

Applicant: **Warwick-Evans, Victoria**
Organisation: **British Antarctic Survey**
Funding Sought: **£269,233.00**
Funding Awarded: **£269,233.00**

DPR8S2\1004

DPLUS120 Spatial segregation and bycatch risk of seabirds at South Georgia

PRIMARY APPLICANT DETAILS

Title	Dr
Name	Victoria
Surname	Warwick-Evans
Organisation	British Antarctic Survey
Tel (Work)	[REDACTED]
Email (Work)	[REDACTED]
Address	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

Section 1 - Contact Details

PRIMARY APPLICANT DETAILS

Title Dr
Name Victoria
Surname Warwick-Evans
Organisation British Antarctic Survey
Tel (Work) [REDACTED]
Email (Work) [REDACTED]
Address [REDACTED]
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[REDACTED]
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GMS ORGANISATION

Type	Organisation
Name	British Antarctic Survey
Phone (Work)	[REDACTED]
Email (Work)	[REDACTED]
Address	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

Section 2 - Title, Dates & Budget Summary

Q3a. Project title

DPLUS120 Spatial segregation and bycatch risk of seabirds at South Georgia

Q3b. What was your Stage 1 reference number? e.g. DPR8S1\10008

DPR8S1\1001

Q4. UKOT(s)

Which UK Overseas Territory(ies) will your project be working in? You may select more than one UKOT from the options below.

South Georgia and The South Sandwich Islands (SGSSI)

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

Yes

Please list below.

Argentina, Brazil, Uruguay, Chile

Q5. Project dates

Start date:

01 August 2020

End date:

31 July 2022

Duration (e.g. 2 years, 3 months):

2 years

Q6. Budget summary

Year:	2020/21	2021/22	2022/23	Total request
Darwin funding request (Apr - Mar)	£ [REDACTED]	[REDACTED]	[REDACTED]	£ 269,233.00

Q6a. Do you have proposed matched funding arrangements?

Yes

What matched funding arrangements are proposed?

BAS will co-finance this project by: waiving the majority of the usual overheads; providing laptop and software licenses for the project leader and Co-I; contributing time (5% FTE) of a field assistant to deploy tracking devices at Bird Island. GSGSSI will co-finance this project by waiving the cost of travel and two berths on the ship (Pharos) on two return trips from the Falkland Islands to South Georgia, and the cost of landings at two sites in two years for device deployments. BirdLife International will co-finance the project by waiving the T&S costs and staff time for attending meetings of ICAAT and of RFMOs.

Q6b. Proposed (confirmed & unconfirmed) matched funding as % of total project cost (total cost is the Darwin request plus other funding required to run the project). 40

Section 3 - Lead Organisation Summary

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](https://www.gov.uk).

Please write this summary for a non-technical audience.

No Response

Q8. 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)?

Yes


If yes, please provide details of the most recent awards (up to 6 examples).


Reference No	Project Leader	Title
DP_100031	Philip Trathan	Developing the risk assessment framework for the Antarctic krill fishery
DPR7P\100010	Richard Phillips	Seabird sentinels: mapping potential bycatch risk using bird-borne radar
DPLUS 009	Philip Trathan	Antarctic and Sub-Antarctic Marine Protected Areas
DPLUS 054	Philip Trathan	Managing Antarctic Krill Fisheries; identifying candidate marine areas for protection
DPLUS 057	Jennifer Jackson	Where are they now? Right whales in South Georgia waters
DPLUS 069	Susie Grant	Building data resources for managing the SGSSI Marine Protected Area


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.


Yes

Please attach the requested signed audited/independently examined accounts.

 [ukri accounts 2018-2019](#)

 19/11/2019

 09:12:46

 pdf 3.65 MB

Section 4 - Project Partners

Q9. 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:

British Antarctic Survey

Website address:

www.bas.ac.uk

Details (including roles and responsibilities and capacity to engage with the project):

BAS has well-established management, operations and logistics capability to support Antarctic fieldwork, and an efficient budget management system to ensure financial accountability.

Dr Warwick-Evans will have responsibility for developing and implementing the project. She will carry out the fieldwork and data analysis. She has extensive experience tracking seabirds, and subsequent data analysis, including habitat modelling and quantifying fisheries overlap, in addition to communicating results to different audiences.

Professor Phillips will provide: scientific input on ecology, tracking, habitat modelling of the study species; advice on engagement with stakeholders; management of aspects of the project including fieldwork at Bird Island. He is leader of the Higher Predators and Conservation group at BAS, has a long track-record studying seabird ecology and conservation (>250 peer-reviewed publications) and has led several previous projects of similar size. Additionally, he is involved closely with the international Agreement on the Conservation of Albatrosses and Petrels (ACAP), representing the UK government bodies with devolved responsibilities for conservation of marine fauna in UKOTs. He has close links with relevant conservation NGOs and fisheries regulatory bodies in the Falklands and South America and was involved in the Seabird Risk Assessment of the International Commission for the Conservation of Atlantic Tuna (ICCAT).

Have you included a Letter of Support from this organisation?

No

If no, please provide details

The application has been signed by BAS Head of Finance. The organisation is therefore supportive, and committed to delivery

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:

Birdlife International

Website address: www.birdlife.org

Details (including roles and responsibilities and capacity to engage with the project):

BirdLife International and the Birdlife Global Seabirds Programme, have been integral in global efforts to reduce bycatch of albatross and petrels in fisheries, and have successfully implemented changes to fisheries policy as a result of scientific findings. In 2005 The Royal Society for the Protection of Birds (RSPB) and BirdLife International created the Albatross Task Force, in order to bridge the gap between science and the fishing industry. Their main objective is to reduce the bycatch of albatross and petrels in targeted fisheries, ultimately to improve the conservation status of threatened seabirds. BirdLife employs two approaches to tackle bycatch issues: Firstly, by working directly with vessel crews and the fishing industry, testing and demonstrating mitigation measures and collecting data on seabird bycatch rates. Secondly, BirdLife works with fishery managers at national, regional and international levels by influencing the development of agreements and measures to reduce seabird bycatch. These include the Regional Fisheries Management Organisations (RFMOs), ACAP, and ICCAT.

The role of BirdLife in this project will be to facilitate the policy impacts of the project. BirdLife will engage directly with fishing fleets and fishing management organisations, to engender change in fisheries management practices in areas of high bird-fishery overlap.

Have you included a Letter of Support from this organisation? Yes


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

No

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


 [Letters of Support Warwick-evans](#)

 26/11/2019

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 [Cover Letter Warwick-Evans](#)

 19/11/2019

 09:44:45

 pdf 222.75 KB

Section 5 - Project Staff

Q10. Project Staff

Please identify the key project personnel on this project, their role and what % of their time they will be working on the project.

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?
Victoria Warwick-Evans	Project Leader	100	Checked
Richard Phillips	Co-I	10	Checked
Cleo Small	Project partner	2	Checked
<i>No Response</i>	<i>No Response</i>	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.

 CVs Warwick-Evans Phillips Small

 25/11/2019

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 pdf 990.29 KB

Have you attached all Project staff CVs?

Yes

Section 6 - Background & Methodology

Q11. 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? What key OT Government priorities and themes will it address?

Seabirds are amongst the most globally threatened birds, often as a consequence of incidental mortality (bycatch) in fisheries. Understanding where and when they are vulnerable is vital to conservation management. Grey-headed albatrosses (GHA) at South Georgia (SG) have declined since the 1970s[1], leading to The Government of South Georgia and the South Sandwich Islands (GSGSSI)-led action plan[2] and their listing by ACAP as one of nine global High-Priority populations[3]. Rates of decline differ considerably between different colonies within SG, almost certainly reflecting variability in at-sea distributions[1].

The White-chinned petrel (WCP) is the most common species bycaught in Southern Ocean fisheries, and understanding their at-sea distribution is required for the GSGSSI Marine Protected Area Research and Monitoring Plan (MPA RMP)[4]. Fishing is banned around SG when most seabirds are breeding, but when the fishing season was extended into the late breeding-season, tens of WCPs were recorded as bycatch. Although this level of mortality would have no population-level impact, it creates a reputational problem for the fishery, given its Marine Stewardship Council accreditation.

Tracking from Bird Island (BI, the only populations tracked to-date) indicates that during the non-breeding season GHA and WCP overlap with multiple fisheries within EEZs and in the High Seas. However, birds at breeding colonies elsewhere in SG may encounter risks from different fisheries. Understanding inter-colony variation in their at-sea distribution is fundamental if we are to mitigate impacts and focus management.

This project will link habitat-preference models and fisheries data, year-round, to quantify the spatio-temporal overlap of GHA and WCP with fisheries. This will augment previous tracking studies from BI, to clearly identify areas and periods of highest susceptibility to bycatch for different colonies. This addresses several priorities for Darwin Plus, including delivering a Blue Belt of marine protection and implementation of the GSGSSI Albatross Action Plan.

Q12. 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 initiatives 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 objective is to characterise variation in at-sea distributions, and bycatch risk, of WCP and GHA from two colonies at SG, during the breeding and non-breeding seasons. This will build on, and follow similar approaches to previous studies focussed solely on BI (e.g. 5, 6).

By combining at-sea seabird distributions and fishing effort we will identify high-risk areas for each species, and use this information to develop collaborative strategies for mitigating fisheries bycatch.

Specifically we will:

1) Track 25 breeding WCP from BI, and 25 from Cooper Island (Fig.1). Tracking at sites other than BI was identified as a priority in the GSGSSI MPA RMP[4].

2) Track 25 breeding GHA from BI, and 25 from the Paryadin Peninsula, where the colonies are declining even more rapidly[1].

For both species we will deploy GPS devices to collect fine-scale location data during the breeding season. We will use remote-download GPS on WCP at both sites given that we require data from the late breeding-season (to examine overlap with the SG toothfish fishery) when handling of adults to retrieve loggers can trigger premature migration. We will also use remote-download GPS on GHA breeding on the Paryadin Peninsula, as we will only be visiting this location once. We will use cheaper GPS devices for GHA breeding on BI, as we will be able to re-catch these birds to retrieve data. We will also deploy geolocators on both species, to collect broad-scale distribution data during the non-breeding season.

3) Incorporate oceanographic parameters (including sea-surface temperature, chlorophyll-a, bathymetry and currents) and tracking data into habitat preference models, to predict colony-specific habitat use and core foraging areas.


4) Investigate spatio-temporal overlap between predicted habitat use and fisheries operating in SG waters and elsewhere. Where possible, we will use satellite-AIS data from vessels (<https://globalfishingwatch.org>) to identify areas of overlap and hence potential interactions. AIS is used by all vessels in the SG fisheries but not all those on the High Seas and Patagonian Shelf. Thus, we will also use existing datasets on fishing effort at a scale of 5 degrees, for pelagic longline, demersal longline and trawl fisheries to determine overlap.


5) Compare bycatch risks of GHA and WCP between colonies, and investigate whether this could explain differences in population trends of GHA (trend data unavailable for WCP at Cooper Island).

6) Engage with stakeholders including NGOs and fisheries management bodies such as the Committee for the Conservation of Antarctic Marine Living Resources (CCAMLR), ICCAT, and GSGSSI, to better target best-practice bycatch mitigation, monitoring of compliance and bycatch rates. This will be achieved by attending and presenting papers at CCAMLR, ACAP, RFMOs and ICCAT working group meetings, and GSGSSI stakeholder meetings. Additionally we will attend the workshop for South American Regional fisheries, organised as part of DPR7P_100010. Finally, we will engage directly with fishing fleets through the Albatross Task Force, who have collaborations in many relevant countries, and already work closely with many fishing fleets worldwide to assist with the implementation of bycatch mitigation measures.

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

 [References Warwick-Evans](#)

 19/11/2019

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 pdf 274.46 KB

Section 7 - Stakeholders and Beneficiaries

Q13. 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.

SG holds globally important populations of GHA and WCP, and GSGSSI are committed to the conservation of these iconic species. As such, GSGSSI is the main stakeholder from the UKOTs. GSGSSI agree that the work is a priority and are supporting the project by waiving fieldwork logistics costs. The UK government is

a stakeholder as a signatory to ACAP. They are required to report progress on the priorities identified in the Action Plan for albatrosses at SG and to CCAMLR. Additionally this project will contribute to the UK Blue Belt initiative. A variety of NGOs, including BirdLife International, BirdLife Albatross Task Force, Falklands Conservation, Projeto Albatroz (Brazil), and CICMAR (Uruguay), are all stakeholders who are involved in promoting seabird conservation. Other stakeholders include fisheries managers, in both national (Argentina, Uruguay, Brazil, Chile - SUBPESCA) and international bodies (ICCAT and CCAMLR).

Regular dialogue with stakeholders will be maintained to ensure their continued engagement in the project, and that the recommendations are tailored to their requirements. The PL regularly attends, and presents papers at, the CCAMLR Working Group meetings. The CO-I is involved closely with ACAP and has well established links with relevant conservation NGOs and fisheries regulatory bodies in the Falklands and South America. The project partners have direct links with the fishing fleets, and regulatory bodies, and frequently attend and present papers at relevant stakeholder meetings. All project members will work with stakeholders to ensure that scientific papers submitted to stakeholder meetings also meet the needs of the respective UKOTs.

Q14. Institutional Capacity

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

BAS/NERC has a long history of working in the Antarctic, and has been leading polar research for over 60 years. They are one of the six research centres of the Natural Environment Research Council (NERC), who are the leading funder of independent research, training and innovation in environmental science in the UK. BAS is a research-driven organisation and is recognised for its commitment to excellence in science, operational professionalism and innovation. Additionally, BAS sustains an active and influential presence in Antarctica on behalf of the UK, and is an influential leader in Antarctic affairs, and engagement with policy-makers, government and the public.

BirdLife International consists of 121 conservation organisations, with more than 10 million members and supporters. BirdLife International Partners work together across national boundaries to conserve birds, their habitats and global biodiversity. The Albatross Task Force, initiated in 2005, works on board vessels, showing fishing crews simple ways to stop seabird bycatch, and with governments to implement regulations. In South Africa Albatross bycatch has decreased by 99% since the Albatross Task Force engaged with these fleets in 2006[7]. The extensive network of contacts established by all members of the project, as well as their involvement in international organisations endeavouring to reduce seabird mortality, will facilitate engagement with the community and maximise the impact of the project.

Q15. 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.

The project will directly benefit the GSGSSI as it will achieve some of the objectives as stated in the MPA RMP, and GSGSSI-led albatross action plan. These objectives include understanding the at sea-distribution of white-chinned petrels, and tracking albatrosses from locations other than Bird Island. In the long-term it will benefit GSGSSI if we are able to use this information to maintain healthy populations of seabirds around the archipelago. The project will benefit the UK government as it will contribute to the Blue Belt initiative for protection of the marine environment, and as such will support vital conservation objectives whilst demonstrating the UK's commitment to protecting the global marine environment. The project will

benefit various NGOs as it will provide scientific results to present to fisheries managers to promote the adoption of mitigation measures in areas of high bycatch mortality. Finally, the project will benefit tourists, tour companies and anyone with an interest in biodiversity, seabirds and nature if we are able to reduce the rate of decline of these iconic species.

Section 8 - Gender and Change Expected

Q16. 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?

We have carried out a gender analysis of the project and have concluded that we are a low-risk project in terms of gender inequality. The UKOT where the practical aspects of the project are based is an uninhabited island, and as such our practical work is not going to result in different impacts across genders. We have considered gender with regards to the team structure, and with female PL and project partner, and a male Co-I we believe that our project demonstrates gender equality. There is the potential for gender bias at the stakeholder meetings, particularly with respect to the members of the fishing industry, however we feel that it is beyond the scope of this project to try to address this gender bias, and that our project does not promote inequality in any way.

Q17. Change expected

Detail the expected changes 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.

South Georgia (SG), holds globally important populations of grey-headed albatrosses (GHA), and white-chinned petrels (WCP). To date, all tracking has been from Bird Island, where the rate of decline of GHA is lower than elsewhere, potentially related to differences in at-sea distributions affecting productivity or survival. WCP breeding elsewhere on SG may also differ in at-sea distributions, with those in the east much closer to krill stocks around the South Sandwich Islands. By enhancing our understanding of the variability in marine distributions of these threatened species, and identifying the factors that drive inter-colony variation, we can better map colony-specific bycatch risk. By improving our understanding of critical risk areas at-sea, we can advise the relevant fisheries regulatory bodies on changes to management that better focus bycatch monitoring and mitigating at appropriate spatial and temporal scales. These improvements will represent the short-term changes resulting from this project. In the long-term, by implementing more focussed management objectives and ensuring strict adherence to monitoring and bycatch mitigation practices, we anticipate increased data on bycatch rates, a reduction in bycatch and a slowing or reversal of population declines. For example, adopting mitigation measures such as summer closures, night setting, heavier line-weighting and bird-scaring lines in demersal longline and trawl fisheries around SG has already reduced seabird bycatch substantially over the last 20 years[8]. Additionally, in the South African trawl fishery, 100% observer coverage and widespread adoption of mitigation reduced mortality of some seabirds by up to 99%[7]. These success stories represent the type of long-term changes that are anticipated in other fisheries following the successful implementation of our project.

Q18. 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.

Our project is innovative, and has the potential to identify critical times and locations where management can be focussed in order to safeguard these declining species. We will gain insight into the important at-sea areas used throughout the annual cycle, by tracking individuals from multiple colonies across South Georgia. We will then use state-of-the-art statistical approaches to model habitat preferences of birds from different colonies, throughout the year. This will enable us to identify the areas, timescales, and fishing fleets from which bycatch risk is greatest. The outputs will be disseminated and discussed at stakeholder meetings, including those organised by GSGSSI, ICCAT and ACAP. Outputs will be used to engage governments, fisheries management bodies, and NGOs to ensure conservation efforts are focussed at the correct spatio-temporal scale when developing and implementing collaborative strategies for mitigating fisheries bycatch. Our project will identify seabird hotspots for previously untracked colonies, which may also provide evidence to identify new marine Important Bird Areas, or Key Biodiversity Areas. Finally, our project will facilitate the development of collaborations between the UKOTs, South American NGOs and fisheries bodies.

Q19. Sustainability

How will the project ensure benefits are sustained after the project have come to a close? If the project requires ongoing maintenance or monitoring, who will do this and how will it be funded?

The project leaders and project partners will ensure that benefits are sustained after the project via their ongoing involvement with fisheries management and conservation organisations. The Co-I will remain an active participant of ACAP, attending, presenting papers, and leading discussions at Advisory Committee meetings, and during the intersessional period. Additionally the Co-I has previously provided expert advice for the frequent reviews of the GSGSSI MPA RMP. Due to the nature of work that the Co-I is involved in, it is almost certain that he will continue to advise the GSGSSI on conservation and management priorities for SG. The project partners will continue to attend a variety of regional fisheries management and stakeholder meetings. Additionally, the project partners will continue to work directly with the fishing fleets in order to train crew and monitor mitigation measures. Furthermore, the policy changes which are likely to be implemented as a result of this project will ensure that improved mitigation measures will remain active into the future, particularly as recommendations are likely to include independent observers aboard fishing vessels. Finally, papers submitted to working groups will also be published in peer-reviewed journals (subject to permission), allowing fisheries operating elsewhere to learn from our results.

Section 9 - Funding and Budget

Q20. 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.

- R8 D+ Budget form for projects under £100,000
- R8 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.

 [Copy of R8 DPlus Budget over 100K FINAL 18 Nov 19](#)
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 xlsx 65.04 KB

Q21. Co-financing

Are you proposing co-financing?

Yes

Q21a. 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
BAS	██████	No Response	Please see details in Q6 and budget spreadsheet
GSGSSI	██████	£0.00	Please see details in Q6 and budget spreadsheet
BirdLife International	██████	No Response	Please see details in Q6 and budget spreadsheet
No Response	0	No Response	No Response

Q21b. 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
<i>No Response</i>	<i>No Response</i>	0	<i>No Response</i>	<i>No Response</i>
<i>No Response</i>	<i>No Response</i>	0	<i>No Response</i>	<i>No Response</i>
<i>No Response</i>	<i>No Response</i>	0	<i>No Response</i>	<i>No Response</i>
<i>No Response</i>	<i>No Response</i>	0	<i>No Response</i>	<i>No Response</i>

Do you require more fields?

No

Section 10 - Finance

Q22. 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?

Management of funds will be overseen by the Project Leader and the Co-I. The Project Leader has experience managing a PhD budget, including large fieldwork costs, and has been involved in the budgeting of DP_100031. The Co-I has previously managed projects of comparable size and larger. BAS is a component part of NERC, which is a government body and part of UK Research and Innovation (UKRI). Supervision and regular review of the budget allocation will be BAS Finance Department, which will set up a separate cost centre. Orders for equipment, and all T&S claims will be controlled by the Shared Business Centre (SBS), which conforms to UK government procurement and expenses rules. There will be an overall audit at the end of the project.

Q23. Financial Management Risk

Explain how you have considered the risks and threats that may be relevant to the success of this project, including the risks of fraud or bribery.

The success of the project is relatively low risk. The budget is for salaries and associated overheads, equipment and other costs associated with fieldwork, travel and subsistence. All equipment purchases will be within the strict UK government procurement rules, controlled through the UKRI SBS ordering system, which requires initial quotations and payment of invoices upon receipt of goods, minimising the risk of fraud. Travel and subsistence costs are for project staff to carry-out fieldwork and attend meetings. Travel and subsistence claims will be submitted through the SBS system which requires that all employee and non-employee claims are submitted with receipts, minimising the risk of fraud.

Q24. Value for Money

Please explain how you worked out your budget and how you will provide value for money through managing a cost effective and efficient project. You should also discuss any significant assumptions you have made when working out your budget.

All members of the project are highly skilled in their relevant roles. The Project Leader has extensive experience in both tracking seabirds, and in spatial analyses, as described in Q9 and has worked on DPLUS054 and DP_100031. The Co-I has extensive experience in all aspects of the project, also described in Q9. Staff costs are based on standard organisational pay-scales, and BAS will complement support with waived overheads and resources necessary for the project. Journal charges are for 2 open-access papers. Fieldwork T&S, clothing, medical, Sea Survival certificate and associated UK travel are standard. Tracking devices are the cheapest available with the required functionality (remote-download). The project shall also benefit from use of analyses that have already been developed (DP_100031 and DPLUS054), and in doing so we will avoid considerable development costs. We are also receiving additional co-funding from GSGSSI in terms of waived return passage to SG which would otherwise add large costs to the project. Finally, the Project Partners, who are not receiving funding from this Darwin Plus proposal, will present our work at many stakeholder meetings. This will provide not only considerable savings in T&S, but also a direct and established link into the fishing community. As such, this project provides exceptional value for money in terms of both expertise of the project members involved, and the financial cost of the project.

Q25. Capital Items

If you plan to purchase capital items with Darwin Funding, please indicate what you anticipate will happen to the items following project end.

We do not wish to purchase any capital items.

Q26. 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.

As part of our budget we have applied for the cost of publishing two papers as open-access in high-impact journals. All tracking data will be made available on BirdLife International Seabird Tracking Database <http://www.birdlife.org/news/tag/seabird-tracking-database>. Additionally, papers submitted to working groups will be accessible if the organisation permits this. The project will embrace the principles of open science, and we will provide access to our analytical framework, software routines and results as requested (this is often a condition of publication in the peer-reviewed scientific literature). The analyses will also have general applicability to other fisheries outside of this region, where seabirds forage and are in potential competition with fisheries. Thus we anticipate interest from other conservation and management organisations. We commit to making results, and consequent management changes, available to the general public by giving presentations at appropriate meetings and events. For example, the 3rd World Seabird Conference will attract many different media representatives. We will also provide media press releases about significant scientific results and important management initiatives resulting from the project. We anticipate widespread public interest in the project given the iconic nature of the study species, and a particular focus in recent years on marine conservation. Articles will also be posted on other websites,

including Latest News at www.acap.aq, BAS and BirdLife International, and associated social media platforms.

Section 11 - Safeguarding

Q27. 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 policies 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 your commitment to safeguarding and a zero tolerance statement on bullying, harassment and sexual exploitation and abuse	Checked
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

Section 12 - Logical Framework

Q28. Logical Framework

Darwin Plus projects will be required to report against their progress towards their expected Outputs and Outcome if funded. 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.

Impact:

Population declines of white-chinned petrels and grey-headed albatross breeding on South Georgia will reverse, and their conservation status will improve as a result of improved management practices.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
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Outcome:

Colony-specific, areas of high bycatch-risk, during breeding and non-breeding seasons, are identified for white-chinned petrels and grey-headed albatrosses. Initial steps towards modification of mitigation policy incorporating these results.

- 0.1 Maps indicating spatially and temporally explicit high-risk areas are produced.
- 0.2 Engagement with Stakeholders (including relevant Fisheries managements, government stakeholders and NGOs).
- 0.3 Commitment to change policy mitigation measures.
- 0.4 Steps towards adoption of results into relevant fisheries management frameworks.

- 0.1 Independent meeting report text discussing the results of the project in a positive light.
- 0.2 Report text to include the next steps for incorporation into management frameworks.

0.1 Tracked birds will interact with fishing vessels, or overlap with areas used by pelagic or demersal fisheries. Previous tracking studies from Bird Island indicate that the both of these species overlap with fisheries during the non-breeding season. Bycatch records from South Georgia show that white-chinned petrels overlap with the South Georgia toothfish fishery if the season starts early.

Output 1:

Habitat preferences of white-chinned petrels and grey-headed albatrosses from different colonies, during the breeding season, are identified, and inter-colony variation in their at-sea distributions is characterised.

- 1.1 Relationships between seabird habitats and oceanographic variables are identified (May 2021).
- 1.2 Maps highlighting seabird distributions and high-density hotspots during the breeding season are produced (June 2021).
- 1.3 Spatial overlap in high-use areas of birds from different colonies are quantified (July 2021).

- 1.1 Models will be validated to test their predictive power using recognised statistical techniques.
- 1.2 Results will be discussed with project partners at bi-annual meetings which will be written up.

1.1 White-chinned petrels and grey-headed albatrosses will be breeding on Cooper Island and Bird Island and will be catchable. These species breed in large numbers and are tractable for tracking studies.
1.2 Environmental predictors will have sufficient predictive power to predict the distribution of seabirds. There is abundant evidence that seabirds select habitats based on oceanographic cues. Furthermore, extensive experience in this type of modelling, large sample sizes and abundant environmental information will optimise model performance.

Output 2:

Identify overlap with fisheries during the breeding season, and identify specific high-risk areas from different fishing fleets.

2.1 A suite of detailed maps and tables describing the overlap between predicted habitat use and different fishing fleets are produced for the breeding season (December 2021).

2.1 Submission of manuscripts for peer-reviewed papers, after quality assessment from co-authors.

2. 1 Tracked birds will overlap with fisheries. Tracking studies from birds breeding at Bird Island have shown overlap of both grey-headed albatrosses and white-chinned petrels with both local and international fisheries.

Output 3:

Habitat preferences of GHA and WCP during the non-breeding season are identified, inter-colony variation is characterised, and overlap with fisheries is quantified.

3.1 Relationships between seabird preferred habitats and oceanographic variables during the non-breeding season are identified (April 2022).
 3.2 Maps highlighting seabird distribution and high-density areas during the non-breeding season are produced, and spatial overlap between colonies is quantified (April 2022).
 3.3 Maps and tables which describe the overlap between both species and individual fishing fleets are produced (May 2022).

3.1 Models will be validated to test their predictive power using recognised statistical techniques.
 3.2 Results will be discussed with project partners at bi-annual meetings which will be written up.
 3.3 Submission of manuscripts for peer-reviewed papers, after quality assessment from co-authors.

3.1 White-chinned petrels and grey-headed albatrosses will be breeding on Cooper Island and Bird Island and will be catchable. These species breed in large numbers and are tractable for tracking studies.
 3.2 Environmental predictors will have sufficient predictive power to predict the distribution of seabirds. There is abundant evidence that seabirds select habitats based on oceanographic cues. Furthermore, extensive experience in this type of modelling, large sample sizes and abundant environmental information will optimise model performance.

Output 4: Dissemination and application	4.1 Results and recommendations shared with stakeholders to inform their conservation and management frameworks (May to July 2022). 4.2 Data deposited in global databases (July 2022). 4.3 Communication of results at national and international conferences (May to July 2022).	4.1 Text from independent meeting reports, and meeting minutes will discuss the results and the plans to implement changes to management frameworks. 4.2 Datasets available online. 4.3 Abstracts presented in conference programmes.	4.1 Outputs will be discussed at relevant stakeholder meetings. The decline in populations of WCP and albatrosses is a recognised conservation issue for all stakeholders. As such any measures to mitigate further declines in these populations are a priority for many stakeholders, and a consideration for fisheries management bodies.
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Output 5: <i>No Response</i>	<i>No Response</i>	<i>No Response</i>	<i>No Response</i>
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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 Track GHA from Cooper Island and Bird Island, and track WCP from Bird Island and Paryadin Peninsula using GPS devices (January 2021).
- 1.2 Use statistical analyses to create habitat models which link distribution of tracked individuals with environmental variables during the breeding season. Use these models to predict at-sea distribution for all individuals from these colonies.
- 1.3 Calculate core foraging areas for each species for each colony and measure overlap between colonies.
- 2.1 Collect satellite-AIS data on all fishing vessels operating in the core foraging areas of GHA and WCP for which this data is available.
- 2.2 Collate fishing effort in these regions from existing datasets, including pelagic longline, demersal longline and trawl fisheries.
- 2.3 Calculate spatial overlap between fishing effort and at-sea distribution for both species during the breeding season. Identify which fleets present the highest risk to each species at this time of year.
- 2.4 Produce a series of maps and tables describing the overlap with different fishing fleets.
- 2.5 Prepare manuscripts for publication in peer-reviewed journals.
- 3.1 Track GHA from Cooper Island and Bird Island, and track WCP from Bird Island and Paryadin Peninsula, using geolocators. Devices will be deployed during the first field season (January 2021), and will be recovered during the second field season (January 2022).
- 3.2 Calculate locations of individuals during the non-breeding season using information from geolocators.

- 3.3 Create habitat models which link distribution of tracked individuals with environmental variables. Use these models to predict at-sea distribution for all individuals from these colonies, to calculate core foraging areas for each species for each colony and to measure overlap between colonies.
- 3.4 Collect satellite-AIS data on all fishing vessels operating in the core foraging areas of GHA and WCP for which this data is available. Collate fishing effort in these regions from existing datasets, including pelagic longline, demersal longline and trawl fisheries.
- 3.5 Calculate spatial overlap between fishing effort and at-sea distribution for both species during the non-breeding season. Identify which fleets present the highest risk to each species at this time of year.
- 3.6 Produce a series of maps and tables describing the overlap with different fishing fleets during the non-breeding season.
- 3.7 Prepare manuscripts for publication in peer-reviewed journals.
- 4.1 Prepare reports for meetings and working groups.
- 4.2 Share results with all stakeholders via email, conferences, and attendance at meetings (e.g. ACAP, ICCAT and GSGSSI annual stakeholder/ working group meeting).
- 4.3 BirdLife will engage directly with fishing fleets and fishing management organisations, to engender change in fisheries management practices in areas of high bird-fishery overlap
- 4.3 Deposit data into the Birdlife Tracking Database
- 4.4 Attend national and international conferences to present results.





Section 13 - Implementation Timetable

Q29. 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. The workplan can span multiple pages if necessary.

-
-  [Implementation Timetable Warwick-Evans](#)
 -  19/11/2019
 -  09:51:47
 -  xlsx 20.32 KB

Section 14 - Monitoring and Evaluation

Q30. Monitoring and evaluation (M&E) plan

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 PL and Co-I will work together for M&E. At the start of the project we will develop a detailed implementation plan with specific and detailed project objectives, timelines and project outputs. As the project progresses we will meet weekly as necessary to discuss the day to day running of the project (such as fieldwork logistics, analysis, interpretation, and communication with stakeholders). Additionally, monthly meetings will be organised where progress will be evaluated, any challenges will be discussed, and any modifications to the project will be developed. We will also have biannual meetings with the project partners that will be written up and reported. Papers to be presented at stakeholder meetings such as regional fisheries management meetings, GSGSSI Stakeholder meetings, ACAP and ICCAT, will be developed and discussed in advance of the relevant meeting. Additionally, we will hold post-meeting debriefs, with project partners, to discuss, in particular, how our project was received by other members, and if there are any improvements we can make to achieve improved stakeholder engagement. Additionally, in the final year of the project, we will have meetings with the project partners to discuss the progress in terms of implementing changes to management in order to mitigate bycatch in fisheries.

Given that the PL and Co-I currently work in the same building, and the project partners are also based in Cambridge, costs of M&E are particularly low for this project.

Financial monitoring will be carried out by the BAS Finance Office, and the project will be audited in the final year.

Total project budget for M&E in GBP (this may include Staff, Travel and Subsistence costs)	£ [REDACTED]
Number of days planned for M&E	25.00
Percentage of total project budget set aside for M&E (%)	5.40

Section 15 - Certification

Q31. Certification

On behalf of the

company

of

British Antarctic Survey

I apply for a grant of



£269,233.00

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	Margaret Clark
Position in the organisation	Head of Finance
Signature (please upload e-signature)	 VW-E DEFRA cert  25/11/2019  11:11:27  pdf 19.58 KB
Date	25 November 2019

Section 16 - 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 included a 1 page CV or job description for all the Project staff identified at Question 14, 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 13, 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 been in contact with the FCO in the project country(ies) and have included any evidence of this. if not, I have provided an explanation of why not.	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 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.

Checked

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).