

## Darwin Plus: Overseas Territories Environment and Climate Fund Annual Report

To be completed with reference to the "Project Reporting Information Note"  
(<https://dplus.darwininitiative.org.uk/resources/information-notes/>).

It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

**Submission Deadline: 30<sup>th</sup> April 2022**

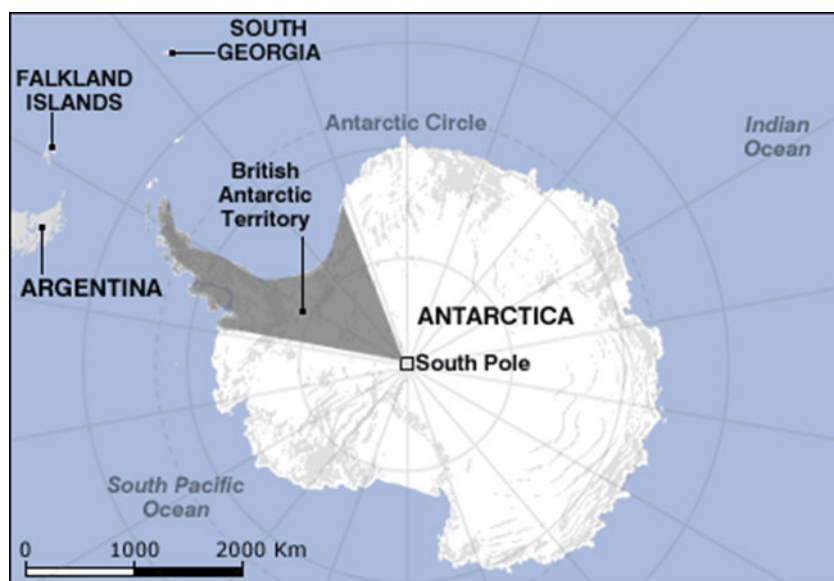
### Darwin Plus Project Information

Project reference	DPLUS146
Project title	Red Listing can protect OT marine biodiversity
Territory(ies)	British Antarctic Territory, Falkland Islands, South Georgia and the South Sandwich Islands
Lead partner	Queen's University Belfast
Project partner(s)	British Antarctic Survey (BAS), South Atlantic Environmental Research Institute (SAERI), IUCN Global Species Programme Marine Biodiversity Unit, Government of South Georgia and the South Sandwich Islands, IUCN SSC Mollusc Specialist Group, IUCN Red List Unit
Darwin Plus grant value	£ 83,172.00
Start/end dates of project	20/09/2021 – 30/09/2022
Reporting period (e.g. Apr 2021-Mar 2022) and number (e.g. Annual Report 1, 2)	September 2021 – March 2022 Annual Report 1
Project Leader name	Julia Sigwart
Project website/blog/social media	
Report author(s) and date	Aoife Molloy Julia Sigwart 17/05/2022

## 1. Project summary

Antarctic and adjacent faunas are extremely vulnerable to global warming. Marine molluscs represent a diverse group with high commercial and ecological significance, under-represented in conservation planning. We are incorporating climate stressors to the International Union for the Conservation of Nature (IUCN) global Red List assessments. Using marine molluscs as a case study, we are developing new Red List assessments for a set of species from three UK Overseas Territories (OTs) (Falkland Islands, South Georgia and the South Sandwich Islands (SGSSI), and the British Antarctic Territory). This will provide a substantial test case to develop new assessment protocols and methods that can be applied to any marine species, in other UKOTs and worldwide, improving global communication about the threats to marine species. It will also provide a robust proxy measure of the success of existing conservation measures by comparing species with and without existing conservation protection (e.g. those in the SGSSI marine protected area). The numbers of species at different risk levels (Least Concern, Near Threatened, Vulnerable, Endangered, or Critically Endangered) will directly inform policy for conservation in the UKOTs. We also planned a Red List assessor training workshop for stakeholders involved in the project, giving them the tools to carry out Red List assessments in the future.

A robust baseline assessment of marine biodiversity using internationally recognised criteria quantifies the extinction risk and vulnerability to climate change, measures the effectiveness of UKOT conservation measures in the Antarctic and Subantarctic region and empowers local OT stakeholders to ensure sustainable development, resilience to and mitigation of climate change impact, and ultimately reduce biodiversity loss. The training we provided to an expanded group of volunteer stakeholders from global UKOTs will allow many other areas to add local species to the global Red List. To be used as a conservation tool, Red List assessments must encompass a variety of species, not only the few familiar iconic species.



**Figure 1.** Map of Antarctica including target UK OTs: Falkland Islands, South Georgia and the South Sandwich Islands, and the British Antarctic Territory.

## 2. Project stakeholders/partners

BAS have research stations in the Falklands, SGSSI and the British Antarctic Territory. They provided us with a list of species occurring in our target UKOTs, the threats they face, and they also helped plan and host our training workshop. They are ensuring our assessments are biologically accurate by reviewing each one, and are currently aiding us with creating climate

models to incorporate into our assessments. These achievements were met through regular communication over email and Zoom.

SAERI also provided us with a list of species from the Falklands and informed us on conservation measures in the region. They also chose some species from the region which they wanted us to assess for the Red List.

The Red List Unit, Global Species Programme Marine Biodiversity Unit, and IUCN Mollusc Species Specialist Group (SSG) have been providing logistical support. The Mollusc SSG are providing technical support for the project, for discussion around prioritising species for assessment, applying assessment criteria, and peer-review of assessments to ensure they meet the standards for publication on the IUCN Global Red List. They also contributed to the training at the workshop.

The Red List Unit supports the IUCN Global Red List; in this project, they are providing technical support to ensure the taxonomy database is updated with the species of interest, and will facilitate the final review and ultimate publication of submitted assessments. They also provided the training at the workshop.

### 3. Project progress

#### 3.1 Progress in carrying out project Activities

*Output 1. A species list indicating conservation assessment priorities, and map of current marine mollusc species distributions for the region (Falkland Islands, SGSSI, British Antarctic Territory).*

Experts from the British Antarctic Survey assembled a definitive list of regional molluscan species and their ranges within and across the three target territories, resulting in a list of ~600 marine mollusc species (**Figure 3.**, Annex 3). Based on available data, conservation threats, and input from stakeholders, a list of priority species was created to start assessing (**Figure 4.**, Annex 3). This list comprised of ~60 species from across the OTs. These activities were done within the time and manner planned, at the beginning of this project in September/October 2021.

*Output 2. A tested, streamlined method for Red List assessments integrating climate threats that can be applied to all UKOTs.*

A table was created of traits that were considered important in relation to climate change stressors (**Table 1.**, Annex 3). These are considered in each assessment to determine how vulnerable each species is to climate change.

These traits were applied to the priority species. Any species that lacked data for certain traits were compared to other species within the genus, or experts from BAS were consulted for advice. The traits are now being applied to the rest of the ongoing assessments, with a clear assessment roadmap outlined – assessing species according to their occurrence in the target OTs i.e. SGSSI species have been assessed, now we are assessing those found in the Falklands. In line with the project timetable, these assessments are still ongoing.

*Output 3. Training provided for regional and other UKOT stakeholders to use Red List assessments to guide conservation action.*

The planning of this workshop began at the beginning of the project, and stakeholders were asked to confirm their availability. As this workshop was to be provided by Red List trainers, their availability was the utmost importance. Due to differences in availability of various partners, the workshop was carried out in April 2022 instead of the proposed time in August

2022. This workshop was hosted by BAS, both online and in-person, over four days, with participants from SAERI, Ascension Island, BAS, and various other countries and organisations (**Figure 2.**, Annex 3).

### 3.2 Progress towards project Outputs

*Output 1. A species list indicating conservation assessment priorities, and map of current marine mollusc species distributions for the region (Falkland Islands, SGSSI, British Antarctic Territory).*

- 1.1. Use published accounts, and specimen records to assemble a definitive list of regional molluscan species and their ranges within and across the three target territories:

A list of ~600 species from each target OT was created by our colleagues from BAS. SAERI also provided a list of species within the Falklands. This occurred at the beginning of the project. These species were verified using the World Register of Marine Species, and uploaded to the IUCN Red List Species Information System (SIS). The global range of each species was noted.

- 1.2. Determine priority species for Red List Assessments based on relevance, conservation threats, and confidence in available data:

A list of ~60 priority species was created between September and November 2021. Priority species were selected based on available data, relevance within target OTs and known threats. All stakeholders had an input into selecting priority species. Working sets of the priority species were created in November 2021 on SIS to begin assessments.

*Output 2. A tested, streamlined method for Red List assessments integrating climate threats that can be applied to all UKOTs.*

- 2.1. Draft a traits matrix based on the main environmental threats to the project priority species:

A table of traits based on climate stressors was created between October to November 2021 to apply to each species (**Table 1.**, Annex 3). These traits consider a species' adaptability to climate change and were compiled from published accounts and stakeholders within BAS and the IUCN.

- 2.2. Test assessment of priority species, to form a specialised assessment protocol or assessment road map:

Applied traits matrix to ~10 test species, and traits were refined interactively and with consultation from our BAS and IUCN colleagues. Lessons learned from applying the traits matrix to these initial species, such as where to find data and comparing species within a genus when data is lacking, was applied to form an assessment roadmap. This was creating a table of the ~60 priority species and compiling data, then inputting the data to SIS, with the aim of submitting these assessments by the end of the project.

- 2.3. Expand assessment to remaining priority species, based on new assessment road map, refining the protocol as needed:

After the initial 10 species were assessed from December 2021 to January 2022, we began assessing the rest of the priority species. To date, 26 assessments have been completed on SIS.

*Output 3. Training provided for regional and other UKOT stakeholders to use Red List assessments to guide conservation action.*

3.1. Organise Red List training workshop at project end:

In October 2021, the availability of stakeholders to participate in a Red List assessor training workshop was collected. This workshop was to be provided by trainers from the IUCN Red List. The availability of trainers within the Red List Unit was limited to April 2022, therefore the workshop had to be moved from the project end (August/September 2022) to April 2022. There was great interest in the workshop from stakeholders in the Falklands and BAS.

3.2. Deliver Red List training workshop incorporating the new road map to include marine climate threats as well as standard Red List training elements:

The workshop was delivered as a hybrid event over four days in April 2022, hosted at BAS in Cambridge, UK. Participants from the Falklands, Ascension Island, BAS, and those with a background in marine invertebrates were among the participants. Participants gained knowledge of Red List guidelines, the categories and criteria, and how to apply assessments to their study species.

3.3. Follow up and reporting from workshop and all achievements of the project:

Many participants sent follow up emails asking for help in beginning their own assessments, and were linked to our partners within the IUCN Mollusc Specialist Group and the Red List Unit to expand assessments. A follow up Zoom with stakeholders in the Falklands was also carried out to discuss expanding Red List assessments in the region. As this project is not yet finished, the achievements of the project have not been reported on.

### **3.3 Progress towards the project Outcome**

*Outcome: Red List assessments provide robust measure of the extinction risk to local species, and local stakeholders will have an easy to follow framework to implement further assessments of marine species.*

To date, 26 species assessments have been created on SIS, with ~60 priority species to be submitted by the end of the project. Publishing assessments will increase representation of Antarctic and Sub-Antarctic marine invertebrates on the Red List. The publishing of assessments on the Red List is an adequate measurable indicator as it increases the number of marine invertebrates assessed for the Red List.

These assessments all explicitly include climate threats in their assessments, for the first time in marine invertebrates. These threats are included on SIS and will be visible on the published assessments.

Members of SAERI from the Falkland Islands have expressed interest in expanding Red List assessments in the region, with members of BAS expanding assessments in SGSSI and the British Antarctic Territory, after being trained in Red List assessing in the workshop. As all outcomes are being reached so far within this project, it is believed that the overall outcome will be achieved by the end of funding.

### **3.4 Monitoring of assumptions**

Assumption 1: We had assumed that there would be a consensus within the team on prioritised species following established recommendations.

Comments: This held true and everyone within the team agreed on a list of priority species.

Assumption 2: Another assumption was that there is sufficient scientific data to establish confident assessment of traits, in a way that is comparable across species.

Comments: This also held true, as our priority species were selected based on data availability, therefore there was enough data to establish confident assessment of traits.

Assumption 3: We also assumed that the interest expressed within our team for the workshop (representing the target OT areas) will be mirrored by colleagues in other OT regions.

Comments: This was true as a participant from Ascension Island joined the workshop.

Assumption 4: For the workshop, we assumed we would have access to sufficient human capacity to participate in training actions.

Comments: This was true as we had two Red List trainers, and 16 participants from OTs and around the world.

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

Perhaps the most important support offered by this project is to empower local stakeholders in the OT areas to use the tools of the IUCN Red List in conjunction with climate change vulnerability analyses to assess and protect local marine biodiversity. Inclusion on the Red List provides a robust baseline conservation value. Red List assessments allow governments to make informed decisions about the impacts of policy decisions on biodiversity, through the impact on the Red List status of one or many species.

Our assessments will also show effective MPAs are within the target UKOTs at protecting these species against climate change, such as the SGSSI MPA and the Antarctic Treaty Zone. This can also be used to compare species that occur outside protected areas, such as areas in the Falklands.

Threats included in the assessments to quantify regional vulnerability of species directly contribute to regional priorities for sustainable development.

This project has trained stakeholders in UKOTs to apply Red List assessments to their regional species. This will directly influence regional biodiversity and climate change management plans.

#### **5. OPTIONAL: Consideration of gender equality issues**

The project stakeholders include strong participation of female scientists. The international training workshop that we organised within the project included 8 female and 7 male participants.

#### **6. Monitoring and evaluation**

The lead partner, Queen's University Belfast (QUB), is a large research university and has extensive procedures in place to monitor financial effectiveness and compliance. The project expenses were monitored and recorded, with updates from the Queen's finance department regularly.

We have recorded our project progress in a previous report that has been sent to Darwin Plus. Weekly meetings are undertaken between the project lead (Sigwart) and project assistant (Molloy) to plan project work, troubleshoot, and ensure timetable is being adhered to. All partners are updated through email or Zoom on project progress against the indicators. The main data management tool is the IUCN Species Information System, which is accessible to Sigwart, Molloy, IUCN partners, and any other partners who completed the Assessor training during the course of this project.

Activities and outputs, such as completing Red List assessments and hosting a training workshop, directly contribute to the project outcome. As stakeholders have received training in Red List assessing, they will be able to undertake their own assessments. Once our assessments from this project are published, it will allow stakeholders to follow our process, refine it in their own ways, apply the assessments to conservation measures and expand assessments in each region.

The indicators of achievements are the lists compiled of the species, the traits matrix table, and the completed workshop. The continuing of assessments is measured through SIS and by our partners within the Red List Unit who review each assessment.

Species lists and the traits matrix were monitored and evaluated by BAS, SAERI, IUCN partners and the lead organisation, QUB. The workshop was monitored and evaluated by QUB and IUCN partners, hosted by BAS. Therefore, M&E work is shared among partners. Information is shared through google drive, email, and over Zoom/MS teams.

## **7. Lessons learnt**

Keeping stakeholders updated and communicating regularly with them worked well in progressing with the project and receiving information. Meeting with the project leader weekly was also useful to implement weekly tasks to ensure outcomes were being met. Recommendations to others doing similar projects would be to communicate regularly, especially over Zoom as it is easier to discuss various aspects of the project.

As the publishing of assessments may occur beyond the end of this project, for future it will be important to maintain contact with partners in the IUCN so that assessments are reviewed and submitted for publishing.

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

N/A

## **9. Other comments on progress not covered elsewhere**

Climate models are being created by our colleagues in BAS to aid in the assessments. These models will show how predicted ocean warming in Antarctica and Sub-Antarctica will change the range of Southern Ocean species. We are hoping these can be used along with the traits matrix.

## **10. Sustainability and legacy**

Contacts have been made within SAERI in the Falklands, the government of SGSSI and BAS. Stakeholders in these regions have been introduced to the project, its background, and aims. Certain stakeholders have also participated in the workshop and plan to expand assessments in their regions.

The project workshop was promoted on social media and gained much interest, with many participants expressing that they are going to expand assessments in their regions, with several participants expanding assessments in marine invertebrates.

This exit strategy is still valid: the species list (Outcome 1) and Red List assessments themselves (Outcome 2) will be added to the global Red List and be publicly available for all. We note that the review and publication process will extend beyond the lifetime of the project, but that our partners in the IUCN have committed to supporting the end of that process. The relative risk to these species (whether Least Concern, or Critically Endangered) will be referred to in later regional conservation planning. Our aspiration is that the training offered to our regional partners and other UKOTs will be the primary means of extending this work to other species and areas and expanding the utility of the global Red List process for UKOTs.

## 11. Darwin identity

The Darwin Plus funding was recognised as a distinct project when project was publicised. The Darwin Initiative logo was used on the poster promoting the workshop on Twitter, and also included in any presentations given to detail the project background in-person and over Zoom. While writing articles for newsletters, Darwin Plus was included in the text as the funder of the project. Stakeholders within the territories were familiar with Darwin Plus, however contacts in regions outside the UK were not.

## 12. Impact of COVID-19 on project delivery

As most of this project was desktop based, COVID-19 did not impact on the delivery of this project. While the workshop was a hybrid event, most restrictions had eased by then and therefore in-person events were allowed. Following BAS guidelines, all participants wore masks and sat 2 m apart. Virtual meetings are a useful way to communicate, especially with those in other countries. We expect to continue to use this practice into the future.

## 13. Safeguarding

Please tick this box if any safeguarding violations have occurred during this financial year.

If you have ticked the box, please ensure these are reported to [ODA.safeguarding@defra.gov.uk](mailto:ODA.safeguarding@defra.gov.uk) as indicated in the T&Cs.



#### 14. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2021 – 31 March 2022)

Project spend (indicative) in this financial year	2021/22 D+ Grant (£)	2021/22 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs	██████	██████	██████	Project delayed start of Sep 21 instead of Jul 21
Consultancy costs	██████	██████	██████	As above
Overhead Costs	██████	██████	██████	As above
Travel and subsistence	██████	██████	██████	As above
Operating Costs				
Capital items				
Others (Please specify)	██████	██████	██████	As above
<b>TOTAL</b>				

The change to the project stand and end date and adjusted budget were approved at the start of the project.

#### 15. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

N/A

## 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 <b>correct template</b> (checking fund, type of report (i.e. Annual or Final), and year) and <b>deleted the blue guidance text</b> before submission?	x
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	x
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	x
<b>Have you included means of verification?</b> You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	x
<b>Do you have hard copies of material you need to submit with the report?</b> 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.	x
Have you involved your partners in preparation of the report and named the main contributors	x
Have you completed the Project Expenditure table fully?	x
Do not include claim forms or other communications with this report.	