

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

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

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

<b>Project reference</b>	<a href="#">DPLUS162</a>
<b>Project title</b>	Characterising the biodiversity of selected offshore seamounts to improve management
<b>Country(ies)/territory(ies)</b>	Cayman Islands
<b>Lead partner</b>	Central Caribbean Marine Institute
<b>Partner(s)</b>	Cayman Islands Department of Environment, Guy Harvey Ocean Foundation, Smithsonian Tropical Research Institute
<b>Project leader</b>	<i>Dr. Gretchen Goodbody-Gringley</i>
<b>Report date and number (e.g. HYR1)</b>	<i>Oct. 31, 2023 HYR2</i>
<b>Project website/blog/social media</b>	<a href="https://reefresearch.org/what-we-do/research/resilience/#1694527144024-72d9e99a-3de7">https://reefresearch.org/what-we-do/research/resilience/#1694527144024-72d9e99a-3de7</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.

Over the previous reporting period we have completed a significant portion of our proposed deliverables. These efforts focused primarily on 12-Mile Bank seamount, for which the completed suite of sample collection has been completed. This included two separate missions to the seamount to complete the proposed fish surveys, capture benthic imagery, collect samples for eDNA, and complete filming for a series of short videos. In addition, we leveraged matching funds to also collect samples for genetic connectivity assessments and generate a bathymetric map of the seamount. Specific outputs to which activities contributed to over the last reporting period are outlined below.

- 1.1: Completed 27 fish surveys at 12-Mile Bank (twice the number proposed)
- 1.2: Completed 7 benthic photomosaics from 12-Mile Bank (20% above proposed)
- 1.3: Fish data analysed for 12-Mile Bank (Fig. 1)
- 1.4: Water and sediment samples collected from 12-Mile Bank and currently being analysed by collaborators at STRI
- 1.6: Light and temperature data collected during expeditions to 12-Mile Bank
- 1.7: Data collected in Year 1 from mesophotic reefs in Grand Cayman was presented at the Benthic Ecology Meeting in Miami (April 2023)
- 2.1: Interactive video with scientists filmed while diving on 12-Mile Bank

**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.**

Our liveaboard mission to Pickle Bank was disrupted due to weather. While making an initial push to get to the seamount, it was determined by the captain that weather was too rough to make the transit. We decided to pivot the mission, given the boat was already booked and in route, to focus on 12-Mile bank, which the weather was conducive towards. This enabled us to collect more comprehensive data from this seamount, including generating a bathymetric map of the seafloor (Fig. 2), as well as collect coral samples for regional genetic connectivity analysis. This is the second setback related to weather, which has resulted in reduced funds available to make another attempt in Year 3 to reach the further seamount, however, we feel confident that we can still achieve this deliverable. More importantly, we are very pleased with the detailed and holistic data set that we have been able to obtain from 12-Mile bank. We will focus in the next reporting period on disseminating the results and films produced (Output 2), creating educational content (Output 2), and planning for a final expedition to Pickle Bank (Output 1). Activities related to Output 3 will occur in the second half of Year 3 as outlined in the proposal 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:	No
Formal Change Request submitted:	No
Received confirmation of change acceptance	NA

Change request reference if known: we requested a budget reallocation for Year 2 based on expenditure in Year 1, however, no request for changes in project deliverables has been or is required.

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

Actual spend: ██████████

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

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?**

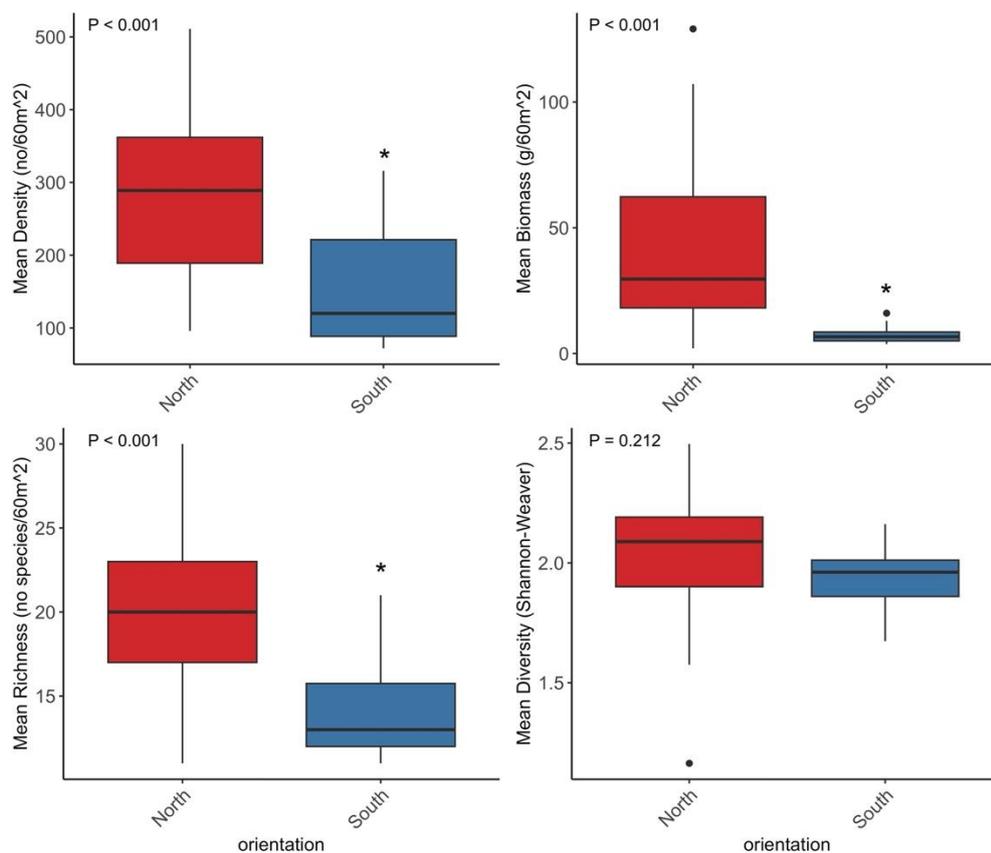
No. We feel the management, monitoring and procedures are clearly outlined, reminders are timely and helpful, and BCF is responsive and helpful.

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

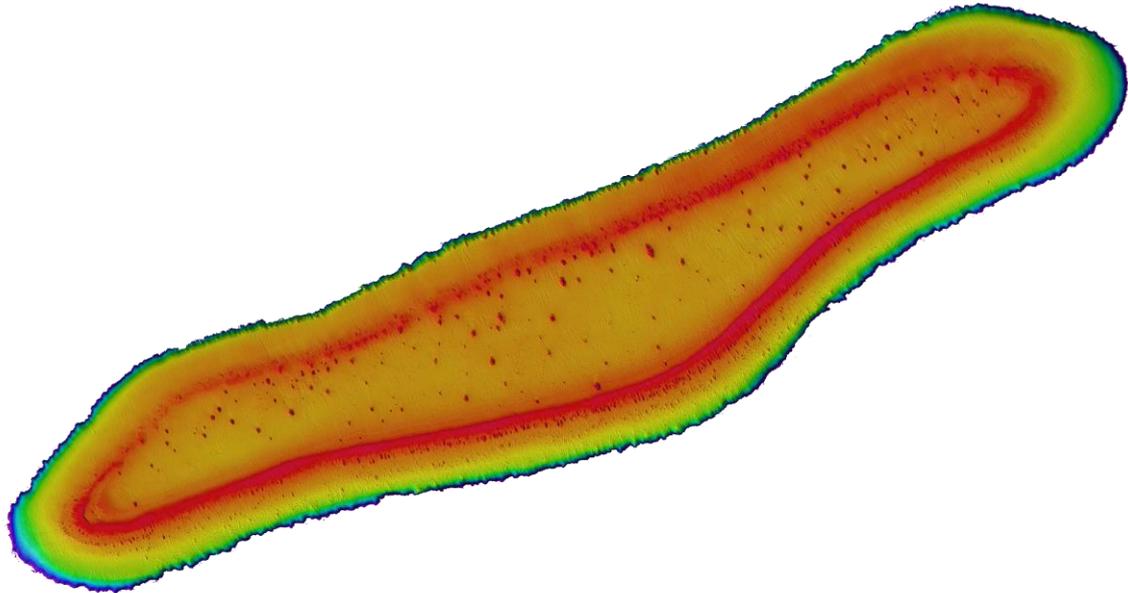
**All new projects (excluding Darwin Plus Fellowships and IWT Challenge Fund Evidence projects) should submit their Risk Register with this report if they have not already done so.**

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

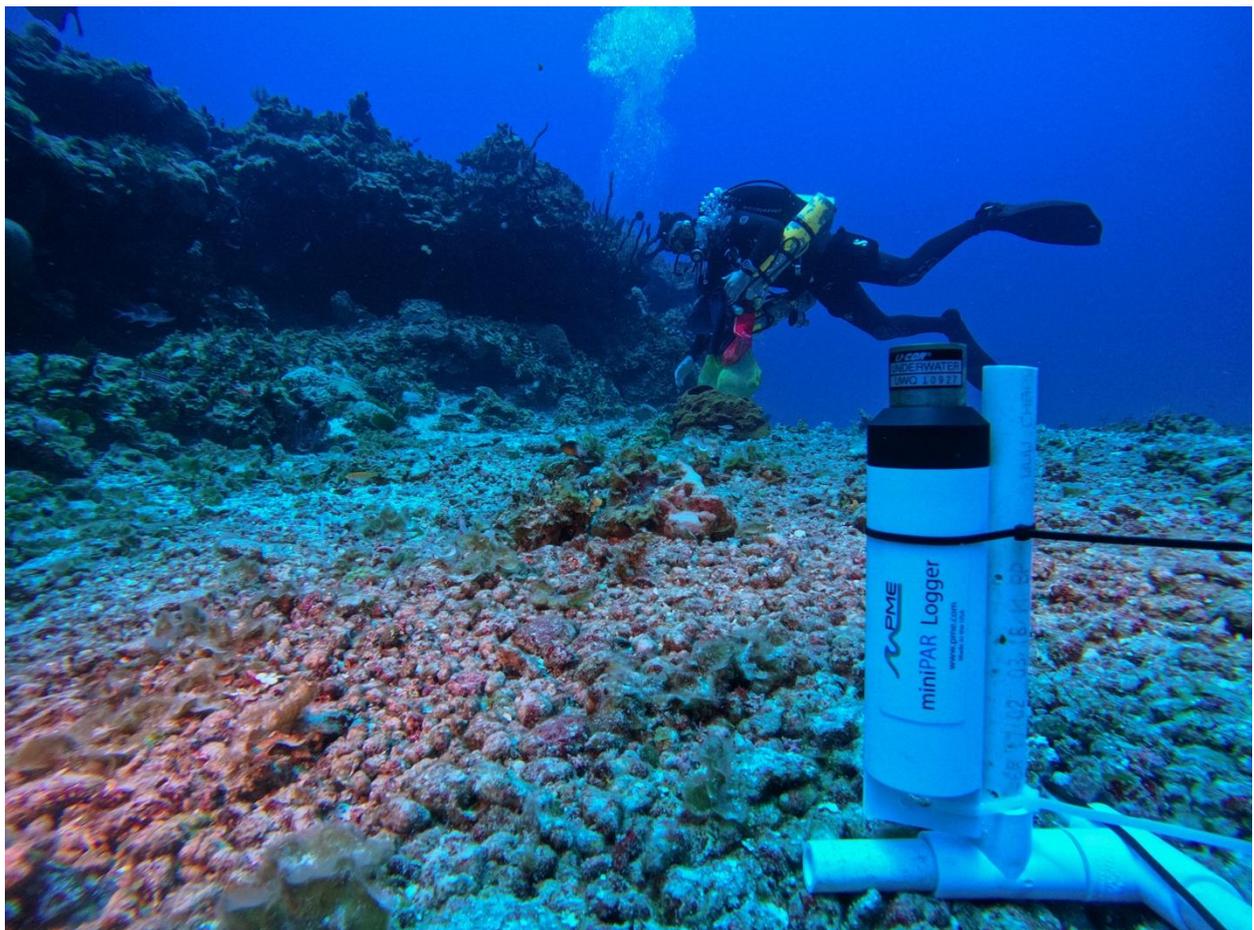
Please send your **completed report by email** to [BCF-Reports@niras.com](mailto:BCF-Reports@niras.com). The report should be between 2-3 pages maximum. **Please state your project reference number, followed by the specific fund in the header of your email message e.g. Subject: 29-001 Darwin Initiative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



**Fig. 1.** Fish density (number of fish per transect), biomass (grams per transect), richness (number of species), and diversity (Shannon-weaver index) at sites surveyed on the northern and southern end of 12-Mile Bank seamount.



**Fig. 2.** Bathymetric map of 12-Mile Bank seamount where colours correspond to depth; warmer hues (reds) representing shallower depths and cooler hues (blues) representing deeper depths. Map produced using side-scan sonar in collaboration with A. Trembanis from Univ. of Delaware.



**Fig. 3.** Image of research technician collecting samples with a PAR logger in the foreground at 12-Mile Bank.