



Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus

Half Year Report

It is expected that this report will be a **maximum of 2-3 pages** in length.

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: 31st October 2025

Please note all projects that were active before 1st October 2025 are required to complete a Half Year Report.

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

Project reference	DPLUS214
Project title	South Atlantic Elephant Seal Population Assessment (SAESPA)
Country(ies)/territory(ies)	South Georgia and the British Antarctic Territories
Lead Organisation	British Antarctic Survey
Partner(s)	Government of South Georgia and the South Sandwich Islands University of St Andrews University of Exeter
Project Leader	Dr Connor Bamford – BAS
Report date and number (e.g. HYR1)	HYR2 October 2025
Project website/blog/social media	@elephantsealsurvey - Instagram

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

Although we are not looking for specific reporting against your indicators, please use this opportunity to consider the appropriateness of your monitoring, evaluation and learning (MEL) 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.

Output 1: Development of an automated approach to scan acquired VHR satellite imagery.

- 1.1: Identification and review of the most appropriate automation methods leading to selection of a single method to implement [COMPLETED].
- 1.2: Review existing DPLUS109 satellite imagery and create a training dataset for machine learning methods [COMPLETED, with planned supplementation from October 2025 tasked imagery].
- 1.3: Supplement training dataset from imagery acquired over the 2024 breeding season (if required) [Completed, *ibid*].
- 1.4: Train and refine final automation algorithm [Underway and on schedule for delivery].

In regard to Output 1, we are on track to deliver this by the end of the project. We are currently testing the ML approach for identifying seals in satellite imagery ahead of providing the total counts for the modelled population extrapolation.

Output 2: Production of a UAV-based ground truthing survey to validate the acquired VHR population estimates.

- 2.1: Identify survey locations for UAV flights [COMPLETED].
- 2.2: Finalise fieldwork plans for Austral summer 2024 [COMPLETED].
- 2.3: UAS ground validation and peak of breeding survey design [COMPLETED].
- 2.4: Fieldwork – UAV ground validation and peak of breeding survey [COMPLETED].
- 2.5: Produce orthorectified image mosaics and analyse UAV imagery from field surveys [COMPLETED].
- 2.6: Incorporate metrics from UAV surveys into population assessment 3.6 [UNDERWAY and on schedule for planned delivery].

All UAV related data have been processed, and we are well on our way to their incorporation within the wider population census. UAV data have been finalised and are now hosted with the Polar Data Centre:

doi:10.5285/e238f84e-63b2-4019-8308-7398a8ea204f; doi:10.5285/85de16ff-a3b2-42b4-a898-aea94ee47b83; doi:10.5285/47d0718d-7146-44d3-965c-60e62a48b8cc. Current work includes the use of UAV imagery, paired with concurrent satellite imagery to test the degree of typical underestimation in the satellite counts for the final census. All work pertaining to Output 2 is on schedule.

Output 3: An island-wide population censuses of SES using VHR satellite imagery for each sub-Antarctic archipelagos: (i) South Georgia; (ii) the South Orkney Islands; and (iii) the South Shetland Islands.

- 3.1: Identify AOIs for satellite imagery tasking [COMPLETED].
- 3.2: Arrange image tasking (including tendering, if needed) with satellite imagery supplier [COMPLETED for 2024, planned re-tasking for October 2025].
- 3.3: Acquire satellite images from supplier [COMPLETED for 2024, planned re-tasking for October 2025].
- 3.4: Apply automation developed in 1.4 to all acquired imagery [UNDERWAY and on schedule].
- 3.5: Extract island-wide counts, adjust for temporal displacements from SES breeding peak and for ground validation metrics [TO BE COMPLETED, temporal adjustment curve data collection COMPLETED].
- 3.6: Calculate final census estimates for each sub-Antarctic Island [TO BE COMPLETED].
- 3.7: Production of peer-reviewed publication detailing the updated population censuses of each of the three sub-Antarctic islands examined [TO BE COMPLETED].
- 3.8: Adaptation of publications into a more accessible and inclusive format (e.g., Frontiers for Young Minds article) [TO BE COMPLETED].

Work towards Output 3 is on schedule and progressing well. Most recently this has been assisted by the acceptance of a change request to shift funding forwards, ensuring time to fully develop the ML methods. A second season of imagery has been tasked for October 2025 to supplement the data held from 2024, with the aim of assisting with the generation and training of the ML method. Initial difficulty with the transference of the ML method from South Georgia,

where seals are predominately on snow/ice-free beaches, to the South Shetland Islands, where seals are on snow/ice covered beaches is being investigated. Following the previous HYR and AR, where we set out an additional avenue of enquiry into the impact of highly pathogenic avian influenza on southern elephant seals at South Georgia, we are pleased to say that this work has been accepted in Communications Biology and is due to be published on the 11/11/2025, shortly after the submission of this report.

Output 4: M&E, Provision of training and the dissemination of project findings and results

- 4.1: M&E: Conduct regular assessments throughout the lifetime of the project: weekly & monthly meetings [ONGOING – meeting minutes recorded for meetings].
- 4.2: M&E: Conduct bi-annual project meeting with all project partners and stakeholders [ONGOING – annual meeting scheduled for November 2025].
- 4.3: Prepare and submit findings report and deliver summary training workshop to GSGSSI and invited internal/external parties [TBC closer to the terminus of the project].
- 4.4: Deposit satellite census data and ground-truthed UAV imagery into a publicly available repository [COMPLETED].
- 4.5: Report detailing the updated population assessments provided to SCAR CAPS Action Group [TBC closer to the terminus of the project].
- 4.6: Non-technical communication of research findings to the public via social media. Ongoing through the lifetime of the project [ONGOING]
- 4.7: Communication of results at international conference [PLANNED, currently awaiting the opening of the conference abstract submission portal].
- 4.8: Provide UAV training to one person based at King Edward Point, South Georgia to enhance capacity on OT [COMPLETED].

In regard to Output 4, ongoing M&E has been undertaken regularly throughout the project and has continued in a similar ‘group-specific’ style highlighted in the previous reports with minutes kept for record. An all-project meeting is scheduled for mid-November (unfortunately scheduling over the summer months and into the autumn has been difficult due to staff absences and non-project commitments of PPs). All data to date has been deposited with the Polar Data Centre and highlighted in relevant publications. With the approval of the most recent change request, we are still on track to deliver the outputs of this project at an international conference in 2026.

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.

The primary development of note has been an impact to the development of the Machine Learning method and delivery of associated outputs. This stemmed from the availability of satellite training data. Briefly, in 2024, the project did not receive the full set of high-resolution satellite imagery originally ordered. Instead, we received a mix of higher (30cm) and lower (50cm) resolution data, which has subsequently slowed the development of our machine-learning analyses due to reduced training data of each type. This impact was not immediately apparent, as development of the machine-learning approach is iterative, and the influence of the lower image resolution and subsequent reduced volume of resolution-specific training data, has only recently become apparent. Consequently, there have been knock-on effects on the production of publication of related Outputs. Mitigative measures and accommodations have been compiled together and a change request proposed to NIRAS, which was accepted, and project staff can now continue progressing towards the original deliverables on a slightly extended timeline.

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:	Yes
Received confirmation of change acceptance:	Yes/ No
Change Request reference if known: <i>If you submitted a financial Change Request, you can find the reference in the email from NIRAS confirming the outcome</i>	

Guidance for Section 4: The information you provide in this section will be used by Defra to review the financial status of projects. This review will identify projects at random for spot checks on financial management and will include requests for evidence of the actual spend information provided below. Please ensure the figures you provide are as accurate as possible and that you have the evidence to support it. You do not need to provide it now.

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2025 – 30 September 2025)

Actual spend:

[REDACTED]

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 2026)?

Yes No Estimated underspend: [REDACTED]

4c. If you expect an underspend, then you should 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, and not later than 31st December. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to make appropriate changes to your project 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 BCFs management, monitoring, or financial procedures?

Suspicions or allegations related to fraud and error concerns should be reported to fraudanderror@Defra.gov.uk

None.

6. Project risk management

6a. If your project has an Overseas Security and Justice assessment, please provide an update on any related risks, and any special conditions in your award paperwork if relevant for your project.

n/a

6b. Have any concerns or allegations relating to sexual exploitation, abuse or harassment been reported in the past 6 months?

Yes No

If yes, please provide further information, ensuring no sensitive data is included within responses.

Suspicions or allegations related to safeguarding concerns should be reported to ODA.Safeguarding@defra.gov.uk

7. Please use this section to respond to any feedback provided when your project was confirmed, or from your most recent Annual Report. As a reminder, all projects that were scored as 'Not Yet Sensitive' in the Gender Equality and Social Inclusion (GESI) assessment of their latest Annual Report should demonstrate how they are meeting the minimum GESI-Sensitive standard.

The following specific points were raised during the latest annual report and are addressed here:

- (i) The impact of the rejection of the change request returned in March 2025 has not been reflected in the Risk Register. This has now been reflected in the Risk Register: "However, following the refusal of the change request to move staff salaries and RPAS servicing costs into the next FY internal has led to changes in the presentation of the ML method on which MG was working - the loss of their staff time will have altered the scope of the presentation of the ML method. However, the core deliverables for this were prioritised and on track for delivery. The RPAS servicing has not been carried out. It is unclear whether this will impact the longevity of the RPAS, however, all components were functioning correctly at the end of DPLUS214's 2024 field season. The non-availability of additional salaries and T&S funds limited the saleability of a second, follow-up in situ field season. Consequently, a satellite-based approach will be taken and is on track to do so."
- (ii) The incomplete sentence from the M&E section was included in error; there was no missing information in the annual report.
- (iii) [REDACTED]

Checklist for submission

Have you responded to feedback from your latest Annual Report Review ? You should respond in section 6, and annex other requested materials as appropriate.	
Have you reported against the most up to date information for your project ?	
Have you clearly highlighted any confidential information within the report that you do not wish to be shared on our website?	
Include your project reference in the subject line of submission email.	
Submit to BCF-Reports@niras.com	
Please ensure claim forms and other communications for your project are not included with this report.	