullying/?aa=aa&dm_i=BBQ,89ZHE,OYGYJ,Y0STN,1) and a new Safeguarding of Children and Adults at Risk Policy (https://www.brookes.ac.uk/about-brookes/structure-and-governance/policies-and-financial-statements/safeguarding-of-children-and-adults-at-risk/) which the project will comply with.		
Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify. No		

14. Project expenditure

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	[redacted]			
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others (Please specify)				
TOTAL	**169692**	**183130.84**		

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.	[redacted]	
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).

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
				Yes / No
				Yes / No
				Yes / No
				Yes / No
				Yes / No

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

Project summary	SMART Indicators	Progress and Achievements April 2021 - March 2022	Actions required/planned for next period
Impact *A cost-effective approach to building UKOTs capacity and support network to enhance marine species conservation*		While it is early in the project implementation to address this, we are excited to be able to assist two territories with special request which should have a positive impact on biodiversity and territory's conservation capacity: • Montserrat – Ms Ajhermae S. White has been accepted for a fully funded MSc degree at the University of Exeter for 2023-24. While she will be based on Jersey Island, we will harness this opportunity to provide further training and incorporate her MSc project to this DPLUS project. • Ascension – We are working to provide written evidence to support the government in their protected area extension proposal.	
Outcome Produce a field-to-policymaker evidence pipeline enabling UKOT governments and stakeholders to obtain near-real time evidence (local and regional) on marine population trends and reduce monitoring cost.	0.1 By project end, all 6 UKOTs involved have revised their marine conservation strategy to reflect the findings of the project (measured through a decision-makers survey). 0.2 By project end, at least 66% of involved OTs have publicly committed to maintaining the camera network. 0.3 By project end, all 6 UKOT governments will have received	0.1 We aim to reach out to the UKOT Conservation Forum and work with all 6 territory partners throughout Y2 to discuss the possibility to produce a UKOT Seabird Conservation Strategy which other territories will be able to also adopt if wished. 0.2 We are working with all territories to either deploy the camera network and train local staff appropriately to take over (new partner territories) or to train	0.1 Set up a project steering committee to focus on broader strategy and knowledge exchange. 0.2 Camera deployment and training (remote and face to face). 0.3 This indicator was highlighted as out of our control by reviewers. We have proposed what we believe to be a more acceptable alternative.

Project summary	SMART Indicators	Progress and Achievements April 2021 - March 2022	Actions required/planned for next period
	evidence supporting further legal protection of species and/or habitat.	local staff to take over the network ownership and maintenance (for the existing network). 0.3 We are currently working with Ascension to produce the evidence needed to submit a protected area extension proposal by end of Q1Y2.	
Output 1. Marine species health index guidelines were established to support the development of partners' conservation priorities and UKOTs' conservation policy.	1.1 From Y1, 3 to 5 colonies per UKOT are monitored yearly and population health is determined. 1.2 By Y3, population trends are available for 2 to 5 species per territory. 1.3 Participating UKOT governments and conservation organisations partners involved perceive value in species health index.	1.1 We are currently monitoring 50 colonies on the Antarctic Peninsula, 6 in the Falklands and 10 in South Georgia and the South Sandwich Islands. This network has been in place for the longest and we are focusing our effort on passing its ownership to local governments whenever possible. We are a partner on a DPLUS project starting in Spring 2023 and focused on the seldom monitored Zavodovski Island, South Sandwich Islands. For the new territories, 2 cameras are currently in place in Ascension, and we are working to ship more (10-12 cameras). We have identified the sites for Gibraltar (8-10 cameras) and are working on permits for the tripod placements and shipping the cameras. We are set to visit Montserrat in early May 2023 to position the cameras (10-12 cameras) and conduct the first drone survey. 1.2 and 1.3 Too early to report on progress.	
Activity 1.1 Sign a memorandum of understanding with all the OTs involved.		Delayed but in progress, draft memorandum of understanding is being drafted by the Project Coordinator and a new institution, Oxford Brookes University.	Aiming for the MoU to be signed by the end of the first quarter of Y2.
Activity 1.2, Train field staff to maintain the camera network and fly drones safely and legally.		In progress. Some support is provided online and whenever possible in visits (Ascension and Montserrat will be visited in Y2).	We are looking into the possibility to organise an online workshop with all our partners to provide as much training as possible remotely until our next physical visit.
Activity 1.3, Run a time-lapse camera over selected species and sites for at least 2 consecutive years.		In progress, only partially completed. Some territories have yet to have the cameras placed.	Aiming to have all the cameras in place for Y2 and Y3.

Project summary	SMART Indicators	Progress and Achievements April 2021 - March 2022	Actions required/planned for next period
Activity 1.4, Conduct a drone survey over each species' colonies for at least 2 consecutive years.		Drone surveys lead by either the local team or the PL should be available for all territories on Y1. Drone surveys conducted by the PL will be available for all territories on Y2.	Visit Montserrat and Ascension in Y2 to conduct drone surveys. We will suggest to all interested partners to take the A2 COFC course (shorturl.at/grtRU) asap (covered by the project budget).
Activity 1.5, Historical records collected and processed.		Not started.	It is one of our priorities for Q1 and 2 (Y2) to understand the historical datasets available for each territory partner.
Activity 1.6, Project data processed via citizen science platforms (i.e., Penguin Watch, Seal Watch, Seabird Watch).		Not started.	All cameras are to be placed and the first dataset uploaded to the Zooniverse platform by the end of Y2.
Activity 1.7, Raw and processed data (including distribution maps) uploaded on the data portal and existing repositories.		Not started.	Data portal being developed in collaboration with partners and in consultation with key policymakers.
Activity 1.8, Health index guidelines discussed at workshop 1 and revised at workshop 2 following local partner feedback.		Not started.	Aiming to host the first workshop before the end of Q2Y2.
Activity 1.9, Peer-reviewed publications submitted for review (minimum of three publications during the lifespan of the project).		Not started.	The dataset is not available yet.
Activity 1.10, Research brief sent to key stakeholders for each significant project finding.		In progress. The first brief is to be produced at the request of Ascension for a drone dataset to inform a protected area extension proposal.	Beyond specific requests like with the Ascension government, this activity requires a more complete dataset.
Activity 1.11, Conduct comprehensive reviews of OT conservation strategy and legislation.		Not started.	To be conducted together with historical data collection with a discussion on this at the first workshop.
Activity 1.12, Conduct interviews with partner organisations.		In progress.	We are working on the interview guide with the aim to conduct the interviews in Q1Y2. The aim is to better understand the policymakers'

Project summary	SMART Indicators	Progress and Achievements April 2021 - March 2022	Actions required/planned for next period
			needs to strengthen decisions related to seabird population health.
Output 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 By Y2, the computer vision algorithm is 98% accurate for shags, cormorants, and boobies using the existing Seabird Watch algorithm. 2.2 By Y3, computer vision algorithm training dataset built for Sooty terns.	(Report against the indicators on progress towards achieving the Output) 2.1 and 2.2 Too early to report on progress.	
Activity 2.1. Finalise the coding and testing of the AI recognition algorithm on Seabird Watch's existing data for shags, cormorants, and boobies.		Not started.	We need more annotated images in Year 2 to be able to demonstrate a working AI detector.
Activity 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.		Not started.	As above, we don't have enough data for this year.
Activity 2.3. Challenging project data processed using the algorithm to refine its training.		Not started.	As above, we don't have enough data for this year.
Activity 2.4. Produce progress reports to the steering committee.		Not started.	The formal launch of the steering committee in Q1.
Activity 2.5. Sign a data agreement with partners.		In progress (part of the memorandum of understanding).	Working with the institution to draft the MoU and consult each of the partners on conditions before signature.
Output 3. Online open-access web portal to fill critical knowledge gaps in UKOT and improve policymakers' access to marine health research evidence.	3.1 Within 6 months of the project's start, an R package for data access will be available. 3.2 In Y1, the requirements are defined and in Y2, the portal is portal designed. 3.3 By the end of the project, the database is complete (i.e., web application accessible and data migrated to online location) and a	3.1 Framework for the R package in place. Finalised once the requirements and data structure are formally agreed upon with partners. 3.2a. Not started, this will be formally discussed with the partners at the first steering committee workshop to be held before the end of Q2Y2. 3.2b. and 3.3 Too early to report on progress.	

Project summary	SMART Indicators	Progress and Achievements April 2021 - March 2022	Actions required/planned for next period
	minimum of 6000 images per site per species uploaded.		
Activity 3.1. Discuss UKOT gaps and evidence needed to agree on portal requirements.		In progress. Information on species gaps and needs has been partially collected as part of consultation during the DPLUS application process.	Refinement and further discussions of needs for the decision-making process are to be discussed at the steering committee's first workshop before the end of Q2Y2.
Activity 3.2. Write and publish an R package for data access.		In progress.	The results of activity 3.1 will be used to achieve activity 3.2.
Activity 3.3. Design a front-end and application mapping tools back-end for data entry tools (i.e., portal).		Not started.	Y2 and Y3 activity.
Activity 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).		Not started.	Y3 activity.
Activity 3.5. Conduct user and prospective user surveys.		Not started.	Y3 activity.
Output 4. Establish a cross-UKOTs network aimed at facilitating knowledge exchange, cross-training and lowering barriers to marine predator conservation	4.1 Network established on Y1 with at least one member from each OT Government and one field staff representing each of the territory. 4.2 From Y1, a yearly workshop to establish priorities and initiate capacity building (field training) was conducted with partners and key stakeholders. 4.3 By the end of the project, marine monitoring included in the updated UKOT Conservation Strategy. 4.4 By Y1, at least one field staff per territory is trained to fly drones and service cameras. 4.5 On Y3, UKOTs-wide Marine Monitoring Strategy drafted by the project steering committee to start a	4.1 While have identified our main point of contact for each of the territories and have been in regular contacts, we have yet to launch the steering committee. 4.2 Due to Y1 delays, this has yet to be achieved, we aim to host two themed workshops in Y2 to compensate the delay. 4.4 At least one person has been identified as already trained or in need of training for each territory. We are working with our contacts to ensure the training goes ahead accordingly. 4.3 and 4.5 Too early to report on progress.	

Project summary	SMART Indicators	Progress and Achievements April 2021 - March 2022	Actions required/planned for next period
	new discussion with all UKOT government about the pertinence of marine monitoring for conservation policy (supported by project outcomes).		
Activity 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 define the mechanism for knowledge exchange between participating partners.		Not started.	Formally launch the steering committee with the primary contact for each territory. Host Workshop 1 in Q1-2 of Y2 and Workshop 2 in Q3-4 of Y2. Workshop 3 as planned in Y3.
Activity 4.2. Make training resources freely available on the project portal.		Not started though training resources have been shared with territories as needed.	Launch a steering committee WhatsApp group for communications and a Google Drive for shared materials in Q1Y2.
Activity 4.3. Designate secondment for the steering committee coordinator position.		Completed. Whenever possible, a secondment has been identified.	-
Activity 4.4 Collect updates, successes 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.		In progress.	A Y1 debrief will be held online in Q1Y2.
Activity 4.5. Host regular steering committee meetings and publish progress reports.		Not started.	Formally launch the steering committee and host online catch-up quarterly.
Activity 4.6. Draft UKOT marine monitoring strategy by the steering committee.		Not started.	Y2-3 activity.

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
Impact: A cost-effective approach to building UKOTs capacity and support network to enhance marine species conservation.			
Outcome Produce a field-to-policymaker evidence pipeline enabling UKOT governments and stakeholders to obtain near-real time evidence (local and regional) on marine population trends and reduce monitoring cost.	0.1 By project end, all 6 UKOTs involved have revised their marine conservation strategy to reflect the findings of the project (measured through a decision-makers survey). 0.2 By project end, at least 66% of involved OTs have publicly committed to maintaining the camera network. 0.3 By project end, all 6 UKOT governments will have received evidence supporting further legal protection of species and/or habitat.	0.1 Comprehensive review of the latest version of the Marine Conservation Strategy of each participating OT. 0.2 Interview of partners and Overseas Territories government (baseline at the beginning of the project and again by project end). 0.3 Written evidence documents submitted to the territories supporting further legal protection of species and/or habitat where the project data identified need.	Industry stakeholders and local management agencies amenable to incorporating the evidence into their conservation strategies and policy. Additional evidence available sufficiently improved OTs conservation management capacity to benefit marine predator populations. There is government support for enacting new conservation regulations.
Output 1 Marine species health index guidelines established to support the development of partners conservation priorities and UKOTs conservation policy.	1.1 From Y1, 3 to 5 colonies per UKOT are monitored yearly and population health determined. 1.2 By Y3, population trends available for 2 to 5 species per territory. 1.3 Participating UKOT governments and conservation organisations partners involved perceive value in species health index.	1.1 a) Baseline (historical data) and monitoring data collected (i.e., colony distribution maps create, counts and raw) processed and data freely available on project evidence portal and known repositories like MAPPPD, UK Polar Data Centre, Montserrat Data Centre, and IMS-GIS Data Centre. 1.1 b) Health index reports made extrapolated (using project data and historical records) and promoted on project portal, partners, and relevant agencies websites. 1.2 a) Peer reviewed publications (minimum 2) and health index reports made available and promoted on data portal, partners, and relevant agencies websites.	Sufficient data collected for the aggregated evidence to be representative of the key project species populations health. Partners able to provide access to historical records.

Project summary	SMART Indicators	Means of verification	Important Assumptions
		1.2 b) Research briefs summarising the updated evidence send to the relevant UKOT Governments staff. 1.3 a) Guidelines on how to draw marine species health index from counts, population trends and colony distribution developed during Y1 workshop and reviewed after first use during Y2 workshop. 1.3 b) Attendance record of steering committee members throughout the project timeline and feedback survey by end of Y3.	
Output 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 By Y2, the computer vision algorithm is 98% accurate for shags, cormorants, and boobies using the existing Seabird Watch algorithm. 2.2 By Y3, computer vision algorithm training dataset is built for Sooty terns.	2.1 AI data processing tool made available to OT Governments and practitioners to speed up use of evidence from the field and challenging data processed through this tool. 2.2 Progress report to the steering committee and training dataset available online.	Sufficient data collected to train the computer vision tool for the project species.
Output 3 Online open access web portal to fill critical knowledge gaps in UKOT and improve policymakers access to marine health research evidence.	3.1 Within 6 months of project start, an R package for data access will be available. 3.2 In Y1, the requirements are defined and in Y2, the portal is portal designed. 3.3 By end of project, database complete (i.e., web application accessible and data migrated to online location) and a minimum of 6000 images per site per species uploaded.	3.1 Open access publication of R package in The Comprehensive R Archive Network (CRAN). 3.2 a) Steering committee and Y1 workshop reports. 3.2 b) Link to functional open access web portal promoted to relevant stakeholders on partner websites. 3.3 a) Portal visitation statistics and number of downloads of research briefs.	Continued support from local management agencies and industry stakeholders. No technical challenges delay the development of the database. Partners and key stakeholders perceive the value of using the database and agree to support the development and testing of the platform. Partners and users are aligned in term of portal requirements.

Project summary	SMART Indicators	Means of verification	Important Assumptions
		3.3 b) Data collected during the lifespan of the project uploaded on the portal.	
Output 4 Establish a cross-UKOTs network aimed at facilitating knowledge exchange, cross-training and lowering barriers to marine predator conservation.	4.1 Network established on Y1 with at least one member from each OT Government and one field staff representing each of the territory. 4.2 From Y1, a yearly workshop to establish priorities and initiate capacity building (field training) conducted with partners and key stakeholders. 4.3 By project end, marine monitoring included in updated UKOT Conservation Strategy. 4.4 By Y1, at least one field staff per territory is trained to fly drones and service cameras. 4.5 On Y3, UKOTs-wide Marine Monitoring Strategy drafted by project steering committee to start a new discussion with all UKOT government about the pertinence of marine monitoring for conservation policy (supported by project outcomes).	4.1 Network terms of references and strategy, including list of members and coordinator position filled (local partner secondment). 4.2 Workshop materials including summary report and training resources. 4.3 Updated strategy made available on the website of each partner and promoted on the data portal. 4.4 End of Y1 workshop report. 4.5 Draft strategy sent to key stakeholders at each UKOT government.	Selection and retention of qualified volunteer coordinator among member organisations. Practitioners see value in attending and willing to connect and share experience. UKOT governments are willing to start a discussion with project steering committee (supported by successful project results) on UKOT-wide Marine Monitoring Strategy.
Activities 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 timelapse camera over selected species and sites for at least 2 consecutive years. 1.4 Conduct a drone survey over each species colonies for at least 2 consecutive years. 1.5 Historical records collected and processed. 1.6 Project data processed via citizen science platforms (i.e., Penguin Watch, Seal Watch, Seabird Watch). 1.7 Raw and processed data (including distribution maps) uploaded on data portal and existing repositories. 1.8 and revised at workshop 2 following local partner feedback. 1.9 Peer reviewed publications submitted for review (minimum of three publications during the lifespan of the project). 1.10 Research brief sent to key stakeholders for each significant project findings.			

Project summary	SMART Indicators	Means of verification	Important Assumptions
1.11 Conduct comprehensive reviews of OT conservation strategy and legislations. 1.12 Conduct interviews with partner organisations. 2.1 Finalise the coding and testing of the AI recognition algorithm on Seabird Watch existing data for shags, cormorants, and boobies. 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. 2.3 Challenging project data processed using the algorithm to refine its training. 2.4 Produce progress reports to steering committee. 2.5 Sign a data agreement with partners. 3.1 Discuss UKOT gaps and evidence needs to agree on portal requirements. 3.2 Write and publish a R package for data access. 3.3 Design a front-end and application mapping tools back-end for data entry tools (i.e., portal). 3.4 Publish and promote online database for UKOT marine monitoring data to key stakeholders (i.e., governments, conservation NGOs, researchers, and relevant fishing and tourism industry stakeholders). 3.5 Conduct user and prospective user survey. 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. 4.2 Make training resources freely available on project portal. 4.3 Designate secondment for steering committee coordinator position. 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 lesson learned. 4.5 Host regular steering committee meetings and publish progress reports. 4.6 Draft UKOT marine monitoring strategy by steering committee.			

Annex 3: Standard Indicators

Table 1 Project Standard Indicators

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 stakeholders from local governments and non-profits who attended training on the seabird monitoring method.	People	Male Female Academic Government Non-profit Drone training Data analysis	 1 1 1 			 1 1 1 	
DPLUS-A03	Number of local/national organisations with improved capability and capacity as a result of project.	Number of local organisations with improved capacity as a result of the project.	Organisation	Government Non-profit	5 4			5 4	5 4
DPLUS-04	Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training.	Number of collaborators reporting new capabilities (skills) 6 months after training.	People	Male Female Academic Government Non-profit Drone survey Data analysis	 1 1 1 			 1 1 1 	
DPLUS-05	Number of trainers trained reporting to have delivered further training by the end of the project.	Number of trainers trained reporting to have delivered further training by end of project.	People	Male Female Academic Government Non-profit	 1 1 			 1 1 	

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
				Drone survey Data analysis	1			1	
DPLUS-B01	Number of new/improved habitat management plans available and endorsed.	Number of new/improved habitat management plans available and endorsed.	Number	Protected Area C ommittee	1				
DPLUS-B02	Number of new/improved species management plans available and endorsed.	Number of new/improved species management plans available and endorsed.	Number	Fisheries Review	1				
DPLUS-B11	Area identified as important for biodiversity.	Area identified as important for biodiversity.	Area (km^2)	Protected area					
DPLUS-B12	Number of policies developed or formally contributed to by projects and being implemented by appropriate authorities.	Number of policies developed or formally contributed to by projects and being implemented by appropriate authorities.	Number	Type of policies					
DPLUS-C02	Number of new conservation or species stock assessments published.	Number of species populations assessment published.	Number	Taxa Assessment method					
DPLUS-C03	New assessments of habitat conservation action needs published.	Marine conservation action needs published.	Number	Assessment method					
DPLUS-C05	Number of projects contributing data, insights, and case studies to national Multilateral Environmental Agreements (MEAs) related reporting processes and calls for evidence.	Number of datasets contributing to calls for evidence.	Number	Dataset Calls for evidence		2 2			
DPLUS-C06	Number of downloads of new peer reviewed publications.	Number of downloads of new peer-reviewed publications.	Number	Downloads per year					
DPLUS-C07	Number of projects contributing evidence to biodiversity conservation or associated community benefits to	Number of datasets contributing evidence to biodiversity conservation or associated community benefits to	Number	Sub-national National		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
	policy/regulation/standards consultations.	policy/regulation/standards consultations.		International					
DPLUS-C11	Average monthly number of Website Visitors.	Average monthly number of Data Portal Visitors.	Number	Average monthly visit Average time on page					
DPLUS-C14	Number of decision-makers attending briefing events.	Number of decision-makers attending strategy meetings.	Number	Government Non-profit					24
DPLUS-C16	Number of records added to accessible databases.	Number of datasets added to accessible databases.	Number	Database					
DPLUS-C17	Number of unique papers submitted to peer reviewed journals.	Number of unique papers submitted to peer reviewed journals.	Number	Papers					
DPLUS-C18	Number of unique papers published to peer reviewed journals.	Number of unique papers published to peer reviewed journals.	Number	Journal					
DPLUS-C19	Number of other publications produced.	Number of other publications produced.	Number	Research brief Download					
DPLUS-D04	Stabilised/ improved species population (relative abundance/distribution) within the project area.	Stabilised/ improved species population (relative abundance/distribution) within the project areas.	% increase	Taxa					
DPLUS-D18	Drivers of biodiversity loss assessed to have been reduced or removed.	Drivers of biodiversity loss assessed to have been reduced or removed.	Number of assessments	Drivers					

Table 2 Publications

Title	Type	Detail	Gender of Lead Author	Nationality of Lead Author	Publishers	Available from
The Risk of Avian Influenza in the Southern Ocean: A practical guide.	Preprint	Meagan Dewar, Michelle Wille, Amandine Gamble, Ralph Vanstreels, Thierry Boulinier, Adrian Smith, Arvind Varsani, Norman Ratcliffe, Jennifer Black, Amanda Lynnes, 2022	Female	Australian	Ecoevorxiv	https://doi.org/10.32942/osf.io/8jrbu

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