Applicant: **Sigwart, Julia**
Organisation: **Queen's University Belfast**
Funding Sought: **£83,172.00**

DPR9S2\1001

Red Listing can protect OT marine biodiversity

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 will incorporate climate stressors to IUCN global Red List assessments, to provide a global conservation context for marine biodiversity in UKOTs at highest risk from global heating, and new assessment tools that can be applied to all UKOTs worldwide.

Section 1 - Contact Details

PRIMARY APPLICANT DETAILS

Name	Julia
Surname	Sigwart
Website	http://www.qub.ac.uk/qml/People/Sigwart
Tel (Work)	[redacted]
Email (Work)	[redacted]
Address	[redacted]

GMS ORGANISATION

Type	**Organisation**
Name	Queen's University Belfast
Phone (Mobile)	[redacted]
Email (Work)	[redacted]
Website	[redacted]
Address	[redacted]

Section 2 - Title, Dates & Budget Summary

Q3a. Project title

Red Listing can protect OT marine biodiversity

Q3b. What was your Stage 1 reference number? e.g. DPR9S1\10008

DPR9S1\1025

Q4. UKOT(s)

Which eligible UK Overseas Territory(ies) will your project be working in?

- ☑ British Antarctic Territory (BAT)
- ☑ Falkland Islands (FI)
- ☑ South Georgia and The South Sandwich Islands (SGSSI)

*** if you have indicated a territory group with an asterisk, please give detail on which territories you are working on here:**

No Response

Q4b. In addition to the UKOTs you have indicated, will your project directly benefit any other Territories or country(ies)?

⦿ Yes

Please list below.

The project includes a workshop that will offer training to any interested scientists working in all UKOTs , to provide Red List assessor training and conservation tools from the IUCN.

Q5. Project dates

Start date:	End date:	Duration (e.g. 2 years, 3 months):
01 July 2021	30 June 2022	1 year

Q6. Budget summary

Year:	2021/22	2022/23	2023/24	2024/25	Total request
Darwin funding request (Apr - Mar)	£58,582.00	£24,590.00	£0.00	£0.00	**£** 83,172.00

Q6a. Do you have proposed matched funding arrangements?

⦿ Yes

What matched funding arrangements are proposed?

SAERI - staff time and overheads - £[redacted]
BAS - staff & overhead cost ([redacted] time for Dr Huw Griffiths) - £[redacted]
QUB - staff time ([redacted] time for Dr Julia Sigwart) - £[redacted]
IUCN Red List Unit - staff time - £[redacted]
IUCN Mollusc SSG - staff time - £[redacted]
These contributions are confirmed in the letters of support provided

Q6b. Proposed matched funding as % of total project cost (total cost is the Darwin request plus other funding required to run the project). [redacted]

Section 3 - Project Summary and Conventions

Q7. Summary of Project

Please provide a brief summary of your project, its aims, and the key activities you plan to undertake. Please note that if you are successful, this working may be used by Defra in communications e.g. as a short description of the project on GOV.UK.

Please write this summary for a non-technical audience.

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 will incorporate climate stressors to IUCN global Red List assessments, to provide a global conservation context for marine biodiversity in UKOTs at highest risk from global heating, and new assessment tools that can be applied to all UKOTs worldwide.

Q8. Biodiversity Conventions, Treaties and Agreements

Please detail how your project will contribute to the aims of the agreement(s) your project is targeting. What key OT Government priorities and themes will it address? You should refer to Articles or Programmes of Work here. You should also consider local, territory specific agreements and action plans here.

The project directly supports the goals of the Convention on Biological Diversity: the conservation of biodiversity, and the sustainable use of biodiversity. The project will produce Red List assessments for inclusion in the IUCN global Red List. These assessments consider the current and potential threats to species, at a global scale, including the current and potential conservation status of each species, given the status of current conservation or development measures at the time the assessment is completed. These assessments therefore 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.
The IUCN Red List is also the main tool that informs CITES, to determine the species that are included on CITES appendices for protection. The IUCN Red List is used to measure progress toward UN Sustainable Development goals. https://www.iucnredlist.org/about/uses
At a regional level, part of the territory where this project is planned is already under established conservation management; the South Georgia and South Sandwich Islands (SGSSI) marine protected area (MPA) is one of the largest MPAs in the world. Our team has already completed Red List assessments for some rare species endemic to the SGSSI MPA which are listed as “Least Concern”. These assessments are important evidence of the effectiveness and the global impact of conservation measures already in place, and therefore assessments contribute directly to the priorities for conservation in the UKOTs. In other regions where there are current plans for extensive marine development (FI) these will be included in the assessments as well as climate threats, meaning that the assessments will provide a robust measure of the vulnerability of regional biodiversity. This directly contributes to regional priorities for sustainable development.

Section 4 - Lead Organisation Summary

Q9. Lead organisation summary

Has your organisation been awarded a Darwin Initiative award before (for the purposes of this question, being a partner does not count)?

⦿ No

If no, please provide the below information on the lead organisation.

What year was your organisation established/ incorporated/registered?	1845
What is the legal status of your organisation?	⦿ University
How is your organisation currently funded?	Student Fees Government grants Research grants Investment income and donations

Describe briefly the aims, activities and achievements of your organisation. Large organisations please note that this should describe your unit or department.

Aims	Queen's University Marine Laboratory (QML), Portaferry is a research laboratory that serves the School of Biological Sciences and the School of Natural and Built Environment. Facilities in Portaferry are used by resident staff and students as well as associated researchers from Queen's University and international visitors.
Activities	QML is an inter-disciplinary research centre and part of the research infrastructure of Queen's University Belfast. As a core facility of the University we serve all scholars who can productively use our resources to further knowledge about the marine environment, in its broadest possible interpretation.
Achievements	Major projects at QML include the development of the SeaGen tidal turbine, restoration and conservation of Strangford Lough (one of the UK's first marine protected areas), development of seaweed culture and biofuel applications, and collaboration with the IUCN Red List to assess and protect deep sea hydrothermal vent species.

Provide details of 3 contracts/projects held by the lead organisation that demonstrate your credibility as an organisation and provide a track record relevant to the project proposed. These contracts/awards should have been held in the last 5 years and be of a similar size to the grant requested in your Darwin

application.

Contract/Project 1 Title	Evolution of novel adaptations in deep sea methane seeps
Contract Value/Project budget (include currency)	HK$ [redacted]
Duration (e.g. 2 years 3 months)	1 year
Role of organisation in project	QUB / QML was the organisation delivering this project for the Hong Kong Branch of Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou). Dr Sigwart was principle investigator and project leader.
Brief summary of the aims, objectives and outcomes of the project	The project contributed the description of new species from the West Pacific as well as detailed examination of the evolution of known species in deep sea methane enriched environments. This project also contributed to the conservation of deep sea environments through supporting Red List assessments of hydrothermal vent molluscs.
Client/independent reference contact details (Name, e-mail)	Emma Zhou, [redacted]

Contract/Project 2 Title	Computational modelling of evolutionary dynamics in deep time
Contract Value/Project budget (include currency)	€ [redacted]
Duration (e.g. 2 years, 3 months)	3 years
Role of organisation in project	QUB / QML was the organisation delivering this project funded by the European Commission. Dr Sigwart was principle investigator, project leader
Brief summary of the aims, objectives and outcomes of the project	This research project developed new tools for quantifying marine biodiversity, with special relevance for the Marine Strategy Framework Directive. The most important published output of the project was a book written by Sigwart entitled "What Species Mean: A User's Guide to the Units of Biodiversity" published in 2018 by CRC/Taylor & Francis.
Client/independent reference contact details (Name, e-mail)	Please submit a formal query to the European Commission research framework, citing project reference H2020-MSCA-IF-2014-65566 https://ec.europa.eu/info/research-and-innovation/contact/research-enquiry-service-and-participant-validation_en

Contract/Project 3 Title	Enhancing the sustainability and market of crustacean fisheries
Contract Value/Project budget (include currency)	£[redacted]
Duration (e.g. 2 years, 3 months)	2 years
Role of organisation in project	QUB / QML was the organisation delivering this project for SeaFish UK. Dr Sigwart was co-principle investigator, project leader, supervisor of post doctoral researcher employed with funding
Brief summary of the aims, objectives and outcomes of the project.	This project used new and historical data to assess the sustainability of crustacean fisheries in the North Atlantic, particularly the Norway Lobster, Nephrops norvegicus. It resulted in multiple published papers including advice that minimum landing sizes in the Western Irish Sea are allowing for the unsustainable catch of immature animals.
Client/independent reference contact details (Name, e-mail).	Dr Lynn Gilmore, [redacted]

Have you provided the requested signed audited/independently examined accounts? If you select "yes" you will be able to upload these. Note that this is not required from Government Agencies.

⦿ No

If no, please provide details.

These documents are publicly available on the University website https://www.qub.ac.uk/directorates/FinanceDirectorate/visitors/financial-statements/

(We have not uploaded the accounts only because they are very large documents!)

Section 5 - Project Partners

Q10. Project Partners

Please list all the partners involved (including the Lead Organisation) and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development.

This section should illustrate the capacity of partners to be involved in the project. Please provide Letters of Support for the Lead Organisation and each partner or explain why this has not been included.

N.B: There is a file upload button at the bottom of this page for the upload of a cover letter (if applicable) and all letters of support.

Lead Organisation name:	Queen's University Belfast
Website address:	www.qub.ac.uk
Details (including roles and responsibilities and capacity to engage with the project):	QUB would have overall responsibility for project management and project delivery. Most of the day to day work would be the responsibility of the dedicated project research assistant, Aoife Molloy, who would be employed at QUB on a fixed term project 100% dedicated to this project. Sigwart (overall project lead) will also have [redacted] of her time dedicated exclusively to this project ([redacted] funded by DI and [redacted] contributed by QUB). QUB would deliver scientific outputs (Red List assessments) and project management, co-ordinate inputs from all partners, and as well as co-organising and co-hosting the end of project workshop.
Have you included a Letter of Support from this organisation?	⦿ Yes
Have you provided a cover letter to address your Stage 1 feedback?	⦿ Yes

Do you have partners involved in the Project?

⦿ Yes

1. Partner Name:	British Antarctic Survey
Website address:	www.bas.ac.uk
Details (including roles and responsibilities and capacity to engage with the project):	The British Antarctic Survey (BAS) is a world-leading centre for polar science and polar operations, addressing issues of global importance and helping society adapt to a changing world. Two senior marine scientists at BAS will contribute substantial time to the project. Both have extensive experience with the marine faunas in the region of this project; Dr Huw Griffiths ([redacted] time contributed as in kind support), and Dr Katrin Linse ([redacted] time included in budget request). These BAS experts will provide critical baseline data about the occurrence and range of the focal species, marine molluscs, in the region (BAT, FI, SGSSI). Their expertise will also be critically important to prioritise species for assessment and to determine threats relevant to the Red List assessment process.
Have you included a Letter of Support from this organisation?	⦿ Yes

Do you have more than one partner involved in the Project?

⦿ Yes

2. Partner Name:	South Atlantic Environmental Research Institute.
Website address:	www.south-atlantic-research.org
Details (including roles and responsibilities and capacity to engage with the project):	SAERI will provide scientific expertise and logistical support, providing data and expert advice on Falkland Islands biodiversity
Have you included a Letter of Support from this organisation?	⦿ Yes

3. Partner Name:	Government of South Georgia and the South Sandwich Islands
Website address:	www.gov.gs
Details (including roles and responsibilities and capacity to engage with the project):	GSGSSI will provide scientific expertise and logistical support, providing data and expert advice on marine biodiversity in SGSSI and guidance on strategic alignment of this project with the revision of the GSGSSI Biodiversity Action Plan
Have you included a Letter of Support from this organisation?	⦿ Yes

4. Partner Name:	IUCN Global Species Programme Marine Biodiversity Unit
Website address:	https://sites.wp.odu.edu/GMSA
Details (including roles and responsibilities and capacity to engage with the project):	The Marine Biodiversity Unit will provide logistical support and advice to extend this project to other UKOT areas and other marine species groups outside the remit of the Mollusc SG (see below)
Have you included a Letter of Support from this organisation?	⦿ Yes

5. Partner Name:	IUCN SSC Mollusc Specialist Group
Website address:	www.iucn.org/commissions/ssc-groups/invertebrates/mollusc

Details (including roles and responsibilities and capacity to engage with the project):	The Mollusc SSG will provide 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 will contribute training delivery at the planned workshop at the end of the project.
Have you included a Letter of Support from this organisation?	⦿ Yes

6. Partner Name:	IUCN Red List Unit
Website address:	www.iucnredlist.org/
Details (including roles and responsibilities and capacity to engage with the project):	The Red List Unit supports the IUCN Global Red List; in this project, they will provide technical support to ensure the taxonomy database is updated with the species of interest, and facilitate the final review and ultimate publication of submitted assessments. They will provide training delivery at the planned workshop at the end of the project.
Have you included a Letter of Support from this organisation?	⦿ Yes

If you require more space to enter details regarding Partners involved in the Project, please use the text field below.

No Response

Please provide a cover letter responding to feedback received at Stage 1 if applicable and a combined PDF of all Letters of Support.

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support_letters
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pdf 1.86 MB

Section 6 - Project Staff

Q11. Project Staff

Please identify the core staff on this project, their role and what % of their time they will be working on the project. Further information on who should be classified as core staff can be found in the guidance.

Please provide 1 page CVs for these staff, or a 1 page job description or Terms of Reference for roles yet to be filled. These should match the names and roles in the budget spreadsheet. If your team is larger

than 12 people please review if they are core staff, or whether you can merge roles (e.g. 'admin and finance support') below, but provide a full table based on this template in the PDF of CVs you provide.

Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Julia Sigwart	**Project Leader**	10	Checked
Aoife Molloy	Research Assistant	100	Checked
Katrin Linse	Scientific Expert	10	Checked
No Response	*No Response*	0	Unchecked

Do you require more fields?

No

Please provide 1 page CVs (or job description if yet to be recruited) for the Project staff listed above as a combined PDF.

Ensure the file is named clearly, consistent with the named individual and role above.

combined_CVs
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pdf 62.31 KB

Have you attached all Project staff CVs?

Yes

Section 7 - Background & Methodology

Q12. Problems the project is trying to address

Please describe the problem your project is trying to address in terms of environment and climate issues in the UKOTs.

For example, what are the specific threats to the environment that the project will attempt to address? Why are they relevant, for whom? How did you identify these problems? How will your proposed project help?

Please cite the evidence you are using to support your assessment of the problem (references can be listed in your additional attached PDF document which can be uploaded at the bottom of the page).

Climate change is a major threat to global biodiversity. These threats are particularly acute for high latitude species, which cannot escape a warming planet by moving their range close to the poles.
The IUCN Red List is the authoritative assessment of extinction risk for global species, recognised around the world. The Red List currently under-represents marine species, and the climate issues that are incorporated into standard assessment processes do not consider the threats of climate change specific to marine species, such as freshwater melt from ice sheets.
Thus, there is a critical need for specialised attention to assess the extinction risk of high latitude marine species incorporating the risks from global heating.
We will address this, using marine molluscs as a case study, developing new Red List assessments for a set of species from three UKOTs (FI, BAT, SGSSSI). 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.
Finally, we will organise a training workshop for interested practitioners from all UKOTs to introduce the difference between regional and global Red Lists and how to begin the process of conducting a Red List assessment where there is a known conservation concern for any species (marine or terrestrial) anywhere in the world.

Q13. Methodology

Describe the methods and approach you will use to achieve your intended Outcome and Impact. Provide information on:

- **How you have analysed historical and existing initatives and are building on or taking work already done into account in project design. Please cite evidence where appropriate.**
- **The rationale for carrying out this work and a justification of your proposed methodology.**
- **How you will undertake the work (materials and methods).**
- **How you will manage the work (role and responsibilities, project management tools etc.)**

Please make sure you read the Guidance Notes **before answering this question.**

(This may be a repeat from Stage 1 but you may update or refine as necessary)

The fauna of this region (FI, BAT, SGSSI) is particularly vulnerable to climate change, because polar species cannot retreat to any cooler environment. This risk is well understood but is not currently incorporated into Red List assessments. Yet the Red List is the most authoritative tool to communicate extinction risk for global species. Our project will assess the extinction risk of marine mollusc species in this region, and improve the assessment method itself so that climate threats specific to marine species are better captured by the Red List for species worldwide.

Our team has the experience necessary to deliver this project; members of our group, led by Sigwart, have completed Red List assessments for deep sea species including in the SGSSI MPA (Sigwart et al. 2019, Nature Ecol Evol).

All project aspects here will have active input from UKOT partners:
Outcome 1: we will compile a complete species list for molluscs in the region and their distributions,

starting with a georeferenced database already available and applying further expert quality controls (updating taxonomy, ensuring consistent nomenclature, and checking ID against voucher and museum specimens, etc). Our team will then agree a scheme to rank these species in terms of priority based on data availability, economic importance, and conservation threats.
Outcome 2: we will complete formal Red List assessments for species found in the three OT areas. In doing so, we will compile trait data for species' vulnerability to climate change, with a traffic light (green/amber/red -- low/medium/high) rating for (1) sensitivity to climate change and (2) adaptability to climate change. This method has been used successfully for other Red List assessments, but has never before been applied to marine systems. These data will identify species and geographic areas which are most vulnerable and require most monitoring. This is of particular importance, given that climate change is often difficult to account for in the IUCN Red List framework which focusses on extinction risk in the very near future (1-2 species-generations). Maps and data outputs produced in the first two parts of the project will feed into the Territory management systems through our project partners (SAERI for FI and GSGSSI). We will capture a simple easy-to-apply roadmap to facilitate future assessments in these and other UKOTs. We will document a practical protocol for assessment, streamlined for this region, that can be applied to other marine invertebrates. This provides a pathway to expand the results beyond the project lifetime.
Outcome 3: The third, capstone aspect to the project will be a training workshop at the British Antarctic Survey in Cambridge. The workshop will include the project partners and additional stakeholders (e.g. Falklands Conservation, Shallow Marine Surveys Group) from this region, but we will provide as many additional spaces as logistically feasible to any other scientists from other UKOTs. The workshop will provide training to any stakeholders willing to take on future additional assessments or re-assessments of any UKOT species, to continue the UKOT Red Listing project beyond the scope of this one-year programme.

If necessary, please provide supporting documentation e.g. maps, diagrams, and references etc., as a PDF using the File Upload below.

Supplementary Information
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Section 8 - Stakeholders and Beneficiaries

Q14. Project Stakeholders

Who are the stakeholders for this project and how have they been consulted (include local or host government support/engagement where relevant)? Briefly describe what support they will provide and how the project will engage with them.

The primary stakeholders for this project are marine conservation organisations in the three target UKOTs, represented here by our partners in GSGSSI, SAERI (FI), and BAS (BAT). GSGSSI is a partner in this project, SAERI (local partner in FI) has briefed the FIG Environmental Officer, who is aware of the project.
Further stakeholders include the global conservation community, represented by IUCN and other UKOTs. Development of this Round 2 application included a meeting with the stakeholders from Chagos which indicated strong interest in the workshop from themselves, and other OTs in other regions.The workshop within the project provides an opportunity to facilitate an interface between UKOT groups outside the project focus, and the IUCN Red List partners who will be actively engaged in the novel development of new methods specific to this project.

Q15. Institutional Capacity

Describe the lead organisation's capacity (and that of partner organisations where relevant) to deliver the project.

The lead organisation (QUB) is a large research university that has the capacity and flexibility to take on diverse projects. This project depends on engaging a full time project research assistant, and we have included the CV of a named candidate, Ms Aoife Molloy, who already has considerable experience in this field and is a trained Red List assessor. She will be 100% dedicated to the project. The project lead, Dr Julia Sigwart, also will have a substantial part of her time (10%) dedicated to the project including M&E, and Dr Katrin Linse from BAS will be similarly substantially dedicated to the project ([redacted] time paid by the project) and she is one of the world's leading experts on Antarctic marine fauna. We also have strong support from partners in the IUCN, dedicated substantial time as in kind contributions to the project to support all the technical aspects of supporting, reviewing, and publishing global Red List assessments.

Q16. Project beneficiaries

Who will your project benefit? You should consider the direct benefits as a result of your project as well as the broader indirect benefits which may come about as a result of your project achieving its Outputs and Outcome. The measurement of any benefits should be included in your project logframe.

We feel that the primary beneficiaries are the global public, in the UKOTs and beyond, who are impacted directly or indirectly by any potential Anthropocene biodiversity loss. The IUCN Red List is a powerful communication tool, which is recognised not only by governments but, importantly, by the general public, as a trustworthy yardstick of the condition or threats to the world's species. Engaging directly with the IUCN and providing tools to increase the assessment of neglected marine species, especially in an area under imminent threat from global heating, provides a powerful way to communicate conservation concerns clearly to the general public.

Section 9 - Gender and Change Expected

Q17. Gender (optional)

How is your project working to reduce inequality between persons of different gender? At the very least, you should be able to provide reassurance that your proposed work is not increasing inequality. Have you analysed the context in which you are working to see how gender and other aspects of social inclusion might interact with the work you are proposing?

The lead organisation, QUB, is actively involved in the Athena SWAN charter for gender equality and has a strong commitment to issues of diversity, equity, and inclusion. Dr Sigwart is a senior lecturer in the School of Biological Sciences at QUB which was one of the first three university departments in the whole of the UK to achieve an Athena SWAN gold award, for its sustained contribution to improving gender equality in science. As part of the ongoing commitment to the SWAN charter, we will include consideration of diversity, equity and inclusion in all stages of this project; we think it is critically important to substantively recognise the contributions of women in science and the staff who have budgeted time contributions in the funding requested are all women (Sigwart, Linse, Molloy). We will especially aim to achieve a balanced representation of presenters and participants at the end of project workshop.

Q18. Change expected

Detail the expected changed this work will deliver. You should identify what will change and who will

benefit a) in short-term (i.e. during the life of the project) and b) in the long-term (after the project has ended). Please describe the changes for the environment and, where relevant, for people in the OTs, and how they are linked.

A robust baseline assessment of marine biodiversity using internationally recognised criteria will quantify the extinction risk and vulnerability to climate change, measure the effectiveness of UKOT conservation measures in the Antarctic and Subantarctic region and empower local OT stakeholders to ensure sustainable development, resilience to and mitigation of climate change impact, and ultimately reduce biodiversity loss. The training we provide 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. Red List assessments, like the extinction risk they measure, are dynamic and a statement of current status, so require future re-assessments to detect changes in species status over time. The crisis caused by under-representation of marine biodiversity on the IUCN Red List is that marine biodiversity may not get any consideration in discussions about sustainable development as we do not know their extinction risk or vulnerability to climate change. Perhaps the most important change 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. Our project will produce Red List assessments for a prioritised set of marine molluscs, but the project is designed to enable rapid expansion, to other molluscs, other species groups, and other regions. We also hope to replicate this pipeline in the future to develop rapid assessment tools for other regions including additional OT areas.

Q19. Pathway to change

Please outline your project's expected pathway to change. This should be an overview of the overall project logic and outline how you expect your Outputs to contribute towards you overall Outcome, and, longer term, your expected Impact.

The pathway to accomplish this project consists of three main steps: a project manager with specialist skills will work closely with regional and global communities of species experts, to identify priority species and lead the assessment of around 100 species as our initial case study. This will help identify the optimal pipeline to run such assessments with available data in context of regional expertise. Additionally, the project manager and collaborators will collate a trait database for species relative to climate change sensitivity and adaptability. Finally, our team, which has considerable expertise in running similar training workshops, will transfer knowledge in a capacity building workshop which comprises: training in the new assessment pipeline, IUCN Red List processes, the use of climate change vulnerability trait database and mapping for conservation planning. Thus the outputs will contribute to identified research needs (e.g. improving taxonomic resolution, and identifying indicator species, in the SG MPA plan) to create real change in the management of environmental resources, and contribute to important global-scale initiatives through the IUCN Red List. The outcome will improve the basis for monitoring and management of marine areas, and contribute to the Blue Belt programme, from regional to global impact.

Q20. Exit strategy

State how the project will reach a stable and sustainable end point, and explain how the outcomes will be sustained, either through a continuation of activities, funding and support from other sources or because the activities will be mainstreamed in to “business as usual”. Where individuals receive advanced training, for example, what will happen should that individual leave?

This short project is designed to provide data and methods that will be added to regular operating procedures for regional marine conservation planning. The species list (output 1) and Red List assessments themselves (output 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, in collaboration with Sigwart who remains a member of the IUCN Mollusc SSG committee. The relative risk to these species (whether Least Concern, or Critically Endangered) will be referred to in later regional conservation planning. Our novel methods will be incorporated into IUCN standard procedures (output 2). 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.

Section 10 - Funding and Budget

Q21. Budget

Please complete the appropriate Excel spreadsheet, which provides the Budget for this application. Some of the questions earlier and below refer to the information in this spreadsheet. Note that there are different templates for projects requesting over and under £100,000 from the Darwin Plus budget.

- R9 D+ Budget form for projects under £100,000
- R9 D+ Budget form for projects over £100,000

Please refer to the Finance Guidance for Darwin/IWT **for more information.**

N.B: Please state all costs by financial year (1 April to 31 March) and in GBP. Darwin Plus cannot agree any increase in grants once awarded.

Budgets submitted in other currencies will not be accepted. Use current prices – and include anticipated inflation, as appropriate, up to 3% per annum. The Darwin Initiative cannot agree any increase in grants once awarded.

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Q22. Funding

Q22a. Is this a new initiative or a development of existing work (funded through any source)?

⦿ New initiative

Please provide details:

This project is an entirely new initiative. The approach is built on our prior experience and collaboration, led by Sigwart's research team and working with the IUCN Red List Unit, but much of that work has been done on a voluntary basis.

Q22b. Are you aware of any other individuals/organisations/projects carrying out or applying

for funding for similar work?

⦿ No

Q23. Co-financing

Are you proposing co-financing?

⦿ Yes

Q23a. Secured

Provide details of all funding successfully levered (and identified in the Budget) towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity, as well as any your own organisation(s) will be committing.

(See Finance for Darwin/IWT **and** Guidance Notes**)**

Donor organisation	Amount	Currency code	Comments
IUCN	[redacted]	GBP	staff support for tasks noted in 2 letters of support: IUCN Mollusc SSG [redacted] IUCN Red List Unit [redacted]
QUB	[redacted]	*No Response*	[redacted] time contribution for Dr Julia Sigwart (in kind contribution in addition to budget request)
BAS	[redacted]	GBP	[redacted] time contribution for Dr Huw Griffiths during the project (in kind contribution in addition to budget request)
SAERI	[redacted]	GBP	staff time and overheads for scientific expertise and advice on Falkland Islands biodiversity (in kind contribution in addition to budget request)

Q23b. Unsecured

Provide details of any matched funding where an application has been submitted, or that you intend applying for during the course of the project. This could include matched funding from the private sector, charitable organisations or other public sector schemes. This should also include any additional

funds required where a donor has not yet been identified.

Date applied for	Donor organisation	Amount	Currency code	Comments
No Response	*No Response*	0	*No Response*	*No Response*
No Response	*No Response*	0	*No Response*	*No Response*
No Response	*No Response*	0	*No Response*	*No Response*
No Response	*No Response*	0	*No Response*	*No Response*

Do you require more fields?

⦿ No

Section 11 - Finance

Q24. Financial Controls

Please demonstrate your capacity to manage the level of funds you are requesting. Who is responsible for managing the funds? What experience do they have? What arrangements are in place for auditing expenditure?

QUB has a well-established Finance department, dealing with research project finances, procurement of goods and services, payments, and income, with the ability of accounting at project level due to the multi-dimensional financial information & accounting system, known as internally as Qfis, used by QUB. QFIS is configured to account for and manage income and expenditure for each contract research grant using a unique cost code.
Due to the structure implemented by QUB Finance, workflow of payments/invoices and procurement are routed through the appropriate authorised signatures at project level to provide assurance on expenditure incurred.
Deloitte are the current providers of Internal Audit Services. Deloitte deliver approximately 160 days of Internal Audit/year for Queen's.
KPMG are QUB's current provider for Year End Audits and other external audits, eg. EC research project, Innovate UK.

Q25. Financial Management Risk

This question considers the financial risks to the project. Explain how you have considered the risks and threats that may be relevant to the successful financial delivery of this project.This includes risks such as fraud or bribery, but may also include the risk of fluctuating foreign exchange and internal financial processes such as storage of financial data.

The University has a comprehensive process in place for identifying, assessing and managing the University's risks in line with the Higher Education Code of Governance (2014). A University Risk

Management Committee (RMC) has been established, and the process of embedding risk at Faculty / Directorate level, in both the planning processes and operational arrangements of the University is well developed. The process is regularly reviewed by Audit Committee on behalf of Senate and the Internal Auditors are present at all Meetings of RMC to ensure best practice.

Q26. Balance of budget spend

Explain the thinking behind your budget in terms of where funds will be spent.What benefits will the Territory see from your budget? What level of the award to you expect will be spent locally? Please explain the decisions behind any funding that will not be spent locally and how those costs are important for the project.

Costs in this small project are primarily in two general categories: (1) salaries for the project staff at Queen's University Belfast and British Antarctic Survey, and (2) the costs associated with the training workshop at the end of the project, including venue hire, and travel and subsistence costs for the project team to attend. We have proposed that this workshop is held at BAS in Cambridge, UK, primarily because that will best enable participants from other UKOTs worldwide to participate in person. (We note the workshop is planned for May 2022 and we do expect to have an in-person workshop at that time.) Much of the resource material for this project (specimens and data resources) are held in BAS, and we think it is logistically and financially more feasible that the project staff are primarily based in the UK. Funds have also been allocated specifically to support staff at SAERI, Falkland Islands, to provide further information and local expertise on the FI fauna and threats relevant to the Red List assessment process. Of the £[redacted] requested that will be transferred to partners, £[redacted] is allocated to SAERI.

Q27. Capital Items

If you plan to purchase capital items with Darwin Plus funding, please indicate what you anticipate will happen to the items following project end. If you are requesting more than 10% capital costs, please provide your justification here.

Not applicable

Q28. Value for Money

Please describe why you consider your application to be good value for money including justification of why the measures you will adopt will secure value for money.

This is a small project, that is designed to have maximum impact in a short time. Our established partnership between Sigwart's team at QUB and the IUCN Red List Unit, and the prior collaborations of Sigwart and Linse working with SAERI and GSGSSI, means that we all know how to work together and can "hit the ground running". As one of the major cost factors is the staff, we have kept the shortest possible timeframe for project implementation, to minimise the financial burden to the Darwin Initiative. We have secured substantial in kind funding from our partner organisations, who have made explicit commitments to contribute staff time to the project, which increases the capacity of the project team without requiring additional external funding. The lead partner, Queen's University Belfast, is a large organisation with established standards for all financial transactions and this project will be required to follow those standards regarding the needs for additional quotes to document value for money for substantial purchases.

This project could not happen without the support of Darwin Initiative funding. All 3 partner organisations lack capacity to take on another intensive project, but will contribute additional funding in kind; the funding for the dedicated project research assistant is essential to drive the work. Our ambition is to make sure the

project outputs that are useful to all UKOTs, which is challenging in such a short project but will be possible through dedicating resources to the end of project training workshop.

Q29. Outputs of the project and Open Access

All outputs from Darwin Plus projects should be made available on-line and free to users whenever possible. Please outline how you will achieve this and detail any specific costs you are seeking from Darwin Plus to fund this.

The lead partner, Queen's University Belfast, is a strong advocate of Open Access and has policies to ensure that all published outputs from QUB projects are available online and free. This is done through the "Queen's Research Portal" and through dedicated internal funds that supporting the costs of publishing research papers Open Access. This project will abide by the university policy and all outputs will be made available Open Access via University resources without need for additional funding from the Darwin Initiative. The QUB Open Access Policy is available online:
https://libguides.qub.ac.uk/openaccess

Finally one main output of this project will be the Red List assessments of the species assessed during the course of the project. We have included support from the IUCN to ensure the timely processing, review, and publication of these assessments (see letters of support). All of these will be added to the public global Red List that is fully open access, at www.iucnredlist.org

Section 12 - Safeguarding

Q30. Safeguarding

Projects funded through Darwin Plus must fully protect vulnerable people all of the time, wherever they work. In order to provide assurance of this, projects are required to have appropriate safeguarding polices in place. Please confirm the lead organisation has the following policies in place and that these are available on request:

We have a safeguarding policy, which includes a statement of our commitment to safeguarding and a zero tolerance statement on bullying, harassment and sexual exploitation and abuse	Checked
We have attached a copy of our safeguarding policy to this application	Unchecked
We keep a detailed register of safeguarding issues raised and how they were dealt with	Checked
We have clear investigation and disciplinary procedures to use when allegations and complaints are made, and have clear processes in place for when a disclosure is made	Checked
We share our safeguarding policy with downstream partners	Checked
We have a whistle-blowing policy which protects whistle-blowers from reprisals and includes clear processes for dealing with concerns raised	Checked

We have a Code of Conduct in place for staff and volunteers that sets out clear expectations of behaviors - inside and outside of the work place - and make clear what will happen in the event of non-compliance or breach of these standards	Checked

Please outline how you will implement your policies in practice and ensure that downstream partners apply the same standards as the lead organisation.

The project will follow the safeguarding policies and codes of conduct of the lead partner, Queen's University Belfast. The University has extensive policy documentation including easy to access information for support, complaints, whistleblowers, and other dispute resolutions. There are robust processes to support and protect vulnerable groups and all staff, and the HR Hub allows any project member inside or outside the University direct access to support without needing to directly involve the project lead. This information is freely available to the public and will be explicitly pointed out to all project members at the start of the project.

Policies have not been attached, because all policies can be publicly access here: https://www.qub.ac.uk/directorates/HumanResources/a-z/
Please see also the specific policies on diversity and inclusion here
https://www.qub.ac.uk/directorates/HumanResources/diversity-and-inclusion/policies-procedures-and-guidance/
and also guidance on workplace conduct, including complaints procedures for internal and external persons
https://www.qub.ac.uk/directorates/HumanResources/workplace-conduct/
and further information on university legal services related to safeguarding children and vulnerable adults
https://www.qub.ac.uk/directorates/HumanResources/legal-services-and-employee-relations/

Please upload the Lead Organisation's Safeguarding Policy as a PDF

No Response

Section 13 - Logical Framework

Q31. Logical Framework

Darwin Plus projects will be required to monitor (and report against) their progress towards their expected Outputs and Outcome. This section sets out the expected Outputs and Outcome of your project, how you expect to measure progress against these and how we can verify this.

- Stage 2 Logframe Template

Please complete your full logframe in the separate Word template and upload as a PDF using the file upload below. Copy your Impact, Outcome and Output statements and your activities below - these should be the same as in your uploaded logframe.

Please upload your logframe as a PDF document.

- Sigwart Logical Framework
- 31/01/2021
- 16:43:07
- pdf 47.01 KB

Impact:

A Red List for Antarctic marine molluscs will quantify the extinction risk and vulnerability to climate change, measure the effectiveness of UKOT conservation measures, and empower stakeholders across UKOTs.

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.

Project Outputs

Output 1:

A species list indicating conservation assessment priorities, and map of current marine mollusc species distributions for the region (FI, SGSSI, BAT).

Output 2:

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

Output 3:

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

Output 4:

No Response

Output 5:

No Response

Do you require more Output fields?

It is advised to have less than 6 Outputs since this level of detail can be provided at the Activity level.

⦿ No

Activities

Each activity is numbered according to the Output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1.

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
1.2. Determine priority species for Red List Assessments based on relevance, conservation threats, and confidence in available data.
2.1. Draft a traits matrix based on the main environmental threats to the project priority species
2.2. Test assessment of priority species, to form a specialised assessment protocol or assessment road map
2.3. Expand assessment to remaining priority species, based on new assessment road map, refining the protocol as needed
2.4. Recommend additional standard threat categories that better articulate the issues in marine environments
2.5. Refine and complete the final assessment road map, based on all species assessed within the project
3.1. Organise Red List training workshop at project end

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

Section 14 - Implementation Timetable

Q32. Provide a project implementation timetable that shows the key milestones in project activities

Provide a project implementation timetable that shows the key milestones in project activities. Complete the Excel spreadsheet template as appropriate to describe the intended workplan for your project.

Implementation Timetable Template

Please add/remove columns to reflect the length of your project. For each activity (add/remove rows as appropriate) indicate the number of months it will last, and fill/shade only the quarters in which an activity will be carried out.

- sigwart darwin-plus-round9-imp-timetable
- 31/01/2021
- 16:42:04
- pdf 65.03 KB

Section 15 - Monitoring and Evaluation

Q33. Monitoring and evaluation (M&E)

Describe, referring to the Indicators above, how the progress of the project will be monitored and evaluated, making reference to who is responsible for the project's M&E.

Darwin Initiative projects are expected to be adaptive and you should detail how the monitoring and evaluation will feed into the delivery of the project including its management. M&E is expected to be built into the project and not an 'add' on. It is as important to measure for negative impacts as it is for positive impact. Additionally, please indicate an approximate budget and level of effort (person days) to be spent on M&E (see Finance Guidance for Darwin/IWT**).**

The lead partner, QUB, is a large research university and has extensive procedures in place to monitor financial effectiveness and compliance (see Q24, Q25 above). These services are provided in addition to and not included in the M&E budget below.

Within the project activity, we have requested funding for [redacted] of Dr Sigwart's time to dedicate to M&E of this project.

We plan to offer an updated report at the completion of each of the project outputs, reporting on the timeframe, and evidence provided against the a priori indicators included in the log frame (attached here). The third and final output incorporated into the end of project report. The Darwin Initiative Team will of

course be invited to visit or participate in the final workshop or would be welcome to visit Queen's University Marine Laboratory for an interim monitoring visit at any time during the 12 month project.

As part of our Exit Strategy, we note that parts of the project activity will continue beyond the 12 month scope of the project. In particular, the review and publication process for Red List assessments can be rather long. At the end of the project, we will be able to provide a confident projection about both the threat category (Endangered, Near Threatened, etc) for each species, and the anticipated date of publication.

During the project, data flow will be coordinated by Sigwart (project lead) and Molloy (project research assistant) working together. Molloy will be responsible for implementing most tasks, and for proactively gathering inputs from all project partners according to their expertise, and for regularly updating all partners on progress against the indicators (minimum monthly updates to whole project team). In addition. Sigwart and Molloy will have weekly meetings to discuss progress and identify any successes that should be cascaded, or problems that require troubleshooting. The main data management tool is the IUCN Species Information System, which is accessible to Sigwart, Molloy, IUCN partners, and any other partners who complete the Assessor training during the course of this project (that training can be completed online and will be supported by the IUCN partners). Data management will follow established protocols already in place for the Vent Red List project with additional shared files via DropBox used to organise background data (literature and reports on species and threats) and spreadsheets used to track progress of outputs. Dropbox links will allow the whole team to easily view progress. There are no personal data involved in this project, although team members will be briefed to ensure the confidentiality of unpublished results and scientific best practice.

Project reports and other outputs (see logframe) will be circulated to all partners for approval before submission.

Total project budget for M&E in GBP (this may include Staff, Travel and Subsistence costs)	£[redacted]
Number of days planned for M&E	13.00
Percentage of total project budget set aside for M&E (%)	[redacted]

Section 16 - Certification

Certification

On behalf of the

company

of

Queen's University Belfast

I apply for a grant of

£83,172.00

I certify that, to the best of our knowledge and belief, the statements made by us in this application are

true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

(This form should be signed by an individual authorised by the applicant institution to submit applications and sign contracts on their behalf.)

- **I have enclosed CVs for project key project personnel, letters of support, budget and project implementation timetable (uploaded at appropriate points in application).**
- **Our last two sets of signed audited/independently verified accounts and annual report are also enclosed.**

Checked

Name	Aveen Lavery
Position in the organisation	Finance Business Partner
Signature (please upload e-signature)	A Lavery 01/02/2021 14:29:48 png 30.77 KB
Date	01 February 2021

Section 17 - Submission Checklist

Checklist for submission

	Check
I have read the Guidance documents, including the "Guidance Notes for Applicants**" and "**Finance Guidance**".**	Checked
I have read, and can meet, the current Terms and Conditions **for this fund.**	Checked
I have provided actual start and end dates for this proposed project.	Checked
I have provided a budget based on UK government financial years i.e. 1 April – 31 March and in GBP.	Checked
I have checked that the budget is complete, correctly adds up and I have included the correct final total at the start of the application.	Checked
The application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).	Checked
I have attached my completed logframe and timeline as a PDF using the templates provided.	Checked

I have included a 1 page CV or job description for all the Project staff identified at Question 11, including the Project Leader, or provided an explanation of why not.	Checked
I have included a letter of support from the Lead Organisation and main partner organisation(s) identified at Question 10, or an explanation of why not.	Checked
I have included a cover letter from the Lead Organisation, outlining how any feedback at Stage 1 has been addressed where relevant.	Checked
I have included a signed copy of the last 2 years annual report and accounts for the Lead Organisation, or provided an explanation if not.	Checked
I have checked the Darwin Plus website **immediately prior to submission to ensure there are no late updates.**	Checked
I have read and understood the Privacy Notice on GOV.UK**.**	Checked

We would like to keep in touch!

Please check this box if you would be happy for the lead applicant (Flexi-Grant Account Holder) and project leader (if different) to be added to our mailing list. Through our mailing list we share updates on upcoming and current application rounds under the Darwin Initiative, Darwin Plus and our sister grant scheme, the IWT Challenge Fund. We also provide occasional updates on other UK Government activities related to biodiversity conservation and share our quarterly project newsletter. You are free to unsubscribe at any time.

Unchecked

Data protection and use of personal data

Information supplied in this application form, including personal data, will be used by Defra as set out in the latest copy of the Privacy Notice for Darwin, Darwin Plus and the Illegal Wildlife Trade Challenge Fund available here. This Privacy Notice must be provided to all individuals whose personal data is supplied in the application form. Some information, but not personal data, may be used when publicising the Darwin Initiative including project details (usually title, lead organisation, location, and total grant value) on the GOV.UK and other websites.

Information relating to the project or its results may also be released on request, including under the 2004 Environmental Information Regulations and the Freedom of Information Act 2000. However, Defra will not permit any unwarranted breach of confidentiality nor will we act in contravention of our obligations under the General Data Protection Regulation (Regulation (EU) 2016/679).