



**BIODIVERSITY
CHALLENGE FUNDS**



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 2024

Please note all projects that were active before 1 October 2024 are required to complete a Half Year Report.

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

Project reference	DPLUS185
Project title	Safeguarding Antarctic krill stocks for baleen whales
Country(ies)/territory(ies)	British Antarctic Territory
Lead Organisation	University of Southampton
Partner(s)	British Antarctic Survey, Scottish Association for Marine Sciences, Non-partner collaborator: University of California Santa Cruz
Project leader	Ryan Reisinger
Report date and number (e.g. HYR1)	HYR2 30 October 2024
Project website/blog/social media	https://www.bas.ac.uk/project/safeguarding-antarctic-krill-stocks-for-baleen-whales/

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 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.

Project team

Outputs 1, 3, 4, and 5

The project's second postdoctoral researcher—Julie Mestre—has been hired and has been in-post at University of Southampton (1.0 FTE) since September 2024.

Output 2

Project postdoctoral researcher Tracey Dornan has been in-post at British Antarctic Survey (0.5 FTE) since the start of the project.

Output 1 – whales

As detailed in the Year 1 Annual Report, it was not possible to tag any fin whales in Year 1 of the project. Our preparations for the second field season (March 2025) are well underway, including more robust plans for tagging fin whales. Using existing tracking data for humpback and minke whales, we have started to produce monthly predictions of their presence in the British Antarctic Territory (BAT) (Output 1.1) (Burleigh 2024, Mestre in progress). In early 2025, we (Southampton) will host an MSc student from Sorbonne University - Maelis Girard - who will further develop the dynamic predictions (Output 1.1). In the 2023 field season, we conducted marine mammal surveys concurrently with the krill surveys to integrate information on whale occurrence and krill. BAS/Southampton PhD student Natalie Nickells is assisting with this, and external advice has been sought from Natalie Kelly, Australian Antarctic Division, an expert in statistical analysis of cetacean survey observations. Nickells will spend two weeks with the Australian Antarctic Division in November. We will again conduct marine mammal observation surveys simultaneously with the krill surveys during the 2024 field season.

A Southampton PhD student – Amy Feakes – used the 2024 field season as an opportunity to deploy passive acoustic recorders (hydrophones) to record whale calls at Elephant Island for one week. These data, currently being analysed will augment the tracking and visual observation data, since they provide continuous information on the occurrence of whales at Elephant Island. Feakes will again deploy the passive acoustic recorders during our 2025 field season

Output 2 - Krill

During the first field season (March 2024), krill surveys were conducted using a ship-mounted echosounder and the standardised CCAMLR methodology, (Output 2.1) the preparation of which has been the main focus of Dornan's work over the past year. Since this field season, Dornan has been analysing the resulting data (Output 2.1) and preparing for the second field season in March 2025. The data from these surveys will be used for Activity 2.3 (produce spatially explicit krill abundance estimates from these survey data and submit estimates to the CCAMLR Acoustic Survey and Assessment Methods Working Group). Dornan presented this work at the CCAMLR WG-ASAM 2024 meeting in Cambridge, 20-24 May 2024.

As detailed in the Year 1 Annual Report, several technical issues prevented us from collecting krill survey data using the ImpYak semi-autonomous platform. The Scottish Association for Marine Science (SAMS) team have been working to resolve these issues, including field trials, and the ImpYak has been shipped to the Falklands for next field season, when we hope to successfully conduct krill surveys with it.

Output 3 – 3D predator-consumer interactions

Activities (3.1 and 3.2) towards this output have now started, with the start of postdoc Mestre, and with Dornan having started analysis of the krill survey data.

Output 4 – Integrated krill-consumer fisheries interactions

We have obtained earlier krill fishery data and will in the coming year update this collation. Through Hutchinson's dissertation we have started preliminary analyses of overlap between whales and fisheries (e.g., maps of overlap, Output 4.2)—we now need to add the krill distribution data. Project postdoc Mestre has commenced analysing existing humpback whale and minke whale tracking data in greater detail. We have started collating AIS data from fishing vessels, sourced through an earlier collaboration where WWF purchased AIS data, and

sourced from Global Fishing Watch. Visiting Masters student Girard will further analyse these data in addition to the work being done by Mestre (Outputs 4.1 and 4.2).

Output 5 – Forecasting

Once we have collected and analysed data for outputs 1-4, we will commence working on Output 5. We are currently identifying collaboration partners to provide the Regional Oceanographic Model (ROMs) forecasts to enable this ecological forecasting.

Communication

Reisinger and Friedlaender co-authored a WWF policy brief for circulation at the 2024 CCAMLR Meeting (CCAMLR-43), 14-25 October 2024, Hobart, Australia: “Antarctic Peninsula MPA Concerns for baleen whales in the new Domain 1 proposal - A brief for CCAMLR policymakers”.

Dornan presented a working paper “Krill for whales – Fine scale acoustic krill surveys in Area 48.1” to the CCAMLR WG-ASAM 2024, held in Cambridge May 20-24, 2024.

Reisinger was interviewed for a popular piece on Antarctic krill for Swoop Antarctica: <https://www.swoop-antarctica.com/blog/is-commercial-krill-fishing-a-danger-to-antarcticas-whales/>

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.

- Quixote Expeditions, who provided the vessel charter Hans Hansson in our first field season, have significantly increased their charter quote based on costs during the first field season. We have investigated alternatives, but because of our good working relationship with Hans Hansson and its crew, and the time we have already invested in the logistical planning (including that we have developed our ship-mounted echosounder setup to work with Hans Hansson), we have decided still to use Quixote as a charter provider. We will be submitting a change request to shift budget from our line for whale tags to our line for ship time.
- The length of time taken to appoint the postdoc Julie Mestre (longer than anticipated due to being a non-UK national) has slightly delayed work on outputs 1, 3 and 4, but we are still confident to achieve our objectives within the project timeframe.

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

Discussed with NIRAS:	No
Formal Change Request submitted:	No (to be submitted)
Received confirmation of change acceptance:	NA

Change Request reference if known: *If you submitted a financial Change Request, you can find the reference in the email from NIRAS confirming the outcome*

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2024 – 30 September 2024)

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 2025)?

Yes ☐ No ☒

4c. If you expect and 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. 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 BCF management, monitoring, or financial procedures?

None.

6. Please use this section to respond to any feedback provided when your project was confirmed, or from your most recent annual report. If your project was subject to an Overseas Security and Justice Assistance assessment please use this space to comment on any changes to international human rights risks, and to address any additional mitigations outlined in your offer letters. Please provide the comment and then your response. If you have already provided a response, please confirm when.

Thank you for the constructive review of our Annual Report. BCF's position was that "the overall review is positive, with no major queries from the reviewer". Both reviewer comments were flagged for the next Annual Report. However, we wish to state now that 1) we will provide minutes/meeting notes with the next Annual Report as request, and 2) both University of Southampton and the British Antarctic Survey have rigorous risk assessments and standard operating procedures to keep crew and project personnel mentally/emotionally and physically safe.

Checklist for submission

For New Projects (i.e. starting after 1st April 2024)

Have you responded to any additional feedback (other than caveats) received in the letter you received to say your application was successful which requested response at HYR (including safeguarding points)? You should respond in section 6, annexes other requested materials as appropriate.	NA
If not already submitted, have you attached your risk register ?	NA

For Existing Projects (i.e. started before 1st April 2024)

Have you responded to feedback from your latest Annual Report Review ? You should respond in section 6, annexes other requested materials as appropriate.	Yes
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For All Projects

Include your project reference in the subject line of submission email.	Yes
Submit to BCFs-Report@niras.com .	Yes
Have you clearly highlighted any confidential information within the report that you do not wish to be shared on our website?	Yes
Have you reported against the most up to date information for your project ?	Yes
Please ensure claim forms and other communications for your project are not included with this report.	Yes