

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

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

Submission Deadline: 31st October 2023

Project reference	DPLUS127
Project title	Improving reef resilience through sustainable fishery management on Diego Garcia
Country(ies)/territory(ies)	British Indian Ocean Territory (BIOT)
Lead partner	Zoological Society of London
Partner(s)	Bangor University and University of Guam
Project leader	Dr David Curnick
Report date and number (e.g. HYR1)	HYR3
Project website/blog/social media	N/A

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

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

Most of this reporting period was spent processing and analysing data from our 2022 expedition and preparing for our second research expedition. As noted in our annual report, we had hoped to run this expedition in Y3Q1, however, the cancellation of the crucial military flights in April and May meant that our expedition had to be postponed. As such, we pivoted to October and November in 2023. At the time of writing the social science team led by Dr Claire Collins is on Diego Garcia and the diving team led by Dr David Curnick will be flying out to Diego Garcia on the 11th of November to complete the final round of fieldwork for this project.

Otherwise, key activities over this period were

1.8 Analysis of stereo-DOV imagery for all sites.

During our first expedition in November 2022, we conducted diver-operated stereo-video surveys (DOVS) at 27 sites around Diego Garcia to characterize reef fish community health and diversity. DOVS data were then fully annotated, analysed and published through two MSc theses, one from the Royal Veterinary College (April 2023) and another University College London (September 2023). Both students received a distinction for their work and the analyses used to inform plans and priorities for our second research expedition in November 2023. A third MSc student has been recruited to start in January 2024 to aid in the processing and analysis of the stereo-DOV data that will be collected on the November 2023 expedition.

1.9 Analysis of benthic photo transects for all sites.

During our first expedition in November 2022, we conducted benthic transects at 27 sites around Diego Garcia to characterize benthic habitat health and complexity. We have now processed and

analysed all of the benthic photo transects from the November 2022 expedition and quantitative data extracted ready for analysis alongside the fish community data. A similar workflow and pipeline will be applied to the data collected on November 2023 expedition, led by Bangor University and supported by Tritonia Scientific Ltd (who have been providing our Dive Officer support on Diego Garcia).

1.10 Preparation and submission of two scientific papers to peer-reviewed journals.

Given the shortened period of time between the end of fieldwork and the project's end, we held an internal team meeting in September 2022 to plan out paper outlines, assign paper leads and identify target journals. In doing so, we hope to have streamlined the writing up phase that is now truncated due to the multiple fieldwork delays that we have experienced.

2.3 Train MWR/marina staff to collect and store samples and morphometric data from landed focal species.

In November 2022, we trained nine Diego Garcia residents to assist in identifying species, successively dissecting gonads, and taking voucher specimens to record reproductive information across time. Unfortunately, due to a combination of staff turnover, bad weather (less fishing activity) and reduced engagement, we did not immediately collect as much data as hoped. However, in April 2023, members of the team travelled to DG in a joint effort with a Darwin Plus Local grant and collected data from an additional 120 fish landed to the marina. Along with gonads, fish weight and fork length, these data will now be analysed to understand growth rate, spawning season and size at maturity for target species. These activities have also been key in adding understanding of which species are frequently caught and their appearance for DG fisheries. A training day was also organised with MWR staff with the aims of improving species-specific data collection for boat-based fisheries and training staff to continue biological sampling over the following 5 months. As a result, MWR staff will continue to collect ~25 gonads per month which will allow for an understanding of year-round species-specific spawning patterns in DG.

4.1 Baseline ecological awareness and understanding survey carried out on the first expedition.

Surveys were completed with 113 fishers at various events in April 2023 including a fish bingo night which was attended by >60 Filipino fishers. These surveys were self-completed by fishers on iPads in Tagalog and English. Subjects covered included:

- How much fishing and of what type (e.g. shore, ship or boat) individuals typically do
- Awareness and understanding of BIOTA rules (e.g. size restrictions, species-specific rules)
- Compliance and perceptions of management (e.g. how often rules are followed and why)

4.2 Deliver project presentations on DG to base personnel in accessible venues across the DG society on each expedition (i.e. in the cinema, church and contractor community centre).

A 'Fish Bingo' event was run in Y3Q1 which involved distribution of flyers designed to explain more about the project and basic species identification cards. In addition, A3 laminated posters have been put up at the marina to a) explain activities and purpose of the wider project and, b) biological sampling activities.

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

As usual, travel to Diego Garcia has not been straightforward. We had hoped to conduct our second reef survey earlier than November, but bad weather and limited accommodation on Diego Garcia meant we had to push our trip back a bit further. This will mean we have less time to analyse, process and write-up the data collected in November, although team members have managed to shift around work commitments to apportion a greater amount of time to this project in early 2024 to achieve our goals.

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

Received confirmation of change acceptance No

Change request reference if known:

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

Actual spend: ██████████

A slight underspend against projected as some of the large costs (i.e., flights) were pushed slightly and into Q3.

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

Yes No Estimated underspend: £

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

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

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

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

Whilst further delays to the expeditions have been unfortunate, we are confident that we will still deliver on the aims and objectives of the project.

We do not currently envisage any significant underspend this financial year, although this is entirely dependent on field expenditure which, whilst we have budgeted accordingly and based on previous experiences, can fluctuate.

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

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

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

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